Handbook to Life in the

MEDIEVAL WORLD

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CONTENTS

LIST OF ILLUSTRATIONS

LIST OF MAPS

ACKNOWLEDGMENTS

INTRODUCTION ─────────────────────────────

The medieval world holds enduring fascination for people today and continues to provide material for popular culture. The desire to experience or witness a medieval banquet, the sumptuous court of the Abbasid caliph Harun al-Rashid (r. 786–809), the instruments of torture of a Dominican inquisitor, a crusader battle between valiant Christian and Muslim knights, or a performance by a Provençal troubadour is seemingly insatiable, judging from the infinite number of Web sites, novels, films, and clubs dedicated to bringing these and other themes or events of the medieval world to life. *Handbook to Life in the Medieval World* looks at the medieval period from the perspective of Christians, Jews, and Muslims who inherited and inhabited the classical Roman Empire, which stretched from the British Isles through continental Europe, the Mediterranean, North Africa, the Middle East, to Asia Minor, and beyond.

Defining the Medieval World

Treating together the history, culture, economy, and societies of Christians, Muslims, and Jews during the Middle Ages allows us to see clearly how closely intertwined their lives were, even, if not especially, at times of intense conflict and enmity. At the same time, however, the concept of the "medieval world"

is somewhat problematic because the historical category does not apply uniformly to Jews, Christians, and Muslims. For the sake of convenience this book follows the traditional dating of the beginning of the European medieval world from the Fall of Rome in 476. This breaking point marks the history of the emergence and expansion of classical culture redefined as Roman Christian and Latin across northern and western Europe. Although the Western Roman Empire fell in 476, the Eastern Roman Empire survived intact, having all but abandoned the West to the Gothic tribes a century earlier with the founding of the "New Rome" at Constantinople in 324. For this reason some scholars date the beginning of medieval Byzantium from this year, while others situate it even earlier, during the reign of Diocletian (r. 284–305), who divided the empire into the "Oriental" and "Occidental" provinces. Still others see the official Christianization of the empire under Theodosius I (r. 379–395) as the transition point. Whatever the date of choice, a major theme of the medieval world is the contested claims over the legacy of classical Rome between the Byzantine Empire and the Western Roman Empire and the papacy.

From the Jewish perspective, the "medieval" era looks quite distinct. Jewish civilization has its own calendar identifying the events that changed the course of its history, in which the Babylonian Captivity (597–537 B.C.E.) and the destruction of Judaea

and expulsion of the Jews into the Diaspora (70 C.E.) were two turning points. For our purpose, the Jewish medieval world dates from the Gaonic Period (*see* p. 133) characterized by the consolidation of rabbinic Judaism and the compilation of the Palestinian and Babylonian Talmud by the *geonim* (Jewish spiritual leaders) of the fourth to sixth centuries, both of which have more to do with the Christianization of the Roman Empire than with the declining political fortunes of Rome. The birth of Islam and the rise of Islamic civilization are the key events of the seventh century. With them, the cultural unity of the Mediterranean was transformed from classical Roman, Latin, and Christian into Semitic, Arabic-speaking, and Islamic. And yet, as will become clear in the pages that follow, the Muslims would be responsible for the recovery of classical culture in the Christian West.

When does the medieval period end? Again, many dates could be chosen. There was a time when scholars referred to the European "Middle Ages" as the "Dark Ages" to signify a temporal backwater of ignorance and superstition situated between classical Rome and its revival in the 15th-century European Renaissance. Scholars of the Islamic world often look to the defeat of the Ottomans at the Battle of Lepanto (1571) as the definitive end of a nearly 1,000-year reign of Muslim political, cultural, and economic hegemony. As a compromise, we have chosen the year 1492 as a convenient historical point to end this volume. Fourteen hundred and ninety-two is a year of endings and beginnings. It marks the final point of a series of transformations of the political order that were initiated with the Ottoman conquest of Constantinople in 1453 and culminated in the fall of Muslim Granada to the Catholic monarchs of Spain. From this moment onward, "the West" becomes thoroughly Christian and "the East" Muslim.

The fall of Granada was accompanied by the edict of expulsion of the Jews from Spain. Less well known are the expulsions of Jews from Germany that took place throughout the decade of the 1490s. The year 1492 exemplifies three global shifts of world Jewry: (1) Sephardic Jews from Spain and French and German Ashkenazic Jews converge upon Italy, where, together with the extant Roman Jews, they form a new culture of Italian Jewry; (2) Sephardic Jewry enters into the orbit of the Ottoman Empire; and (3)

the displacement of the center of Ashkenazic Jewry from the German Rhineland farther east into Poland, Lithuania, and Russia occurs.

Historiography

Retracing the lives of medieval Christians, Muslims, and Jews requires plowing through a vast array of written records—mainly historical, literary, religious, and legal documents—as well as art, architecture, coins, and other vestiges of material culture. Different civilizations have their own ways of preserving their cultures. Western Europe is blessed with a seemingly infinite number of written records documenting its political, social, cultural, economic, and religious history: royal and monastic chronicles, papal bulls and edicts, church synod records, personal wills, royal charters, parish records, sermons, personal letters, mercantile records, (auto)biographies, hagiographies (accounts of saints' lives), and instruction manuals, among others. Byzantine historiography continues a long, unbroken tradition of Greek historical writing going back to Herodotus, as well as voluminous fiscal and taxation records, military manuals, juridical codes and edicts, saints' lives, patriarchal records, church synods, monastic archives, sermons and religious treatises, and more.

There is some overlapping among Jewish, Muslim, and Christian sources, although there are many areas of divergence as well. The chronicle tradition is not as strong in medieval Judaism as it was in medieval Islamic and Christian cultures. We are fortunate, however, to have chronicles from all three communities documenting the Crusades. The religious, economic, cultural, and social history of Sephardic and Ashkenazic Jews across the Diaspora may be pieced together from the wealth of letters, ethical wills, travel diaries, juridical *responsa*, synod ordinances (*takkanot*), and other documents preserved in the Cairo Geniza (storehouse). Jewish historiography is hampered by itinerancy—the constant movement of persons and whole communities due to frequent expulsions, and the disappearance of Jewish communities and their records from Europe. Royal fiscal records and charters of land grants and papal, parish, and church synod records fill this vacuum by

providing insight into the lives and status of Jews living in Christendom. Liturgical poetry and religious polemical treatises are vital as historical documents testifying to Jewish-Christian relations and the Jewish response to Christian anti-Semitism.

The historiography of the rise of Islam is problematic because there are no Arab sources dating from the lifetime of its founder, Muhammad. There are, however, an abundance of non-Muslim accounts, primarily Byzantine in origin. The Quran also gives clues to the life of Muhammad and the milieu in which Islam emerged. Arabian culture was an oral culture. Poets, bards, and orators transmitted the history of their heroes and great events orally in poetry and speeches. This oral heritage began to be written down in the eighth century in the early days of the Abbasid period. As in Judaism, poetry in Islam must be regarded not just as literary entertainment but as a serious historical record of events as seen from the perspective of the poet and his or her patron. During the Abbasid period the life of Muhammad was written down, and this event gave rise to a rich tradition of historical, chronicle, biographical, autobiographical, and hagiographic writing. The burgeoning Abbasid bureaucracy created the need for chancellery records, instruction manuals, and official epistles.

The biographical dictionary is a uniquely Arabo-Islamic genre, containing a gold mine of information and anecdotes about prominent persons, overwhelmingly rulers and aristocrats and the religious establishment (*ulema*). Social history may be gleaned from records of land grants, pious endowments, and juridical *responsa*. *Responsa*, chronicles, and poetry are our most important sources for the Muslims of Spain, although these documents are complemented by the Christian chronicles. The situation of Muslims living under Christian rule (Mudejars) in Spain and Sicily is similar to that of the Jews; royal and ecclesiastical records must fill in the gaps of the scant Islamic sources.

Emergence of New Cultures

The medieval world was a multiethnic jigsaw of peoples on the move, migrating into territories with or without fixed borders. The Angle, Saxon, and Norman migrations to England; the Goth to Spain, France, Italy, and North Africa; the Nordic Viking to the British Isles, France, Germany, and the Low Countries; the Slav to Byzantium; and the Central Asian Turkic tribes to the Middle East and eastern Europe forged new cultures and political entities and changed those of the old Roman Empire. The Norman conquest of England indelibly marked the political and cultural formation of that country. The Arabo-Islamic conquests Arabized and Islamicized the Roman Empire from the Middle East to Spain.

Hence, the Middle Ages also tell the story of cultures consciously shaping their own identities against one another. The Carolingian conquests and Carolingian Renaissance sought to create a homogeneous Roman Catholic, Latinized culture in western Europe in contradistinction to its rivals, the Greek Orthodox Byzantine Empire and the Islamic caliphate. The Byzantines under Heraclius (r. 610–641) reciprocated, making Greek the official language of the empire and burying its Latin heritage. More often than not, Latin and Byzantine zeal for Christianity expressed itself in the persecution of Jewish minorities, while the Crusades confronted Christianity and Islam in a protracted "holy war," the myth of which persists in the cultural memory of Islam and the West. The consolidation of rabbinic Judaism allowed the survival of a uniquely Jewish identity and a large measure of Jewish autonomy in the diasporas of Christendom and Islam. Jewish ritual and piety were transformed by life in the Diaspora, its liturgical poetry, canticles, feasts, and exaltation of martyrdom bearing witness to persecution and exile.

Although developed often in opposition to each other, the unique cultural traditions that emerged met and influenced each other. The Merovingian and Carolingian conversions of the peoples of western Europe—in large measure due to the tireless efforts of Pope Gregory the Great (r. 590–604) and the Carolingian Renaissance—endowed the disparate ethnic groups of the British Isles and continental Europe with a distinct cultural heritage. A similar process took place in the Byzantine East with respect to its Slavic invaders. Pagan Balkan and Russian Slavs converted to Orthodox Christianity and would continue the legacy of Byzantine civilization long after the demise of the Byzantine Empire in 1453. With

the aforementioned Arabization and Islamization of the countries under Islamic rule one must highlight the Arabization of Sephardic Jewish culture and especially the House of Wisdom (Bayt al-Hikma) of Baghdad and the Schools of Translation in Toledo and Sicily, the former representing the Islamic role in the survival of the Greek heritage, and the latter the vehicle for the transmission of this knowledge to western Europe. Arabic and Persian literature influenced Christian literature, and the Arabic musical tradition inspired the troubadours in the same way that Jewish secular and religious literature was revolutionized by contacts with Islam and Christianity. Even war was a channel for cultural exchange, as bitter rivals borrowed military technology from each other.

We invite you to enter the medieval world and discover the rich cultural tapestry that evolved as Christians, Jews, and Muslims (and pagans) coexisted, interacted, and fought with one another.

1

HISTORY

Tremendous changes occurred in world history between 500 and 1500. The Western Roman Empire collapsed in 476, the spoils of which were divided among Germanic tribes. The Visigoths, Franks, Lombards, and others carved out kingdoms in the Iberian Peninsula, France, Burgundy, Germany, and the Italian states. Out of a once vast united Roman Empire arose three main powers: the Eastern Roman Empire of Byzantium, the papacy, and the Islamic caliphate. The Byzantine Empire represented the continuity of the Roman legacy in the East. In the West the Roman Catholic Church would fill the political, cultural, intellectual, religious, and administrative vacuum that the warring Germanic tribes were ill equipped to fill. If Byzantium and the papacy embodied continuity with Rome, Islam represented both radical change and continuity. Islam was not only a new religion that posed a theological challenge to Christian Rome and Byzantium. The Islamic empire constituted a new political, economic, and cultural order whose power, wealth, and sophistication far exceeded those of its rivals in the Latin West. Yet having conquered Byzantine territories in the Middle East, the Islamic empire absorbed the intellectual and scientific traditions of the ancient Greeks and would reintroduce these into Europe.

Although the Roman Empire had officially converted to Christianity in the fourth century, at the outset of the Middle Ages most of the peoples of Europe were still pagans. The fifth to 12th centuries witnessed a great wave of missionary activity, culminating in the Christianization of the British Isles, Scandinavia, Central Europe, the Balkans, Russia, and the Baltics, either to Catholic or to Orthodox Christianity. The power of the papacy increased with the expansion of Christianity, but this power would be challenged and checked by the emergence of strong Western kingdoms resentful of the temporal authority of the popes yet needing them to bolster their own legitimacy. Similar tensions between Byzantine emperors and patriarchs sparked major doctrinal controversies that would lay the basis of the Great Schism between Orthodox and Latin Christendom. By the High Middle Ages the commercial revolution and the rise of towns in western Europe placed Western Christian merchants in a position to compete on par with the global economies and networks of Islam and Byzantium.

Christian, Muslim, and Jewish communities intermingled in the empires of Western Europe, Byzantium, and Islam. Before the Fall of Rome, Jews and Christians had at different times felt the wrath of the Romans; after Rome's conversion, Jews would increasingly fall victim to Christian persecution. The stunning rise of Christendom became the catalyst for a revolution in Judaism. To preserve and reinforce their religion, rabbinic scholars wrote down the Oral Law and codified every aspect of life in the Talmud. As a result Jewish communities maintained a remarkable integrity and homogeneity throughout the Diaspora, even as they assimilated culturally to the Islamic and Christian worlds to which they also belonged. The medieval period was peppered with many "golden ages" of cultural, intellectual, and commercial cooperation and influence among Christians, Muslims, and Jews. It was also stained with the blood of the Crusades, jihad, and secular wars and social violence as religious minorities were massacred or exiled from Christian and Islamic realms. It is perhaps ironic to note that the close of the Middle Ages is marked so profoundly by interfaith relations: the Ottoman conquest of Constantinople in 1453, the fall of Granada and the expulsion of the Jews and many Muslims from Spain, the expulsion of Jews from Germany and their relocation to Poland, the voyages of discovery made possible by Jewish wealth and Jewish and Muslim technology, and the ascendancy of

Western humanism and rationalism that would not have been possible without the transmission of classical knowledge into the West by Muslim and Jewish intellectuals.

Western Europe

Historical Survey

GROWTH OF CHRISTIANITY IN THE WESTERN ROMAN EMPIRE

That Catholic (or Nicene Trinitarian, *see* page 5) Christianity would become the dominant religion of the Western Roman Empire and later of the kingdoms of western Europe is a remarkable event in history considering its humble origins as a Jewish sect in first-century Palestine. It must be remembered that Christianity was from its very beginning a missionary religion and understood proselytization to be a fundamental part of religious practice. Further, it must also be recalled that the expansion of Christianity was uneven and lacking in uniformity, itself a reflection of the motley mix of early Christian groups and their multiple churches that coexisted and would mark the history of Christianity. In addition, Christianity in all its manifestations had to compete with other religious traditions: Roman cults, Hellenistic philosophical traditions such as Stoicism, as well as new religious movements such as ascetic, dualistic Manicheism. How then did Christianity expand and become the official religion of the empire?

Christianity began as an urban phenomenon. As the Letters of Saint Paul and the Acts of the Apostles indicate, the first missionaries formed churches in the major metropolises of the Mediterranean, with Antioch, Alexandria, and Rome being the most important, and this trend would continue throughout the Roman Empire. Like Jews, Christians were loath to participate in Roman imperial polytheistic cults. In the second and third centuries, as the Roman Empire experienced increasing threat from Germanic tribes along its northern frontiers, the Roman authorities began to regard the activities of Christian communities, and particularly their refusal to observe the state religion, as potentially seditious. Roman suspicion of Christians would reach its apogee in the imperial persecutions first ordered by Emperor Decius (r. 249–251) and seconded by Emperors Valerian (253–260) and Diocletian (r. 284–305), when Christians refused to obey the imperial decree to observe the state religion and supplicate the Roman gods to aid Rome in its wars with the invading Goths.

Christianity: From Persecuted Sect to State Religion The persecutions inflicted under Diocletian between 303 and 305 were particularly brutal, but the steadfastness and courage of the Christian martyrs aroused the sympathy of even convinced pagans. Diocletian's deputy in the East, Caesar Galerius, followed the policy established by his superior and was just as vigorous in his persecution of the Christians. Galerius's wife was Christian, however, and her sympathies for her oppressed coreligionists may have moved her to urge her husband to put an end to the persecutions. In 311, shortly before his death, Galerius, who had become emperor of the East in 305, issued an Edict of Toleration that granted an indulgence to Christians provided they pray to their god for the safety of the republic. The Western emperor Constantine (r. 306–337) and his Eastern counterpart Licinius (r. 308–324) went even further in their joint issuing of the Edict of Milan in 313, which accorded Christianity and all other religions an equal status of legitimacy and restored to Christians properties that had been confiscated during the period of the persecutions. Constantine is famous for having built a new

capital in the East, Constantinople (also called the New Rome), in Byzantium on the Bosphorus River.

Council of Nicaea (325) and the Theosodian Codes In the early fourth century Christianity was riven by doctrinal controversies over the role of Christ in salvation history. In an attempt to end the controversies, Constantine convoked the first Council of Nicaea in 325, which confirmed Jesus as of the same substance as the Father against the Arian belief, propounded by the priest Arius of Alexandria (c. 280–336), that Christ was only of a similar substance. The Nicene formula would define orthodox "catholic" Christianity, and it was this branch of Christianity that Emperor Theodosius I (r. 379–395), who had briefly reunited the empire, recognized as the official state religion in the Theodosian decrees of 389–392. The Theodosian decrees removed non-Nicene Christians from ecclesiastical office and abolished the last visible remnants of Roman religion by declaring pagan feasts as workdays, banning ritual blood sacrifice, closing Roman temples, and disbanding the Vestal Virgins of Rome. These actions did not entirely do away with rival sects of Christianity; Arianism continued to spread, and some of the most successful missionaries to the barbarians were Arians, as were most of the Germanic tribes that would subsequently cause the demise of the Western Empire. Nevertheless, the Council of Nicaea and the Theodosian decrees did establish the basis for the supremacy of Nicene Christianity in the Western and Eastern Roman Empires in the coming centuries.

The Rise of the Bishop Along with Christianity's expansion in the urban centers of the empire and among the ranks of the army, the religion took root in the countryside. Anchorites took inspiration from Christ's 40-day retreat in the desert and retired to live in remote areas of the Roman Empire, turning their back on urban civilization. While some ascetics shunned all human contact, most would form ascetic communities, devoting themselves to prayer, fasting and other acts of self-denial, and manual labor. These ascetic communities were the precursors of the monastic communities that emerged in the sixth century.

The success of Christianity is owed to the development of an organizational structure that sustained its members, perpetuated its growth, and fomented church unity. Initially this cohesion was achieved through the election of church *presbyters* (elders) and deacons ("those who serve") who organized and patronized the community's missionary and charitable work. The decisive development was the creation of the figure of the *episkopos* (bishop) appointed to coordinate and oversee the activities of Christian communities in urban centers that had more than one church. Bishops also oversaw the activities of ascetic communities established near the region under their jurisdiction. In the wake of growing sectarian and dogmatic differences among the churches, bishops met at ecumenical councils to resolve fundamental disputes and define official church dogma. As more and more wealthy and aristocratic families embraced Christianity and made substantial donations to the church, the bishop also became empowered to administer its newly acquired property and wealth.

The bishop also represented the interests of the church to Roman authorities, a role that would acquire greater prestige during the imperial persecutions. Many bishops were martyred, while others ensured that those deaths would be a source of pride and inspiration to other Christians, encouraging them to remain resolute in their faith. In the aftermath of the Theodosian decrees, bishops effectively created a religious government in parallel to the imperial authority: A bishop governed a diocese (a major city and its surrounding territory) coterminous with

the provincial dioceses that Roman magistrates governed. Now that the empire was Christian, bishops acted in tandem with the government, enforcing imperial decrees and assuming administrative responsibilities that would enable them to fill the administrative, social, and cultural vacuum that ensued after the fall of the Roman Empire in 476.

ASSIMILATION OF TRIBAL GROUPS INTO ROMAN SOCIETY AND MILITARY

The assimilation of the Germanic tribes who invaded western Europe in the fourth and fifth centuries accelerated after they seized definitive power from Rome in 476. The new Germanic rulers adapted many of the features of Roman administration, taxation, coinage, ceremonial, and patronage systems. Some adopted Latin as the official language. Roman law influenced the Visigoths, whose king, Alaric II, codified it in his Breviary of Alaric (506). On the other hand, one cannot speak of a complete assimilation. Many of the Germanic tribes retained their customs and traditional institutions, such as the system of inheritance. Moreover, in Ostrogoth Italy a dual system of administration developed in which the Goths governed their own and other non-Roman populations, while Roman officials governed the Roman populace.

The language, culture, and social organization of these Germanic tribes contrasted greatly with the civilization of Rome; hence the Roman use of the pejorative term *barbarians* to describe them. Organized into tribes led by chieftains, the Germanic men were hunters and fighters who largely subsisted on animal husbandry and raiding their enemies for plunder, while the women and slaves dedicated themselves to farming. Perceiving the weakness of Rome, Gothic Germanic tribes crossed the Rhine and Danube Rivers and invaded the Balkan provinces.

BARBARIAN INVASIONS

The founding of Constantinople, "the New Rome," in Byzantium in 330 was a tacit admission of the demise of the old capital of Rome. Earlier in the century the seat of government in Rome had to be transferred farther north to Milan in order to escape the threat of Vandal invaders. The same pressure forced yet another transfer to Ravenna on the Adriatic coast. The transfers of the seat of government did not mitigate the political disarray into which the Western Empire had fallen. This disarray was nurtured not only by the constant military pressure from the Germanic tribes, but also by the weakening social organization of the Western provinces vis-à-vis the Byzantine East. To begin with, the Western government had to deploy all its resources in protecting its frontiers. Consequently, it could no longer maintain and protect the roads; a decline of trade and a stagnation of the economy, despite the imposition of ever higher taxes upon its citizens, resulted. At the same time the upper classes abandoned the cities, which already were far fewer than those in the East, and established fortified country estates, called latifundia, a protofeudal system in which colonized workers (*coloni*) served the owner of the estate in exchange for economic aid and protection from the barbarian invaders.

By the early fifth century, famine, pestilence, overtaxation, and infighting between military commanders rendered the Western Empire easy prey for its enemies. The Visigoths, led by King Alaric I (c. 370–410), sacked Rome in 410. Attila the Hun and his army invaded Italy in 452, and the Vandals sacked Rome again in 455. Germanic and Hun chieftains exercised de facto rule in the name of the Roman emperor Romulus Augustulus, but this fiction was finally ended when the Visigothic general Odoacer (434–493) deposed Romulus in 476, the traditional date given for the fall of the Western Roman Empire.

Legend:
- Eastern Roman Empire
- Visigothic kingdom
- Ostrogothic kingdom
- Frankish kingdom
- Borders of kingdoms
- **Slavs** People, ethnic group

Caspian Sea

Tigris R.

Euphrates R.

500 miles

500 km

N

Black Sea

Nile R.

Volga R.

Finns

Don R.

Dnieper R.

Slavs

EASTERN ROMAN EMPIRE

Balts

Visigoths

Mediterranean Sea

Swedes

Baltic Sea

Bavarians

Lombards

Danube R.

Norse

Danes

Thuringians

Saxons

Ostrogoths

North Sea

Rhine R.

Vandals

Vandals

Angles

Saxons

Franks

Burgundians

Picts

Loire R.

Vandals

Celts

Britons

Basques

Visigoths

Suebi

ATLANTIC OCEAN

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The Germanic tribes carved up the Western Empire's territories: The Ostrogoths ruled Italy; the Visigoths ruled southern Gaul and Spain; the Vandals controlled Africa and the western Mediterranean; the Angles and the Saxons ruled Britain; the Burgundians ruled Provence; and the Franks ruled northern Gaul. Except in Britain, the Germanic rulers respected and retained much of Roman culture, language, law, and governmental institutions, mixing these with Germanic institutions. The Franks, Ostrogoths, Visigoths, and Burgundians professed obedience to the Byzantine emperor. The Germanic rulers were also Christians, albeit followers of Arian Christianity, ruling over territories in which Nicene Christianity had been decreed the official church doctrine. As noted, after the fall of Rome the bishops maintained the church's organization and institutions intact, a fact that may have contributed to the critical decision of the Franks to convert to the universal ("catholic") church endorsed by Rome.

MEROVINGIAN KINGDOM

The Frankish dynasty was founded by Clovis I the Merovingian (r. 481–511), an ambitious and pragmatic ruler who united all the disparate Frankish tribes, conquered the neighboring Burgundian and Visigoth kingdoms (486–507), and won the support of the native Gallo-Romans. He forged a new kingdom called France, the land of the Franks, out of Gaul, Burgundy, Austrasia, and Neustria. The Merovingians were Arians, but Clovis's conversion to Nicene Christianity circa 496 endeared him to the Gallo-Roman population, the diocesan bishops, and the Byzantine emperor Anastasius (r. 491–518), who nominated him honorary consul in 508. Clovis celebrated his nomination in traditional Roman fashion, staging a ritual "entry" (Adventus) into the capital at Tours, where he dispensed coins to the crowd.

Despite assuming some trappings of Roman rule, Clovis and his successors governed independently and according to Merovingian tradition. Kingship was based on mythical descent from a warrior hero, and legitimacy manifested itself in the continued military success of the ruler. The Merovingian king ruled the kingdom as his personal fiefdom, which would be equally divided among all his sons upon his death. As was the Late Roman Tetrarchy, the Merovingian kingdom was conceived of as a single entity governed by multiple rulers, which could be reunited under one ruler, as occurred briefly during the reigns of Clotaire I (r. 558–561) and Clotaire II (r. 584–629). The king was also meant to be self-sufficient economically, supported by the taxes (*fisc*) from the production of the lands reserved to the Crown (the royal *desmesne*). Merovingian attempts to maintain a single, centralized government were thwarted by fratricide, civil wars for control of the realm, and local magnates who yearned to retain as much autonomy as possible.

To appease the latter, the Merovingian kings appointed the local magnates to be counts (*comites*), a novel type of royal official responsible for the defense, administration, and adjudication of disputes in territories over which they

(opposite page) *Germanic Kingdoms, c. 500. This political map shows Europe, Asia, and North Africa 50 years after the fall of the last Roman emperor in 476. The former Roman territories in the West, including present-day Spain, Italy, much of northern Europe, and part of the Balkans, had come under the domination of the Goths and the Franks. The Eastern Roman Empire, with its capital at Constantinople (modern Istanbul), continued to control a vast amount of territory in Greece, Asia, the Levant, and part of the North African coast.*

had no hereditary claim. Counts would supply their own soldiers, who received land endowments to ensure their loyalty. They were obliged to lend military support to the king and would in turn ritually recognize him in the traditional Merovingian way by hoisting him up on their shields. The creation of the figure of the count was meant to undermine the power of the landed aristocrats, who would be more likely to command the loyalty of the populations under their rule. This tactic backfired, however, because the internecine infighting among the Merovingian nobles actually strengthened the hand of the counts, who were able to play one Merovingian against another and extort more power in exchange for their military support.

Royal power was further weakened by another Merovingian-created institution: the mayor of the palace, the chief official of the royal courts. After the death of Dagobert I (r. 623–639), the last Merovingian king to exercise real power over the entire realm, the mayors of the palace in Neustria, Austrasia, and Burgundy increased their political power. The Arnulfings, also known as the Pippinids, were the Frankish noble family whose members held the position of mayor of the palace. Pippin the Younger (c. 635–714) assumed the mayorship of Austrasia in 680 and of Neustria and Burgundy in 687 and exercised de facto power in the Frankish court until his death. Pippin's son, Charles Martel (r. 714–741), the legendary victor over the Muslim army at the Battle of Tours (732), effectively ruled the entire Frankish kingdom. This situation of de facto Carolingian rule—so named after Charles Martel—was formalized in 751 when Martel's successor, Pippin the Short (r. 751–768), convinced Pope Zachary (741–752) to sanction his coronation and depose the Merovingian king, Chideric III (r. 743–751). The Carolingians would continue to reign over various parts of western Europe in the Holy Roman Empire until 987.

THE CAROLINGIAN KINGDOM

The Carolingian kings aspired to revive the Western Roman Empire, an idea that would come to fruition in the crowning of the dynasty's most illustrious member, Charlemagne (r. 768–814), as Imperator Augustus (August Emperor) in 800 by Pope Leo III (795–816). A year earlier in 799, the people of Rome attacked Leo III, deposed him, and confined him to a monastery. Charlemagne refused to accept the deposition and traveled to Rome in December 800 to hold a council on the pope's behalf. Leo was vindicated and, in gratitude, crowned Charlemagne emperor. Leo deemed it important to revive the office of emperor not only to protect himself but also to counter the Byzantine Isaurian dynasty, whose ruler Leo the Isaurian (r. 717–741) had imposed the doctrine of iconoclasm ("breaking of images"), forbidding the worship of images as a form of "idolatry." The precedent of a pope's crowning an emperor would serve the papacy in its later dealings with secular rulers. At the same time the imperial title suited Charlemagne's own ambitions. The Carolingian Franks were convinced that they were the divinely appointed heirs of the ancient Roman emperors who had received a holy dispensation to rule the empire as the new "seed of Abraham." In a letter one of Charlemagne's heirs wrote to his "competitor" the Byzantine emperor Basil I (r. 867–886), "the Frankish race has borne the Lord much fruit, not only by being quick to believe, but also by converting others to the way of salvation. . . . As we, through our faith in Christ, are the seed of Abraham, . . . we have received the government of the Roman Empire for our right thinking. The Greeks for their . . . wrong thinking, have ceased to be Emperors of the Romans" (Rietbergen 94).

During his reign Charlemagne led a series of military campaigns that added to his realm Lombardy (776), Saxonia (begun in 772 and conquered in 804), and the Spanish March

(778–812). (The acclaimed Battle of Ronces-valles Pass during which Basque forces murdered Roland, the lord of the Breton March, dates from 778.) With the aid of his sons, Charlemagne went on to annihilate the Avar Huns in the Danubian plain (794) and the Slavs in Bohemia (805–806). At the time of his death in 814, the realm included France, Belgium, Holland, Switzerland, western Germany, most of Italy, northeastern Spain, and the island of Corsica.

The Carolingians maintained the Merovingian custom of appointing local magnates as counts to govern, administer justice, and defend the sprawling empire. Unlike the Merovingians, however, the Carolingians filled these positions with members of the landed aristocracy, hoping in this way to ensure the loyalty of the nobility. In this the Carolingians encountered the same problem as their Merovingian predecessors, having to contend with the despotism of ambitious counts. The Frankish Church was a particularly important ally of the Carolingians. After the Carolingian armies subdued their enemies, "armies" of missionaries were sent forth to win over the hearts and minds of the people and convert them to Nicene Christianity. Moreover, churchmen proved to be slightly more loyal than lay aristocrats as government officers.

BREAKUP OF THE CAROLINGIAN EMPIRE: THE TREATY OF VERDUN (843)

Charlemagne's empire followed the same pattern of ungovernability that brought down the Merovingian kingdom. Increasingly, he had to rely on powerful counts to help manage his realm, but they only diminished his power. Toward the end of his reign, Charlemagne shared the imperial title with his only surviving son and successor, Louis the Pious (r. 814–840). The empire did not remain intact beyond Lou-is's reign, since he was bound by law to distribute his kingdom equally among his sons. Louis's sons Peppin and Louis the German rebelled against him and defeated him in 833. In 843 the Treaty of Verdun formally divided Charlemagne's empire among the three remaining Carolingian princes: Lothar (d. 855) ruled over Lotharingia, a territory including Holland, Belgium, Switzerland, Alsace-Lorraine, and Italy; Charles the Bald (d. 877) claimed France; and Louis the German ruled Germany.

In the long run, the Treaty of Verdun upset the balance of political power as the empire continued to be subdivided at the death of Louis the Pious's sons. In the ensuing political vacuum, landed aristocrats gained ground and were able to play off the interests of popes and kings against one another as each jockeyed for power. One of the most enduring consequences of the Treaty of Verdun was the creation of the Holy Roman Empire, officially refounded in 962 by Otto I the Great (r. 962–973). In its origins, the Holy Roman Empire was forged out of the eastern Frankish territories bequeathed to Louis the German.

HOLY ROMAN EMPIRE

Following the death of Arnulf, the last of the Carolingians to bear the title of Emperor of the West, in 899, the title fell into disuse until Pope John XII (r. 955–964) bestowed the imperial title upon Otto I the Great in 962 in gratitude for aiding him in his struggles against his rivals in Italy. In a subsequent agreement called the Ottonian Privilege, Otto guaranteed the pope's secular authority over Italy in exchange for the pope's pledge that all future popes would swear fealty to the emperor. The Holy Roman Empire lasted until 1806. Despite the initial marriage of convenience between the Imperial power and papacy, the empire's long history is marked by conflicts with the pope over spiritual and temporal authority, the struggle to

control Italy, as well as the perennial quest to balance the power of the emperor against the political aspirations of the potentates who ruled the respective territories constituting the empire.

Over the centuries the Holy Roman Empire was ruled by five Germanic dynasties: the Ottonians (r. 962–1002), the Salasians (r. 1024–1125), the Hohenstaufens (1137–1254), followed by the Great Interregnum (1254–73), which ended with the installation of the Habsburgs (1273–1806). The Habsburg dynasty was interrupted by the Luxembourg dynasty from 1347 to 1437. The geographical limits of the empire also changed over time but ultimately comprised Germany, Austria, Alsace-Lorraine, Moravia, Bohemia, Burgundy, Italy, the Netherlands, Switzerland, parts of Poland, and Croatia. Structurally the empire was a confederation of Imperial estates governed by a local king, prince, or duke; feudal territories called prince-bishoprics governed by a bishop or archbishop; and imperial free cities, former prince-bishoprics that gained their independence from the presiding bishop and were subject directly to the emperor.

Ideologically the Holy Roman Emperors conceived of themselves as temporal vicars of Christ in contradistinction to the Catholic popes, who were the spiritual vicars of Christ, and to the Byzantine emperors. In reality, however, the Holy Roman Emperors never exercised the degree of power and suzerainty of their Byzantine counterparts. This is because they followed the system of German kingship whereby a select number of "electors" chose the "King of the Romans," whom the pope then would confirm as emperor. Seizing upon the opportunity that a weakened and schismatic papacy afforded during the Babylonian Captivity, the Luxembourg emperor Charles IV (r. 1355–78) succeeded in eliminating the requisite of papal approval and confirmation in the Golden Bull of 1356. At the same time, however, the Golden Bull diminished the emperor's power with respect to the local dukes and princes, who won the recognition of "territorial rule," the right to govern their territories independently.

The structural limitations on the emperor's power were fueled by the policies and the pretenses of the emperors themselves. In their zeal to emulate the glories of the ancient Roman Empire and Charlemagne's empire the Ottonians, Salasians, and Hohenstaufens were obsessed with gaining mastery over Italy and controlling the papacy. Political embroilments with Italy and the papacy culminated in Henry IV's humiliating Walk to Canossa. When the intransigent emperor insisted upon reserving the right to invest bishops, Pope Gregory retaliated by excommunicating him. Fearing the loss of political power as a result of his excommunication, Henry "humiliated" himself by crossing the Alps barefoot to seek the pope's pardon. Yet this only succeeded in diverting attention from the German heartland of the empire, enabling the local dukes, princes, and kings to strengthen their power at the expense of the emperor. With respect to the Papal States, the defeat the Salasian emperors suffered at the hands of the papacy during the Investiture Controversy (*see* p. 19) of the 11th century found its parallel in the failure of the Hohenstaufen emperors Frederick I Barbarossa (r. 1155–90) and Frederick II (r. 1220–50) to wrest control of the Papal States from the papacy and the Lombard League. Indeed, the

(opposite page) *Holy Roman Empire, 1215–1250. This political map shows the Holy Roman Empire during the reign of the Hohenstaufen dynasty (1137–1254). The map uses a solid line to indicate the boundaries of the various kingdoms and broken lines to mark the boundaries of duchies (territory ruled by a duke) or marches (border region).*

KINGDOM OF DENMARK

Baltic Sea

North Sea

County of Holstein

Lübeck

Prussia

Hamburg

Slavinia

Duchy of Pomerania

Friesland

Duchy of Saxony

March of Brandenburg

March of Lausitz

KINGDOM OF POLAND

Holland

March of Meissen

Duchy of Silesia

Brabant

Cologne

Duchy of Lower Lorraine

Landgravate of Thuringia

Aachen

Hainault

Bamberg

Worms

Prague

KINGDOM OF BOHEMIA

March of Moravia

Nuremberg

Franconia

Duchy of Upper Lorraine

KINGDOM OF GERMANY

KINGDOM OF FRANCE

Duchy of Swabia

Duchy of Bavaria

Vienna

Duchy of Austria

KINGDOM OF HUNGARY

County of Burgundy

Innsbruck

Duchy of Styria

Duchy of Carinthia

KINGDOM OF BURGUNDY (ARLES)

Lyon

Tyrol

March of Friuli

March of Carniola

Savoy

Milan

March of Verona

Venice

Turin

Lombardy

Adriatic Sea

Provence

Emilia

KINGDOM OF ITALY

Genoa

Bologna

Romagna

Marseille

Pisa

Florence

Siena

Tuscany

March of Ancona

Mediterranean Sea

Duchy of Spoleto

KINGDOM OF SICILY

Corsica

Patrimony of St. Peter

N

Holly Roman Empire, 1215–1250

Boundary of kingdoms

Boundary of duchy or march

0   150 miles

0   150 km

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Lombard League was an alliance of the communes of Lombardy that had banded together in 1167 to oppose Barbarossa's invasion of Italy and his appointment of German officials in all the towns of Lombardy. The league routed Barbarossa's forces in 1187.

The struggle resurfaced in the 13th century when Frederick II, having gained a toehold in Italy through his inheritance of Sicily and Naples, set his sights on ruling the entire peninsula. Pope Innocent III had promised to crown Frederick II emperor on the condition that he relinquish control of Sicily and Naples and undertake a crusade to recapture Jerusalem. Frederick was crowned emperor by Innocent's successor, Honorius III (1216–27). Desperate to comply with the Lateran IV order to launch a fifth crusade, Honorius did not pressure Frederick to give up the "Two Sicilies" because he needed the emperor to finance the war against the Muslims. Incredibly, Frederick's ambitions in Italy were such that he abdicated Imperial power in Germany to the German nobles, thereby fueling territorial fragmentation and conflict in that region. Meanwhile, the ongoing rivalry between the papal and imperial factions, known as the Guelphs and the Ghibellines, respectively, divided the Papal States for centuries.

The Great Interregnum of 1254 to 1273, which transpired as a direct result of the Hohenstaufen's laissez-faire policies in Germany, irremediably weakened the powers of the emperor. The Imperial title was disputed between two non-German rulers, and subsequently rivalries among three German families, the Habsburgs, the Luxembourgs, and the Wittelsbachs, would be resolved in favor of the Habsburgs. But during the Interregnum the German princes had solidified their political independence from the emperor, an independence that Emperor Conrad IV was forced to recognize in the aforementioned Golden Bull of 1356. The emperors were partially able to counter the weight of the

German princes with the support of loyal imperially appointed prince-bishoprics and Imperial free cities: Cologne, Mainz, Trier, and Augsburg, among others. Some of these cities would form powerful alliances, such as the mercantile Hanseatic League, founded in 12th-century Lübeck as a guild of German cities that dominated trade in the North Sea and Balkan Sea until the 15th century.

To counter their losses in Germany, the Luxembourg and Habsburg emperors also turned their attentions to extending their power and influence eastward. Conrad transferred his family to Bohemia, annexed Brandenburg, captured Polish Silesia, and established his court in Prague. His successor, Sigismund, attempted to reassert Imperial prestige vis-à-vis the papacy in his intervention in resolving the great papal schism and marshaling the fight against the heretical Bohemian Hussites. By the close of the Middle Ages, the Habsburgs were mainly reduced to defending their eastern borders from the encroachment of the Ottoman Turks.

There were some notable high points to the Holy Roman Empire. The devout Ottonians followed the example of Charlemagne in using missionaries to convert the conquered peoples within their domains and establishing bishoprics and dioceses as conveyors of Christian civilization. In retrospect, the reign of Frederick II represents the high point in the empire's history, and his own contemporaries lauded him as the "Wonder of the World" (Stupor Mundi). The Kingdom of the Two Sicilies bore many of the hallmarks of a modern state. Frederick eliminated feudalism and promulgated the Constitutions of Melfi, which established a uniform system of laws governing all subjects and a parliamentlike institution of representative assemblies and promoted a veritable free-market economy. He also built the magnificent secular University of Naples, staffed with the best Christian, Jewish, and Muslim scholars. Learned

and polyglot, Frederick not only patronized the arts and sciences but composed music and wrote the scientifically accurate *De arte venandi cum avibus* (Art of hunting with birds).

CENTRALIZATION IN ENGLAND, FRANCE, AND SPAIN

England   When Roman rule came to an end in the first decade of the fifth century, the departure of Roman soldiers paved the way for the migration of Germanic tribes, the Angles, the Saxons, and the Jutes, into England, where they established territorial kingdoms. The Angles settled in the regions of East Anglia, Mercia, and Northumbria. The Saxons ruled Wessex, Sussex, and Essex, while the Jutes partly controlled Kent and Hampshire. The following three centuries witnessed intermittent war and struggles among the various tribes to expand their power over the island at the same time that Christianization was making inroads. By the mid-sixth century, all the Anglo-Saxon kings had converted to Roman Christianity.

The Christianization of England did not foment political unity, however. The eighth century was dominated by fluctuations in power among the seven principal kingdoms of Northumbria, Mercia, East Anglia, Wessex, Sussex, Essex, and Kent. In the ninth century Viking warriors invaded Britain and altered the political map substantially. The Kingdom of East Anglia disintegrated. Northumbria came under Viking rule, and Mercia was divided between Viking and Anglo-Saxon rule. Not all was disintegration, however. During the reign of King Aelfred (r. 871–899), the Kingdom of Wessex emerged stronger than ever before, having incorporated the territories of Sussex and Kent. The Wessex kings extended their realm over Mercia and much of Wales, and it was during the reign of Alfred's grandson, Athelstan (924–939), that the whole of England was first united under one rule.

By the end of the 10th century, the specter of Viking control reared its head again as Aethelred the Unready lost his kingdom to the Danish king Swein, inaugurating a period of dynastic rivalry between the heirs of each. During the reign of Swein's son Canute, England became absorbed into the Viking North Sea kingdom. When the Anglo-Saxon king Edward the Confessor died in 1066 without an heir, the battle for the English throne was won by Edward's cousin the duke of Normandy, otherwise known as William the Conqueror (r. 1066–87). William's claim to the throne had been challenged by Edward's brother-in-law Harold Godwinson, whom William killed in the decisive Battle of Hastings (1066). William had gained the backing of Pope Alexander II (r. 1061–73), and it was with the pope's blessing that William invaded England. William ordered a massive survey of England, the results of which were inscribed in the *Domesday Book* (1080–86), and converted the entire country into a royal fiefdom.

The centralization of the Kingdom of England remained a constant problem throughout the medieval period. The perennial conflict between the centralizing aspirations of the monarchy and the decentralizing ambitions of local feudal barons, together with frequent disputes over the succession of the throne, reached its zenith in the Wars of the Roses (1455–85) between the rival Houses of Lancaster and York. Political and cultural rivalries between the Anglo-Saxons and the Anglo-Normans also caused civil strife. French royal claims to the throne of England, and vice versa, led to the Hundred Years' War.

THE MAGNA CARTA   The consolidation of the English Crown also came about over and against the interests of the church. Western medieval kingdoms that did not belong to the Holy Roman Empire needed Imperial or papal approval in order to legitimate their rule

vis-à-vis other possible pretenders to the throne. Henry II (r. 1154–89), the founder of the Plantagenet dynasty, broke with this tradition by seeking to create an autocratic and truly sovereign monarchy. He believed that the monarch should have sovereignty over the church within his realm. Accordingly, in 1164 he issued the *Constitutions of Clarendon*, which subjected the clergy to the king's courts and empowered the king to elect bishops. The church, represented by Archbishop Thomas à Becket (c. 1118–70), repudiated these measures. The ensuing power struggle resulted in the tragic murder of Becket. When Henry's successor, John (r. 1199–1216), lost ground in the royal-papal conflict and surrendered his kingdom as a papal fiefdom, the English barons rebelled against him and forced him to restrict further the authority of the monarchy. The resulting accord was enshrined in the *Magna Carta* (Great Charter), which, among other things, established a fixed law court and the principles that everyone, including the sovereign, was subject to the law and that people should be tried by their peers. It also obliged the monarch to obtain the consent of the landed classes before imposing new taxes.

France The Merovingian and Carolingian kings who ruled the territories of what is modern-day France only enjoyed direct sovereignty over the lands they personally owned that constituted the royal demesne. The other territories were held in homage by feudal lords. When the last Carolingian ruler died in 987, Hugh Capet, a formidable German aristocrat, ally to the Holy Roman Emperor Otto II, and loyal protégé of the powerful archbishop of Reims, convinced the archbishop to have him crowned king of France. The Capetian dynasty would last from 987 to 1328.

For all of Hugh's powerful allies, his own sphere of suzerainty did not extend beyond the lands he owned: minor properties in Chartres and Anjou and a few towns between Paris and Orleans. Hugh could hardly venture outside his territory without risking capture by the feudal barons of the Duchies of Aquitaine, Burgundy, Brittany, and Normandy; the County of Champagne; and especially the County of Blois, whose ruler, Odo I (d. 955), attempted to have him deposed. The fragmentation of "France" was further exacerbated by the application of different codes of law in the distinct territories, the coexistence of numerous currencies, and linguistic differences (Anglo-Norman, Occitan, Langue d'oïl, and German).

Gradually, through intermarriage, succession, or war, the Capetian kings succeeded in extending their kingdom. Hugh's son, Robert II (r. 996–1031), acquired the Duchy of Burgundy in 1016. On the other hand, Henry I (r. 1031–60) failed in his attempts to capture the Duchy of Normandy from Duke William the Conqueror. The most serious threat to Capetian centralizing ambitions occurred in the mid-12th century with the union of the Duchies of Normandy, Anjou, and Aquitaine with the Kingdom of England under the Anglo-Norman Plantagenet dynasty.

Three Capetian kings played a decisive role in the centralization of the French monarchy and its institutions: Philip Augustus (r. 1180–1223), Louis IX (r. 1226–70), and Philip the Fair (1285–1314). Philip Augustus made great strides in extending his rule over most of northern and western France. His critical victory over the combined forces of Emperor Otto IV (r. 1209–15) and the Angevin king John (r. 1199–1216) at the Battle of Bouvines in 1214 won him Normandy and made him the most powerful monarch of Europe.

The kingdom enjoyed a period of glory under the reign of Louis IX the Pious, who was canonized as a saint in 1297. Louis successfully quelled the rebellious feudal uprisings of the dukes of Brittany and Toulouse and imposed

peace upon other warring factions of the French nobility. His main priority was to secure the integrity of northern France from the English monarchy. To this end, he made a territorial agreement with the English king Henry III in the Treaty of Paris (1258). Henry agreed to renounce his claims over Normandy, Anjou, Touraine, Maine, and Poitou and formally recognize Capetian liege suzerainty over these territories in exchange for sovereignty over all the royal lands in the southern dioceses of Limoges, Cahors and Perigueux, Saintonge, and Agenais. He forged a similar agreement with the king of Aragon Jaime I (r. 1213–76) in the Treaty of Corbeil in 1258 to relinquish French claims to Rousillon and Barcelona in exchange for Aragon's renunciation of its claims to Provence and Languedoc. Saint Louis also played a leading role in the Albigensian Crusade, which brought Languedoc into his realm in 1229.

Phillip the Fair's contribution to the consolidation of the French Crown lies less in his territorial acquisitions—his attempt to launch a "crusade" to recover Aragon failed miserably, and his marriage to Queen Juana of Navarre (1271–1305) was of minimal political relevance—than in his strengthening of the kingdom vis-à-vis the church. Phillip's reign coincided with the beginning of the Babylonian Captivity, and he seized the opportunity afforded by the transfer of the papacy to Avignon to extort taxes on one-half of the income of all the clergy. More notoriously, the Capetian king ordered the arrest of all the members of the fabulously wealthy Knights Templar and seized their assets for the Crown once the military order was disbanded.

The reign of the Valois king Charles VII (r. 1422–61) coincided with the final years of the Hundred Years' War. Charles valiantly challenged the Treaty of Troyes (1420), which granted the English the right to claim the French throne and recovered all the territories

lost to the English Crown. Last but not least, Louis XI (r. 1461–83) gained control over the remaining feudal lords and united all of France under his rule.

The Hundred Years' War (1337–1453) and the Wars of the Roses (1455–1485)   The political effects of war required mapmakers to redraw boundaries before the preceding map's paint was dry. Some enmities seemed perpetual. The origins of the Hundred Years' War lay in the Norman Conquest of England in 1066. The kings of England who were the heirs of William the Conqueror were to control more territory in France than did the French kings. For instance, when Henry II, the founder of the Plantagenet dynasty, inherited the throne of England in 1154, his holdings included the French territories of Normandy, Anjou, and Maine, and these were expanded to Aquitaine and Gascony upon his marriage to Eleanor of Aquitaine. Naturally the French Crown resented this situation.

Despite dynastic marriages to create peace or to restore it, England and France fought consistently. Their battles for 116 years between 1337 and 1453 are called the Hundred Years' War. Those events transformed both medieval monarchies to early modern nation-states and provided dramatic storylines for Froissart's *Chronicles* and Shakespeare's history plays *Henry V* and *Henry VI*. A divine vision of the French mystic Joan of Arc (1412–31) would inspire the French king Charles VII (r. 1422–61) to recapture the territories taken by English and Burgundian troops. Her execution at the instigation of the duke of Bedford converted her into a martyr and a national French heroine.

The Hundred Years' War between England and France transformed warfare and the idea of the state. England's creation of a paid army of recruited soldiers was a revolutionary advance over the traditional feudal conscription. The

perfection of the longbow changed the face of European warfare by doing away with the old reliance upon heavy cavalry. By its end in 1453, national consciousness emerged in the two powerful European states. Warfare was no longer regarded as conflicts between individual kings but between English and French people. The Hundred Years' War converted feudal France into a modern centralized state. It also radically altered England's economy by encouraging the English to form their own cloth industry and markets independent of its fickle Belgian allies.

Such positive gains for England could not prevent the eruption of civil war a mere two years later when the Wars of the Roses (1455–85) pitted rival branches of the Plantagenet dynasty against each other for control of the throne. The name *Wars of the Roses* refers to the heraldic emblems of the two disputing sides, the House of Lancaster, represented by a red rose, and the House of York, represented by a white rose. As the House of York prevailed in the short run, the war led to the fall of the Plantagenet dynasty, weakened the control of the feudal nobility, and led to the rise of the Tudor monarchs, who created a strong centralized government.

Spain Decades before the fall of the Western Roman Empire to the barbarians in 476, the Roman province of Hispania had already succumbed to the invasions of the Germanic Vandal, Alanic, Swebian, and Visigoth tribes. The Visigoths prevailed, driving the other tribes to North Africa and establishing their capital at Toledo. The Visigothic reign ended in 711 with the invasion of the Muslim armies led by Tariq ibn Ziyad (fl. eighth century). Despite recurring quarrels over dynastic succession, the three centuries in which they reigned were for the most part characterized by centralized rule over the entire peninsula. One notable exception was the brief Byzantine recovery in 554

of Córdoba, which the Visigoths recovered definitively in 584. The Visigoths estranged themselves from the Catholic local population, first by their adherence to Arianism (until 557) and by their policy of social segregation, and relentlessly persecuted the Jews. Thus, when the Muslims entered the peninsula in 710–11, ostensibly to intervene in the civil war of succession among Visigoth rivals to the throne, the local population put up little resistance to the new rulers.

Between 711 and 1492, various regions of the Iberian Peninsula were governed by Islamic dynasties. Islamic rule ended the political unity of the region. At no time did Muslims exert control over the entire peninsula: The northernmost regions of Galicia, Asturias, and parts of the Basque territory either escaped conquest altogether or were recaptured within a generation of the invasion, while Muslim attempts in the eighth and ninth centuries to conquer Navarre were successfully repelled by Charlemagne and subsequently by the Navarrese kings. Charlemagne crossed the Pyrenees and in 795 established Frankish imperial rule in the Spanish March, a buffer zone that marked the frontier with Muslim Spain. The Spanish March was divided into the Counties of Navarre, Girona, Barcelona, and Vich, which owed allegiance to the Franks.

The Christian kingdoms that emerged in northern Spain did not observe the custom of primogeniture, and thus territorial unification gained through warfare or marriage alliances during one reign was lost in the divisions among all the deceased king's heirs. Consequently, competition among the various kingdoms was fierce, and Christian and Muslim leaders and warlords often formed alliances against a mutual enemy, thus giving the lie to the myth of a continuous crusade from the beginning of the Muslim occupation. Moreover, the chaos that followed the collapse of the Umayyad caliphate in 1031 and its disintegration into various "party

kingdoms" paved the way for ambitious men to capture their own territories, such as the legendary Rodrigo Díaz de Vivar, El Cid (c. 1040–99), who served as a mercenary to Muslim potentates and then conquered the Muslim principality of Valencia in 1094.

The first Christian kingdom that emerged after the demise of the Visigoths was the Realm of Asturias, whose king Alfonso I (739–757) conquered Galicia (740) and León (754) from the Muslims and created the depopulated "desert zone of the Duero River," which endowed his kingdom with relative safety from Muslim incursion. Further defeats of the Muslims in the first decades of the 10th century enabled the Asturian kings to relocate their capital to León and to establish the Kingdom of León circa 924.

In 930 the count of Castile, Fernán González (r. 930–970), declared his county to be a kingdom, and with the aid of his ally the caliph of Córdoba, he expanded his territories at the expense of his rival, the neighboring Astur-Leonese kingdom. Over the next three centuries, enmities between the two neighboring kingdoms were successfully exploited by other Muslim and Christian rulers. The rival Kingdom of Navarre had gained its independence from the Carolingians in 824 and was determined to expand its borders. Sancho III of Navarre (r. 1000–35) took advantage of the disintegration of the Córdoban caliphate to conquer further Muslim territories and to annex Castile and León (but not Galicia) into his kingdom, thus centralizing Christian rule more than any of his predecessors. Upon Sancho's death, the kingdom would be divided among his sons into the Kingdoms of Navarre and Castile and the newly founded Kingdom of Aragon. In the 14th century Navarre would itself be absorbed into the French Capetian kingdom, in whose possession it would remain until the early 16th century.

A further threat to the territorial integrity of León arose from Portugal. Conquered from the Muslims in 868 by Count Vímara Peres (820–873), the northern region of Portugal was initially a county dependent upon the Kingdom of Astur-León but gained its independence in 1128 and completed the conquest of the southern region in 1249. From then on the Portuguese kingdom's priority was to avoid being absorbed into the reunited and greatly expanded Kingdom of Castile and León.

Although Christian Iberia was still divided among the Kingdoms of Portugal, Castile and León, and Aragon, the 13th century witnessed important steps toward unity. In the wake of the disastrous defeat at Alarcos in southern Spain that the Berber Almoravids inflicted upon the Castilian king Alfonso VIII (r. 1158–1214) in 1195, Pope Innocent III granted the Reconquista crusader status. Most significant, the Kingdoms of Castile, Navarre, Portugal, and Aragon joined forces and destroyed the Almohad army at the Battle of Las Navas de Tolosa in 1212.

Navas de Tolosa would prove to be a turning point in the unification of the peninsula. The power vacuum that followed the retreat of the Almohads enabled the kings of Castile and Aragon greatly to expand their respective kingdoms: The Castilian king, Ferdinand III (r. 1217–52), captured Córdoba (1236), Murcia (1243), Seville (1248), and Jaen (1246) and converted the remaining Muslim Kingdom of Granada into a vassalage. Simultaneously, the Aragonese king, Jaime I "the Conqueror" (r. 1213–76), conquered the Balearic Islands (1228–32) and Valencia (1238). In the early 15th century the Kingdom of Aragon advanced its power in the Mediterranean, annexing Sicily, Sardinia, and Naples to form the Aragonese empire, or Crown of Aragon. The die was cast for the decisive union of Christian Spain with the marriage of the Castilian queen Isabella I (1451–1504) to Ferdinand II of Aragon (r. 1479–1516) in 1469, ensuring that their heirs would inherit a united kingdom. For their

crusader zeal and anti-Jewish policies, Pope Alexander (r. 1492–1503) bestowed upon them the epithet the "Catholic kings" (Los Reyes Católicos). With their combined armies Ferdinand and Isabella conquered Granada and signed the edict of the expulsion of the Jews in 1492.

Changing Role of the Papacy

When the emperor Constantine converted to Christianity in the fourth century and created his new capital at Constantinople, the political separation that divided the western and eastern halves of the Roman Empire would lay the ground for the eventual separation of what would become the Byzantine Church and the Roman Church. Since the period of the late Roman tetrarchy, the Eastern Empire held many advantages over the West. The eastern frontier was easier to defend, its cities larger and far more populous, its urban culture older and more secure, and its economy more solid and prosperous. These factors not only ensured the continuity of the Eastern Empire when the western half fell to the barbarians. They also explain the continuity in the real power that the Eastern emperors wielded in the church. For Constantine and his successors the church was comparable to a "department of state" (Kagan et al., 142). Constantine's convocation of the First Council of Nicaea established the precedent by which Eastern emperors intervened in theological debates and legislated church doctrine.

By contrast, the decline in the power of the Western emperors resulted in the structural independence of the bishops of Rome from imperial power. To counter the weight of the church at Constantinople and its claims of parity with the See of Rome, the bishops of Rome began formally to assert their primacy over the Eastern patriarchs. The political jockeying for

primacy, together with other doctrinal, liturgical, and linguistic differences, would culminate in the Great Schism between the Byzantine and the Catholic Churches in 1054.

THE POPE'S KEYS TO THE KINGDOM

As the New Testament confirms, the Church of Rome was but one of the multiple churches that had been established throughout the Mediterranean and Asia Minor. The fact that the apostle Peter had led the Church of Rome and been martyred there endowed this church with a mythic cachet that the other churches acknowledged. After all, the Gospels clearly attested to the authority that Christ himself conferred upon Peter. In a critical passage from the gospel of Matthew, Christ gave Peter the keys to the kingdom of heaven, the right to control who could or who could not enter through the heavenly portals to salvation: "And I say to you that you are Peter, and upon this rock [*Peter* means "rock"] I will build my church, and the gates of hell shall not prevail against it. And I will give you the keys of the kingdom of heaven, and whatever you bind on earth shall be bound in heaven" (Mt. 16:18–19). The bishops of Rome could thus legitimately claim to be the successors of Saint Peter. Yet from this it does not *necessarily* follow that the Roman Church should have primacy over the other churches. This, however, is what the bishops of Rome began to claim toward the end of the fourth century. Around this time the bishops of Rome, also known by the title of the Vicar of Saint Peter, also began to call themselves "pope" (*papa*) in order to distinguish themselves further from the Eastern patriarchs.

In 381 Emperor Theodosius I convoked the First Council of Constantinople to refine and reaffirm the Nicene Creed as official church doctrine against competing non-Trinitarian sects. The third of the council's canons aroused

controversy by declaring that as Constantinople was the New Rome, the bishop of Constantinople should be honored after the bishop of Rome. The controversy lay in the alteration in the order followed in the ancient church, which held that the Churches of Alexandria and Antioch were next in rank to the Church of Rome. Accordingly, the bishop of Rome, Damasus I (366–384), refused to accept the validity of this canon on the basis that the See of Rome had a unique apostolic primacy based on its singular claim as the heir of Saint Peter. The situation came to a head in 451 during the Council of Chalcedon, which granted "equal privileges" (*isa presbeia*) to Rome and Constantinople, the latter in its capacity as the "New Rome." The bishop of Rome at the time of the council was Leo I the Great (440–461), a tireless worker in the efforts to combat heterodoxy and promoter of the doctrine of Petrine supremacy.

After the Council of Chalcedon Leo appealed to the Western Roman emperor Valentinian III (r. 425–455) for an imperial decree, dated 445, which recognized the primacy of the bishop of Rome based on the merits of Saint Peter. The resultant doctrine of *Petrine supremacy* acknowledged the authority of the other churches over their own jurisdictions but asserted that only Rome ruled over the entire church and that only the pope's edicts would have doctrinal authority. As a further sign of his supreme status, Leo adopted the title *pontifex maximus*, the literal meaning of which is "supreme bridge maker" but is usually translated as "Supreme Pontiff." As such, Leo I is regarded by the church as the first truly universal pope.

The claims of papal supremacy of Pope Gelasius I (492–496) superseded those of his predecessor when he took the extraordinary step of changing the traditional title "Vicar of Saint Peter" to "Vicar of Jesus Christ" to signal his universal authority. Even more extraordinary from the historical point of view was a key passage in Gelasius's epistle entitled *Duo sunt* ("Two are"), which established the principle of "two powers," the first the holy authority of bishops (*autoritas sacrata pontificum*) and the second the secular royal power (*regalis potestas*). Needless to say, Gelasius deemed papal authority to be weightier than royal power, meaning that secular monarchs derived their legitimacy from the church.

PAPACY VERSUS EMPIRE: THE INVESTITURE CONTROVERSY

Before the 11th century Gregorian Reform priests could marry and live openly with concubines. In the 10th century noblemen and noblewomen appointed popes. The voluptuous Italian noblewoman Marozia (d. c. 937) apparently controlled three popes. As the mistress to Pope Sergius III (904–911), she became mother to another when their son was invested as Pope John XI (r. 931–935). Then she had him imprisoned to release the papal throne to her other son, by another father.

That the papacy should become a mere pawn in the political ambitions of a capricious and ambitious woman shows just how far the church's real power had declined from the lofty position espoused by the *Donation of Constantine*. The *Donation of Constantine* was a forged Imperial edict, possibly written during the papacy of Stephen II (752–757) in an attempt to assert papal authority over and against the Byzantine Empire and the Frankish kingdoms. The edict proclaimed that the Roman emperor Constantine had granted Pope Sylvester I (314–335) and the successive bishops of Rome temporal power over Rome, Italy, and the entire Western Roman Empire, while he was to retain governance of the Eastern Roman Empire. However, during the Carolingian period the de facto subordination of the church to the secular powers emerged. The Carolingians relied more and more upon ecclesiastical

personnel to staff the government, giving rise to a situation often called the "feudalization of the church." Landed aristocrats established churches, monasteries, and convents, which they staffed with relatives and friends of their choice and maintained as their own private inheritable property. The church was forced to submit to this feudal status because it needed protection against the quarreling factions of counts and others who employed violence in their quest for a piece of the Carolingian empire. But this dependency eroded the morality and spirituality of the church. More and more unsuitable aristocratic laypersons assumed bishoprics, and these worldly bishops ignored the rules against clerical marriage and took wives or concubines to guarantee the inheritance of their properties.

For his part the Holy Roman Emperor, who inherited this situation, was not willing to renounce the power that he exercised over the church through the appointment of abbots, bishops, and popes. The Holy Roman Empire profited economically from the lucrative income gained from the practice of *simony*, the sale of church offices, and benefited politically by ensuring the appointment of ecclesiastical personnel loyal to the emperor. Nor was this situation at all disagreeable to ambitious clergy, bishops, and monks, whose literacy and superior education made them valuable employees in secular governments. And just as the emperors had the power to invest popes and clergy, they could also depose them, as occurred in 1046 when Henry III (r. 1039–56) intervened to put an end to rivalry over the papal office between Gregory VI (1045–46) and the would-be pope Silvester III (1045) by having them both removed.

Not everyone in the church was pleased about this situation. A Cluniac monk named Hildebrand had been a loyal supporter of Gregory VI and had followed him into exile to Germany. Hildebrand, who would later be elected Pope Gregory VII (r. 1073–85), was a pious, powerful, disciplined, and moral ecclesiast committed to extending to the whole church the aims of the Cluny Reform movement: a thorough moral reform of the church and the restoration of its independence from the secular powers. The Cluniac movement had begun a century earlier under the impetus of a pious Burgundian noble, Duke William of Aquitaine (935–963), who established a monastery at Cluny that was answerable only to the pope. Cluny was located safely across the Alps and far away from the machinations of corrupt local Italian lay and ecclesiastical rulers. Under the leadership of Odo, the first abbot of Cluny (d. 942), the monks revived the strict discipline of the rule of Saint Benedict, consisting of fasting, prayer, and manual labor.

As loyal subjects to the pope, the Cluniac monks were able to extend their reforms to the rest of the church. Shortly after being elected pope in 1075, Gregory VII spearheaded the global church reform known as the Gregorian Reform. In the sphere of moral reforms, it was Gregory who took tangible steps to impose clerical celibacy and to punish or remove from office all ecclesiasts guilty of simony. The most important political consequence of the Gregorian Reform was the fomentation of the principle of "one flock, one shepherd, and one independent church." Harking back to the theory of Petrine supremacy and the *Donation of Constantine*, the church argued not only that the pope must be the supreme authority over all of Christendom, but also that the bishop of Rome must be independent of all secular powers. In practice, this meant that only the pope must have the power to control the personnel, property, and rights of the church and that no secular ruler should play any role in appointing ecclesiastical offices.

To this end Gregory supported bishops and nobles who rebelled against the Holy Roman Emperor, Henry IV. When Henry won the

military battles, Pope Gregory thrust the papal sword of excommunication, and in 1076 Henry was forced to submit in dejection and degradation to the power of the pope's extraordinary lay ally, the countess Matilda of Tuscany (d. 1115), who owned the castle of Canossa. Outside her gates the Holy Roman Emperor walked barefoot in the snow in humble submission to the pope's authority. "Coming to Canossa" to this day is the expression for profound humbling. In the short run this victory would be short lived—Henry drove Gregory into exile and installed the "antipope" Clement III (r. 1080–1100). But in the long run Imperial rule was weakened and papal supremacy reinforced.

The Investiture Controversy ended with the agreement reached in 1122 between Pope Calixtus II (1119–24) and Emperor Henry V (r. 1111–25) known as the Concordat of Worms. The concordat was a compromise agreement that allowed the emperor to invest bishops with their secular authority "by the lance" in the territories that they governed, but reserved the right to the pope to invest them with spiritual authority "by the ring and the crozier." In agreeing that laypersons should not interfere in the running of church affairs, the concordat laid the basis of the principle of a separation between the powers of the church and those of the state.

GREAT SCHISM BETWEEN BYZANTIUM AND ROME (1054)

A century earlier, in 1054, Pope Leo IX (r. 1049–54) and the Greek patriarch Michael Cerularius (r. 1043–59) had excommunicated each other for their unreconcilable views on the issue of authority over the universal church, thereby officially declaring the "Great Schism" between the Orthodox Church and the Latin Roman Catholic Church. The ostensible cause was a quarrel that broke out between the two

patriarchs when the Catholic Normans forced the Greeks of Byzantine Italy to adhere to the Roman Church. However, the schism was a long time in coming and the culmination of centuries of insurmountable cultural, doctrinal, and political divergences. The cultural rift was accelerated after the destruction of the Western Roman Empire. The first to disappear was the shared Greco-Roman linguistic heritage: By the late fifth century most Western clerics knew no Greek, and by the year 600 even most erudite Greek theologians knew no Latin. Charlemagne's promotion of a distinctly Latin civilization via the Carolingian Renaissance further broadened the cultural gap. The establishment of the Islamic empire made contacts between the Eastern and Western Churches extremely difficult.

In the political arena Greek patriarchs in Constantinople refused to recognize the supremacy of the pope in Rome and utterly rejected papal claims of authority over the Eastern patriarchs. The popes refused to acknowledge the patriarchs' counterclaims of authority, rejected the Greek Church's elevation of the patriarch of Constantinople to the status of an ecumenical (universal) patriarch on par with the bishop of Rome, and criticized their veering toward caesaropapism, granting power to one person as earthly ruler and spiritual ruler. The disputed control over the strategically located Balkan Churches was another factor. The Roman and Byzantine Churches also differed in the exercise of ecclesiastical authority. In the Latin Church the pope ascribed to himself the maximal right to define doctrine and circumscribed the interference of the secular powers in church policy. In the Greek Church doctrine was derived from appeals to biblical authority and ecumenical councils, which could be convoked by the emperor. Even more infamous for the Roman Church was the *Iconoclast Controversy* (c. 730–787, 814–843), the most flagrant case of caesaropap-

ism since the decision to forbid worshiping and displaying icons was instituted by a secular Byzantine emperor, Leo the Isaurian.

Another well-known difference between the Latin and Greek Churches is the policy on celibacy. The fourth-century Council of Elvira in Spain, held sometime between 300 and 303, was the first attempt of the Western Church to impose monastic celibacy upon all priests and other personnel who minister the sacraments at the altar. It was not until the Gregorian Reform, however, that clerical celibacy was made the official policy of the Roman Church. The Byzantine Church never imposed global celibacy upon its priesthood, limiting it instead to monks, nuns, and bishops. Moreover, married clergy and the laity were able to divorce.

Even more serious was what the Catholic Church perceived to be Greek floundering on the strict doctrinal formula of Nicene Trinitarian Christianity formulated in the Council of Nicaea and ratified at the Council of Constantinople. For instance, in the seventh century the patriarch Sergius I of Constantinople (r. 610–638) and Emperor Heraclius (r. 610–641) promoted the Christological doctrine of monothelitism, which held that Christ had one will but two natures, contradicting the orthodox doctrine of Christ's full humanity and full divinity.

The gravest point of contention was the conflict over the "*filioque* clause." This clause posits that the Holy Spirit "proceeds from the Father *and the Son*." (the Latin word *filioque* means "and from the Son"). This formula differed from the revised Nicene Creed of 381, which sustained that "the Holy Spirit proceeds from the Father. With the Father and the Son He is worshipped and glorified."

In the ninth century the Carolingians attempted unsuccessfully to pressure the popes into officially adopting the *filioque* clause in order to buttress their claims to the newly revived Western Roman Empire. At this time the position of the pope vis-à-vis the Western emperor was strong. In the early 11th century the balance of power had been reversed in favor of the Holy Roman Emperor. In 1014 at the insistence of Emperor Henry II, the pope officially added the phrase to the Nicene Creed, and it was recited for the first time during Mass. Patriarch Cerularius considered the *filioque* clause to be one of the catalysts of the Great Schism since he accused the Roman pope of exceeding the limits of his authority in changing orthodox doctrine.

Last but not least, the pope's unprecedented power over the Holy Roman Emperor in the aftermath of the Gregorian Reform was a further cause of alarm in the Byzantine Church. The ensuing contest over new converts would result in Russia and the Balkans joining the Eastern Orthodox Church. The Kingdoms of Poland, Bohemia, and Hungary became Latin Catholic in culture and religion.

FOURTH LATERAN COUNCIL (1215)

The reign of Pope Innocent III (r. 1198–1216) represents the zenith of papal power and is often referred to as the "papal monarchy" because of the totalitarian nature of papal rule. Innocent's convocation of the Fourth Lateran Council in 1215 is the maximal expression of papal power. Some 500 bishops and archbishops, more than 70 patriarchs, and over 900 abbots and priors converged upon Rome basically to "rubber stamp" 70 decrees that Innocent had already drawn up. The expectations of automatic consent posed a radical shift away from the process of debate and argumentation that had characterized previous ecumenical councils.

The general goals of the council were to define and defend the Catholic faith, to systematize the means of combating heresy, to reaffirm the church's independence of lay interference, and to begin to organize the

Fifth Crusade in the wake of the disastrous Fourth Crusade. Concerning matters of dogma, Lateran IV reaffirmed the seven sacraments (baptism, confirmation, penance, the Eucharist, extreme unction, marriage, and holy orders) as external signs of internal grace. It instituted as official dogma the doctrine of *transubstantiation*, the belief that when Jesus said the words "This is my body" at the Last Supper, the actual substance of the bread he held in his hands changed into his actual body, even though its outward appearance remained the same. The council also imposed the "Easter duty" on all the faithful, such that all Catholics from the age of puberty onward had to confess all their sins to a priest at least once a year prior to Easter. Lateran IV sanctioned the suppression of heresy and established the Inquisition as a global institution to put on trial and punish heretics and those aiding and abetting them.

Politically, the Fourth Lateran Council reiterated the doctrine of papal primacy and altered the order of patriarchal authority: After the pope, primacy of authority would now be conferred upon the Latin Patriarch of Constantinople. After the Latin Patriarch were the traditional patriarchs of Antioch, Alexandria, and Jerusalem. There were spiritual innovations as well, since Innocent III approved the missions of the Franciscan and the Dominican Orders, two new spiritual movements that arose to channel the increased lay spirituality toward orthodoxy and to aid in the fight against heresy. Lateran IV is notorious for imposing upon Jews and Muslims the obligation to wear a visible badge to distinguish themselves from Christians. Lateran IV established the penalties for renegade clerics who disobeyed the vow of celibacy, hunted, or became drunk. Finally, Innocent III also intervened in political marriages, wars, claims to secular thrones, and commercial activities throughout Europe.

BABYLONIAN CAPTIVITY (1305–1378) AND TWO POPES (1378–1415)

At the zenith of its power, the rich, magnificent papacy, like a cell in mitosis, divided. Suddenly there were two popes in separate cities, Rome and Avignon, France. This Western schism of the church was prompted by the famous papal bull *Unam sanctam* (1302), issued by Pope Boniface VIII (r. 1294–1303), which prohibited the kings of France and England from taxing the church. The bull asserted that all human creatures must be subject to the Roman pontiff in order to obtain salvation, and that outside the church no salvation was possible. The political implications of papal supremacy over temporal rulers were not lost on King Philip the Fair of France (r. 1285–1314), who attempted to have the pope deposed, but Boniface died before he could in 1303. Thereafter the cardinals elected a pope subservient to the French king. The pope resided in France at Avignon, a papal fief under the influence of the French monarchy, and the period is called the *Babylonian Captivity* of the Roman Catholic Church. Many of the seven popes who occupied the papacy at Avignon were noted for their opulent palace lifestyle and corruption, and this corruption filtered down into the ranks of the bishops and priests. Simony and the sale of indulgences became institutionalized. An indulgence was a document granting partial or plenary forgiveness of sins. When combined with the buyer's confession, absolution, and repentance, indulgences yielded freedom from suffering in purgatory after death. During the Babylonian Captivity simony and indulgences were routinized as a means of financing the papacy.

An apparent exception to papal corruption was the last of the Avignon popes, Gregory IX (r. 1370–78), who, following the advice of the remarkable Dominican mystic Catherine of Siena (1347–80), made the fateful decision to restore the papacy to Rome. In 1378 cardinals

meeting to elect a pope were forced by a Roman mob to elect an Italian pope and so chose Urban VI (r. 1378–89). The Avignon popes had all been French, and when the French cardinals abandoned Rome, they decided that the election had been made under duress and should be nullified. Consequently, they elected their own pope, Clement VII (r. 1378–94), whom the Roman Church designated as an "antipope." According to the principle of papal supremacy, there was no higher authority to whom the church could appeal to decide which of the two popes was legitimate. Accordingly, the people were required to pay taxes called *annates* to two individual papacies. The Western schism eroded the principle of papal supremacy over temporal rulers as each pope appealed to rival secular kingdoms in order to gain support for his papacy. It also provoked consternation among the lay faithful, irked at the financial cost of supporting multiple papacies and distraught over fears that their immortal souls might go to hell, since each papacy excommunicated the other and declared its right to administer the sacraments to be invalid.

Against such misuses of clerical authority, reformers who cherished Christianity began questioning absolutist papal authority, clamoring for papal reform, and calling for the restoration of the modelic "apostolic poverty" that Jesus and his apostles followed. At the height of the Babylonian Captivity, the lay humanist Marsiglio of Padua in Italy (1270–1342) published his controversial treatise *Defensor pacis*, (Defender of the peace) in 1324, affirming the secular state as the rightful defender of the public welfare and relegating the role of the church to spiritual matters only. John Wycliffe of England (c. 1320–84), best remembered for his English translation of the Bible, declared publicly that in temporal matters the authority of the monarch supersedes that of the pope, that the church should observe apostolic pov-

erty, that the sale of indulgences was simony, and that the sacraments had no real spiritual power to confer grace or salvation, thus minimizing the need for the clergy. Similarly, the populist preacher Jan Hus (c. 1371–1415) condemned the sale of indulgences and claimed that the pope's power did not derive from God, but rather from the community of the church. In response, the church condemned Hus as a heretic and ordered him to be burned at the stake, giving rise to the Hussite War (1420–34) in his native Bohemia. Such theories would pave the way for the Protestant Reformation that the German theologian Martin Luther (1483–1546) inaugurated in 1517 when he published his famous "95 Theses" challenging the authority of the pope and the power and efficacy of indulgences.

COUNCILS, PAPAL POWER, AND THREE POPES

In an attempt to end the papal schism, cardinals supporting the rival popes Gregory XII of Rome (r. 1406–15) and Benedict XIII of Avignon (r. 1394–1417) agreed to convoke the Council of Pisa in 1409 with the intention of deposing the two reigning popes. Both stubbornly refused to vacate their papal thrones. The cardinals declared both popes to be schismatics and heretics and elected Alexander V as pope (r. 1409–10). Now, there were three popes. In 1414 Holy Roman Emperor Sigismund (r. 1410–37) and the antipope John XXII (r. 1410–15) convoked the Council of Constance to end papal triplicity, condemn heresies (such as those of Jan Hus and his movement), and attempt church reform. The council deposed John XXII and elected Martin V (r. 1417–31) to reign as pope. Constance issued two dramatic declarations of its control over the papacy. The decree *Sacrosancta* declared the council superior to the pope. The second decree, *Frequens*, established the rule that coun-

Here at the international Council of Constance, Germany (1414–18), the empress and emperor process with visiting royalty, courtiers, and clergymen dignitaries. Men's and women's headdresses signified rank as well as asserted the latest fashion and the wealth to buy it. Accompanying the crowned women attended by men servants and courtiers, lower left, are gentlewomen, lower right, wearing fashionable fabric turbans called chaperones *with extravagantly long decorative cloth tails called* liripipes, *pendent down the back or swung over the shoulder, ornamented with bells, fringes, or semiprecious stones.* From Ulrich von Richenthal's *Beschreibung des Constanzer Conziliums*, 1450–1470, German. Courtesy of the New York Public Library, New York. Spencer Collection, Ms. 32.

cils would meet every 10 years. The assertion of conciliar power and this 10-year rule were attempts to handcuff the people who held Saint Peter's keys.

But Pope Martin had other ideas. He dissolved the Council of Constance, reclaimed the keys of Saint Peter, and reasserted papal primacy. For the next three decades old church injustices continued to thrive. Nepotism, the bestowing of lucrative church positions upon papal children or relatives, was rampant. Simony and the sale of indulgences continued unabated.

As parliaments and representative estates counsel or control secular rulers, church councils met between 1400 and 1450 in repeated

attempts to reform the papacy. But the popes triumphed over the meddlers in their power. The French, or Gallican, Church in 1438 in the Pragmatic Sanction of Bourges affirmed the supremacy of church councils over the pope, declared administrative independence from the Holy See, suppressed payments of *annate* taxes to Rome, and forbade papal intervention in the appointment of French churchmen. In 1431 the Council of Basel was convoked by Martin V and presided over by his successor, Eugene IV (r. 1431–37), in order to deal with the Hussite heresy and to settle the issue of conciliar versus papal authority. Political wrangling led to the deposition of Eugene and the election of the antipope Felix V in 1437. Eugene was able to marshal support for his cause by undertaking negotiations to reunite the Roman and Byzantine Churches and to raise the specter of harm that another Western schism would cause if the secular and religious authorities recognized antipope Felix. Eugene's arguments prevailed, and in 1449 the council was dissolved. The following year, 1450, the papacy held a great jubilee to celebrate papal political triumph. The pope's ecclesiastical sword reaffirmed the safekeeping of the keys of Saint Peter.

The Crusades

The interests of Christians, Muslims, and Jews converged dramatically during all the crusades fought in the Middle East and on European soil. Between the 11th and 14th centuries nine Christian military expeditions took up the cross as the rallying symbol of their holy war against the Muslim infidel in Greater Syria and Egypt. Crusader goals in the Middle East were to recapture cities considered sacred to Christianity, especially Jerusalem, from the Muslims and to counteract the expanding power of the Mamluks and subsequently the Ottoman Turkish Empire. In Europe crusaders dedicated

their lives and fortunes to destroying the heresy of the Albigensians in France, converting Prussian heathens in eastern Europe, and eliminating the Muslims from Spain and Portugal.

Crusades originally were called pilgrimages. A pilgrimage is an act of penitential devotion and a form of *imitatio Christi*, the imitation of Christ. Crusaders envisaged themselves as pilgrims and "soldiers of Christ" (*milites Christi*). They took up the cross and followed Christ (cf. Mt. 10:38), willing to sacrifice their lives through fighting the infidel in order to expiate sins, just as Christ had sacrificed his life to redeem humanity.

This ideology of pilgrimage and sense of holy mission differentiate the Crusades from the Byzantine wars against the Muslims. Ironically, the Crusades began with a request from the Byzantine emperor Alexios I Comnenos (r. 1081–1118) to Pope Urban II (r. 1088–99) to send mercenary troops to assist him in his battle against the Seljuk Turks. The Byzantines had been at war with the Muslim armies since the eighth century, the first century of Islamic expansion. Yet for them these confrontations were conventional wars ideologically comparable to those fought against previous enemies such as the Sassanid Persians. The crusade-pilgrimage was of a different order and wrought spiritual and mundane rewards. Urban II's rousing speech at the Council of Clermont in 1095 promised the crusaders "immediate remission of their sins." As pilgrims the crusaders also enjoyed the rights of hospitality and protection of self and property by the church.

Material gains were forthcoming as well. Urban's sermon expressed dismay over the social violence that was infesting western Europe. Christian nobles were ignoring the "Peace of God" and waging "unjust wars" against each other for private greed and gain instead of fighting the just war against the "barbarian idolaters" occupying the Holy Land. Christian conquerors received charters to hold

the conquered land as fiefdoms or kingdoms, although some soldiers bequeathed their newly won property to the church.

THE FIRST CRUSADE

Pope Urban II proclaimed the First Crusade at the Council of Clermont in 1095 to secure free access to Jerusalem for pilgrims and to eliminate the power of Seljuk Turks attacking the Byzantine Empire. Led by the nobles Godfrey of Bouillon (d. 1100), Count Raymond IV of Toulouse (d. 1105), Duke Robert II of Normandy (d. 1135), Tancred of Apulia (d.1112), and the Byzantine forces of Alexios I, the crusaders captured Antioch in 1098. The Latin crusaders conquered Jerusalem in 1099, perpetrating a massacre of tens of thousands of Muslims and Jews such that rivers of blood flowed through the streets. Godfrey became defender of the Holy Sepulcher. Godfrey's brother was crowned king of Jerusalem in 1100. For two decades Christian conquerors established Crusader States along the coastline of Syria and Palestine, the first of which was the County of Edessa, east of Antioch. Prior to reaching Jerusalem German crusaders marched through the Rhine Valley in 1096 and threatened the Jews with the choice of conversion or slaughter. Thousands died either murdered by the crusaders or in mass suicides, their martyrdoms later eulogized in Jewish liturgy.

THE SECOND CRUSADE

The fall of Edessa to the Turks in 1144 provoked Pope Eugene III (r. 1145–53) to call the Second Crusade in 1147. Led by the Capetian king Louis VII of France (r. 1137–80) and the Hohenstaufen king Conrad III of Germany (r. 1125–52), both armies were defeated by the Seljuk Turks. The emotive sermons that Saint Bernard of Clairvaux (1090–1153), abbot of the newly founded Cistercian monastic order, preached in Germany inadvertently triggered renewed massacres of Jews in the Rhineland. The Byzantine ruler Manuel I Comnenos (r. 1143–80) established a protectorate over the Crusader States of Antioch, Edessa, and Jerusalem. Meanwhile, Pope Eugene III had also granted crusader status to the Reconquest of Iberia. Lisbon (Portugal) was conquered from the Muslims in 1147 in a joint venture by Portuguese and English pilgrims.

THE THIRD CRUSADE

In 1187 Saladin, the Ayyubid sultan of Egypt (r. 1174–93), captured Jerusalem and overran most of the Latin-Byzantine possessions. This motivated Pope Gregory VIII (r. 1187) and his successor, Clement III (r. 1187–91), to convoke the Third Crusade of 1189–92. This crusade was a uniquely Latin affair, jointly led by Richard I, Richard the Lionhearted, of England (r. 1189–99); Philip II of France (r. 1180–1223); and Holy Roman Emperor Frederick Barbarossa (r. 1155–90).

The Byzantine emperor Isaac II Angelos (r. 1185–95, 1203–04) had conspired with Saladin to thwart Frederick Barbarossa's passage from Germany through Byzantium in exchange for his empire's safety. Frederick's untimely death by drowning in Antioch, lack of provisions and failed communications between French and English troops, and Byzantine perfidy led to the failure of the crusade. Despite capturing Acre, Richard was forced to sue for a truce with Saladin, leaving Jerusalem under Ayyubid rule.

THE FOURTH CRUSADE

Pope Innocent III called the Fourth Crusade in 1202 in an attempt to reconquer Jerusalem. With France and England at war and Germany embroiled in a dispute with the papacy, the crusade was undertaken by counts and nobles from France, Italy, and Germany. The Italian

Inset map label: Map area

Muslim
Seljuk
Turks

Tigris R.

Edessa

Tarsus

Euphrates R.

Antioch

Cyprus

Famagusta

Tripoli

Beirut

Sidon

Damascus

Tyre

Mediterranean Sea

Acre

Sea of
Galilee

Jerusalem

Jordan R.

Dead
Sea

EGYPT

N

Nile R.

Kingdom of Jerusalem
1099–1187

Kingdom of Jerusalem
(eastern limit) 1229–1244

County of Tripoli
1102–1289

Principality of Antioch,
1098–1268

Kingdom of Armenia Minor
1081–1083, 1198–1375

County of Edessa,
1098–1144

Kingdom of Cyprus
1192–1489

0   100 miles

0   100 km

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Red Sea

count Boniface of Montferrat (d. 1207) negotiated an agreement with the Venetian doge for Venice to supply ships to transport the soldiers to Egypt. The doge, an enemy of the Byzantine emperor, engineered the terrible sacking of Constantinople in 1204 and the subsequent establishment of the Latin Kingdom of Constantinople.

OTHER CRUSADES TO THE HOLY LAND

The Crusades continued throughout the 13th century, beginning in 1204 and ending in 1291. Pope Innocent III issued another call to recover Jerusalem at the Fourth Lateran Council in 1215. The Fifth Crusade (1217–21), headed by the armies of Bavaria, Hungary, and Austria, succeeded in conquering Damietta in Egypt in 1219 but suffered a massive defeat when they tried to take Cairo. The excommunicated emperor Frederick II of Sicily convoked the Sixth Crusade (1228–29) and single-handedly recovered Jerusalem from the Muslims by negotiation rather than warfare. The holy city remained in Christian hands from 1229 until its recovery by the Mamluks in 1244. Louis IX of France (r. 1226–70) launched the Seventh and Eighth Crusades (1248–54, 1270, respectively). These two large crusades directed against Egypt failed, and the Latin States were slowly overrun. Edward I of England (r. 1274–1307) launched the Ninth Crusade in 1271 in what would be the last concerted effort to recover Jerusalem and contain the power of the Mamluk sultans. In 1291 the last Christian stronghold fell to the seemingly invincible Mamluks.

Crusades were fought thereafter for nearly two centuries between 1291 and 1464, the year Pope Pius II, a vigorous champion of crusades, died. The Turks defeated a large expedition of Christian forces at Nicopolis in 1396.

THE ALBIGENSIAN CRUSADE

Local European crusades suppressing heresy paralleled in ferocity the crusades against Islam in Iberia and against the Muslims to recapture Jerusalem. Upon ascending the papal throne in 1198, Innocent III declared a crusade against the Cathars, launching the Albigensian Crusade (1208–19). The Cathars were a heretical sect of Gnostic dualists, originating in 11th-century Europe, who despised matter as filth, believed that Jesus was only divine spirit, rejected the Old Testament, and rejected the sacraments and papal authority. Their lifestyle of ascetic piety, poverty, purity, and charismatic preaching of the apostolic life and the imitation of Christ won them numerous adepts. The Cathars were centered in Languedoc in southern France—the town of Albi gave its name to the Albigensian Crusade—but attracted a significant following in northern Spain and France, Italy, and Germany.

The Albigensian Crusade, led with great cruelty by the French noble Simon of Montfort (1218), resulted in the massacre of tens of thousands of Cathars and Cathar sympathizers throughout Provence. Meanwhile, Saint Dominic Guzmán of Spain (d. 1221) founded the

(opposite page) Crusader States, 1098–1291. Between the 11th and 14th centuries, Christians from Europe took up nine military expeditions against the Muslims in Greater Syria and Egypt. The Crusader States (shown here) established during the First Crusade were defended from Muslim attack by armies of pilgrim settlers, military-religious knights, and European kings and nobles. Muslims regained Jerusalem in 1244, and most of the mainland crusader territory was abandoned by Christians about 1291. During the Christian occupation of Palestine, medieval Europe benefited from the growth of East-West trade and the introduction of Eastern ideas and innovations.

Order of Preachers in 1216 to counter the Cathars with an orthodox alternative to the apostolic ideal. Dominican friars ran the Inquisition that led to the arrest, torture, and execution of Cathars and culminated in their destruction in 1321. The Albigensian Crusade destroyed much of southern France and the major Provencal courts and after savage slaughter left the culture of courtly love and the troubadours and the towns and markets where Christians, Jews, and other traders had thrived in smoldering ruins.

BALTIC CRUSADES

The Baltic Crusades began at the end of the 12th century and carried on until the early 16th century. They were fought in Livonia, Prussia, Finland, and Lithuania, and the main protagonists were the papacy and its Latin missionaries, the Holy Roman Empire, Scandinavian and Polish nobility, German and Scandinavian merchants, and tangentially the Byzantine Empire. The aims of the Baltic Crusades were more overtly mundane as well as spiritual than those of the crusades in the Holy Land and Spain. At the onset of the crusades, convoked by Pope Celestine III (r. 1191–98) in 1193, the peoples of Livonia, Prussia, Finland, and Lithuania were still pagans, and most engaged in piracy. Catholic missionaries had met with stiff resistance, and many of them and their converts had been murdered. Rome was anxious to protect its missionaries and converts and feared that the Baltic pagans might be eternally damned to heathen error or persuaded to convert to the Orthodox Church under pressure from the Byzantines.

The church sought to put an end to the pagans' barbaric practices of infanticide, human sacrifice, idol worship, and piracy and highway robbery. The latter posed a serious threat to Germanic and Scandinavian Christian merchants seeking to extend their commercial markets into the Balkans. The nobility of Denmark, Sweden, and Poland also looked to the Balkans as an opportunity to expand their empires, albeit at the expense of the Holy Roman and Byzantine Empires. Newly formed military orders also seized the opportunity to expand control over conquered territories and wage crusades against the Orthodox Church. The quest for piety, political power, and financial gain coalesced in the Baltic Crusades.

THE ROLE OF RELIGIOUS MILITARY ORDERS

The crusades were not only fought by lay soldiers. A breed of monastic soldiers of Christ emerged in the 11th century, often answerable only to the pope, with the mission of recovering Christian lands from the "infidel" and defeating the heretical enemies of Christ at home. Various orders of warrior monks established strongholds in the Holy Land and the Iberian Peninsula, where they played a key role in the crusades on both fronts. Bound by monastic vows of personal poverty, piety, obedience, and chastity, these warrior soldiers nevertheless amassed vast sums of wealth and landholdings in the regions they conquered—a situation that would put many of them at odds with local rulers.

Knights Templar The Poor Fellow Soldiers of Christ and of the Temple of Solomon, more commonly known as the Knights Templar, were founded in France circa 1118 in the aftermath of the First Crusade to ensure the safe passage of European pilgrims to Jerusalem. The Cistercian abbot Bernard of Clairvaux personally designed their monastic rule, and papal sanction ensured that the order received vast sums of wealth from pious donations of money and land. From their headquarters on the Temple Mount in Jerusalem, the Knights Templar fought as crusaders in the Holy Land and Spain

and oversaw a vast financial network lending money to pilgrims and financing the Crusades. Knights Templar professionally intersected with Jewish bankers and international traders, engaged in moneylending, and in certain places replaced the Jews as the principal holders of currencies and letters of credit. Their enormous power and wealth stoked the ire and envy of the French king Philip IV the Fair (r. 1285–1314), who accused them of heresy, had them arrested and tortured, and forced Pope Clement V (1304–15) to disband them in 1314.

Knights Hospitaller The Knights Hospitaller, also known as the Knights of Rhodes, the Knights of Malta, and the Order of Saint John of Jerusalem, is the other major monastic order that emerged in the wake of the First Crusade's conquest of Jerusalem. It was founded circa 1100 in Jerusalem originally as a Benedictine hospital for pilgrims but was subsequently transformed into a military order. The soldier monks divided their tasks between fighting the Crusades in the Holy Land and protecting and providing medical care to pilgrims and Christians. The Hospitallers received papal permission to rule Rhodes as a sovereign monastic state. They benefited from the dissolution of the Templars through inheriting most of the territories that had been under their control.

Spanish and Portuguese Military Orders
The Knights of Calatrava were confirmed as a Cistercian military order by Pope Alexander III in 1164. Their impressive successes against the Muslims earned them the financial support of the kings of Castile and Aragon, who granted them large landed estates. They were forced to abandon their base in Calatrava after the crushing defeat at the hands of the Almohads in the Battle of Alarcos (1195) but would recover it in the decisive Battle of Navas de Tolosa (1212). Calatrava participated in the ensuing conquests of Muslim Spain and in the process acquired

vast feudal holdings and became feudal lords to the defeated Muslims. Their vast wealth and political autonomy from the secular kingdoms made them a target during the 14th- and 15-century civil wars between the Christian kingdoms.

The Order of Santiago gained papal recognition as a military order in 1175 to provide protection to pilgrims traveling to and from the shrine of their patron, Saint James of Compostela, located in Galicia in northwest Spain. The Knights of Santiago also built hospitals along the pilgrimage route to Compostela and thus maintained both a military and a hospitaller character. The order also received recognition and support from the rival Kingdoms of León, Castile, Aragon, and Portugal, who granted them extensive privileges and fiefdoms in the territories conquered from the Muslims. This mixed allegiance would embroil them sometimes in the internal Christian wars, which diverted efforts from the crusade against the Muslims.

The Brothers of Santa Maria de Évora, later known as the Order of Aviz, was founded in 1146 as an offshoot of the Knights Templar, who had established headquarters in Portugal two decades earlier. The Knights of Aviz observed the Cistercian rule and devoted their efforts to military warfare against the Muslims. With the completion of the Reconquest in 1250, the Aviz monks defended Portugal in its war against the Kingdom of Spain in 1383 and would later participate in the military expeditions against the Muslims in Ceuta (1413) and Tangier (1437).

Knights Teutonic The Knights Teutonic was a Germanic monastic order founded in 1190 initially to provide hospital care to German pilgrims injured during the Third Crusade. In the early 13th century their governor, known as the grand master, changed their mandate into a military order. They were

based in Acre, Palestine, and devoted their efforts mainly to defending the area between Jerusalem and the Mediterranean Sea. Having received generous privileges and land from the Holy Roman Emperor, the Teutonic Knights came to the rescue of the German emperor and the duke of Poland when their borders were attacked in 1226 by the Prussians. They played a prominent role in the defeat of the Prussians and their subsequent Christianization. As compensation Pope Honorius III (r. 1216–27) granted them permission to govern Prussia as a sovereign monastic state.

The Livonian Knights　The Livonian Brothers of the Sword were founded in 1202 by the prince-bishop of Livonia as a counterpart to the Knights Templar. They were nearly annihilated in 1236 in a battle against Lithuanian and Semigallian tribes. The survivors joined the Knights Teutonic as an autonomous order. Together with the Knights Teutonic they would conquer Latvia and part of Estonia and Lithuania by 1290. Twice the Teutonic Knights tried to grab power for themselves during the course of crusader wars and establish an independent monastic state, first in Transylvania, then part of the Kingdom of Hungary in 1211, and then in Poland in 1226. They were driven out of Transylvania and continued to wage war against Poland, Lithuania, and the Russian Novgorod Feudal Republic. Their defeat by the Russians in 1242 put an end to Teutonic and papal aspirations to convert Orthodox Russia to Catholicism. The Teutonic Knights suffered their most serious defeat in 1410 against a Polish-Lithuanian coalition.

The Inquisition

In addition to crusades to control heresy, the Christian Church established an effective juridical prosecution of heresy called the *Inquisition*.

Christian leaders believed the strongest hand and rod were necessary to eliminate the seductive allure of corrupting, polluting, heretical spirits, whether Jewish, Muslim, or Christian, who strayed from the prevailing church doctrine. Christians who held heretical ideas were especially vexing to church authority. Christians who denied original sin, abjured the Trinity, rejected the *felix culpa* ("fortunate fall," or Adam and Eve's fall and expulsion from the Garden of Eden that led to the coming of Christ), and directly approached God threatened the Christian hierarchy of the church and also the liturgy expressing Christian dogma. Certainly if there was no concept of sin, then the whole emphases on confession, request for absolution, granting of indulgences, going on pilgrimages, and crusading were useless and futile. Moreover, if one could contact God directly, one did not need to support an expensive, luxurious church; its lavish buildings; and its powerful clergy.

The Inquisition thrived by combining the powers of church and state. The Hohenstaufen emperor Frederick II of Sicily strengthened the intentions of the church with a secular edict against heretics in the 13th century. Emperor Frederick's Decree on Heretics legalized the pernicious unity between church and state to stamp out all blasphemers. Soon thereafter Pope Gregory established a tribunal of Dominican and Franciscan inquisitors who were simultaneously prosecutors, judges, and juries. Yet they also were responsible for saving the souls of the defendants.

THE INQUISITION TRIBUNAL

Only death was considered fit atonement for ecclesiastical heresy. Only death was fit punishment for secular treason. For the Inquisition to extirpate heresy it was useful to equate heresy with high treason, which, as a secular crime against the state, was then transferred to the

Inquisition tribunal. The inquisitor acquired quasi-secular authority. The church pronounced the legal verdict. Then it turned over the convicted heretic for final secular punishment. Thomas de Torquemada (1420–98), the archinquisitor of Castile and Aragon, was an ascetic Dominican monk especially feared for his ruthless cruelty and terrible ingenuity in torture.

The defendant entered the Inquisition court with the presumption of guilt, not innocence. Only if the defendant could prove deadly enmity between himself or herself and a witness could evidence of heresy be refuted. That was a tough charge to prove when the witness coerced into testifying often was the accused's spouse or child. Any witness of guilt was acceptable, including hearsay testimony, to afford the church "proof" of heresy before condemnation.

PENALTIES

Repentant heretics thought worthy of mercy were punished with a variety of corporal penalties ranging from simple scourging, beating of a naked prisoner, to walking on long pilgrimages, such as to Jerusalem from Spain. Other repentant heretics wore the cross on their clothes, a sign of heresy ostracizing them from the Christian community and making them incapable of earning a living. The heretic's mark affixed to a house generally led to confiscation of the property. Descendants of a heretic for three generations were prevented from holding public office and from receiving otherwise legal inheritances. Imprisonment as punishment ranged from simple incarceration to the horrific living grave.

In the 13th century burning became the legal execution of choice for heresy. Peter II of Aragon granted legal status to the penalty of burning of heretics, probably on the advice of theologians. Frederick II of Hohenstaufen vigorously promoted death by fire. Mid-13th-century doges of Venice vowed solemnly in their oath of office to burn heretics. Established as the official execution method throughout Christendom, the Papal Statutes of 1231 demanded that death by fire be used universally. Even bones of long dead heretics were exhumed and consigned to the pyres, supposedly to prevent resurrection of the heretics on the day of judgment.

THE SPANISH INQUISITION

Jews and Muslims who converted to Christianity were called New Christians, *conversos*, *marranos* (meaning "swine"), or *moriscos* and, as such, were subject to the jurisdiction of the Inquisition. New Christians suffered civil restrictions and racial prejudice, exemplified by the denomination of having "impure blood." "Old Christians" suspected them of being crypto-Jewish social climbers who had only converted in order to escape from the oppressed condition of the Jews. Pope Nicholas V (r. 1447–55) condemned the Council of Toledo's edict of 1449 banning *conversos* from public office, but the Spanish kings ignored the papal bull. Between 1460 and 1469 Pope Sixtus IV presided over the Spanish Inquisition to put an end to the Judaizing practices of "backsliding" *conversos* who were accused of retaining Jewish customs such as the prohibition against consuming pork. Like the Jews who refused to convert to Christianity, *conversos* as "relapsing Jews" were among the obstinate heretics or lapsed heretics who were burned at the stake. The execution ceremony was the auto-da-fé (Portuguese, "act of faith"). After a mass and a sermon the heretic was transferred to secular authority for public burning while tied to an elevated upright wooden pillar with a fire built around its base, contrived to torture the body slowly until it was consumed.

The heretic wore a yellow *miter* imitating a bishop's tall, deeply cleft hat and a *san benito*, a yellow or black ceremonial sackcloth garment,

usually grotesquely decorated. Execution of a heretic was a public celebration customarily held on a holy day or a day made into a holiday to assure the greatest public participation and to set an example. An inquisitional purpose was deterrence by terror. By means of torture and auto-da-fé, large numbers of Christian heretics, Jews, and witches were exterminated. *Marranos* (Jews who had converted to Christianity but remained secret Jews) and *moriscos* (Moors or Muslims who had converted to Christianity but remained secret Muslims) also died horribly during the Spanish Inquisition.

Social and Economic Developments

Feudalism, the corporation, the university, and the city were four major institutions that evolved in Christian Europe. Duality and hierarchy were characteristics of this world. The secular world of town and country was juxtaposed against the sacred world of church and monastery. The two worlds often intersected. Yet Christian art, literature, and philosophy elevated the sacred world above the secular. The City of God, the church's spiritual life, had supremacy over paltry earthly strivings. Both the secular and sacred worlds were hierarchical. Every individual stood firmly on a rung of a social ladder. Each hieratic rank had its powers, rights, responsibilities, and requirements interrelated with the level above and the one below. Just as the created universe was described as a great chain of being, so the secular realm was construed as a great political chain of being with the king or the emperor at the top and then descending feudal orders of chief tenants, vassals, vavasours, knights, squires, servants, and multiple other links before reaching down to serfs who worked the land. Major orders and minor orders of the church had

hierarchic interdependencies. So did craftsmen's guilds.

FEUDALISM

Feudalism is a form of decentralized power that arises in the absence of a strong central government. The origins of medieval feudalism lie in the centuries prior to the fall of the Western Roman Empire. It will be recalled that wealthy Roman aristocrats fled the insecurity and high taxes of the cities and established themselves in villas. There they contracted farmers to work the land in exchange for protection from the barbarians and the Roman armies. This patronage system blended with the socioeconomic organization of Germanic tribes, who divided their lands into fiefdoms. (The word *fief* derives from the German *vieh*, meaning "cow.") The rise of feudalism parallels the rise of the church in medieval society. Just as the bishops assumed civil authority after the collapse of the empire, so, too, local strongmen emerged to fill the vacuum of military and administrative power.

Feudalism became entrenched with the collapse of the Carolingian empire in the late 10th century. Many of the counts who rose to power had been Imperial officials whose loyalty to the government had been purchased through the granting of landed estates and fiscal privileges. Others were military strongmen who simply seized lands that had belonged to the royal demesne or even church lands. In either case the feudal lord maintained his power by exercising exclusive rights over the economic activities of his land. For instance, feudal lords received payment in kind and in currency from all the serfs who resided in their territories. They also owned vital resources such as bakery ovens and grain mills as monopolies, which the villeins were forced to patronize.

Such power was not easily relinquished. One of the enduring conflicts of the Middle Ages would be between local feudal lords and counts

who strived to maintain as much of their economic, civil, and military power as possible vis-à-vis the Holy Roman Emperors and new emerging monarchs who attempted to centralize power in their own hands.

COMMERCIAL REVOLUTION

A commercial revolution that began in the 11th century culminated in international markets in the 13th century. The revolution was the shift in the balance of economic power from the feudal estates of the countryside to the new classes of free merchants and artisans of the towns and cities and in the monetization of the economy. Several factors contributed to the revolution. Circa the year 1000, the Scandinavians and Hungarians converted to Christianity, thus removing a major political threat to Christendom. About the same time, Italian merchants regained control of the western Mediterranean sea routes as the Córdoban caliphate descended into civil war. These and other events resulted in the recovery of important trade routes joining the Balkans, the Mediterranean, and Byzantium, which stimulated the economies of western Europe.

Improvements in agricultural techniques and attendant demographic increase created a surplus population no longer needed for agricultural production. As a result, artisans who lived in estate villages and could only exercise their trade in the winter off-season began gravitating toward the towns and cities, where they could devote themselves full time to their profession. These urban centers were conveniently located along major pilgrimage routes or near cathedrals. The concentration of artisans in a given location attracted other specialists, such as cobblers, clothmakers, tailors, physicians, apothecaries, butchers, and bakers. Merchants, once limited to itineracy, also established their base in the cities and towns. The convenient location and greater safety on the roads guaranteed the steady flow of customers. Many trades required more workers than the members of a family and thus generated work for specialists and common laborers, further stimulating economic growth.

Factories where goods were manufactured required raw materials and food, providing an incentive to rural farmers to increase their production and sell the surplus in the urban centers. With the profits earned from such sales, village farmers could substitute the time that they traditionally had to spend farming the lands of their feudal lords for the payment of an annuity tax. The time gained enabled them to put their resources into increasing the productivity of their own lands to further their profits.

Commercialization and urban living made the development of a money-based economy a necessity. On a traditional feudal estate payment for goods and services could be rendered in kind or realized through a system of barter. But money is obviously much more convenient for urban commercial transactions and indispensable for international trade. The need for hard cash also increased the need for moneylenders. Moneylending was a service that had traditionally been dominated by Jewish bankers because of the Christian prohibition of usury. Changes in attitude within certain sectors of the church and other pragmatic considerations allowed Italian bankers and moneylenders to rise in prominence.

For the most part, however, the church disapproved of the commercial revolution and the monetization of the economy. Before the rise of the money economy in the 11th century, theological treatises on the seven deadly sins always listed pride as the worst sin, a reflection of the social realities of power at the time. A typical iconographic representation of the humbling of pride depicted a king, feudal lord, or bishop being thrown from his horse by the personification of humility. With the transition

to the money economy, avarice replaced pride as the worst of the deadly sins. Iconographic renderings of avarice were often scatological, showing defecated coins or associated money and moneylenders with the devil. Moneylenders were often depicted with grotesquely exaggerated "Jewish" features to incite hostility toward the Jews. Traditional Christian preachers threatened the powerful burghers with biblical quotations such as the well-known "For the love of money is the root of all evil" (1 Tim. 6:10). Ironically, the 13th-century mendicant orders who preached and lived apostolic poverty were more successful in dealing with wealthy urban merchants and artisans. Rather than make the rich feel guilty for acquiring wealth, they channeled the fervent piety of these people toward works of charity and the forming of religious confraternities that tended to the poor.

Another factor contributing to the commercial revolution was the political support that towns and cities received from the monarch. Urban burghers and merchants received privileges as allies of the king against the more unreliable counts and barons.

GROWTH OF TOWNS AND CITIES

After the fall of the Roman Empire, towns in continental Europe had charters of liberties granted by the sovereign or the feudal overlord. Producing and exchanging goods and services required physical safety for people and goods and stability of essential services such as water and roads. Defense, land and river improvements, safety of trade, domestic order, and proximity to markets made cities valuable to those who lived in them and those who gained financially from their wealth. The earliest medieval cities were groupings of town business folk united by oath and personal bond.

By the late 12th century people who chose to live in cities took an oath acknowledging the authority of the city. As part of the demesne of a lay or ecclesiastical suzerain, a king, or an emperor, the town paid tribute and owed allegiance to its lord. In wartime the town provided service by its knights and armed warriors as well as material and money. Rulers favored cities as sources of wealth and prosperity and confirmed their rights in liberal charters. Disputes, however, often arose between cities and their overlords. In struggles between kings and noblemen, kings usually attempted to create alliances with cities. Elected councils led most cities. Magistrates and judges were called *consuls*, *podestas* in Italy, and *capitouls* in the south of France. In the north of France the leaders were called *echevins* and *jures*, and in the Low Countries *senators*. In Germany city leaders were called *Ratsherren*. In addition to the councils, guilds and corporations were prominent in city government. The city militia ensured defense.

Merchants and craftsmen who gathered for mutual benefit in towns created larger or smaller commercial centers that sprouted like mushrooms over European fields in and around the year 1100. The population growth of these commercial centers was achieved at the expense of the countryside. The feudal system that emerged out of the remains of the Carolingian empire was brutal and oppressive. Feudal lords forbade their serfs to leave the land and abused them economically. Orders of arrest were issued to capture fugitive serfs, who when found were subjected to torture. Cities and towns offered the promise of liberation from feudal obligations, and this promise was made reality by the provisions of royal law. A 12th-century royal charter granted to the town of Lorris in northern France will serve as an example of the privileges and freedoms towns and cities offered and enjoyed throughout most of western Europe. In 1155 the Capetian king Louis VII (r. 1137–80) decreed, "Any one who shall dwell a year and a day in the parish of Lorris, without any claim

London's Thames River banks accommodated commercial activity with multiple docks, wharves, loading platforms, and stairs. Inland, right, is a major market cross, Cheapcrosse; *forward are the* Stilliarde, *or Steelyard, warehouses, and offices of the wealthy Hanse merchants. Produce ships carrying eels, herring, wines, and spices unloaded at such commercial landings as* Three Cranes. *Bells and clocks of St. Pauls Church regulated market hours for selling imported and domestic produce.* From *A View of the City of London,* J. C. Visscher, 1616. London Topographical Society/New York Public Library.

having pursued him there, and without having refused to lay his case before us or our provost, shall abide there freely and without molestation" (Ogg, 330). Many a resourceful fugitive serf managed to gain his or her freedom in the anonymity of the city. The Charter of Lorris also guaranteed burghers other privileges such as exemption from tallage, toll, road, and subsidy taxes and protection from the unlawful seizure of their property.

Towns became city-states along trade routes in the Mediterranean, North Italy, the Upper Danube and Rhine Rivers, in Flanders, and on the Baltic coast. Milan, Venice, Genoa, Pisa, and Florence governed their walled cities and the surrounding countryside. Bruges and Ghent in Flanders developed quickly into significant cities.

On the Rhine River and on the Baltic and North Seas, towns became Imperial free cities owing allegiance only to the emperor. Within the Holy Roman Empire Imperial free cities included Nuremberg, Frankfurt, Augsburg, Strasbourg, Hamburg, and Lübeck, the major

international port of the Hanseatic League. French and English towns signed charters with their kings, and Paris and London were important commercial cities. Urban federations such as the Lombard League and the Hanseatic League fought wars under their own flags, had their own merchant law, and engaged in their own diplomacy.

Wealthy cities vied for the honors of which had most variety in merchandise, international exchanges, powerful merchants, and refined and civic culture. Each individual townsman achieved a liberty associated with a town's corporate liberty. Towns, like universities, usually were corporations, as in the modern definition of corporation, having a perpetual life even though individuals composing the corporation were ordinary short-lived mortals.

THE GUILDS

Professional guilds that emerged in 11th-century western Europe played a prominent role in the commercial revolution and international trade. A basic division was made between merchant guilds and craft guilds. Merchant guilds engaged in long-distance and local commerce. Powerful merchant guilds from Venice, Genoa, London, Ghent, and elsewhere established colonies in foreign cities. Craft guilds were organized according to trade, and members usually owned their own businesses. Both types of occupational guilds operated the same way. A guild's success depended upon the cooperation of its individual members. Guild members agreed to contribute certain resources and to cooperate in taking joint actions that would benefit the organization's economic and spiritual endeavors. They trained, prepared for licensing, and regulated practitioners of each industry and craft ranging from brewing, baking, weaving, silversmithing, knife making, and shoemaking to shipbuilding, mining, masonry, medicine, and surgery. Master craftsmen taught apprentices and employed journeymen, who worked for wages on a daily or short-term contract. Cities enforced guild regulations that set standards of excellence and prosecuted malpractice. Municipal governments also ensured that guild masters fulfilled their obligations to train apprentices.

The economic importance of merchant and craft guilds translated into real political power. Guild officials were empowered to fine, punish, or expel malfeasant members. Victualing guilds could manipulate the availability of foodstuffs to their economic advantage. Merchant guilds protected themselves from predatory rulers who might be tempted, such as during wartime, to seize the assets of foreign merchants by threatening to boycott the kingdom of the offending ruler. Such threats worked because a boycott could impoverish kingdoms and governments dependent upon tax revenues from commerce. Guilds also held the interference of aristocrats in check by paying a sum of money to them, threatening them, or even leading popular revolts against them. The wealth and political influence of guild members enabled them to occupy prominent positions in or even control local governments.

Wealthy guilds built proud Gothic guildhalls, libraries, and cathedrals and promoted local theater and art. Standards set before the 12th century for weights and measures, coinage exchange rates, bookkeeping, and commercial contracts became increasingly sophisticated in the economic progress of the 13th century. Bravura entrepreneurship stimulated culture and art, and mercantile monopolies affected war and peace.

Mention must also be made of the nonoccupational guilds that also emerged in the 11th and 12th centuries to fulfill a variety of social and religious functions. Social or parish guilds provided members with mutual economic aid, raising money for dowries, to fund apprenticeships, and to pay off loans or legal fees. Reli-

gious guilds, otherwise known as *confraternities*, engaged in the work of helping souls to escape from purgatory by gathering together to pray, sponsoring masses, and giving charity on behalf of the dead.
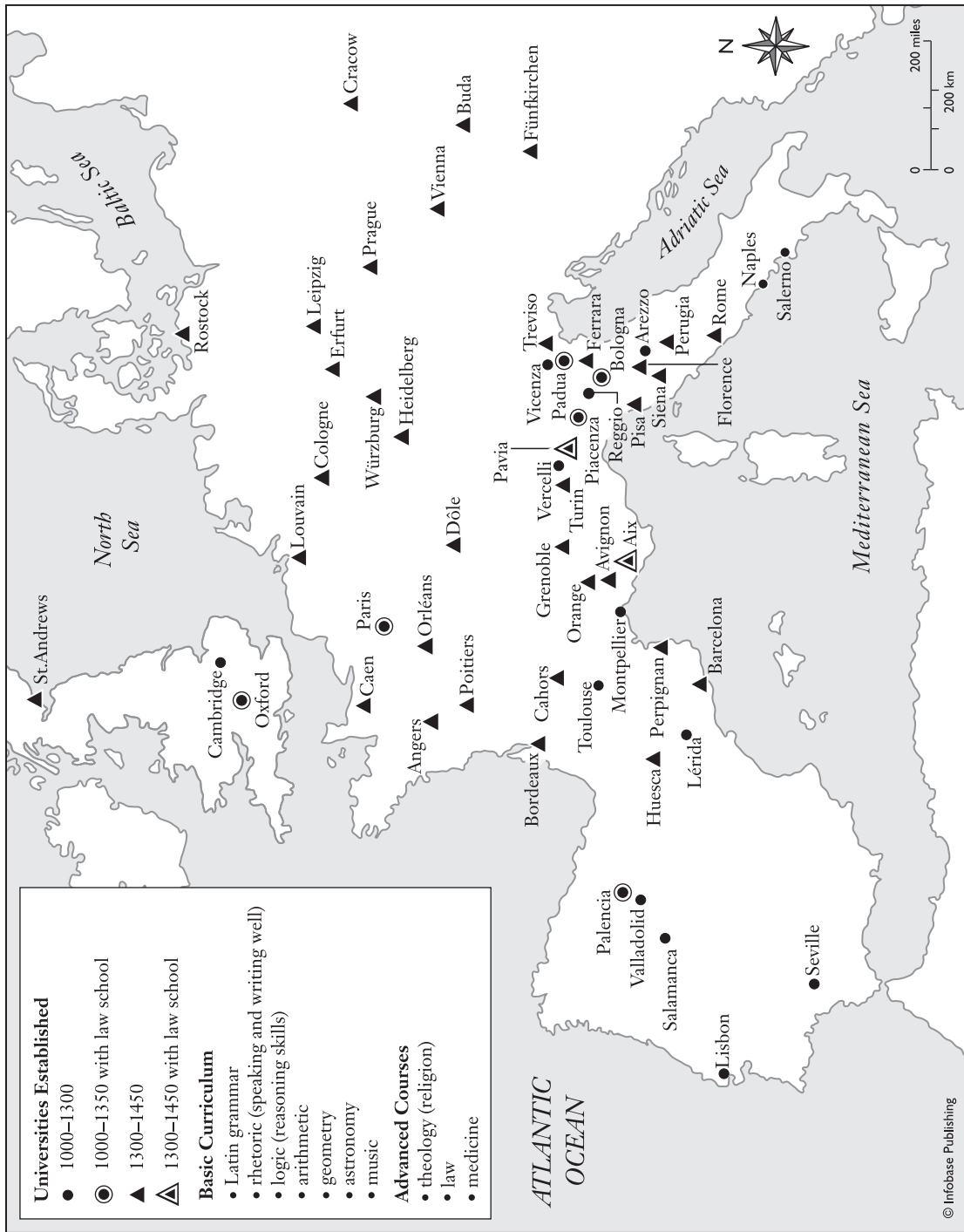
UNIVERSITIES

In 1200 a pitched street battle erupted in the Latin Quarter of Paris between disgruntled students and master teachers on the one side and the royal provost and his men on the other. The students and masters resolved to form a new kind of guild called a "union" (*universitas*) and obtained approval from the king of France to found the University of the Masters and Students of Paris. Of course, the mere fact that students and masters were willing to fight for their rights indicates that formal learning existed prior to the year 1200. The University of Constantinople was founded in 849 as a direct heir of the fifth-century School of Law, Philosophy, Medicine, Arithmetic, Geometry, Music, and Rhetoric founded by Theodosius II (r. 408–450). The first degree-granting university in western Europe was the University of Bologna, which was established in 1088 as a school of liberal arts for the study of grammar, rhetoric, logic, and jurisprudence. The University of Constantinople and the University of Bologna were also secular institutions.

Education in western Europe largely followed a different path engineered by and from the church. In order to ensure the perpetuation of the church and the proper administration of his empire, in 814 Charlemagne issued an imperial decree ordering cathedrals and monasteries to provide a suitable education to all eligible boys. The curriculum of these cathedral schools was designed to produce an educated clergy: Subjects included the *trivium* of grammar, rhetoric, and logic, followed by the *quadrivium* of arithmetic, astronomy, geome-

try, and music. Pope Gregory VII's 11th-century Gregorian Reforms included the mandate that all cathedrals and monasteries establish schools for the training of the clergy. Paris emerged as the greatest center of learning because of the excellence of its teachers in the wealthy Cathedral of Notre Dame and the location of numerous monastery schools in the heart of the city. Students and nonresident professors of Parisian monastic schools traveled from all over Europe to settle in the centrally located Latin Quarter, so called because the lingua franca and language of instruction was Latin.

School curricula took a dramatic turn in the 12th century as Latin translations of Greek logic and philosophical works began to arrive in Paris from the translation schools of Spain and Sicily. Innovations in the curricula gave rise to Scholasticism, a method of learning that emphasized the use of dialectical reasoning to resolve apparent contradictions in a text and employed debate (*disputatio*) as a tool to argue both sides of a question.

The 12th and 13th centuries saw the flourishing of universities throughout western Europe. Some, such as the University of Bologna, were founded and funded by students who hired professors and paid their wages. More commonly, the church or the Crown paid teachers' salaries, as was the case of the University of Paris and the University of Cambridge, respectively. Universities played a vital role in politics as well as education. Ecumenical councils consulted universities before publishing their doctrinal decrees. University of Paris theologians intervened in the papal schism. Prominent university-trained Dominicans and Franciscans used the Scholastic method of disputation in their attempts to convert Muslims and Jews. In the dispute over the control of Italy between Pope Gregory IX and Emperor Frederick II, the pope had made use of the renowned canon lawyers of Bologna's Faculty

Universities Established
- ● 1000–1300
- ◉ 1000–1350 with law school
- ▲ 1300–1450
- △ 1300–1450 with law school

Basic Curriculum
- Latin grammar
- rhetoric (speaking and writing well)
- logic (reasoning skills)
- arithmetic
- geometry
- astronomy
- music

Advanced Courses
- theology (religion)
- law
- medicine

Baltic Sea

North Sea

Adriatic Sea

Mediterranean Sea

ATLANTIC OCEAN

Cracow

Buda

Fünfkirchen

Vienna

Prague

Leipzig

Erfurt

Heidelberg

Würzburg

Cologne

Louvain

Dôle

Rostock

Naples

Salerno

Rome

Arezzo

Perugia

Ferrara

Bologna

Treviso

Vicenza

Padua

Reggio

Piacenza

Pavia

Vercelli

Turin

Siena

Pisa

Florence

Grenoble

Orange

Avignon

Aix

Montpellier

Perpignan

Barcelona

Lérida

Huesca

Cahors

Toulouse

Bordeaux

Angers

Poitiers

Orléans

Caen

Paris

Oxford

Cambridge

St. Andrews

Palencia

Valladolid

Salamanca

Lisbon

Seville

N

200 miles

200 km

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of Law. Frederick retaliated by founding in 1224 the University of Naples, the multisectarian university whose Jewish, Christian, and Muslim faculty taught philosophy, law, medicine, and other sciences.

The Black Death

The Black Death was a pandemic of bubonic plague that devastated the whole of Europe and parts of Asia and the Middle East from 1347 to 1351, killing nearly two-thirds of the population of Europe alone. Caused by a bacterium endemic to rats in Central Asia, the plague is thought to have spread to Europe via Sicily from the Silk Road trade linking European and Asian markets. Northern Europeans were particularly vulnerable to the Black Death because the Continent had been hard hit by the Great Famine between 1315 and 1322, which left the population severely malnourished, and by typhoid and anthrax epidemics that devastated the sheep and cattle populations of Flanders and England.

Not only were millions of lives lost because of the Black Death, famine, and the other epidemics; whole economies were ruined as well. Europe's booming towns and cities were ravaged because the close living conditions spread the plague much more rapidly than in rural areas. Uncertain how the plague was spread, European monarchs reacted by prohibiting exports of foodstuffs and placing goods and merchants under quarantine. Such measures and the death of so many merchants and farmers caused a severe economic recession. Ironically, the decline in the peasantry worked to their advantage: Landlords now had to compete for their labor, offering higher wages and other liberties. Peasant uprisings broke out in France, England, and Italy when rulers tried to impose higher taxes and fix peasant wages.

Europe's terrified populace channeled its fears into the persecution of lepers and Jews. Lepers were virtually exterminated in Europe by the end of the 14th century. Jews were also suspect because their requirements for ritual cleanliness prevented them from using public wells. They also lived in ghettos segregated from Christians. Consequently, fewer Jews contracted the plague. Accusations of Jews' poisoning public wells led to pogroms and massacres throughout Germany as well as in France and northern Spain.

The Black Death also affected European religious culture, giving rise to the flagellant movement of radical penitents who roamed the cities of Italy, Germany, and the Low Countries publicly performing extreme acts of self-mortification to expiate sin. Morbid liturgical hymns, such as the *Dies irae* (*The Days of Wrath*), allegorical poems such as the "Danse Macabre," and instruction manuals such as the *Art of Dying* (*Ars moriendi*) illustrate the popular obsession and fascination with death.

(opposite page) *First European Universities. In the 11th century universities began to evolve from monastery and cathedral schools, as students and teachers grouped together to secure rights and set standards. One of the first universities was established at Bologna, Italy, in 1088. By c. 1200 there were universities at Paris, France; Oxford, England; and Salerno, Italy. New universities began migration from established ones or by Imperial or papal foundation. Like medieval craft guilds, their aim was to prepare people for a vocation and to regulate conditions for its members. Teaching was by lecture and discussion. Students traveled from all parts of Europe to hear important speakers; there was no language barrier because scholars everywhere spoke Latin. The baccalaureate (bachelor's degree) took two to five years to attain; the license (master's or teaching degree) took about seven years; a doctorate might have taken up to 35 years.*

Key Personalities of Medieval Western Europe

Charlemagne (742–814; r. 768–814) Frankish ruler, first Imperial ruler to reunite western Europe since the fall of Rome; patronized the *Carolingian Renaissance* that reinvigorated classical and ecclesiastical scholarship, writing, literature, and the arts across Europe; his exploits fighting the Muslims made him the hero of numerous epic cycles.

Emperor Henry IV and Pope Gregory VII (11th century) Holy Roman Emperor Henry IV (1050–1108; r. 1056–1105) and Pope Gregory VII (c. 1020–1085; r. 1073–85), the promoter of the Gregorian Reforms against *lay investiture* of clergy and church corruption, were the protagonists of the Investiture Controversy, the struggle between the papacy and the secular authorities over the power to appoint church officials and the supremacy of the church. Henry's excommunication and humiliating Walk to Canossa consolidated papal prerogative, weakened the power of the emperor, and broke apart the empire.

Pope Urban II (1042–1099; r. 1088–1099) The pope who launched the First Crusade (1095–99) with his rousing sermon delivered at the Council of Clermont in 1095 in response to a petition from the Byzantine emperor, Alexios I Comnenos (r. 1081–1118), resulting in a centuries'-long quest to reconquer the Holy Land from the Muslims. Urban engineered the recovery of southern Italy and Sicily from Arab and Byzantine control, installing the Normans (later Hohenstaufens) as rulers; major enforcer of the Gregorian Reforms instituted by Pope Gregory VII.

Pope Innocent III (c. 1160/61–1216; r. 1198–1216) Roman pontiff; architect of the Albigensian Crusade against the Cathars and the Fourth Crusade against the Muslims, which led to the sacking of Constantinople (1204); summoned the Fourth Lateran Council (1215) to redefine Christian identity against heretics, Jews, and Muslims, leading to the recognition of the mendicant orders, enforced sumptuary laws upon Jews and Muslims, and laid the ground for the creation of the Inquisition.

Alfonso X the Wise of Castile and León (1221–1284; r. 1252–1284) Alfonso the Wise founded numerous translation schools, of which the Toledo School of Translation was the most famous, patronizing the translation of Arabic, Arabic-translated Greek, and Hebrew scientific, philosophical, mathematical, botanical, astronomic, and other texts from Arabic or Hebrew into Latin and Castilian. Through these translations the Latin West recovered much of the Greek legacy that had been lost with the fall of Rome, and their dissemination paved the way for the Renaissance. He was also the first European monarch to promote a vernacular language, Castilian, rather than Latin, as the official language of the realm.

Saint Catherine of Siena (1347–1380) Dominican nun and mystic who exemplifies the 14th-century rise of feminine lay and mystic piety. Her combined mystic fervor and zeal for papal reform led her to convince Pope Gregory XI (r. 1370–78) to put an end to the *Babylonian Captivity* of the Avignon papacy and to return to Rome in 1377. That fateful decision would unleash the *Western Schism* (1378–1417).

The Catholic Monarchs (Los Reyes Católicos) of Spain (15th century) The marriage of King Ferdinand II of Aragon (1452–1516; r. 1479–1516) to Queen Isabella I of Castile and León (1451–1504; r. 1469–1504) in 1469 laid the foundation of the political reunifica-

tion of Spain. In 1492 they conquered the last Muslim kingdom of Granada, expelled the Jews from Spain, and patronized the explorer Christopher Columbus's "discovery" of the New World, which would convert Spain into a global empire.
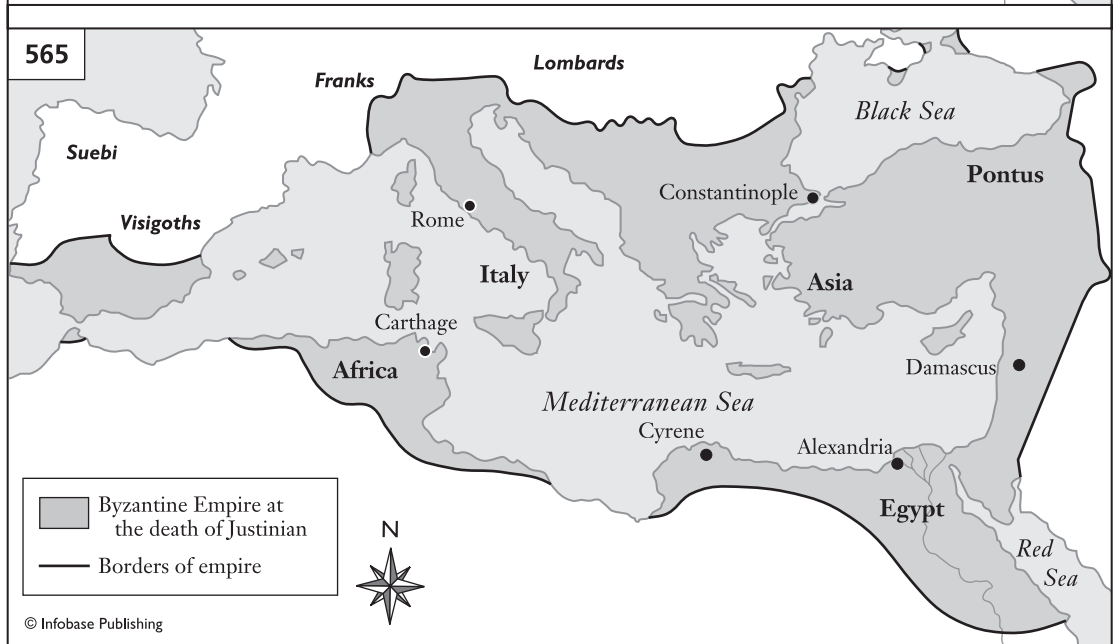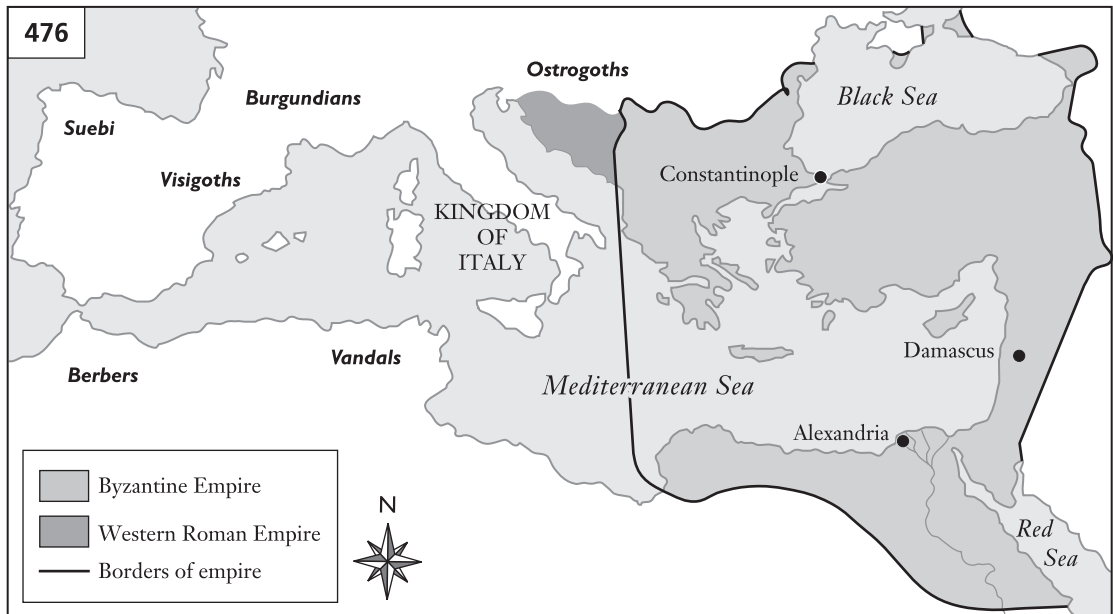
BYZANTINE EMPIRE

The "fall" of the Roman Empire in 476 occurred only in the western provinces that fell under the control of various and sundry Germanic tribes. The eastern provinces survived until the definitive capture of the capital of Constantinople by the Ottoman Turks in 1453. Until that fateful date the Byzantine Empire remained the oldest and longest-lasting Christian state in the history of medieval Christendom. Over the centuries the borders of the empire would undergo significant changes due to perennial conflicts with its archenemies, the Persians, Slavs, and Bulgars; the spread of Islam from the seventh century onward; the disastrous defeat at the hands of the Turkomans in the 11th century; and the sacking of Constantinople by the crusaders in 1204. Nevertheless, the cultural, political, and religious integrity of the empire would endure. Indeed, the Byzantine Empire was forged out of three axes: Greek Hellenistic culture, late Roman imperial rule, and Christian religion.

The Reign of Justinian

The reign of the emperor Justinian (r. 527–565) represents a high point in the early history of Byzantium. Justinian saw law and religion as the keys to maintaining a strong, centralized government, and he used his imperial powers to impose legal and doctrinal conformity through-

out his empire. Between 530 and 534 Justinian codified all of Roman law into the *Corpus juris civilis* (Body of civil law), more popularly known as the *Justinian Code*, divided into four parts: The Code assembled all the imperial edicts issued since the time of Hadrian (r. 117–138). The Novellae (Novelties) collected together all of Justinian's decrees, subsequent additions to which were made by his successors. The Digest was a summary of the juridical responsa of famous legal experts. Finally, the Institutes spelled out the theoretical principles of law derived from the Code and the Digest and would serve as a manual for aspiring lawyers. Among the notable social achievements of the Justinian Code were the abolition of the old Roman three-class system, such that all Byzantine citizens belonged to a single class, and the abolition of laws preventing the lower classes from seeking political office or intermarriage of people of different classes. Significant religious reforms promulgated by the Novellae included the suppression of all forms of Hellenistic religion and other pagan beliefs. The acclaimed Academy of Athens was placed under state control in 529, thereby silencing the key institution for the perpetuation of Hellenistic beliefs.

Although Christianity had been proclaimed the official religion of the Roman Empire since 380, the quest to achieve doctrinal conformity would never be fully realized. The Justinian Code accepted as law the doctrines of the four general councils of the Catholic Church (Nicaea, 312; Constantinople, Ephesus, and Chalcedon, 451) and banned all other doctrinal alternatives. Under the influence of his intelligent and resourceful empress, Theodora (d. 548), who was a clandestine Monophysite, Justinian took certain steps to reconcile the Roman Church with the most intractable and well organized of the Christian churches of Alexandria and the Middle East, who subscribed to the doctrine of Monophysitism. The Monophysites believed that Christ had only one nature, which was partly

476

Suebi

Burgundians

Visigoths

Ostrogoths

Black Sea

Constantinople •

KINGDOM
OF
ITALY

Damascus •

Berbers

Vandals

Mediterranean Sea

Alexandria •

Red
Sea

Byzantine Empire
Western Roman Empire
Borders of empire

N

565

Franks

Lombards

Black Sea

Suebi

Constantinople •

Pontus

Visigoths

Rome •

Italy

Asia

Carthage •

Damascus •

Africa •

Mediterranean Sea

Cyrene •

Alexandria •

Egypt

Red
Sea

Byzantine Empire at
the death of Justinian
Borders of empire

N

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Byzantine Empire under Justinian. The Eastern Roman, or Byzantine, Empire survived the West's eventual collapse in 476. During the reign of the Byzantine emperor Justinian (527–565), his general Belisarius reconquered North Africa, Italy, and southern Spain. The empire was at its greatest extent c. 600.

human and partly divine, in opposition to the official Nicene-Chalcedonian doctrine that Christ had two natures, one fully divine, the other fully human. Justinian's tolerance toward the Monophysites did not last far beyond Empress Theodora's death in 548; bitter resentment against Justinian's subsequent efforts to eradicate them from Syria and Egypt would pave the way for their surrender to the Persian and Arab Islamic armies a century later.

Justinian played a major role in attempting to reunite the Western and Eastern Empires. Theoretically, at least, this unification already existed, since the Germanic Vandal, Ostrogoth, and Visigoth kings technically ruled as viceroys of the Eastern Roman emperor. Between 533 and 554 Justinian waged a series of wars around the Mediterranean with the single goal of making this theoretical submission a political and military reality. But first he had to secure his eastern frontier by signing an "eternal peace" with the Persian Sassanid king Khosrau I (r. 531–579) in exchange for the payment of a substantial tribute of gold. The Byzantine army recaptured the Roman provinces of North Africa from the Vandals in 533. The conquest of the Italian Peninsula and Sicily was completed by 552, and in 554 Justinian's army went on to capture much of the Iberian Peninsula from the Visigoths.

One important consequence of Justinian's destruction of the Vandals and Ostrogoths was to pave the way for the emergence of the Germanic Franks as the most powerful force in the West. Justinian's military victories proved to by pyrrhic, however. The Lombards would eventually retake Italy, except Ravenna, and the Visigoths recaptured Spain. The Gothic wars and the truce with the Sassanids had weakened the Byzantine economy and made the empire easy prey, first to the Sassanids, who broke the peace after Justinian's death and invaded its territories, and second to the Muslims, who would seize upon the debilitated state of both empires to further their conquests.

Emperor Heraclius Consolidates Byzantium

The empire was in dire straits by the time Heraclius (r. 610–641) ascended the Byzantine throne in 610. An internal civil war with Heraclius's precedesor Phocas (r. 602–610), who was an ally of the Persians, had left the Balkan territories vulnerable to invasions from the Mongolian Avars and Slavs and the frontier with Persia susceptible to attacks from troops under Khosrau II (r. 590–628). The Sassanids captured Damascus (613), Jerusalem (614), Egypt (616), and Anatolia and Chalcedon. These wars had a devastating effect on society and the economy: Agricultural production in the Asia Minor "breadbasket" was disrupted, and people began to flee the cities in order to avoid foreign invaders and the ever higher taxes needed to repel them.

Heraclius was a brilliant military strategist. After restructuring the army into a system of landed soldiers, he went on the military warpath. In 626 his troops successfully repelled the Avars' attack upon Constantinople. A year later he personally led his troops across Asia Minor and into Persia. The emperor defeated the Persian army once and for all at the Battle of Nineveh in 627 and reconquered all the territories captured by the Sassanids a decade earlier. As a show of power over the Persians, Heraclius assumed the Persian honorific "King of Kings." Soon, however, these victories would be overshadowed by a new military threat—the Arab armies inspired by the new religious and political ideology of Islam.

By the time of his death in 632 the prophet Muhammad, the founder of Islam, had succeeded in uniting virtually all the disparate tribes of Arabia into a single polity, the *umma*, as well as in forging an impressively cohesive army. Muhammad's successors, the caliphs Abu Bakr (r. 632–634) and Umar ibn al-Khattab (r. 634–644), in 633 led the Muslim armies in

Syria, where they finally captured the capital, Damascus, in 635 from the Byzantians. The Battle of Yarmuk, fought on the banks of the Yarmuk River in Jordan in 636, was a turning point in world history. Even with the newly structured *theme* system the troops of Heraclius were no match for the forces of Caliph Umar. Decisive to the Muslim victory was the fact that the Muslims persuaded a large regiment of Arab Christian Ghassanid troops to defect to their side. The Ghassanids were Monophysite Christians, as were the majority of the population in the territories of Palestine, Syria, and Mesopotamia under dispute. The unrelenting persecution the Monophysites faced after the issuance of the Justinian Code made surrender to the more tolerant Muslims an appealing alternative. After the capture of Palestine, Syria, and Mesopotamia, Egypt and the whole of North Africa soon fell after Heraclius's death in 641.

Despite the tremendous loss of territories incurred during the reign of Heraclius, the emperor left a legacy of important Hellenistic and military reforms. It was Heraclius who Hellenized the empire by suppressing the use of Latin and making Greek the only official language. This decision would deepen the cultural gap between the Byzantine Empire and the emerging Frankish Kingdom, which, together with the Church of Rome, promoted the use of Latin to the detriment of Greek.

THEMA, THE THEME SYSTEM

Justifiably concerned that Byzantine wars were being waged mainly with unreliable mercenary soldiers, Heraclius conceived of the *thema* as a means of reviving the ancient Roman republican system of landed citizens who had served Rome so well at the height of its power. Under the *thema*, or theme system, soldiers accepted a reduced salary in exchange for grants of state-controlled plots of land to farm. Unlike the serfs in the Latin West, the Byzantine soldier-farmers were freemen who had a personal stake in defending their land. Moreover, since the plots of land were hereditary, the theme system ensured the perpetuation of a relatively inexpensive, loyal, well-staffed army; avoided unpopular military drafts; and diminished the reliance on mercenaries.

The army was structured into five *themata*: the Armeniac, which comprised Armenia, part of Anatolia, and generally northeastern Asiatic Turkey; the Thraciac, comprising modern-day Greece, Albania, and European Turkey, including Constantinople; the Opsician, comprising northwestern Asiatic Turkey; the Carabisiani, comprising the coastal regions of Pamphylia and the Aegean Islands; and the Anatolic, which comprised central Anatolia from Izmir to Konya. Over the centuries these five original *themata* were subdivided, and new territories were added with the expansion of the empire in the ninth and 10th centuries.

The soldiers farming the land in a given *thema* were under the command of a military and civilian leader called the *strategos*. While there is no doubt that the theme system rescued Byzantium from defeat during times of invasion, it also had certain drawbacks that would eventually contribute to the demise of the empire. The *strategos* became powerful aristocratic families who converted the soldiers under their command into veritable private armies whose personal loyalty to them far outweighed their allegiance to the emperor.

BYZANTINE CEREMONIAL AND THE GIFT

The Byzantines emperors were truly the heirs of their Roman forebears in the attention they gave to ceremony and the patronage of public buildings and the arts. The Byzantine emperor styled himself as an absolute ruler by virtue of his being a vicar, or representative, of Christ—quite different from the Roman pontiff in the

Latin West, who fulfilled this spiritual-political role. All religious festivals and state occasions, from imperial coronations to births, marriages, official receptions, and triumphal celebrations of military victories, became the stage of Byzantine court theater. These occasions were richly observed with pomp and circumstance, the rank of each person in the court easily identified by a costume, to create an aura of harmony and authority. On religious feasts the entire court would leave the palace in procession to celebrate mass at the basilica in a display of supreme authority over the church. Official portraiture rendered the authority and majesty of the emperor visible to all. The emperor and empress were invariably portrayed as ideal types, handsome and serene, richly costumed, and bearing a halo and a gilded background that associated them with the Sun and the sanctity of the saints.

Such courtly displays of wealth and splendor formed an integral part of Byzantine diplomacy and were designed to intimidate their enemies into acquiescing to their demands. Foreign potentates, crusaders, and other visitors to Byzantium from the Latin West attest repeatedly to the splendor of the lavish and generous gifts with which the Byzantine emperors "honored" their guests. As anthropologists have demonstrated, gift-giving is a ritual or stratagem of power. The gift giver displays his or her superiority over the recipient, who is obliged to reciprocate with loyalty and friendship. For the crusaders, however, lavish Byzantine gifts heralded perfidy on the battlefield.

Contraction of the Empire

By the time Heraclius died in 641, the Byzantine Empire had lost the provinces of Syria, Palestine, and Mesopotamia to the ever expanding Islamic empire. Egypt would soon follow in 645 after the decisive Battle of Nikiou, at a small town located between Alexandria and Fustat. Muslim armies continued marching westward, conquering the whole of North Africa by the early eighth century; from there they entered the Iberian Peninsula in 711. Byzantium attempted several times to recapture the provinces that had fallen under Islamic rule, a task made all the more difficult by increasing pressure from the Slavs, who, for instance, laid siege to Thessaloniki in 677 at the same time the Byzantine army was already divided fighting the Muslims in Anatolia and Syria. Meanwhile, Bulgar tribes waging war against the Byzantines managed to secede from Byzantine control in 681 and form their own state of Great Bulgaria, a territory encompassing present-day Bulgaria, Serbia, and Romania.

Even more serious were the attacks launched by the Muslims on Constantinople, the very heartland of the Byzantine Empire. Although both the first and the second siege of Constantinople, fought in 674–678 and 717–718, respectively, would both result in victory for the Byzantine armies, the second siege has been rightly compared to the famous Battle of Poitier in 732. As did that battle, the second siege of Constantinople changed the course of history, for had the Muslims captured the capital, the Byzantine Empire would surely have disintegrated. The keys to Byzantine success were the timely collaboration of the Bulgarian forces, the ingenious use of siege tactics, superior naval power, a sophisticated and accurate intelligence gathering service, a well-maintained communications system, and, not least, the mysterious Greek fire, a powerful incendiary device derived from alighting crude oil mixed with other combustible materials. Nevertheless, intermittent warfare of the late seventh and early eighth centuries forced the Byzantine populations to retreat from the coastal cities into inland fortified areas. Similarly, the center of Byzantine life shifted from Constantinople to the safer inland areas of

Anatolia and the Balkans. The loss of a substantial area of the Byzantine Empire precipitated a so-called dark age in its history, a concept that was further exacerbated by the turmoil of the Iconoclast Controversy.

The Role of Monks, Nuns, and Monasteries

In the third and fourth centuries new figures could be found inhabiting the deserts of Roman Egypt, Palestine, and Syria. These hermits, or monks, from the Greek *monachoi* ("alone ones"), fled the cities into remote rural and desert areas where they sought to attain holiness and spiritual union with God through extreme ascetic practices. The lives and ascetic feats of hermit monks such as Saint Anthony (third century) became known as models to emulate by others through the writing and dissemination of hagiographies, or "lives of the saints." The lives of the saints tell of spiritual athletes who practiced celibacy, sleep deprivation, fasting, and vegetarianism. Some, such as the Stylites, spent their entire lives perched atop a column, while others lived in caves, behind walls, or in abandoned tombs or temples.

While solitude was upheld as the monastic ideal, other forms of monasticism coexisted with the hermetic life. Influenced by the Essenes, a Jewish sect that lived in desert retreats separated from other Jews physically and by their strict asceticism, some monks lived in semiorganized *lavra* (allies) in which each monk lived alone in his or her cell and met periodically with others to celebrate Mass. Saint Pachomius (d. 346) is credited with founding *cenobitic* monasticism, in which monks lived in communion under the absolute authority of an abbot (*hegoumenos*). This model of monasticism would be adopted in the Latin West in the late fourth century, albeit in a much more regimented form, for although the Byzantine

bishop monk Basil of Caesaria (r. 370–379) wrote down some general guidelines for cenobitic monasticism, they were not adopted universally and never claimed the authority of the Benedictine rule. The monastic way of life proved to be incredibly popular, attracting men and women from all sectors of society in Egypt, Syria, and Palestine and throughout Asia Minor.

Eastern Roman monasticism did not perform the same social function as its Latin counterpart. The Western monastery, particularly under the impetus of the Carolingian renaissance, was largely responsible for the survival of classical culture and learning. In the East Byzantine educational and cultural institutions remained intact; thus, the function of the monk and the monastery was always primarily spiritual and secondarily social. Monasticism burgeoned from the height of what is generally known as the "golden age" of Byzantium, from the end of the Iconoclast Controversy in 843 to 1261, when the Byzantine army recaptured Constantinople from the crusaders. Aside from their religious duties as the guardians of sacred icons, urban monasteries administered hospitals, orphanages, poor houses, and vocational schools, while their rural counterparts functioned as agricultural communes. Monks were particularly instrumental in the Christianization of the Bulgarians, Slavs, and Russians in the ninth and 10th centuries.

Thus, despite their flight from society in the quest for the divine, even the most solitary hermits exercised an important patronage function in late Roman and early Byzantine society. Peter Brown, foremost historian of late antiquity, has convincingly demonstrated that the holy man and woman assumed the role of a Roman patron. The laity would seek them out, anxious to obtain their divine intercession to heal the sick, cast out demons, end droughts or plagues, or intervene miraculously to resolve disputes between the powerless and the wealthy.

The holy man or woman was thus a locus of power that derived directly from God, unmediated through the authority of the bishop and the institutional church. The monk's independence and divinely inspired moral authority proved to be a double-edged sword for both the emperor and the bishop. Monks could be and were marshaled at ecumenical councils to lend their moral authority to resolve many a doctrinal controversy. Yet if the monks did not agree with imperial or ecclesiastical policy, their views were more likely to be supported among the general populace. At no time was this potential power struggle more vivid than during the Iconoclast Controversy.

The Iconoclast Controversy

In 730 the Byzantine emperor Leo III the Isaurian (r. 717–741) ordered a prominent image of Christ to be withdrawn from the main gate of Constantinople. In an imperial edict issued in the same year and with no prior consultation of the Byzantine patriarchs or the Roman pope, he forbade the worship of images as a form of "idolatry." The decision to ban icon worship probably was initiated as a response to recent military losses to his neighboring Muslim rivals and the catastrophic impact of the eruption of the volcano at Thera. Leo III found in iconoclasm a scapegoat to explain why God seemingly had withdrawn his favor from the empire. Leo's successor, Constantine V (r. 741–775), reconfirmed the edict and convoked the Council of Hieria in 754 to formalize the doctrine. Empress Irene revoked the doctrine in 787, but Leo V (r. 813–820) reinstituted it in 814, once again in response to a military defeat by the Muslim army. The iconoclast doctrine was definitively revoked in 843 during the regency of Theodora, wife of the deceased emperor Theophilus (d. 842). During the century in which iconoclasm was official Byzantine dogma,

relations between the Roman and Greek Churches degenerated, despite the fact that many Greek theologians and patriarchs were as ardent *iconodules* ("lovers of icons") as the Catholics.

From the onset of the controversy, the Roman pope and many Byzantine patriarchs and monks resented the emperor's blatant act of caesaropapism, or imperial sovereignty over the church, and rejected on theological grounds the Christological implications of iconoclasm. Thus, grave theological and political issues had driven the controversy. The iconoclasts argued that it was sacrilegious as well as degrading and humiliating to Christ to depict him in material form. The iconophiles countered that since God had become matter through the Incarnation, icons of Christ were proof positive of the deification of matter and, indeed, necessary for salvation. Icons also were necessary as a means for the laity to gain direct access to the divine, since they were believed to be endowed with *thaumaturgic* (miraculous) and intercessory power. The laity would take their sorrows and concerns before the icon whenever it was not possible to seek the divine help of a holy man or woman.

More than any other Christological controversy before it, the Iconoclast Controversy exposed the depths and tragic consequences of caeseropapism. On the one side stood the emperor, numerous bishops, the army, and the civil servants, who represented the iconoclast position, while the iconophiles mainly consisted of monks and laypeople. The iconoclasts pursued a policy of aggressive subordination of church to empire, while the iconophiles favored a relation of interdependence and mutual respect. Peter Brown and other scholars have rightly identified the true target of the Iconoclast Controversy as the monks and monasteries, whose power and influence had become regarded as a challenge to the authority of both the emperor and the local bishop. It

did not help that one monk, Theodore the Studite (d. 826), went so far as to write to Pope Pascual in Rome to seek his intervention in the matter. This enmity is best seen during the reign of Emperor Constantine V, whose "sole purpose and desire" upon rising to power, according to Theosterictus, a monk and contemporary eyewitness, was to "wipe out the entire monastic garb" (Alexander 244). Constantine V not only oversaw the destruction of icons but relentlessly persecuted the monks, publicly humiliating them; driving them out of their monasteries, which he then transformed into secular properties; and burning their devotional texts, such as the *Sayings of the Desert Fathers*. In a final bid to sever the patronage relations between monk and laity, the latter were forbidden to visit the monastic abbot or receive communion from him.

The Golden Age of the Byzantine Empire (843–1261)

When the dark cloud of the Iconoclast Controversy was finally lifted in 843, the "triumph of orthodoxy" seemed to breathe new life into the empire. The ninth, 10th, and early 11th centuries witnessed a golden age of expansion and prosperity under the Macedonian dynasty of emperors. The dynasty was founded in 867 by Basil I, an extraordinary and ambitious man who rose to power from his humble origins as an Armenian peasant and whose accession to the throne was achieved through the assassination of his predecessor and rival, Emperor Michael III (r. 842–867). Basil I's achievements included legal and administrative reforms, the expansion of the empire, and the quest to improve relations with Rome. The latter objective would lead him to remove the presiding patriarch, Photios I of Constantinople (r. 858–867, 877–886), and replace him with Ignatius (r. 867–877), who enjoyed the favor of the Roman pope, Adrian II (r. 867–872), and supported the papacy in its determination to convert the Bulgarians to Latin Christianity. In 863 the Byzantine army had invaded the country and forced its ruler, Boris I of Bulgaria (r. 852–889), to sue for peace and convert to the Orthodox Church. When it seemed as though the Bulgarian ruler was on the verge of converting to the Latin Church, Photios wrote an encyclical denouncing the Western rite and papal interference in the Orthodox Church. This event was one of the many political forerunners of the Great Schism of 1054.

Under the guidance of two scholarly monk brothers, Saint Cyril (d. 869) and Saint Methodius (d. 885), Byzantine monks undertook the Christianization of the Slavic empire of Great Moravia (comprising modern Slovakia, the Czech Republic, and Austria) and the Bulgarian state. Cyril and Methodius are credited with inventing the Glagolitic alphabet, with which they translated the Bible into Slavic languages circa 863. Toward the end of his reign Boris I of Bulgaria commissioned disciples of Saints Cyril and Methodius to found academies to instruct the Greek-speaking clergy in the Slavic languages and liturgy as a means of ensuring the autonomous position of the Bulgarian Church vis-à-vis Constantinople.

Basil I maintained good relations with Holy Roman Emperor Louis II (r. 855–875), resulting in a successful joint military campaign to drive the Muslims from the Adriatic Sea. Subsequent conquests by the Macedonian emperors Nicephorus II Phocas (r. 963–969) and John I Tzimiskes (r. 969–976) wrenched part of Syria and Iraq as well as Cyprus and Crete. As his epithet "the Bulgar-slayer" well suggests, Basil II (r. 976–1025) oversaw the crushing and definitive defeat of the Bulgarian state and its annexation to the Byzantine Empire. Thus, at the height of the golden age the Byzantine Empire extended from Azerbaijan and Armenia in the east to Calabria in southern Italy in the

west. A strategic alliance with the Scandinavian Varangians of Russia would extend their influence far northward.

The Age of Disaster: Normans, Seljuks, and the Battle of Manzikert (1071)

However tremendous military victories might seem at the moment of their gain, they are seldom enduring. The Normans fulfilled their ambitions to oust the Byzantines from southern Italy in 1071. In the same year and at the opposite end of the empire, disaster struck in the form of the awesome Seljuk Turks. The Seljuks had paused in their wars with their archenemy the Fatimids of Egypt to attack eastern Anatolia and Armenia. The Byzantine forces were unable to muster an adequate defense because of years of financial neglect, leading to the virtual collapse of the theme system, civil infighting, and the simultaneous

Byzantine Empire in the Eleventh and Twelfth Centuries. This map of central Europe and western Asia shows the Byzantine Empire during the 11th and 12th centuries, when it was besieged by the Normans and Bulgarians in the west and the Seljuk Turks in the east. In August 1071 Byzantine emperor Romanos IV Diogenes lost the Battle of Manzikert and was captured by the Seljuk leader Alp Arslan. The defeat left all of Anatolia open to the advancing Seljuks.

HISTORY

51

attack launched by the Bulgarians in an attempt to regain their independence. The Byzantine emperor Romanus IV Diogenes (r. 1068–71) was betrayed by his troops and captured by the Seljuk ruler Arp Arslan at the fateful Battle of Manzikert in eastern Anatolia. Upon his release, Romanus IV found that his enemies had conspired to place his rival Michael VII Doukas (r. 1067–78) on the throne. Michael sealed the fate of Byzantium by reneging on the agreement between Romanus IV and Arp Arslan and sending his troops into Anatolia in 1073 at a time when the empire was spiraling into civil war. The Seljuks destroyed the Byzantine army and secured their control over what had been the Byzantine Empire's agricultural breadbasket in Asia Minor.

The Comnenian Restoration and the Crusades

Slowly but surely, like a phoenix rising from its ashes, the Byzantine Empire recovered militarily, financially, and territorially from the Manzikert debacle under the skillful leadership of the Comneni dynasty. The first Comnenos to rule was Isaac I (r. 1057–59), a protégé of Basil II "the Bulgar-slayer." Isaac I wisely decided to devote his energy to financial reform of the empire by revoking the pensions and grants of courtiers and appropriating some of the assets of the wealthier monasteries. The dynasty began in earnest under the leadership of Alexios I (r. 1081–1118).

On the military front, the Comnenan emperors vanquished their enemies in four decisive battles. In the Battle of Levounion (1091), Emperor Alexios I astutely solicited the aid of the Cuman Turkic tribe to confound the invading Pecheneg Turks who had invaded Anatolia. As the Great Schism had occurred only a few decades earlier, in 1054, Alexios sought to make amends with Rome in order to

secure papal support against the Seljuk Turks. In 1095 the emperor dispatched an embassy to Pope Urban II at the Council of Piacenza with the hope of obtaining military aid in the form of mercenaries. The result was the First Crusade (1095–99), which led to the establishment of the Crusader Kingdom of Jerusalem. Of greater significance for Byzantium was the restoration of many territories in Asia Minor, including Rhodes, Nicaea, Philadelphia, and Ephesus. Alexios's feats are known to us through the hand of his remarkable daughter, the historian Anna Comnena, the author of the *Alexiad* (History of Alexios I).

John II Comnenos (r. 1118–43) destroyed the remaining Pecheneg forces at the Battle of Beroia in Bulgaria in 1122. After the dispatch of the Turkic enemies, the next battle was to be fought against the Kingdom of Hungaria, which was seeking to expand its territory into Dalmatia and Croatia, thus posing a clear threat to Byzantine supremacy in the Balkans. The Byzantines prevailed over the Hungarians at the Battle of Sirmium (Serbia) in 1167 during the reign of Emperor Manuel I Comnenos (r. 1143–80). Given the destruction the crusaders wrought while passing through Byzantium on their way to the Holy Land during the First Crusade, Manuel proved less enthusiastic about lending them his support for the Second Crusade (1147–49). Nevertheless, an agreement was reached to allow them passage in exchange for the establishment of a Byzantine protectorate over the Latin Kingdom of Outremer (Antioch, Jerusalem, Tripoli, and Edessa). As a result, Byzantine influence extended in the Holy Land, as witnessed by the building of Greek Orthodox basilicas and monasteries as well as the magnificent Church of the Holy Sepulchre, located on the reputed site of Christ's burial in Jerusalem, and the regular performance of the Orthodox liturgy.

Perhaps reeling from the victories over his enemies and his newfound strength in the Holy

Land, Manuel sought to take his revenge upon the Seljuk Turks, the great nemesis of the empire, at the Battle of Myrokephalon in Phrygia (Asia Minor) in 1176. Although Byzantine numeric losses were not nearly as large as at Manzikert, the defeat suffered at Myrokephalon was perhaps psychologically more damaging. It proved conclusively that the Byzantines were unable to defeat the Turks and forced Byzantium forever to renounce its claims to the Anatolian plateau.

THE *PRONOIA* SYSTEM—BYZANTINE "FEUDALISM"

On the administrative front, Alexios I and his grandson Manuel I made significant reforms through the institution of the *pronoia* system of land grants. In order to diminish the likelihood of political opposition, which had led to civil war before the rise of the Comnenias, he built strategic alliances with the nobility through marriage and incorporated many of these persons into the government and the court. The loyalty of the nobility was strengthened by the *pronoia* land grants, which had the added benefit of removing potential dissenters from the capital at Constantinople. Alexios and his successors John and Manuel I also restructured the army by transforming the theme system into the Comnenian army financed largely through *pronoia* grants. The Comnenian army was organized into balanced units of Byzantine and provincial soldiers, cavalry, archers, and infantry, with the famous Scandinavian Varangian Guard, among others, strategically stationed throughout the Byzantine provinces. The emphasis that John placed on siege warfare and the launching of annual battles with limited but realizable objectives explains the extraordinary territorial gains during his rule. Manuel I applied the *pronoia* system to the aristocratic officers of the army.

The *pronoia* differed somewhat from its predecessor the thema system. In the first place, the land grants were not hereditary. In this sense they shared certain parallels with Latin feudalism. The *pronoiar* (land grantee) did not swear an oath of personal loyalty to the *strategos*, since the emperor remained the legal owner of the land. Here, too the *pronoiar* differed from the feudal serf whose solemn pledge of loyalty and service to his lord were the necessary preconditions of his acquisition of land. The *pronoiar* acquired the right to collect tax revenues from agriculture and trade and to collect duties from hunting and transportation. In exchange, he owed the emperor military service but could not compel his taxpayers to join him, whereas serfs were obliged to assist their lord in battle.

Essential reforms were introduced to the *pronoia* system in the wake of the debacle of the sacking of Constantinople in 1204. The exiled ruler Johan III Dukas Vatatzes of Nicaea (r. 1221–54) began to grant *pronoia* to the church and noblewomen in an effort to extend his support among the populace further and to counter opposition among the nobility. When the Byzantines recaptured Constantinople from the crusaders in 1261, Emperor Michael VIII Palaeologus took the extraordinary step of transforming the *pronoia* into hereditary holdings and reorganized them into military units, making it virtually impossible for *pronoiars* to refuse military service. He also exercised his right to confiscate pronoiar tax revenues to finance the government or military adventures. With these reforms the *pronoiar* system began to resemble Latin feudalism.

THE SACKING OF CONSTANTINOPLE AND ITS AFTERMATH

The Fourth Crusade (1202–04) began as a military pilgrimage to conquer Egypt but soon evolved into a power play involving the ambi-

tious Byzantine prince Alexios IV Angelos (r. 1203–04) and the Venetian doge (1192–1205). Unable to pay the exorbitant fees that the doge had charged the crusaders to hire and launch ships from his ports, the crusaders "paid off" the Venetians by besieging the Venetians' Christian enemies at Zara (Croatia) and marching on Constantinople. The ostensible reason for the march on Constantinople was to install Prince Alexios as emperor, since he had promised to reunite the Byzantine Church with Rome and promised the papacy large sums of money to finance the crusade against Egypt. Instead, the crusaders ransacked the city, destroyed buildings, and looted the Hippodrome, stealing in the process the four magnificent bronze horses that today grace the Plaza of San Marcos in Venice.

The sacking of Constantinople devastated the Byzantine Empire: The crusaders established a short-lived Latin Kingdom of Constantinople, which was restored to Greek rule by Michael VIII Palaeologus in 1261. During this interregnum period three successor Byzantine states emerged: the empire of Nicaea, which was controlled by the Palaeologian dynasty; the empire of Trebizond, founded by the Comnenian Alexios I (r. 1204–22); and the Despotate of Epirus, ruled by the Dukas dynasty initially under Michael Comnenos Dukas (1205–15). (The term *despotate* is derived from the Byzantine courtly title of *despotes*, meaning "lord.") Each of these potentates claimed the imperial title for himself. Even after Michael VIII reestablished the Byzantine Empire under his rule, the Despotate of Epirus resisted reintegration and survived until the mid-14th century, when it was annexed to the Serbian empire.

The Empire of Trebizond also maintained its autonomy from Byzantium, in large measure because of its privileged position as the western terminus of the Silk Road after the destruction of Baghdad by the Mongol lord Hulaghu Khan in 1258. From then on Trebizond enjoyed the protection of the Mongols, and by the end of the 13th century the state acquired international fame as a leading center of trade and the arts. Through political intrigue, strategic marriages, and other alliances with the Mongols and the Seljuks, Trebizond managed to survive even beyond the Ottoman conquest of Constantinople in 1453, although its last emperor, David I, would finally succumb to the superior naval power and cohesion of the Ottomans in 1461.

The Collapse of the Byzantine Empire

Scholars tend to debate the reasons for the Ottoman conquest of Constantinople in much the same way as those for the fall of Rome. Many reasons could be cited, but the primary causes must be the failure to perceive the dangers posed by the massive settlement of Turkic peoples in Anatolia in the 11th century, a process that finds obvious analogies with the "barbarian" invasions of the Western Roman Empire seven centuries earlier. During the period of civil war that immediately preceded the founding of the Comneni dynasty, Turkic tribes had managed to establish de facto control over more than half of the Byzantine territories in Asia Minor. Although many of the Comnenian emperors, especially Alexios I and John II, waged successful campaigns against the Turkish tribes, they never obtained a definitive victory over them, let alone managed to expel them. Manuel I's machinations with the crusaders in the Holy Land diverted valuable attention and resources from Asia Minor, allowing the Turks further to entrench themselves there. The sacking of Constantinople in 1204 and

the resultant establishment of rival Byzantine states perpetuated the civil infighting that made it impossible to create the sustained and united front needed to retake Anatolia from the Turkic tribes.

A further cause of the fall of Byzantium may be found in the demise of the theme system of military organization, which also finds its parallels in the erosion of the Roman army in the late period. The theme system had several important advantages over the Comnenian army: The former was by far numerically superior, with troops permanently stationed throughout the provinces, in contrast to the smaller and more concentrated Comnenian forces. The theme system was also more economical and allowed larger numbers of fighting men to be mobilized for war easily and quickly. The Comnenian *pronoia* system proved far more expensive and less reliable at the hour of recruiting soldiers. The debacle of 1204 and the ensuing division of the empire drained the coffers and placed Byzantium at the brink of economic ruin. Under such circumstances, the emperor was unable to maintain a large standing army and was obliged, as was his classical Roman counterpart, to rely upon cheaper but unreliable mercenaries. In the end internal institutional weakness and intermittent civil wars were as much to blame as, if not more than, the army for the Ottoman conquest of Byzantium.

Although the Byzantine Empire fell to the Ottomans and would become Islamicized, the legacy of Orthodox Christian Byzantium would survive in Greece and in the territories of eastern Europe that include Russia, Georgia, Armenia, Bulgaria, Macedonia, Serbia, Romania, and the Ukraine, which embraced Christianity thanks to the efforts of Byzantine missionaries. The Ottoman Muslims maintained the Islamic *dhimmi* tradition of tolerance of religious minorities, which allowed the Greek patriarchate and Orthodox Christianity to survive. As ironic as it may seem, even the Ottoman rulers were self-styled heirs of the Eastern Roman Empire.

Key Personalities of the Byzantine Empire

Empress Theodora (c. 500–548; r. 527–548)   A remarkable woman who rose from being a lowly prostitute to become the wife of Emperor Justinian, Theodora influenced the writing of many of the "Novelties" (*Novellae*) in the *Justinian Code*. Some of these laws granted women unprecedented rights. A convinced Monophysite, she softened and sometimes directly undermined the emperor's policies against Monophysites *in pro* of Orthodox Nicaene-Chalcedonian Christianity. Under her influence, Justinian would embrace Monophysitism shortly before his death.

Emperor Justinian I (c. 482–565; r. 527–565)   One of the most important emperors in all of Byzantine history, he was the first to systematize the entire corpus of Roman law into a uniform code, the *Corpus juris civilis* (Body of civil law), which influenced ecclesiastical canon law and later prompted the revival of Roman law in the medieval West as well. He launched the Gothic Wars (535–552), which led to Byzantium's recovery of much of Spain, North Africa, and Italy, where he established the Exarchate of Ravenna.

Emperor Heraclius (c. 575–641; r. 610–641)   In the wake of increasing threats by the Persian Sassanids, Heraclius restructured the Byzantine army by founding the institution of the *thema* system of landed estates under the governorship of a military and quasi-feudal

strategos. The new system made the Byzantine army the most powerful in all of Christendom and enabled Heraclius to recover Asia Minor territories lost to the Persians. Emperor at the rise of Islam, in his persecution of the Jews he would directly influence the loss of Egypt, Syria, and Palestine to the Arabs. His defeat of the Muslims at the Battle of Yarmuk (636) saved the Byzantine Empire from certain destruction.

Saint John of Damascus (676–749)   A Syrian monk and charismatic preacher, John rose to prominence during the Iconoclast Controversy that erupted in 730 and devoted the rest of his life and many of his writings to the ardent defense of icons as essential to Christian doctrine and Christian salvation. He also served as chief councillor to the Umayyad rulers at Damascus, a post inherited from his father. Yet he also wrote *Concerning Heresy*, one of the first theological treatises polemicizing against Islam.

Emperor Leo III the Isaurian (c. 685–741; r. 717–741)   He successfully defended the empire during the Islamic siege of Constantinople in 717 but would precipitate a religious and political schism within the empire and between Byzantium and Rome by instigating the Iconoclast Controversy (730–787, 814–842), which outlawed the worship of icons. Leo was driven by a firm belief in caesaropapism—the claim of imperial supremacy over the church patriarch, and this political stance, challenged by the Roman pope, would be decisive in the final Great Schism (1054) between the Orthodox and Catholic Churches.

Anna Comnena (1083–1153)   A Byzantine princess and scholar, she was the daughter of Alexios I Comnenos (r. 1081–1118), founder of the Comneni dynasty. Alexios's request for help from Rome in his war against the Seljuks sparked the First Crusade. Famed as the first woman historian, she detailed the life and reign of her father in her *Alexiad*, one of the most important historical chronicles of the First Crusade.

ISLAMIC EMPIRE

In the year 610 a 40-year-old Arabian merchant given to lengthy periods of fasting and spiritual withdrawal received a divine message from the archangel Gabriel. The angel told him, "Recite: 'In the name of thy Lord who created, created man of a blood-clot.' Recite: 'and thy Lord is the most bountiful, who taught by the pen, taught man what he knew not. No, indeed: surely man waxes insolent for he thinks himself self-sufficient. Surely unto thy Lord is the returning.'" (Q:96: 1–5) Over the course of the next 22 years until his death in 632, the prophet Muhammad continued to receive divine revelations commanding him to profess and obey the one true God and concerning the end of the world, the last judgment, the infinite mercy of God, and the delights of heaven awaiting those who followed his path and submitted to his will; the torments of the hellfire awaiting unrepentant sinners; social, religious, legal, and ethical norms; and the moral injunction to enjoin whatever God prescribed and forbid whatever he prohibited.

Muhammad was born into a family of the Quraysh tribe in Mecca, a town now in Saudi Arabia. The Quraysh were polytheists, as were many of the inhabitants of the Arabian Peninsula. But the peninsula was also inhabited by tribes of Jews and by Monophysite and Nestorian Christians, and Muhammad's contacts with these people and their sacred texts probably spurred his desire to restore the pure unadulterated monotheism that the patriarch

Abraham practiced. In the two decades that Muhammad preached the message of submission (*Islam*, "submission") to God revealed to him in the divine revelations, Muhammad created the third monotheistic religion as a culmination and perfection of Judaism and Christianity. After his death his disciples gathered together all the revelations and arranged them into the Quran. Muslims believe that the Quran is not a human creation; it is entirely the literal word of God dictated to Muhammad, whom God calls the messenger of God (*rusul Allah*) and the "seal of the prophets (*khatm al-anbiya*) (Q 33:40), after whom there shall be no further prophets.

The impact of Muhammad's preaching created a social revolution comparable to that sparked by the preachings of Jesus of Nazareth. Attracted by the beauty of the quranic recitations and Muhammad's charismatic preaching, more and more tribes converted to Islam and entered into formal agreements with Muhammad, promising him and his followers political support and protection. But his own tribe, the Quraysh, opposed him: As custodians of the shrine of the pagan gods at Mecca, they had a vested interest in preserving polytheism and tribal customs that the new religion explicitly condemned. At first it appeared that the Quraysh would prevail: In the year 622 they forced Muhammad and his followers to emigrate to Medina.

Yet Muslims cherish the year 622 and consider it the beginning of the Islamic era. The migration (or hejira) from the city of Mecca to the oasis of Yathrib, later called Medinat al-Nabi, city of the Prophet, marks the birth of the Islamic community, the *umma*. The *umma* was a revolutionary concept. Its individual and tribal members were bound together not by bloodline and tribal affiliation but by adherence to a new religious, political, and social order based upon the precepts of the Quran and the divine authority invested in Muham-

mad as God's chosen messenger. Indeed, the revelations that Muhammad received during the Medinan period were overwhelmingly social, ethical, and legal, and the decisions he took to structure and consolidate the Medinan community would lay the foundations for the formation of the Islamic state (caliphate) and Islamic law (sharia).

The people of Medina who had welcomed Muhammad to the oasis and heeded his revelations of Allah's truths were called *ansar*, "the helpers." The Quryash enemies controlled the lucrative trade routes into and out of Mecca. Unable to operate freely as merchants or nomads, Muhammad and his fellow migrants from Mecca, traditionally known as his companions, initially supported themselves by staging raids (*ghazu*) upon these caravans. Their raiding yielded valuable booty and livestock. Pitched battles broke out between Muhammad's supporters and the Quraysh and their allies. Though outnumbered, Muhammad won decisive battles at the Well of Badr in 624 and after a defeat at the Battle of Uhud in 625 a stunning victory at the Battle of the Trench in 627. This win encouraged many more tribes to join the *umma* in Medina.

These battles also had important repercussions for Muhammad's relations with the Jewish tribes of Medina. In 622 the Meccan Muslims, Jews, and Medinan Arabs signed the *Constitution of Medina*, an agreement of mutual cooperation pledging, among other things, to assist one another actively in defending Medina from outside attacks and not to side with an external enemy. The Jewish Banu Nadhir tribe, who allegedly reneged on this agreement and plotted to kill Muhammad, were expelled from Yathrib to the town of Khaybar. There they joined forces with another Jewish tribe, the Banu Qaynuqa, against Muhammad. They were brave fighters but lacked strategic skill and organization. The Jews of Khaybar, after having "fought like lions," let go of the proud

A night scene at the Prophet's Mosque in Medina. In the year 622 the prophet Muhammad left Mecca to escape the hostility of the Meccans and made his way to Medina. This event is known as the Hejira. In Medina the prophet established the first Muslim community. The original mosque, built by Muhammad, was greatly expanded by subsequent rulers. The mosque contains the tomb of Muhammad, as well as those of early Muslim leaders Abu Bakr and Umar ibn al-Khattab. Courtesy of Abdullah Y. Al-Dobais/Saudi Aramco Wolrd/PADIA.

Hasmonean sword and surrendered. Hundreds of Jewish Khaybar warriors were killed, and their wives and children were sold into slavery. A third Jewish tribe called the Banu Qurayza also resided at the oasis of Medina. Initially they fought alongside the Muslims in the Battle of the Trench. Yet they later were persuaded by the exiled Banu Nadhir to change allegiances and support the rival Meccans. After the defeat and withdrawal of the Meccan forces from Medina, Muhammad led his troops into the neighborhood of the Banu Qurayza, who finally surrendered unconditionally after some 25 days of fighting. Despite their unconditional sur-

render, however, in the ensuing negotiations the arbitrator of the conflict convinced Muhammad to massacre the rebels and sell their women and children into slavery.

Partly as a response to the political conflict with the Jewish tribes, in the second year of his Hijra from Mecca to Medina, Muhammad decreed that the direction of prayer, called the *qibla*, was no longer to be toward Jerusalem but rather in the direction of the cubelike shrine that had been a center of worship for previous Arab tribes, the shrine or stone house called the Kaaba in the city of Mecca. The Kaaba stood on the same site on which the exiled

patriarch Abraham and his son Ishmael had built the sacred house. When Muhammad returned in triumph to Mecca in 630, he reconsecrated the Kaaba to Allah (God) utilizing the habits, symbols, and customs of the old religions to invigorate his new religion.

The sanctuary of the Arab forefathers as well as the ritual pilgrimage to Mecca, both of which were important in pre-Islamic religions, now were consecrated to Islam. Muhammad therefore was welcomed as less of a dangerous revolutionary than a necessary restorer of the best of the past, to reach its culmination in Islam.

The prophet Muhammad succeeded in doing what no other Arab ruler had done before him: unite the disparate and fractious tribes under a single ruler and a single monotheistic faith. Muhammad's new theocratic state had united Mecca, Medina, and many of the neighboring Bedouin tribes. When the Prophet died in 632, the area threatened a political volcanic explosion. Various tribal leaders created the famous secession, known in Arabic as the *ridda*. Muhammad had named no successor and left no clear guidelines of how a successor should be chosen, other than expressing a desire that he should be a member of the Quraysh. His Muslim community elected a vicar, or deputy, of the Prophet as guardian and executor of the law and as the temporal head of the community, called a caliph. Abu Bakr, Muhammad's father-in-law, was the first caliph, ruling from 632 to 634.

Muhammad's sense of divine mission to lead all people, not just the Arabs, to surrender to the will of God prompted Muhammad to send expeditions to Byzantium to urge the Byzantines and others to submit to Islamic rule. Within 80 years after the Prophet's death, the Muslims created a vast empire that extended from Sind (India) in the east to the Iberian Peninsula in the west, ruling over an area encompassing much of the old Roman Empire.

The Islamic empire was an heir of the Roman Empire not only geographically but also culturally, for it, too, created a new civilization. As the Romans had before them, the Muslims succeeded in uniting an immense territory of ethnically and religiously diverse peoples into a distinct civilization conjoined by religion for those who embraced Islam, language (Arabic), culture, and the rule of Islamic law.

Unifying Features of Islamic Society and Culture

Muhammad created the institutions that defined the contours of Islamic society and culture. Islam as a religion was based upon five pillars: the profession of the one true God, ritual prayer five times a day, fasting during the month of Ramadan, payment of the alms tax, and pilgrimage to Mecca. Specific rules for waging the just or "holy" war (jihad) were also instituted. At Medina Muhammad built a mosque adjacent to his house that became not only the place of religious worship but the political and administrative center of the community. From the mosque pulpit Muhammad preached and announced policies, declared war or peace, and arbitrated disputes between members of the community. After Muhammad's death the mosque continued to be the focus of Muslim religious, cultural, social, and political life.

The principles of communal life as revealed in the Quranic revelations and the personal experiences of Muhammad revolved around three basic notions: (1) spiritual fraternity and love among all Muslims; (2) mutual respect, loyalty, and collaboration between the Muslims and those non-Muslim tribes with whom Muhammad established political alliances; and (3) warfare against the enemies of the *umma*. The laws regarding the collection of communal alms tax (*zakat*), the relations between Muslims and non-Muslims, the just distribution of war booty, and the proper norms of waging

jihad instituted at Medina were fundamental in the consolidation of Islamic society as it spread beyond the borders of Arabia.

THE CONSTITUTION OF MEDINA

The Constitution of Medina was a treaty that Muhammad entered into with the Jewish and Arab tribes of the oasis of Medina in 622. Muslims and Jews were each to profess and strictly follow their respective religions. Each community was to be economically autonomous, but the obligatory attendance at communal councils would ensure political solidarity. In the event of an external threat, all the signatories of the constitution should band together to defend the community, protect its inviolability, and contribute to financing the war effort. As described previously, the treaty between the Jewish tribes and the Muslims fell apart, resulting in the expulsion and murder of many Jews. The Constitution of Medina did, however, lay the blueprint of the systematization of relations between the state and its religious minorities. Such an arrangement was possible with Jews, Christians, and Zoroastrians, whom the Quran identified as the "People of the Book," whose revelations were recognized as divine and valid.

The Quran forbade forcible conversion, but it did stress that the People of the Book should be coerced into submitting to Muslim rule, under which they were allowed to practice their religions and manage their internal affairs in exchange for governance and payment of a poll tax called *jizya*. On the other hand, they were exempt from paying or benefiting from the Islamic religious tax (*zakat*).

Competing Powers: The Byzantines and Sassanians

Muhammad's new religion competed with two major powers, the Byzantine and the Sassanian (Sassanid). The Byzantine Christians had their capital at Byzantium, formerly the city of Constantinople. The Byzantine emperor ruled through Greek-speaking civil servants the great cities of the eastern Mediterranean, Antioch, Syria, and Alexandria in Egypt. Christianity with local doctrinal variations was practiced by Armenians in Anatolia, Syriacs in Syria, and Coptic Christians in Egypt.

The second great empire was the Sassanian. Their rule arched over Iran and Iraq into Central Asia. The original Sassanian family state was a Persian-speaking people of southern Iran who practiced Zoroastrianism. This religion was associated with the philosopher Zoroaster (d. c. 1200 B.C.E.), who believed the universe beneath the supreme God was a battleground upon which good and evil spirits contended for control. Though the victory of good over evil was assured, men and women of virtue and ritual purity could hasten the outcome. The Sassanian followers of Zoroastrianism or Mazdaism had their capital at Ctesiphon, located between the Tigris and Euphrates Rivers.

The Byzantines and Sassanians had long been bitter rivals engaging in a seemingly endless cycle of invasions, wars, and truces, only to be ended by further outbursts of warfare. Often a truce might come about because each side was also simultaneously under the threat of the barbarian invasions. Protracted wars, epidemics of plague, and the economic decline due to the disruptions in agricultural production and trade that these engendered left both empires weakened and ripe pickings for the strong and motivated armies of Islam. An important factor contributing to the swiftness of the Islamic conquests was the religious persecution that minority populations within each realm had suffered. Jews suffered under both the Byzantine emperor Heraclius and the Persian shah Khosrau II. The defection of the Ghassanid Monophysites from Heraclius's army resulted in the Islamic conquests of Syria and Palestine.

The area that was to come under Islamic rule was a rich tapestry of languages, cultures, and religions. In Ctesiphon Manichaeism, Zoroastrianism, Christian Nestorianism, and Judaism flourished. Persian language dialects, particularly Pahlavi, were spoken, as were Aramaic, a Semitic language related to Hebrew and Arabic, and Syriac. Across the Red Sea the ancient kingdom of Ethiopia celebrated Coptic Christianity as its official religion. Yemen, in southwest Arabia, had its own language, which differed from Arabic spoken elsewhere in Arabia, and its own polytheistic religion. Much of the Arabian Peninsula was open desert or steppeland with isolated oases. Bedouin Arabs were nomads who pastured camels, sheeps, and goats. Other people cultivated grain and palm trees in the oases. Still others were traders and craftsmen in small market towns.

Nomads who rode camels were a numerical minority but were a mobile, armed, powerful group that joined with the town merchants to dominate the farmers and craftsmen. Nomadic groups had a strong ethos of courage, hospitality, loyalty to family, and pride of ancestry. Prominent tribal members led them. They worshiped gods thought to dwell in a sanctuary place or town sacrosanct from tribal conflict called a *haram*. A *haram* was a center of pilgrimage, sacrifice, meeting, and arbitration. A family protected the *haram* from neighboring tribes' incursions and desecrations. Religions coexisted in the oasis cities even though one particular faith predominated. Hira was a Christian center controlled by the Lakhmids, and nearby were the Ghassanids. Hijaz, in western Arabia, was a home for Jewish craftsmen, merchants, and farmers.

Caliph Umar and the Expansion of Islam

In 634 Umar ibn al-Khattab (r. 634–644) was elected to succeed Abu Bakr as the caliph of the Islamic *umma*. Umar's rise to prominence as the leader of the Islamic community is the culmination of a remarkable tale of religious conversion. Umar, a member of the Quraysh tribe, had been an archenemy of Muhammad, battling against him and going so far as to plot to kill him. Yet upon hearing his sister recite a verse from the Quran, he is said to have been so moved by the beauty of the recitation that he converted on the spot. From then on he became one of Muhammad's closest and staunchest allies and a zealous defender of Islam.

During Umar's caliphate the religious ideal of jihad was preeminent. Umar intended to create from the energetic Bedouin tribes the Dar al-Islam (Abode of Islam). In 634 Islamic warriors conquered the Byzantine fortress of Bothra. The following year they subjugated Damascus. The next year, 636, they overcame Syria. In 638 they stormed the gates of Jerusalem, invaded the city, and entered Caesarea in 640. They also took Mesopotamia. Persia in 636 and 637 suffered defeat at Qadisiyya, near the center of Hira, where Umar's men put the Sassanid army to flight. Arab armies rushed into the city of Ctesiphon. In the year 641–642 the Persian Empire succumbed at the Battle of Ninavand, near Hamadan. Next the Muslims attacked Egypt. The invaders established a center at Fustat, near modern Cairo. Alexandria fell to Muslim forces in 641. Thereafter they conquered Cyrenaica. Advance parties penetrated as far as Tunisia.

ADMINISTRATIVE REFORMS, *JIZYA*, AND THE PACT OF UMAR

The expansion of Islamic rule abroad necessitated administrative and legal reforms to consolidate the caliphate. Native political and fiscal institutions were largely kept intact. Umar established an administrative superstructure to rule the newly conquered lands, introduced a public treasury to finance the needs of the

empire, organized the census of the realm, was the first Muslim ruler to mint coinage, and began the process of codifying Islamic law.

Umar also contributed to the systematization of the legal status of religious minorities. Most scholars believe that the document called the Pact of Umar was redacted by doctors of the law sometime between the eighth and the 11th centuries but was attributed to Umar to lend it legitimacy. It may have been inspired by practices instituted during his rule. The Pact of Umar outlines in detail the personal status, duties, and rights of Jewish, Christian, and Zoroastrian *dhimmis. Dhimmis* pledged not to build new temples without obtaining permission from the ruler. They vowed to honor their allegiance to the Muslims in times of peril and not to use their places of worship to hide, aid, or abet enemies of the Muslims. They promised not to practice their religion ostentatiously, to proselytize others, or to forbid members of their community to convert to Islam. *Dhimmis* were also obliged to show deference to Muslims.

The Pact of Umar aimed to define clearly social boundaries between Muslims and non-Muslims and to reinforce the superior status of the former over the latter. Hence, *dhimmis* were not to imitate the Muslims in their manner of dress, speech, or customs such as the use of honorific titles. They also could not ride horses or have temples or houses higher than those of the Muslims. While *dhimmis* were second-class citizens with respect to the Muslims, the institutionalization of *dhimmitude* contrasts with the arbitrariness of the policies governing the status of religious minorities in the Latin West and the Byzantine Empire. Moreover, the strict provisions were mainly honored in the breach during the course of the Muslim Middle Ages. In the dynasties of Umayyad Spain, Abbasid Iraq, and Fatimid and later Mamluk Egypt, Muslim rulers heavily relied on their non-Muslim subjects such as Jews and refugee European Christians whom they paid to work for them. The Christian persecution of the Jews and the Catholic and Byzantine persecutions of each other created an ample supply of skilled translators, diplomats, mediators, tax collectors, and other administrative and court officers.

The Islamization of the populations under Muslim rule was a gradual process. Contrary to popular myth, Islam was not a religion that "spread by the sword." As scholar of Islam Fred Denny notes, the aims of the conquests were not primarily religious but economic and political (Denny 36). Some converts to Islam were undoubtedly tempted by the prospect of the fiscal advantages of being a Muslim, since the *dhimmi* poll tax was higher than the Muslim *zakat*. Large landowners and major urban merchants may have found conversion to Islam convenient and expedient. Muhammad himself as a merchant cultivated and celebrated the commercial classes. The earliest forms of Islam were urban centered and business tolerant. Not all converts were motivated by purely economic considerations, however. Many, such as Umar himself, had been drawn to Islam by the beauty of the Quran and by the simplicity of its message of this-worldly prosperity and otherworldly salvation.

Uthman, Ali, and the Seeds of Schism

The Prophet's son-in-law, Uthman ibn Affan (r. 644–656), succeeded Umar as caliph of the Islamic state. During his reign Islamic rule spread into North Africa, Cyprus, and the Caucasus. Most significantly, it was Uthman who formed a committee to fix the canonical version of the Quran and the norms of its recitation. This version was dispatched around the Islamic world, and Uthman ordered variant versions to be destroyed. Uthman ensured that Muslims globally would use the same sacred

text in a process analogous to the fixing of the Bible by Christian doctors of the law in the third and fourth centuries.

Uthman was a wealthy Meccan merchant belonging to the Umayyad branch of the Quraysh tribe. He was elected to the caliphate for his piety, closeness to the Prophet as one of his first disciples, and wealth. Yet as a member of the aristocracy of Mecca, he had a heritage and acted in ways that stimulated grave discord. Some accused him of nepotism. Others accused him of violating Caliph Umar's insistence that all conquered land belong to the new Islamic state rather than to individual Arab landowners. Uthman was assassinated in 656 and succeeded by Ali ibn Abi Talib (r. 656–661), Muhammad's cousin and son-in-law, who had married the Prophet's daughter, Fatima. The murder of Uthman had not been avenged, and therefore Ali was at considerable risk of revenge attacks from the family.

Ali had been one of the first members of Muhammad's family to accept Islam and was among his most faithful supporters. A brilliant and brave soldier, Ali distinguished himself in all the early Islamic battles. Islamic popular legends about Ali's sword, Zulfiqar, may be likened to the Arthurian legends about Excalibur. Ali was exalted for his piety, asceticism, and perfect knowledge and understanding of the Quran and was considered a faithful, expert interpreter of the correct customs of the Prophet, the Sunna.

Ali only reluctantly accepted the caliphate, fearing suspicion of seeking to benefit from the death of Uthman. However, when he refused to try the murderers of Uthman, Uthman's nephew Muawiyya ibn Abi Sufyan (602–680), a governor of Syria, rose up against him. His rebellion was supported by Muhammad's wife, Aisha, daughter of the first caliph, Abu Bakr. Civil war broke out between Ali's supporters and the partisans of Muawiyya. Ali was assassinated in 661 at Kufa, thereby making him the third of the first four caliphs to die by assassins' hands. Leadership passed to Muawiyya. Ali's assassination led to a schism between Sunnis and Shiites.

Sunnis and Shiites

The Sunnis, derived from *Sunna*, the proper orthodox way, recognized the legitimacy of Muawiyya as well as the first four caliphs, whom they called "the rightly guided ones," whose authority was derived from the principle of the consensus of the community established from the time of the election of Abu Bakr.

Against the Sunnis were the Shiites, who were the partisans of Ali, from the Arabic *Shiat Ali*, the party of Ali, who denied the legitimacy of the three preceding caliphs and believed that Muhammad had nominated Ali to succeed him as head of the Islamic community during an event whose interpretation is disputed among Sunnis and Shiites. Ali's partisans believed that the caliphate should remain in the direct line of descent of the Prophet's family.

The political and theological dimensions of this division were comparable to those that gave rise to the Great Schism between the Catholic and Orthodox Churches. The Sunnis viewed the caliphs as the vicars of the Prophet and defenders of the law. The caliph was the temporal leader of the community. Authority to determine religious orthodoxy and define and adjudicate matters of religious law was invested in the *ulema* (scholars), who were specially trained in the study and interpretation of the Quran and in the interpretation of the law based on scripture, the Sunna of the Prophet, and the consensus of the community, called *ijma*. Shiism, on the other hand, did not recognize any consensus interpretation of the Quran or the law. It believed in preeminent authority of the *imam*, the leader, for imparting lessons, and it held that Muhammad had named Ali as

the interpreter of doctrine. Ali, in turn, was to name his own successor, and each would name a holy recipient in a long line of succession. This line of succession was thought to have inherited the divinely endowed charisma of the Prophet.

Sunnis considered such succession blasphemy. During the conflict between Ali and Muawiyya a third group emerged and came to be known as the Kharijites, meaning "those who go out." They were so called because in 658, during the arbitrations between Ali and Muawiyya over who should inherit the caliphate, the Kharijites withdrew their support from Ali and Muawiyya, claiming that the matter should be decided by God alone, who would determine the outcome of the battle. Their strict conformity to the Quran denied that the Quraysh tribe had any special rights and asserted that the caliph could be any Muslim, irrespective of race or tribal affiliation, so long as he had the necessary talent and qualities, especially the purity, to make him the finest of all Muslims.

Various branches of the prophet Muhammad's family clamored to rule, but in the end Muawiyya and the Umayyads would prevail in the majority opinion of Islam. The Shiites, who regarded Ali and his descendants as the legitimate rulers (imams) of the community, did not relinquish their conviction that they were the rightful heirs. They had also promulgated the idea that Ali had received from Muhammad a special knowledge and spirituality that gave him a unique, esoteric understanding of the Quran. In the year 680 Ali's second son, Husayn ibn Ali, along with a group of kinsmen moved to Iraq to gather an army near Kufa to combat the forces of Muawiyya's son, Yazid. Husayn and his followers were killed in the battle at Karbala. The event occurred sometime during the first 10 days of the month of Muharram, when many Muslims observed the voluntary fast of Ashura in imitation of the Prophet's custom. For Shiites the feast of

Ashura would be converted into a day of great mourning, a ritual celebration of the "passion" of Husayn similar to the commemoration of Christ's crucifixion during Holy Week.

The Umayyad Caliphate

Despite the conflict of succession that resulted in the violent death of three of the four first caliphs, Muslims regard Abu Bakr, Umar, Uthman, and Ali as "the rightly guided caliphs," or *Khulafa' al-rashidun*, by virtue of their proximity to the Prophet as his closest companions, the consensual process by which they were elected, and the egalitarian nature of their leadership as a first among equals rather than as monarchs. This model of traditional tribal leadership broke down during the reign of Muawiyya, who ruled from about 661 to 680. Muawiyya was the first of a virtually hereditary line of Umayyad caliphs. He selected his son, Yazid, to succeed him and convinced the council of men who elected the caliph to recognize his son as ruler. This new model of caliphal succession virtually transformed the caliphate into a monarchy. The Umayyad dynasty lasted from 661 to 750 until their overthrow by the Abbasids and from 711 to 1031 in Spain.

As a sign of his break with the previous tradition, Muawiyya moved the capital to Damascus, Syria. That city was situated in a country of abundance and surplus that could feed and clothe a court, government, and army. Damascus also was a convenient city for controlling the eastern Mediterranean coastlands and the land to the east of them. Strategically, Damascus certainly was superior to Medina, and from its base the caliphate expanded across North Africa, called the Maghrib ("the Far West"). The first important Maghribi city was Qayrawan, in the Byzantine province of Africa, in modern Tunisia. The armies of Islam moved
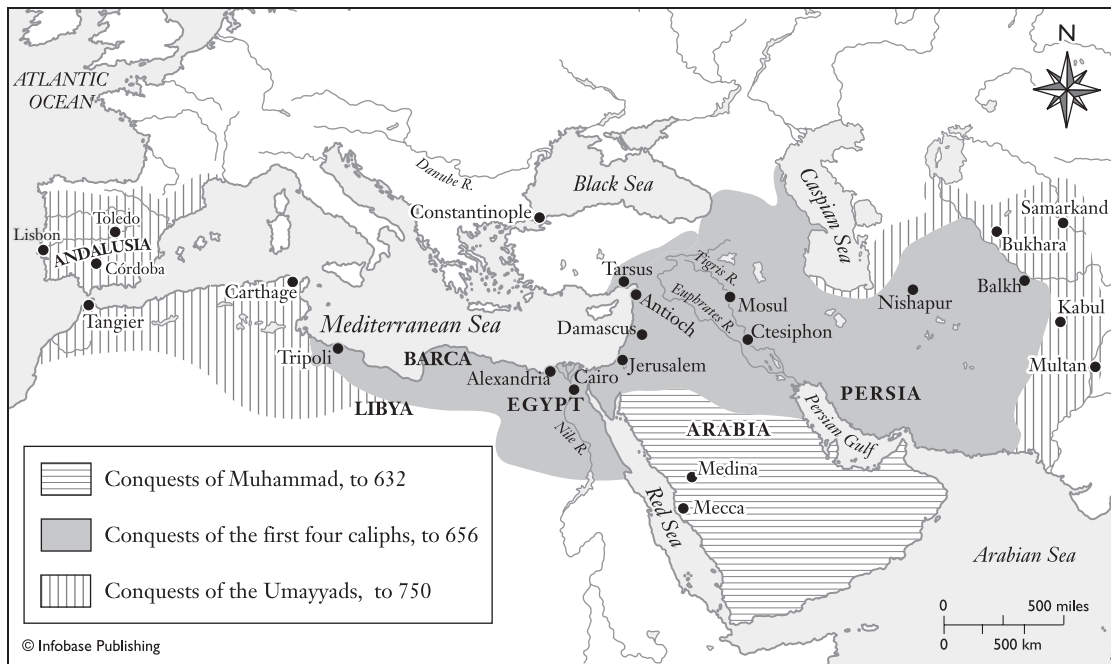
Islamic Empire at Its Height. At the height of the Golden Age, 100 years after the death of Muhammad, Islam's reach extended from the Atlantic to beyond the Indus River. This map depicts its boundaries and the extent of the territories taken by the first four caliphs and the Umayyads.

westward, reaching the Atlantic coast of Morocco by the end of the seventh century. Then they crossed into Spain, beginning in 703–704, ostensibly to intervene in the civil war between the Visigoth rulers, and would conquer most of the Iberian Peninsula by 716. In the other direction the Umayyads moved beyond Khurasan, reaching as far as the Oxus Valley and northwestern India.

This new empire of the Umayyads required a new style of government. The inhabitants of Arabia had been accustomed to a form of egalitarian tribal rule. Muhammad and the rightly guided caliphs did not distinguish themselves in any visible way from their subjects and lived modestly and unpretentiously. The former subjects of the Byzantine and Sassanid Empires were accustomed to a different model of lead-

ership in which the leader was all-powerful and distant, enmeshed in dazzling court ritual and ceremonial. The Umayyad rulers imitated the courtly customs of the Byzantine Empire and the Persian kingship. They built magnificent palaces richly decorated with courtly motifs that find their obvious precedents in Roman art. The Umayyads inaugurated a courtly and monarchical culture in which the ruler was the patron of the arts and architecture.

They built proud mosques as a visible sign of the splendor and rule of Islam. They drew their inspiration from the Byzantines in remodeling the fiscal and administrative systems. They also reformed the army along Byzantine and Sassanian models. Early voluntary and unpaid armies that had worked as holy warriors on jihad were replaced by regularly paid forces.

New rulers associated with army captains and tribal chiefs replaced the leading families of Mecca and Medina that had led Islamic politics. Cities of Iraq were controlled by local governors loyal to the caliphs in Damascus.

Under the Umayyads the Arabic language became the universal unifier in the vast empire. Arabic, the language in which the new Islamic doctrine had been revealed, also became the language of commerce and administration. During the caliphate of Abd al-Malik (r. 685–705), Arabic was also printed on new coinage. Money symbolized power and exemplified national identity. New coins proudly proclaimed in Arabic the oneness of God and the truth of his messenger, Muhammad. In a way strikingly parallel to the Latinization of the new provinces conquered by the Romans, Arabic was the language of power and elite culture. Converts and *dhimmis* throughout the Islamic lands adopted Arabic and made it their own, competing with the Arabs in the composition of poetry, prose, historical, and other genres.

Although the Umayyads were for the most part efficient and effective rulers, the opulence and secular trappings of Umayyad court culture began to disaffect many Muslims, who yearned for a return to a more pietistic traditional lifestyle and model of rulership. When Caliph Hisham died in 743 the Kharijites, Alids, and other factions rebelled. The Abbasids, a branch of the prophet Muhammad's family descended from his uncle, Abbas, seized power in a bloody coup, murdering all the members of the Umayyad family. One Umayyad prince managed to escape the slaughter and fled to Spain.

THE UMAYYADS IN SPAIN (755–1031)

As the expansion of Islamic rule progressed during the Umayyad caliphate, newly conquered territories were governed locally by Umayyad princes (amirs), whose rulership, called an emirate, was subject to the caliph at Damascus. This was the situation in which the Umayyads ruled Spain until the Abbasids rose to power. When the surviving Umayyad prince Abd al-Rahman I (r. 756–788) arrived in Spain, he declared the emirate independent of the Abbasids and established its capital at Córdoba. In a bid to strengthen his position vis-à-vis the newly formed Fatimid caliphate established in Egypt and the Maghrib (910–1171), Abd al-Rahman III (r. 912–961) declared the Umayyad caliphate of al-Andalus in 929.

Contemporaries of Caliph Abd al-Rahman III lauded Córdoba as the "ornament of the world," for the Umayyads had raised the culture of the court to new heights of splendor, imitating its rival, Abbasid Baghdad, in the patronage of the secular and religious sciences and the arts. Abd al-Rahman III's successor, al-Hakam II (961–976), built the magnificent library at Córdoba, housing reputedly over 400,000 volumes containing Arabo-Islamic religious, literary, and secular scientific texts as well as all the Greek sciences, and organized a joint committee of polyglot Muslim, Jewish, and Christian scholars to translate Greek texts into Arabic. The halls of this library would later be graced by luminaries such as the philosopher Ibn Rushd (d. 1198). The Emirate of Córdoba was immensely wealthy, drawing income from lucrative trade throughout Africa, the Mediterranean, Europe, the Middle East, and Asia. Andalusian manufacturers of silk, paper, luxury items, and agricultural products were the envy of Christian Spain and western Europe.

The Córdoban Umayyads conducted war against the Christian kingdoms of Castile, León, Navarre, and the Carolingian Spanish March. The powerful *hajib* (grand vizier) of Córdoba, Abu Amir ibn Abi Amir, more commonly known by his honorific title al-Mansur bi amri Allah ("the victorious by the grace of God") (d. 1002), devastated Santiago de Compostela in 985, sparing only the shrine of Saint James, which Muslims compared to the Kaaba

at Mecca, and from there marched onward to Barcelona, destroying that city in 997. Al-Mansur's exploits were not unlike those of El Cid (Rodrigo Díaz de Vivar) of Christian Spain: They were an indication of the weakened position of the ruler, whose power was usurped by an ambitious strongman. Al-Mansur went so far as to build a palace called al-Zahra, "the resplendent," as an affront to the legitimate Umayyad caliphs. In 1010 civil war (*fitna*) broke out between the successors of the Umayyad caliph al-Hakim and al-Mansur, leading to the fall of the Umayyad caliphate in 1031 and its partition into various *taifa* ("party" or "faction") kingdoms.

The history of the kingdom of al-Andalus from this point onward is intermingled with that of the fractious kingdoms of Christian Spain. Muslim and Christian kings forged alliances with each other against a common Christian or Muslim enemy among the kingdoms of the Iberian Peninsula, resulting in the inability of the Muslims to revive definitively the strong and united caliphate enjoyed under the early Umayyads. The Almoravids, a Berber dynasty of orthodox, puritanical, and reformist Muslims who rose to power in the Maghrib circa 1040, extended their rule into al-Andalus in 1086, but they were unable to recover all the Spanish territories lost to Islam in the aftermath of the Christian conquests of Toledo. The same may be said of their pious, messianic successors, the Berber Almohads (1147–1212), whose control over the peninsula had been further reduced by Castilian and Portuguese conquests. Internal wars among the Christian kingdoms protracted the final "Reconquest" of the Iberian Peninsula until 1492.

The Abbasids

Abu l-Abbas ibn Abdallah al-Saffah (d. 754) engineered the bloody rebellion that ousted the Umayyads. (The name *al-Saffah* is an epithet that means "the blood shedder.") Abu l-Abbas, who belonged to the Banu Hashim clan, based his claim to the caliphate on his descent from the Prophet's uncle, Abbas, the progenitor of the Abbasids. The Abbasids created an organization centered at Kufa and under a proud black banner moved westward from Khurasan and defeated the Umayyads in various battles between 749 and 750, killing the last Umayyad caliph, Marwan II (r. 744–750). The powerful new caliph was proclaimed in a stunningly theatrical political event.

To consolidate their new rule and distance themselves from the now defunct Umayyads, the Abbasid caliph Abu Jafar Abdallah ibn Muhammad al-Mansur (r. 754–775) founded the city of Baghdad, Iraq, in 762 and made it the Abbasid capital. Baghdad had the advantage of being closer to the Abbasids' Persian allies. Despite their Arab Hashimite pedigree, the Abbasid caliphs attracted many Persians and other non-Arabs into their court and government to the consternation of the old guard of their Arab supporters, who believed preference should always be given to the Arab tribes associated with the family of the Prophet. They also disappointed their Shiite allies by declaring themselves to be staunch defenders of Sunni Islam. A terrible battle was fought in Mecca in 786 between the now Sunni Abbasids and the Shiites. The latter lost, and most fled to North Africa, where they would establish independent kingdoms. In an effort to shore up the ranks of the army, the Abbasids began to recruit Turkish soldiers, whose ferocity and effectiveness in battle were legendary. These three factors—Persian prominence in government, the fallout with the Shiites, and the dominance of Turkish soldiers over the army—would have tremendous consequences for the Abbasids in the long and short terms.

Byzantine armies seized upon the opportunity that the civil war of 786 had presented to

renew their attacks upon the Muslims in an effort to recover some of their lost provinces in Syria and Anatolia. In the midst of the Byzantine-Abbasid wars, the Barmakids, a powerful Persian family who swelled the ranks of al-Mansur's government, rebelled against him and attempted to establish an independent kingdom in Khorasan between 786 and 809. Although the Barmakids were defeated, other Persian dynasties such as the Buyids (945–1055) and the Ghaznavids (962–1187) exercised de facto rule over the Abbasid Persian, Iraqi, and Afghan provinces.

ABBASID RELIGION AND ADMINISTRATION

The Abbasids legitimated their rule by appealing overtly to religious symbolism and cultivating the support of the ulema. They claimed the caliphate as a divine mandate based upon their ties to the family of the Prophet. They went out of their way to demonstrate that their leadership followed the prescriptions of the Quran and the Sunna to the letter. To this end, they sought the support of the ulema, who, as the guardians of the prophetic tradition, could vouchsafe the caliphal claims. Prominence was accorded to the office of the Islamic judge (*qadi*), who, working independently of the governor, adjudicated according to the emerging system of Islamic law.

Administratively, the Abbasids also made innovations. Government bureaucracy was divided into a number of offices (*diwans*) that oversaw the treasury, army, and chancellery. The Abbasid rulers sought to ensure that no officer would abuse his power or challenge the caliph by establishing an extensive network of spies, as is so vividly depicted in the *Thousand and One Nights*. The Abbasids also built a garrison city of Samarra, south of Baghdad, to station the army there as a means of keeping the soldiers away from the civilian population.

HARUN AL-RASHID'S BAGHDAD: A CULTURAL REVOLUTION

The historian al-Tabari (d. 923) preserves an anecdote of how al-Mansur founded Baghdad. Inspired by a dream he had while staying overnight near Qasr al-Salam, he is said to have stated: "This is the place which I shall build. Things can arrive here by way of the Euphrates, Tigris, and a network of canals. Only a place like this will support the army and the general populace. . . . In the name of God, and praise to him: The earth is God's. He causes to inherit of it whom he wills among his servants. The results come to them that fear Him. . . . Build, and God bless you!" (Hourani 1991, 33). Baghdad, located at a junction between the Tigris and Euphrates, was built as an exquisite round citadel and was dubbed Medinat al-Salam (The City of Peace). Mansur was correct in assuming a rich city could be built on that fertile site. Not only did the land produce abundantly, but so did merchants, artists, and scholars from many nations and creeds.

The Byzantine, Persian, Indian, and Chinese territories under Abbasid rule were the homeland of peoples with ancient civilizations scientifically and culturally advanced in the fields of agriculture, irrigation, industry, physics, mathematics, astronomy, medicine, botany, philosophy, and literature. The Abbasids wisely incorporated these peoples in their court, government, and administration. Their knowledge became part of Islamic culture and civilization, and they in turn were Islamized and Arabized culturally. Scholars began to translate the works of these foreign texts into Arabic during the reign of al-Mansur, but this process took a decisive step forward when Harun al-Rashid and his successor, Abu Jafar al-Mamun ibn Harun (r. 813–833), founded the Bayt al-Hikma (House of Wisdom) in Baghdad. Seminal works were translated. To name just two: the *Siddanta*, an Indian mathematical and astronomical text that introduced Indian number

symbols, including the concept of zero, and Ptolemy's *Almagest*, an encyclopedic compendium of astronomy and mathematics. Practically the entire legacy of Greek philosophical thought, metaphysics, medicine, and other realms of knowledge was translated into Arabic and disseminated throughout the Islamic world, from there to enter Europe via the translation schools of Spain and Sicily from the 12th century onward. The Persians and Indians also bequeathed a legacy of literature, such as the *Kalila wa Dimna* (Kalila and Dimna) and the *Hazar Afsana* (Thousand stories), the latter being the precursor of *The Thousand and One Nights*, which later became favorites in the European West.

ISLAMIC LAW AND ARABIC LITERATURE FLOURISH

The Abbasids did not only cultivate foreign wisdom and arts. Under their rule Islamic sciences—which generated the codification of Islamic law—flourished, and a beautiful and sophisticated Arabic literary tradition that would be imitated by non-Arab Muslims as well as Jews and Christians began. True to their desire to gain religious legitimacy, the Abbasids invited the best scholars from the Arabian Hijaz to teach the Islamic sciences of quranic exegesis and recitation, Arabic philology, Hadith (the traditions of and about the Prophet), and the Sunna. The science of Islamic jurisprudence (*fiqh*) took shape during the Abbasid period as the legal scholars Abu Hanifa al-Nuaman (d. 767), Malik ibn Anas in Medina (d. 795), Muhammad ibn Idris al-Shafii (d. 820) in Palestine, and Ahmad ibn Hanbal al-Shaybani in Baghdad (d. 855) began to theorize and debate about the bases for deriving Islamic laws that would guide the entire Muslim community. They would be considered the founders of the four major Sunni schools of law (*madhhabs*), Hanafi, Maliki, Shafii, and Hanbali,

which would be consolidated by the 10th to 11th centuries. Students from all over the Islamic world converged upon Iraq to study the different schools of law.

All genres of Arabic letters flourished in the Abbasid era. Court secretaries (*katib*) cultivated florid diplomatic epistles. Al-Mansur's commissioning of the traditionalist Muhammad b. Ishaq to write a history of the Prophet's life generated a new genre of historical writing as his successors wrote specialized histories of the entire Islamic world or of particular cities or dynasties. It also inspired the emergence of biographical dictionaries of Muslim notables categorized according to profession or place of origin. Last but not least, courtly culture stimulated the patronage of poets and musicians who vied with each other for a place in the Abbasid court.

THE RISE OF COLLEGES: THE MADRASA

Traditionally Islamic learning took place in the mosque in special galleries reserved for this purpose. The 10th century witnessed the emergence of a new academic institution called the madrasa ("the place where one studies"). The first madrasa was reputedly founded by a Seljuk Turkish vizier of Abbasid Baghdad, Nizam al-Mulk (d. 1092) and was called the Nizamiyya Madrasa. Nizam al-Mulk wanted to create a bastion of Sunni Islamic learning that would counter the increasing advances of Fatimid Shiite missionary propaganda, called *dawa*. Students at the Nizamiyya studied all four schools of Sunni Islamic law, as well as the Quran, the Hadith, and Arabic philology. The institution spread to numerous other countries from India to Granada under the Nasrid dynasty.

ABBASID COURT SPLENDOR

A Byzantine embassy arrived to see Caliph al-Muqtadir (r. 908–932) in 917 and was dazzled

by the spectacles and splendors of his court. These Byzantine ambassadors already were accustomed to great art and ostentatious wealth but were unprepared for the caliph's graciousness to his guests as they toured the magnificent palace: its halls, courts, parks, soldiers, eunuchs, pages, treasuries, and elephants caparisoned in peacock silk brocade.

In one chamber called the Room of the Tree they saw a tree standing in the midst of a great circular tank filled with clear water. The tree had 18 branches mainly made of silver with some crafted of gold. Every branch had numerous twigs on which sat gold and silver birds that piped and sang. On the branches of the trees were leaves of different colors. The leaves of the tree moved as the wind blew and the birds sang.

The caliph himself wore opulent clothing embroidered in gold. He sat on an ebony throne surrounded to the right and left by precious gems of different colors. His city of Baghdad was lusciously decorated with fruit-bearing palm trees.

THE EMERGENCE OF ISLAMIC MYSTICISM: THE SUFIS

From the eighth century pietistic and ascetic mystics could be found roaming the deserts of Iraq and Syria and haunting the corridors of mosques throughout the Islamic East. Scholars do not agree upon the historical origins of Sufism. To be sure, purely Islamic precedents may be found in the more cryptic passages of the Quran, which beg for an esoteric interpretation, as well as in the example of Ali ibn Abi Talib, whose mystical interpretation of the Quran was admired, and the group of ascetic companions of the Prophet known as the Ahl al-Suffa ("the people of the veranda") who lived lives of extreme asceticism and poverty. Foreign origins are also possible, since a number of the Ahl al-Suffa were from Persia and Christian Byzantium, where ascetic and esoteric traditions were strong. Socially, the rise of Sufism would appear as a rejection of the wealth and worldliness of the Islamic polity and a desire to shun the vanities of the world and extol piety and asceticism as the Islamic ideal.

The Fatimid *Dawa* (Mission)

Descendants of the Shiites who fled Baghdad to North Africa during the civil war against the Abbasids in the late eighth century seized power in Ifriqiya (Tunisia) in 910. Their leader, Ubayd Allah al-Mahdi Billah (r. 909–934), claimed descent from Ali and his wife, Fatima, the daughter of the Prophet, and thus called the dynasty the Fatimids. Driven out of Ifriqiya by a popular revolt in 970, the Fatimids relocated to Egypt, where they founded the city of Cairo in 972. At the height of its power, the Fatimid empire stretched from the Maghrib to Sicily, Palestine, Syria, the coast of the Red Sea, Yemen, and the Arabian Hijaz.

Fatimid Shiism spread through the mechanism of a highly organized propaganda machine known as the *dawa* ("invitation, call"). Fatimid Shiites organized the *dawa* in the late ninth century originally out of Iraq, where it began as a secretive centralized missionary movement whose propagandists, known as *dais*, were trained in Shiite beliefs and sent forth eastward to Rayy, Merv, Khorasan, Nishapur, Transoxania, Sijistan, and India; southward to Yemen and Bahrain; and westward into the Maghrib. Charismatic *dais* beguiled their audiences with their esoteric interpretations of the Quran and the heroic legends of the Shiite imams. The Fatimids' most famous missionary was the great Persian poet and travel writer Nasr i-Khosraw (1004–c. 1072), the author of the famous travel book *Safar-nama* (The book of the journey), in which he describes his conversion from Sunni to Shii Islam.

The Fatimids' greatest rivals were the Abbasid caliphs of Baghdad, at whose expense many of their conquests were made. Abbasid propagandists repulsed Fatimid claims of legitimacy by issuing in 1011 the Baghdad Manifesto, a document commissioned by the Abbasid caliph al-Hakim bi Amri Allah (r. 996–1021) to be redacted by a joint commission of Sunni and non-Fatimid Shiite scholars. They accused the Fatimids of lying about their descent from Ali and Fatima and claimed instead that their true founder was a Jew and therefore an "infidel." Al-Hakim also competed intellectually with the Abbasids, founding in 1005 the rival Dar al-Ilm ("House of Knowledge"), where philosophy and astronomy were taught alongside the Islamic sciences. (A paranoid and erratic ruler, al-Hakim is also known for his persecution of Jews and Christians and his destruction of the Church of the Holy Sepulchre.) Fatimid propagandistic rituals included the invention of the *mawlids*, the official celebration of the birthdays of Muhammad Ali, Fatima, and the other members of the Prophet's family (Ahl al-Bayt) and the emotive celebration of Ashura with passion plays (*taziya*) reconstructing the martyrdom of Husayn.

The Fatimid dynasty began to decline during the mid-11th century as Maghribi Zirid Berbers rebelled and founded their own dynasty circa 1040. Their control of the Levant diminished under pressure from the Seljuks and the crusaders, reducing their holdings to Egypt. In 1169 the Ayyubid prince Saladin (d. 1193) conquered Egypt, ousting the Fatimid dynasty.

Ayyubids and Mamluks

The term *mamluk* means "slave," and in the context of Islamic history it refers specifically to the institution of recruiting slaves, most often of Slavic and Turkish origin, into the ranks of the army. The practice began during the reign of the Abbasid caliph al-Mutasim (r. 833–842), whose unpopularity led him to create an elite regiment of soldiers exclusively loyal to him. Turkish youths captured during the course of battles were taken to Samarra, where they were given a rudimentary Islamic education and trained in the art and strategies of war. The slave system ensured that the mamluks had no ties with the political establishment and thus would pose no threat to the Abbasid rulers.

The institution of slave soldiers spread across the Islamic world. They were especially prominent in the army of the Ayyubids, the Kurdish dynasty who vanquished the Fatimids. Saladin, the conqueror of Egypt, broke away from his Seljuk patrons and declared his own dynasty, assuming the title of sultan in 1174. He inflicted stunning defeats upon the crusaders at the Battle of Jacob's Ford (1179) in Jerusalem. When the Latin Crusader States began to harass and murder Muslim pilgrims and traders, Saladin launched an offensive against Jerusalem, capturing the entire city in 1187. The Ayyubids would extend their domain over the whole of Egypt, Syria, Yemen, parts of Iraq, Mecca, and southern Arabia.

After Saladin's death in 1193, the Ayyubids descended into civil war, each party using its mamluk soldiers against those of rivals. Such squabbles over succession became endemic to Ayyubid rule. Each time a ruler prevailed he had to grant more power to the mamluks who supported him, including many positions in the government and extensive landholdings (*iqta*s). Finally, a mamluk soldier-general named Aibek (d. 1257) murdered the Ayyubid sultan Turanshah in 1250 and seized power for himself, establishing the Bahri Mamluk dynasty (1250–1382). By far the most extraordinary Mamluk sultan was al-Zahir Baibars (r. 1260–77), who vanquished the French king Louis IX in the Seventh Crusade. A decade later Baibars killed the Mamluk sultan Qutuz and seized power.

Successive Mamluk dynasties would continue to reign over Egypt and Syria until 1517.

The Mamluks formed an unprecedented military state in which many senior posts were in the hands of these slave-soldiers, and civilian officials were subject to their supervision. Because of their slave origins, non-Arab pedigree, and relative unfamiliarity with the intricacies of Islamic law and culture, the Mamluks wisely cultivated the support of the religious establishment and the Sufi orders that had grown in importance by this time. Using the Islamic system of pious endowments (*awqaf*), they covered all their bases and founded numerous mosques and madrasas where all four Sunni legal schools (*madhhabs*) were represented. To increase their popularity further, they also patronized popular religious festivals, such as Muhammad's birthday, and gave generously to the Sufi orders and the shrines of Muslim saints. The Mamluks excelled in architecture, creating their own distinct style of lavishly decorated motifs carved in stone, marble mosaics, towering minarets, and exquisitely carved marble *mihrabs* (the niche in the mosque indicating the direction of Mecca).

THE CRUSADES FROM THE MUSLIM PERSPECTIVE

Christians and Muslims in the Middle Ages had remarkably different concepts for the same war and warlike events. For medieval Christians the Crusades were religious wars to recover the lost lands of Christendom, especially the Holy Land, where Christ had lived, taught, and died. These had been conquered by the Muslims, but the majority of the population was still Christian. Arab historians do not view the Crusades in the same manner nor did they ever use the word *crusade* or *crusader*. Muslim chroniclers describe the battles against the invaders in meticulous detail referring to their enemies by more neutral ethnic or geographic names, such as "the Franks" to describe the Latin Christians and "the Romans" (*al-Rum*) to describe the

Byzantines. Muslim chroniclers, as did their Christian counterparts, also used generic pejoratives such as "the infidels" (*al-kafirun*) to describe their enemies. Some even used wicked plays on words, converting the name of the Church of the Holy Sepulchre in Arabic (*Kanisat al-Qiyama*) to the Church of the Dungheap (*Kanisat al-Qumama*). Muslim chroniclers also emphasized the perfidy of the Christians who time and again reneged on truce agreements. They were truly stunned by the barbaric cruelty of the crusaders, whose capture of Jerusalem in 1099 resulted in the slaughter of tens of thousands of civilian Muslims and Jews.

Muslims may also have been aware of the theological and literary assault upon them being waged simultaneously with the crusader mission. During the Fifth Crusade (1219) no less than Saint Francis of Assisi, founder of the Franciscan friars, attempted to convert the sultan. Convinced of their religion's superiority and threatened by the Muslims' military successes, theologians in the monasteries and universities of Europe produced a great amount of religious polemic. Even prior to the launching of the First Crusade, Christian theologians feared Islam as a threat in view of the fact that so many of the Islamic conquests had occurred in Christian lands and that many Christians had converted to Islam or become culturally Arabized. The Christian conquests of Muslim Spain and Sicily led to the beginnings of Arab scholarship in Europe, the discipline that later became known as Orientalism. In the monasteries of western Europe, studious monks learned Arabic, translated the Quran, and studied other Muslim texts in order to be able to save Christian souls from converting to Islam and, they hoped, at a future time to convert Muslims to Christianity. The monk-scholars also read the biographies of the Prophet and began to write their own versions in order to "prove" that he was a false prophet. Franciscan preachers operating in the Holy Land, Spain,

Richard I (1157–99) and Saladin (c. 1137–93) battle during the Third Crusade (1189–92). Saladin is portrayed with a grotesque blue face, while Richard's face is hidden by his helmet. Both ride elaborately caparisoned horses. Detail from a page of Latin text from the *Luttrell Psalter,* begun before 1340 for Sir Geoffrey Luttrell. Erich Lessing/Art Resource, NY.

and North Africa used such propaganda in the sermons they preached to captive Muslims.

Khanate of the Golden Horde and the "Tatar Yoke"

Muslims and Christians alike had reason to fear the Mongol invasions during the 13th century. In a process similar to the Gothic invasions of Europe in the third to fifth centuries, the Mongols were driven out of Mongolia in East Asia and conquered much of Russia and eastern Europe. Numerous reasons have been suggested for the invasions, from climatic change affecting crop production, to threats to their trade routes from the Chinese, to a sense of divine mission of their ruler, Genghis Khan (c. 1162–1227). The Mongols established a state known in Russian annals as the Khanate of the Golden Horde. Their mighty empire extended from China to central Europe. Indiscriminately, Mongol armies conquered territories under Islamic, Byzan-

tine, and German rule, seizing Samarkand and Bukhara in the 1220s; Russia, central Europe, northern Iran, and the Caucasus in the 1250s; and perpetrating the devastating sacking of Baghdad in 1258, burning and destroying what was the ornament of the civilized world. From there they moved on to Syria and Palestine, where the Mamluk sultan al-Zahir Baibars routed them in one of the most extraordinary victories in all world history, the Battle of Ayn Jalut.

Possibly as a result of his defeat at the hands of Baibars, in the third quarter of the century Berke Khan (1257–66), the grandson of Genghis Khan and lord of the Golden Horde, converted to Islam. He entered treaties and political arrangements with the Mamluk sultan of Egypt and began the process that forged the Mongol and Turkish people of his realm into a unified Muslim nation. They were known in eastern Europe as the Tatars, after the name of one of the Mongol tribes. Their period of domination from the 13th to the 15th century was called in Russia the Tatar Yoke.

The Ottomans

Already in the 11th century Turkish armies and migrating Turkish tribesmen had won the greater part of Anatolia from the Byzantines, transforming a land once Greek and Christian into a Turkish and Muslim land. The eastern bastion of Christendom, which for so many centuries had withstood the Arabs, suffered the first of a series of defeats. In time these redrew the frontier between Christendom and Islam. First under the Seljuk sultans and then under the Ottoman sultans, the Turks created one of the greatest and most enduring of the Islamic empires. Reminiscent of the first Arab arrival in Spain, a Turkish force in 1352 was recruited as allies of a Christian contender for power. The Turks occupied the fortress of Tzympe north of Gallipoli on the eastern shores of the Dardanelles.

A century later the Muslim masters of the whole Balkan Peninsula mounted the final attack that in 1453 added Constantinople to their new imperial structure in Europe and Asia. From their capital in Istanbul—as they renamed Constantinople—the Ottoman sultans launched a series of further military expeditions that took them to the plains of Hungary. Twice, in 1529 and again in 1683, the Muslims reached the walls of Vienna. For a century and a half Turkish armies operated from bases in Buda and Belgrade.

WARFARE AS VEHICLE OF CULTURAL EXCHANGE

Turks and Byzantines fought and slaughtered one another mercilessly even before the rise of Islam. However, Turks and Arabs taught Byzantine soldiers important military tactics that they used to advantage. Byzantine commanders watched Turks and Arabs both on the battlefield and in the war camp. Stated as rules, these Muslim military concepts were the following:

Always take a steady and sufficient body of infantry into the field. Maintain an elaborate screen of pickets and vedettes, mounted sentries placed in advance of the army outpost to observe enemy movements and guard against surprises. Avoid fighting in broken ground where the enemy's dispositions and arrangements cannot be appreciated or understood. Keep large reserves and flank guards. Fight with the rear guard always protected, and, if possible, the army's wings also covered by natural obstacles such as rivers, marshes, or cliffs. [That would foil the usual Turkish device of circular attacks on the army's wings or on the camp guard.] Always fortify the camp. Never rashly pursue a retreating force, and never allow the infantry to get separated after a first successful battle.

After the breakup of the Khanate of the Golden Horde, the successor khanates based in Kazan, Astrakhan, and the Crimea continued to rule. Where they could not rule, they raided parts of eastern Europe. The last khanate was extinguished in the Crimea in 1783. From 1475 the khans of the Crimea became vassals of the Ottomans. Tatar forces often fought under Ottoman commanders against European enemies. By the close of the medieval period and the dawn of the early modern period, Muslims evinced increasing respect for the material wealth and armed might of Europe. This was manifested in the opulent, efficient European manufactures and the changing conditions of trade that favored Europe over the Muslim nations. The balance of military power shifted to the Christians, who inflicted on the Muslims a long succession of military defeats.

Key Personalities of the Islamic Empire

Prophet Muhammad (c. 570–632) Muhammad ibn Abdallah was the prophet Muhammad,

the recipient of a series of divine revelations known as the Quran. Muhammad founded a new religion, Islam; a new polity, the *umma;* and a new civilization, Dar al-Islam, on the basis of these revelations. Forced to migrate from his native Mecca to Medina in 622, he went on to establish the religious and legal structure that guided the organization of the burgeoning Islamic community. The Quran and Muhammad's personal example, the Sunna, are the two edifices upon which the Islamic civilization was built.

Umar ibn al-Khattab (592–644; r. 634–644) The second of the rightly guided caliphs of Islam and one of its most important military commanders. The Islamic empire was built mostly during Umar's reign. He conquered Mesopotamia and Persia from the Sassanians and Egypt, Syria, Palestine, North Africa, and Armenia from the Byzantines. He began the process of the codification of Islamic law. The Mosque of Umar was built on the site where he prayed on the Temple Mount after the capture of Jerusalem. He was assassinated in 644.

Ali ibn Abi Talib (c. 599–661; r. 656–661) The nephew and son-in-law of the prophet Muhammad and the fourth of the rightly guided caliphs. His conflict with the Umayyad governor Muawiyya over the succession to the caliphate sparked the great schism in Islam between Sunnis and Shiites and the emergence of the Kharijite movement. Ali and his partisans, the Shia, were convinced that the Prophet had designated Ali to succeed him. Despite the schism between Sunnis and Shiites, the former also recognize him as one of the most authoritative sources of the life of Muhammad and quranic interpretation and extol his heroism in the battles of Islam. Sufi mystics claim him as inspiring the rise of mysticism.

Harun al-Rashid (766–809; r. 786–809) The most famous of the Abbasid caliphs, whose court is immortalized in *The Thousand and One Nights.* During his reign Baghdad flourished as the preeminent capital of the world. Harun al-Rashid had established diplomatic relations with the ruler of China and with Charlemagne, sending him the extraordinary elephant Abu l-Abbas as a present. He waged successful battles with the Byzantine Empire, financing his sumptuous court with the tribute from the Greeks.

Abd al-Rahman III (891–961; r. 912–961) Emir and later caliph of Córdoba, he had the longest and most successful of the reigns of the Umayyads of al-Andalus. He declared the Córdoban Umayyad caliphate in 929 to counter his rivals in Fatimid North Africa and Baghdad. During his reign Córdoba rivaled Baghdad.

Saladin (1138–1193; r. 1169–1193) Kurdish Ayyubid sultan who defeated the Fatimid caliphate in Egypt in 1169 and founded the Ayyubid dynasty. Saladin was the hero of the Muslim jihad against the crusaders in the Holy Land. He dealt a crushing blow to the Latin crusaders by reconquering Jerusalem from them in 1187. In 1192 Saladin and the English king Richard the Lionhearted (r. 1189–99) signed the Treaty of Ramla, whereby it was agreed that Jerusalem would remain under Muslim rule. The mutual respect of the two rulers was extolled in the courtly romances of Europe.

JEWS IN THE MEDIEVAL WORLD

The adoption of Christianity as the official religion during the reign of the Roman emperor

Constantine the Great (r. 306–37) serves most historians as one of two convenient starting points for the Jewish Middle Ages. The other crucial date in medieval Jewish history is 637, the year when the Sassanians succumbed to the Arabo-Muslim armies of Umar ibn al-Khattab, whose conquest of Palestine and Babylonia affected the two major centers of Jewish learning. From these fateful dates the lives and history of the Jews of western Europe, Byzantium, the Mediterranean, North Africa, the Middle East, and the Arabian Peninsula would be inextricably linked to and informed by their Christian or Muslim sovereigns.

Jews created an estimable, distinct Jewish society and culture in their medieval Diaspora countries. Vibrant Jewish communities existed in this medieval geography that encompassed such cities as Paris, Narbonne, Aquitaine, London, York, Norwich, Granada, Córdoba, Constantinople, Aydhab, Damascus, and Baghdad. These medieval Jewish communities lived, worked, and died under the symbol of the branched candelabrum that represented the First Temple in Jerusalem that, 960 years before the birth of Jesus Christ, King Solomon built on the site his father, King David, had selected. The candelabrum as Jewish symbol of the Temple, of learning, and of hope flew on Jewish flags and banners alongside though subsidiary to the flags with the sign of the Christian cross or the Muslim crescent. Jews were a minority civilization in both Christian and Muslim lands. Nevertheless, Jewish achievements were important in thriving yet imperiled Jewish communities. Jewish physicians, scientists, artists, philosophers, merchants, bankers, and traders made significant contributions to the larger Christian and Muslim cultures. At the same time, Jewish culture was influenced by Christianity and Islam, and Diaspora existence compelled the Jews to undertake significant religious and cultural reforms.

The Restructuring of Judaism

A number of important features distinguish medieval from ancient Judaism. Prior to the Jewish Middle Ages the two geographical axes of Jewish learning and culture were Palestine and Babylonia. After the conversion of the Roman Empire to Christianity in the fourth century, Constantine introduced a series of laws restricting the civil and political liberties of the Jews, which would be augmented under his successors, Justinian I and Theodosian I. Persecution and oppression prompted many Jews to disperse farther afield into the Mediterranean, Europe, North Africa, and the Arabian Peninsula. As a result, the Jewish Middle Ages is characterized by multiple centers in the Diaspora, some of which, such as Baghdad in Abbasid Iraq, Lyon in France, and Worms in Germany, enjoyed momentary acclaim as major foci of Jewish scholarship.

THE BIRTH OF THE TALMUD

Jewish religious life also had to adapt to the new realities of its two "offspring" religious rivals of Christianity and Islam. While the obvious differences between Judaism and Hellenistic philosophy and paganism allowed a first-century Greek Jew such as Josephus to argue the Jewish position convincingly, the theological dispute vis-à-vis Christian and Islamic monotheism was more difficult and would require the transformation of a mainly oral religious and legal culture into a textual, written one. A key concern that emerged even before the Christianization of the empire was to ensure the survival and integrity of the oral law. In 210 the sage Judah ha Nasi wrote down the oral law for the first time in the form of a legal code called the Mishnah. The sages who transmitted the oral law were known as the Tannaim ("teachers"), in contradistinction to

the subsequent Amoraim ("interpreters"), sages whose commentaries on and amendments to the Mishnah, called the Gemara, continued to be transmitted orally until the Byzantine persecutions of the Jews in the late fifth and early sixth centuries. The Amoraim sage Rav Ashi (d. 427) and his disciples began to write down the Gemara as well in order to preserve this source of oral law. Subsequently, Jewish sages produced two versions of the Talmud, the combined texts of the Mishnah and the Gemara, the Jerusalem Talmud, redacted circa 350 in Palestine, and the Babylonian (Bavli) Talmud, compiled circa 550, although amendments were made until the early eighth century.

THE GAONIC PERIOD, EIGHTH TO 11TH CENTURIES

The Talmud and its study quickly spread beyond the confines of Babylonia and Palestine into Egypt and the rest of North Africa, Italy, the Iberian Peninsula, France, and Germany under the influence of the *geonim* ("genius"; sing.: *gaon*) scholars of the Jewish academies at Jerusalem and Babylonia. The contribution of the *geonim* to Jewish history cannot be overstated. Their success in according legal validity and canonicity to the Talmud and in disseminating it throughout world Jewry paved the way for the institutionalization of Talmud study and the survival of Judaism across the Diaspora long after the reputation of the Palestinian and Babylonian academies had waned. Because of the efforts of the *geonim*, the Talmud became a major object of study alongside the written Bible, and Jews from all over converged upon Palestine and especially Babylonia to study under them. Special mention must be made of Yehuda ben Nachman, who served as *gaon* of the academy in Babylonia in 757–761, and his relentless mission to make the Babylonian Talmud universally accepted as the chief legal authority for world Jewry. Thanks to his

efforts the Babylonian Talmud also became the subject of numerous commentaries by medieval rabbis, notably by Rashi (Rabbi Solomon ben Isaac, 1040–1105) of France and the generation of mostly Ashkenazic rabbis collectively known as the Tosefot.

To guarantee the relevance of the Talmud for the Jewish Diaspora, the *geonim* also issued *takkanot* ("ordinances"), which responded directly to contemporary needs. Their academies doubled as supreme courts, further ensuring the application of the Talmud as the code of law universally. They also hosted biannual *kallot* ("assemblies") in which Diaspora Jews would gather to listen to the *geonim* lecture on Jewish law and respond to questions sent to them from around the world. These teachings and juridical *responsa* were likewise disseminated to Jewish communities worldwide. The legacy of the *geonim* survived its official abolition by the Abbasids in 1040. By this time influential Talmudic academies in Iraq, Spain, France, and Germany had already surpassed those of Jerusalem and Babylonia in prominence.

Following the Talmud lent an unprecedented uniformity to the religious practices, beliefs, laws, and customs that guided Jewish life throughout the Diaspora. At the same time, however, even the Talmud recognized the legal validity of a local custom (*minhag*) accepted by previous generations of a community as long as it did not directly contravene a biblical or Talmudic law. Differences in local custom would account for the emergence of Ashekenazic Judaism among the Middle Eastern Jews who settled in northern France and the Rhineland from the ninth century. For instance, Ashkenazic Jews prohibit eating of a variety of foods during Passover, such as legumes and rice, which Sephardic Jews of Spain and Portugal and the Mizrahic Jews of the Middle East allow.

The Christian and Muslim worlds tolerated, protected, persecuted, and massacred Jews. Medieval Jews were rational optimists in order

to survive and thrive under restrictive laws, brutal attacks, and grueling hardships. Jewish and Christian relations differed from Jewish and Islamic associations.

Jews in Western Europe

Life for the Jews in western Europe differed from country to country and was subject to the whims and personal and political expediency of the secular and ecclesiastical powers. As a result it is difficult to say categorically that Jews thrived or were persecuted in the Latin West at any given time in the early Middle Ages, since their status depended upon the charters negotiated with individual Christian authorities. However, in general the period was characterized by relative tolerance in comparison to the later Middle Ages. The late 12th and early 13th centuries mark a turning point in Jewish-Christian relations across western Europe, a decisive transition from general acceptance to the imposition of various secular and canon laws that severely restricted Jewish participation in civil and economic life and a concerted effort to convert Jewish communities to Christianity. From this time onward Jews increasingly were despised for their religious beliefs, resented for their successes in trade and finance, and more routinely persecuted than welcomed.

JEWISH SETTLEMENT IN ITALY

The Jews have a long and continuous history of settlement in the Italian Peninsula. Some of the earliest records dating from the time of the Roman Republic (sixth century B.C.E.) mention Greek-speaking Jewish merchants and slaves who settled in Rome during the process of intensified trade and military contacts with the Greeks. By the time of Julius Caesar (r. 49–44 B.C.E.), the Roman Jews had established a strong and highly organized community under the leadership of their own ruler, called the *gerousiarxoi*. The presence of numerous synagogues is also attested, each governed by a hierarchical structure of an archisynagogue, patersynagogue, and other lesser synagogue officials. The fate of the Jews fluctuated in Rome and the rest of Italy during the epoch of the Roman Empire; Jews enjoyed the protection of some emperors, yet suffered persecution and expulsion under others. The spectacular Jewish revolts against the Romans in 66 and 132 C.E., the former of which led to the destruction of the Second Temple of Jerusalem, resulted in the massive transfer of Judean Jews into Rome and the rest of Italy as slave laborers.

Between Emperor Constantine's recognition of Christianity as an official religion of the empire in 313 and the fall of Rome in 476, the Jewish status continued to fluctuate between persecution and tolerance, determined by the policies of individual emperors and patriarchs. During this period the Jews played an active role in determining their fate by supporting the gentile rulers who allowed them to live in peace. They built important communities throughout the peninsula, in Rome, Genoa, and Milan in the north and in Palermo, Messina, Naples, Agrigentum, and Sardinia in the south.

In 439 Theodosius II had established the Theodosian Code in the Eastern Empire, according to which no Jew or Samaritan could attain any offices of honor that would allow him to exercise authority over Christians. Jews were also banned from building new synagogues. Thus, when Rome fell to the Ostragoths in 476, Jewish soldiers took up arms in Naples and elsewhere in defense of the Ostragoths and the Roman pope against the Byantine army. In 532/4 Justinian's legal code for the Byzantine Empire, the Body of Civil Law, ratified the oppressive anti-Jewish laws instituted by Theodosius II and introduced many others of his

own. Additionally, Justinian's Novellae ("new things"), issued in 531, forbade all "heretics," including those who followed the "Jewish superstition," to testify against orthodox Christians in court, suppressed the use of Hebrew in the Jewish liturgy, and censured the Mishnah (oral law) (Marcus 7). Because of the enforcement of these restrictions in the Eastern Roman Empire, Jews had no desire for Italy to be restored to imperial rule, and, indeed, they suffered persecution for the duration of the Byzantine exarchate in Ravenna (552–751).

The situation improved significantly under the Lombards, whose conquest of most of the Italian Peninsula from the Byzantines was completed by the end of the 570s. Some of the Lombardian tribes were pagan, while others practiced Arian Christianity. Even after their conversion en masse to Catholic Christianity in the seventh century, the Lombards as well as the Roman popes followed a policy of tolerance, leniency, and protection toward the Jews. Apart from a brief expulsion of Jews from Bologna in 1171 and the anti-Jewish reforms imposed by Pope Innocent III (1198–1216) and subsequent popes, the Italian Jews enjoyed a lengthy period of prosperity in their homeland. Jews particularly flourished under Norman rule in southern Italy and Sicily, where the papal decrees of Lateran IV (1215) were ignored, and they continued to be treated as equal citizens alongside Christians, suffering no restrictions in terms of civil position or vocation and exercising full autonomy over their internal affairs.

Jewish expertise in the realms of international trade and finance made the practitioners of these professions especially important to the affluence of Italian states such as Venice, Pisa, Florence, and Genoa, whose economies were based mainly upon trade. The savvy and pragmatic rulers of these states realized that in order to compete economically with the Byzantines, Muslims, and Mongols and even among themselves, it was necessary to place their commercial interests before the spiritual interests of the church. Jewish bankers thus experienced little difficulty in establishing banks throughout Italy and engaging in moneylending and other financial transactions serving Jewish and gentile clientele. The political and social significance of Jewish financial power is particularly illustrative in the case of late 15th-century Tuscany. The banking magnate Jehiel of Pisa negotiated the successful absorption into Tuscany of Jews exiled from Spain in 1492. The new Tuscan émigrés thrived economically, in contrast to Jews who settled in Genoa and Rome, where they suffered economic hardship and religious persecution.

ITALIAN JEWISH CULTURE

The signs of Jewish cultural, religious, and economic prosperity were seen in the contributions of Jews to the arts, religion, and the sciences. While the Italian Jewish sages on the whole never attained the stature of their French, German, and Spanish counterparts, Italy did produce a few rabbis of note and established important Talmudic academies in Rome and Pesano. The Kalonymous and the Anav, two prominent Italian clans, were influential in founding the Talmudic academy of Rome in the ninth century. Twelfth-century rabbinic luminaries include Nathan ben Jehiel Kalonymous, whose Talmudic lexicon, the *Arukh*, became a reference in Talmud study. Isaiah di Trani the Elder (1232–79) was an esteemed Talmudic authority who wrote many celebrated juridical responsa. He founded a veritable dynasty of venerable Talmudic scholars whose influence continued into the 17th century. There were also a few women Talmudic scholars of note, including Paola Anav dei Mansi (d. 1292), who hailed from a distinguished Anav family of rabbis and physicians and who achieved renown for her calligraphy as a scribe and her knowledge of the Bible and Talmud.

and scientific treatises. The translations undertaken in Sicily by Cohen, Anatolio, and other Jewish translators played as prominent a role as those carried out in the school of Toledo, Spain, in the dissemination of Arabic scientific knowledge to the Latin West. Jewish men of letters were not immured to the vibrant literary scene of 14th-century Italy. Immanuel b. Solomon of Rome, an accomplished Hebrew poet, was also a close friend of Dante Alighieri and was influenced by him in his composition of poetry in Italian. Another sign of cultural borrowing is seen in the 15th-century poet-physician Moses b. Isaac Rieti's composition of the *Mikdash meat*, a Hebrew poem modeled upon Dante's *Divine Comedy*. Late 15th-century Italian Jewish philosophers such as Elija Delmadego and Johanen Alemanno were deeply inspired by the humanism of Pico della Mirandola and spread his thought among Italian Jews.

Page from an Italian prayer book, 1492. Rothschild Mahzor, ms 8892, folio 227 A. Photographed by Susan Kaufman.

Hillel of Verona (d. 1295) translated many medical texts into Hebrew from Arabic. The arrival in Italy of Samuel ibn Tibbon's (d. 1230) Hebrew translation of the Spanish philosopher and rabbi Moses Maimonides' (1204) *Guide for the Perplexed* (Heb. *Moreh nebukim*, Ar. *Dalalat al-hairin*) in the late 13th century caused a sensation among Italian Jews. Influential rabbis from Rome and Spain spread Maimonides' liberal ideas reconciling Judaism with Aristotelian philosophy.

Emperor Frederick II of Sicily (1212–50) employed many Jews, including the Spanish-born Judah Cohen of Tuscany and Jacob Anatolio of Provence, to translate Arabic philosophical

THE PAPACY, THE FRIARS, AND THE JEWS

The papacy had a long history of dictating policies regulating the status of Jews within Christendom and Christian-Jewish relations. While papal law was universally binding upon the inhabitants of the Latin West, two popes in particular merit special mention due to the contrasting and widespread implications of their laws for the lives of medieval European Jewry. Pope Gregory the Great (r. 590–604), the eminent reformer of the church, was deeply influenced by Saint Augustine's writings, particularly *The City of God* (*De civitatis Dei*). Gregory set an important precedent in approving the use of force to convert pagans to Christianity and in summoning the secular authorities to this end. During his mandate heresy was rooted out of northern Italy, Istria, and Africa, and paganism was eradicated from Gaul. On the other hand, he showed exemplary tolerance in his treatment of the Jews. The theological jus-

tification for this tolerance is to be found in *The City of God.* Saint Augustine (d. 430) had argued that the Jews should be subjugated to Christians but nevertheless tolerated and protected in their capacity as living witnesses to the triumph of Christianity over the old law. Gregory expounded his ideas in numerous papal epistles. He explicitly condemned the forced conversion of Jews and upheld their civil liberties and religious freedoms. At the same time he warned the Jews against exceeding the limits of the rights accorded to them. His advocation of the Augustinian doctrine of Jewish witness remained the norm in defining the Christian doctrinal position vis-à-vis the Jews until the late 12th and 13th centuries.

The papacy of Innocent III best exemplifies this negative change in church policy toward the Jews. Innocent III had convoked the Fourth Lateran Council in 1215 to discuss the problem of heresy and to raise funds to finance the Third Crusade. It is interesting to note the presence of a Jewish delegation from southern France who had been dispatched there in order to try to dissuade the papal delegates from issuing any specifically anti-Jewish edicts. Their efforts proved to be in vain since Lateran IV did, in fact, promulgate a number of oppressive edicts, most infamously the requirement that Jews and Muslims distinguish themselves by wearing prominent colored badges on their clothing, yellow for Jews, pink for Muslims. While it is true that at certain times and under certain circumstances Jewish communities—or at least the most prominent members—could avoid wearing the yellow badge or similar distinctive signs such as the "Jewish hat" (*Judenhut*), the tradition survived in many parts of western Europe into the early modern period.

Lateran IV's approval of the new orders of the Dominican and Franciscan Friars, founded in 1216 and 1217, respectively, also had serious consequences for the Jews: The friars were given a mandate to preach not only among the

Christian faithful but also among heretics such as the Cathars as well as Jews and Muslims residing in Christendom. Jews were obliged to listen to these sermons with silence and respect. The friars developed a theological line of thought that eroded the Augustinian doctrine of Jewish witness so staunchly defended by Gregory the Great. To further their goals of proselytization and conversion, the friars studied Hebrew and Arabic. They claimed that their discovery of the Talmudic tradition and of Jewish anti-Christian polemical texts such as *Toledot Yeshu*, a sixth-century parody of the Gospels that depicts Jesus as a bastard, false prophet, and heretic, provided them with conclusive "proof" that the Jews had strayed from their role as witnesses to the authentic biblical account and degenerated into heresy. The friars used their newly acquired knowledge of the postbiblical rabbinical texts to engage the Jewish rabbis in public disputations that were meant to prove the truth of Christianity over and against the falsehood of rabbinic Judaism.

THE JEWS OF FRANCE AND GERMANY: ASHKENAZ

The experiences of the Jews of late Roman Gaul and Germany largely mirror those of their coreligionists in Italy. Jews formed communities in the major centers of Roman administration—Marseille, Arles, Narbonne, Uzès, Bordeaux, Clermont-Ferrand, Orleans, and Paris—strategically located on the great commercial routes that facilitated the activities of Jewish merchants and slave traders. Records of Jewish settlements in Cologne and the Rhine area of Germany date to the early fourth-century Roman period. Numerous synagogues existed in all of these cities, organized under the leadership of the archisynagogue. After the proclamation of Christianity as the official state religion in the late fourth century, Gaulish and Germanic Jews continued to enjoy the civil equalities and duties

of their fellow Christian citizens, the latter of which included compulsory participatation in the financing of the curia. During this era of relative calm and prosperity, German Jewish communities flourished and expanded into other cities such as Mainz, Worms, Mayence, Speyer, and Metz. Ecumenical councils attest to the positive social relations between Jews and Christians, particularly in France. Christian clergy were invited to attend Jewish feasts, Jewish-Christian intermarriage was tolerated, and Jews were allowed to proselytize among Christians. Practicing Christians appear to have adopted many Jewish customs, such as celebrating Sunday in the manner of the Jewish Sabbath. The Council of Orleans (539) denounced the influence of Jewish "superstitions" upon the Christian Sabbath.

THE JEWS OF MEROVINGIAN FRANCE AND GERMANY

At first the situation of religious and civilian parity between Christians and Jews continued during the period of Merovingian Frankish rule (fifth to eighth centuries). However, when the Franks converted to Christianity during the reign of Clovis (481–511) the Jews began to be regarded as an obstacle to the full conversion of the empire and as somehow aiding and abetting the persistence of rival forms of Christianity such as Donatism, Arianism, and Manichaeanism among the barbarian tribes. At the time the Talmud had yet to be redacted, and therefore Judaism and Christianity probably were difficult to distinguish in the eyes of the untutored Germanic and Gaulish pagans. Post-Christian Frankish policy toward the Jews may thus be characterized as primarily seeking to delineate clear social and religious boundaries between Christians and Jews, while falling short of overtly persecuting the latter. However, the Franks did impose certain legal restrictions upon the Jews, such as forbidding

interfaith marriage and prohibiting Jews from working as tax collectors and judges. These restrictions pale in comparison with the situation of Jews in Septimania, a southern enclave under the rule of the Spanish Visigoths. In 613 the Visigoth king Sisebut ordered the forced baptism of all Jews in his kingdom. In response the Jews of Septimania fled north to more tolerant Provence. History would repeat itself during the reign of the last Merovingian king, Dagobert I (r. 623–639). Warned by the Byzantine emperor Heraclius of an astrological prediction that the Christian empire would be destroyed by a circumcised people, Dagobert reportedly ordered the Gaulish Jews either to convert to Christianity or to leave the realm.

THE JEWISH CAROLINGIAN RENAISSANCE

On the other hand, the Carolingian Renaissance appeared to have ushered in a "golden age" for French Jewry as well. Jewish prominence in Carolingian France is shrouded in legends linking the role of the Jews to the rise of Carolingian power. According to these legends, the Jews of Narbonne, incensed at the anti-Jewish policies of the Merovingians, are said to have delivered the city of Narbonne to Charlemagne. In gratitude the emperor allegedly divided the city into three sectors, one headed by a count, another by a bishop, and a third for the Jews, whose leader bore the title "the king of the Jews." The texts of this pious legend date to the 13th century and generically belong to the poetic cycle of the chansons de gestes (*see* chapter 9, Literature). Although there is no historical basis to the claims of a Jewish princedom of Narbonne given to the Jews by Charlemagne—not least because it was Charlemagne's father, Pepin the Short, who conquered the city in 759—the legend does attest to the prominence of the Jews within this city and the rest of France. According to the

scholar Esther Benbassa, it also suggests an attempt by the Jews to secure from the Carolingians a recognition of their status as "protected subjects" comparable to that enjoyed by Jews living under Muslim rule. It should not be forgotten that the city of Narbonne had been occupied by the Muslims from 720 to 759, during which time they would have been obliged by Islamic law to live by the *dhimmi* system defining the status of non-Muslims.

Legends aside, Jews prospered under the Carolingians. Many held prominent positions in the emperor's court and enjoyed a wide degree of autonomy and civil liberty. Polyglot erudite Jews served the diplomatic and economic interests of the new empire. Charlemagne's dispatching of Isaac the Jew to the court of the Abbasid caliph Harun al-Rashid in 797 is a remarkable, but by no means unique, illustration of Jewish diplomacy on behalf of the Carolingian kings. Since the Muslims had been driven out of France in 732, Jewish international merchants called Radhanites contributed to the Carolingian economy through their trade in slaves and luxury items such as silk, Oriental spices, and precious metals (*see* the chapter on economy and travel). In recognition of their indispensable role in the Carolingian economy, in 825 Louis the Pious issued a royal charter according Jewish merchants a number of fiscal privileges and royal protection of their lives and property. While such charters provide evidence of the good relations between the Carolingian rulers and their Jewish subjects, they must be understood as a feudal relationship of personal servitude to the monarch that could be rescindered or altered at the king's whim. The granting of royal charters to Jews became established practice throughout Western Christendom and in France as elsewhere provided the alibi for anti-Jewish attacks as a means of challenging royal authority.

Jewish status under the Carolingians resembled the heyday of Merovingian rule: Jews could build synagogues, testify in court, have access to most occupations, and exercise autonomy over their internal affairs. One Carolingian innovation in the latter regard was the creation of the post of the *magister judeorum* ("the master of the jews"), known in German as the *Judenmeister*, a Jewish figurehead answerable to the king and in charge of all matters pertaining to the Jews. While feudal restrictions banned them from engaging in large-scale agriculture, Jews did own land, including prosperous vineyards in the Rhone Valley, and Jewish merchants sold wine locally to Christians as well as abroad.

By all accounts Jews were fully integrated into larger Christian society, and this assimilation is evidenced by the fact that Carolingian Jews were fluent in Latin and largely ignorant of Hebrew. A number of church councils (e.g., the Council of Meaux in 845 and the Council of Toulouse in 883) demonstrate an ecclesiastical backlash against Jewish integration in Christian society. These councils introduced a number of ordinances that oppressed and humiliated the Jews, such as the infamous slap on the face administered to a Jew on the steps of the cathedral at Easter in retaliation for Jewish injury to Christ. At the height of Carolingian power, the rulers protected Jews from such ecclesiastical ordinances. With the waning of their power in the later ninth century, the Carolingians found it expedient to enforce the anti-Jewish legislation.

THE RISE OF JEWISH LEARNING IN CAPETIAN FRANCE

The history of the Jews during the era of the Capetian kings (987–1137) is filled with contrasts. There were numerous incidents of local counts and bishops forcing Jews to become baptized or face death or expulsion. In most cases the Jews appealed directly to the pope to stay the hand of their persecutors. The period also coincides with the First Crusade to the

Holy Land and with the granting of crusader status to the Reconquista of Spain in the 11th century. Both crusades resulted in the wholesale massacre of Jews en route to fighting the Muslim enemy, although it should be noted that the vast majority of the crusader massacres took place on German soil. Despite these notable cases of pogrom and massacre, the 10th and 11th centuries mark a turning point in French Jewish cultural history. Radhanite Jewish merchants traveling between France and Iraq had contact with the Babylonian academy and took back to France copies of the Babylonian Talmud. In the 11th century a Jewish doctor of the law known only by the name of Mahir emigrated from Babylonia to Narbonne and founded the first French yeshiva. By the second half of the 11th century, France would produce one of the greatest rabbis and Talmudic scholars of Jewish history, the venerable Rashi, also known as Solomon ben Isaac of Troyes (1040–1105). Rashi founded a Jewish Talmudic school in his native Troyes that became a beacon of Jewish learning and a worthy successor of the now defunct Babylonian academy. His massive commentary on the Talmud remains to this day an indispensable tool for understanding Jewish law. Rashi's disciples maintained his legacy of Jewish learning, excelling in the fields of Hebrew, Talmudic study, biblical exegesis, and rabbinical jurisprudence.

JEWISH LEARNING IN THE HEART OF ASHKENAZ

Germany in the 11th century also witnessed a renovation in Jewish Halachic learning under the influence of renowned rabbis such as the Kalonymous family, who had immigrated from Italy in the mid-ninth century to Mainz, where they founded a Jewish yeshiva. Gershom ben Judah of Metz (c. 960–1040) was the head of the Talmudic academy at Mainz, and under his governance Mainz became a magnet of Jewish biblical and Talmudic study, attracting Jews from all over the Diaspora. His school influenced the career of the aforementioned French rabbinic scholar Rashi, who acknowledged that all Ashkenazic Jews were disciples of Rav Gershom. The extreme devotion to the Torah and the Talmud that Gershom's teachings instilled in German Jews may explain the high incidences of Jewish martyrdom during the times of crusader persecution and the emergence in Ashkenaz of the pietistic Hasidim movement.

BETWEEN PERSECUTION AND EXPULSION

Although the First Crusade did not give rise to systematic persecution of the Jews in France, it did spawn pernicious rumors that Jews were desecrating the Eucharistic host and kidnapping Christian boys to perform blood sacrifices. The first accusation of blood libel, which arose in Blois in 1171, resulted in the burning at the stake of 31 Jews. Such accusations, together with the rumors circulating in the 14th century that the Jews had contaminated public wells and spread the Black Death (1348–49), would serve as a pretext for the persecution, massacre, and expulsion of

(opposite page) *Christian Persecutions, c. 1200–1500. Life for the Jews living in western Europe differed from country to country and was subject to arbitrary decrees by secular and ecclesiastical powers. In the late 12th and early 13th centuries Jewish participation in civil and economic life began to be severely restricted, and Jews increasingly were more routinely persecuted than welcomed. The first edict of expulsion was issued in France in 1182 by Phillip Augustus, and by 1500 the Jews had been driven out of most of the Catholic kingdoms and principalities. Only Poland and Naples provided stable conditions in which Jewish life could flourish.*

French and German communities of Jews time and again over the course of the remainder of the Middle Ages. The incidences of Jewish persecution between the expulsion ordered by Phillip Augustus in 1182 and the final, definitive expulsion of the Jews from France by Charles VI in 1394 are too numerous to count. It suffices to mention that royal policy was rarely dictated by pious consideration, with the possible exception of Saint Louis IX (r. 1226–70); far more typical were the purely financial motives that lay behind Philip the Fair's expulsion of the Jews from France in 1306. The "great exile" of French Jewry must be understood in connection with the other great exile that Philip engineered the following year: the destruction of the Templars and the confiscation of all their assets. Both "exiles" served the sole purpose of filling the royal treasury at a time when the French Crown was facing financial difficulties.

In Germany the persecutions persisted beyond the years of the plague well into the 15th century. While crusader fervor and extremist piety undoubtedly fueled these events, in most cases Jewish persecution reflected political power struggles that pitted Holy Roman Emperors, popes, bishops, and dukes against one another. Whatever the underlying motives, the impact was the same: Ashkenazic Jewish communities responded by practicing martyrdom, *Kiddush ha Shem* ("the sanctification of the Divine Name"). These heroic acts of martyrdom were immortalilzed and commemorated liturgically in Jewish chronicles and religious poetry (*piyyutim; see* the chapter on literature). Jewish resistance also took the form of emigration. Since repressive laws banned Jews from practicing most professions, they engaged in moneylending and pawnbrokery. Although these vocations made Jews the focus of Christian resentment, they provided them with financial liquidity that facilitated their mobility when the need arose. For instance, when Holy Roman Emperor Rudolph of Habsburg (r. 1273–91) attempted to enforce the policy that the Jews were the personal and fiscal "property" of the Crown, a condition known as the "serfs of the royal treasury" (*servi camare regis*), many German Jews simply fled to neighboring Poland. Germany's greatest legal scholar, Rabbi Meir ben Baruch of Rothenberg (1215–c. 1286), became a "martyr" of this policy. Meir was imprisoned for refusing to accept the status of serfdom and remained there until he died. While in prison he continued writing the juridical responsa and letters to his disciples that made him the foremost guide of Ashkenazic law and customs for centuries. The pattern of Ashkenazic Jewish emigration to Poland would be repeated during the subsequent persecutions of the 14th and 15th centuries, converting that country into one of the largest and most important centers of Ashkenazic Jewry in the early modern era.

GERMAN JEWISH PIETISTS: THE HASIDIM

One of the many martyrs of the massacre of Rhineland Jews during the First Crusade was the acclaimed rabbi Kalonymous ben Meshullam ha-Parnas of the legendary Kalonymous clan. In the late 12th to early 13th centuries his descendants Samuel ben Kalonymous ha-Hasid ("the Pious"), Judah ben Samuel ben Kalonymous ha-Hasid, and the latter's cousin, Eleazar ben Judah of Worms, redacted a tractate on a new form of Jewish piety entitled *Sefer Hasidim* (*The Book of the Pious*). *The Book of the Pious* laid out the principles of a new pietistic movement that upheld martyrdom as the highest expression of piety and extolled the virtues of asceticism, penitential mortification of the body, and mysticism.

THE JEWS OF CHRISTIAN IBERIA

The history of the Jews in the Iberian Peninsula presents a contrasting study of the fate of this community under Christian and Islamic rule. The edict issued by the Visigoth king Sisebut in 613 ordering the forced baptism of all Jews in the territories of Iberia and southern France was symptomatic of Visigothic policy toward the Jews in the period following the conversion of the Arian Visigoth king Reccared (r. 586–601) to Catholic Christianity in 587. Prior to their conversion the Arian Visigoths, who conquered the peninsula in 410, had followed a policy of relative tolerance of their Jewish subjects. Catholic Visigoths disregarded Pope Gregory the Great's (d. 604) epistles urging the tolerance and protection of Jewish communities. Reccared approved the decisions of the Third Council of Toledo (589) to compel the baptism of all children of mixed marriages and forbid Jews to hold public office. Subsequent church councils of Toledo debased the legal status of the Jews further, stipulating the suppression of Jewish rites, the stoning to death of Jewish apostates (653), the expulsion or enslavement of all Jews who refused to convert to Christianity, and the confiscation of their property (694). Visigothic persecution of the Jews directly influenced the Jewish acceptance of Islamic rule when Muslim forces began invading the peninsula at the beginning of the eighth century. Many Jews were left in charge of the garrisons of conquered towns and cities.

The Jewish presence in Christian Iberia was inextricably linked to the emergence and expansion of the various Christian kingdoms and royal policies of repopulating territories reconquered from the Muslims. Until the major conquests of Islamic Iberia in the 11th to 13th centuries and the infusion of Muslim tribute money, the emerging Christian kingdoms of Castile, León, Navarre, Aragon, and Portugal were relatively poor compared to their Muslim rivals. Christian kings saw the economic advantages of retaining and attracting Jews to their kingdoms to benefit from their mercantile activities. Nor must it be forgotten that throughout the peninsula's history these kingdoms were continuously at war with each other over the division of the spoils and the expansion of their own territories at the expense of the others. Consequently, good relations with the Jewish communities within one's realm served political pragmatism.

To these ends Iberian Christian rulers followed a general pattern of issuing renewable royal charters (*fueros*) to Jewish communities granting them economic and political privileges, increasingly to the express detriment of the Mudejars, or conquered Muslim populations subjected to Christian rule. Increasingly from the 11th century, the Jews were regarded as the personal property of the monarch (*servi camare regis*). As in the cases of France, Germany, and Italy, Iberian royal policy of offering economic privileges and civilian rights to the Jews, which fostered Jewish assimilation and positive social contacts between Jews and Christians, sometimes clashed with the interests of the church, which strove to enforce the social segregation of the Jews and their civil subjugation. Typical examples of royal and ecclesiastical policies favorable to the Jews include the *fuero* of Castrojeriz, issued in 974 by Count García Fernández of Castile, and the charter ratified at the Council of León in 1020 under the leadership of King Alfonso V (r. 999–1027). Both charters placed Jews virtually on par with Christian citizens, permitting the former to own property and to engage freely in agriculture and commerce. Wary of the positive coexistence between Jews and Christians that such liberal laws engendered, the Council of Coyanza (1050) decided to revive the Visigothic legislation prohibiting social interaction and cohabitation between Jews and Christians.

Jewish communities benefited politically and economically during the Castilian offensive against the weakened and divided Muslim kingdoms, which began with the victorious conquest of Toledo in 1085 and climaxed with the defeat of the Almohad Berbers at Navas de Tolosa in 1212. Alfonso VI (r. 1065–1109) secured his conquest of Toledo in 1085 in large measure as a result of the favorable policies he enacted toward the city's thriving Jewish population to the detriment of the conquered Muslims. Alfonso VI not only granted Jews of his domain the full rights of Christian citizens, he also granted them the legal status and privileges of the nobility. Jews now benefited from the confiscation of Muslim property and mosques and owned many as slaves. Ironically, the legal status and autonomy of the Jews in these newly conquered realms closely resembled the *dhimmi* status they had enjoyed under the Muslims, since the Christian kings adopted the Islamic institution of the "chief rabbi," *rab de la corte* or *rab mayor*. In gratitude for this preferential treatment, Jewish soldiers fought alongside the Castilian forces, albeit visually distinguished by their yellow and black turbans. While the wider Christian population of Castile reluctantly acquiesced to royal favoritism toward the Jews in times of prosperity and military success, the contrary situation provided the motive to release their fury against them. Such was the case after the disastrous Battle of Ucles (1108), in the aftermath of which anti-Jewish riots erupted in Toledo and its environs, resulting in the burning of synagogues and the murder of many Jews.

THE 13TH- AND 14TH-CENTURY TURNING POINT

The 13th century marked a turning point in the history of Christian Iberia. Under the leadership of Ferdinand III "the Saint" (r. 1217–52) and James (Jaime) I "the Conqueror" (r.

1213–76) the respective kingdoms of Castile and Aragon vastly expanded their realms at the expense of al-Andalus, capturing Córdoba, Seville, Jaen, Valencia, Murcia, the Balearic Islands, and other regions, such that Muslim Iberia was reduced to the tiny kingdom of Granada. The immense power and wealth of these Christian kingdoms decreased their reliance upon their Jewish subjects at the very time that the papacy had hardened its stance toward Jewish-Christian relations after the edicts of Lateran IV. The retention of a few privileged Jews as chief rabbi, chief tax collector, or royal physician could not deter and often furnished the pretext for the anti-Jewish riots and massacres of the 14th century that culminated in the horrors of 1391. One of the catalysts in the civil war that broke out between the Trastamara brothers, King Peter (Pedro) I of Castile (1350–69) and Henry (Enrique) II de Trastamara (r. 1366–79), had been the extraordinary prominence of Jewish officials in Peter's court. Henry's hatred of Peter's pro-Jewish policy is attested in the despicable statement he reportedly uttered upon his victory over his brother, referring to the latter as "that Jewish son of a bitch who called himself the king of Castile" (*fi de puta Judio, que se llama rey de Castilla*).

Henry's victory precipitated in 1366 the pillary, pogroms, and in some areas massacres of Jewish communities who had supported Pedro. Even more serious were the edicts that Henry and his successors issued that far exceeded the restrictions envisioned by the revived Visigoth code. The goal was no longer merely to contain Jewish political and economic activities and ensure the segregation of Jews from Christians—although these were taken for granted. Henry's measures sought the complete impoverishment and humiliation of the Jews. After the Trastamara civil war, many Jews in Toledo and elsewhere died of famine rather than as a result of massacre.

THE *CONVERSO* PHENOMENON

In 1390 King John (Juan) I of Castile died, leaving the realm in the hands of his infirm 11-year-old son, Henry III (1390–1406). The situation of lawlessness that ensued allowed a powerful archdeacon and charismatic preacher of Seville, Ferrán Martínez, to unleash a wave of massacres of Jewish populations throughout Castile. The pogroms and massacres spread to the Kingdom of Aragon, inflamed by another charismatic preacher, Vincent Ferrer (d. 1416). Jewish response to these events differs markedly from the practice of *Kiddush ha-Shem* ("martyrdom") extolled in Ashkenaz. By all accounts thousands of Jews across the peninsula submitted to the ensuing forced baptisms, giving rise to the social phenomenon of the *converso* ("Jewish convert to Christianity"). As David Nirenberg and other scholars have persuasively shown, the conversion of many Jews to Christianity in no way diminished but rather intensified Christian suspicion of and resentment toward the Jews and the new Christian converts. Jewish conversion did not necessarily sever relations between Jewish and *converso* members of a given family, and most *conversos* continued to reside within the Jewish quarters.

Deep-seated suspicions that the converts remained "crypto-Jews" prompted Vincent Ferrer to urge the kings of Castile and Aragon to prohibit social intercourse between Jews and *conversos* or "old Christians." Even more significant were the actions taken by the antipope Benedict XIII. Benedict organized with the king of Aragon the astonishing two-year Disputation of Tortosa (1413–14) between Christian theologians, headed by the zealous *converso* Geronimo de Santa Fe, and Jewish rabbis under the leadership of Rabbi Joseph Albo. The disputation was an institution created in the 13th century for engaging Jewish theologians in a public debate with the church for the purpose of proving the errors of Judaism. In earlier disputations, most notably those of Paris (1240) and Barcelona (1263), the Jewish delegates had been granted immunity from reprisals by the presiding authorities. No such immunity was forthcoming in the Tortosa disputation, however. The issues under debate were the Jewish concepts of the Messiah and the legitimacy of the Talmud, and every Jewish attempt to respond to the Christian charges was met with the threat of the accusation of heresy.

In the wake of the inevitable Christian victory, the antipope Benedict XIII issued a papal bull in 1415 that placed the final nail in the coffin of restrictions governing the Jewish community. Jews were stripped of the last remnants of religious and civil autonomy. They were denied the right to own or study the Talmud, to bake or sell unleavened bread, to hold public office, to engage in any sort of vocational or medical craft, to practice moneylending, or to levy communal taxes without the express permission of the monarch. They were also forbidden to leave the country, and those found aiding them in their attempt to do so were severely fined.

Burning of Jews and Christians accused by the Inquisition of heresy and witchcraft. Woodcut from the *Nuremberg Chronicle*, 1493. Courtesy of the Jewish Museum, New York.

Papal inquisitions against heretics and *conversos* in Valencia in 1460 through 1467, autos-da-fé in Seville in 1481, and expulsion of Andalusian Jews in 1483 were followed by the Dominican friar Tomás de Torquemada's appointment as inquisitor general of Castile then also of Aragon (r. 1473–98). The alleged plot between *conversos* and Jews, which led to the murder of the inquisitor Pedro de Arbues in Zaragoza in 1484, engendered fears of further *converso*-Jewish conspiracy. These suspicions culminated in the sorcery trials of 1491 accusing *conversos* and Jews of crucifying "the holy child of La Guardia." As did the blood libel accusations circulating in 14th-century France and Germany, the Holy Child of La Guardia (Toledo) claims centered upon the false rumor that Jews and *conversos* had kidnapped a Christian child and committed an act of ritual murder. The dead child became the object of cult devotion.

THE YEAR 1492

The year 1492 was a miracle year for Spain. King Ferdinand and Queen Isabella completed their Reconquista of Granada, the last Muslim stronghold in Iberia. The year 1492 also initiated the Age of Discovery. The Genoese sailor Christopher Columbus used a Jewish mapmaker's century-old cartographic creation to convince the Catholic queen of Spain to fund the ocean voyage across the Atlantic.

The same year that Columbus and his navigators discovered America and exulted in their new-found land, Jews also commenced voyages of exploration to new lands. In early 1492 Torquemada proposed to his Catholic monarchs the final expulsion of the Jews. King Ferdinand and Queen Isabella continued the Inquisition with fervor despite powerful arguments for humane restraint from their Jewish national treasurer. They ignored proofs of the pragmatic necessity of Jews to

the economy of their kingdom. They signed the edict of expulsion in March, proclaimed it in April, and demanded all Jews be gone by the end of July.

When the Jewish community was expelled from Spain they carried its wealth and culture in heads, hearts, and books. Before they built new forms of Jewish life in new countries, they wandered the world and settled wherever they could. Many crossed the border to Portugal. That king soon formulated his own expulsion orders in 1496 in advance of forced conversions in 1497, first of Jewish children then of adults in mass blessings of new Christians.

Jews in the Byzantine Empire

The three centuries of Byzantine rule over Judaea coincide with the fourth-century Christianization of the Roman Empire and the conquest of Syria and Palestine by the Muslims circa 637. This period witnessed intense and bitter theological and social struggles between the Jewish and the Christian communities. At the same time remarkable evidence exists of cultural influences between the rival groups.

IMPERIAL POLICY
TOWARD THE JEWS

During the reign of Constantius II (r. 337–361) the conversion of the Jews to Christianity was official state policy. A Jewish revolt against the conversion policy erupted in Galilee and was duly quashed. The cities of Galilee identified as a hotbed of Jewish dissent were destroyed, and two of the most important yeshivas, at Tzippori and Lydda, were ruined. The legal reforms imposed in early Byzantium by Theodosius II (r. 408–450) and Justinian I (r. 527–565) included numerous policies detrimental to the civil and religious liberties of the Jews. The Theodosian

Code, promulgated in 438, forbade Jews to own slaves, hold public office, or build new synagogues and made intermarriage between Jews and Christians and Jewish proselytization of Christians capital offenses. Emperor Justinian's "New Laws" (Novellae) banned the Mishnah, censured the reading of Jewish religious texts in Hebrew, and encouraged the destruction of Jewish property. Popular anti-Jewish sentiment was inspired by the rousing sermons of charismatic preachers such as Bishop John Chrystostom (d. 407).

Many of these imperial edicts were difficult to apply in practice because the emperor's attention was diverted to the more immediate concern of protecting the empire from incursions from its Persian Sassanid enemies. Nevertheless, the disadvantages suffered by the Jews legitimated their siding with the Persians during the invasions of 611. Jewish soldiers fought alongside the Sassanids in a mopping-up operation that resulted in the death of tens of thousands of Christians and the destruction of the Church of the Holy Sepulchre, built by Empress Helena (d. 329). Hopes that their support and loyalty would be recompensed by the Persians were quickly dashed. The Sassanids proved to be even more relentless than the Byzantines in their persecution of the Jews. In response Jewish leaders contacted the Byzantine emperor Heraclius (r. 610–641) and pledged their aid in helping him to retake Judaea in exchange for accepting his rule under more favorable conditions. After the Palestinian territories were recovered in 629, Heraclius reneged on his promise and ordered the massacre of all Jews and the destruction of their synagogues. Those who managed to flee to North Africa remained at risk owing to a subsequent imperial edict ordering the forced conversion of all Jews throughout the empire. The Muslim conquests of Palestine, Syria, Egypt, and North Africa saved the Jews from probable religious, if not physical, extermination.

THE RISE OF THE JEWISH ACADEMY IN BABYLONIA

A visionary fourth-century Jewish patriarch, Rabbi Hillel II, took a fateful decision that would forever affect the relation between the Palestinian Jews and the Jews of the Diaspora: He created an official calendar. To understand the implications of this act, one must realize that earlier the Palestinian patriach would determine the dates of the Jewish liturgical calendar according to sighting of the Moon from Judaea. Diaspora Jews were thus dependent upon the Judaean patriarch to determine the celebration of festivals and rituals. With this simple act Hillel II liberated Diaspora Jews from dependency on Judaea—an astute decision given the situation of oppression facing the Jews of Palestine at this time.

Babylonian Judaism rose to prominence and authority as a direct consequence of Rabbi Hillel's decree. The Babylonian Talmud, which began to be compiled in the fifth century, would overshadow its Palestinian rival as the preeminent authority of Jewish law for Jews in most regions of Christendom and Islam.

JEWISH-BYZANTINE CULTURAL CONTACTS

Long before the rise of the Byzantine Empire, the Jews of Judaea, Greece, and Anatolia had been thoroughly Hellenized. The physical remains of this shared culture are evidenced in the survival of numerous new synagogues built in the sixth century—despite the Theodosian prohibition—that contain the architectonic and artistic elements of Hellenism. Most remarkable are the beautifully executed mosaic tile floors that adorn the synagogues with pictoral images of Abraham and other biblical characters, zodiacs, menorahs, and other interesting blends of Jewish and gentile motifs.

Jews in the Islamic Empire

Under Islam Jews and other non-Muslim peoples of the book were protected as *dhimmis*. The Pact of Umar provided Jews with legal second-class citizenship and protected, enumerated rights. Jews as peoples of the book shared this subordinate position with Christians. Jews attained excellence in commerce, agriculture, government, and medicine that enabled them to cross social boundaries as equals with Muslims. Jews also became important courtiers, diplomats, army generals, and statesmen for Islamic courts. Jews who exceeded their assigned subordinate positions often caused political animosity and suffered terrible local persecutions. Yet close collaboration between Jews and Muslims in Mediterranean merchant trade and travel, professions honored in both cultures, stimulated interdependence, mutual respect for talent, and temporary golden periods of peace.

The Umayyads were the first dynasty to establish their rule over the major Jewish communities of Iraq, Syria, Palestine, and elsewhere in the Middle East and al-Andalus. When they assumed power the Umayyads reestablished the figure of the Jewish exilarch (Heb. *Resh galuta*), the head of the Jewish community in exile. The position of the exilarch dates to the era of the Babylonian Captivity (597–537 B.C.E.), when the Jews were forcibly removed from Palestine to Babylonia. The exilarch served as the official liaison between the Jews and the political authorities, and his juridical functions included the naming of the chief judge and the appointment of the archisynagogus and, later, the *goan*, or head of the Talmudic academy. The office of the exilarch continued without interruption until the sixth century C.E., when the Sassanians abolished it. The Umayyads restored the exilarchate and showed honor and respect to the *geonim*. Scrupulously applying the norms of *dhimmi* status, the Umayyads did not allow non-Muslims to hold positions of authority over Muslims.

THE KARAITE SCHISM

With the rendering of the oral law into writing in 210 and the attendant focus of Jewish life and piety around the Talmud, greater emphasis began to be placed on the authority of the rabbis. Communities in the Jewish heartlands of Palestine and Babylonia as well as in the rest of the Islamic world and the European Diaspora lived under the immediate authority of rabbinic rule. Not all Jews accepted the new rabbinic Judaism, however. A group of dissidents known as the Karaites emerged in eighth-century Iraq. The founder of the movement was Anan ben David (alive 760), who reportedly challenged the authority of the newly elected exilarch, his brother, Josieh ben David. Anan's formal challenge constituted a rebellion against Islamic authority since the exilarch was installed by the Abbasid caliph, in this case al-Mansur (r. 754–775). Anan was duly incarcerated, and while in prison he heeded the advice of his fellow inmate the Hanifi jurist Numan ibn Thabit Abu Hanifa, who instructed him to develop a new religion whose differences with rabbinic Judaism would be clearly expounded and defended by a group of followers. The result was the Karaite movement.

Karaite Judaism is strictly Bible-based, rejects the Talmud and rabbinic authority to interpret the law, and is far stricter and more sober than rabbinical Judaism in the celebration of Jewish rituals and feast days. Following the exegetical techniques of Abu Hanifa, the Karaites applied analogical and mystical interpretations to the sacred text. The Karaites also rejected the novel ninth-century Masoretic tradition of marking the Hebrew biblical text with vowels, accents, and singing marks to fix pronunciation and meaning, although many of the best Masoretic grammarians would later be

Karaites. Since no one knew the origins of this practice, the early Karaites rejected it on the basis that the scrolls revealed on Mount Sinai lacked such marks.

The rabbinic reaction to the Karaite movement did not take long to emerge. The most significant and vociferant opponents were the *geonim* of the Babylonian academy. Saadya Gaon (882–942) dedicated numerous letters, treatises, and juridical responsa to refuting Karaite beliefs. He was a towering figure in Jewish philosophy who utilized the Arabic language and Greek philosophy to refocus assimilated Jews onto the core values of Torah and Halachah. When Saadya exceeded the limits of his authoritiy by attempting to depose the reigning exilarch, the caliph had him removed from his position as *gaon*. Saadya's successor, Sherira bar Channina (906–1006), played a major role in the fight against Karaitism beyond the borders of Iraq. A Jewish rabbi from North Africa wrote to him asking his advice in refuting the Karaite claims that rabbinic Judaism lacked legitimacy. In response, Rabbi Sherira wrote a massive tome of the history of the development of the Talmud, vigorously defending its eternality in an unbroken chain of transmission from the revelation on Mount Sinah to the sages.

THE CAIRO *GENIZA*

A *geniza* is a special storage room used to preserve any document that contains the name of God. All obsolete religious, liturgical, and legal documents were stored in such warehouses or buried with the scholar who had redacted them. The *geniza* must have been a widespread phenomenon in the Diaspora as well, although they must have often been lost in the upheavals of massacre, persecution, and destruction of Jewish communities. Fortunately, a significant *geniza* did survive the passage of time: The Ezra Synagogue located in Fustat (Old Cairo) was founded in the ninth century and was the

chief synagogue of the region. Luminaries such as Maimonides taught and prayed there. In the 19th century scholars discovered the *geniza* in the attic of the ancient synagogue. Investigations uncovered over 100,000 pages documenting the life and customs of Jews in Egypt and Palestine from the period of Islamic rule to the First Crusade, numerous juridical responsa from the *geonim*, and precious texts thought to have been lost such as the Hebrew version of the Book of Ben Sirach. The lives of some of the most important figures of Jewish history, such as the aforementioned Saadya Gaon, are known principally through the survival of these documents. The Cairo Geniza contains a treasure trove of information about Mediterranean Jewish history, customs, ritual practices, and relations with non-Jews, as well as a wealth of 13th- to 15th-century Ashkenazic writings, letters, and *piyyutim* (liturgical poems), making it one of the most significant sources of Mizrahi (Middle Eastern) and Ashkenazic Jewish history.

FATIMID SPLENDOR, SELJUK AND MAMLUK OPPROBRIUM

Jews rose to prominence as ministers, diplomats, courtiers, and translators during the caliphates of Abbasid Baghdad, Fatimid Cairo, and Umayyad Spain. Jewish communities sometimes had a high profile in Muslim internal dynastic feuds. For instance, the Shiite Fatimids rebelled against the Abbasids, proclaimed their own caliphate in Tunisia in 909, and extended their empire to Egypt, Palestine, and Syria by 969. The Fatimids established rival trade routes to the East to draw business away from the Abbasids and attracted Jewish merchants to stimulate the Fatimid economy. The Shiite Fatimids were numerical minorities in the countries where they ruled, and since they could not count upon the administrative support of Sunni Muslims, they attracted numerous Jews

and Christians to their court and government. Out of necessity the Fatimids ignored many of the prescriptions of *dhimmism:* Christians and Jews experienced no obstacles to building new temples or publicly celebrating their religious feasts and enjoyed the same basic civil rights as Muslim subjects. They could even employ Muslims as servants. The reign of al-Hakim bi Amri Allah (r. 996–1021) represents a brief interruption of Fatimid tolerance. In 1012 he reinstituted the strict observance of *dhimmi* regulations forbidding the subordination of Muslims to *dhimmis*, demanding that *dhimmis* wear distinguishing attire, and ordering the destruction of many churches and synagogues. These practices were rescinded by his successors.

The Jews fared less well under the other Middle Eastern power opposing the Abbasids, the Seljuks. By the mid-11th century the Turkish Seljuks had seized power from the Abbasids (and the Byzantines) in Asia Minor, Persia, Iraq, India, and part of the Arabian Peninsula, ruling in all but name. Recent converts to Islam who were also engaged in battle against the Byzantines, the Seljuks further legitimated their Muslim credentials by imposing the strictest application of *dhimmi* restrictions upon their non-Muslim subjects. Under pressure from the Seljuks, the Abbasid caliph issued a decree in 1058 that forced Jewish, Christian, and other *dhimmis* to wear distinguishing signs on their clothing, and *dhimmi* government officials were summarily removed from their posts. A caliphal decree of 1085 imposed the wearing of a further distinguishing sign on *dhimmi* turbans, forced the closure of all wine taverns, put an end to all public displays of non-Muslim religion, and forbade *dhimmis* to raise their voices while praying. In the wake of the imposition of further restrictive and humiliating dress codes in a caliphal decree of 1091, many Jews fled to Spain.

The Mamluk dynasty ruled Egypt, Palestine, and Syria between 1260 and 1517. The dynasty of slave soldiers had risen to power in the context of battles against the crusaders and the stunning defeat of the fearsome Mongols at Ayn Jalut (Nazareth, Palestine) in 1260. The Mamluks were deeply suspicious of Christians and *dhimmis* in general. As a matter of policy, the Mamluks strictly imposed humiliating dress codes upon Jews and Christians and enforced other degrading customs. For instance, *dhimmis* could only ride donkeys (never the noble horse) and only mount side-saddle and were barred from government positions and practice of medicine among the Muslim population. Wine and wine taverns were forbidden. By the late 14th century the once thriving and prosperous Jewish communities had been reduced to impoverished enclaves in the cities of Jerusalem, Safed, Tiberius, and Hebron. Once a beacon for Jewish refugees from Spain and the Maghrib—recall, for example, that the Spaniard Maimonides had settled in Egypt—Mamluk Egypt and Syria were no longer destinations for the Jews who fled Spain in 1492.

SEPHARAD: THE JEWS OF AL-ANDALUS

The Muslims who conquered Spain in 711 ruled as emirs under the authority of the Umayyad caliphate based in Damascus. When the Abbasids overthrew the Umayyads in Damascus in 758, Abd al-Rahman I (r. 756–788) established Andalusi independence from the Abbasids, and his successor, Abd al-Rahman III (r. 912–961), declared the Umayyad caliphate in 929. Unlike their Syrian forebears, the Umayyads of Spain applied a more liberal policy to *dhimmis*. The Jews who aided the Muslim armies in establishing Islamic rule in the Iberian Peninsula were rewarded with one of the most lenient and generous manifestations of *dhimmi* status. Jews engaged in all manner of occupations, from agriculture and viticulture to commerce, trade, medicine, and the crafts. Jews exercised complete authority

over their internal affairs and were governed by the Jewish exilarch, called *ha-Nasi*, "the prince," in al-Andalus.

Jewish intellectuals were highly valued for their knowledge of Arabic, Greek, Latin, and vernacular Romance languages, making them ideal to serve as foreign ministers and diplomats. Two particularly renowned Jewish ministers were Hasdai ibn Shaprut (915–c. 990) and Samuel ibn Nagrela (933–1056). To this day *Sepharad*, the name for Jewish Spain, represents the epitome of medieval Jewish culture. Jewish religious culture blossomed under the influence of Arab culture and the largesse of Islamic rule. The Jewish yeshiva at Lucena in Córdoba achieved renown as a beacon of Jewish learning. Hebrew, once relegated to the language of Scripture and Talmud, was reinvigorated in Muslim Spain as Jewish poets, seeing the wondrous poetic output of the Arabs, copied them and composed secular Hebrew poetry. At the same time thoroughly assimilated Jewish Talmudic scholars, philosophers, and intellectuals, such as Maimonides, expressed themselves in fluent and eloquent Arabic.

JEWISH DIPLOMATS IN UMAYYAD SPAIN

Hasdai ibn Shaprut served as diplomat and court physician to Abd al-Rahman III. Though he did not have the official title of vizier, Hasdai ibn Shaprut negotiated major treaties, welcomed Christian envoys from the Byzantine Empire and the German king Otto I, and negotiated peace among warring Christian kingdoms. An accomplished scholar, Hasdai oversaw the translation of a magnificent Greek manuscript of Dioscorides' work on botany that the Byzantine emperor Constantine VII had sent as a gift to Abd al-Rahman in 949.

With respect to Jewish history, Hasdai ibn Shaprut liberated Spanish Jewry from the intellectual and liturgical control of Jews in the East. Baghdad was thought the center of Jewish culture, and rabbis everywhere sent requests to the Baghdad academies for responsa, opinions on law, liturgy, morality, and ethics. Hasdai made Córdoba a sentinel Jewish center. He appointed Rabbi Moses ben Chanoch (d. 965) the *gaon* of the Talmudic school at Lucena that independently provided answers to questions of Hebrew liturgy. Judaism thrived in Córdoba under Hasdai's generosity, as he paid for translations of books into Hebrew and Arabic, purchased books for libraries, and subsidized yeshiva schools and houses of study. Abd al-Rahman III wholeheartedly supported the independence of the Andalusian Jews from Babylonia, in keeping with his caliphal claims over and against his Abbasid rivals in Baghdad.

The most famous Jewish prince in Muslim Spain was the powerful Samuel ibn Nagrela, also known as Samuel Ha Nagid, or Ha-Nasi, the Prince (993–1056). Born at Córdoba in 993, during his long and tumultuous life he witnessed the fall of the Umayyad caliphate in 1031 and was himself a victim of the political intrigues of the court. Samuel ibn Nagrela was the foreign minister or vizier to two successive Umayyad caliphs, for a total of 29 years. From 1027 until 1037 he served as vizier to the autonomous Zirid king Habbus al-Muzaffar, who ruled Granada from 1019 to 1037. He was also a battlefield tactician, wartime operations director, strategist, and fighter of his nation's wars. Every year but two between 1038 and 1056, Samuel ha Nagid led the king's army as its chief commander in the field.

LEGAL LUMINARIES AT LUCENA

Lucena, a town in the southern province of Córdoba, had been the site of a Jewish yeshiva of renown at least since the ninth century, the earliest date for which juridical responsa are preserved. The academy at Lucena is mentioned in a Jewish legend recorded in the *Sefer*

ha-Cabala (The book of Kabbalah), written by the 12th-century Córdoban historian and philosopher Abraham ibn Daud. The legend tells of four Babylonian rabbis whose boat was captured by Muslim pirates off the coast of Bari in southern Italy. The rabbis were redeemed by Jewish communities in four different countries, one of which was al-Andalus. The Spanish rabbi was the aforementioned Moses ben Chanoch, who, together with his son, Chanoch, were redeemed by Hasdai ibn Shaprut. As noted, Moses ben Chanoch was appointed as *gaon* to the yeshiva at Lucena, and his son would succeed him upon his death. During the mandate of Chanoch ben Moses, the Lucena yeshiva achieved full independence from the Babylonian *geonim*. Whereas in the ninth century Iberian Jews were sending their legal queries to the *geonim* of Babylonia, a century later queries were being sent to the Andalusi rabbis. The fact that Chanoch wrote responsa to queries from all over the Jewish Diaspora indicates that the rabbinic scholars of Lucena had equaled if not surpassed the *geonim* of Babylonia.

Lucena's fame would continue well into the 12th century, surviving the reign of the Almoravid Berbers in the Iberian Peninsula from 1086 to 1145. These ascetic Muslim reformists abhorred the liberality of the Muslim rulers of Spain and blamed this liberalism as well as their favorable treatment of the *dhimmis* for the loss of Toledo to the Christians in 1085. Accordingly, they instituted a number of reforms, which included restricting the civil liberties of the *dhimmis*, imposing enforced conversions, and perpetrating massacres. The community of Lucera managed to escape the pressure to convert through the payment of bribes to Almoravid officials. Toward the end of their rule, the Almoravids relaxed most of the repressive measures affecting the Jews and even retained Jews in government posts. When the history of persecution repeated itself under the reign of

the Almohads (1145–1269), most Jewish families fled to other regions of the Islamic world or north to Christian Spain, effectively bringing an end to the "golden age" of Sepharad. Despite these setbacks the Lucena academy continued to produce such towering Talmudists as Isaac ben Jacob Alfasi (d. 1103) and his disciples the poet, scholar, and physician Judah HaLevi (d. 1144) and Joseph ibn Miqdash (late 11th century), the latter of whom taught Maimonides' father, Maimon. Ibn Miqdash's monumental commentaries on the Mishnah influenced the study of the Talmud in Spain and France.

The flight of Andalusian Islamicized Jews, such as Judah HaLevi, into Christian Spain represents a key moment in the history of Sephardic-Ashkenazic relations. Sephardic scholarship and some Arabic scientific texts were transmitted to the Ashkenazic Jews thanks to the translations into Hebrew undertaken by a remarkable family of translators headed by Judah ibn Tibbon of Granada (1120–c. 1190). Judah's son, Samuel, translated Maimonides' *Guide for the Perplexed* from the original Arabic into Hebrew in direct consultation with the author.

THE MAIMONIDEAN CONTROVERSY

The writings of the Córdoban-born rabbi and philosopher Moses Maimonides (1135–1204) sparked a series of controversies among the Jewish communities of Spain, France, and Germany. When Maimonides was only 13 years old, his family fled the Almohads in southern Spain and settled in Fustat, Egypt. It was there that he wrote his two most controversial works, the *Guide for the Perplexed* and the *Mishneh Torah* (*Second Torah*). The brilliance and clarity of his writings caused a stir throughout the Jewish world. They drew admiration from the Muslim-assimilated Greek-oriented Jews of al-Andalus, the Medi-

terranean, and the Middle East and unleashed polemics among the Jews of Ashkenaz. Ashkenazic Jews especially objected to Maimonides' attempts to synthesize the teachings of the Torah and Aristotelian philosophy and his use of Greek methods to systematize Halachic law instead of traditional rabbinic methods. Rationalist assimilated Jews of Christian Spain and southern France supported the Maimonidean position. But German Ashkenazic Jews, reeling from the crusader massacres, had withdrawn into an ascetic, insular, and mystical Hasidim that could not admit Maimonidean rationalism. As a result of the Maimonidean controversy, Ashkenazic rabbis tried to impose a ban on all secular studies, including philosophy, metaphysics, and mathematics.

Key Jewish Personalities during the Middle Ages

Saadya Gaon (882–942)   Famous rabbi, philosopher, and prominent Babylonian *gaon;* outspoken opponent of the Karaites. He repulsed attempts to return to the old liturgical calendar based upon the sightings of the Moon, which had been discarded by Rabbi Hillel II in the fourth century. A prolific writer, he wrote numerous works on Hebrew philology; law; a philosophical treatise, *Beliefs and Opinions* (*Emunoth ve deoth*); and scores of tractates against the Karaites.

Hasdai ibn Shaprut (915–970)   Jewish linguist, grammarian, physician, and minister of foreign affairs to the Umayyad caliph Abd al-Rahman III (r. 912–961). One of Hasdai ibn Shaprut's diplomatic triumphs was to arrange peace between the violent states of León and Navarre. He participated in the translation of the Greek manuscript of Dioscorides' work on botany into Arabic, making it accessible to

Arabs and thereafter to the rest of the world. He helped to make Sephardic Judaism independent of its reliance upon the Babylonian *geonim* through his patronage of the yeshiva at Lucena.

Chanoch ben Moses (active 965)   Chanoch ben Moses succeeded his father, Mosen ben Chanoch (d. 965), as the chief rabbi of Córdoba and the spiritual head of the Jewish community of all Muslim Spain. Legend has it that he and his father were shipwrecked by pirates and redeemed by Hasdai ibn Shaprut. Under the leadership of Chanoch ben Moses the yeshiva of Lucena became independent of the rabbis of Babylonia. Jews from all over the world wrote to Chanoch seeking *responsa,* which converted Lucena into a beacon of Jewish legal studies.

Samuel ha Nagid (993–1056)   Renowned Jewish prince ("Ha-Nasi") of the Jews of Umayyad Spain. He served as vizier to the last two Umayyad caliphs, and after the fall of the Córdoban caliphate in 1031, he relocated to Granada to take up the position as vizier to the Taifa Berber king. Samuel was also a scholar, grammarian, military commander, and accomplished poet. In his poetry collection, *Ben Mishle,* he reflects on worldly topics such as the follies of kingship and war as well as expressing piety and love of family.

Maimonides (1135–1204)   Moses   ben Maimon of Córdoba, known as Maimonides, was the most famous rabbi and philosopher in the history of medieval Jewry. He was born in Córdoba, and his family emigrated to Egypt in the wake of the Almohad persecutions. His immigration to Egypt symbolizes the demise of the "golden age" of Jewish Spain. Maimonides studied Aristotelian philosophy and wrote the mammoth *Mishneh Torah* (*Second Torah*), which synthesized the teachings of the Torah using

Greek systems of classification. His *Guide for the Perplexed*, a towering synthesis of Greek rational thought and Judaism, sparked the Maimonides Controversy, which threatened to sever relations between Sephardic and Ashkenazic Jews.

Meir ben Baruch of Rothenberg (1215–c. 1286) Germany's greatest rabbi of the 13th century. He hailed from a long line of prominent Ashkenazic rabbis. He was present at the Paris Disputations on the Talmud of 1240, which resulted in the burning of numerous manuscripts of the Talmud. The poetic eulogy he composed to commemorate this event became a part of Jewish liturgy. He achieved acclaim as the foremost rabbi of Ashkenaz, and his responsa and teachings made an indelible mark on future generations. His heroic refusal to accept the Holy Roman Emperor's imposition of serfdom on the Jews, issued in 1286, led to his imprisonment and death.

CHRONOLOGY

476
Fall of the Western Roman Empire

500
Clovis conquers most of France and Belgium, founds Merovingian dynasty

589
Visigoth king Recarred approves Council of Toledo to force baptism of children of Jewish-Christian marriages, forbids intermarriage

590–604
Papacy of Gregory the Great; fuses Roman papacy with Latin Church; initiates conversion of England to Christianity

Late sixth c.
The *Toledot Yeshu* (Generations of Yeshu), polemical legends concerning the life of Jesus based on rabbinic sources that circulated in the late sixth century; manuscripts circulated widely in the later Middle Ages

610
Muhammad receives first revelation near Mecca; beginning of reign of Byzantine emperor Heraclius (r. 610–641); loses Fertile Crescent territories to Islam

613
Visigoth king Sisebut orders baptism of all Jews in realm; further restrictive and persecutory measures against Jews would be introduced by successor Visigoth monarchs until the end of the century

622
Hijra—Muhammad and followers emigrate to Medina; Islamic calendar begins

624
Muhammad defeats Meccans at Battle of Badr

627
Byzantine army led by Heraclius conquers Persia

632
Death of Muhammad; Abu Bakr chosen as caliph

633–642
Muslim conquests of Fertile Crescent, North Africa, Persia from Byzantines and Sassanids

c. 650
Caliph Uthman has Quran written down; Muslim conquests of Persia completed

656
Uthman is murdered; Ali ibn Abi Talib elected fourth caliph

680

Martyrdom of Husayn ibn Ali at Karbala; marks beginning of Shiat Ali, the Shiites

c. 700

Benedictine missionaries complete conversion of England

710–711

Muslim armies enter Iberian Peninsula from North Africa

717

Byzantine emperor Leo III the Isaurian repels Muslim invasion of Constantinople using "Greek fire"; reconquers Greece and most of Asia Minor from Muslims

732

Frankish king Pepin defeats Muslims at Battle of Tours; prevents Muslim advance into northern Europe

740

Death of Leo III the Isaurian, initiator the first Iconoclast Controversy, which lasts from 730 to 787; the second lasts from 814 to 843

749–750

Umayyad dynasty defeated; rise of Abbasid dynasty (750–1258)

751

Pope Boniface anoints Merovingian king Pepin as divinely sanctioned king, forging alliance between Frankish monarchy and Latin Church

c. 760

Emergence of the Karaite movement founded by Anan ben David in protest against the growing hegemony of rabbinic Judaism; rejects the authority of the Mishnah and Talmud

768–814

Reign of Charlemagne, most famous of Carolingian rulers, initiator of Carolingian renaissance, revival of classical learning, Latinization of Western Christendom

786–809

Reign of Harun al-Rashid, most famous of the Abbasid caliphs

800

Pope crowns Charlemagne emperor of the West

813–833

Reign of Abbasid caliph al-Mamun, founder of Bayt al-Hikma school for translating Greek texts to Arabic; theological controversy over created or eternal status of Quran

825

Carolingian king Louis the Pious issues charter to Jewish merchants granting fiscal privileges and royal protection; during Carolingian rule position of master of the Jews (*magister Judeorum/ Judenmeister*) as head of Jewish community and liaison between Jews and monarch is created

871–899

King Alfred the Great of England unifies Anglo-Saxon states, codifies English law, promotes Anglo-Saxon literacy and national culture

882–942

Lifetime of Saadya Gaon, famous Egyptian rabbi, Babylonian *gaon*, defender of rabbinic Judaism against Karaite schismatics

908

Rise of Fatimid dynasty in Tunisia

929

Abd al-Rahman III declares Umayyad caliphate at Córdoba, al-Andalus

936

Otto the Great is crowned German king; Pope John XII crowns him emperor; revival of Holy Roman Empire (962)

960–1040

Life of Rabbi Gershom ben Judah of Metz, head of Talmud academy in Mainz; under his leadership Mainz yeshiva becomes most important school of Ashkenazic Talmud study

969

Fatimids conquer Egypt, found city of Cairo

974

Count García of Castile issues *fuero* (charter) extending to the Jews of his domain nearly full civil rights on par with those of Christians; edict ratified by King Alfonso V (d. 1027)

987

Hugh Capet defeats last Carolingian king, forming Capetian dynasty (987–1328)

1031

Fall of Umayyad caliphate in Spain; rise of Taifa kingdoms

1046

German Holy Roman Emperor Henry III names German monastic reformer as pope

1050–1200

Agricultural revolution in western Europe; technological innovations lead to commercial revolution, rise of towns and trade, return to money economy

1054

Conflict over caeseropapism in Byzantine Church and doctrinal differences culminate in Great Schism between Latin and Orthodox Churches

1055

Seljuk Turks take control of Baghdad; convert Abbasid caliphs into nominal rulers

1059

Reformist Pope Nicolas II (c. 1059–61) confers on cardinals sole right to appoint new pope, reducing interference from secular rulers

1066

William the Conqueror leads Norman conquest of England, fusing French and English cultures and introducing feudal system; under Norman rule French-influenced Middle English emerges

1071

Seljuk Turks defeat Byzantine army at Battle of Manzikert

1073

Pope Gregory VII initiates Gregorian Reforms, establishing papal monarchy and moving against simony and lay investiture; German emperor Henry IV resists provoking "Investiture Controversy" and is excommunicated and forced to "walk to Canossa" (1077)

Late 11th c.

Jewish Radhanite merchants take copies of Torah to France; Rabbi Mahir of Babylonia founds yeshiva at Narbonne

1077

Birth of Latin Scholasticism, attempting to reconcile Aristotelian philosophy with Christianity; Scholastic Peter of Abelard (d. 1142) composes *Sic et non*

1085

Alfonso VI of Castile conquers Toledo, first instance of large populations of Mudejars (Muslims living under Christian rule); pro-Jewish policies include creation of the post of the *rab de la corte* ("chief rabbi of the court") giving Jews status similar to Muslim *dhimmitude*

1086

Berber Almoravids aid Muslims in Spain against Christians; defeat the Taifa Muslim kingdoms and establish a dynasty lasting until 1147

1088

Founding of University of Bologna, western Europe's first university

1095

Byzantine emperor Alexios I Comnenos requests aid from Rome against Seljuks; Pope Urban II declares the First Crusade; German crusaders massacre Jews in Rhine valley

1098–1099

Crusaders capture Antioch, most of Syria, and Jerusalem; creation of Latin Crusader Kingdoms; *The Song of Roland*, oldest surviving French epic poem, composed

c. 1100

Bernard of Clairvaux founds the Cistercian monastic order, reforming Benedictine monasticism and promoting cult of the Virgin Mary; preaches the Second Crusade

1126–1198

Life of Ibn Rushd (Averroës), acclaimed Muslim philosopher, synthesizer of Islamic and Greek thought

1144

Birth of Gothic architecture in France with its characteristic flying buttresses and stained-glass windows

1147

Berber Almohads overthow Almoravids in North Africa and Spain, founding a dynasty that would last until its defeat by Christian kings of Spain at Navas de Tolosa (1212)

1164

English king Henry II initiates juridical reforms, reestablishing secular power over courts; Archbishop of Canterbury Thomas à Becket rebels and is murdered in Canterbury Cathedral

1165

Chrétien de Troyes condenses Arthurian legends into Arthurian romance, popularizing notions of romantic love and chivalry

1170

First windmills appear in Europe

1171, 1174

First accusations of anti-Jewish blood libel emerge in France, lead to burning at the stake of more than 30 Jews (1171); Saladin defeats Fatimids of Egypt, founds Ayyubid dynasty in Egypt and Syria

1180–1223

Reign of Philip Augustus of France; recaptures most of territory captured by William the Conqueror, plants seeds of modern French state

1182

Philip Augustus of France expels Jews from France

1187

Ayyubid sultan captures Jerusalem from Latin crusaders during Third Crusade led by Philip Augustus, Richard the Lionhearted, and German Emperor Frederick Barbarossa

1198–1216

Papacy of Innocent III, founder of the Papal State, advocate of papal authority over temporal affairs, organizer of the Fourth Crusade

Late 12th c.

Formation of Jewish Pietist movement by Rabbi Samuel ben Kalonymous and other members of his family in response to martyrdom of Jews in Crusades; advocates *Kiddush ha Shem* ("suicidal martyrdom") as highest form of piety

1200

Students' revolt in Paris, founding of University of Paris inaugurating independence of education from the church

1204

Fourth Crusade, sacking of Constantinople, and foundation of Latin Kingdom of Constantinople; King John I of England loses Normandy to Philip Augustus

1206–1226

Saint Francis of Assisi undergoes religious conversion to apostolic poverty; Franciscan Order approved by pope in 1216

1208–1209

Innocent III launches Albigensian Crusade; Albigensian Cathars all but destroyed in Languedoc by 1229; final traces of Catharism suppressed in Inquisition (1229–55)

1212

Combined forces of kings of Castile, León, Aragon defeat Almohads at Battle of Tolosa; end of Almohad dynasty in Muslim Spain; subsequent conquests of Córdoba, Valencia, Seville reduce al-Andalus to Nasrid kingdom of Granada

1215

Innocent III convokes Fourth Lateran Council to redefine concept of Christian identity and inaugurate extirpation of Cathar heresy; imposes sumptuary laws on Jews and Muslims

1216

Dominican Order founded by Saint Dominic of Spain to combat Cathar heresy and convert Muslims and Jews; order is authorized by Pope Innocent III; Dominicans oversee Inquisition

c. 1225

Dominican Saint Thomas Aquinas active in University of Paris; writes magnum opus *Summa theologica* and *Summa contra gentiles*

1228

Excommunicated king Frederick II of Sicily leads Sixth Crusade, negotiates his control over Jerusalem, and crowns himself king of Jerusalem

1237–1240

Mongols invade Russian state of Kiev and create the Golden Horde on Volga River; Mongol rule distances Russia from rest of Europe

1244

Jerusalem reconquered by Muslims, definitively lost to Christendom

1255

Papacy approves use of torture for disobedience in wake of Inquisition trials against Albigensians and Waldensians

1258

Mongols capture Baghdad, destroy the city, and murder caliph; fall of Abbasid caliphate

1261

Michael VIII Palaeologus restores Constantinople to Byzantine rule

1263

Barcelona Disputation organized between Jewish convert and papal legate Pablo Cristiano and Rabbi Nachmanides to debate whether Messiah had appeared; Nachmanides prevails but is accused of heresy and forced into exile

1265

Birth of Dante Alighieri, Italy's greatest writer, author of the *Divine Comedy*, promoter of Italian "new style" of literature

1268

Charles of Anjou, ally of papal crusade against Hohenstaufens, ousts Hohenstaufens from Sicily

1281–1324
Reign of Uthman (Osman), founder of Ottoman Empire

1286
Imprisonment of Rabbi Meir ben Baruch of Rothenberg (Germany) due to refusal to accept royal slave status (*servis camáre regis*) imposed by Habsburg emperor Rudolph I; dies in prison

1305–1367
"Babylonian Captivity" when papacy transfers to Avignon, and is subordinated to French authority

1315
Great Famine ravages Europe, caused by bad weather and crop failure, exacerbated by war

1328
Defeat of Capetian dynasty in France and rise of House of Valois; English line of Capetians try to retake France

1342
Avignon pope Clement VII introduces "papal indulgences," offering spiritual benefits for donations, and systematizes simony

1337–1453
French initiate Hundred Years' War, which lasts until 1453; most important battles at Crécy (1346), Poitiers (1356), and Agincourt (1415); English revolutionize tactics of war; war creates national consciousness

1347–1349
Black Death ravages Europe and parts of Middle East and Asia; two-thirds of European population dies; plague provokes massacres of Jews in Germany and France

1348
Italian writer Giovanni Boccaccio (d. 1375) writes the *Decameron*, first work of European prose literature, centered on a pilgrimage journey to escape the Black Death

1358
Economic hardships of Hundred Years' War in France precipitate Jacquerie Peasants' Revolt

1366–1379
Trastamara Wars in Spain between brothers Pedro I of Castile and Henry II of Trastamara; the latter prevails and installs himself as king of Castile; instigates pogroms and massacres against Jews in 1366 and restores rigorous Visigothic anti-Semitic laws

1378–1417
Western schism in Roman papacy as French cardinals recognize Pope Clement VII and the rest of European cardinals recognize Urban VI; schism is ended at Council of Constance in 1417, which confirms Martin V as pope; conciliar movement replaces the papal monarchy

Late 1300s
Ottomans capture Balkans

1381
English Peasants' Revolt erupts in aftermath of advantages peasants gained from laborer scarcity after Black Death when aristocrats try to lower peasant wages

1391
Archbishop and preacher of Seville Ferran Martínez incites massacres of Jews in Seville, which spread throughout Spain, resulting in the mass conversion of thousands of Jews and the commencement of the phenomenon of the *converso* ("Jewish convert")

1394
Charles VI of France issues final edict expelling all Jews from France

1399–1400

Lay church reformer John Wycliffe inspires Czech students in Prague; preacher John Hus (d. 1415) begins Hussite movement criticizing ecclesiastical abuses of power and papal authority over temporal affairs

1410

Polish-Lithuanian forces defeat German Teutonic Knights and extend rule over Russia, sparking conflict with Byzantine Church

1413–1414

Disputation of Tortosa (Spain) summoned by Avignon pope Benedict XIII to debate whether Jesus is the Messiah; ends with a papal bull forbidding the study of the Talmud

1414–1415

English Lollard movement is crushed; John Hus condemned as a heretic of Council of Constance and burned at the stake

1429–1430

Joan of Arc receives divine visions telling her to liberate France, leads French victories over English; captured by English king, she is accused of heresy and burned at the stake

1453

Ottoman sultan Mehmet Fatih conquers Constantinople; fall of Byzantine Empire

1455–1485

Henry VI of England wages the Wars of the Roses between his own House of Lancaster and House of York; House of York triumphs but is overthrown by Tudor dynasty founded by Henry VII

1460–1467

Pope Sixtus IV launches Spanish Inquisition against *conversos* to root out Judaizing practices among Jewish converts

1462–1482

Ivan III of Russia undertakes the "gathering of the Russian lands," annexing the republic of Novgorod and the whole of Great Russia, and ending Moscow's subjugation to Mongol khanate

1469

Marriage of King Ferdinand II of Aragon to Queen Isabella I of Castile, which would lead to the union of Spain under the reign of their heirs

1492

Ferdinand of Aragon and Isabella of Castile conquer Granada and expel all Jews and some Muslims from Spain

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2

SOCIETY

For all their religious differences, remarkable similarities characterize the basic contours of society during the Christian, Jewish, and Islamic medieval period. All three Abrahamic faiths shared the belief that human society should be ordered according to the divine will. Religious personnel—clergy, rabbis, and ulema—were positioned at the apex of the social order of their respective societies, although in the Muslim and especially the Christian case, religious leaders might encounter difficulty in exerting their influence over secular rulers. The laws, institutions, and worldview that governed social life of Christians, Jews, and Muslims alike were likewise overwhelmingly conditioned by religious and moral values. Religion and ethics dictated the norms regulating family and communal life, social status, business and work relations, a proper education, dietary laws, licit and illicit forms of leisure, crime, punishment, and the rule of law—in short, all the parameters of the social life of all three religious communities.

Such significant similarities must not blind us, however, to important differences in the Christian, Jewish, and Muslim societies. The political dualism that confronted the spiritual and temporal powers that would reach its climax in the Investiture Controversy of the 11th century between Emperor Henry V and Pope Gregory VII had no parallel in either Jewish or Muslim society, where the very concept of a political separation between the sacred and the profane did not exist. In the same vein, feudalism and manoralism emerged only in Christendom owing to the particularities of its territorial and social organization and inheritance laws.

Theoretical and idealized social differences separating medieval Christians, Jews, and Muslims constantly had to be renegotiated in light of real-life coexistence and interaction. The existence of a Jewish Diaspora dispersed between the lands of Esau and Edom meant that the dominant Christian and Muslim societies had to create institutions to accommodate their Jewish

minorities. Jewish notions of the ideal society always had to contend with the changing realities of subjugation to Christian or Muslim rule, and the same may be said of Christian minorities living under Muslim rule. Indeed, Islamic strategies for dealing with religious minorities would influence Christian legislation when the political tide began to turn against the Muslims, who would find themselves subjected to Christian rule.

Social relations among Christians, Jews, and Muslims in the medieval world took many different and often contradictory forms, from the lofty privileged world of diplomatic and fiscal service to the sovereign to the tawdry underworld of crime and prostitution. The search for knowledge and the shared exalting of human reason drew Muslims, Jews, and Christians together at scholarly universities and libraries. Intermarriage, religious conversion, civic festivals, business transactions, and slavery were among the other social arenas where human interactions took place. The social violence that erupted among communities living side by side sometimes was fueled by religious difference but perhaps more often by economic and political competition. In what follows the emphasis shall be placed on highlighting the distinct characteristics of Christian, Jewish, and Muslim society, while not ignoring the circumstances that fomented social interaction. In order to prevent redundancy, the situation of the Jews as a religious minority will be treated in detail in the section devoted to Jewish society.

CHRISTIAN SOCIETY

Duality and Hierarchy

Feudalism, the city, the corporation, and the university evolved in the Middle Ages. Duality and hierarchy characterized this medieval

Christian world. An individual man, woman, or child lived either in the secular world of the town and country or in the sacred world of the church and monastery. But the two worlds frequently intersected. Art, literature, science, and philosophy of the sacred world proclaimed its superiority to the secular. Pulpit sermons exhorted Christians to obey Jesus Christ's command to render to worldly Caesar the things that were Caesar's and to God those that were God's. Church orators claimed that the powerful City of God, the church's spiritual life, as in Saint Augustine's wonderful book *The City of God*, had supremacy over paltry earthly strivings in the city of people.

Yet art, literature, science, and philosophy of the secular world aspired beyond Christian Scripture and faith to ascend through reason to a creativity that imitated God's excellence and celebrated God's creation of humankind in his image. The aviator monk Eilmer, who, with wings strapped to his arms and legs, glided in flight in the year 1000, and the entrepreneurial merchants and international traders of the 13th-century commercial revolution had similar intentions. They integrated mind with body to soar beyond others on Earth and then returned to commonplace humanity. By fulfilling human potential and by daring beyond customary limitations, men and women praised God for providing them talent and free will.

In both the temporal and spiritual realms, God's works were further divided in the Great Schism of East and West between the Latin, or Western Roman Catholic, Church, and the Greek, or Eastern Orthodox, Church, which separated formally in the 11th century. Turmoil in the life of the church affected people's lives in the city and in the country. Then friction within the Roman Catholic Church led to philosophical divisions and papal dualities. When a 1378 conclave of cardinals failed to agree on electing a pope, they elected instead two popes, one reigning at Avignon, the other at Rome. In this intolerable circumstance called the Babylonian Captivity each pope demanded taxes to be paid and issued edicts to be obeyed. A dual papacy became a triple papacy in 1409 before it was reduced to papal unity in 1414 and ecclesiastical order was restored.

Urban versus rural concerns were another important duality of medieval social life. Other parallel dualities characterizing the social order that had their distinct sets of allegiances, privileges, and accountabilities were corporate versus unincorporated commerce, university Scholasticism versus empirical practicality, kingly body politic versus kingly human physique, and communal life of the clergy in the cloister versus individualistic, entrepreneurial life of the merchant in the townhouse.

Each dual social world was hierarchical. Every individual stood firmly on a rung of a social ladder. Each hieratic rank had its powers, rights, responsibilities, and requirements interrelated with the level above and the one below. One might ascend or descend in social rank. Just as the created universe was described as a great chain of being, so the secular realm was construed as a great political chain of being with the king or the emperor at the top and then descending feudal orders of chief tenant, vassals, vavasours, knights, squires, servants, and multiple other links before reaching down to serfs who worked the land. Hierarchic interdependencies also characterized craftsmen's guilds. The trade master at the pinnacle hired after suitable training a journeyman, who worked his way up from the education and service of an apprentice.

Comparable to secular hierarchies were ecclesiastical rankings ranging down from the pope at the top of the Major Orders, formally codified by Pope Innocent III (1198–1216), through bishops, priests, deacons, and subdeacons, all considered superior in authority to members of the Minor Orders, the porters, lectors, exorcists, and acolytes.

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Most hierarchical relationships were created by written or implied voluntary contracts. Feudal and apprenticeship relationships usually had written contracts. Each contract signer pledged to exchange value for value, and obligations were mutual and reciprocal. Rights and responsibilities in land and business contracts could be enforced in a court of law with competent jurisdiction. Any American who has married, divorced, bought a house, rented an apartment, worked for a corporation, traded stock, lived on a farm, lived in a city, or signed a contract has encountered the remarkably durable patterns of medieval society's dualities and hierarchies in religious sacraments, private property law, feudalism, real estate law, corporations, universities, and urban organizations. Fundamental structures and terminology of all these social institutions have endured from before the 12th century to today.

GREAT CHAIN OF BEING

The great chain of being was the formulaic expression of the interrelatedness of all elements in the world order. God was positioned at the top of the great chain followed by three choirs of nine angels, as Dionysius described their celestial hierarchy, with seraphim, cherubim, and thrones; then dominations, virtues, and powers; followed by principalities, archangels, and angels. Linked to angels above and to animals below, man and woman occupied the middle links of the chain. Beneath humankind were various classes of beasts, then strata of trees and plants, and finally the bottom links of rocks and stones. Each link was tightly inter-connected to the ones above and below. Human beings had the ability to ascend to the level of angels, using reason and rejoicing in the soul. Men and women also had human tendencies to descend toward beasts in indulging carnal pleasures. This order of the world, *ordo mundi*, demonstrated God's divine plan for a perfect sequence in the universe, the singular interconnected creation. The total grand cosmos was the macrocosm possessing four elements and four contraries harmoniously reduced in the human being, the universe in small, the microcosm, composed of the four humors.

Human life was seen as a set of seven ages, seven interlinked phases beginning in infancy, progressing through youth, adolescence, and prime, to elder age, dotage, and death. Life was too short to spend long in childhood. Knights were dubbed and empowered to fight at age 13, one reason so much armor seems so small to modern eyes. Children were apprenticed early to craftsmen and usually were ready for work at age 12. Some people lived long lives. Queen Eleanore of Aquitaine lived to age 83. However, infections in the absence of antibiotics and antimicrobials were as serious weapons as poisons or bullets. An average medieval man or woman in 11th- to 15th-century western Europe lived to approximately age 33.

Given the shortness of the average life span, marriage by the time of puberty was routine, and child marriage was common. Child marriage was the uniting of youngsters for dynastic, political, and economic purposes. Parents betrothed their children and wed them early, often before puberty. In the 12th century a baby boy groom died and left his 10-year-old widow in the custody

(opposite page) *The totality of the created universe was seen as integrated. Just as the larger creation, the macrocosm, consisted of four elements (earth, air, fire, and water) possessing four "contraries" (hot, cold, moist, and dry), so the human body, the microcosm, possessed four vital fluids, the four humours (blood, phlegm, choler, and black bile). Humoural equilibrium determined physical demeanor, personality, and health. Food generated humours; diet determined or cured disease.* From *Byrhtferth's Manual*, 12th century, English. Oxford, St. John's College Library, Ms. 17, f. 7v.

of her mother, who controlled her daughter's lands inherited in marriage. This mother also controlled those of her 10-year-old married son and his wife, an heiress who owned a huge English manor by age five.

Feudalism

Feudalism was one of four major phenomena that defined medieval society; the other three were the university, the corporation, and the city. Land was a valuable though limited asset, especially when it was well located, expensive sheep grazed it, important crops were harvested from it, and precious minerals were mined from beneath it. Land produced necessary subsistence products for food, clothing, and shelter and valuable crops for domestic trade and for exports. *Tenure* (Anglo-Norman, "to hold") was the landholding system that King William the Conqueror (r. 1066–87) established in England after the year 1066 to pay off followers for their past military service and to obligate them to future duties, goods, and services. With land grants King William purchased the loyalty of chief nobles to provide political support and fighting men. The nobility protected their vassals, who held land from their overlord in return for allegiance and homage. Beneath the vassal was a *vavasour* (Latin, *vassi vassorum*, "vassal of vassals"), a feudal tenant who ranked immediately below a baron. Each feudal class was linked to each by privileges, by responsibilities, by loyalty, and by dependency, creating the political great chain of being and hieratic world order, the *ordo mundi*, sanctified by the Christian Church.

Feudalism developed from two major traditions. As the Roman historian Gaius Cornelius Tacitus (c. 56–c. 117) described it in his treatise on the German tribes, *Germania*, the Germanic war band called the *comitatus* was a group of warriors joined by mutual obligations and privileges to one another and to their leader. This was one origin of the exchange of obligations between knights and overlords. Feudalism equally derived its power from Roman land tenure.

The feudal pyramid graphically represented feudalism's intricate relationships among land-holders, the king, and the state. At the pyramid's apex was the king or the state, the *allodial owner*. An *allodium* in early Germanic law was an estate in land held in absolute ownership without service to a superior or to an overlord. Its opposite was a *feudum* (Latin, "a reward"), or *feud*, *fee*, or *fief*, a property in which tenure imposed strict duties. In the stratum below the *allodial owner* was the chief tenant, the *tenant in capiti* (Latin, "tenant in chief"), the only person holding land directly from the *allodial* owner. From the chief tenant all others below held land by the process of *subinfudation* and were called subtenants. *Subinfudation* granted property interests to smaller and smaller holders of tenure, each tenant owing economic, service, and other incidents to the landholder one level above.

LAND TENURE

Land tenure had four basic types. Knight's tenure traded military service for land rights. *Frankalmoigne* exchanged religious services for land. *Sergeanty* generated personal services, with *grand sergeanty* for legal and court positions and *petit sergeanty* for household retainers. *Socage* provided economic and field labor.

Knight's Tenure While a literary knight of King Arthur's court jousted in shining armor, rescued and loved exquisite damsels, and fought fiery dragons, the historical knight (Anglo-Saxon *cniht*, "young man") was a military associate of a king or nobleman who under feudal knight's tenure exchanged military service for landholding. Under knight's tenure the knight owed martial service and feudal incidents that were specific obligations including homage, fealty, political,

and economic responsibilities. A series of emergency financial payments called aids required the knight to pay ransom payments for his overlord and mandatory gifts at the knighting of the overlord's son or the marriage of his daughter. The feudal incident of marriage granted the overlord the right to choose a bride for his tenant's heir or to sell that right. A knight's daughter wanting to marry a man of her own choice usually had to buy her way out of the tenurial obligation her father owed to his overlord.

A knight's obligation of homage and fealty to his overlord had fascinating parallels in practice and expression to the knight's religious duties and responsibilities to the Lord God. Likewise, the knight owed homage and fealty to his beloved secular lady, the *donna*, and to the church's exalted Lady Mary.

The tenant knight found guilty of treason or breach of an oath of fealty was punished by forfeiture, the forced giving up of land possession. Relief was the money a knight tenant's heir paid for the right to possess inherited land. If a knight died and his heir was a minor, below age 21, the overlord both collected a death payment and provided stewardship of the land. Under *wardship* the overlord took possession of the property and collected all rents and profits from the land. If a tenant knight died without heirs, the property reverted to the overlord by the process of escheat. *Scutage* (Latin *scutum*, "shield") was a fine or tax under feudal law that a tenant holding a knight's fee owed to an overlord if the knight refused to or was unable to provide military service in return for the land tenure. Also called shield service, *escuage*, the knight joined the king at war for 40 days at his own cost or sent a substitute or a monetary payment, *scutage*.

England's King John (r. 1199–1216), in his need of money to finance his foreign wars, had brutally enforced aids, *scutage*, ruinous taxation, and oppressive feudal obligations. These were the major reasons why disgruntled nobles met him in 1215 at Runnymede, where they forced the king to sign the 63-clause Magna Carta (Latin, "great charter"). That powerful document influenced later British, European, and American concepts of basic rights and constitutions, such as prohibition of taxation without representation and trial by jury of peers. The Magna Carta established as new law of the land that *scutage* and aids were to be levied only by the common council of the kingdom, and, except for aids required for ransoming the knight's body, knighting his oldest son, and marrying his oldest daughter, were to be limited and reasonable. Moreover, no freeman was to be tried, punished, exiled, imprisoned, or stripped of land except when convicted of crime by a jury of equals (clause 39).

Frankalmoigne   *Frankalmoigne* was spiritual tenure. In return for an estate in land, a clergyman or an ecclesiastical corporation distributed alms and said masses or prayers for the grantor when alive and in honor of his soul after his death.

Sergeanty   *Sergeanty* was the feudal land tenure providing personal service to the king. *Grand sergeanty* included most titles affecting the defense of the country. Grand sergeants were the king's marshal, banner bearer, attorney, and expert in *cornage* (Latin *cornus*, "horn"), the horn blower whose readiness and ability to sound an alarm alerted people to danger. *Petit* or *petty sergeanty* provided the cooks, *quistrons*, and banquet hall and kitchen services ranging from the surveyor of ceremonies down through the wood gatherers for the fires of kitchen and hearth.

Socage   Under *socage*, the landholder owing obligations to a landowner was called a *soke man;* he was required to pay such feudal incidents as fealty, relief (for the privilege of inheriting land), escheat (reverting of land to the overlord at death of an heirless landholder),

and court holding. A *villein* was a feudal serf, a country laborer, or a peasant holding land in tenure by possessing it, working it, and providing labor payments to the overlord. Average was work done for the feudal lord by the serf and his oxen. (In international trade an average was a maritime or customs tax on shipped goods.)

The *villein* provided week work (Anglo-Saxon *wicweorc*), the labor on the lord's own demesne, the home farm, sometimes three days out of seven. This was augmented by boon work, the extra work for demesne haymaking or harvesting. In England a demesne was land held in possession for one's own use, belonging to oneself, *tenere in domineo*, lands possessed by free tenure, as opposed to lands held in service, *tenere in servitio*. Some boon work was wet boon, providing the laborer free ale and dinner. A *nuncheon*, from which our modern word *luncheon* may be derived, was a free noontime quench of wine, cider, juice, or water for laborers in the fields.

Subinfudation led to increasingly small obligations of landholders at the base of the feudal pyramid, an ineffectual method of generating cash. It also inhibited economic growth. In the year 1290 England's Parliament enacted a statute called *Quia emptores* (Latin, "because the buyers"). This law forbade *subinfudation* of freehold estates. All land transfers from that year forward were by the process of substitution. Substituting land rights and responsibilities from one possessor to another essentially destroyed the feudal pyramid and created modern property law. After *Quia emptores*, king and overlords regained most profits from land tenure agreements. Overlords then had freedom to grant *cestui que* uses (Latin, "he who has use"), the right to use and obtain profits and benefits of land and buildings for which another person had legal title, possession, and responsibility to defend.

By enacting the law called the Statute of Uses, powerful though cash-poor King Henry VIII later abolished *cestui que* use without title. In 1536 King Henry forced upon an unwilling Parliament the law to convert the equitable right to use land into legal title and right to possess. He transformed *cestui que* use to full ownership.

LANDED ESTATES

Though modern purchase contracts for houses and land and rental contracts for apartments and offices retain archaic language traceable back to King William's land tenure system, word meanings have changed. A land estate in medieval terminology did not necessarily mean a vast ostentatious house set on grassy fields with walled gardens and a gated driveway, as in modern parlance, but rather the classification and status of ownership. An *estate in land* was a possessory interest measured by time.

The two major estates in land were the freehold estate and the nonfreehold estate. Nonfreeholds included rents, leases, and *villeinage*. The nonfreehold had no *seizin*, meaning the right of possession of a freehold estate and land. Freehold estates had *seizin*, usually transmitted by the ceremonial *livery of seizin*, in which a seller transmitted to the buyer a symbolic clod of earth with or without a written deed. The tenant taking possession of a freehold estate in land assumed all rights and responsibilities of tenure.

Freehold land estates were tremendously complex. A basic type of freehold was the fee simple, the highest and best right of ownership and possession, lasting indefinitely, which could be willed to heirs and grantees infinitely. Of two types of fee simple estates, the *fee simple absolute* was the more certain, better, perpetual ownership and possession. However, a *fee simple defeasible* was an estate in land cut short only when and if certain events occurred. It was a land transfer with conditions attached. This *fee simple defeasible* could last forever as if it were a

fee simple absolute, but it might be obliterated by a specific circumstance, such as building a forbidden tavern or marrying a prohibited person. If that event caused an automatic reversion to the grantor or heir, it was called a *fee simple determinable*. The tenure might be *fee simple upon condition subsequent*, causing a nonautomatic reversion of possession to grantor or heirs. Or it could be a *fee simple subject to an executory interest*, causing a remainder to go to a third person.

Other fees included the *fee tail*. In common law in order to keep land in tenure heritable only in the family, eldest sons inherited from one another, each receiving only the equivalent of a life estate. The process of inheritance by *fee tail* was created in a will by the words "and the heirs of his or her body." Duration of a life estate was measured by a person's life, providing all rights and privileges of ownership except for transfer by sale or transfer at death. The measuring life might be the person possessing the land or yet another person, *pour autre vie*. After a life estate granting possession of land for the tenant's life, the property reverted to the donor or to another named person.

Younger children of a king, prince, or nobleman, having no heritable land privileges of the firstborn, needed some form of moneymaking profession. Such a lucrative estate, appointment, or income was called an *apanage* (French, *apaner*, "to endow with means of subsistence").

TALLAGE AND TITHES

Tallage was a tax that feudal dependents paid to their overlords, variously computed and based on the amount of land held. Numerous varieties of tallage included the *Michaelmas tallage* paid at the time of the Christian feast celebrating Saint Michael the archangel, usually on September 29. *Incoming tallage* was paid at the arrival of a new lord. *Heriot* was a death tallage, paid usually by the best animal or the finest part of the crop that the villein paid to the overlord. Originally it was called *hergeat* (Anglo Saxon *here-geatwa*, "army gear"), the war gear, horse, armor, and weapons returned to the overlord at the death of a lord in feudal tenancy.

Merchet was a marriage tallage or tax that a villein paid as to the manor lord for the villein's daughter to marry outside the manor. *Relief* was the tax paid when taking over a new landholding. *Wood penny* was the tax for the right to gather dead wood used for firewood and for building.

The church taxed similarly, collecting a *tithe*, an amount equal to one-tenth of the value of crop or *chattels*, movable possessions, and wealth, including capital, cattle, and anything negotiable that was owned. Chattels were the opposite of real estate. The church also imposed other taxes such as *mortuary* to be paid at the death of a parishioner.

Universities and Scholasticism

Universities began to develop in the 12th and 13th centuries as independent corporations with students and professors organized under faculties of medicine, theology, and law. These graduate studies followed the curriculum of the seven liberal arts, the subjects that liberated the mind to think and act. The three liberal arts of the *trivium* were grammar, rhetoric, and logic. The four liberal arts of the *quadrivium* consisted of astronomy, music, geometry, and arithmetic. By the year 1200 the faculty of medicine at Salerno was world famous and so were the faculty of law at Bologna and the faculty of theology at the University of Paris.

In the 11th and 12th centuries Scholasticism attempted to apply classical reasoning, particularly Aristotelian logic and philosophy, to Christian dogma and liturgy. The Italian writer Saint Anselm (d. 1109) wrote the treatise called

Why God Became Man, Cur Deus homo, to explain the logic behind Jesus Christ's method of salvation. The famous cleric Peter Abelard (1079–1142) wrote his *Pro and con, sic et non*, demonstrating the inconsistencies and antitheses of the writings of the famous doctors of the church, particularly Saint Augustine of Hippo (354–430).

Corporations, Taxes, and the King's Two Bodies

Corporations were created for universities as early at the 12th century as well as for business enterprises. A corporation was a mystical entity. Although mortal human beings were its constituents, a corporation was (and the modern corporation is) perpetual and immortal. A corporation separated ownership from management, even when owner and manager were one and the same person. A corporation limited liability and limited risk of loss for those who invested in it. Corporate shares were customarily available for purchase on what today we call an open market. A medieval secular person or ecclesiastical person (or modern physician, lawyer, engineer, or architect in a sole corporation), though an ordinary, fragile, vulnerable mortal, was endowed with the legal status of an immortal corporation. Corporations shared mystic realities with kings, colleges, and angels.

The corporation emulated the king's Crown or kingship. Medieval legal documents referring to the king's head and Crown and the king's realm and Crown were not redundantly defining Crown as the monarch's bald or hairy cranium, nor describing the realm as mere acreage and coastlines. Crown was a metaphysical reference to the body politic and to the legal fiction that the king had two bodies. Mystical metaphysical ideas entered the law courts during a vituperative squabble over precious land during Queen Elizabeth I's reign (r. 1533–1603),

though the ideas were hundreds of years older. Lancastrian kings had owned the huge, valuable duchy of Lancaster as private property, not property of the Crown. Just as children could not enter contracts until they reached the age of majority after legal infancy, so King Edward VI (r. 1547–53) when still a teenager had leased certain lands within the Duchy of Lancaster. Were those leases legally valid?

Crown lawyers stated that common law allowed no act of the king as king to be defeated by his infancy or nonage. The king had two bodies, a body natural and a body politic. His natural body was mortal, subject to all infirmities of nature or accident, imbecility of infancy and old age, and natural defects of mortality. But the king's body politic was an invisible eternal body consisting of policy and government, directing people and managing public welfare. This body politic was completely free of infancy, old age, imperfections, and natural defects.

The king's body politic could not have his word invalidated or his will frustrated by disability in his natural body. The king's two bodies fully interacted with each other, forming an indivisible unit. But the body politic was more comprehensive and extensive than the natural body because it encompassed the forces for reducing and removing the imperfections of fragile human nature. This mystical, magical duality defined a king and other institutions whose visible mortal quality required immortal longevity: a university, a monastery, and a commercial corporation.

Even taxes had a double nature. Public taxation in the earlier Middle Ages was extraordinary, not ordinary, and involved such feudal incidents as aids for ransoming a lord, knighting his eldest son, amassing a dowry for his eldest daughter, or defending the realm in case of public emergency, a *causus necessitatis*. By a mystical manipulation common to political entities starved for money, then as now, the fictitious extraordinary became the openly ordinary. Pub-

lic taxation in many parts of continental Europe became synonymous with annual taxation. While originally taxation was linked to an unrepeatable event, such as the marriage of the overlord's eldest daughter, now it was connected to the calendar and mortal time. The original necessity for an occasion became by legal fiction a perpetual necessity. Therefore, the king of France demanded annually a tallage, the tax for public necessity.

The corporation derived from the Aristotelian theory that though individuals changed, perpetual identities endured. Individual people died, but the people did not die. Individual public needs were satisfied, but public need was perpetual. A university or a corporation was a collection of men united in one mystical body. Individual professors and students lived, studied, and died. Legal corporations therefore compared structurally with Christian angels.

Parliaments and Estates

Hierarchies were common in the large representative bodies in almost every European territory. Every monarch had a counsel or more usually classes of counsels. In England they were called parliaments (from Latin *parliamentum*, "talking") and estates. In Germany representative counsels were the *diets;* in Spain the counselors were *cortes;* and in France, *estates generales.* In France the customary three estates were the clergy, the nobles, and the townsmen. In England the three estates were clergy, barons and knights, and the commons. Later these were called the Lords Spiritual, Lords Temporal, and Commons. In Scotland the prelates were the first estate; feudal chief tenants, the second estate; and townsmen, the third estate. The power of estates often needed confirmation and guarantee. England's noblemen and churchmen and the citizenry of London, for instance, in 1215 compelled King John to sign the Magna Carta to reaffirm their rights and freedoms.

The Role of Women

While today in Europe women outnumber men, it was not always so. Analyses of medieval ratios of women to men demonstrate that in the early medieval period there were too few women to go around for all the ready, marriageable men. Women were fewer than men right through the 15th century. Women also seem to have had a shorter life expectancy than men. While the paleopathology record is unclear, excavations of medieval women's graves suggest that on average women died earlier than similarly situated men. Even in the late classical period, women's care of the "house, hearth, and fields," as Tacitus phrased it, left them little time for leisure. The life expectancy for the early medieval woman was dismally short. Apparently, Aristotle's idea that men live longer than women held true until somewhere around the 11th century. Differences between the earlier and later medieval "valuation" of women can best be understood by reviewing pre–12th-century laws that protected women's value and actually celebrated a woman's worth with a monetary price on her life.

Laws of an early Germanic tribe, the Salian Franks, required that if a person were killed, the killer had to pay to the bereaved family a special fine called *Weregild* ("man money" or "people-gold"). The *Weregild* for the murder of a man was 200 solidi, whatever his age. If the murder victim was a girl who was not old enough to conceive children, the *Weregild* was still 200 solidi. But after the woman began to work and to bear children, her *Weregild* tripled to 600 solidi and there remained until old age. The penalty for killing a pregnant woman was 700 solidi. A very old woman's *Weregild*

Using long scythes, two field workers cut the grain for loading by the woman to the left. The heavily laden hay wagon is drawn by two horses; another wagon winds up a hill to a windmill. From *Da Costa Hours*, Bruges, 1520. Ms. 399, f. 8v. Courtesy of The Pierpont Morgan Library, New York.

reverted to the normal male charge of 200 solidi. During her childbearing and working years a woman was "worth" more than a man of the same age and social rank. During her working and childbearing years every ordinary woman enjoyed the same protection, the same monetary value, accorded the king's companions and Christian bishops.

Another Germanic tribe, the Alamans, so cherished women for their work and their childbearing that laws specially protected women from womb to tomb. If a man attacked a pregnant woman, causing her to abort a fetus, the

fine for that reprehensible act would be 12 solidi if the child were male and 24 solidi if female. The loss of a baby girl was twice as grave as the loss of a baby boy. Fines for any injury to women were double those for injury to men. Fines doubled even for robbing the grave of a woman. Perhaps women were buried with jewelry their husbands gave them as gifts at marriage. Such a marriage gift was a dowry given by a husband to a wife, called the *Morgengabe*, the gift of a new day, the gift of a morning, the valuables the new husband gave to his wife on the morning after their first night in bed.

Such laws and customs suggest the workings of a marketplace. Women were valued highly in the early Middle Ages because they were scarce. Nevertheless, shortly after the 12th century women began to outnumber men. That demographic circumstance persists to this day. Why? Perhaps it was the male population that decreased with respect to women due to participation in the Crusades and other conflicts. Perhaps the order of town life and codes of chivalry made existence less perilous. Perhaps effective town and state government could give greater protection and personal security against rape and abduction. Women free of certain forms of violence lived longer. Records show that in 15th-century Nuremberg, for instance, there were 1,207 women for every 1,000 men. In Basle 1,246 women existed for every 1,000 men. Women who might have been happy to be wives had no available men to marry. Women's choices then were a convent or a craft. When women were more plentiful, they became less precious and less valuable. When women became the majority, they became a political threat.

The City

City life was the result of voluntary clustering of people for the peaceful exchange of goods

and services. To achieve such peaceful exchange of value for value, city dwellers paid for walls to surround their houses and municipal buildings, for a militia to fight against invaders, and for amenities that eased their daily living such as piped water systems. City dwellers maintained a representative government that owed allegiance to either a feudal overlord, ecclesiastical suzerain, king, or emperor. The city paid tribute and owed allegiance to its lord. During wars the city provided knights, armed warriors, material, and money. Rulers favored cities as sources of wealth and prosperity and confirmed the city's civil rights in liberal charters. In the tumultuous disputes between kings and noblemen, kings usually attempted to create alliances with cities.

Medieval cities exemplified what Jane Jacobs called "problems of organized complexity" that dealt simultaneously with huge numbers of problems resolved and interrelated into an organic whole. Cities evolved, and their economies expanded and contracted not usually by specific plans but by networks of trust established when individual people made decisions while working in their own self-interest. The municipal water system of London exemplified what classical economists from Adam Smith to Friedrich Hayek called spontaneous order. Cities were the result of human actions, not necessarily human designs.

Most people assume that cities developed from an expansion of rural country life. The flow of cause and effect may be precisely opposite. In the history of social development cities probably preceded, not followed, rural development. Animal husbandry and agriculture most likely developed from the earliest urban settlements that were Paleolithic trading encampments. Intensification of trade in those earliest cities stimulated food requirements for the inhabitants that caused the inventions of agriculture and developments of animal husbandry.

MERCHANTS

Merchants dealing in intercity or interstate commerce required knowledge, patience, manuals of monetary exchange, and trust. The 15th-century merchant Benedetto Cotrugli of Napoli identified four sources for merchant dignity. He enumerated them in his encomium to his profession, *On Commerce and the Perfect Merchant* (*Dell mercantura et del mercante perfetto*), published a century later in Venice in 1573. First, commerce advanced public welfare, comfort, and the health of republics. Second, merchants honorably managed private property and goods. Sparing, temperate, solid, and upright, the merchant increased wealth for self and family, stimulating other industry as he bought movable and immovable property, houses, furniture, ornaments, and clothing and elevated his condition through intermarriage with higher social ranks. Sad was the house that never engaged in trade.

Third, merchants dealt in silver, gold, money, and valuables that required integrity and interacted with artisans, gentlemen, scholars, lords, princes, and prelates of every rank. Last, merchant goodwill and impeccable reputation had negotiable as well as ethical value. No king, prince, or other man of rank enjoyed such valuable reputation and fine credit as a good merchant. While a prince's fame might be great, it had no practical use, whereas a merchant's reputation served readily for cash. A merchant's simple, plain receipt was valid without a witness, whereas rulers and others were not believed without witnesses and legal attestations.

Proud, literate, responsible civility characterized the ideal medieval merchant. In 1299 a brotherhood of French and English traders in London created the Society of Pui for charitable purposes as well as the cultivation of music and poetry. Later the *Meistersingers* in Germany, including the magisterial shoemaker Hans Sachs, held elaborate song contests.

LONDON'S GREAT CONDUIT

Water was critical to successful life in the city. In London the Great Conduit carried water to the center of London so that, as a 1345 ordinance stated, the rich and middling might obtain water for preparing food and the poor might drink. Within the main London food market neighborhood called Chepe, the huge water fountain and pipes of the Great Conduit of Chepe provided a meeting place for food craftsmen, a selling site for commodities, and an important water source. From multiple pipes cooks and bakers drew water for their boiling pots and their dough troughs, and taveners and brewers fetched water for making ale and malt. Fishermen and fishmongers washed their freshly caught Thames fish and desalted their salt-preserved imported fish from the North Sea and the Baltic. Butchers and poulterers drew gallons of water for washing blood and viscera from their meats, readying them for market sale.

Citizens carried conduit water to their kitchens for cooking and drinking. London's complex conduit system had additions to the main fountains and pipes via subsidiary branches in the markets of East Chepe and West Chepe and extensions serving large sectors of the city, neighborhood wards, and particular households. London's conduit water was diverted by means of surface and underground aqueducts from rivers, streams, and brooks. These watercourses themselves were important resources for catching fish, making beer, cleaning fowl and fish, and milling grain. For transporting food produce and merchants to and from the city as well as providing a power source for mills and mechanical devices, London's rivers and smaller waters were essential to the city's victualers. Householders also drew water for their kitchens directly from riverbank and brook side.

Water Regulations   Multiple uses of naturally flowing waters plus their artificial channeling in the conduit system made prevention of water fouling vital for city interests. No single element was as indispensable as water to medieval London's food and health. Stinking, reeking, polluted waters caused consternation, agitation, and legislation. Against water malpractices effective laws controlled water usage, extracted fees from food craftsmen for water privileges, prescribed financing of services and improvements, and defined responsibility for cleaning waterways. Municipally appointed keepers of the conduit were charged with preventing water waste, collecting fees from users, and checking, cleaning, repairing, maintaining, and protecting the whole plumbing system. Account books of conduit keepers detailed monies collected for conduit use from specific householders and food craftsmen, publicly listed dues-defaulting people, and enumerated confiscated illegal pots, tubs, and buckets redeemed by cash pledge. Conduit personnel earned daily wages augmented by stipends for drink or with wines for a noon quench, or *nuncheon*. Employees repaired broken pipes, extended water conduits, and investigated the system for poison, *esclandre de poyson*. A major vulnerability of a public water system was intentional interruption, sabotage, or poisoning. Real or imagined poisonings and the grand superstitious methods to overcome them led Chaucer's Pardoner in the *Canterbury Tales* to peddle pig's bones as saint's relics capable of curing poisoned waters.

Water Waste   Perfidies of brewers, taverners, malt makers, and other food and drink craftsmen caused inordinate use and wastage of water, resulting in shortages. By 1357 wastage was so serious that householders from the conduit neighborhood complained in court against brewers because of their giant water-carrying tubs called *tynes*. As sanction against overdrawing water, any brewer caught filling a tyne lost his vessel to the conduit keeper. Alone, this

punishment failed to deter water loss. Later water shortages again implicated brewers and taverners, who were forbidden to make ale or malt with conduit water. Violators of that rule lost their multigallon tankards and tynes, paid fines, and risked jail. Forty pence was penalty for the first offense, money plus the water receptacles for second and third offenses, and for a fourth misdeed, prison.

Solving Water Problems through Private Initiative Private enterprise and municipal initiative collaborated in remedying water distresses. Fleet Street citizens, for instance, no longer willing to endure their houses and cellars flooded and their goods ruined when conduit pipes and water mains broke, built at their own cost an *aventum*, a protective vent or penthouse for the overflow of the public aqueduct. They promised to restore all pipes to their original positions if this new expediency in any way violated the welfare of the conduit or city. In a Latin document dated 1388 under the reign of Richard II (r. 1377–99), 22 citizens pledged to pay for the penthouse over the aqueduct opposite the house and tavern owned by John Walworthe, vintner, to prevent flooding via the London aqueduct due to broken pipes causing losses, rotting and damaging their houses, cellars, party walls, goods, and wares.

Other London citizens holding lands and tenements for business or dwelling repaired problems at their own expense. Wealthy Londoners, recognizing utility for their own kitchens of a subsidiary conduit, personally funded its building, giving surety against infringement upon the main pipes. Water projects sponsored and paid for by private individuals for personal gain and for patriotism always provided for restitution to the municipality in case of damage to the public good. The Thames, Fleet, and Tyburn were three among 15 English rivers treated with public and private initiatives against human carelessness, silting, sedimenta-tion, artificial wallings, diversions, dammings, and burials beneath urban construction.

Daily Hygiene

Hygienic bathing was not the rare activity during the medieval period that most modern critics assume. Some medical manuals recommended daily baths, warm or cold. Hygiene texts recommend daily washing of face, ears, and hands with fountain water. Students especially were counseled to bathe their eyes twice a day only in well water, rather than river or lake water, thereby preserving their sight and sharpening their memory. Others bathed their eyes in rosewater, fennel water, or eye bright, belladonna water.

If old age or an eye disease or injury dimmed eyesight, a popular remedy was a medical recipe using distilled waters of vervane, betany, fennel, white wine, "Tintia," sugar candy, Aloes Epatick, Woman's Milk, and camphor. The dry ingredients were pulverized, infused with liquid for 24 hours, then strained. This eyewash could be freely used as needed.

For healthy teeth a health manual recommended picking and rubbing them, but not buying expensive dentifrices. Four rules that kept teeth white and uncorrupt also sweetened breath: rule one, wash your mouth well after eating; second, sleep with your mouth somewhat open; third, spit in the morning whatever has gathered that night in your throat; fourth, take a coarse linen cloth and rub your teeth on their lip side and tongue side to take away "fumosity" of food that makes them rot and infects the breath. Swish peppermint or spearmint water vigorously for two minutes, then spit it out.

If teeth loosened, a mouth water "better than powders" fastened them, scoured the mouth, made the gums sound, and caused gum flesh that had fallen away from the teeth to

grow. The recipe consisted of half a glassful of vinegar; an equal amount of water of the mastic tree; one ounce each of rosemary, *miror*, *Armoniak*, dragon's herb, and *rocheallome*; half an ounce of fine cinnamon; and three glasses of fountain water. Mix well, let boil over a small fire, and then add half a pound of honey, removing the scum. Steep with some *Bengwine* for a quarter-hour. Remove it from the fire. Cool the fluid and store it in a clean bottle. Wash teeth with this liquid dentifrice before food and after, holding it in the mouth and swishing it around. Doing so benefited the head as well as sweetened the breath.

Frication was the art of vigorously rubbing the skin until it heated. After rising on a winter morning, one exercised to heat extremities and to keep bodily fluids properly flowing. Strong, strenuous stretching of arms, hands, legs, feet, and back forced heat to the body's outward parts and quickened memory. Soft frication by a fine comb of ivory, bone, or horn, combing hair up and down, forward and backward, gently stimulating the scalp from forehead to nape of neck, helped memory. Fricating was best started with the palms of the hands. Then one rubbed and chafed the body with a coarse warm cloth, rubbing head, neck, breasts, armpits, belly, thighs, and feet. Breast, back, and belly were fricated gently. Arms, thighs, and legs were fricated roughly until ruddy and warm.

BATHS

Baths were as various as the wealth and ingenuity of bathers. Indoor and outdoor baths were common. Health spas with hot springs, mineral springs, and other healing waters created outdoor heated baths, their naked bathers drinking curing draughts from flagons. Medical spas were so common that some towns created their economies around them. The German *Bad* towns—for example, Marienbad and Baden-Baden—Italy's Puteoli or Pozzuoli, and Bath in England all reached their fame as health resorts thanks to their healing waters. One important medical bath town heritage endures today in

Therapeutic baths in homes, cottages, and castles were augmented by popular public baths and health spas throughout Europe in the 13th through 15th centuries. People traveled from afar to health spas. Local entrepreneurs and physicians profited from natural hot springs, from artifically heated pools and baths, from mineral-laden natural springs, and from indoor and outdoor pools to which minerals, spices, and fragrant herbs, thought to have specific medicinal effect, were added. Here, four women bathe a knight outdoors in a warm bath. A long-haired woman presents the naked man a footed chalice of wine, while a hooded woman servitor squats down before the fire to stimulate it with bellows, heating a cauldron for the portable wooden tub's hot water strewn with fragrant flowers, medicinal herbs, and leaves. On her knees in front of the tub, another woman, wearing a reticula *(a bejeweled hairnet covering her hair), massages the man's right arm above and below his elbow. Balding in front with hair curling at his neck behind, he is ready to be crowned with a chaplet, a garland of flowers.* From *The Baths*, 14th century, Flemish. Courtesy of Cambridge University, Trinity College Library, Cambridge, Trinity, Ms. B11.22.

the generic name *spa* originally from the town of Spa in the province of Liège, Belgium.

Physicians and medical manuals advised patients to soak and to swim in orthopedic baths. All social classes, the nobility, townsfolk, and peasantry, could bathe somewhere on the ocean shore, riverbanks, lake fronts, streambeds, hot springs, water holes, natural ponds, and artificial pools. Sportsmen and patients entered pleasing, curative waters naked, wearing bathing garb, or fully clothed. Bathing caps protected long hair of both men and women. People swam prone or supine, crawled or back stroked, floated, treaded water, or simply stood or sat in the healing mineral waters of medical baths.

Medicinal baths simultaneously could be internal as well as external with the drinking of a draught of orthopedically proper herbed wine such as hellebore, melissa, violet, ivy, bruisewort, or pimpernel. In the hydrotherapy medical spa in Italy at Puteoli, patients sought amelioration of disease symptoms, relief from pain of injury, or absolute cure. "To take the waters" and "to take a cure" meant to visit a spa.

Puteoli in Italy and other European medical baths customarily had multiple buildings to accommodate patients. Built beside the flowing waters, some had clothes-changing rooms, saunas for traction and manual manipulations, and medical dining halls. In orthopedic hot bath treatments both patient and physician often were nude. Nakedness was required by manipulations in moist steam vapor baths or dry heat saunas. Warmth relaxed patients' muscles and moods to affect healing favorably. Buildings sometimes straddled the mineral stream, allowing direct inhaling of pungent odors and direct entrance into the flowing waters. Some spa buildings enclosed the stream altogether from side to side to protect patients from wind and weather.

Patients traveled to certain baths from afar for healing, traveling alone if adequately mobile, in family caravans, or on publicly arranged health tours. Some gigantic rectangular pools depicted in paintings initially appearing to be places of joyous deportment have poolside tents called *tentoria infirmorum* in which people move to and fro with crutches, invalids' carts, and paraphernalia of disability. Water in such pools functioned as a fountain of health and a fountain of youth.

Healing waters and flowing waters also were celebrated in place-names of monasteries. Cistercian monastic houses, for example, using the French word for water, *eau*, were Rievaulx, Cîteaux, Clairvaux, and Eauclair. Abbeys such as Trois Fontaines and Fountains Abbey were named after noted fountain springs. Pilgrimages sometimes combined secular medicine with divine intervention. A trip to Canterbury to Saint Thomas à Becket's shrine was paired with a visit to nearby Bath. Chaucer's pilgrims voyaged to Canterbury because Saint Thomas had helped them when they were sick.

Bathing, food, and drink were simultaneous medical therapies. A medical banquet board spread athwart the gunwales of the smaller pools or arranged along the coping of the larger ones contained medically sanctioned herbs, meats, fruits, and wines.

BATH HEATING

Indoor health spas controlled temperatures of water and ambient air. Some medieval mineral springs were thermal, hot springs, while elsewhere gently warmed laving waters were made with an efficient water heater. Sophisticated central heating systems in more elaborate bathhouses had effective plumbing. Giant furnaces beneath or alongside the bath rooms heated their water and air.

Other baths had indwelling glazed-tile tall stoves or dry heaters with hot stones. Some indoor baths resembled interior designs and furnishings of Scandinavian saunas with a hot, dry-heat furnace, roughly textured cloths for

Feasting on sexually stimulating wines and aphrodisiacs set on a banquet board straddling the gunwales of their independent bathing vessels, men and women eat while seated in warm, fragrant waters, naked except for their jewels and hats. Physicians advanced the proposition that thwarted sexuality was bad for mental health. A musician plays the lute. The sensual bathhouse repertoire included a shivaree, whose rhythms and melodies, customarily played at weddings as well, were thought stimulating to artful coupling. From *Master of the Housebook*, late 15th century, German. Courtesy of Galeria Medievalia, San Diego, California.

friction, whisks and switches to stimulate circulation, and a kettle of water to humidify the air.

Pietro da Eboli's wonderful versified treatise on the virtues of the Puteoli baths, *De Virtutis Balneorum Puteolanis*, written in 1220, described the infirmary tent and remarked on the foot bath, arm bath, and bottom-soothing *sitzbad*, or seat bath. Some baths were covered and curtained for desired or required privacy. Curtains also protected against drafts and slowed evaporation of a hot bath, retaining within their boundaries the steam and vapors for inhaling beneficent spices, minerals, and herbs in the hot water. The beauty of bath curtains also could raise one's spirits.

One bath text recommended a curtained enclosure requiring the patient to sit on a giant sponge in a very hot oatmeal bath with 19 medicinal ingredients including pellitory, hollyhock, and bruisewort or pimpernel. Other baths for purifying skin used water with finely pureed melon, especially *samarcandi*, imported to Europe from Samarkand, the oldest city in Central Asia and cultural meeting place between China and the West, which Alexander the Great conquered and Tamerlane made his Mongol capital. Whatever the disease, vexation, grief, or pain, medicinal baths might make one hale and whole again.

A final hydrotherapy component added to stimulating food and water was sex. The pleasures of Venus were not simply sybaritic indulgence. Thwarted sexuality was bad for mental health and muscle healing. Joyful couples, stark naked save for hats and jewels, sometimes sat three pairs at a time in a velvet-curtained bathing tub in front of which was set a banquet table with aphrodisiac foods and drinks.

Hunting

In 14th- and 15th-century England and France, a stag hunter customarily wore heavy leather leggings to protect his legs from thorns and brambles, a green jacket in summer for stag hunting, and a fur jacket in winter for chasing wild boar. Around his neck he hung his hunting horn used for calling the hounds. At his belt were a dagger for skinning the stag and a long sword for killing game. During the hunt he used three horses, two for relays. In his leather-gloved hand he carried a leather thong to strike his stirrup to urge on the hounds.

A hunt master supervising all hunting assistants and grooms also ruled the pack and the

reserve dogs. Knowing each bloodhound and greyhound, he decided where each ran in the pack depending upon the animal's qualities and shortcomings. The hunt master was responsible for leading the hounds back to the correct scent if they had gone astray. If seeing a stag himself, he had to take care not to frighten it. His eyes were always on the dogs, which he urged on or fed bread from a sack hanging from his saddle pommel if they tired.

If the hounds lost the stag on a dusty track or in a field where the grass had been burned, or if the stag crossed water, the hunt master dismounted to look for the trail. After the hounds cornered the stag, the good huntsman would kill the frightened, tired, breathless animal with his sword.

The master of the hunt sounded the death cry of the stag on his horn. Riders and noble hunters replied on their horns. Dogs watched the ritual quartering and skinning of the stag. Servants cut and pruned long branches upon which to carry pieces of meat. Others placed the prize animal on a bed of leaves, stomach upward. With sharp knives they skinned it. First they bared shoulders and haunches, breast and stomach, and then the back, taking care always to keep the body resting on the skin.

Quartering began with testicles and tongue cut out first, then shoulders. Then the stomach was opened to remove the liver and kidneys and to empty the viscera and entrails. The haunches were cut up. Finally, the head was cut off. The choicest pieces were strung on a branch and carried on stout shoulders to the noble kitchen.

Hunt music concerts sometimes lasted throughout the day. The silence of the forest was pierced by the harsh blare of trumpets and the loud strident hunting horns calling the huntsmen. Usually the whipper-in gave the order, and the chief huntsman sounded the first notes accompanied by shouts, neighs, and barks. Grooms shouted rallying cries of encouragement to their hounds. When the pack was on the wrong scent, the horn rallied back the headstrong with two long notes and set them off on the proper trail. Three long blasts told hunters the trail was good. Two notes alone meant the game had shaken off the dogs. The mort, sounding the impending death of the animal, was one long note followed by several short blasts. In the evening at sunset, tired hunters and hounds were called to assembly by three long notes of the withdrawal.

WOLF TRAPPING

Of four major ways for trapping and killing a wolf, the simplest was the sapling wolf trap. The wolf smelled carrion left as bait. Despite the wolf's inherent prudence, hunger drove it into the trap. A running knot placed at the end of a sapling bent to the ground and held there by a stake caught the wolf putting its head into the invisible slip knot, lifted it off the ground, and left it hanging from the branches of the tree. Huntsmen then killed it.

Another way to kill a wolf was to line a pit with carrion. When wolves were in the neighborhood, huntsmen killed a cow, dragging its quarters along paths to a deep conical pit. The carcass thrown in and the pit covered with branches, a small hole in the middle allowed the animal's odor to escape. The suspicious wolf that approached the pit edge would fall down the hole, from which it could be taken alive by holding its neck against the ground with a forked stick, then taken to the village, exhibited, and killed.

Needles were another way to trap a wolf. A wolf's ferocity was equaled only by man's cruelty pushed to its limits by a wolf's misdeeds on the farm. This loathsome method began with small chunks of meat stuffed with curved needles or fishhooks placed in an orderly line or strung out in several rows. When one wolf was nearby, others also arrived. Unspiked meat dragged along

the ground in the forest spread the scent of food. Spiked meat was left at the selected spot. Famished wolves swallowed the meat chunks without chewing and then died when their insides were torn apart by the hooks and needles.

To take a wolf alive more neatly, servants built two thick concentric wattle circular fences, each over six feet high. On the outer fence was a door with a strong catch. After dragging pieces of rotting meat through the forest up to the enclosure, a sheep or goat was placed as bait in the innermost enclosure. Tempted by the smell of the carrion, the wolf entered the outer enclosure and went around it hoping to find an entrance to the inner one to get the prey. Once it pushed open the door, it closed behind it, depriving it both of the prey and of its freedom.

OTTER HUNTING

Otter, like beaver, was delectable as both flesh and fish. Many monastic dietaries forbidding eating meat allowed the succulent tail that, like the beaver's, was a delicacy looking and tasting like fish.

Hunters watched the otter slipping from tree to tree along the water's edge, pushing its nose between the tall reeds and watching the stream where trout and roach glided along the bed of stones and sand. Suddenly the otter would dive, its webbed feet making it so speedy and quick underwater that few fish escaped its needle-sharp teeth. Then it would pad silently to its domain of rivers, fish ponds, and pools, where hunters awaited it. With a leap the otter was underwater. But if it had not seen the net stretched from bank to bank, in its desperate flight despite its efforts to tear the mesh with its teeth, it would be caught and made an offering to the pikes and tridents of its pursuers.

Customarily at night the otter left the water to roam, feed, and defecate by the pool's edge. But at dawn the hunters and bloodhounds picked up its trail while the grooms spread the lead-weighted nets from one bank to another, both above and below the otter's territory. When alerted, the otter took refuge under a large root at the water's edge. Urged on by shouts of grooms and barks of dogs, the otter would disappear underwater. Hunters stationed

(opposite page) *Noble men and women hunters usually brought the catch to the kitchen as a trophy, but essentially hunted not for food but for exercise, joy in the sport, and entertainment. Hunting instruction books, often magnificently illustrated, written by Gaston Phebus, King Frederick of Sicily, and others, depicted the ceremony and sport and methods of tracking, chasing, killing, and carving prey. Hunt manuals usually contain advice on animal husbandry and on medical uses of animal parts to treat and cure disease and injury. Falconry, or hawking, was a technique for hunting game with birds of prey such as falcons and other hawks. Birds were trained to the wrist and hoodwinked (temporarily blinded by hoods over their heads to protect jitters), held as this woman hunter holds her hawk, by long leather thongs called* jesses, *and then let fly to musical calls. King Frederick II's famous falconry text,* Tractatus de arte venadi cum avibus *(The art of hunting with birds), and other hunt manuals were imitated by writers of love allegories, who used the language of the chase for depicting the arts of courtly love. Medieval poems and songs such as the* chasse, caccia, *and* catch *express human passion with the rhythms and rhetoric of the hunt. Troubadour, trouvere, and minnesinger songs, as well as fabliaux, exploit connections between hunting and love. Such poems appear in one of the more magnificent illustrated songbooks from the 13th and 14th centuries, the* Manesse Manuscript of Songs of the Minnesingers, *which includes 6,000 songs of 140 poets, with 137 full-page gold and polychrome miniatures, such as this elegant page that introduces the poems by Herrn Werner von Teufen.*   From the *Manessische Liederhandschrift,* 14th century, Cod. Pal. Germ. 848, fol. 69. Courtesy of the Bibliothek of the University of Heidelberg, Heidelberg, Germany.

on both banks would try to spear it with tridents. Even if they missed, the otter ended up in the net, where killers awaited it. The body was dragged to the bank, skinned, and flesh cooked and fed to the eager dogs.

MONKEYS, HAWKS, AND DOGS

Monkeys were kept as pets to ride on shoulders of acrobats, entertainers in the town square, and to sit on ladies' laps. Monkeys were so commonplace that even toll collectors on the bridges who solicited money from each person and for all merchandise passing over them allowed monkeys to go free. In Paris monkeys were available for sale. A merchant crossing a bridge would pay four coins if he intended to sell his monkeys. But if the monkeys belonged to someone who bought them for amusement, then no toll was charged. If monkeys performed before the toll guard, their keeper and everything that he carried passed over the bridge for free. Similarly, a jongleur passed without payment except for a snatch of song.

A good hunter walked his hawk. A hunter who hunted with a falcon or goshawk trained the young bird to ride the wrist; wear a hood, bells, and jesses; and grow accustomed to the activity and bustling of the street. Nothing tamed a hawk so beautifully for the forest and fields as a strenuous walk through the city. Few forest sounds or perils of the hunt thereafter disturbed the tranquility of the falcon that had ridden the wrist of a man or woman entering a law court, church, or market. Hawks were companions both day and night. Some would perch the hawk in the streets in order for it to see and become accustomed to people, horses, carts, and hounds.

Though it was customary for a groom to feed, exercise, and sleep in a hound house with fine dogs, a hunter customarily exercised his brachets and hunting hounds in his own garden, in the town square, on bridges, and on highways. Treating diseases of animals was an important part of animal husbandry. Common diseases of dogs, particularly hunting dogs, were treated with medication and surgery. Dogs were thought as susceptible to disease as people were. Inactivity was thought deadly to animals. Grooms were required to take dogs out of their kennels each morning and night, run them around the enclosures, and then with curry combs, brushes, and straw prepare the hounds before presenting them to the master of hounds or the main hunter. Grooms and trainers walked dogs on leashes. They were required to pick laxative herbs to keep the animals' intestinal systems well regulated.

Gaston Phebus (1331–91), the count of Foix and viscount of Bearn, gave detailed advice on caring for diseased dogs in his hunting manual, *Le Livre de la chasse* (*The Book of Hunting*). If a dog suddenly became mute, debilitated, or sleepy; or if a dog no longer bit, lost its appetite, slavered, was weak on his legs, and forever wanted to lie down; or if he began to bark hoarsely, he was deemed to be suffering from rabies. All people would beware that dog's bite. The hound was kept in isolation and treated with herbs and medications until it was cured or died.

Mange was thought to be a condition brought on after long tiring hunts and injuries to the eye, ear, throat, and paws. If a dog had swollen paws, the groom or owner soaked the dog's feet in a vessel of warm water with leaves of lavender, rosemary, and chamomile. Paws flayed on thorns or gorse needed veterinary experts. Dislocated shoulders were best handled by orthopedists and bone setters, and broken limbs were suspended in harnesses.

Gaston Phebus celebrated faithfulness as a principal quality of a good dog, a noble virtue placing dogs over all other animals that please people. For instance, the greyhound of King Apollo of Leonis dragged the body of his murdered master from the bed of the Loire River, dug his grave with his own claws, and with his

paws covered it and then guarded it for six months. Intelligence, obedience, instinct, and memory made dogs magnificent in the hunting field. As with the talents of people, dogs' behavior was cultivated and trained from infancy.

Food

SOCIAL CLASS AND SUMPTUARY LAWS

Outrageous luxury was deemed destructive to morality and to social order. Exotic, imported foodstuffs diminished domestic commerce and upset international balances of payments. Luxury also was accused of interfering in the individual soul's relationship to God. Against culinary extravagance at all levels of English society, sumptuary laws were passed, particularly during Edward III's reign between 1327 and 1377. These statutes of diet and apparel regulated numbers of courses per meal, numbers of dishes within courses, varieties of foods, and even types and costs of their sauces. What was permissible for one social station was forbidden the class below. The church stratified eating habits similarly within ecclesiastical ranks. Since the rich were much inconvenienced by extravagance, and the lesser folk who attempted to imitate them were greatly impoverished thereby, equally deplorable evils attacked their souls as well as their bodies. Moderation was legislated in startling lists of forbidden fruits.

Food service also was stratified by class. Social class dictated precedence in the dining hall. Not only what was eaten by which class, but who sat with whom at which table, and in what social order guests were served, were scrupulously controlled by the noble household's marshall or chief usher of the hall. John Russell's etiquette book, *Boke of Nurture*, written circa 1460, enumerated the five social classes and their careful groupings at table. Equivalent classes could eat the same foods together. Some sat two by two and shared a plate. Others sat four by four and helped themselves from serving platters, family style. Still others were not to see the food served their equals or superiors.

The first class, pope, emperor, king, cardinal, prince, archbishop, and duke, was of such dignity as to dine alone. The second class, bishop, marquis, viscount, and earl, might sit together if on friendly terms personally: *yf they be lovyngely*. The mayor of London, a baron, a mitered abbot, the chief justices, and the Speaker of Parliament—members of a third estate—could sit at an equivalent level, two or three at a table ("mess"). The fourth class equaled the knight's rank: a cathedral prior, a knight-bachelor, a dean, the master of the rolls, the mayor of Calais, a doctor of divinity, a prothonotary. The fifth and last, the squire's degree, including doctors of law, ex-mayors of London, preachers, masters of arts, city bailiffs, rich merchants, gentlemen and gentlewomen, could all sit at the table along with the squire.

Even the social embarrassments of the well-born poor man and the marriages out of class were provided for in table regulations. For lords of royal blood class were provided for in table regulations. For lords of royal blood though poor in goods versus rich low-born men the rule was blood eats better than money. When a lady royally born married a lowly knight or a poor lady married a lord of noble blood, the lady of royal station kept her state as before her marriage; the lady of low blood took with her husband his high seat at table.

While classes of clergymen were accommodated in noble dining halls according to their parity with secular ranks, monastic houses generally tended to level class distinctions with food rules. Strict fasts and frugality as prescribed in the rule of Saint Benedict discouraged many forms of hieratic eating. However,

an abbess or an abbot, privileged to eat alone and served special dishes, might invite members of the house to share feasts. Abbots also allocated to brethren those extra portions of food and wine honoring particular benefactors or saints' days called pittances. Abuses of these mild social distinctions in food service included undisciplined clerics' imitating secular food entertainments with their social seating (along with their feast-day hilarity, scurrilous songs, and burlesques).

Bishop Eudes, visiting the nuns' abbey of Monvilliers in 1260, forbade eating in the refectory in little groups or cliques and insisted that all take seats haphazardly and eat the same food. Benedictine monks demanding special dishes served to them in their cells, "appareled" delicacies rather than simple rations, habitual additions of the special pittances, and elegant table gear caused Pope Gregory IX to issue statutes to reform their food practices. Their ration was to consist of one dish and one cup, not including pittances. No one was to cause anything more delicate in food or drink to be prepared for him or served beyond usual fare. Silver or gold cups or those banded or based by precious metals were forbidden in the refectory, as were knives embellished with gold or silver.

These ecclesiastical and secular attempts to regulate appetite by restricting its expression probably were no more enforceable than more modern prohibitions on drink and food. Medieval English sumptuary laws, obeyed or ignored, were not repealed until Queen Victoria's era. Legislation and literature confirm the medieval identification of social class by food.

CHAUCER ON FOOD

Food allusions and culinary actions described character and personality in art, physiognomy, law, and literature. People were what they ate: what they ate, how they ate it, how much, when, and that, beyond subsistence, they ate and drank

at all. Food references demonstrated social class, intellectual and emotional states, and, most importantly, spiritual condition. Humor, pathos, and social commentary were expressed in exercises of table and gullet. Complementing these relationships between food and character were medieval convergences between food and social class, food and sex, food and scatology, food and sorcery, and food and sin.

In the vast repertoire of medieval gastronomic allusions, one of the finest sources is Chaucer's *Canterbury Tales*. Its several hundred food references range from brief mentions to elaborate descriptions of feasts, triumphs, and nuptials; noble suppers; drinking parties; and humble cottage repasts, penance meals, wild-fruit pickings, and precoital imbibing of aphrodisiacs.

Food and Character   To the descriptions of all the pilgrims' social rank, costume, and profession, Chaucer added their food habits. For both the ecclesiastical and secular figures, gastronomy demonstrated social standing and personal sensibility. Several characters belonged to victualing trades. Some ate with the same frugal or ostentatious habits with which they practiced their crafts. Others gorged or soused their way to Canterbury.

Food portraits of the Nun, Monk, and Summoner intimated clerical customs and hypocrisies. Few descriptions of table manners and elaborate ceremony for eating with the fingers excel the Prioress's etiquette. Her manners were corroborated by courtesy manuals and instruction books for the nobility. In charge of an abbey of nuns and a social climber eager to imitate courtly habits, to "countrefete cheere of court," she delicately, dexterously lifted food to her lips, fastidiously avoiding crumbs or grease in her wine cup. She displayed the digital finesse required by that courtly custom that disdained forks as acceptable implements and assured sensual pleasure in food lengthened by

eating with the fingers. The wealthy, hard-riding hunter Monk loved eating fat. He himself was a lord "ful fat and in good point." His speech was larded with food analogy. For him monastic rule was worthless as a plucked chicken; worry about a monk out of a cloister was not worth an oyster. The Summoner, who hailed sinners to ecclesiastical court, demonstrated his venality and intimated his venereal disease by his food choices. For a quart of wine he allowed a rascal to keep his mistress for a year. His sense of taste diminished by tertiary syphilis, "saucefleem he was . . . hoot . . . and lecherous as a sparwe," he ate only odoriferous and pungent garlic, onions, and leeks and drank especially strong wine, red as blood.

Food references made exuberant portraits of human foibles and fallibility in the church and in the town and court. Though not born to the court, the Franklin was nobly landed and lardered and enjoyed lordly breakfasts of a sop of bread in wine. His dining table dormant was so well set with fine wines and daintily crafted foods that in his house it seemed to snow food and drink. Gourmand, epicure, and gracious host, he displayed table splendor that substituted for pedigree. Conversely, Chaucer's Physician practiced dietary measure and restraint, nothing superfluous but everything nourishing and digestible.

The pilgrimage's professional Cook, though filthy and scabrous, knew techniques for roasting, baking, broiling, boiling, and otherwise preparing chickens, *mortreux* (stews), and pies, admirably creating the familiar white culinary treat *blankmanger*. However, his running pustules and facial sores were insignia of the blind folly of the nouveaux riches Guildsmen who employed him for a semblance of nobility. Finally, the Host to the pilgrims voyaging to Canterbury swore oaths on wine and ale, welcomed the sundry folk to supper, served them fine food and strong wine, and suggested the ruse for telling the tales. He offered free supper

at his inn as a prize for that story that best instructed and best delighted. The tavern more than the shrine of Saint Thomas of Canterbury became the architectural frame for all the later tales.

Food and Social Class   Chaucer described kitchens to give gastronomic distinction to the moral qualities of the social classes. In well-provisioned, well-served noble houses, feasts demonstrated wealth and political might. Middle-class dinners aped noble banquets and imitated refined manners. Instruction books cautioned against rude guzzling and gorging. Chaucer celebrated also the simple decorum of the rural table. A banquet in "The Squire's Tale" detailed setting, splendor of costume, music, and service along with the actual menus and the disguising of foods, called *appareling*, shocking the guests to marvel aloud at extravagant foods, stews, roast swans and herons, and foreign dainties followed by fine wines and spices elegantly served by stewards, ushers, and squires. Through the day and night lords and ladies drank and enjoyed marvels of culinary art for which cooks labored and noblemen paid dearly. Elegant artifice of food transformed the commonplace into the magnificent.

By contrast the farm dinner was dignified by simple fare, as the aging dairywoman ate, her barnyard home to the spectacular rooster Chaunticleer. The poor widow ate "slender" meals with no piquant sauces or dainty morsels. Temperate in diet, she drank no wines red or white but laid her table white and black, with milk, brown bread, a rind of bacon, and an egg or two. Necessary temperance and enforced moderation avoided the pride of table that corrupted the rich.

Food and Sex   Other indulgences are allied with appetite. Chaucer associates food and sex via medieval aphrodisiac lore. An importunate lover attempting to attract the attention of a

lady sends her fine mead, spiced ale, pimento, and wafers piping hot. An eager old lover, before entering bed with his new young wife, strews the house with spices and drinks whipcords and claret and vermage of hot herbs "to increase his courage"—potions recommended for stimulating sexual qualities by the medieval sex manual *De coitu*. So too the sexy Wife of Bath suggests strong wine for stimulating the two appetites of taste and sexual sensation: A lecherous mouth, she says, has a lecherous tail. When Chaucer describes the lustful Summoner as "hot and lecherous as a sparrow" he alludes not only to the English bird's reputed sexual incontinence but also to the medieval belief that eating cooked sparrow or sparrow eggs stimulated lust. It was thought that since the flesh of the sparrow is very hot, its heat would lead one to lechery.

Fruits such as pomegranate and pear were eaten as aphrodisiacs. Chaucer plays upon multiple sexual implications of the pear tree in "The Merchant's Tale." Young, voluptuous Lady May—married to wealthy, loathsome, jealous, scrawny-loined old January—while walking with her aged, blind husband in their garden insists on picking pears from their green pear tree lest she die if she cannot eat what she desires. By clever ruse, however, more than one variety of succulent pear hangs in that tree; May's young lover waits in the branches for an arboreal orgy. Up she climbs for her fruit, cuckolding old man January in the pear tree. But no surprise; that ardent old fool thought best in food analogy: He was a mature fish, a full-grown pike, no mere pikerel; she was tender veal. He thought women over 30 were beanstraw and animal forage. But his toothsome wife desired stronger wines than his in bed, or tree.

Many wines and foods were construed as having the quality of promoting sexual desire. The Dominican theologian Saint Thomas Aquinas (1225–74) noted in the *Summa theolog-*

A high-breasted, tightly gowned young woman wearing a fashionable reticulated headdress entertains an older, balding, bearded lover whose hand rests suggestively in the front pocket of his tunic. He wears a fashionable, fur-trimmed short tunic with pointed poulaine *slippers, though his hat, removed at his side, is more rustic and practical than stylish. The couple has traveled by horseback from the castle or town in the background. Their horse scratches its back on the tree to which it is tethered. The man may represent the typical* senex amans, *the foolish old man in love, a stock character in medieval art, humor, fiction, and especially the fabliaux.* From Albrecht Durer, *Lovers*, late 15th century. Courtesy of the Metropolitan Museum of Art, New York.

ica that gluttony and lust are conceptually related to the pleasure of touch and hence so, too, are food and sex. Since concupiscence was desire for the delectable, abstinence from certain foods was required to counteract sexual urges as well as to decrease seminal flow. Accordingly, the church forbade those who fasted to partake of those foods that afforded

most pleasure to the palate and besides were a very great incentive to lust. Such was the flesh of animals that take their rest on the earth and of those that breathe the air and its products, such as milk from those that walk on the earth and eggs from birds, for since such animals are more like human in body, they afford greater pleasures as food and greater nourishment to the human body, so that from their consumption there results a greater surplus available for seminal matter, which when abundant becomes a great incentive to lust. Touch was significant to the sensuality of medieval food. This "feel" of food is a sense denied the modern gourmet, who interposes the metallic implements of cutlery between textured foods and willing mouth.

UNNATURAL AND SUPERNATURAL FOOD

Oral and anal analogies intensified medieval expressions of good and evil. Evil portrayed in sculpture, painting, manuscript illumination, and literature emanates from or enters into the mouths or anuses of demons or the mouth of hell. Grotesqueries in marginalia of prayer books abound with part-human part-bestial creatures spurting foul scintillations from their buttocks or jaws. One of the most frequent medieval locations for the torments of the damned is the mouth of hell.

Just as evil is expressed in alimentary allusion, so good is associated with divine eating. God sups with the righteous and miraculously feeds the devoted. Transubstantiation in the Christian sacrament allows the consuming of godliness. The altar—*mensa domini*, the Lord's table—is the table for God's feast.

These medieval gastronomic passions had a venerable tradition in classical, biblical, and popular lore. A noble heritage of food reference existed in epic, lyric, and "kitchen humor" of classical Greek and Latin literature. An astounding number of classical heroes and her-

oines determined their fates by eating special, sacred, or forbidden foods. Three among those important in medieval texts are Saturn, who, to prevent his children from castrating and killing him, as they were destined, ate them; Medea, who had an unnatural culinary interest in her children she served up to Jason; and young Achilles, whose food both prefigured and caused his later prowess—he garnered strength and courage from eating the entrails of lions and the bowels of she-wolves.

Even more compelling to medieval Christians than the classical spiritual foods were the Old Testament food miracles and food symbols. Since Christian biblical interpreters attempted to find in Hebrew Scripture predictions, prefigurations, precursors, and typologies for New Testament events, every Jewish feast, each grape and crumb, was food for exegesis. Christian moralists reinterpreted food scenes from Genesis through the Song of Solomon in the adventures of David, Samson, Job, Judith, Esther, and Ruth. Manna fell to feed the faithful in the desert. Moses smote the Horeb rocks for water. Elaborate burned offerings included seared flesh and fried bread. Ritual Passover feasts followed a special seder order of presentation and eating. Complex prohibitions and prescriptions for kosher fish, flesh, and fowl were explicated in the book of Leviticus and followed in a Jew's daily life. Hebrew tradition associating food practices with spiritual tests inspired later Judaic food rites.

Old Testament food tradition was important in medieval Christian "moralized Bibles." Expounding the letter of the word and celebrating the vivid visual details of tradition rather than epistemology, these Bibles had food scenes almost as frequently as armed battles. "Moralized" explanations of the Hebraic prohibitions against Jews' eating such "unclean" birds as the heron and hoopoe became counsels against gluttony and impoliteness at table and

against bishops' nepotism and simony. Food notions of the old dispensation were transformed into teaching devices for the new.

In the New Testament itself Saint John the Evangelist ate the book of prophecy before preaching the Apocalypse. Bitter in his stomach, the words were sweet upon his tongue. Christ's culinary miracles regaled not only the guests at the wedding of Cana but the multitudes requiring loaves and fishes. The Last Supper became one of the most popular subjects in medieval art.

Holy food had its counterpoint in the unnatural foodstuffs of medieval martyrdoms, satire, and witchcraft. Early Christian saints were tempted or tortured with food or performed food miracles, or in their martyrdoms they themselves were minced, boiled, broiled, and roasted. The prevalent folklore theme was to destroy enemies by consuming them. That is the way the giant in "Jack and the Beanstalk" wanted to grind Jack's bones to eat as bread. When the wicked ogre in "Puss in Boots" shifts his shape to a mouse, the cat gobbles him down. Consuming the enemy was important in medieval satire. Virulent antipapal attitudes were expressed in portraits of winemaking by pounding the juice in a vinting vat from a cardinal mash. A 15th-century recipe for curing the digestive troubles of Saint Peter required clergymen marinated in Rhine water: Take 24 cardinals, 100 archbishops and prelates, the same number from each nation, and as many curials as you can get. Immerse in Rhine water, keeping them submerged for three days. The resulting elixir will be good for Saint Peter's stomach and cure all his diseases.

Witches' Sabbath feasts, cauldron cookery for brewing up storms, and magic illusions are remarkable inversions and perversions of courtly and sacred ceremony. Depictions of witches' kitchens detail rare raw ingredients (chopped children, for instance), elaborate cooking and distilling techniques, prescribed embellishing procedures, and complex rituals for eating and drinking. The *Abomination des sorciers*, for example, illustrates the "cookbooks" from which satanic recipes were concocted, the open hearth with pots ready to cook bizarre animal and human ingredients, the cauldron of prophecy in which fantastic symbolic animals are prepared for boiling, the hanging cupboard containing "ready mixer" philter and potion pots, and the strainer or sieve used in divination. Just as lordly feasts were well served, well choreographed, sumptuous banquets, so sorcerers' and witches' banquets often were opulently presented, delicately cooked extravaganzas with golden cloths, jeweled drinking vessels, and attentive servitors. An inversion of the ideals of courtly cookery was the witch banquet featuring only carrion and the flesh of hanged men, unbaptized children, and unclean strange animals, cooked together to be savorless and served without salt.

Natural or unnatural, divine or profane, this medieval foodlore of popular, biblical, and classical origins presented food "forbidden" or "magic." Rituals of eating accompanied "unnatural" transformations of food into something other than what it seemed. Food was proof of supernatural power, as in the sweet waters of Horeb or the wedding wine at Cana. Food was part of ritual offerings to God, as in the Hebraic sacrifices. Food was a praise or propitiation. Foods of sympathetic magic, such as Achilles' offal and the witches' carrion dinners, transferred to mortal beings qualities heroic, divine, or devilish. In all instances eating was allied to a spiritual condition. Food was an insignia of the state of the soul.

FOOD AND MORALITY

This medieval unity between food and spirituality was so pervasive that eating habits determined a human being's association with a pantheon of virtues and vices. *Gula*, gluttony,

that seducing sin that had corrupted the world, had a medieval definition both fascinating and unsettling. Just as Adam ate his way out of paradise, so humans eat their way into sin. Surprisingly, the dire and deadly sin to which writers such as Chaucer and a host of theologians ascribed Adam's loss of Eden was not pride but gluttony. While the nobleman cultivated tastes and appetites as proof of education, political power, and economic supremacy, the Christian moralists saw in elaborate foods and eating ceremonials a way the devil acquired disciples.

While Adam and Eve fasted in paradise, all was perfect. When Adam and Eve ate the forbidden fruit, God cast them out to woe and pain. Gluttony, then, was the source of humankind's complaint and all subsequent maladies. Gluttony was the sin that tempted daily, the easiest to commit, and the hardest to forgive. As Chaucer rephrased Saint Paul: A man's throat becomes a privy because of cursed superfluity! Food enters the stomach. The stomach becomes food for worms. God ultimately destroys both.

Saints Thomas Aquinas, Augustine, and Paul; Gregory in his *Moralia;* Peraldus in his *Tractatus;* Pennaforte in his *Summa casuum;* and other exegetical writers argued the question of gluttony's primacy. Gluttony was the first sin, the cardinal sin, the deadliest sin. This primacy of gluttony over pride permeated theoretical expositions of theologians, popular medieval pulpit preaching, and the visual arts. While others of the Seven Deadly Sins sometimes led the way to hell, gluttony was a compellingly simple explanation for sin in this world and humans' temptation to it. Conversely, gluttony was the most complex sin because the sacramental act of eating the body and blood of Christ had its perfect parallel, its special urgency, and its graphic vividness, as an undoing, by eating, of an evil deed caused by eating: Just as Adam ate his way to sin, so humans might eat their way to salvation.

Chaucer's Parson, following Saint Thomas Aquinas, described gluttony as "immeasurable" appetite for eating and drinking, an inordinate covetousness of food or drink. Gluttony is the threshold and gateway to sin. Whoever gives in to gluttony is incapable of withstanding other sins. Whoever eats in sin is already in the service of all vices. Gluttony is the devil's hoard, wherein the satanic fiend rests and hides.

Gluttony has many definitions. Drunkenness is a horrible sepulchre of man's reason. Confusion of spirit caused by drunkenness bereaves man of discretion and wit. Gluttony occurs also when man greedily devours food and "has no rightful manner of eating." Too great abundance of food causes distempering of the body's humors and illness. Forgetfulness is the result of excess eating and drinking.

Other levels of gluttony delineated by the Parson took inspiration from Gregory the Great. These five fingers of the devil's hand lure folk to damnation: (1) to eat before it is time to eat; (2) to obtain too delicate and too dainty foods and drinks; (3) to take too much, beyond measure; (4) to fashion food with *curiositee* or preciosity, with too great intention to *apparel* and decorate it; and (5) to eat too greedily.

Gluttony as original sin had amazing implications. All human beings had to admit and to expiate their guilt because the definition of sin was so comprehensive. Trivial food peccadillos endangered salvation. If eating between meals or poor table manners constituted sin, then no Canterbury pilgrim and few among our modern devotees of fast food restaurants would escape guilt. This same sin that caused the Fall, the Flood, and the destruction of Sodom had numerous forms and guises, insinuating itself into man's soul at his dining table.

How might a human being who must eat to live avoid gluttony? Chaucer's Parson sagely quotes Saint Augustine's recommendation for abstinence. The goal is not total deprivation

but a culinary "measure" in all aspects of eating and drinking. Sufficiency meant no seeking of rich foods or drinks, no outrageous appareling of food. Measure meant restraining by reason the appetite for eating. Soberness meant limiting drinking. Sparingness was the watchword—only enough, nothing too much. Even sitting positions at table defined a state of spirit. The holy avoided sitting long and languorously at mealtime. Eating standing up was recommended in order to eat at less leisure. While feasible for monastic orders or for penances, abstinence was infrequent at medieval courtly tables.

Literary and philosophical inveighing against gluttony shows notable disdain for "appareling" food. Appareling meant decorating to create an appearance, an illusion, a pretense of something other than what was. Excessive adornment of food was called pride of the table. Primarily the vice of the rich, table pride was expressed in contrivances of baked foods in fantastical shapes and colors, flambé foods, burning bright wild fire, and painted, sculpted, ice, marzipan, or spun sugar creations.

Courtly cooks transformed elementary foods into sculpture but by creating "appearances" deceived, sinned, and led others into sin. By pandering to their patrons' insatiable desires for "newfangledness," cooks aroused "newer appetites," seducing men to other vices by their delicious devices. These delicacies were praised in medieval banquet manuals recommending food painting, food sculpture, and illusion foods. Clerics condemned pastry and aspic designs, marzipan armorial quarterings, meat dishes such as the *Yrchoun* and *Cockentrice*, and the musician pies, which presented live instrumentalists leaping out from giant pastries. Such wonders exciting the eye and palate expressed too much wealth, too great magnificence, and a too worldly pride.

Strictures against adorned food and the ceremony of eating, condemnations of table pride,

and assertions of gluttony's five groping fingers were as true to the medieval world order as were the exaltations of fine foods in the romances, cookery tomes, household accounts, and health manuals. Medieval food and ceremony were the most artful expression of God's plenty or the most degrading, dangerous temptation toward damnation. Such contrary views expressed the ambiguities of living in the secular world, where food, like other passions, potentially was an expression of a human being's most corrupt or most holy nature.

MUSLIM SOCIETY

The ambiguities of reconciling secular and religious values described in the previous section would also play themselves out in the emerging societies that came to make up the Islamic world. The institutionalization of Islamic law (the sharia), learning, and ritual affected every aspect of individual and social life, defining the contours of proper conduct for ruler, subject, and slave; men and women; and Muslims and non-Muslims living under Islamic rule from the Maghrib in the far west to large parts of eastern Asia. This remarkable social revolution consciously modeled itself upon the primitive social community that the prophet Muhammad formed at Medina.

By the close of the first century after Muhammad's death in 632 C.E. the Islamic empire extended from the Indian Ocean to the Mediterranean Basin. Although the ninth and 10th centuries witnessed the fracturing of the political unity of this empire into various caliphates, among them the Abbasids in Baghdad, the Umayyads in Spain, and the Fatimids in Egypt and parts of North Africa, the foundations and contours of a unified Islamic society and culture were firmly consolidated. The

world was by this time divided into the "abode of Islam" (*dar al-Islam*) and an "abode of otherness" (*dar al-harb*, lit. "the abode of conflict"), the former having its unique characteristic laws, institutions, and customs that structured the lives of the peoples, Muslim and non-Muslim, who lived within its territories. According to this medieval worldview, in Islamic society, as in those of Christianity and Judaism, religion was conceived of as far more than a system of belief and worship; it was equally an ethical system that was meant to penetrate and govern every aspect of life. For a Muslim there were no secular aspects of life distinct from the religious. Secular authorities did not control secular laws since in theory neither existed. Therefore, there could be no conflict, no cooperation, no separation, and no association between the church and the state because the governing institutions of Islam combined both functions. As a result, classical Islamic history had no clashes between religious life and secular life, between the pope and the emperor. The caliph combined in himself both political authority and religious authority and was the titular head of the Islamic state and community. Whenever conflicts emerged, from the initial disagreement over the succession of the Prophet, which resulted in the emergence of the Shiite sect of Islam, to the coexistence in the 10th and 11th centuries of rival caliphates, these conflicts were invariably articulated and legitimated through competing claims of religious and political authority.

Islamic Law (Sharia)

As is the case with the divine laws revealed in the Judeo-Christian Bible, the laws revealed in the Quran do not constitute a complete legal system, much less something comparable to what modern Americans would call constitu-

tional law and administrative law. Yet Quranic verses do articulate God's will in the form of commands and ethical principles that govern humanity's relation to God and guide human social relations. The Quran's legal commands and principles cover matters relating to marriage and divorce, inheritance and the division of booty, creeds and acts of worship, charity and concepts of justice, and certain crimes and punishments. But these scriptural dictates alone were insufficient to guide and respond to all the needs and circumstances of a vast empire composed of distinct communities and creeds. The systematization of Islamic law, the sharia (path), took several centuries to complete and reflects not only different schools of legal interpretation but also the necessity of incorporating the local customs (*urf*) of the territories incorporated into *dar al-Islam*. Nevertheless, it did not take long to articulate the basic obligations of being a Muslim, known as the Five Pillars of Islam.

THE FIVE PILLARS OF ISLAM AND JIHAD

The Five Pillars of Islam are composed of the following:

1. The profession of faith, the *shahada*. This is an oral testimony of the words *la ila illa Allah*, *Muhammad rasul Allah*, meaning, "There is no god but God, and Muhammad is the Messenger of God." These words constitute the fundamental creed of Islam, based upon the radical oneness of God (having no partners or sons) and the indispensable belief that Muhammad is his final prophet and messenger. Converts to Islam must pronounce these words publicly as part of their formal initiation into the Islamic community.
2. The ritual prayer, called *salat*. The Quran established that Muslims pray five times a day a ritual prayer that consists of spe-

cific prostrations and other bodily gestures accompanied by the utterance of liturgical formulas, usually scriptural verses. These prayers, always to be preceded by a ritual washing (*wudhu*), must be performed at designated times of the day. This formality distinguishes the *salat* from voluntary supplications, known as *dua*.

3. The obligatory alms tax, called *zakat*, is a form of charitable giving that is considered an act of worship. The *zakat* is incumbent upon all free adult Muslim men and women whose personal income exceeds a certain amount and is used for specific purposes, such as debt relief and the liberation of slaves and for certain categories of people, such as the indigent, orphans, and widows. The nature and value of the amount to be paid, as well as the classes of recipients, are fixed by Islamic law. This Islamic legal obligation must be contrasted with other forms of voluntary charity, called *sadaqa* or *khayr*, which are encouraged as pious acts worthy of divine recompense and recommended as penitential expiation of sin.

4. Fasting during the month of Ramadan, called *sawm*, is a solemn act of repentance that all physically and mentally sound Muslims over the age of 10 are obliged to undertake. The fast commemorates the month in which the Quran was first revealed and is thus the occasion for the Muslim to draw nearer to God through acts of self-denial that include abstaining from food, drink, smoking, and sexual intercourse from dawn to dusk. Even more important is the interior, spiritual fast in the form of a statement of true intention to repent; abstention from sinful or negative thoughts, words, and deeds; and participation in pious activities, such as quranic recitation and study. The end of Ramadan is marked by the Feast of Breaking the Fast (*Id al-Fitr*), one of the two major Islamic festivals.

5. The pilgrimage to Mecca, called the hajj, is an obligation to be performed once in a lifetime, financial and social circumstances permitting. (The poor, slaves, unescorted women, and the mentally unsound are among those exempt from the obligation.) The *hajj* takes place during the month of Dhul-Hijja and consists of a series of rites to be performed over several days at sites associated with Islamic sacred history. Before entering the city of Mecca, pilgrims purify themselves by ablutions, don a seamless white garment (a reminder of death and the final judgment), and pronounce a liturgical formula of consecration to God. Once in the holy city obligatory visits include the Kaba, the black rectangular building around which Muslims circumambulate seven times, followed by the sevenfold ritual of running between the hills of al-Safa and al-Marwa. The pilgrimage climaxes with the communal standing at the foot of Mount Arafa, stoning a pillar that represents the devil, and the sacrifice of an animal, the latter being the Feast of Sacrifice (*Id al-Adha*), the second major festival of Islam.

These five pillars established the fundamental norms of belonging to an Islamic society. A further obligation, jihad (striving), became regarded in some respects as a sixth pillar of Islam, insofar as its spiritual meaning of striving signified the struggle entailed in perfectly fulfilling all five Islamic obligations. The religious-military enterprise of holy war is a collective obligation (*fard kifaya*) of leaders to provide a sufficient number of soldiers and supplies to protect and defend the Islamic community from its enemies, Muslim or non-Muslim.

COMMANDING RIGHT AND FORBIDDING WRONG

In Matthew 22:35–40 Jesus espouses the greatest commandments, to "love thy God with all

thy heart" and "to love thy neighbor as thyself," saying that on these two principles "hang all the laws and the prophets." In a similar way the Quranic moral command of commanding right and forbidding wrong encompasses the five pillars of Islam, as well as jihad, and all the precepts of Islamic law. In one crucial quranic verse God addresses the Muslim community saying, "Let there be one community of you calling to good, and commanding right and forbidding wrong; those are the prosperers" (Q 3:104), an idea that is constantly repeated throughout the sacred scripture. The commandment presupposes the concern to fulfill God's laws of righteous conduct in this world as a prelude to "prosperity," a quranic euphemism for salvation in the hereafter. As such, Muslim commanding right and forbidding wrong stands midway between the other-worldly emphasis of Christian actions and the this-worldly Jewish desire to manifest God's intentions on Earth.

Throughout the ages Muslim exegetes have interpreted this moral command in different ways. Some insisted that it was a collective duty imposed by God equally upon all members of the community. The majority opinion held that a designated group or authoritative body trained in matters of law and ethics should carry it out on behalf of the entire community, but that individuals also had the obligation to admonish one another to do right and forbid wrong. As far as the scope of the command is concerned, again there were dissenting opinions. Some commentators interpreted the verse in the narrow sense of enjoining belief in God and forbidding polytheism through jihad. Most believed the scope to include all the matters of faith and worship and religious and social obligations that God and the prophet Muhammad have prescribed and forbidden. This, at any rate, was the way preachers delivered their sermons on the topic, which began with lengthy and meticulous excursus on all the actions entailed in enjoining the good and all the deeds proscribed by the command to forbid wrongdoing.

THE ULEMA AND THE SCHOOLS OF LAW (*MADHHABS*): SHAFIIS, MALIKIS, HANAFIS, AND HANBALIS

Islamic law, or sharia, which began to be applied systematically in the Abbasid period, is the product of several sources: the Quran; the words and practices of the prophet Muhammad (the Sunna), recorded in collections called Hadith; the consensus (*ijma*) of the earliest Islamic community and the first four caliphs; and the analogical reasoning (*qiyas*) of trained legal scholars, called ulema (*alim*). Different interpretations of the Quran and Hadith and discrepancies over the relations among all the different legal sources led to the emergence of four major schools of law, *madhhabs*, in the Sunni tradition, each named after its reputed founder. Abu Hanifa (d. 767), founder of the Hanafi school, attached importance to opinions derived from individual reasoning (*ray*). Malik ibn Anas (d. 795), founder of the Maliki school, gave priority to the Sunna of the community that Muhammad established in Medina and exercised his own legal opinion. Al-Shafii (d. 820), the founder of the Shafii *madhhab*, gave equal weight to the Quran, as the literal word of God, and the prophet Muhammad's Sunna as the faithful expression of God's will. Beyond these sources the learned scholar (*alim*) could resort to other methods of exercising independent judgment (*ijtihad*) based upon the legitimate sources of law or upon his own personal judgment (*ray*) in order to adjudicate in novel situations. Ahmad ibn Hanbal (d. 855), founder of the Hanbali *madhhab*, likewise believed that the Quran and the Sunna of the Prophet alone were sufficient bases of the sharia but also admitted the consensus, or *ijma*, of the Prophet's companions.

The Shiites formed their schools of law, too. While the Ibadis and the Zaydis followed closely the principles of legal thought of the major Sunni schools, the Twelver and the Ismaili Shiites believed that the sole infallible authority to interpret the Quran and the life of Muhammad was the imam, a descendant of the Prophet's nephew, Ali ibn Abi Talib, whom they considered the only legitimate caliph. The Sunnis, however, rejected the idea of an infallible imam and believed that God's will was revealed fully and completely in the Quran and in the Sunna of the Prophet and that the ulema alone had the capacity to interpret it. The Sunni ulema, perhaps in response to the Shiite concept of the infallible imam, began to regard themselves as the "heirs of the prophets" (*waritha al-anbiya*) and in their capacity as judges and interpreters of the law, religious teachers, preachers, and guardians of religious shrines, functioned as the keepers of the moral conscience of the community.

By the 11th century various schools of legal interpretation had consolidated their zones of influence. The Malikis predominated in the Maghrib; the Shafiis prevailed in Egypt, Syria, Iraq, Iran, and the Hijaz; the Hanafis were significant in Iraq, Syria, Iran, Central Asia, and India; and the Hanbalis were important in Baghdad and Syria. When rival *madhhabs* occupied the same cities, however, open fighting could break out in the struggle to influence the decisions of rulers, local governors, and judges (*qadi*s). Such was the case in Baghdad during the Abbasid era, when Shafii and Hanafi urban factions fought one another in the streets, and in 10th-century Qayrawan, when rival Maliki ulema exhorted mass uprisings against the ruling Idrisid Shiites and their imams. In the same century stiff opposition from the Malikis forced the Fatimid Shiites, to relocate from the Maghrib to Egypt. Shiite *madhhabs* flourished in Fatimid Egypt between the mid-10th and 12th centuries, when Sunni Ayyubids followed

by the Mamluk rulers would give precedence to the Sunni *madhhabs*.

SHARIA IN PRACTICE

The science of regulating all aspects of public and private life according to the principles of Islamic law is called *fiqh* (jurisprudence). Scholars of the Sunni and Shiite *madhhabs* created codes of conduct for their followers in the attempt to prescribe in detail the way of life, the sharia, that Muslims must follow to obey God's will. In these legal codebooks all human actions were classified according to five basic norms: (1) Actions could be obligatory for the whole community (*fard kifaya*) or a single member (*fard ayn*). (2) Actions could be recommended. (3) Actions could be morally neutral. (4) Other human actions were reprehensible. (5) Certain actions were absolutely forbidden.

Examples of such books of *fiqh* include the *al-Muwatta* (Introduction), reputedly the first of its kind, which was compiled by the founder of the Maliki school, Malik ibn Anas; and *al-Risala* (The compendium) of another Maliki jurist, Ibn Abi Zayd al-Qayrawani (d. 996), which opened with a profession of faith offering his readers "those essential truths 'which the tongue should express and the heart believe.'" Islamic books of law such as the *al-Muwatta* and the *al-Risala* resemble Jewish legal codes in their general organization. They divide all human activities into two broad categories: first, the *Ibadat*, or acts of worship, meaning those acts immediately directed toward God, and second, the *Muamalat* (social intercourse), meaning those acts involving human interaction and social relations. The acts of worship include norms regarding ritual prayer and purification, fasting, almsgiving, the annual pilgrimage, the celebration of the canonical feasts, and the laws and legalities of waging jihad. The *Muamalat* treats matters of family law, inheritance and bequests, property

law and business contracts, and the establishment of charitable endowments (*waqfs*) and specifies particular crimes, such as murder, theft, adultery, and wine drinking and their due punishment. Following this, Islamic codebooks usually explain the procedures that judges (*qadis*) must follow in adjudicating on forbidden and criminal activities and might end with a general moral exhortation.

Fiqh is distinguished from *ilm*, and the practitioners of each have distinct names, *faqih* and *alim*, respectively. *Ilm* is a repository of knowledge of legal matters expressly contained in the Quran and the Hadith traditions. The *faqih* possesses this knowledge but is also equipped to apply *ijtihad* ("exertion"); that is, he exercises his own independent judgment in the absence of a traditional ruling in order to formulate a legal opinion (*ray*). Each of the Sunni schools of law accepted, rejected, or at the very least broadened or restricted the scope of interpretation through which scholars and judges could exercise their independent judgment in ruling on individual cases.

Although it is often repeated that from the 10th century onward "the door of *ijtihad* was closed," no evidence exists that this "maxim" was ever stated, much less put into action. To the contrary, within each school of law judges continued to make decisions in response to new circumstances, and in this regard the juridical consultations of *muftis* were especially important. A *mufti* was a private scholar whose personal reputation for religious learning and legal knowledge (*ilm*), integrity, and justice (*adala*) accorded him the authority to rule on disputed questions by means of *ijtihad* or personal opinion (*ray*). The opinions, called *fatwas*, of important muftis were assembled into compendia of responsa that, as did *fiqh* manuals, served as important tools in applying the sharia. The 15th-century Maghribi mufti Ahmad al-Wansharishi's compendium of *fatwas* preserves the juridical *responsa* of numerous famous judges

and muftis that bear witness to the difficult and unprecedented legal ramifications facing the Mudejars (Muslims living under Christian rule) in Spain.

Fiqh developed somewhat later in Shiite circles and reflects key theological difference separating Shiite and Sunni Islam. Shiites believe in an unbroken chain of authority that passed from the prophet Muhammad to Ali ibn Abi Talib to his successors, the imams. In the 10th and especially the 11th century Shiite ulema began to assemble their own corpuses of hadith and their own compendia of the sources of religion (*usul al-din*) and the sources of jurisprudence (*usul al-fiqh*). The principles of Shiite jurisprudence were first established by two jurisprudents of Buyid Iran, the eminent legal scholars al-Murtada (d. 1044) and Abu Jafar al-Tusi (d. 1067), who rejected the use of analogical reasoning (*qiyas*) and the exercise of one's personal judgment (*ijtihad al-aql*) to formulate an individual opinion (*ray*). Shiite rejection of these legal methods was inspired by polemics against their Sunni rivals, who accepted the application of *ijtihad*. Political setbacks that the Buyids suffered upon the ascendancy of the Sunni Seljuks in the 12th century, as well as upheavals stemming from the 13th-century Mongol invasions of Iran and Iraq, caused the Shiite legal establishment to revive its now stagnant legal system. It was now asserted that legal decisions should be arrived at by using *ijtihad al-sharia* based on the revelations of the Quran, the Hadith, and authoritative men (*rijal*) such as al-Tusi.

However, even in circumstances in which the law seemed settled, local custom and local leadership could intensify or mitigate the severity of punishment for crimes. Local community custom, known as *urf*, was used to interpret and judge people's actions. Elders of the village or tribe customarily judged the perpetrators. *Urf* and sharia were not necessarily in conflict. Whatever in *urf* was not opposed to sharia was

accepted as permissible. In the Maghrib, for instance, the sharia often was interpreted in the light of custom. In 15th-century Morocco some *qadis* displayed a preference for the opinions of jurists that conformed to local customs and interests, a practice known as *amal*. Marriage, for instance, was solemnized in accordance with Islamic terminology. But marriage rights, duties, divorce, and inheritance associated with marriage were decided by custom. For example, in certain locales inheritance of land by daughters was contrary to custom, although it was legal according to the sharia. Disputes about property or partnership might be taken to a *qadi* in the nearest town for decision or conciliation. Contracts or agreements to which parties wished to give formality and permanence also were taken to the *qadis* to be expressed in the language of the sharia, but the document itself would be interpreted by local custom. While one must be careful not to generalize, in cases such as these local custom provided mostly the substance of the law, while the sharia provided mostly the form.

The *Muhtasib* An important Islamic social institution that emerged in the early Abbasid period was the office of the *muhtasib*, a market inspector and censor of public morality. The ideal *muhtasib* was a man of scrupulous moral integrity and probity, a *faqih* by training, since he was expected to have a perfect command of all details of Islamic law and be intimately familiar with the activities of the merchant class. The duties of the *muhtasib* included ensuring the integrity of all products manufactured and sold in the marketplace and the accuracy of weights and measures. He supervised the performance of all the religious obligations and festivities and the proper use and maintenance of the mosque and other religious buildings. He kept a careful watch over all activities in the streets, schools, public baths, cemeteries, shops, and markets to guar-

antee the prescribed separation between the sexes and to certify that the laws and restrictions governing *dhimmis* were duly respected. The *muhtasib* was empowered to intervene on his own accord to expose and censure wrongdoing, even if it meant challenging a *qadi* or other member of the ulema who had failed to carry out his duty.

Many *muhtasibs* wrote manuals of their activities, called *hisba*. In the prologue of his 12th-century *hisba* manual Muhammad ibn Abd Allah ibn Abdun reflected upon the duties of his office, which included the following:

> to fortify the state of the Muslims, improve their condition and behavior . . . , incite them to do good and ensure that they know justice and righteousness and maintain themselves within them. The repression of injustice and tyranny . . . participates in the fight against evil and against open rebellion against the religious law. (Ibn Abdun 35)

Among the reprehensible goings-on in the cemeteries, Ibn Abdun denounced the vendors who installed themselves there among the tombs to "contemplate the uncovered faces of mourning women." He also ordered that the windows of buildings overlooking the cemetery be permanently closed so that men would not be tempted to spy upon the women. For the same reason he prescribed that the funeral reader of the Quran should not be a young good-looking man "even if he were blind because many bad things might arise from this" (Ibn Abdun 96, 97). Out of the same concern for sexual decorum Ibn Abdun urged judges always to give precedence to women litigants so that they would not have to sit about for a long time exposing themselves to the gaze of strange men. He also ordered the collector of fees of the public baths not to sit in the vestibule when the baths were open to the women in the afternoons, "since this is an excuse for licentiousness and fornication" (Ibn

Abdun 151). Under no circumstances whatsoever should Muslim women enter into the "abominable churches because the priests are perverts, fornicators and sodomites" (Ibn Abdun 130).

The *muhtasib* of Seville expressed concern that officials not abuse their power. Regarding the collectors of rents and taxes, he demanded that they only collect what was owed and that they use a well-balanced scale to determine the exact amount of payments in kind. Collectors must be prohibited from manifesting hostility and brutality toward the people or in any way humiliating them. He was particularly suspicious of magistrates (*sahib al-medina*) and their unscrupulous activities and insisted that "no attention be paid to any accusation that they might present [against a person] if it is not accompanied by an eye-witness testimony written by neighbors of the accused because those [magistrates] prefer evil to good" (Ibn Abdun 70). Nor was any love lost on lawyers, for Ibn Abdun wished that they could be suppressed altogether "since their activity is the motive for people to waste their money in vain." They do nothing but pronounce "slick and oily speeches before the judges, disguising the truth" (Ibn Abdun 61).

That Ibn Abdun felt obliged to urge the enforcement of the discriminatory laws distinguishing *dhimmis* from Muslims indicates that such laws were normally not followed. He forbade Muslim masseuses to massage Jews or Christians in the public baths and to throw away their garbage or clean their latrines "because the Jew and the Christian are better suited to these tasks" (Ibn Abdun 149). Jewish and Christian tax collectors and police officers should not be allowed to wear the same attire as Muslim jurists or "other respectable persons" and must wear a distinguishing sign on their clothing. Nor must they greet Muslims with the traditional Islamic greeting "Peace be upon you" (Ibn Abdun 157).

Shiite Islam   In regions under Shiite rule the moral office of commanding right and forbidding wrong was undertaken first by the imams, second by their missionaries (*dais*), and third by the individual. The Zaydi Shiites (followers of Zayd ibn Ali [d. 740]) were enthusiastic proponents of commanding right and forbidding wrong both in the political realm, advocating rebellion against unjust rule, and in the sphere of public behavior. The Zaydi al-Muayyad Ahmad ibn al-Husayn (d. 1020) wrote a treatise on forbidding wrong that advocated the following actions: smashing offending objects such as musical instruments or wine goblets, pouring out wine or adding to it a substance that would make it unfit for human consumption, turning over a drunk to the authorities for castigation, censuring women whose voices carry outside their homes if reciting poetry or singing, entering someone's home to put a stop to illicit activities such as listening to music or drinking wine, and engaging in conscientious objection by refusing to cooperate with an unjust ruler.

Al-Tusi was a renowned exponent of commanding right and forbidding wrong in the Imami Shiite tradition. Forbidding wrong must be done in three modes: with the heart, with the tongue, and with the hand. The Muslim unable or unauthorized to censure wrongdoing by speaking out or using force could at least show disapproval by frowning. Nor could a person resort to wanton violence to forbid wrong—he should first obtain permission from the imam or his representative before doing so—and it was absolutely forbidden to kill someone since, obviously, the dead could not mend their ways.

Education and Learning Centers

In the formative period of Islamic history, religious and legal training, based on the study of the Quran and the Hadith, was conducted

within the precincts of the mosque. A class was called a *majlis*, literally, "a place where one sits," because students would first perform the ritual prayer with the prayer-leading teacher, and from the position of prostration they would sit up and the lesson would begin. Education began with the detailed study of the Quran, including the art of recitation (*qiraa*) and exegesis (*tafsir*). Students would then begin the study of the Hadith following the method instituted by the prophet Muhammad himself: The instructor would recite a Hadith three times and then the pupils would recite it until they had learned it by heart. When the student had mastered the Quran and Hadith, he could embark upon the study of Islamic law. A noted scholar or doctor of the law would gather around him a circle (*halqa*) of students, whose learning consisted of listening to the teacher (*mudarris*) read and comment upon a text.

Initially, education was organized and financed by the government, and instruction was conducted by government-appointed teachers known as *qussas* (storytellers), who were also trained judges and therefore experts in Islamic law. Head teachers offered classes and issued legal rulings from the mosque. Maintaining positive and constructive relations with the ulema professors was in the interest of the ruling power, for it was largely through them that the government nurtured its links with its subjects. Rulers could curry favor with the ulema and the people by generously endowing professorships, schools, and other learning institutions.

Madrasa   In the 10th century a new learning institution called the madrasa (Ar. "place of study" = university; also *madrassa*) succeeded the mosque as the center of legal studies, theology, and secular learning. It was ostensibly founded in Seljuk Baghdad by the vizier Nizam al-Mulk (d. 1092), although its origins may be more remote. This madrasa, called the Nizamiyya in honor of its founder, became a bastion of Sunni theology and law in conscious opposition to Shiism. The madrasa was sometimes but not always attached to a mosque and included a residence (*khan*) for students. A madrasa might teach one, more than one, or even all four schools of law. The madrasa of Sultan Hassan in Cairo had four schools, one for each *madhhab*. Each of the four schools was accessible from a central court, and the teacher was a doctor of law who held an endowed chair. In the 11th to 14th centuries, the madrasa as an institution of learning spread well beyond Iraq into Iran, Afghanistan, the Balkans, Syria, Palestine, Egypt, North Africa, and Nasrid Granada. Madrasas were founded through charitable endowments (*awqaf*, s. *waqf*), and while dynastic rulers enthusiastically established them in order to gain legitimacy and popularity, just as many, if not more, were established by private individuals, men and women.

A student who attended the madrasa usually would have already studied in a lower school called a *maktab* or *kuttab*, where he would have learned Arabic and memorized the Quran. At the madrasa the student would study Arabic grammar and the history of early Islam. The main study would include reading and interpreting the Quran, the Hadith, the fundamentals of religion (*usul al-din*), the principles of jurisprudence (*usul al-fiqh*), and law (*fiqh*) itself. The teacher (*mudarris*) would read aloud and interpret a text that the student then would memorize. In the first phase of study, lasting several years, the student would study one particular school of law. Unless training to become a *faqih* or a *mufti*, the student would stop after several years of education. The doctor of law

(opposite page) *Madrasa Sahrij in the Andalusian quarter of Fez, Morocco. Built by the Merenids in the 14th century, the madrasa is named for the ablution pool* (sahrij) *on which its patio is centered.*   Erich Lessing/ Art Resource, NY.

(*faqih*) was expected to master the differences among the major schools of law and to undergo training in *ijtihad* as a formal logical disputation technique. The moment of truth occurred when the student had to defend his thesis in disputations (*munazarat*) against other *faqihs* who challenged him by putting forward antitheses. The successful candidate who convincingly defended his thesis with cogent objections and answers gained a license (*ijaza*) to teach law and earned the right to issue *fatwas*.

Shiite Learning Institutions Among the Shiites religious and legal instruction was at first conducted exclusively in the mosque, as had been the practice among Sunni Muslims. The oldest and one of the most prestigious universities (*jamia*) is the mosque of al-Azhar in Cairo, Egypt, which was founded as a center of Shiite learning in 972 by Jawhar al-Katib al-Saqilibi ("the Sicilian"), the commander of the Fatimid army that conquered Egypt in 969. The name chosen for the university, al-Azhar, means "the most radiant" and alludes to the prophet Muhammad's daughter Fatima, nicknamed "al-Zahra." The Shiite leanings of the university are reflected not only in the university's name but also in its curriculum, the staple of which was Shiite law. Al-Azhar University was also a bastion of secular learning, offering courses in the natural sciences, medicine, mathematics, astronomy, as well as geography and history. Women were offered courses in morality and ethics. Al-Azhar's reputation for excellence remained intact after it was converted into a Sunni institution with the conquest of the Ayyubids and subsequently the Mamluk dynasties in the 12th and 13th centuries. Scholars from all over the Islamic world would visit al-Azhar University on their way to or from the pilgrimage to Mecca.

Private institutions known as Dar al-Ilm (House of Knowledge) or Dar al-Hikma (House of Wisdom) began to emerge in the Shiite world in the late ninth to 10th centuries. These were essentially large libraries equipped with reading rooms and classrooms where courses were offered on all branches of the Shiite Islamic sciences and secular sciences (medicine, astronomy, mathematics, etc.). The Dar al-Hikma was open to scholars from all over, but its curriculum and administration reflected its Shiite leanings; it was administered by the head Shiite propagandist (*dai al-dua*), who also gave weekly seminars. Among the most renowned Dar al-Hikma was the institute inside the Fatimid palace in Cairo, where the books alone occupied some 40 rooms. The Fatimid caliph al-Hakim built his magnificent Dar al-Hikma in Cairo in 1005 and another shortly thereafter in the Egyptian city of Fustat. Whereas the great al-Azhar University survived the conquest of the Ayyubids, the Shiite Dar al-Hikma did not. The famous Ayyubid conqueror Salah al-Din (Saladin, r. 1174–93) ordered the destruction of al-Hakim's library and its contents. An estimated 120,000 books were burned, thrown into the Nile River, or buried in the sand.

Ijaza **(Certificate)** Once a student had finished reading a book with a particular teacher, he requested a certificate, an *ijaza*. This document attested to the fact that a particular student had studied a particular book with a particular teacher. A more specialized form of certificate was the *ijaza*, entitling the student to act as a *mufti* and therefore exercise *ijtihad* or teach a particular book or subject. An *ijaza* sometimes took the form of an elaborate listing of the whole chain of transmission from teacher to student over many generations of intellectual ancestors. It is important to note that in the Islamic culture of learning, the transmission of knowledge required not only reading and learning from books but especially personal guided training, commentary, and interpretation by a reputable scholar. Indepen-

dent learning through private reading was less socially accepted, as is made patently clear by a legal and medical scholar of Baghdad, Abd al-Latif (d. 1231), who urged the would-be scholar

> not to learn your sciences from books unaided, even though you may trust your ability to understand. Go to professors for each science you seek to acquire, and if your professor is limited in knowledge, take all that he can offer until you can find another more accomplished. Venerate and respect him. . . . Frequently distrust your own nature rather than have a good opinion of it, and submit your thoughts to men of learning and their works, preceding with caution and avoiding haste. Whoever has not endured the stress of study will not taste the joy of knowledge. (Hourani 1991, 165)

The City

Every great Muslim city had at its heart the medina, which consisted of three classes of buildings. First were the buildings associated with the mosque. The mosque was both a house of prayer and the center of political administration—reflecting the symbiosis between the religious and the political—as well as a communal meeting place. Following the custom of the prophet Muhammad, in the seventh century the seat of government (*dar al-imara*) was situated beside the mosque. During the early Abbasid period the caliphs introduced the custom of building the palace beside the congregational mosque, which was joined by a special balcony or bridge. This tradition soon gave way to the building of elaborate palace complexes located outside the city center (see below). The *minbar* (dais or pulpit) represented the sovereign authority of the prophet Muhammad, and thus the ceremonial installation of the caliph consisted of his seating himself upon the *minbar*, from which he would receive the official pledge of loyalty (*baya*).

From the *minbar* preachers delivered sermons to the faithful at Friday communal prayer, and leaders issued official proclamations. Located near the mosque were the house or court of the chief *qadi*, the madrasas and schools of learning, and shops that sold books, candles, and other objects pertaining to piety and to the law.

The second complex of buildings included the central marketplace, the *suq*. Here were located shops that sold textiles, jewelry, spices, and valuable goods. There were storehouses for imported wares. This also was the site for offices of moneychangers who were bankers for foreign trade. Sometimes these shops, storehouses, and offices were arranged in a quadrilateral of streets parallel to or crossing each other, or in a tight mass of buildings closely linked for walking among them, not for roads.

The third complex of city buildings was the government center, in which watchmen, market supervisors, and police worked and lived. From the ninth century onward the leader or ruler lived separately in a royal city, not in the medina. Manufacturing might take place outside the city center. Workshops producing textiles and metal, as well as residences for artists, artisans, and craftsmen, generally were outside the central city. Wealthier merchants and scholars might live near the center, but most of the population lived in residential quarters.

Each residential quarter was a mass of small streets opening off a main street. Most quarters had gates that were shut and guarded at night. A quarter might contain a few hundred or a few thousand people and might have its own mosque, church, or synagogue, a subsidiary market called a *suwayqa* that provided items purchased for daily life, and a public bath called a *hammam*.

Most such quarters belonged to those who lived there. Privacy was protected in case of need by its young men organized into groups

called *zuar*, *ayyarun*, and *fityan* who maintained the peace and preserved the security. Farther from the center of town and near the walls of the town or right outside the walls were caravans, houses of poor rural immigrants, and markets where country dwellers would offer fruit, vegetables, and livestock for sale. Noisy and odoriferous workshops such as those for tanning and butchering were located on these peripheral sites. Outside all these areas were the cemeteries.

This general city design varied by country and century but generally was imitated if a city was newly built and emended and adapted if an old city was taken over after Muslim expansion. Aleppo was an old city important in both the Hellenistic Greek and Byzantine eras well before the beginning of Islam. Cairo, however, was a new city created during the early centuries of Islamic rule in Egypt. There government had moved inland from Alexandria. The city of Fez was formed by amalgamating two settlements lying on each side of a small river.

The Royal Palace

The Abbasids moved out of their own beloved city of Baghdad to Samarra in 836. The Ayyubids and Mamluks held court in the citadel built on the Muqattam Hill overlooking the city of Cairo. In 936 the newly proclaimed Umayyad caliph Abd al-Rahman III of Spain (r. 912–61) ordered the construction of his magnificent palace at Medinat al-Zahra outside Córdoba as a display of his claim to the caliphate.

The wealthy and powerful wanted seclusion to express magnificence. In a separate city the ruler could isolate himself from public opinion. Another important reason for isolation was to keep the caliph's soldiers away from contact with the city, where they might learn insurrection or at least bad habits that conflicted with their duties of loyalty and security. The royal city, as opposed to the people's city, had its palace, treasury, mint, and offices for secretaries. Outer courts of the palace were sites for public business. There ambassadors were received, royal armies reviewed, and justice dispensed by courts. The ruler appeared in the outer courts on particular days for special purposes. Inner courts were reserved for the ruler himself and his family. The ruler's women customarily were guarded by eunuchs. Palace slaves also lived in the royal city.

The royal city had barracks for the royal guards and specialized *suqs* for the court and army. There were an arsenal and markets for horses, arms, and armor. Workshops for fine textiles for the use of the palace, the *tiraz* factories, were located in the royal city, and living spaces were nearby for those working in these crafts.

Houses were meant to be seen from within, not from the outside, and usually were constructed around an interior courtyard. Opening on to the street were a single door and a noncommittal building facade that rarely announced the wealth or belongings of the inhabitants. The women's section of the house also was invisible from the outside. Only those welcome in the courtyard had access to information on who lived within, how many people, and in what condition of lavish ostentation or Spartan simplicity.

Daily Hygiene

The Islamic bath, *hammam*, is a key social institution of any Muslim community, and any town or city could boast of multiple *hammams*. The early Muslims considered the public bath a foreign institution, as the name *al-hammam al-rumi* ("Roman bath") clearly indicates. Yet the pragmatic roles that the *hammam* fulfilled in the service of ritual ablutions and personal hygiene made the Muslims forget their earlier

reticence and incorporate the *hammam* as a veritable annex to the mosque. In addition to using the *hammam* to perform their ritual ablutions before performing the obligatory prayers in the mosque, Muslims as well as Jewish and Christian *dhimmis* routinely used the *hammam* for personal hygiene, relaxation, and therapy and as a social meeting ground. In order to maintain sexual decorum, separate days or times of the day were designated for men and women, and in some cities men and women had separate baths altogether. In unisex *hammams* a veil was placed in front of the entrance to indicate that it was the women's turn. At this point all male staff would leave the premises and be replaced entirely by women.

The basic design and services of the *hammam* were fairly consistent throughout the Islamic world. The client would pass through the entrance into a dressing room that communicated with the latrines. There they would undress, tend to physical necessities, and put on a loincloth or robe that would help them to accustom themselves to the increasing heat as they advanced through the "transition room" into the "warm room." There they remained awhile before going on to the "hot room" or "steam room," where they completed the cycle of profuse sweating. They then returned to the "warm room," which contained alcoves, small pools of soothing cold and warm water, and stone benches. There attentive staff provided the treatment known as friction, whereby the staff member donned special coarse gloves made of wool and goats' hair and vigorously scoured and rubbed clients to remove all dirt and the first layer of skin after they had bathed them in ample soap and water. Clients may have also enjoyed a brisk massage if they so chose. After this treatment clients completed their personal hygiene and purifications, were given a clean loincloth or robe, and were towel-dried by another staff member. They were finally led into the rest room, where the super-intendent escorted them to a bench and had coffee and refreshments served to them.

As in the Jewish tradition, a trip to the *hammam* accompanied many rites of passage: Expectant mothers went regularly to the baths, hoping to ensure a safe delivery. New mothers would go to a *hammam* 40 days after giving birth to perform the ritual purification. Young boys were taken to the bath to be purified before being circumcised. Brides-to-be visited the *hammam* three times before the wedding: once seven days beforehand for ritual purification, once three days beforehand to have the decorative henna applied to the body, and once hours before the consummation of the marriage. Bridegrooms-to-be would also visit the *hammam* in the company of friends and relatives before and after consummating the marriage.

Public Administration and Taxes

The second caliph of Islam, Umar b. al-Khattab (r. 634–644), is credited with establishing the basis of the notion that wealth accumulated by rulers should be distributed for the public good rather than kept as private property. After the conquest of Iraq and Syria, some of the Muslim leaders suggested to Umar that the wealth be divided among the conquerors, "just as the spoils of the army are divided." To which Umar is said to have retorted, "Allah has given a share in these lands to those who come after you" (Coulson 1141). The Islamic institution of the Bayt al-Mal (lit. House of Wealth, Treasury) is traditionally regarded as the outcome of Caliph Umar's proclamation. To finance public administration, Islamic governments levied taxes on the inhabitants of the cities and rural areas under their control. Islamic law established the guidelines for the taxation of different categories of people according to their

wealth, social status, and membership in the Muslim community, but it was under the Abbasids that the system of taxation became canonized. Muslims had to pay the obligatory alms tax, *zakat*, one of the Five Pillars of Islam. Muslim landowners paid the *zakat* in the form of a tithe called *ushr*. There were two major types of taxes imposed on non-Muslims: the *kharaj*, a collective levy imposed on agricultural land, mines, and their produce, which a village could be paid in kind or in money and was generally higher than the *zakat* paid by Muslim landowners, and the *jiyza*, a poll tax levied on non-Muslims living under Muslim rule (*dhimmis*), which was generally higher than the *kharaj*. In the cities taxes were also imposed on households, craftsmen, and merchants. Revenues accrued from taxation on the estates of the deceased and the confiscation of the property of apostates or unknown owners.

Once collected, these revenues were deposited in the Bayt al-Mal. According to Islamic law, a fifth (*khums*) was originally to be spent on the family and descendants of the Prophet, the poor, orphans, and wayfarers. The *zakat* was likewise designated for the poor, orphans, the sick, and similar groups. Expenditures for the most part went to the payment of salaried government officials and the army, the maintenance of prisons and prisoners, and the construction and maintenance of roads, water supplies, religious buildings, and other items benefiting the general public welfare.

CHARITABLE ENDOWMENTS: *WAQFS*

Another means by which governments as well as individuals financed projects for the public welfare was through the institution of religious endowments, or *waqfs*. A *waqf* was a legal assignment in perpetuity of the income from a piece of property for charitable purposes. *Waqfs* provided mosques, schools, hospitals, public fountains, hostels for travelers, and facilities for sick animals. An individual donor's charitable contribution of a *waqf* ensured the permanence of what he or she built. *Waqfs* were established by wealthy men and women, rulers, and high officials in all countries throughout the Islamic lands.

A founder could designate a member of his or her own family to act as administrator of the *waqf* and assign him or her a salary. A founder could provide surplus income from the endowment to descendants so long as they were alive. *Waqfs* were placed under the care of a *qadi* and ultimately the ruler.

Landed Estates

The Islamic world did not develop a feudal system comparable to that of Christian Europe. Instead, landholdings were characterized according to their fiscal status, which was determined by several factors, including membership in the Islamic community and social status. Muslim-owned rural estates subject to the *ushr* tax were known as *daya*. Some notables lived on their estates and cultivated their own land with the aid of hired help; most landowners preferred to live in the city and hired a bailiff (*wakil*) to manage the estate and peasant sharecroppers to farm the land. Under this arrangement sharecroppers would pay rent to the estate owner, who in turn paid a small portion (usually one-fifth) of this income to the government via the *ushr* tax. The tax benefits of estate ownership helped maintain the privileged position of the landed aristocracy.

Not surprisingly, the largest estate owner was the caliph, followed successively by the princes of his family, the governors of the army, the heads of administration, and finally the merchant class and other wealthy citizens who invested in landed property. Caliphal estates were distinguished from others by their classification as "private" (*khassa*), as opposed to "public" (*amma*), and they were usually known

by the distinct name of *sultaniyya* or *diwaniyya*. One of the privileges the caliph could bestow upon a local ruler was the right to levy taxes on his subjects, provided he paid a portion (*muqataa*) of the revenues to the central government. Similarly, it became common practice for caliphs anxious to maintain the loyalty of the army to grant soldiers the right to the taxes of the regions under their control, provided they paid a fifth to the government.

LAND GRANTS (*IQTA*)

In the first centuries of Islamic expansion up until the early Abbasid period, the caliph would cede portions of the territories acquired, called *qatia*s, to the Muslim notables, who then were required to pay the *ushr* tithe. In the ensuing centuries the system of land concession evolved into the administrative grant (*iqta*). The recipient of an *iqta* did not obtain the land as private property but rather attained the fiscal rights of the state over lands subject to the more costly *kharaj* tax. The grantee's benefice consisted of the difference between the *kharaj* tax he or she received and the lesser *ushr* tithe s/he owed to the ruler. The Shiite Buyids were the first to use *iqta* concessions as a form of pay of army officers, and the practice was adopted by other regimes in which the army effectively governed, such as the Seljuks, the Mamluks, and the Mongols. In such cases the roles were reversed: The caliph, having lost most (or all) of the powers of government, including fiscal control, now became the recipient of *iqta*s from a military aristocracy that now surpassed the merchants, civilian landlords, and high-ranking government officials in social status, wealth, and political power.

In its origins the *iqta* was ephemeral as both land rights granted and grantees constantly changed because of the mobility of the army. Under the Seljuks *iqta* concessions became much larger, hereditary, and sometimes exempt from taxes in order to ensure the loyalty of the army during critical periods such as the wars with the Christian crusaders. In Seljuk Asia Minor the *iqta* resembled a feudal fiefdom insofar as the peasants inhabiting the land in question were reduced to quasi-serfdom and prohibited from leaving the land if the taxes due had not been paid. It would be inaccurate, however, to equate the *iqta* with the European feudal manor. Feudal relationships were personal relationships in which a serf swore an oath of loyalty to his lord in return for protection. No such relationship was envisaged in the medieval Islamic world, where "all personal power was a delegation of [the] public power" of the ruler, be he caliph or military soldier (Cahen 1188). Moreover, some *iqta* grantees were military slaves and therefore could not inherit the *iqta* rights according to Islamic law, although it is also true that outstanding military slaves trained in the elite army corps were manumitted and could enter the military aristocracy. Finally, and perhaps most important, Islamic inheritance laws required all heirs to receive their fair share of wealth, a system that prevented the long-term concentration of *iqta* rights in the hands of one person.

The Role of Women
HARIM

The tradition of secluding women in the *harim* (an inviolable place or sanctuary; also *harem*) is linked to Quranic verses stipulating that the Prophet's wives and daughters should be veiled from public sight and more generally as a sign distinguishing "believing women" from non-Muslims (Q 3:59). As Islam spread out of Arabia, this custom was adopted or imposed as part of the tradition of imitating the Prophet's Sunna. In towns and urban centers in particular, where different social classes, Muslims, and non-Muslims cohabited, wealthy and powerful

Reconstruction of a wall painting from the harim of the Jausaq Palace in Samarra, 833–841
Bildarchiv Preussischer Kulturbesitz/Art Resource, NY.

families secluded their women in the *harim*, the special women's section of the home. Poor and working women, servants, and slave women working in urban centers as well peasant women, did not adopt this practice. Over the centuries jurists and commentators of the Quran debated and elaborated upon the nature and degree of the seclusion of women. An extreme example is seen in the opinion of the Egyptian Maliki jurist Ibn al-Hajj (b. 1336), who wrote that women should not even go out to shop in the market because they would be led to improper acts with the shopkeepers. He quoted pious elders who said that a woman should leave her home only on three occasions: when she goes to the house of her bridegroom, when she attends the funeral on the death of her parents, and when she goes to her own grave.

In practice women were never completely secluded from the public sphere. Women visited each other in their homes, participated in the celebration of marriages and the birth and circumcision of children, mourned their dead at public cemeteries, attended the Friday congregational prayer, took part in other religious festivals and practices, and had days designated for visiting the public bathhouses. In some countries, such as Iran, women participated in polo matches and other sports. The practice of seclusion was based on custom (*urf*) and varied from place to place. For instance, the 14th-century world traveler Ibn Battuta remarked upon the "great respect shown to women by the Turks, for they hold a more dignified position than the men" (Ibn Battuta 415). Merchant couples traveled together in public, and women did not use the veil. Throughout the Islamic world wealthy women administered their own property through intermediaries and were prominent in the establishment and administration of religious endowments (*waqfs*) for the construction of religious buildings and charitable enterprises. Although women were barred from becoming *qadis* and *muftis*, they could and did study the religious sciences, including law. Especially pious women, such as the sister of the noted Andalusian theologian and judge Mundhir ibn Said al-Balluti (d. 996), founded their own monasteries (*ribats*), where they could study, pray, and devote themselves entirely to the religious life.

MARRIAGE AND DIVORCE

The Quran legitimates women's social subordination to men in their family, the practice of polygamy, inheritance and property rights, and the value ascribed to their testimony in court. For instance, a woman's marriage was a civil contract between her male guardian and the bridegroom. A father as guardian could pledge his daughter in marriage without her consent if she had not yet reached puberty. After puberty her consent was necessary, but if she had not been married previously, consent could be given by silence.

The marriage contract provided for a dowry, or *mahr*, that the bridegroom gave to the bride. She retained this as her property, and whatever else she owned or inherited remained her property; in contrast in many places in the Christian West, a woman's property was transferred to her husband upon marriage. The wife owed her husband obedience but in return had the right to clothing, lodging, and maintenance, in accordance with her social status, and sexual intercourse with her husband. Contraception was also permitted, but a husband could not practice contraception without his wife's consent.

A wife could divorce her husband for such reasons as impotence, madness, and denial of her rights. She was required to go to a *qadi* in order to obtain the divorce. A husband, by contrast, could repudiate his wife without giving any reason and by a simple formula of words in the presence of a witness, without the need for a *qadi*. It should not be assumed, however, that the woman so repudiated was immediately thrown out of the marital home. After the repudiation Sunni law decreed a three-month waiting period to determine whether the wife might be pregnant. Family members or other interested parties would intervene to see whether reconciliation would be possible. During this time the husband was required to maintain his wife as usual, and in the case of pregnancy he was to provide for both wife and child until the latter was weaned from breast-feeding even should the couple decide to go through with the divorce. In Shiite law repudiation rules were stricter, but there was provision for temporary marriage for a specific period, the *muta*. A repudiated wife could return with her own property to the home of her parents. She would have custody of children of the marriage as well as the duty of raising them until a particular age, which each legal code defined differently. After that age the father or his family would have custody.

POLYGAMY

The Islamic practice of polygamy is based on the Quran and the example of the Prophet. The Prophet, in his capacity as a political statesman, contracted numerous marriages, most of which served the purpose of consolidating the allegiance of tribes into the new Islamic polity. The Quran legitimates male polygamy of up to four wives, provided that the husband treat them all equally and not neglect his sexual duties to any of them. A Muslim male also might have slave concubines. They, however, could not make sexual demands of him, only he of them. A marriage contract could be written to forbid any more than one wife and any additional concubines.

INHERITANCE

Inheritance laws also favored males. A man could bequeath one-third of his property in whatever way he wished to people or institutions that otherwise would not inherit from him. Two-thirds of his property was divided according to strict rules. His wife would receive at most one-third of that property. If sons and daughters succeeded the deceased, a daughter would inherit half the share of a son. If the dead man had only daughters, they would receive a certain proportion of his property, but the remainder would go to his male relatives. This was routine under Sunni law. In Shiite law daughters could inherit everything if there were no sons. Sunni law stipulated that daughters could receive only half as much as sons, and in any legal case a woman's testimony had only half the weight of that of a man.

POLITICAL POWER

The litany of restrictions imposed upon women in family law and in the public realm did not impede elite women from exercising real power either behind or directly from the throne, albeit

subject to the complicity of the men surrounding them. The most spectacular example is Shajrat al-Durr (d. 1259), the sultana of Egypt, founder of the Mamluk dynasty, and commander of the jihad against the Frankish crusaders led by Louis IX (1226–70). Shajrat al-Durr began her life as a Turkoman slave but rose in rank when she became the wife of the sultan of Egypt Salih Ayyub. Shajrat al-Durr acted as regent on behalf of her husband while he was abroad attending to military or state matters. On one such occasion in 1249, Louis IX led a surprise attack upon Damietta in Egypt, and it was Shajrat al-Durr who organized the defense of the country, repelling the Frankish soldiers. When Salih Ayyub died one year later, the Turkish slave soldiers of the Ayyubid army succeeded in placing her on the throne over and against the ambitions of her non-Turkish stepson and thus inaugurated the Mamluk dynasty. As did any male sultan, Shajrat al-Durr signed royal decrees, had coins minted in her name, and had the blessing pronounced on her behalf during the weekly Friday sermon. Shajrat al-Durr's reign as sultana was short lived. A mere two months after she assumed the throne, the Abbasid caliph commanded that she be deposed and replaced by the Mamluk soldier Aybak. After Shajrat and Aybak were married, she continued to exercise administrative rule, sign royal decrees, and have coins minted in both her and her husband's name. Admittedly, such women rulers were exceptional and always accompanied by the assumption of male prerogative to rule.

THE ROLE OF THE QURAN

Despite the considerable limitations that Islam placed on the social rights of medieval Muslim women, the Quran also recognizes the essential equality of men and women in their acts of worship and obligations toward God. The Quran is unique among the scriptures of the Abrahamic faiths in explicitly addressing women and does not distinguish between men and women in the reward for belief and righteous behavior, as the following verse indicates: "Whoso doeth right, whether male or female, and is a believer, all such will enter the Garden (Paradise)" (Q 40:40; 16:97).

Non-Muslims (*Dhimmis*)

Islam created a unique institution called *dhimma*, which accorded hospitality and protection to members of other revealed religions—Jews, Christians, Zoroastrians, and others—in exchange for their acceptance of Islamic rule. The *dhimmis* were allowed to continue practicing their religion and customs; however, they were subject to a number of provisions that aimed to differentiate them clearly from the Muslim population. In some places this meant distinctions in clothing, such as the prohibition against wearing colors associated with the prophet Muhammad and prohibitions against carrying weapons or riding horses. *Dhimmis* were not allowed to marry Muslims, inherit property from them, or benefit from the Islamic *zakat*. They had to pay a special poll tax, the *jizya*. They also had to obtain official permission to construct or repair religious temples. Such restrictions did not prevent certain influential Jews and Christians from holding high offices in the court, as was the case in Fatimid and Mamluk Egypt and Abbasid Iraq, where Christians held prominent positions, or in Umayyad Spain, where the Jews were prominent in the court. Where persecution of Christians or Jews did occur, for instance during the reign of the Fatimid caliph al-Hakam (r. 996–1021) or of the Almohads in Spain, the reasons were political and economic rather than religious intolerance.

Slavery and the Mamluks

Islamic law permitted the practice of slavery. In contrast to the European practice of slavery in the countries of North and South America, in which slaves were not considered full human beings by law, Islamic law stipulated that slaves were persons who, while not enjoying the full rights of free citizens, must be treated justly and kindly. The sharia designated the manumission of slaves as a meritorious act of piety. It was forbidden to enslave free-born Muslims, and most slaves were acquired as war captives or through the slave trade with non-Muslim countries. There were several varieties of slavery. The customary general slave, known as an *abd*, was most often a female domestic servant in the urban areas and an agricultural worker in the countryside. An educated male slave could travel and conduct business transactions on behalf of his master. A special category of female court slaves, the *qiyan*, whose status resembled that of the Japanese geisha, were highly prized for their expertise as singers, dancers, poets, and scholars.

Another Arabic word for slave, *mamluk*, meaning "one who is owned," was used as a technical term for a soldier who had been enslaved as a youth, trained to the profession of warfare, converted to Islam under supervision of a master who was the ruler or a senior military officer, and registered as a member of the standing professional military force of the realm. Military slaves recruited from the Slavic countries, the Caucasus, Central Asia, and Africa served in the armies of the Abbasids, the Umayyads in Spain, and other Islamic dynasties. Turkic lands were a major source of slave labor. The preeminent reservoir of military slave manpower for Muslim courts was the region between the Nile and the Oxus Rivers. The Turks were particularly valued as military slaves for their physical and psychological strength. The Arabs admired their eth-nic pride, their keen sense of solidarity, and their seemingly uncanny ability as mounted archers. Ottoman sultans, as had their predecessors, took military slaves from non-Muslim lands, especially south Russia and the Caucasus. They instituted a regular levy of slaves among the children of their Christian subjects in the Balkans and in Anatolia. In the years 1400 to 1700 Islamic leaders insisted upon a donation of children to become slaves in Islamic courts and cities. This child levy was called the *devshirme*. The most important use of the Mamluks was as mounted military warriors.

To call a Mamluk a slave soldier did not adequately describe him because in some Islamic states slave recruits gained freedom after military training. In other Muslim countries the Mamluks remained in a status of formal servitude throughout their careers, no matter how lofty the rank or office they attained. Furthermore, a Mamluk who had completed his training was not free to leave the service of his master. The most spectacular case of slave soldiers is that of the dynasty of Mamluks who ruled Egypt and Syria from 1250 to 1517.

Hunting and Leisure

The Quran explicitly approves of hunting and of the use of animals to aid in capturing prey: "Lawful for you are foodstuffs good to eat and any [game] that, at your wish, is captured by beasts of prey which train as you do dogs, according to the method which Allah has taught you, after you have spoken the name of Allah over it." (Q 6:4). The hunting animal was given the right to the "bleeding bite," making the first wound to draw blood, which is likened to a ritual slaughter (*dhabh*). Falcons were among the most significant "beasts of prey" used by the Arabs. Falconry is an ancient tradition in

Of ivory and pierced relief work from Fatimid Egypt, 11th–12th centuries, the upper and lower panels shown here depict court life with scenes of falcon hunting and banquets with musicians within vine scrollwork.   Bildarchiv Preussischer Kulturbesitz/Art Resource, NY.

the Middle East going back thousands of years. The pre-Islamic Bedouin Arabs routinely used falcons to hunt small animals, such as rabbits, hares, and ducks, needed to supplement their diet. This tradition continued in the Islamic period and became widespread throughout the Islamic world. Falconry became associated with the nobility, and Muslim princes would organize falcon hunting parties.

One remarkable story from *The Arabian Nights* relates how two Mongol princes became lost in the desert and were on the verge of starvation when they spied a falcon. They followed the bird to its quarry, captured it, and trained it to hunt for them, always providing their aviary helper with his fair share of the spoils. Two years later the princes were able to return home safe and sound, and one of them, whose name was Temoudjin, would go on to become the great Mongol conqueror Genghis Khan.

Hunting for larger animals, such as the antelope, ibex, wild ass, ostrich, and highly coveted gazelle, required the use of larger beasts of prey. Felines were popular, especially the cheetah,

because of its legendary swiftness and its ability to maintain its composure at the sight of blood. Persians, Mongols, and Indians had a long tradition of taming cheetahs to hunt for them, a skill that they passed on to the Arab Muslims in the Arabian Peninsula, Syria, and Iraq. Among the Abbasids, Fatimids, and Mamluks the cheetah was a symbol of prestige and power, and cheetahs paraded in their official processions. For hunting fur animals and cranes, partridges, and other large birds, the russet-colored lynx caracal was the predator animal of choice.

Caliph Umar ibn al-Khattab is said to have enjoined Muslim notables to train their sons in the skills of swimming, sharpshooting, and horseback riding. Muslim princes and nobles cherished the chase (*tard*) and organized hunting parties in which they rode out on horseback, accompanied by beasts of prey, and used bows and arrows, crossbows, and blowpipes to bring down their quarry. Hunting on horseback helped train young princes in the necessary skills to engage in warfare. Horse racing and camel racing served a similar function, enabling notables

to build up their strength and rapidity. Muslim skills in warfare benefited from the introduction of new swifter breeds of horses from Mongol and Turkish soldiers. Mongols and Turks were especially admired for their unmatched talent in archery and would stage exhibitions of their dexterity at court to impress foreign dignitaries.

Polo was the preeminent sport of kings and princes in Central Asia and Iran, where the sport is believed to have originated circa the sixth century B.C.E. Medieval Persian miniature art and manuscript illumination attest to the importance and popularity of polo in Persian court culture. The renowned 10th-century Persian poet and epic writer Abu l-Qasim al-Firdawsi describes numerous polo matches in his famous *Shahnameh* (The Persian book of kings). One intriguing tale sets the scene of a love story between a king and his consort on a polo field. The king and his male companions played a match against the royal consort and her female attendees, illustrating that the women of the Persian court were also trained in the game.

Religion and Food

HALAL AND *HARAM*

Islam resembles the Jewish tradition in its distinction between kosher and nonkosher foods. The Quran designates the foods that are permitted (*halal*) and forbidden (*haram*) for Muslims (Q 7:156–157). Islam differs from Jewish law and Christian custom in its total prohibition of wine (*khamr*) and distilled alcoholic beverages (*nabidh*), owing to the belief that they confuse the mind and lead people astray. A Quranic verse explains that God cast a demon into a pig, and for this reason Muslims (as are Jews) are forbidden pork and pork-based products, such as lard and gelatin. The Quran also follows the Jewish prohibition of consuming animal blood. Carnivorous beasts of prey may

not be consumed, whether four-footed mammals (lions, tigers, cheetahs, etc.) or raptors (falcons, hawks, eagles, vultures, etc.). The Quran also forbids those in a state of ritual purity, such as pilgrims to Mecca, to kill or eat game (Q 5:94–95), although they may eat fish.

The way an animal has died determines whether eating it is *halal*. An animal that has died of apparently natural causes, a fall, or a blow or been killed by a wild animal may not be eaten because there is no way of knowing certainly how the animal died. There is a practical health concern here, for a dead animal may have died of a contagious disease. Furthermore, not knowing how an animal was killed raises the possibility that it was killed in an illegitimate way. Similar to the hunting custom of the "bleeding bite" to draw the first drops of blood, the slaughter of animals had a sacrificial character because it had to be performed in the prescribed way to be considered *halal*. Following the paradigm of Abraham's near sacrifice of his son Ishmael (Isaac in the Judeo-Christian tradition), the animal had to have its throat slit with a sharp knife in one clean, swift blow while the butcher uttered a prayer of thanksgiving to God.

The pronunciation of the name of God, Allah, and the ritualistic procedure of the slaughter were crucial since Muslims were banned from eating any animal that may have been sacrificed in the name of some "pagan" god or goddess. In multicultural urban Islamic societies this meant that Muslims could not purchase meat that had been sacrificed by Christians or Jews. The *muhtasib* Ibn Abdun of Seville reminded his community that "no Jewish butcher should sacrifice an animal for a Muslim. Jews should have their own special butchering table to tend to their own community" (Ibn Abdun 152).

FOOD AND MORALITY

In the medieval Muslim moralistic treatises and sermons it was not uncommon to find eating

the "forbidden foods" and wine at the top of the list of the "ten reprehensible sins." A 13th-century anonymous preacher of Muslim Spain placed the "evil" foods and wine at the top of his list of deadly sins because they epitomized following one's own desires, making one less likely to follow any of the other Islamic prescriptions. A 15th-century preacher expressed a similar idea when he singled out wine as the sum of all sins and the key to all moral depravities. The temptation to drink wine must surely have been great, as attested by the emergence of a subgenre of poetry called "wine odes," *al-khamriyyat*, devoted to the joys of consuming the beverage and lauding its inebriating effects. Moreover, the temptation was always close at hand in Islamic cities where Jewish and Christian communities also resided. A typical reprimand against those drinking wine was to accuse them of acting like Christians and Jews. On the other hand, the Quran includes wine as one of the delights of paradise, which the elect will be able to enjoy in abundance (Q 37:44–45; Q 47:15–16). The psychology behind the prohibition of wine drinking and forbidden food in particular differs somewhat from that influencing medieval Christian ideas about gluttony. In the Christian imagination gluttony was linked with lust and sex; in the Muslim imagination consuming what God has forbidden represented a propensity to wanton disobedience or rebellion against any of God's laws.

FASTING AND FEASTING

Fasting during the month of Ramadan was one of the prescribed Five Pillars of Islam. The fast was considered a time of joy and a celebration of thanksgiving for the initial revelation of the Quran, which occurred during that month. Every day between sunrise and sunset, Muslims abstained from eating, drinking, smoking, and having sexual intercourse. The fast was prescribed for all Muslims over the age of 10 of sound mind and body. Very young children, pregnant or nursing mothers, the very old, the infirm, the mentally ill, soldiers fighting jihad, and long-distance travelers were exempted from the requirement. At sunset Muslims gathered together in their homes and recited the evening prayer, after which they celebrated the breaking of the fast (*iftar*) with dates and a sweet juice in accordance with the prophet Muhammad's custom (Sunna). After this the real feast began, and main dishes typically included various meats served with rice and vegetables. The meal would be rounded off with an array of baked desserts, usually pastries filled with honey or syrup, pistachios, pine nuts, almonds, or dried figs or other fruits. After the meal the especially spiritually devout might return to the mosque for the special prayers (*tarawih*) that were performed during Ramadan. Most people then as today stayed awake into the early hours of the morning to take the lighter predawn meal (*suhur*) before going to sleep. A typical *suhur* consisted of goat's cheese, tomatoes, fava beans, or fruit.

Muslims were taught that the physical fast goes hand in hand with the idea of a spiritual "jihad" against the self, specifically against the temptation to follow one's own desires instead of what Allah desires. Thus, Muslims simultaneously spiritually fast against sinful or harmful thoughts, speech, or actions and renew their commitment to Allah by spending more time in prayer at the mosque, practicing acts of kindness and extra charitable giving, and sincerely turning to Allah in repentance for any sins committed. The self-denial implied in the physical and spiritual fasts made them acts of atonement for past sins. In fact, many *fiqh* manuals explicitly stated that fasting and night prayers performed in the mosque atone for sins.

Besides complying with the prescribed fast of Ramadan, many Muslims undertook supererogatory fasting as a means of expressing their

spirituality and increasing their devotion. Such voluntary fasts were most popular during the so-called meritorious times (*fadail awqat*), when it was believed that Allah was most likely to answer prayers or accept repentance, or when, according to the Hadith traditions, the prophet Muhammad also fasted voluntarily. One Hadith states that the Prophet said, "Ramadan is the month of God and Shaban is my month." Hence the month of Shaban was a popular month of voluntary fasting. So was the first month of the year, Muharram, especially the first 10 days leading up to the 10th day, the Festival of Ashura. Ashura corresponds to the Jewish Day of Atonement (Yom Kippur), which Muhammad also observed by fasting and prayer.

The spiritual biographies of Sufi mystics and pious men and women are filled with anecdotes that incorporate fasting as part of the spiritual ascent toward Allah. A woman only ate what she received from begging as a show of her utter reliance upon Allah for her subsistence. Another only ate the scraps found in a garbage heap. A man and his family survived virtually only on figs. Another fasted by eating nothing but bitter herbs. Less extremist forms of fasting included the abstention from certain fatty substances such as oil, butter, or meat. Sufi communities residing in lodges usually limited themselves to two meals a day. Normally, meals were meager; staple foods such as bread, porridge, and soup would be supplemented by fruit or vegetables. More costly meals featuring meat, rice, legumes, dried nuts, and pastries were reserved for Fridays and feast days. At the same time, numerous Quranic verses count food among the divine gifts and blessings (e.g., Q 14:32, 16:74, 17:72, 53:24), and this idea of food as blessing is also seen in the miraculous powers of Sufi saints whose capacity to produce food miracles is taken as a sign of their divine favor. It is interesting to observe that the typology of these miracles resembles those ascribed to Jesus, particularly his feeding a crowd of 5,000 people with only five loaves of bread and two fish (Mt. 14:15–21 and parallels).

Finally, the distribution of food was one way that rulers and the wealthy could demonstrate their generosity and largesse and fulfill the Islamic prescriptions of almsgiving. Rulers typically hosted large and lavish banquets as part of the celebration of religious festivals and distributed food to the poor as an act of charity. During Ramadan the wealthy supplied the poor with "mercy tables" of food so that they could celebrate the nightly breaking of the fast and the great holiday of Id al-Fitr that ends the month of Ramadan.

JEWISH SOCIETY

The following section explores in detail the difficult and delicate position of Jewish communities in the Christian and Muslim medieval world. Their social status fluctuated between being considered indispensable to the monarchy and caliphate as "royal serfs" and to the economy as merchants and moneylenders to being despised as the "enemies" of Christ. In between the two extremes Jewish communities managed to thrive, maintaining key social institutions and traditions that largely safeguarded their autonomy and identity.

The Concept of Optimistic Realism

Jewish life was perilous under cross and crescent. Yet despite threats, pogroms, expulsions, forced conversions, the horrors of the Crusades, and restrictions to Jewish ghettos, many medieval Jews seemed steadfastly to refuse

pessimism and to promote optimism, electing to presume excellence in the world. Optimistic realism was a pervasive theme throughout medieval Jewish philosophy, evidenced in greater or lesser degree in the teachings of the 10th-century Saadya Gaon; 11th-century Rashi and Bahya ibn Pakuda; 12th-century Maimonides, Abraham ibn Daud, Judah Halevi, and Nachmanides; and 14th-century Hasdai Crescas. It also animated daily life among Jewish men, women, and children, as exemplified in the eyewitness accounts of troubles and triumphs of Jewish traders in their Cairo *geniza* letters. Jews who traveled the world from the 10th through 13th centuries, battling on the sea against shipwreck, on the trade routes against piracy and thievery, and on the international markets against political molestation and mercantile disaster, did not simply wait for God's help or for heavenly rewards for earthly suffering. Traders did not patiently accept what was and then wait: They acknowledged reality and then started bettering it.

Jewish philosophy counseled that it was necessary to presume excellence when conditions were difficult, mysterious, or inexplicable. An obligation intentionally to select a positive over a negative interpretation of facts was a fulfillment of a *mitzvah*, a blessed obligation, called *limud lekaf zekus.* That prohibited false judging, false concluding, and necessarily required the Jew to provide a person or an incident with benefit of the doubt. *Limud lekaf zekus* had daily application in commonplace acts of men, women, and children. Taught to identify an adversity clearly, people were expected to turn it into an opportunity. Rotating adversity into opportunity also could mean rotating adversity into profit. Jewish merchants' letters translated by scholars Goitein and Stillman illustrate that philosophy in action.

In 1130, for instance, a father named Sadan in Tripoli reluctantly let his son go off to trade and to see the world. The father had made a

rash promise when drinking too much. He had pledged that his son could leave on the next boat, thinking that no boats were forthcoming. Caught by his own rash promise, he was required by honor to abide by it. He let the boy go. But the father took the precaution of alerting a business friend abroad please to buy the dyestuff called lac, clove bark, nutmeg, and fragrant wood for the inexperienced youngster to sell. If the father could no longer teach his son at home, then he paid for the friend overseas to train the youth in the merchant profession.

A second letter dated in the 13th century introduced Ibrahim ben Abu l-Surer, who wrote to Abu Nasr of Fustat about the poor quality of medicinal goods he was expecting to buy and the unpleasantness of the countryside where he was traveling. Ibrahim remained there only for collecting the debts owed to him. Seeking sustenance, he said, was as powerful an impetus for an intelligent man as seeking glory.

Writing in peril from Palermo, Sicily, in 1025, just sacked by the Byzantines, Joseph ben Samuel requested help from a trusted friend. Joseph had left at home in Egypt his beloved wife and young son. As did many an overseas trader, he had given his wife a conditional bill of divorce before departure so that if he died by natural or violent causes without confirmatory witness to his death, she would be free to remarry. The purpose of the conditional divorce was to enable the woman to escape *agunah*, the status in Jewish law of neither legal wife nor legal widow.

Joseph ben Samuel recounted his shipwreck in Zahlaq, surviving without coin or garment and arriving in Tripoli naked. A Jew there who owed him money enabled him to buy clothing and food. Otherwise he would have had to beg for charity. Once in Palermo, Joseph discovered that a man from Barqua had pulled down a small house Joseph had owned and erected

another. But Joseph now was too poor to file a lawsuit. He looked for his brother, who owed him money, but he had vanished. Therefore Joseph asked his friend to help him either to divorce his wife, for he might not return home for at least two years given his precarious situation or to convince his wife to travel to the war zone to live there with him.

His rational, dignified plan, tinged with family passion, rested ultimate power of decision with his wife: If she accepted the divorce, then he would send alimony for the boy. But if not, then he wondered whether she would be prepared to settle with him in Sicily. If she were willing to travel, she would confirm her decision by oath, and he would make the arrangements for her and their son to live there with him. He asked his friend to find a teacher for his little son.

In a fourth letter, dated 1149, Abu Said, a Jewish Oriental spice exporter in Sicily, had been away from home for three years. He wrote to his elder brother, Abu l-Barakat, in Egypt, relating his odyssey after embarking from Tunis. His family fell ill for four months. His baby son died. His wife and other son survived. Upon leaving Tunis they were seized by a disastrous storm at sea, forcing them to land on an island called Ghumur, where they remained for 20 days surviving by eating nothing other than nettles. This time they were tormented on the waters for 35 days and were thought lost at sea. Of four sea barges only theirs survived. After arrival in Sicily, they were so exhausted from their ordeal that they unable to eat bread or to understand a word of what was said to them for a full month.

Abu Said recounted these misadventures to explain why he and his family did not travel to Egypt, as their experiences had made them reluctant to travel. He did not blame God, the storm, or fate for his misfortune. He did not claim suffering as entitling him to community care. His recounting of perils was preface to his necessity to remain abroad to make up financial losses, to work for profit, and only then to return home. Cheerful to work and to triumph, he rationally planned his next moves. He even invited his brother to join him in Sicily because it was a prime market for the sale of Oriental spices. For pleasure and for good business, he recommended their working together to increase family prestige and honor and to make them "happy" with one another.

Legal Status

Self-interest and the logical desire to flourish in this world were challenged by the realities of daily life in the wider Christian or Muslim society in which Jews resided. Sumptuary laws, discriminatory fiscal treatment, and occasionally ghettoization were some of the legal strategies of differentiation that Christian and Muslim governments imposed upon the Jews. For the most part, however, Jews were allowed to practice their religion, enjoyed autonomy from non-Jewish interference in their internal affairs, and were encouraged by the sovereign authorities to maintain these religious and legal institutions intact in order to ensure the social peace and economic stability required to maintain the steady flow of Jewish taxes into Christian or Muslim coffers. As Yacov Guggenheim, Mark Cohen, and other scholars have shown, legal restrictions placed upon Jews were often breached, and the privileges that Jews received "were normally compromises minutely negotiated and taking account of both parties' interests" (Guggenheim 75). The legal status of Jews differed in certain ways under Christian and Islamic rule.

SERVUS CAMERE REGIE

In Christian Europe Jews were considered the "property" of monarchs, nobles, towns, or the

church in the territory in which they resided. From the mid-12th century onward, Jewish communities throughout Europe were bound in a special relationship to the monarchy as *servus camere regie*, "serfs of the royal chamber." The concept of Jewish servitude to the monarch was apparently first formulated in the 12th-century *fueros* (laws) of the Kingdoms of Aragon and Castile, although its origins are more remote. The "Augustinian equilibrium," so named after the theologian Saint Augustine (d. 430), maintained that Jews must be tolerated within Christian society as a "witness" to the triumph of Christianity, albeit condemned to perpetual servitude due to their rejection of Christ. In the 13th century Emperor Frederick II of Germany and Sicily employed the phrase "serfs of the royal chamber" in speaking of the Jews in his service. Similar legal formulations were adopted in England and France.

In all cases cameral servitude meant the Jewish community was subject directly to the political and fiscal authority of the monarch, as opposed to that of the local feudal nobility or the church. Jewish courtiers, financial administrators, and tax collectors especially benefited from being in the king's personal service: Land grants, exemption from wearing distinctive clothing or signs identifying their Jewish identity, and permission to build a synagogue were just some of the privileges that they might receive in sincere gratitude for services rendered. This special status provided Jews with protection from other elements of society. Those who dared to harm the "king's Jews" directly challenged royal authority and therefore were severely punished. At the same time, however, the proprietary relationship left Jews vulnerable to the whims of the monarch's discretion.

CANON LAW

Canon law was a double-edged sword for Jews, protecting them from ill treatment and oppression on the one hand while discriminating against them on the other. The laws of Pope Honorius (r. 395–423) stipulated that Christians were not to disturb the Jews or their synagogues or hinder them from observing their Sabbath and feast days. The Law Code of Theodosius II of Byzantium (r. 408–50) forbade Christians to attack and burn Jewish synagogues, although it also prohibited such destroyed synagogues from being rebuilt. In 1199 Pope Innocent III issued a "Constitution for the Jews," which stipulated that no Christian should compel Jewish persons to be baptized, rob them of their property, extort any unwarranted service from them, attack them with clubs or stones as they celebrated their festivals, mutilate or destroy a Jewish cemetery, or exhume a Jewish body from its grave after burial.

The distinct status of the Jews and their social segregation and discrimination were likewise enforced through canon sumptuary laws. The church had a long history of issuing legislation against the Jews that restricted their participation in the dominant society. One could mention Theodosius I the Great's (r. 378–95) edict of 388 forbidding intermarriage between Jews and Christians; Pope Honorius's law of 404 excluding Jews from military and court service; the Theodosian Code (408–50), which forbade Jews to build new synagogues; the Third Frankish Council of Orleans (538), which prohibited Jews from interacting with Christians between Holy Thursday and Easter; or the Fourth Frankish Council in Macon (581), which reaffirmed these restrictions and forbade Christians to participate in Jewish festivals. Yet the papal decrees of Pope Innocent III promulgated at the Fourth Lateran Council in 1215 are particularly remembered for obliging Jewish (and Muslim) men and women to distinguish themselves with a distinctive mark on their clothing, which would give rise to such items as the Jewish badge and the Jewish hat

(*Judenhut*). It should be noted, however, that up until the end of the Middle Ages the church had to reissue this stipulation on numerous occasions, indicating that it was honored mainly in the breach.

Lateran IV strove to attain the complete social segregation of Christians from "infidels," both Jewish and Muslim. Throughout Christian Europe Jews by this time were obliged to reside in closed quarters physically separated from Christians. Lateran IV banned Jews from leaving their homes under any circumstances from Holy Thursday through Easter Sunday. Lateran IV also reconfirmed the prohibition against Jews' holding public office and severely restricted commercial and other forms of social intercourse between Christians and Jews. It is clear from the wording of canon 68 of Lateran IV that the sumptuary clothing laws were motivated by concerns about sexual relations between Jews and Christians. It explicitly states that the imposition of distinctive clothing was meant to ensure that Christians would not have sexual relations "through error" with Jews or Saracens.

THE PACT OF UMAR

Jews, Christians, Zoroastrians, and Hindus lived as *dhimmis* (protected peoples) in the lands absorbed into the Islamic empire. *Dhimmi* was a legal status, the origins of which lie in the Quran and in the example of the prophet Muhammad's dealing with the Peoples of the Book (*Ahl al-Kitab*), those to whom God had revealed a book before the beginning of Islam. The theological ideals behind the notion of *dhimmi* differ significantly from those that underlie the status of the Jews' "perpetual servitude" in Christendom. Unequivocally, God's revelation to Muhammad was considered the final and most perfect of all the revelations. This did not mean, however, that the previous revelations should be abrogated or that the fol-

lowers of these other religions should be harmed, killed, exiled, or forcibly converted to Islam simply by virtue of their belonging to a different religious tradition. Muhammad established the precedent of negotiating treaties with the Peoples of the Book, which provided them with protection in exchange for their submission to his political rule, their promise of loyalty, and the payment of a poll tax (*jizya*). In the event that the *dhimmi* community reneged on its pledges, the Islamic community reserved the right to punish, exile, or execute them as traitors or rebels. Such was the case with the execution of the men of the Jewish Banu Qurayza tribe in 627.

The general principles of the legal status of the *dhimmi* populations reached final form in the text known as the Pact of Umar, attributed to the second caliph, Umar ibn al-Khattab, the conqueror of Syria and Palestine; however, most scholars agree that the text dates from a later period between the eighth and 11th centuries. The text takes the form of a solemn pledge addressed by representatives of the People of the Book to Caliph Umar requesting "protection for ourselves, our posterity, our possessions, and our co-religionists" (J. Marcus 13) in exchange for the adherence to a number of conditions. The *dhimmis* pledged not to build any new religious building or repair those fallen into ruin. They would not refuse entry of any Muslim into their temples nor refuse hospitality to any Muslim traveler. They pledged not to harbor any spies or enemies of the Muslims. They pledged to abstain from displaying their religious symbols publicly, from ringing bells, from chanting loudly either inside their temples or outside during religious processions, and from any ostentatious practice of their religion in Muslim neighborhoods. They pledged not to proselytize among Muslims or to obstruct the voluntary conversion of any of their kinsfolk to Islam.

They renounced the right to own or bear arms and to ride on saddles and pledged not to assume Arabic honorific names. They promised not to sell wine or other items forbidden by Islamic law to Muslims. They also agreed to a number of sumptuary laws to distinguish themselves visibly from the Muslim population. For instance, they pledged that they would "not imitate them in [their] dress, either in the cap, turban, sandals, or parting of the hair," and they would wear the *zunnar*, a leather or cord girdle worn around the waist, reserving to the Muslims the privilege of wearing silk or cloth girdles (J. Marcus 13–15). *Dhimmis* were forbidden to hold public office, and, as mentioned, they agreed to pay the poll tax. Islamic law discriminated in some areas of interfaith social relations. Muslim males were permitted to marry *dhimmi* women, but *dhimmi* males could not marry Muslim women. The children of interfaith marriages had to be reared as Muslims.

The "protection" that the *dhimmis* received in exchange for the pledge of submission included the freedom to practice their religion (subject to the limitations mentioned) and autonomy in their internal affairs. Historical records have repeatedly shown that the payment of the poll tax was virtually the only restriction consistently imposed. In the Middle Ages Jews and other *dhimmis* frequently requested and received permission to build or repair one of their temples. Hasdai ibn Shaprut, Jewish vizier to the Umayyad caliph of Córdoba Abd al-Rahman III (r. 912–61), is not the only illustrious example of a *dhimmi* who occupied a high position of authority in an Islamic government. In Egypt and Iraq Nestorian Christians and Copts as well as Jews frequently held government administrative posts. Nor is the famous Maimonides the only Jewish person to have acquired an Arabic honorific name (Abu Imran). As for the sumptuary laws, in certain times and places they were applied rigorously, such as in Mamluk Egypt, where Jews had to wear a yellow badge on their clothing while Christians wore blue and the Samaritans wore red. For the most part, however, it appears that they were relaxed, if not ignored. In addition to the fact that Jews applied their own sumptuary laws to distinguish themselves from non-Jews through clothing and costume, the documents of the Cairo *geniza* illustrate that Jews did wear silk—theoretically forbidden under the Pact of Umar—and that the garments of Mediterranean Jewish women in particular were hardly distinguishable from those worn by Muslims.

Autonomy and Self-Government

For most of the Middle Ages Jews living in Christendom and Islam were allowed to retain autonomy over their internal affairs. But what did autonomy mean in a context of subjugation to Christian or Islamic rule, and how was it exercised and negotiated? Islamic law, and particularly in the text known as the *Pact of Umar*, guaranteed the right to practice the Jewish religion and to apply Jewish law in the internal affairs of the Jewish community. Christian canon law and royal privileges invested the Jews with similar rights. An example from the Kingdom of Aragon in Spain typifies Christian recognition of Jewish autonomy. In 1229 King James (Jaime) I permitted "you, all (*universis*) our loyal Jews of Calatayud, to determine, elect, and appoint four righteous men [*probes homines*] from your midst as your leaders [*adenantatos*]; they shall be elected by the entire community [*algema*]" (Guggenheim 78). In practice, autonomy was achieved by the survival or adaptation of a number of traditional Jewish social institutions, such as the synagogue, the yeshiva (religious school), the religious court, the cemetery, and charitable organizations.

THE CITY

The synagogue as the center of religious and social life paralleled its Christian and Muslim counterparts of the parish church and the congregational mosque. The temple was a place of worship but also a site of public assembly where legal judgments were announced and important matters affecting the entire community were decided. Given the similarities in the social function of synagogue, parish church or cathedral, and mosque, it comes as no surprise that Jewish communities tended to settle in urban areas where cathedral churches and mosques were also located. These urban areas in the Islamic world and Christendom afforded the Jews greater economic opportunities to earn a living as well as greater proximity to the ecclesiastical and civic authorities that could guarantee their legal protection.

By and large, Jews living in Christian and Muslim lands tended by choice to live together in the vicinity of the synagogue. The preference for living together in the same region was not only or even primarily dictated by fear of attack from non-Jewish aggressors. It responded to the desire for pragmatic conveniences that perpetuated the preservation of the Jewish way of life. Jewish quarters typically included a religious school (yeshiva), a Jewish courthouse (*beit din*), a community hall, a hospice, a bathhouse for ritual cleansing (*mikveh*), a butcher, a baking house, and a cemetery if the size of the community allowed. (Multiple smaller Jewish communities might share a single cemetery out of economic necessity or out of pressure from the non-Jewish civic authorities seeking to limit the number of cemeteries in a given region.) In some cases, moreover, a Jewish settlement with the characteristics just described actually predated the establishment of a Christian (or Muslim) urban center.

Gothic portal of the Altneuschule in Prague, Czech Republic, Europe's oldest active synagogue. The tympanon contains a tree of life. The synagogue was completed in 1270.   Erich Lessing/Art Resource, NY.

JEWISH LAW

Takkanot (communal ordinances) were an essential means of securing the integrity of a Jewish community and its institutions. Rabbis issued *takkanot* to determine the amount of community taxes to pay for essential services such as the salary of the prayer leader; the maintenance of the synagogue, baking house, butchery, and community hall; and charitable gifts to the poor. The *takkanot* of the rabbis also dealt with matters of family law, marriage, divorce, and inheritance, while others responded to circumstances arising from the subjugation to Christian or Muslim rule. Rabbi Gershom ben Judah of Germany (968–1020) is famous for his *takkanot* banning polygamy and

Exemplifying charity, tzedekah, *a wealthy man gives food to the poor.* Manuscript page from the *Golden Haggadah*, 1320, Add. 27210, f.15 recto.

forbidding the harassment of forced converts who decided to return to Judaism.

Jewish law courts presided over by a rabbi or, alternatively, a lay court presided over by four freely elected male leaders maintained internal social harmony, law, and order. Medieval Jewish responsa bear witness to the frequency with which lay leaders might seek out the legal expertise of a rabbi from a different community before making a final decision. In addition to the authority of the rabbis, the community could as a whole vote on matters concerning their general welfare, such as providing charity to the poor and networks of defense. Members of certain occupations, merchants, butchers, or bakers, for instance, might also form corporations to establish and enforce statutes regulating their professions. Jewish religious and civic leaders had the power to arrest, judge, and punish criminals and wrong-

doers, and these powers were granted and ensured by Christian and Muslim authorities.

The situation was different when conflicting parties in a court case belonged to different religious communities. Since the legal situation varied from place to place and time to time, it is impossible to generalize. Returning to the example of the Kingdom of Aragon, the 12th-century legal code (*fueros*) prescribed equality in cases involving lawsuits between Jews and Christians. Court cases were to be arbitrated on the neutral ground of a public marketplace, rather than inside a Christian or Jewish institution. There had to be two presiding judges, one a Jew, the other a Christian, and in the event that one of the parties disagreed with their unanimous verdict, then the case could be tried before four judges, two Jewish and two Christian. In the Kingdom of Castile under Alfonso X the Wise (1252–84), all interfaith disputes had to be decided in the Crown court in the district where the parties resided. By contrast, in 14th-century Cologne, Germany, cases involving Jews and Christians could be brought before the civic court presided over by Jewish lay leaders.

In Islamic countries disputes involving Muslims and *dhimmis* had to be decided in an Islamic court and adjudicated by a Muslim judge (*qadi*). Interestingly, it was not unknown for *dhimmis* to take even their internal cases to a *qadi*. There were some differences among the legal schools regarding the status of non-Muslims vis-à-vis Muslims. Hanafi law courts, for instance, decreed the death sentence for *dhimmis* who wrongfully murdered Muslims and for Muslims who wrongfully murdered *dhimmis*. Other schools of law rejected parity and dictated the death sentence for *dhimmis* in such cases but only the payment of "blood money" compensation if the victim was a *dhimmi*.

GOVERNMENT AND TAXES

Elected leaders acted in the name of the entire community and represented its interests to the

Christian or Muslim authorities. They were responsible for ensuring the timely payment of the *jizya* poll tax in the Islamic world or the taxes to the Crown, as well as the county or feudal tallage, or *tallia judeorum*, in the Christian lands. Jewish interests could be served by organizing themselves supraterritorially and holding synods at regular intervals to discuss matters that transcended any one particular community. The committees of the Ashkenazic communities of Speyer, Mainz, and Worms met regularly two or three times a year and passed *takkanot* that were binding on each city. It was common practice in the Islamic world and in eastern Europe for Jews in a given territory to be centrally organized under the leadership of a *nasi* (prince) or *nagid* (speaker) who, in turn, was answerable to the rabbi of the court. By the 11th century the Christian kingdoms of Iberia and Sicily had adopted the figure of the rabbi of the court from the period of Muslim rule, and similar institutions were found in Germany, France, and England in the mid-13th century.

Confederations of Jewish leaders met regularly at their own initiative and might also be convened by the court to deal with communal matters. In 1432 Don Abraham Beneviste, the rabbi of the court at Valladolid in the Kingdom of Castile, was commanded to convene a council of all the Castilian princes (*nasim*) to impose a Talmud Torah fund tax on each of the communities of the kingdom to finance primary school level Torah instruction, to pay the salary of a rabbi who would provide instruction in Jewish law, and to maintain a Talmudic academy. Generally speaking, elementary and higher education were a community affair among Sephardic Jews in the Islamic world and southern Europe, hence the need for territorial community taxes. In addition, the yeshiva and the major library would be located in the main community of a territory and had to be supported by the surrounding Jewish communities.

Another form of organization was the *hevrot* or *cabarim*, the Jewish equivalent to the Christian confraternity. Jewish confraternities first emerged in the 13th century in Spain and France for the purposes of burying the dead, helping poor families finance the cost of burial, and providing succor to the terminally ill. Some confraternities collected money to raise dowries for poor brides or to purchase clothing and other items for the poor, while others concerned themselves with explicitly religious functions such as lighting the candles of the synagogue or simply gathering together to pray.

The Roles of Men and Women

Since Judaism encouraged any man to become a Torah scholar who had the intellect to study sacred texts, many a wife became the family's breadwinner so that her husband had leisure to study. This practice promoted Jewish women to positions of authority and responsibility in the economic life of the town or country.

Jewish women participated in local commerce and in overseas trade and travel. In Mediterranean countries Jewish women brokers were common. Women commodity brokers, as did men brokers, provided instructions to their agents and provided their money. Agents often were their sons, brothers, other family members, or close friends in overseas positions of trust and responsibility. Men in the family of such professional women took their "last names" from them, an early form of matronymic in which family name was derived from the mother's profession. Family names derived from the father's trade are patronymics. Progeny of an English male baker, for example, used the surname *Baker*, while the inheritor of a woman's professional baking career was *Baxter*. Likewise for brewing beer the male family name was *Brewer;* the professional woman's heritage was

Brewster. For fabric weavers the male name was *Weaver* or *Webber*. Those tracing inheritance to a woman weaver had the family name *Webster*. In Cairo *geniza* documents men are named as "Son of the Woman Commodity Broker" and "Brother of the Woman Broker named Lady Gazelle." Maimonides' brother David identified his travel companions as "My company in the Malabar Sea will be Salim, son of the Woman Broker, Salim's brother's son Makarim al-Hariri, and the brother of Lady Gazelle" (Responsums and Letters 37v). Another common "family" name, *Ibn al-Hajja*, meant "Son of the Woman Pilgrim."

The *geniza* letters published by Goitein show that some Jewish women accompanied their husbands or brothers in trade caravans and on sea voyages. Some traders took their family to settle in Palestine for proximity to them and for the city's comparatively inexpensive cost of living. An overseas merchant named Nahray ben Nissim in his account books dated 1046 charged payments for transport for his sister and her living costs abroad with him, perhaps as his housekeeper. The person paying was his employer, Barhun ben Ishaq, via the common business arrangement of *risala*.

In Jewish law daughters inherited the entire estate of their father if there were no sons. When Joseph Taherti's older brother, Barhun had died, Joseph's daughters were entitled to a share in the family trading business in 11th-century Tunisia.

A copious miscellany of references to women corroborates the respect and esteem that medieval Jewish traders expressed for their wives, daughters, mothers, and sisters awaiting their return, as well as their common use of a mother's name or profession for identifying a man. A man named Perahya sent a medical prescription for his mother, despite his preoccupation with business problems. A man sent greetings from his wife accompanying him abroad, and both of them honored at home his paternal aunts.

Another trader sent affectionate greetings to Rachel and her mother. One merchant embarked with Isaac, the son-in-law of Giovanna's son. Maimonides' brother David sent loving greetings to his wife, whom he called by the affectionate diminutive phrase "the little one," and sent affection also to her sister and to his own sisters.

Not all women were dependent on their husbands' support. In 15th-century Italy and Spain Jewish women worked in manuscript illumination and bookbinding. In the new trade of printing, women compositors were "performers of holy work" in the art, allowing one individual "to write with many pens." Other women worked professionally in the wine, ale, bread, and food market trades.

Surprising numbers of medieval Jewish women practiced medicine and surgery. Many were eye surgeons. Rabbi Ben Asher before his death in Toledo, Spain, in 1349, gratefully recounted his experiences with two Jewish ophthalmologists who treated his near blindness. The first who tried to cure him failed. However, a second doctor treated him for two months before she herself died. The rabbi lamented that had she lived he might have fully regained his eyesight but gave thanks to God for at least permitting him to regain part of his eyesight. In the archives of Frankfurt am Main, women eye doctors appear among the lists of Jewish physicians, the *Juden-Erztin*. So skillful were these female occultist-surgeons that they were said to operate more quickly than one could describe the operations.

Both the working woman and the nonworking Jewish wife left at home while her husband traveled on trade indirectly participated in the commercial drama on land and sea. Her two customary legal protections were the monetary fund in the safekeeping of a relative or a *wakil*, the trustee of merchants. This was predicated on the husband's returning in reasonable time in reasonable health. His relative or trustee paid the wife a monthly stipend and cared for gen-

eral business affairs of the absent merchant. The second legal protection for a merchant's wife was the conditional divorce that the husband signed before embarking on a distant or dangerous journey. No matter how great the love between the spouses, the conditional divorce was predicated on the husband's never returning, the man killed by accident, war, or violence or dead from injury or disease, without a witness to confirm his fate. The conditional divorce mitigated the anguish of not knowing whether the missing husband was dead or alive and prevented the woman's entrapment in the tenuous legal status of *agunah*.

Love and Divorce from Afar   The letter of a trader located in India dramatizes the status of Jewish women in early 13th-century Jewish law. Its details of a particular family's anguish and the couple's divorce exemplified the social context of Jewish sex, law, morality, responsibility, choice, profit, and optimism.

A woman who had suffered the terrors of famine and plague that ravaged Egypt wrote letters of reproach to her husband for his many years of absence on business and asked for a divorce. His answer to her in 1204, contemporary with Maimonides, now rests in the E. N. Adler Collection of the Jewish Theological Seminary Library in New York City. With notable candor, the husband wrote of his feelings of longing and yearning for his wife during all the years of his absence. Hurt, shamed, and offended by his wife's rebukes, he protests his innocence and his eternal love, saying that no heart of any man traveling away from his wife as long as he has remained as constant as his. Forthrightly, he states his sexual yearnings for her. She had written that he had violated their marriage contract, the *ketubah*, that listed reciprocal obligations including her legal rights to weekly sexual intercourse, the mitzvah of *onah*.

Trader husbands tarrying abroad usually stayed away not by plan, desire, or incompetence but by disaster. This letter writer apparently had been shipwrecked. To recoup losses and make a profit to justify expenses of distant voyaging, the husband elected the route of many *geniza* correspondents. He traveled as far, as long, and as hard as necessary to trade and to exchange value for profit. This man had traveled around the perimeter of India to the Coromandel coast in the southeastern sector of the continent, one of the farthest voyages of the more than 1,000 Jewish India traders referred to in the *geniza* documents.

His prodigious scope of travel became known only because his wife at home was hypercritical of her husband's gift from afar of perfume, valuable fragrant ambergris. She did not know the perils of its finding or sending. He remarked with exasperation that had she known the trouble and expenses he had to incur to purchase the gift of ambergris, she would surely have held her tongue. He then went on to relate the adventure of how he acquired it, saying that he had shipwrecked and been left for dead. Having lost everything, he was forced to take out a loan and to travel the distance beyond al-Mabar.

Understanding his wife's desire for freedom, he granted the writ of divorce she craved. Before a previous voyage his wife had refused a conditional divorce. Now he sent her nutmeg, good galingale, celandine, fragrant woods, and cloth for the children. He acknowledged her contractual right of decision under Jewish law to accept or reject the offer of divorce. In resignation he wrote that he could not blame her for leaving him, but at this point after waiting for so long, he was loath to go home empty handed. He left the decision up to her, saying that he would accept it, no matter what, only asking that she consider carefully since she might regret her decision, which then might be of no avail. He concluded with dignity and tenderness, wishing that however she may decide, she reach her decision with the inspiration of God.

Slavery

A fascinating 12th-century court case for slander dated around 1144 from the Sudanese port of Aydhab permits a glimpse of slavery, a familiar institution in medieval Jewish, Christian, and Muslim life. Under 12th-century Muslim law a man could make his slave woman his concubine. Christian and Jewish law required marriage between free people as a prerequisite for sexual relations. A Jewish trader named Abu Said ibn Jamahir was said to have abandoned his slave woman in Africa after she had given birth to their son. He sued his accuser for slander. Did he have a slave woman? Did he abandon her? The truth of that relationship is buried forever in time's unexamined detritus. Other *geniza* documents, however, pertain to marriage contracts for freed women marrying Jewish men who had not been their masters, suggesting that a Jew in love with a slave woman was obligated to free her and marry her or, conversely, free her and provide a dowry to enable her to marry another man.

Sensuality and Pious Erotica

Jews as people of the book cherished the mind. But an equally potent Jewish heritage celebrated the body's sensuality and sexuality. For some medieval Jews the body *was* the book. Respected medieval Jewish philosophers such as Moses Nachmanides (1194–c. 1270) and the French Talmudist scholar Abraham ben David, also known as the Raavad (1125–98), both 12th-century contemporaries of Maimonides, wrote texts glorifying human sensuality. Scholars sensitively appreciated the human physique as if it were a book for studying, cherishing, interpreting, and, as do other inspirational holy texts, directing the mind and spirit to God.

The blessed obligation of sexual intercourse in marriage, the *mitzvah* of *onah*, was thought to affirm piety. Those who know the Middle Ages only through the dark Victorian lens of prudery that castigated medieval sex as mortal sin are startled by this shining definition of sexual intercourse as *mitzvah*, a divine imperative, a gift obligatory to accept and joyous to use. Sex was consecrated as more than procreative. It was a way of profoundly "knowing" a beloved. For some Jewish thinkers, sexual orgasm was earthly prefiguration of passionate mystical union between true believer and God.

Sexual implications graced medieval Jewish wedding ceremonies and symbols. Biblical injunctions to fertility animated the original *huppah*, in which the couple sexually consummated their union on the wedding day. The glass that the groom crushed beneath his shoe originally was a folklore fertility womb charm. The *ketubah* marriage contract enumerated the couple's mutual sexual obligations. Violation of sexual obligations was cause for divorce. Provocative wedding foods and drinks were the culmination of the sensuality of nuptial celebration. Recipes regulated sensuality. Meals, menus, and festival foods were crafted to stimulate or suppress carnality and to heal the yearning body.

In medieval Jewish song and story beast fables, satires, poems of love and war, and in philosophical sex handbooks, Jewish appetite for sex was satisfied with enthusiasm, and intelligence. The hilarious *Tales of Sendebar* (*Mishle Sendebar*) include sexual adventures, exaltation of the human body, and celebrations of woman's wit in bed. The satirist Immanuel of Rome's riotous poems in his *Mahberot* were elegantly insolent and imperially vulgar.

Earlier in Muslim Andalusia, the Jewish courtier, general, and poet Samuel ibn Nagrela (c. 990–1056) wrote mystically inspired, God "assured" liturgical poems and battle songs. He also wrote Hebrew, Arabic, and Spanish love poetry that was blatantly sexual. Later in 12th-century Spain, the poet Judah Halevi (c. 1080–1141) also wrote fiery love lyrics. Samuel ibn Nagrela, Judah Halevi, and the poet and musi-

cian Immanuel of Rome (c. 1261–c. 1328), and none of their best or even their worst contemporaries wrote pornography. Their erotica was candid and explicit. It described with wonder and respect the male and female bodies' capacities for sensation and pleasure.

Though stories such as the *Tales of Sendebar* developed from folk tradition, nevertheless they were written by and for intelligent, often learned thinkers and readers. Hidden between layers of sexual allusion were puns and wordplays quoting or paraphrasing the Bible and the Torah. Some sexual wordplay was hidden amid apparent biblical exegesis. This *aggadic* writing, a literature of the people, not *halachic* literature of the law, delighted all social classes and all degrees of education. Sensual praise was not an exception to the rule but expression of a routine medieval Jewish appreciation of the body.

The Body and Morality   What caused open, exuberant respect for sexuality in medieval Jewish culture? Jewish artists ascribed at least six dignities to sex, exalting its spiritual potency. First, God in his infinite compassion gave people powerful, sensitive bodies to complement powerful, sensitive minds. God would not have given us genitals and their capacity for pleasure in sex if he did not expect us to use them and to generate pleasure. Certainly, if God wished us simply to purge urine from those orifices, he would have made them simpler and less exquisitely sensitive, so said the great 13th-century philosopher and physician Nachmanides. Chaucer's lusty voluptuary, the Wife of Bath in the *Canterbury Tales*, voiced that same argument a century later.

No evil is inherent in the sexual instruments that God has made. But there can be evil in the way the body uses them. God made the hand an instrument that can perform the most exalted acts. A hand can write a Torah. A hand can shape designs in art. Yet that same hand also can steal and murder. Then the hand is loathsome and evil.

Likewise, genitals can be instruments of degradation, disgust, and sin if inappropriately used and abused, as when the intention and the thought accompanying their use are wrong. God endowed people with organs and capacities that by their nature are not bad. They are useful and important and not only for making children. As can the human hand, exalted and exquisite when writing a Torah or decorating a scroll, but evil and detestable when it steals or murders, so sex acts can be degrading and disgusting. Or sexuality can be an exercise of sanctification and spiritual magnificence for the truly thoughtful, ethical man and woman.

Mitzvah of *Onah*   Second, to celebrate the body and its creator one must perform the mitzvah of *onah*, routine and frequent sexual intercourse. The Raavad's 12th-century book *Gates of Holiness* (*Shaar ha kadushah*) described the appropriate schedules for *onah* obligations according to health, work, and social necessities.

The Raavad quoted a time scheme directly from the Torah. A man who was healthy and worked close to home should indulge his wife in *onah* nightly. A man who performed strenuous manual labor and worked at a distance from home was excused if he performed *onah* duty only twice a week. Torah scholars expended so much energy in study and debate that they had energy for *onah* only once weekly.

Jewish laws regulated sex for menstruating and childbearing women. A husband was not to approach his wife sexually during her monthly menstrual period, called *niddah*. Likewise, a husband and wife must abstain from intercourse until after a prescribed period post-childbirth. Religious ritual united with hygiene in the Jewish communal bath or spa called the *mikvah*. Ritual bathing was a woman's duty before resumption of sexual relations after abstinence. Some women bathed before and after Friday night intercourse.

Sexual rights were women's as well as men's. A woman's rights to her *onah* were especially

important. She could prevent her husband from traveling afar on business or from changing his job if it interfered with her possibilities for and her pleasures in *onah*. Nachmanides and the Raavad described the Jewish husband's mandatory tenderness and assurance of his wife's sexual pleasure and suggested language of seduction to arouse her to sexual delight.

Onah as *mitzvah*, both blessing and obligation, encouraged a true, deep, yet exalted mutual understanding. The Hebrew word for sexual relations was *yediah*, knowledge, understanding. When he "knew" her and she "knew" him, they knew more than simply the anatomy of one another's bodies. Their knowledge was profound yet soaring. A comprehension beyond mere book learning, best sex was anagogical, soul-uplifting, and the ultimate prayer.

Physical Ecstasy as Forecast of Paradise
Such a bold view of the body did not deny glory of the mind. Body and mind were equivalently powerful, each influencing the other. The third reason for Judaic fascination with sensuality and sexual acts was the belief that the most ecstatic sex forecasted ecstasies of paradise. As did other 11th- and 12th-century writers, the physician, philosopher, and poet Judah Halevi saw and felt in the miracles of the body predictions of the marvels of unity with God. Unlike Maimonides, who sought *understanding* of God, Judah Halevi inspired *loving* God. Sometimes he wrote as if drunk with the glory of God. His ecstasy expanded limitations of mere mind. It was hard to tell in Judah Halevi's poetry whether the subject was his deeply beloved woman or his exalted God. His intoxication with God's grandeur freed him from many restrictions of mere rationality.

Imitation of Creation   A fourth reason for medieval Jewish preoccupation with sex was the Old Testament's attestation to the political authority of sex. This power of sex, after all, probably was behind God's anger in the Jewish primal myth in the Book of Genesis. In the Garden of Eden Adam and Eve were prohibited from eating the fruit of the Tree of Knowledge. How did Adam and Eve manifest their knowledge? They discovered their nakedness, their genitalia, their uses in sexual intercourse, and their capacity for creation. This ability to create life was an imitation of God's joy and power in creating the world and its people. Until Eve boldly bit the fruit, neither she nor Adam knew God's secret for creation. When Adam and Eve learned how to perform the miracle of creating life, God seemed as furious at their new knowledge as at their disobedience of his attempt to keep them ignorant of it. Sexual intercourse not only praised God but imitated his high glory in creativity.

Human Place in the Scheme of Being   God gave privileges of sex to enable people truly to understand God's order of the universe and the human place in it. The fifth reason for sexuality was to teach people their mortal place. Sex taught the lesson that people may imitate God as creator but are not God. Apprehending the idea of creating life, people do it only occasionally, slowly, laboriously, usually one paltry creature at a time, ever uncertain of what has been created. Nine months of gestation might make one new man or woman, a beauty or a monster, a magnanimous intellect or defective mind. Sex, therefore, taught that people are what they are: humanly frail yet powerful, feeble yet durable, magnificent yet mortal.

Jewish Place in World Politics   The body also taught that Jews were different from the world's other people. Judah Halevi called Jews the world's suffering heart. Israel was to other peoples as the heart was to other parts of the body: It suffered for the whole and was more acutely pierced by grief than any other member. Century after century of pogrom, expul-

sion, and war left some Jews in some countries with nothing valuable left to sacrifice to God other than their bodies. In the 12th-century German *Book of the Pious* (*Sefer hasidim*) Judah Kalonymous insisted that no other of the world's people but the Jews were commanded to sacrifice themselves for the sanctification of God's name. Judah, of course, knew well that other peoples were persecuted and martyred. He redefined the phrase "the Chosen People," however, because of the brutality to Jews after the Second Crusade and the bloody attacks of that violent age.

If each Jew was required to become a martyr for God's word, then the Jew was obligated to love God better than he loved life and love God's word as the password to the next life. When people who hated Jews inflicted terror and pain so unutterable that only naked bodies remained and no books, then bodies became holy books praising God for whatever life was left. Praying with the residue of being, the paltry yet substantive body made benediction with whatever sense remained to it. With minds or souls persisting in some other state after death, their bodies were all that they had left to give back to God.

This Jewish sensual heritage demonstrated that Jews long have been creatures not only of intellect but of passion. Medieval Jews were proud of mind and of body, grateful to suffer pain in God's name but also to enjoy erotic pleasure. Theoretically, medieval Jews strove for the integrated life: body as important as mind, daily life connected with spirituality, and mortal body possessing intimations of the glory of an immortal soul.

Hunting

Numerous examples of the hunt appear in medieval manuscripts, particularly in the Passover *haggadot*. In Provence Jews used trained falcons in the hunting art of hawking while they rode horseback. On the other hand there were those who condemned hunting as cruel, among them Rabbi Meir of Rothenburg, Germany (b. 1220). He threatened that anyone who hunted game with dogs, as non-Jews did, would never participate in "the joy of Leviathan," meaning the feast of joy in paradise. Clearly, if Rabbi Meir was agitated enough to imply that hunters went to hell, not heaven, some of his parishioners must have been avid hunters. A hunt in 1267 in Wildeggnhaye Wood, Colchester, preserved in the Forest Roll of the county of Essex, described how dogs of Sir John de Burgh startled and chased a doe that ran to a high hill near the city. Suddenly chasing the deer were Saunte son of Ursel, Jew of Colchester, Cock son of Aaron, and Samuel son of Aaron, Isaac the Jewish chaplain, Copin, and Elias, all Jews, as well as certain Christians from Colchester. All of these people made a mighty clamor chasing the doe through the south gate into the city, where, terrified by the ruckus and cornered by the crowd, she jumped over a wall and broke her neck. The bailiff and beadle carried off the game, and the Jews were severely punished for this breach of forest laws.

Jewish law on koshering animals made it impossible for Jewish hunters to eat the trophy of the chase. Christian laws also interfered with Jews' abilities to hunt in particular lands. Hunting was seen as a noble pastime and a practice for military skills. Christian and Muslim laws in certain times and places also limited the ability of Jews to keep and bear arms for hunting and for any other purpose.

Food and Religious Identity

THE LAWS OF KASHRUT:
HOLINESS AND FOOD

Food plays a prominent role in distinguishing the Jewish people from non-Jews and marking their identity as a "holy" people, a "people of

God." The body of laws regarding food consumption, preparations, and prohibitions, known collectively as Kashrut, derives from the Bible and is explained or amplified in rabbinical literature. The term *kashrut*, or its more familiar variant, *kosher*, derives from the Hebrew root letters *kaf-shin-resh* ("k," "sh," "r"), the basic meaning of which is "fit," "proper," or "correct." Food unfit for consumption by observant Jews is called *treyf*, whose literal meaning of "torn" harkens back to the biblical tradition prohibiting the consumption of the flesh of an animal that has been killed by another animal. The following excerpts from Leviticus 11: 1–45 provide the legal basis for the *kashrut* laws:

> And HaShem spoke unto Moses and to Aaron, saying unto them: Speak unto the children of Israel, saying: These are the living things which ye may eat among all the beasts that are on the earth. Whatsoever parteth the hoof, and is wholly cloven-footed, and cheweth the cud, among the beasts, that may ye eat. Nevertheless these shall ye not eat of them that only chew the cud, or of them that only part the hoof: the camel, because he cheweth the cud hut parteth not the hoof, he is unclean unto you. . . .
>
> These may ye eat of all that are in the waters: whatsoever hath fins and scales in the waters, in the seas, and in the rivers, them may ye eat. And all that have not fins and scales in the seas, and in the rivers, of all that swarm in the waters, and of all the living creatures that are in the waters, they are a detestable thing unto you, and they shall be a detestable thing unto you; ye shall not eat of their flesh, and their carcasses ye shall have in detestation. . . . And these ye shall have in detestation among the fowls; they shall not be eaten, they are a detestable thing: the great vulture, and the bearded vulture, and the ospray. . . .
>
> And whatsoever goeth upon its paws, among all beasts that go on all fours, they are unclean unto you; whoso toucheth their carcass shall be unclean until the even. And he that beareth the carcass of them shall wash his clothes, and be unclean until the even; they are unclean unto you. . . .
>
> Ye shall not make yourselves detestable with any swarming thing that swarmeth, neither shall ye make yourselves unclean with them, that ye should be defiled thereby. *For I am HaShem your G-d; sanctify yourselves therefore, and be ye holy; for I am holy*; neither shall ye defile yourselves with any manner of swarming thing that moveth upon the earth. *For I am HaShem that brought you up out of the land of Egypt, to be your G-d; ye shall therefore be holy, for I am holy.*

The book of Deuteronomy issues the prohibition against mixing meat and dairy products: "Ye shall not eat of any thing that dieth of itself; thou mayest give it unto the stranger that is within thy gates, that he may eat it; or thou mayest sell it unto a foreigner; *for thou art a holy people unto HaShem thy G-d.* Thou shalt not seethe a kid in its mother's milk" (Deut. 14: 21).

In both Leviticus and Deuteronomy God emphasizes that he has decreed the food laws *because* he is holy and, therefore, enjoins holiness upon his chosen people: *"For I am HaShem your G-d; sanctify yourselves therefore, and be ye holy; for I am holy."* Scholars Mary Douglas and Claudia Roden, among others, concur that the rationale behind the *kashrut* laws is to maintain social boundaries between one group, in this case the Jews, and others. The human body is a microcosm of the social body in which the boundaries between the Jews and outsiders are defined in the powerful symbolic language of holiness and purity. Jews who eat or come into physical contact with the forbidden foods are "defiled" and must be ritually purified. Eating kosher is thus another way in which the Jews uphold the primal myth that they must imitate God (*"be ye holy; for I am holy"*).

And yet, as we have seen in the above discussion on the place of the Jews in the scheme of being, imitating God is not the same as *being* God. Hence, in Leviticus 7: 1–33 there are also

commandments reminding the Jews of this fundamental ontological difference, particularly in the repeated prohibitions against eating the blood of any animal, and even eating certain parts of kosher animals:

> And this is the law of the guilt-offering: it is most holy. In the place where they kill the burnt-offering shall they kill the guilt-offering: and the blood thereof shall be dashed against the altar round about. And he shall offer of it all the fat thereof: the fat tail, and the fat that covereth the innards, and the two kidneys, and the fat that is on them, which is by the loins, and the lobe above the liver, which he shall take away by the kidneys. . . . But the soul that eateth of the flesh of the sacrifice of peace-offerings, that pertain unto HaShem, having his uncleanness upon him, that soul shall be cut off from his people. . . . And ye shall eat no manner of blood, whether it be of fowl or of beast, in any of your dwellings. Whosoever it be that eateth any blood, that soul shall be cut off from his people. And HaShem spoke unto Moses, saying: . . . And the priest shall make the fat smoke upon the altar; but the breast shall be Aaron's and his sons'. . . . And the right thigh shall ye give unto the priest for a heave-offering out of your sacrifices of peace-offerings.

Similar prohibitions are found in Deuteronomy 12: 13–27:

> Take heed to thyself that thou offer not thy burnt-offerings in every place that thou seest; but in the place which HaShem shall choose in one of thy tribes, there thou shalt offer thy burnt-offerings, and there thou shalt do all that I command thee. . . . Only ye shall not eat the blood; thou shalt pour it out upon the earth as water. Only be stedfast in not eating the blood; for the blood is the life; and thou shalt not eat the life with the flesh. Thou shalt not eat it; thou shalt pour it out upon the earth as water. Thou shalt not eat it; that it may go well with thee, and with thy children after thee, when thou shalt do that which is right in

the eyes of HaShem. . . . and the blood of thy sacrifices shall be poured out against the altar of HaShem thy G-d, and thou shalt eat the flesh.

These biblical passages reaffirm God as the supreme creator who alone must be worshipped. His unique holy status is signaled by the fact that to him alone are reserved certain choice parts of the permitted flesh—the blood, the fat, the liver, and the kidneys. The sciatica nerve must also not be eaten. These forbidden foods are taboo for the Jews because they are the "food" of God; any Jew who eats them "shall be cut off from his people" and placed on par socially with the infidels.

General laws regarding food applied at all times to all Jewish people. Further prescriptions about certain foods that should be eaten or avoided on particular feast days and on fasting in general will be discussed in the chapter on holidays and festivals.

FOOD AND SUMPTUARY LAWS

The Islamic laws mentioned above prescribing the licit way to slaughter an animal using one clean, swift stroke to the neck with a sharpened knife to drain out all the blood were obviously inspired by their earlier Jewish counterpart. The Jewish butcher, called a *shochet*, not only required specialized training to carry out the ritual slaughter properly, he also had to be a man reputed for his piety. For this reason, in most medieval communities the *shochet* was usually a rabbi. Similarities in the ritual slaughter of animals shared by Muslim and Jewish communities must have tempted some people to cross religious boundaries for this purpose. It will be recalled that the aforementioned Ibn Abdun, the Muslim *muhtasib* of Seville, forbade Jews from sacrificing animals for Muslims. Jewish rabbis were equally adamant that members of their community only obtain their meat products from a qualified *shochet*.

A parallel situation occurred with the purchase and consumption of wine. Islamic law forbids wine drinking, but both medieval Jews and Christians consumed wine for pleasure and employed it in their religious rituals. (*See* Chapter 12: Holidays and Festivals.) Jewish law strictly forbids the consumption of wine or grape juice made by non-Jews because these products might have been used in non-Jewish religious ceremonies. The biblical prohibitions against idolatry apply to the use of those products, such as wine, that formed part of the worship of false idols. These prohibitions include wines identified in the Bible as *yayin nesekh* (offered as a libation to idols) as well as wines categorized in the Talmud as *stam yaynam* (derived from a non-Jewish source or touched by non-Jews). Some rabbis stipulated that Jews might neither consume such wines nor benefit from them indirectly through their sale. Yet the realities of living under Christian or Muslim rule prompted other rabbis to distinguish between consumption and benefit: Arguing that Muslims are not idol worshippers, Maimonides held that Jews could benefit from the sale of wine produced by Muslims but could not consume it. Similarly, the foremost French rabbi, Jacob ben Meir, also known as Rabbenu Tam (1100–71), argued that since in the Christian Mass the priests do not pour their wine on the altar in libations, it was forbidden to drink but not to profit from the sale of Christian wine.

Interestingly, the same biblical prohibitions against the consumption of wine used in idol worship inspired medieval Christian canon law against the Jews. For instance, a papal bull issued by Pope Innocent IV in 1250 that warned Christians not to utilize Jewish-produced wine in the sacraments nor to enter Jewish taverns was part and parcel of the church's efforts to clearly demarcate the boundaries between Christianity and Judaism and to discourage Christians and Jews from socializing.

Food and the Spanish Inquisition   The very food practices that set the Jews apart as a "holy people" betrayed the crypto-Jewish identity of Christian converts, resulting in their trial by the Spanish Inquisition in the 15th and 16th centuries (*see* Chapter 1: History). The watchful eyes of the Inquisition's spies recorded such "suspicious" behavior as cooking with olive oil instead of pork fat (*manteca*); avoiding pork altogether and eating lamb or beef instead; ritually slaughtering meat and avoiding the consumption of animal blood; eating eggplant, chard, and chickpeas; and seasoning foods with cinnamon, sugar, and vinegar. At the same time scholars David M. Gitlitz and Linda Kay Davidson's study of Inquisition trial transcripts concludes that crypto-Jews did not maintain other kosher norms, such as the prohibition of mixing animal flesh and dairy products or eating vital organs such as the liver, kidneys, and lungs.

MYSTICAL EATING, SENSUAL MEALS

Food functioned simultaneously as a mystical means of encountering the divine and as an implement in enjoying the pleasures of the flesh. Medieval Jewish mystics were no different than other Jews in observing scrupulously the *kashrut* laws. They did differ, however, in the meanings they attached to food within the mystical quest for union with God. Chapter 7's discussion of Jewish mysticism will focus on the search for the divine through the esoteric interpretation of the Bible and of key symbols such as the hand and the door. But as Joel Hecker explains, nourishment imagery abounds throughout the *Zohar* (*Book of Splendor*), a mystical treatise attributed to the 13th-century Spanish mystic Moses de León. Time and again the author resorts to food imagery to describe the flow of the divine blessing from the upper to the lower spheres of the Godhead, ebbing back and forth between God and his bride Israel.

Bread and wine were especially idealized among the *Zohar* mystics because they were essential ingredients in the celebration of Jewish rituals such as Sabbath and Passover. Pieces of bread distributed to the guests at a Sabbath meal represented the holy names of God. Bread was associated with the Torah, symbolizing the written law, while wine represented the oral law. The *Zohar* also mentions gradations of food: "heavy food" is that which "comes from heaven and earth" to feed "the entire world." "The food which comes from a more supernal place, the finer food . . . is the food that Israel ate when they were in the desert" and is called the "bread of angels." But the "finest food of all is the food of the companions, those who study the Torah, for they eat the food of the spirit (*ru'ah*) . . . , and do not eat the food of the body at all" (Hecker 88).

Attaining holiness depended not only on what one ate but how one ate it. The *Zohar* emphasizes that Sabbath meals must be consumed while seated at a table. The harmonious setting of the table with two breads, two candles, and other ritual accoutrements converted the seated body into a vessel maintaining the divine flow among the various spheres of the Godhead. Moreover, in *Zohar* mysticism the table represents the divine-earthly presence, or *Shekhina*, which is gendered as feminine and thus suggests a sensual aspect to the male mystic approaching the table. Another frequent concept in *Zohar* mysticism is the erotic conjoining of the male and female spheres of the Godhead, *Tif'eret* (Heaven) and *Shekhinah* (Earth), respectively. One reads, for instance, that the "Earth is nourished by the waters of Heaven, released into Her . . . like a female opening to the male, pouring out water toward the water of the male to form seed" (Hecker 112). With this image in mind, the *Zohar* mystic eats special bread called "showbread" on Friday afternoon, which symbolizes the union of the male and female divine spheres and thus

perpetrates the divine flow between God and Israel. A key passage in the *Zohar* comparing the showbread to wives draws a parallel between the spirituality of consuming the mystical bread and the sensuality of fulfilling the commandment of heeding one's conjugal responsibilities on the eve of the Sabbath.

In sum, food was vital to the mystic for attaining holiness. Yet, so, too, was it essential
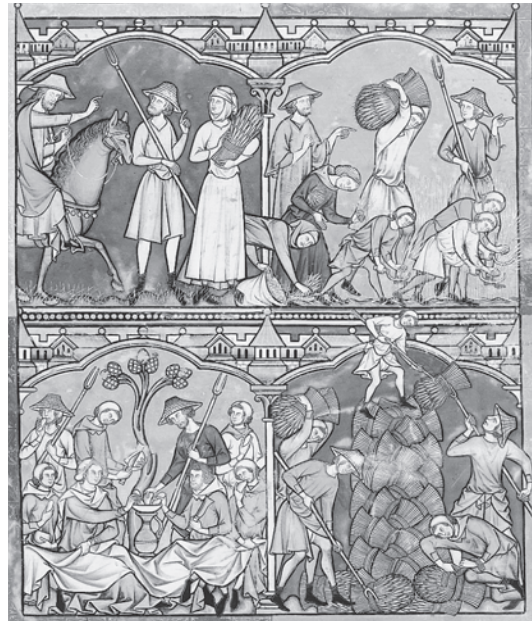
Barley reapers cut grain with sickles before binding the grain in sheaves. Bound by cording or by barley stalks, the grain is stacked high in a tower of alternating sheaves. In the upper register the woman holding a bound sheaf is the Old Testament's Ruth, who appears again, at right, gleaning after the reapers cut the grain and, below, eating. The rural banquet cloth is spread across four pairs of knees while Ruth and Boaz dip their bread into vinegar set in a bowl atop a golden pitcher; two sun-hatted field workers with two-pronged mowing forks join the meal. From a 13th-century French Old Testament. Courtesy of the Pierpont Morgan Library, New York.

to all Jews seeking to fulfill the mitzvah of *onah*, or frequent sexual intercourse between married couples. A number of foods were believed to have aphrodisiac properties. Aphrodisiac fowl included chicken, quail, peacock, and partridge that aroused dulled passions. Quail with pomegranate wine sauce, baked hen, roast cock, crane, eagle, and sparrow were erotically energizing. Both raw and cooked vegetables nourished the libido. Turnips increased sperm and stimulated desire. Leeks favorably influenced coitus, especially when prepared with honey, sesame, and almonds. Garlic, boiled as a vegetable, and herbed onions were particularly felicitous to sexuality, generating sperm in men and good lactation in women. Herbed onion dishes were especially recommended for the Friday evening meal. Too much onion, however, was a diuretic and caused headaches.

Squash influenced coitus positively when served with pepper, oil, and honey. Although having side effects of migraine headache, two other arousing vegetables made a Potent Salad: watercress tossed with vinegar, plus garden nasturtiums. Fruits were important foods of love. Dating from the Garden of Eden's apple associated with Eve and Adam's knowledge of sexuality, most varieties and colors of apples were stimulants. So was the succulent pear, said to be beloved by Venus. Prodigiously seedy fruits such as sweet pomegranate and fig were seminally provocative. Arousing herbs and spices were the most versatile energizing foods. Served crushed, powdered, or slivered, they were also additives to other foods, intensifying their potency. Mandrake-root wine was a love medicine. Women's herbs and spices were eaten or drunk to arouse sexual feeling or to increase fertility.

On the other hand, certain foods were known to be erotic downers. Erotic tranquilizers included lettuce, which dampened and slowed the passions and relieved spermatorrhea, or nocturnal emissions. But lettuce also dimmed eyesight, a danger for scholars. So lettuce was served with rue to sharpen eyesight while dulling desire for coitus. Likewise, chicory stalk, leaves, and roots steeped with vinegar and cinnamon weakened passions. Diluted poison hemlock juice, the herb that fragranced Socrates' last drink, was an important sedative and anesthetic. In solution with mild wine, and drunk regularly, hemlock juice destroyed appetite and lechery.

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3

ECONOMY AND TRADE

In the early Middle Ages the Christian populations of western Europe engaged overwhelmingly in agriculture-based activities. Emperors, kings, the church, and lay manorial lords derived the bulk of their income from the revenues and taxes imposed on their landed estates. The vast majority of landless "masses" likewise earned their living—sometimes barely surviving—by attaching themselves as serfs to a manor. The average family of serfs residing in Christian Iberia, the British Isles, or the Frankish kingdom between the eighth and 11th centuries worked its own plot of land cultivating fruits, vegetables, and grains and raised its own pigs, cows, sheep, chickens, and other barnyard fowl. If the family cultivated grapes, they would also produce their own wine.

In addition to paying taxes in kind to the landlord, serfs were obliged to work a portion of the estate whose proceeds went directly to the estate owner and to pay him a sum of money for allowing their pigs to forage in the manor woodlands. Commerce was sporadic and intermittent: In the rare event of surplus production, the peasant serf or estate agent might travel to a local market to try to sell the surplus. Conversely, if crop yield was poor, manor lord, vassal, and peasant alike would have to exchange produce from a neighboring estate or market. Markets were the only places where spices such as salt and pepper could be obtained. The goals for all were survival and self-sufficiency.

Conspicuous by their absence in this scenario were the merchant and an environment of lively, sustained commerce. While it would be inaccurate to state that there were no Christian merchants, typically between the eighth and 10th centuries they consisted of wandering peddlers sporadically employed by local monasteries and courts to transport wine and other surplus agricultural produce from one manor to another. But in the areas and period referred to, there was no professional Christian merchant class that could devote itself exclusively to commerce and trade. Successive invasions of western Europe by Germanic tribes in the fifth and sixth centuries, the Muslims and Magyars in the eighth century, and the Vikings in the eighth to 11th centuries substantially reduced and/or dispersed local populations. The network of roads and communication systems that was the pride of the Roman Empire had fallen into disrepair. The transport of goods overland long distances was made even more precarious by incessant attacks on the roads from robbers, warring feudal lords, or incursions from Vikings, Muslims, or Magyars. After Europe lost control of the Mediterranean to the Muslims, international maritime trade was but a distant memory. And while recent studies have shown that the so-called disappearance of metallic money from western European economies as a result of the Islamic and Viking invasions has been exaggerated, the fact remains that the laboring population did not earn a salary and therefore lacked the disposable cash required to purchase items beyond their basic needs.

A remarkably different picture emerges, however, if we consider the Italian city-states, Byzantium, the Jewish Diaspora, and the Islamic caliphate. Situated on the Mediterranean, a landless city like Venice had since time immemorial flourished through maritime trade and continued to do so in the centuries prior to the 11th-century commercial revolution. Venetian merchants took slaves, timber, iron, and furs into Constantinople and all the major cities of the Byzantine Empire, as well as to the Muslim markets of Cairo, Damascus, Baghdad, and farther east in exchange for spices and industrial and luxury items. Although weakened by the expansion of Islam and the emergence of the Norman kingdom in the 11th century, Byzantium managed to hold its own and retain a lively, stable economy based on commerce and international trade. Strategically located at the confluence of trade routes joining north and south and east and west, Byz-

antine merchants imported raw silk from China and India from which Byzantine craftsmen manufactured fine brocade and gilded textiles that figured among the most costly items on the international market. The merchants of Byzantium exported exquisitely carved ivory, gold jewelry, and precious stones and trafficked in slaves, spices, timber, and fur.

This elaborate feast spectacle simulates a rigged ship, scaling ladders at a turreted castle, and "water." The interlude actors battle. On the table are three nefs, two glasses, one handled-and-covered tripod vessel, small rectangular trenchers, and a half-loaf. This pantomime celebrating the crusaders' capture of Jerusalem in 1099 depicts Godfrey of Bouillon (crosses on shield and gypon) and Richard the Lionhearted. The occasion was King Charles V's party (in 1378) for Emperor Charles IV. From the *Grandes Chroniques.* Paris Bibliothèque Nationale Ms. French, 2813, f.473v.

International trade went hand in hand with Jewish Diaspora existence and with the expansion of Islam across the Mediterranean, Africa, Asia, and Europe. During the eighth to 10th centuries when Christian merchants of western Europe mainly engaged in small-scale local trading, the Radhanites and other Jewish merchants traveled from the Iberian Peninsula and France to central, northern, and eastern Europe, including Scandinavia; North Africa and the Middle East; and Asia. In the early Middle Ages Jewish merchants were the predominant purveyors of spices and certain dried fruits in western Europe. Jewish bankers and moneylenders were crucial in bolstering and financing the economies of western Europe when they converted to a money-based economy in the 11th century. The high taxes that they had to pay on their financial transactions further filled the royal coffers of western Europe.

Islamic economies were powerful and diversified. The economies of the pre-Islamic Arabian Peninsula were characterized by a delicate balance between agricultural production and nomadic animal pasturing. Strategically placed markets enabled farmers, nomadic pastoralists, and Arab and Jewish merchants to trade in agricultural products, animals, and manufactured goods. Within a few centuries of the rise of Islam, Muslims were key players on the global market, dominating maritime trade in the Mediterranean and successfully competing with Asian merchants and manufacturers in maritime and overland trade routes.

The crusades to the Holy Land and the Christian (re)conquest of territories in Muslim Spain during the 11th and 12th centuries enabled the Christian states to regain mastery over the Mediterranean and Tyrrhenian Seas and their lucrative maritime trade routes. But this boost in the economies of western Europe had already begun in the commercial revolution of the 11th century—a process that started circa 1050 as a result of the cessation of hostile invasions and the attendant increase in Europe's populations, the repopulation of cities once abandoned in the aftermath of the invasions of earlier centuries, and the recovery of a money-based economy. These circumstances permitted the revival of urban-based international trade, commerce, and manufacturing within Europe. Christian and Jewish merchants converged on the markets of cities such as Marseille, Barcelona, León, London, Milan, Cologne, Mainz, Antwerp, and Brugge. Control over land routes enabled merchants safely to traverse the Pyrenees Mountains, the Alpine passes, and other once precarious routes. Christian merchants even began to export some manufactured goods to the Islamic Levant and the Maghreb.

With varying degrees of access, medieval Christian, Jewish, and Muslim merchants traveled worldwide to Europe, Asia, the Middle East, and Africa. European traveling merchants took back to their admiring compatriots abundant exotic silks, spices, pharmaceuticals, woods, metals, furs, jewels, animals, and coins. In exchange European textiles and slaves were much coveted on the global market. Jewish merchant scholars spanned the globe in search of knowledge and profit from the lucrative sale of slaves, spices, jewels, and other luxury items. So closely were travel for scholarship and trade intertwined in practice and in the Muslim imagination that they gave rise to an independent literary genre, the *rihla*, or travel narrative. When not traveling strictly for purposes of business and trade or in search of knowledge, medieval travelers journeyed on pilgrimages, as missionaries, and for the establishment or maintenance of diplomatic relations with foreign countries.

European travelers carried home wild tales of the strangeness and splendors of the East. Travel books often juxtaposed scrupulously accurate observations; bizarre misunderstand-

ings of natural, logical phenomena; and overheard fictions of imaginative tricksters of the eager and credulous. Some of these imaginative fictions portraying the peoples of the East as "monsters" may have been inherited from ancient Greek writers, such as the author(s) of the *Alexander Romance.* Conversely, Jewish and Muslim travelers did not exoticize the "Other" as the Europeans did. Their travel diaries and geographies, in the case of Muslim writers, approach the punctiliousness of modern anthropological "thick descriptions" (to borrow a term from the anthropologist Clifford Geertz) of foreign places and peoples, albeit exhibiting at times the cultural chauvinism of one who views his own customs as superior to those of others.

The Venetian explorer Marco Polo (1254–1325) is undoubtedly the person who comes to mind when most North Americans think of medieval European travelers. Yet Marco Polo was neither the first nor the only merchant traveler from Venice on the Silk Road to Cathay, China. For one thing, Marco traveled in the company of his father and uncle, both successful merchants with extensive experience trading in the East. More to the point, centuries before the Polo explorers embarked upon their travels, intrepid Jewish, Muslim, Byzantine, and Asian traveling entrepreneurs crossed the Silk Road that linked north China, southern and Central Asia, India, Persia, Byzantium, Antioch, eastern Europe, the Mediterranean Basin, and Africa.

Medieval traders packed their maps and letters of credit with their courage and desires for profit and embarked on multiyear journeys for travel and trade. Standards for commercial integrity, for honest weights and measures, for coinage exchange rates, and for trade contracts differed from place to place, as did control over lucrative land and maritime trade routes.

The vast differences that separated the economic activity of Christians, Jews, and Muslims in the early Middle Ages began to break down

from the 11th and 12th centuries. Remaining constant, however, was the interdependence of Christian, Jewish, and Muslim economies. Christian military victories over the Muslims in the Iberian Peninsula and the Holy Land enabled Christian merchants to participate more directly in and gain control over important sectors of the global economy, relieving them of the need to rely upon Jewish merchant middlemen. Undoubtedly, these factors fomented the 13th-century European commercial revolution and the subsequent expansion of the known world with the "discovery" of the Americas.

Economy and Trade in Christian Europe

The Farm

In the complex feudal arrangements throughout Europe, overlords owned the land, but peasants cultivated it. As had contemporary medieval warriors and travelers, farmers by the 12th century had long used the horse collar, horseshoe, and stirrup. Farmers practiced three-field crop rotation, placing two fields in plantings with one allowed to remain fallow, thereby constantly restoring nutrients to the land and producing vast quantities of food. Farmers utilized a spiked harrow to smooth soil and a wheeled heavy plow with plowshare, coulter, moldboard, and iron mechanisms to till the earth.

Ox harnesses with whippletrees increased weights and distances for heavy hauling. The farmer ground grain at a mill propelled by horsepower or wind power. Some rural villages

had irrigation channels and pipes, and others used technology for transporting water to town fountains. Iron and bronze technology was used extensively on the domestic farm just as it was on the military battlefield. Machines reduced burdens of physical labor for most arts and crafts on the farm.

Farm men and women worked side by side as day laborers and as property owners. Women often worked as partners with their husbands. Women laboring for others customarily were paid equal wages to men's for the same work.

Women inheriting land from their parents or from their husbands as widows worked land for themselves or hired local or itinerant men and women laborers.

In most of Europe manor account books, tax rolls, and law court records are treasure troves of farm data for life on the land. In 14th-century England, for instance, a peasant's inheritance of land and family name were so closely united that a man marrying a landed woman peasant often adopted her maiden name or her late husband's name. In the Oxfordshire village of

Farm women worked as partners with their husbands. Women laboring for others customarily were paid equal wages as men for the same work. Women inheriting land from their parents or as widows from their husbands worked land for themselves or hired local or intinerant men or women laborers. Manor account books, tax rolls,

and law court records are treasure-troves of data for women's life on the land. In 14th-century England peasants' heredity of land and family name were so united that a man marrying a landed peasant often adopted her maiden name or her late husband's name. In the Oxfordshire village of Cuxham, Gilbert Bourdoun married widow Sarah le Wyte and became Gilbert le Wyte. Christine de Pizan, in her instruction book for women, The Book of the Three Virtues, *addressed women farmers as the ones "by whose labor the world gains its sustenance and nourishment," who have neither leisure nor luxury to serve God through church-going, fasting, and prayer meetings in town. But they must serve God and themselves through honest dealings with other farmers and villagers and through ethical payments in labor or goods. Women legally owing the overlord wheat are to pay with grain grown on the land, not mixing in cheap oats. If owing payments in livestock, they are not to hide the good ewes and best rams at their neighbors' in order to pay with inferior animals. Nor should they give dishonest accountings of carts, property, or poultry. Women should admonish their husbands to equally honest exchanges of value for value.* From the Book of Hours of Catherine of Cleves, *Holland, 15th century. Courtesy of the Pierpont Morgan Library, New York.*

Cuxham, Gilbert Bourdoun married a widow, Sarah le Wyte, and became Gilbert le Wyte. Christine de Pizan, in her *Book of the Three Virtues* (*Livre des trois virtues*), described farmers as intelligent, ethical people whose labor sustained the world.

Men and women farmers without leisure or luxury to serve God through churchgoing, fasting, and prayer meetings in town nevertheless were expected to serve God and themselves through honest dealings with other farmers and villagers and through ethical payment in labor or goods. Farmers who legally owed the overlord wheat were to pay with grain grown on the land, not mixing in cheap oats. If farmers owed payments in livestock, they were not to hide the good ewes and the best rams at their neighbor's farm and then pay the overlord with inferior animals. Nor should farmers give dishonest accountings of carts, property, or poultry. Principled farmers would exchange equal value for value.

THE GREAT FAMINE (1315–1322)

The 14th century is rightly called "disastrous" because of the Black Death that decimated populations throughout Europe and the Middle East. (*See* chapter 1: History.) As indicated previously, however, the ravages of plague took such a deadly toll because the populations had already been weakened by famine. The so-called Great Famine is dated officially between spring 1315 and summer 1317, when a prolonged spell of severe and persistent heavy rains and cold weather destroyed crops and provoked mass starvation throughout northern Europe. Yet the impact was such that it would take Europe's devastated populations another five to eight years to begin to recover, leading some scholars to extend the date of the official end of the famine to as late as 1322 or even 1325. Its political and social consequences would endure even longer, giving rise to peasant revolts and other popular uprisings.

The Great Famine affected the area stretching east to west from Russia to Ireland and England, and north to south from Scandinavia to the Alps and the Pyrenees mountains. Prolonged subnormal temperatures and torrential rains made it impossible for grain—the backbone of the European diet—to ripen. No grain meant not only that people had no bread; inclement weather impeded the curing of straw and hay needed to feed livestock, and thus farm animals died as well. Since damp weather conditions made it nearly impossibly to procure the salt needed to cure and preserve meat, the flesh of the dead livestock went to waste. Famine, the "black horse" of the Apocalypse (Rev. 1:8), made no class distinctions between kings, lords, or peasants or between clergy and laity. But it was the peasants, who composed the overwhelming majority of European populations, who suffered the most by far.

Fear of immediate starvation left the peasants with no choice but to eat the available seed grain now rather than plant it for harvest later and to slaughter their farm animals for consumption. In desperation, people resorted to foraging for wild edible roots, plants, grass, nuts, and even the bark of trees. Even worse, parents were willing to abandon their children or other vulnerable members of the family unit deemed "expendable" in order to survive. Indices of social violence skyrocketed as people resorted to robbery, rape, murder, or, according to some reports, even cannibalism in order to obtain food.

The impact of the famine continued to be felt for many years after the cold weather and rain abated in 1317. The ensuing increase in illnesses such as tuberculosis, pneumonia, and bronchitis left populations too weak to undertake the rigorous toil of farming. Moreover, there was hardly anything left to plant, since much of the seed grain had been consumed. Relief for the peasants was neither forthcoming from the realm of the divine nor from the lay

authorities. Indeed, only royalty and the nobility had access to scarce grain stocks stored for emergencies, a circumstance that provoked the resentment and ire of the general population. Scarcity of food products sent prices skyrocketing well beyond the purse of the average peasant. A similar situation obtained a few decades later, albeit on a smaller scale, when most of France and Catalonia and Valencia in the Iberian Peninsula were wracked with famine between 1330 and 1343. The physical ordeal of starvation, together with the political and economic factors of the unfair distribution of scarce resources, explains at least partially the eruption of peasant revolts in the decades following severe famine.

THE JACQUERIE REVOLT OF 1358

England was not the only country to suffer the social unrest that pitted the peasants against the nobility in the wake of the Black Death. Peasant revolts also broke out in France, although the more immediate catalyst was French losses to the English during the Hundred Years' War. In 1356 English forces captured the French king John II at the Battle of Poitier in east central France. Ecclesiastical and lay lords banded together to exact ever more taxes from a peasant population already reeling from the aftermath of plague and warfare to finance the costs of recovery from the war. Peasants were also forced to reconstruct all edifices and property damaged during the battle without any compensation. The peasants, already incensed at a corrupt and inept nobility incapable of protecting them from the English soldiers, turned their wrath against the aristocracy.

The Jacquérie Revolt was led by the peasant Guillaume Caillet, who was more popularly known as Jacques Bonhomme, a common term of contempt during this period. The rebellion began in the town of Beauvoisin and spread out from there to Amiens, Corbin, Soisson, Laon, Coucy, Valois, and elsewhere. An eyewitness sympathetic to the side of the nobility was the chronicler Jean Froissart (d. c. 1404). If we are to believe Froissart's account, the peasants, armed with staves and knives, went on a rampage from manor house to manor house, slaying "all gentlemen that they could lay hands on, and forc[ing] and ravish[ing] ladies and damsels" (Froissart 136). Bent upon destroying the nobility, the peasants nonetheless assumed its symbols, for they spontaneously "crowned" Jacques Bonhomme as their "king" and declared themselves "the companions of the Jacquery" (Froissart 137). With the assistance of Charles the Bad, king of Navarre (1349–87), French nobles succeeded in quelling the rebellion by setting a trap for Jacques Bonhomme. When Jacques agreed to meet with the nobles in the town of Mello to enter into truce talks, French and Navarrese forces seized him and tortured him to death.

WAT TYLER'S PEASANT REVOLT OF 1381

A violent peasant revolt in England occurred in 1381 because the so-called Statute of Laborers in 1351 froze salaries. Laborers could not demand and employers could not offer higher rates of recompense than had existed before the great plague of 1348, which had destroyed a third of England's population. When a capital tax was increased, rebellion flamed in the south of England in Kent. Wat Tyler led the rebellion that seized Canterbury and then in London burned public buildings and attacked the Fleet and Newgate jails. King Richard II met Wat Tyler at Mile End and there promised to adhere to Tyler's demands to abolish serfdom, repudiate feudal service, destroy market monopolies, and eliminate restrictions on commerce. When Wat Tyler's followers persisted in lawlessness and executions, the king repudiated his Mile End agreements and with

the mayor of London and his armed force quelled the virulent revolt. Many farmers thereafter left the land for the town and the city.

Guilds

A *guild* was a craft organization, a protounion controlling medieval professions and craftsmanship. Guilds commanded such victualing trades as brewing and baking; such fabric trades as silk making, weaving, upholstering, and cloth embellishing; and other crafts as diverse as shipbuilding, masonry, carpentry, knife making, barrel cooping, shoemaking, medicine, and surgery. Guilds were charged with training, preparing for licensing, and regulating practitioners of each industry. Master guildsmen and guildswomen taught, supervised, and judged journeymen. A journeyman (Old French *journee*, "day's work," "wage," or "travel") was a craftsman hired for daily wages who ranked below a master but above an apprentice. An apprentice (Old French *aprendre*, "to learn") was a person legally bound by contract to the instruction of a master of a craft, trade, or profession. During a specific number of years, an apprentice learned the trade well enough to be classed after testing as a journeyman. Once skilled and in practice for several years, a journeyman capable of producing a masterpiece, a work demonstrating professional competence and excellence, could be licensed as a master.

Guilds customarily had their own individual craft guildhalls, municipal buildings housing their records, meeting halls, offices of masters, libraries, and training rooms. Most guildsmen wore an identifiable costume, uniform, or *livery*, with especially elaborate clothing for processions, parades, and holiday presentations. Guild activities served benevolent purposes. They provided to the craftsmen or craftswomen unemployment, accident, and death benefits. They helped prevent malpractice. Guilds also afforded perquisites to town and city, such as handsome, subsidized town halls, market squares, public benches, and water fountains. They regulated competition. The regulations that the consuls of Stendhal stipulated for its weavers' guild typify the protection—and protectionism—afforded to its members. Anyone not belonging to the fraternity was strictly forbidden to make cloth. Foreigners wishing to join the weavers' guild had to first become citizens and then pay a membership fee of 23 *solidi*.

Spanish Christian guild organizations followed the model of their Islamic counterparts in al-Andalus. In the ninth and 10th centuries Mozarab (Christians who remained in the territories of the Iberian Peninsula that fell to Islam after the conquest of 711) immigrants from Muslim Spain established themselves in the hamlets of the northern Kingdom of León. Each hamlet was dominated by and took the name of a guild specializing in a particular craft. The guild of *tiraceros*, or weavers, whose name is from the Arabic *tiraz*, the luxury cloth famous throughout the global market, established themselves in the Leónese village of Pajarejos. Mozarab guilds of *macellarlos* (victuallers), *olleros* (potters), *torneros* (turners), and *rotarios* (wheelwrights), among others, established themselves similarly in hamlets in the region. Mozarab and other Christian craftsmen were able to sell their merchandise at the regular market and fair of Sahagun, which, according to an anonymous chronicle, attracted craftsmen and merchant burghers from "all over the world" (Rodríguez Fernández 157). While the anonymous chronicler may have exaggerated somewhat, there is no doubt that Frankish and Burgundian merchants and Jewish merchants from Spain and across the Pyrenees frequented the markets of Sahagun, León, and elsewhere, along the pilgrimage route to Santiago in Galicia. The Mozarabs also introduced into Christian Spain

the Islamic institution of the market inspector (Ar. *sahib al-suq*, Sp. *zabalzoque*), whose job it was to inspect the quality and measure of goods being sold and to punish those malfeasants attempting to dupe the unsuspecting buyer.

London's spectacular Guildhall, begun in 1411, was so huge and grand that it rivaled King Richard's Westminster Hall in size and elegance. The Guildhall magnificently expressed corporate pride and civic wealth. The great Gothic building was focus for independent legislative and judicial courts, site of City ceremonial life, and envy of foreign merchants. Nearby were the newly built Guildhall chapel, the courthouse of the mayor and aldermen, and the first public library in England. On its exterior were larger-than-life-size sculptures of commercial virtues: *Justice*, *Fortitude*, *Discipline*, and *Temperance*. This majestic building, which still stands, was completed in the 1430s, built with money from bequests, gifts, and surtaxes.

Guilds sponsored town cultural events such as mystery play cycles. The mystery was a drama on a biblical subject. *Mystery* also referred to the *ministerium*, the guild or craft presenting the play. England's Wakefield, York, and Chester plays were written by craft guildsmen and performed on movable pageant wagons. Dramatic cycles ranged from Creation to Apocalypse, dramatizing God's or Christ's intercession in the human world. Different guilds presented public plays on the Fall of mankind, the Flood, the Crucifixion, and the Redemption of mankind. Christ's specific life history was the subject of the Passion Play. Individual saints' lives graced the miracle play. The allegory battling for man's soul or mind was the morality play.

Some guilds were exclusively male. Some were solely female. In most European guilds men and women practiced their trades side by side. Women, however, seemed to have monopolized the 14th-century Parisian silk fabric trade. Married or unmarried craftswomen were called *femmes soles* (women alone),

often successfully combining home life with their professions. Women worked in fine and manual crafts, in farm fields, in produce markets, and in silver mines, and had special laws governing their actions and protecting their interests from intrusion by competitors, local or international, and even against depredations by their husbands. Craftswomen, as did craftsmen, belonged to professional guilds, trained apprentices, and commanded high pay for excellent work.

EMBROIDERY MASTER A MADAM

An amusing demonstration of the presence of women guild leaders is provided by the trial and punishment at the pillory of Elizabeth Moring in 1385, taken in shame to the Guildhall court before London's mayor, aldermen, and sheriffs. Elizabeth always had been thought to be a master embroiderer who took in and retained apprentices, binding them legally to serve her. Actually, Elizabeth was a procuress. As a clever whorehouse madam, she incited the women she trained, such as the beautiful Johanna, to lead a lucrative lewd life consorting with friars, chaplains, civilians, and ecclesiastical men who desired to sleep with women either in Elizabeth's house of prostitution or in their own homes.

One particular Thursday Elizabeth sent Johanna to the chamber of a chaplain to sleep with him that night and take back her payments for her night's efforts. When Johanna returned without booty, Elizabeth forced her back to the chaplain to share a second night with him, then to steal a valuable prayer book, which Elizabeth subsequently sold. Elizabeth received many similar valuable items from Johanna and her other mock–embroidery apprentices and retained monies for her own use. Elizabeth's "abominable and damnable" actions inciting other women to live as common harlots and procuresses condemned her to jail; to placement on the women's pillory, the *thewe*, with

the cause of her placement publicly proclaimed; and to be booted out of town, warned that if she dared return she faced imprisonment for three years and further *thewe* exposure. Whoring, however, may not have been her only punishable offense, for among Elizabeth Moring's failures were misrepresentation, violation of guild contracts, and nonadherence to the medical and public health regulations of officially sanctioned prostitution.

LONDON'S COBBLERS AND CORDWAINERS

Professional guilds controlled their own members and trade actions of any person or group threatening their professional control. Two powerful classes of shoemakers competed for political control in 14th-century London under King Richard II. In the year 1395 cobblers brought suit against the Guild and Wardens of Cordwainers, who had harassed them, disturbed their businesses, and interfered with profit. The king commanded the mayor to hold an inquiry among 24 shoemakers, 12 of whom worked in new leather; the Cordwainers of the city; and 12 workers in old leather, the city Cobblers, both English and alien, and conclude a fair and equitable agreement.

Leather age determined who could sell what. No person dealing with old shoes was to sell new shoes, and vice versa. All new leatherwork belonged to Cordwainers, not permitted to repair or remake old shoes. Likewise, Cobblers working old leather could never use new leather except when necessary for repairing old boots and shoes requiring piecing, riveting, and lining with new material. At issue were common profit of the city, political profit for each guild, and financial profit for guildsmen. Cordwainers prevailed. London shoemakers, old leather workers and new, masters, journeymen, serving men, and apprentices henceforth were under Cordwainer governance, which now controlled London's footgear manufacture and repair. Any craftsman violating the agreement was fined. All 24 Cobblers and Cordwainers signed and sealed the contract to allow peace in the shoe trade of London.

CLASH AMONG FLEMISH CLOTH MAKERS, MERCHANTS, AND DYERS OF DOUAI

The extraordinary power and wealth of the Flemish cloth industry put cloth makers and cloth sellers at loggerheads in the mid-13th century. The enormous profits to be gained from all stages of production tempted weavers and fullers to engage in trade, on one hand, and merchants to indulge in cloth making, on the other. In 1244 a government edict was promulgated definitively dividing each function into a separate guild and forbidding any member to engage in double-dipping. From then on no one, no man or woman who engaged in cloth making or was an associate of a cloth maker, was allowed to sell cloth or have it sold on his or her behalf. Likewise, no merchant, male or female, could practice cloth making. Anyone caught disregarding these regulations was fined the equivalent of $100, banished from the town, and prohibited to practice the profession for a year.

Similar restrictions were placed on the weavers and dyers of the Flemish town of Douai. Given the fame of the colors of Flemish cloth, dyers were strictly forbidden to dye the wool of foreigners in their own cauldrons. Dyers caught transgressing the edict shared the fate of the merchants and cloth makers.

Merchant Cities

MERCANTILE MILAN

Cities as clusters of people and buildings for producing items for exchange and trading

developed quickly throughout Europe from the first commercial towns built around 1100. Milan exemplified 13th-century commercial wealth. A local eyewitness account was Bonvesin de la Riva's book on the marvels of the city of Milan in the year 1288, in Latin called *De magnalibus urbis Mediolani* (Concerning the great works of the city of Milan). With chauvinistic enthusiasm and maybe some exaggeration, he praised Milan's housing, its varied population, its soil's fertility, its abundant goods, and its amazing markets. To demonstrate density of population, Bonvesin de la Riva counted 12,500 dwelling house doors accessed from the street. The city center had a beautiful palace, a bell tower with four bells, a courthouse for the judges, and a chapel dedicated to Milan's patron, Saint Ambrose. Some 36 churches in the city honored the Virgin Mary, and 260 others were built in the surrounding county, whose churches, windmills, and suburban dwelling houses seemed extensive enough to constitute their own city.

Bonvesin described the Milanese as tall, friendly, honorable men and women, able for war, not counting those exempted from military service such as the monks, canons, clerics, religious, and those living at home with servants. Of the 200,000 citizens, about 40,000 warriors could arm with sword, lance, and other weapons, and in the county 10,000 men could offer war horses. The townsmen included 120 doctors of philosophy, 1,500 notaries, 600 messengers of the commune called *servitori*, 28 expert physicians, 150 surgeons of various specialties, eight professors of grammatical art, six trumpeters, 14 doctors of Ambrosian Chant, and, though the city possessed no university, 40 copyists who daily hand-wrote books to earn their bread.

There were 300 bakeries in the city. Shopkeepers sold huge quantities and varieties of goods and services. At least 440 butchers sold fresh meat. Some 18 fishermen caught and sold trout, carp, large eels, tench, grayling, eels,

lampreys, and crabs. Nearly 150 hotels offered hospitality to strangers. At least 30 bell makers created unique sweet-sounding brass bells for attachment to horses' bridles. Bonvesin de la Riva rhapsodized over local specialty chestnuts called *marroni*, grown abundantly and available year round. Cooked green in an open fire, they were eaten after other foods as a better digestive than dates. When boiled, chestnuts were a delectable spooned treat, and dried cooked chestnuts made a savory substitute for bread. Sun-dried chestnuts were medication for the sick. As for condiments, the chronicler did not determine how much pepper was consumed in

A baxter selling breads and pretzels obtains new supplies from her portable oven. From Ulrich von Richtenthal, *Beschreibung des Constanzer Conziliums*, German, 1450–1470. Courtesy of the New York Public Library.

the city, but he interviewed collectors of the salt tax, who taxed no fewer than 65,830 sextaria of salt annually taken through city gates. *Gabelle* was the name widely used for salt tax, or customs duty leveled mainly on salt.

Milan's annual trade fairs attracted foreign merchants providing stunning varieties of wares. Fairs were distinguished from ordinary markets, held twice a week in various parts of the city, and distinct from annual fairs in local towns and villages and from weekly suburban town markets. Bonvesin concluded that Milan was a city for living a wonderful life for those having enough money, for every convenience for human pleasure was readily at hand.

THE *AZOGUES* OF THE CASTILIAN MEDINA

The urban revival that western Europe underwent in the 11th century had a distinctly Islamic flair in the Christian kingdoms of Castile and León, most remarkably even in areas that were never directly under Islamic rule. The cities of León and Castile adopted the Arabic nomenclature *medina* (Ar. "city"), demonstrating, as Glick argues, that "for medieval Castilians" "towns were Islamic, almost as if by definition" (Glick 113). Medieval Castilian medinas were organized in the Islamic fashion of a walled city with a citadel and a permanent marketplace, called *suq* in Arabic and *azogue* in Spanish.

The Islamic-inspired Christian *azogue* differed conceptually from the Latin *mercatus,* or market. Throughout medieval Europe monarchs granted towns the privilege of holding a market on a particular day of the week only. The city of León could hold its market on Wednesday, Sahagun on Monday, and Najera on Thursday, for instance. The *azogue*, by contrast, was a permanent market that occupied several streets. Permanent shops were located on the same street and grouped together according to craft

or product. Luxury items were sold in a permanent covered market, called an *alcacería*, and livestock sales were also conducted in their own specialized markets. In addition, the streets of the *azogue* surrounded a public square where traveling merchants could sell their merchandise and more transient goods could be sold.

The figure of the *almotacén* and *muhtasef,* the Spanish and Catalan derivatives of the Arabic *al-muhtasib*, or "market inspector," became a permanent fixture of the markets of León, Castile, and Aragon. The *almotacén* guaranteed the probity of weights and measures and the quality of all produce and manufactured items. Enjoying an autonomy not envisioned in the Islamic system, where the *al-muhtasib* answered to the authority of the judge (*qadi*), the Castilian and Aragonese *almotacén* was an independently elected official empowered to regulate the structure and activity of guilds, intervene in economic disputes, and take punitive actions against fraudulent or malfeasant guild members.

THE *PALLIA FRESONICA* OF FLANDERS

Medieval Flanders became the undisputed center and showcase of the European cloth industry. Weaving wool into cloth was a primordial domestic activity practiced in all lands where sheep and lambs were available since prehistory. Nevertheless, the superior quality of Flemish cloth—made possible by the adoption of Roman technology—was such that even second-century Romans imported it into Italy. Successive invaders knew a good thing and made sure to keep the trade routes open for Flanders's most lucrative product. Flanders's recovery from the Scandinavian invasions in the ninth century was so swift that by the end of the 10th century, Flemish merchants had to import wool from England in order to meet the demand of all of their customers. The superior quality of English wool caused demand for

Flemish cloth to surge even further, and by the 12th century it was one of the most sought-after items in the affluent markets and fairs of France, Burgundy, Italy, Spain, England, Germany, and Novgorod in Scandinavia.

What made Flemish cloth so special? Apparently the colors that Flemish dyers achieved simply dazzled the eye. Contemporaries referred to the distinctively colored cloaks of the name *pallia fresonica*, Frisian cloaks. Flemish cloth was also unmatched in its finish, flexibility, and softness. During the exchange of gifts that opened diplomatic relations between Charlemagne, the king of the Franks, and the Abbasid caliph Harun al-Rashid at the close of the eighth century, Charlemagne sent the caliph bolts of the finest Flemish cloth, and the latter sent an elephant, "Abu l-Abbas," along with other presents of carved ivory, gold, and robes of honor.

Extraordinarily for the time, the Flemish cloth industry dominated the entire economy of the Low Countries, precipitating a social, gender, and economic revolution. Cloth weaving was no longer a small-scale cottage industry dominated by women and relegated to the countryside. Weaving and cloth production on a grand scale also became the work of men and now took place in urban centers, where merchants—men as well as women—engaged in local, national, and international trade. New towns were founded to expand the booming economy centered firmly on the industry. Affluent towns such as Ypres, Ghent, Brugge, Lille, Arras, and Douai owed their wealth almost entirely to the cloth trade. By the 12th century, says Pirenne, "the whole of Flanders became a country of weavers and fullers" (Pirenne 122). So lucrative was the Flemish cloth industry that Flemish merchants could afford the luxury of renouncing their maritime commercial activities. At the same time, however, it also made them rely upon foreigners, such as the Hanseatic League, to market their textiles abroad.

Fairs and Merchant Courts

Important medieval fairs were held in the Champagne region of France. Four town fairs were especially significant, Troyes, Provins, Lagny, and Bar-Sūr-Aube. International fairs provided leaders of countries and cities superb sources of taxation and commercial control. Though Champagne fairs surpassed most others, through the 14th century cities such as Frankfurt, Lyon, Geneva, Saint Denis, and Nimes had significant fairs to fill financial coffers of merchants and local royalty. The dukes of Savoy exerted control over the fairs of Geneva. The kings of France claimed profits from the fairs of Lyon. King Phillip III attempted to control the fair of Nimes.

Cities created fair buildings, hostelries for fair merchants, and warehouses for foreign goods. Specific courts adjudicated merchant disputes and tried traders accused of market perfidies. *Pie Powder Courts* (from the French, *pied poudre*, "powder foot") were merchant courts judging cases of those attending merchandise markets and produce fairs, named because itinerant merchants and clients had dusty boots (powdered feet).

Specific types of courts served particular commercial purposes. England's *Assize of Measures* was a court associated with a legislative body dedicated to determining precise, accurate, dependable weights and measures for the weighing of salable goods and products. The legal ordinance regulating weights and measures of common commodities also was called an *assize*. The *Assize of Bread* controlled law and regulation dedicated to bakers and bakeries, adjudicating violations of bread laws and punishing bread crimes such as underweighing product, overcharging, and selling unsafe or spoiled bread. The *Assize of Ale* regulated beer and ale trade and tried frauds, misdemeanors, and felonies of brewers and taverners.

The fish market, where the fish are displayed in small barrels. The dealers use both scales and knives. A throng of purchasers crowds around the large wooden tables. From Ulrich von Richentahl, *Beschreibung de Constanzer Conziliums*, 1450–1470, German. Courtesy of the New York Public Library, New York, Spencer Collection, Ms. 32.

The importance of commerce and the complexities of international trade necessitated the formation of special laws to govern the activities and protect the interests of merchants as they conducted their business in cross-boundary markets, fairs, and seaports. The *Lex mercatorius*, or Law Merchant, is thought to have originated in 13th-century Italy, from which it spread to France, Spain, the British Isles, Germany, and beyond. Laws were applied transnationally and administered by the merchants themselves rather than by professional judges, whose authority might not be recognized by both parties in a dispute. The swift and fair adjudication of disputes in merchant courts overseen by merchant judges was particularly appreciated when the disputants involved were from different towns or countries. Although the Law Merchant had no official power to enforce its decisions, collective pressure could be brought to bear on the recalcitrant merchant when merchants closed ranks and refused to do business with him.

Weights and Measures

Town, city, and country standards were established for accurate, fair weights and measures. Special scales and weights were used for particular types of weighing. For weighing large

valuable coins the process called *al pezzo* was customary, weighing coins piece by piece. This was in contradistinction to weighing coins *al marco*, the weighing together of a large number of smaller coins of equal face value to determine whether the average coin was still within the legal weight.

The *nest of weights* was a popular form of weights. Nesting cup-shaped metal weights were housed in the master cup, itself the largest weight equal to the sum of the smaller cups stored concentrically within it. Each larger weight customarily was twice that of the next smaller weight. Nests of weights ranged from several pounds down to a fraction of an ounce. Merchants, money changers, goldsmiths, jewelers, pharmacists, physicians, and cooks requiring accurate measurements of products on scales used meticulously crafted weights, exactly calibrated, marked, and regulated

according to town, county, country, or international standards. Nests of weights were a manufacturing specialty of Nuremberg and exported to much of Europe. Weights often were decoratively incised with geometric designs, hunt scenes, and secular love motifs.

An important scale was the *steelyard* for weighing dry produce and goods. It consisted of an unequal-armed balance on a fulcrum. It had hooks for weights on one side and hooks for the item on the other. The object was placed on the shorter arm, and weights were moved on the longer calibrated arm in counterbalance. Steelyard (German *Stalhof*, "pattern," "sample," "template," or "courtyard") was also the name for the Hanseatic merchants' markets and warehouses established on the banks of the northern European river cities that formed part of or established alliances with the Hanseatic League.

In England the *Law of the Staple* governed the market for wool, leather, and animal skins. One meaning of *staple* was the length of a particular strand of wool. A *staple* also was a warehouse used by foreign merchants. There a town had the right to obligate foreign merchants to store their wares for several days for quantity observation, quality grading, and collection of town duties and state taxes. Juries of merchant peers tried mercantile infractions under Laws of the Staple.

Merchants of the Staple were English wool and cloth exporters, one of the highest mercantile ranks, holding a government monopoly in raw wool. Staple merchants sold their wares in a Staple Hall, an enclosed marketplace, usually for wool trading, equipped with banks of scales, weights, and measures, such as the *steelyard*. Calais was one of their major ports. Merchant Adventurers, founded in 14th-century England, was a mercantile commercial company so powerful that governments granted it self-rule. It flourished in import and export trade in the Low Countries, Antwerp, Brugge, and Hamburg.

A nest of weights from 15th-century Nuremberg is stamped with maker's marks, has incised hunting scenes, and, as the handle, has two aspectant dolphins. Courtesy of Galeria Medievalia, Tenafly, New Jersey.

Steelyard scales weighed heavy produce, such as animal carcasses, sides of meat, or bales of wool. Produce was hung on a hook at the end of strong chains, and a weight slid along a calibrated post. Scales, measures, and weights throughout European market towns and cities were regulated by local or national authority, inspected, and stamped for authentic measure. To assure the integrity of commerce and to protect consumers against false weights and measures, regulations controlled scale makers and users. Violators were prosecuted in market courts and, if convicted, forfeited goods or lost their licences to sell commodities within particular jurisdictions. The Steelyard was the German quarter in medieval London where merchants from Cologne had rights and freedoms from tax granted by King Henry II in the 12th century and later ratified by his sucessors. Warehouses, weighing houses, banks, a court, a church, and dwellings within the walls of the original Steelyard expanded when merchants from Lübeck and Hamburg added their mercantile power to London. After Queen Elizabeth expelled the Hanseatic League at the end of the 16th century, Steelyard commercial power vanished from England, but their scales' strength and design became emblems of strict, fair measure. From Spain, 15th century. Courtesy of the Metropolitan Museum of Art.

Merchants and Medical Law

Whatever his method of travel, no matter how copious his funds and credit, and notwith-standing all armaments, protections, and groundwork, the medieval merchant had an especially formidable enemy in medical law. The law never was so intrusive as during a time of plague. The merchant's body and physiques of his servants were vulnerable to disease, especially the virulent pandemic plagues. The trader's livelihood and his goods on road or sea were hostages to laws controlling health of his body, of the citizenry to whom he sold, and of the local body politic. Boards of health were charged during times of plague with protecting civil hygiene and human life and creating methods to limit contagion. London, York, Venice, Milan, and Bologna had politically powerful health boards. In Italian cities, for instance, noblemen, administrators, physicians, and merchants served on such health committees, whose duties included handling epidemics, treating patients with plague, controlling prostitution, limiting movements of merchandise, and regulating actions and travels of merchants.

Health boards also appointed the *physici epi-demi*, physicians hired for treating the plague-infected.

Spices and Medicines

Spice trading was lucrative. Spices in medieval Europe were defined more broadly than mere kitchen seasonings and banquet hall condiments. Spices included seasonings, medicine, perfumes, dyestuffs, fabrics, metals, aromatics, and miscellaneous goods imported from Africa and the Orient. Francesco di Balduccio Pegolotti listed 288 spices used in industry, pharmaceutics, and cookery in Florence in the years 1310 to 1340. So-called *minute spices* sold in small quantity at high price included anise, asafetida, balsam, borax, cinnamon, wild cardamoms, citron, caraway, cubebs, cinnamon flowers, clove stalks, and lac grains (coloring agents). Other spices on the list included quicksilver, alum, sheet silver, fresh oranges, cotton (from Syria, Byzantium, Apulia, Calabria, Sicily, and Malta), and wax (from Montenegro, Dubrovnik, or Ragusa; Spain; Bulgaria; Poland; and Riga, and colored white, red, and green). The list continued with rock candy, royal paper, paper from Damascus, waste paper, Florentine glue, cassia bark, and corals (red, white, and black). Tragacanth from Turkey was carried in the hold along with pistachio nuts, ginger, gall nuts, spikenard, three types of indigo, three types of tin, mandrake, raw honey, musk, mace, and myrrh. Theban opium was carefully distinguished from Trani opium. There were nutmeg, fennel seed, and powered sugars from Cyprus, Alexandria, Cairo, and Syria. And there were stocks of white pepper, lead, old copper, liquorice, soap, three types of Brazil wood, turpentine, fine theriac, raisins, pomegranate wine, nine classes of sugars, and India ginger bread.

Glitter and glamour of the luxury trade were paralleled by prosaic bulk trade. Venice imported and then reexported Oriental spices and fine textiles but also exported leather goods, furs, salt, grain, oil, iron, copper, tin, mercury, timber, fruit, soap, animals, and meat. Genoese merchants carried Russian grain to Italy and Moroccan grain to England. Over short distances agricultural staples were exchanged in vast quantities. Merchants from Trent speculated in grain futures, the plants grown high in the Alps. Florentine traders bought up stocks of Apulia cheese. Sophisticated merchants introduced ways of avoiding taxes and duties by "half-weighing" and selling by the steelyard, *allastadera*, wholesale.

Medicine stimulated the market for certain minerals, foods, and drinks, and medical requirements affected availability of imported and domestic herbs and spices. The medical pharmacopoeia required a natural cornucopia. Physicians wrote instruction books for avoiding contagion or curing it. Few of their suggested herbs, spices, and animal foods for plague protection could be gained from the local kitchen garden or backyard farm. Prescriptions forced their readers to go to market to obtain components for life-preserving elixirs and pills. Local, regulated markets protected consumers' concerns for quality, quantity, and prices of necessary ingredients.

Pharmaceutical requirements created demand for importing particularly cinnamon, cubebs, wine from Crete, and Russian honey, and the prevalence of Eastern herbs and imported spices inspired physicians to prescribe and use them. When contagious diseases flourished into epidemics, decimating towns and countries, the stakes were high. Playthings of the plague, the mid-14th-century merchants and physicians often were associated via "spices," food, and drink. As Bartolomeo Sacchi Platina said in his *Honest Indulgence and Good Health* (*De honeste voluptate et valetudina*), published in Venice in 1475, diet is the art of right living. Diet is life's pattern. In time of war a man is commended for

Fruit, vegetable, and herb gardens were planted in country and town. On this manor's carefully tended individual plots, gardeners with spade, rake, and diamond-shaped grills (for supporting plants) work in the walled enclosure. Outside an open gate two men (one is the author Petrus Crescentius) discuss rural occupations. Watching through a window, a courtly lady wears the 15th-century hennin *headdress as she sews.* From *Petrus Crescentius,* 15th century. M232, f.157. Courtesy of the Pierpont Morgan Library, New York.

having saved a life. How much more in time of peace or plague should one be celebrated who constructs a regimen for good health, saving lives of individuals and of nations.

Financial System

JEWISH MERCHANTS AND MONEYLENDERS

Jews played significant roles in medieval Christian commerce. Jewish merchants circumnavigated the then known globe on land and sea,

trading in markets in China, India, Arabia, and Africa and importing to western Europe fabrics, spices, staples, and rare commodities. The 12th-century rabbi and merchant Benjamin of Tudela traded in China well before Marco Polo (d. 1325) arrived. Jews also were preeminent itinerant merchants and peddlers on land dealing in foodstuffs, fabrics, furs, metals, jewels, coins, and anything the market demanded and ingenuity could produce.

Testimonies to the power of the Jews in international commerce were the size and wealth of Jewish merchant families, especially in the Mediterranean, and the virulence of anti-Semitic attacks against them. Among grain merchants, for instance, the entrepreneurial middleman, called a *badger,* often was accused of causing famine because of the ability to practice *affeering,* withholding grain to restrict produce in markets to increase demand and raise profits. Blaming Jewish badgers, pogroms were launched to destroy Jewish communities in Germany and Austria. Anti-Semitic coin money, such as the *Korn-Jude* (Ger.: "grain-Jew"), was minted in Germany and Austria during the 15th-century and later famines, depicting badgers as deformed, grotesque withholders of necessary grains. A typical *Korn-Jude* had inscribed on its obverse, "The people curse him who holds back grain, but blessing is on the head of him who sells it" (Proverbs 11:26). The coin's reverse depicted a grain badger carrying a heavy meal sack trailing grain through a hole pierced by a devil.

Jewish entrepreneurship was equaled by Jewish importance to Christians as moneylenders and bankers. Since Christian canon law forbade Christians to lend money for interest and profit, considering loan interest as forbidden usury, Christian merchants borrowed money from Jewish bankers, who had no religious prohibition against earning interest. Jews were bankers of record and moneylenders in fact for Christian commercial enterprises worldwide and for many cities and nations. Essential mercantile

Anti-Semetic Korn-Jude *coin showing grain merchant, badger, with Devil piercing hole in meal sack. Obverse: "Wer Korn inhelt dem fluchen die Leuthe; aber Segen komt ueber den so es verkauft." ("The people curse him who holds back grain, but blessing is on the head of him who sells it." (Proverbs 11:26)*

services Jews provided to commerce enabled them to survive and thrive in many otherwise anti-Semitic towns and cities.

Jewish near monopoly upon moneylending was slowly, definitively broken during the Crusades. International trade and travel and necessary intercity or intercountry monetary exchanges originally handled nearly exclusively by Jewish bankers soon became the province of Christian moneylenders and pawnbrokers belonging to four specific groups. Lombard moneylenders were primarily from Chieri in Piedmont as well as other towns in Italy. Cahorsin bankers derived from Cahors in the south of France. Catalan moneylenders were from Catalonia, Spain. The fourth group of Christian bankers was a military-religious order, the Knights Templar.

Other Christian merchants disguised interest as "commission" in elaborate exchange contracts for lending money in one currency and receiving it returned in another. The commission was built into the exchange rate.

It also helped that a theologian of the stature of Saint Thomas Aquinas lent his approval to the practice of usury under certain mitigating circumstances. Aquinas wrote on the subject of usury in his grand summary of Christian theology, the *Summa theologica*. While maintaining that it is "by its very nature unlawful to take payment for the use of money lent," Aquinas went on to argue that a lender may "without sin" reach an agreement with the borrower to be duly compensated for any loss that he should incur. More significantly, Aquinas deemed it "lawful" to borrow money from one who is a usurer "by profession, provided the borrower have a good end in view, such as the relief of his own or another's need" (Aquinas 340; Cave and Coulson 182).

COINAGE, *CAMBIUM*, AND EXCHANGE CONTRACTS

Coinage throughout western Europe was complicated. For commercial enterprise there were

various hard currencies, account monies, and credit monies. In western Europe from the time of the Carolingians to the mid-13th century, the silver standard was predominant. The silver *denier* was the largest denomination actually struck. Money of account consisted primarily of *pounds*, *shillings*, and *deniers*, both the *groat* and *petty*. In the 13th century gold became the standard when Genoa struck its first gold *deniers* in 1252. Florence made gold *florins*. Other western European countries also created gold currencies. Though some banks and merchants paid in gold, records were kept according to a silver standard in particular countries or cities, such as Genoa. Coinage of Venice included gold *ducats*, silver *grossi*, and copper *bagattini*. Moreover, there was no one currency used even in the same country or jurisdiction. Individual cities and principalities minted their own coins, and while they might use a generic name, such as *deniers*, coins minted in different locations differed in weight, fineness, and thus value.

With so many different monies, international merchants were obligated to reconcile currency according to local exchange rates. There were also different weights and measures from commercial town to town and within one town for particular classes of article. A bolt of diaphanous silk fabric 37 ells long and weighing precisely X was either a bargain or an extravagance if it cost four Y. Depending on whose measurement of length and weight and whose coinage, the silk was fit to buy or reject. Venice, according to one merchant manual, had two standards of weight, the gross weight and the minute weight. Measured by gross weight were iron, copper, tin, lead, wood, gold, meat, cheese, honey, fruit, and pitch. By minute weight, however, were all wares imported from the Levant, namely, cotton, pepper, incense, silk, sugar, ginger, cinnamon, indigo, Brazil wood, wax, saffron, cloves, raisins, flax, minute spices, and amber rosaries. All of these

items were bought or sold by Venetians in Astrakhan, a trading city on the Volga River, near the Caspian Sea, and in Sarai, capital of the Mongolian Khanate of the Golden Horde, also located on the lower Volga River. There seemed also to have been two standards of weight in the Khanate of the Golden Horde, just as there were in Venice.

Even when one knew for sure what particular coins were worth in one's native coinage and trusted weights and measures, carrying coins from country to country was cumbersome, clumsy, and dangerous. Therefore, an elaborate system of contracts of exchange and credit developed. The exchange contract, or *cambium*, was a promissory note drafted for double purpose. It allowed a long-distance exchange transaction plus a credit transaction and simultaneously hid a profit or interest concealed in the exchange rate. In an exchange and reexchange, *cambium recambium*, the reexchange rate was stipulated in advance. Such was called a *dry exchange*, or *ricorsa*.

One of the disadvantages of the *cambium* was that both parties or their agents had to be present to complete the final transaction of exchange. This arrangement was modified in the 14th century with the introduction of the *lettera di cambio*, or bill of exchange. This allowed merchants to accept payment in the local currency in one office and to send instructions via the bill of exchange to another office to repay in the coinage used there, thereby avoiding travel if so desired. Another advantage to the bill of exchange system was that merchants could transfer their own funds from one bank to another where they could earn higher interest.

Every loan involved more or less risk of repayment. Though Greece and Rome had laws of credit, medieval commerce created many variations. The *straight loan* was comparable to a modern loan with the exception that the church's refusal to allow for charging interest

permitted the taking of a premium as compensation for risk, especially with a *sea loan* (Latin, *mutuum*). The borrower pledged to return lent money only on condition that the ship carrying the borrowed money or the goods bought with it safely completed its voyage. Therefore, though 13th-century canon lawyers railed against usury, the straight loan premium allowed for risk. It was construed or excused as an early form of insurance.

JOINT VENTURES

Commenda* and *Collegantia Sea loans for both outbound and return voyages included a sea exchange contract allowing payment in another currency. A sea exchange contract, like a land exchange contract, was an excellent method for hiding interest in the predetermined exchange rate. Both sea exchange and land exchange allowed the so-called *dry exchange.* Important commercial contracts dealt fairly with the extraordinary risks of loss and risks to profit caused by land and sea ventures subject to brigands and thieves on the highway; pirates on the sea; political insurrection and attack; natural disasters such as storm, earthquake, volcanic eruption, contagion, and plague; and catastrophes such as mutiny and shipwreck caused by man or God.

The *commenda contract*, sometimes called a *sleeping partnership* or business venture, derived from and functioned in the same way as the Muslim *muqarada*. The *commenda* enabled pooling of capital and uniting of investors and managers. Similar to a partnership, the *commenda* customarily was drafted only for the duration of one sea voyage, ending when the borrower returned the capital plus profits or minus losses. The investor remained at home, lending the full amount of money, for which he or she received three-quarters of the profit and the traveling partner received one-quarter. The investor bore the total risk of loss. The traveler simply lost recompense for labor.

A bilateral *commenda* contract was called a *collegantia* and in Genoa a *societas.* In the bilateral *commenda* the at-home partner contributed two-thirds and the traveler one-third plus labor. Profits were divided in half according to original investments. Losses were borne according to respective contributions. Therefore, rules governing the unilateral *commenda* applied. The traveling party received one-fourth of profit on two-thirds of capital contributed by the other party plus all profit from the one-third of the capital he contributed. Summing those two equaled one-half of the total profits. In case of loss, the investor lost twice the amount of the traveler, and the traveler lost reward for labor. Some *commenda* contracts included shares, as in the share of a ship.

Compagnia* and *Societas Terrae Land trade had its *compagnia* contracts for pooling capital and sharing risks just as sea trade had its *commenda* contracts. A *compagnia* was the family contract, or *fraterna compagnia*, dealing with family partnerships and joint ventures, especially in Venice and Tuscany. Sometimes these contracts bound family members; otherwise, they were expanded to include outsiders who were clients. The general *compagnia* bound both investors and managers in joint and unlimited liability. Since risks were higher on the sea, this stringent liability was rejected in favor of the *commenda*, which was very close to yet another land contract called the *societas terrae*. In the *societas terrae* an investor entrusted capital to a merchant, craftsman, or banker, who used it in trade for a defined period, usually between one and three years, and at the end of that time returned capital with a share of the profits, usually 50 percent. Losses were borne by the investor. The managing party lost reward for labor. The lender was not liable to third parties.

DEPOSITORS, AGENTS, FACTORS

A depositor essentially was a banker or lender. Under a contract of deposit called a *depositum*, the depositee used money but then returned it to the depositor with a premium at the end of a stipulated time. A merchant agent called a merchant messenger or *nuncio* held a position of high responsibility. The merchant messenger usually was another merchant, relative, or distinguished individual working as an agent with a legal power of attorney for another person. The power of attorney was called procurator, of which a subtype was an attorney for his own interest, or *pro curator in rem suam*.

Factoring was a profession demanding integrity and accountability. A factor (Italian *fattora*) was an employee of a *compagnia* or other partnership who for a particular length of time or in a specific place managed and conducted business of the partnership. Usually the factor received a fixed salary but no profit sharing and signed a contract making him accountable for gross negligence and dishonesty. Typically, a factor would sign an exemplary contract, pledging himself as factor and agent of someone for an agreed period of time in order to do business, gain profit, and act in good faith on his partner's behalf, without fraud, to the advantage of their contractual *societas*. The factor also promised to preserve and guard their property and goods; to return them by letter, word of mouth, and writing, a correct and legal accounting of everything he had managed; to hold business details in strict confidence; and to make no *societas* with anyone without their express permission. Moreover, he might swear not to engage in any immoral activities such as gambling, adultery, or pilfering money on women out of his employer's goods and profits.

Double-Entry Bookkeeping

During the 13th and early 14th centuries accounting methods became highly sophisti-cated, and double-entry bookkeeping became the norm. There is controversy as to whether merchants created this accounting method in Genoa or Tuscany. An enthusiastic 15th-century merchant from Naples named Benedetto Cotrugli wrote an encomium to the art of merchant writing in his book called *On Commerce and the Perfect Merchant* (*Dell mercantura et del mercante perfetto*), later published in Venice in 1573. Benedetto stated that the pen was a noble, excellent instrument absolutely necessary to merchants and to any liberal, mercantile, or mechanical art. A merchant who considered a pen a burden or was clumsy in writing was not a true merchant. A good merchant was skilled in writing and in keeping records methodically. Good records preserved and memorialized all transactions and prevented litigation, quarrel, and scandal. Furthermore, they allowed literate men to live for thousands of years because writings endured.

Benedetto praised the inventor of the pen, the woman named Carmenta, the mother of Evander. To help the perfect merchant write contracts, perform business, and create profit, Benedetto recommended keeping three books: a ledger, a journal, and a memo book. The ledger had an alphabetical index to access any account quickly. A journal allowed methodical reconstructing of all capital, item by item, so that each number could be carried forward in the ledger and all accounts balance to debit and credit. A memorandum book was for noting every evening or morning everything traded and transacted on a day of commerce, the sales, purchases, payments, receipts, remittances, orders of payment, exchanges, expenses, and promises. Additionally, a good merchant kept a small notebook for recording hour by hour the minute details of transactions for later creating accounts in the memo book or journal.

At year's end Benedetto's ideal merchant checked the ledger against the accounts and the journal, making a trial balance and carrying

forward all profits or losses in the capital account. Copying statements and letters sent, the merchant would also note on letters received their place of origin, year, and date, and then all were filed in bundles with other letters and retained contracts, instruments, chirographs, bills of exchange, and financial statements. Only such organization or a hired expert bookkeeper prevented commercial chaos and confusion detrimental to honor and substance.

Early Economic Theory: Nicholas Oresme

A chaotic situation in which an unwieldy number of currencies coexisted and rulers were known to interfere to set the value of the money they minted prompted some European economists to devise theories of currency production. The French economist Nicholas Oresme (c. 1320–82) was a scholar and churchman, ordained as bishop in 1377 by King Charles V, as well as a mathematician and physicist. Around 1355 he wrote a book on ethics and the economics of money production entitled *The Treatise* or the *Origin, Nature, Law, and Alterations of Money*. He maintained that the market, not government, determined the value of money. Money took its name not from the Greek *noumisma*, relating to law, as Aristotle had thought, but rather from the Latin *moneo*, meaning "I inform," referring to market trust in the metallic content and the weight of metal coins used in exchange as a replacement for barter.

Oresme explained that the first money used for trade and purchase of goods had no stamp, image, or inscription but a quantity of silver, gold, or bronze that was measured by weight and then exchanged for meat, drink, and desired goods. It was a nuisance to use scales and difficult to determine equivalents by weighing, and metal could be adulterated and impure. Market "sages" determined that pieces of money of a

given metal and a definite weight be stamped with a design, known to everyone, to indicate the quality and true weight of the coin, thereby averting suspicion and recognizing the coin's true value.

Oresme's insights into inflation antedated the modern Austrian school of economics (Ludwig von Mises, Carl Menger, Frédéric Bastiat, Murray Rothbard) by 700 years. Oresme taught that governments created inflation. Inflation of money harmed commerce, injured the economy, and caused decline of civilization. It had no necessary social function but created illegitimate winners and losers, benefiting government and harming the citizenry. Therefore, it paved the way to tyranny. The way to eliminate inflation was to bar government from meddling with money.

Medieval Travelers

THE LEGACY OF ALEXANDER THE GREAT

Alexander the Great (356–323 B.C.E.) traveled extensively from his native Macedonia in his conquest of the known world, reaching as far as Persia, India, Afghanistan, and other lands in Asia. Many versions of his travel adventures depict his actual itineraries. Others include Alexandrian escapades that added imagination and legend to reality. It is possible that the Macedonian king could have descended in a diving bell apparatus to observe undersea life; such magnificent machines existed. On the other hand, it is unlikely that the sea of Cilicia prostrated itself before his passage, or that Alexander wed an Amazonian princess, as depicted in the second-century legends of the *Alexander Romance*. Nevertheless, this ancient collection of Alexander legends would captivate medieval Christian, Jewish, and Muslim audiences. Latin translations of the *Alexander*

Romance were made from earlier Persian, Arabic, and/or Hebrew sources, and the stories gained even greater popularity and diffusion when they were translated into vernacular French in the 12th century.

One version of the undersea legend from a sumptuous manuscript dated 1448 depicted Alexander wearing his gold crown standing upright in a transparent watertight cage reinforced with four horizontal silver metal hoops dangling from four golden chains. The king admiringly observed the Fish-Eaters, *Ichthyophagi*, people who walked on the sea floor and swam vertically under the sea while they hunted fish, turtles, crabs, and whales. Alexander also visited the Earthly Paradise. That mystical destination originally was described in a 12th-century Jewish story best known in a Latin tale of that title, *Alexandri Magni iter ad Paradisum* (Alexander the Great goes to paradise).

Similar fantastical wonders were composed in medieval Christendom, such as the *Book of Marvels* (*Livre des merveilles*). Illuminated with elegant finesse by the so-called Boucicaut Master and other painters around the year 1410, the splendid illustrated travel manuscript in the Bibliotheque Nationale once belonged to the famed bibliophile Jean of Valois, the duke of Berry (d. 1416). Black men and women, some with golden hair, were portrayed wearing saffron waist sarongs as they picked pepper in Coilum. Other wonders were dog-headed men from the Adaman Islands, fearless headless men, and pygmies from the land of Pitan who feasted only on the fragrance of fruit.

GIOVANNI DEL PIAN DEL CARPINI (C. 1180–1252)

Giovanni del Pian del Carpini (c. 1180–1252) of Umbria, Italy, was a loyal disciple of Saint Francis of Assisi (d. 1226) and one of the earliest members of the Franciscan Order. Giovanni played a prominent role in the spread of the Franciscan movement throughout northern Europe, with extended stays in Spain and Germany. The Franciscan friar's world travels began in the aftermath of the Mongol incursions into eastern Europe, inciting fears that the great khan would conquer Christendom. Pope Innocent IV (1243–54) entrusted Giovanni del Carpini with the delicate diplomatic mission of finding out as much as possible about the Mongols and trying to win them over to Christianity, in the hope of extending another buffer zone between the lands of Christendom and Islam.

Giovanni and his companions embarked on his mission as papal legate from Lyon in 1245 and traveled some 3,000 miles northeast, passing through Kiev, Kanev; along the Volga River, the Caspian Sea, and the Ural River; finally reaching their final destination, the court of the great khan in Mongolia. At the court Giovanni presented the khan with a papal letter protesting the invasion of Christian territories and inviting the Mongol ruler to convert to Christianity. Predictably, the great khan refused the invitation and retorted that the pope and the rulers of Christian Europe should submit to his authority.

In keeping with his mission to inform the West about the Mongol adversary, Giovanni documented his experiences in a book entitled the *Historia Mongolorum quos nos Tartaros appellamus* (*The Story of the Mongols, Whom We Call Tartars*) or the *Liber Tartarorum* (The book of the Tartars). This eight-volume treatise describes the country of Mongolia; its climate; the manners, religion, character, and history of its peoples; their policy and military tactics; the peoples they conquered; and the best way of opposing them. The final chapter provides an itinerary of the regions that he passed through on his way to and from the Mongol court.

WILLIAM OF RUBRUCK (1220–c. 1293)

The papacy and the Franciscan friars were relentless in their attempts to convert the

Tatars to Christianity. William of Rubruck (1220–c. 1293), a French-born Flemish Franciscan missionary and explorer, accompanied Louis IX on the Seventh Crusade to the Holy Land in 1248. In 1253 King Louis sent William on a diplomatic mission to the Mongol court to attempt once again the conversion of the great khan. Traveling with his companions, who included a Muslim interpreter, William followed an itinerary similar to that of Giovanni del Carpini, crossing the Black Sea, the Caspian Sea, and the Crimea and traversing the Don and Volga Rivers, finally arriving in Mongolia.

After this unsuccessful missionary expedition to the Mongol court, William and his entourage returned home in 1255, whereupon he presented his detailed report, *Itinerarium fratris Willielmi de Rubruquis de ordine fratrum minorum, Galli, anno gratia 1253 ad partes Orientales* (*The Journey of William of Rubruck to the Eastern Parts of the World*), to his patron King Louis. William's *Itinerary* consists of 40 chapters and is a far more extensively detailed and precise account of the Mongols and of the itinerary to their land than that of his predecessor. For instance, he correctly describes the Caspian Sea as an inland body of water that does not flow into the Arctic Ocean, as was believed by continental Europeans of his time. Among the choice "anthropological" information on the Mongol peoples, one finds chapters devoted to their houses, food, drink, ways they goad each other into drinking to the point of inebriation, garments, hairstyles, ways women adorn themselves, Mongol palaces and courts, and courtly entertainment. One also reads lurid descriptions of the way they "eat" their parents. Religious propaganda includes an account of a Saracen who converted to Christianity and an explanation of how Saracens, Nestorian Christians, and pagan "Idolaters" are one and the same, worshiping their "false gods."

MARCO POLO (1254–1325)

Important commercial traders traveled, and significant travelers traded. Marco Polo (d. 1325), famous for his remarkable voyages to China, Arabia, Persia, Japan, Sumatra, and Zanzibar in Africa, was a Venetian merchant trader whose father, Niccolo, and uncle, Maffeo, had discovered a route to Kublai Khan's Khanbaliq (Beijing) in China in 1266. The Polo brothers had long settled in the regions most advantageous for their merchant travels, first in Constantinople, then in the Crimea, and subsequently in Bukhara. Marco Polo accompanied them on a return trip to Kublai Khan's magnificent city in 1275. Nearly 20 years later, when Marco Polo returned to Venice, the city was at war with Genoa, and he was taken prisoner. He used his time well, writing his remarkable travel diary, *Le divisament dou monde* (*The Description of the World*), depicting with bravura the splendor and wealth of the East. He introduced many practical foreign inventions to the admiring West. Settled once again in his native Venice, between 1310 and 1320 Marco Polo wrote a new version of his book, this time in Italian, entitling it *Il Milione* (*The Million*). His audience appreciated the wonders as well as the practical uses of paper money, coal, and asbestos. Most especially, they appreciated his writing in the vernacular, making his adventures far more popular than the previous treatises written in Latin by Giovanni del Carpini and William of Rubruck.

SIR JOHN MANDEVILLE (d. 1372)

Another important travelogue is the work attributed to Jehan de Mandeville, known as Sir John Mandeville (d. 1372), who around the year 1356 wrote his *Travels of Sir John Mandeville*. The *Travels* supposedly recount the itinerary and experiences of this alleged knight from Saint Albans in England, who

A view of Venice from Marco Polo's Livres du Graunt Caam. *The Romance of Alexander* and *Travels of Marco Polo* (ms. Bodley 264) 1338–44, Flemish and English, c. 1400.

traveled in 1322 to Egypt, where he enlisted as a mercenary in the sultan's wars against the Bedouin. From there he went to Palestine, Turkestan, India, and China, where he served in the army of the great khan. Scholars have cast credible doubt on the identity of this person and on the authenticity of his travel account, pointing out that few of the descriptions of Egypt, Palestine, and Constantinople appear to be genuine. Most were plagiarized from the Dominican friar William of Boldensele's *Liber de quibusdam ultramarinis parti-* *bus* (On certain lands beyond the sea), recording his travels to Palestine, Constantinople, and Egypt in 1336. The Eastern adventures are unmistakably plagiarized from the travel diaries of Franciscan and Dominican friars whose journeys to the East are well attested, such as the aforementioned *Historia Mongolorum* of Giovanni del Carpini and the *Itinerary* (*Itinerarium*) and *Descriptio orientalium* (*Description of the Orientals*) of the Franciscan missionary and diplomat Odoric of Pordonone (d. c. 1331).
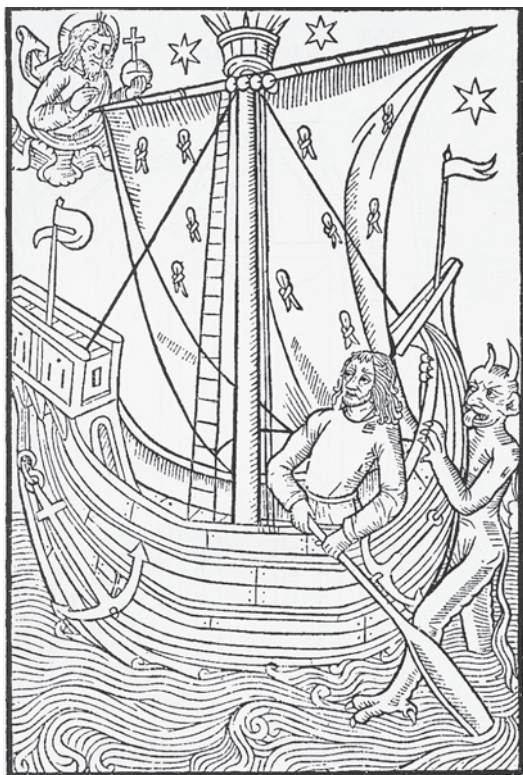
An allegory of the human being adrift on life's waters of temptation, lured by the devil and beckoned by God.   From *Le grant kalendrier et compost des Bergiers*, Nicolas Le Rogue, Troyes, 1496.

Sir John Mandeville embellishes on the texts he plagiarized, introducing incredible descriptions of imaginary and fantastical peoples and animals. For these Mandeville seems to have borrowed extensively from the *Letter of Prester John*, a cycle of tales of an imaginary Christian king who ruled over a Christian nation long lost among the "pagan" Orientals and Muslims, which had been in circulation since the 13th century. Despite the obvious plagiarism of Sir John's *Travels*, the work enjoyed immense popularity, and even Christopher Columbus is said to have carried a copy with him on his voyages of discovery.

FRANCESCO DI BALDUCCIO PEROLOTTI (fl. 1315–1340)

A voyager to the Orient embedded travel advice for merchants to China in his commercial manual called *The Practice of Commerce* (*Pratica della mercatura*). Francesco di Balduccio Perolotti (fl. 1315–40) addressed merchants going to and from China with their merchandise. He gave vivid practical instruction for surviving and thriving in distant lands: He listed distances and timings by ox, horse, donkey, camel wagons, and boat. He advised a merchant to let his beard grow long and not shave. When arriving at the city of Tana (a colony founded by Italian merchants in the 14th century on the Don River in the domain of the Golden Horde), the merchant who values his inventory ought to hire an indispensable, good *dragoman*, a translator and interpreter especially for Arabic, Turkish, and Persian, avoiding any who charged too little.

At least two good manservants were necessary, especially speakers of Cumanic, a Turkic Asian lingua franca spoken between the Black Sea and the Yellow Sea. If the merchant wanted to take a woman from Tana along with him, that was fine so long as she spoke Cumanic. On the road from Tana to Astrakhan, the merchant required food provisions for 25 days, especially flour and salt fish. Meat could be bought along the way.

Though Francesco Pegolotti considered the patrolled China road safe by night and day, two main problems confronted the merchant on the route in Cathay. If the merchant were to die unexpectedly, unless he had traveling with him his brother or a close associate pretending to be his brother, then all of the dead merchant's assets were allocated to the lord of the land. Only a brother could retrieve his wealth. Therefore, most merchants traveled with a "brother." Similarly, if the lord of the land died, then before a new Mongol khan was elected, all Christians, Franks, or foreigners were held under restric-

tions. Riots endangered them. Otherwise, a relatively economical voyage with merchant, dragoman, two manservants, and goods to the value of 25,000 gold florins would require an expenditure of between 60 to 80 silver *sommi*, with return costs from China to Tana, including salary of servants and food expenses, depending upon the type of transport. The road from Tana to Sarai was less safe than the rest of the journey. But a caravan of 60 men was virtually guaranteed travel as safe as at home.

Merchants carrying silver to Cathay were required to exchange their coin for a yellow paper money "struck" or inscribed with the lord's seal with which they could buy silk and other merchandise. Any merchant leaving Genoa or Venice to travel to China ought to carry fine linen for trading and then to buy the coins called *sommi* in the town of Urjench. The merchant himself could choose to ride a horse, donkey, or any animal preferred.

Economy and Trade in the Islamic Empire

International trade at once stimulated expansion of the Islamic empire and sustained it. Foodstuffs, raw materials for manufacture, and luxuries that both the rich and the common people could buy were in great demand. The surge in products taken in for sale at the lowest possible prices increased the profit of merchants, enhanced the speed of import, and elevated the influence of international traders. Muslims imported from India and China pepper, spices, precious stones, fine cloth, and porcelain. They bought furs from the northern countries. They sent back to the East coral, ivory, and textiles. They manufactured for their own use as well as for export war armaments, fine textiles, refined sugar, and paper.

The astonishing international trade was the work of Iranian, Arab, Turkish, Jewish, and African merchants. Arab ships sailed to the ports of western India and as far away as China. To the south ships went to southern and western Arabia and East Africa. From Basra goods were carried by river to Baghdad. From Baghdad products could cross Syria by desert route and reach Egypt. A route through Anatolia to Constantinople and the Byzantine merchant city Trebizond was an overland variation. One of the greatest of the trade routes went from Baghdad to Nishapur in northeastern Iran and from there to Central Asia and China.

Important trade routes followed the southern Mediterranean coast linking Spain and the Maghrib with Egypt and Syria. Tunisia was the central clearinghouse. Many Jews worked this route as merchants and traders, organizing commerce in Spanish silk, gold brought from West Africa, metals, and olive oil. In the 10th century the Muslim empire traded with the Italian cities of Venice and Amalfi. From China and India by way of Iran, traders transported luxury products, basic goods, and new agricultural crops into the Mediterranean, the latter of which revolutionized the traditional Mediterranean diet.

Sea Trade

Within a century after the prophet Muhammad's death in 632, the Muslims conquered half of the Mediterranean's perimeter and most of its islands. Between the seventh and 11th centuries Arabs and Byzantines fought one another on armed ships and raided one another's territories. Deforestation around the Mediterranean Sea from the seventh century on might be attributed to the necessity to build ships from wood.

Caravan routes determined where ports were developed. The roads connecting the Red Sea and the Sea of Suez with the Nile system in the Mediterranean created a southern road that led from Adulis in Ethiopia to Aydhab and Quseir to Qus, north of Aswān. The northern road led from Suez to Belusium, Damietta, and Cairo. The Gulf of Eilat was connected by roads crisscrossing the Sinai Peninsula to the Syrian coast.

A major caravan route led north from the southern tip of the Arabian Peninsula through the Hijaz and around the Gulf of Iraq. The port of Jeddah served the city of Mecca, and the port of al-Jar served the city of Medina. The main road on the western side of the Persian Gulf led from several ports, including Qalajt, Moskat (known even today for its succulent raisins), Suhar, and Bahrain, and then north into Mesopotamia.

When the Abbasids founded the new capital city of Baghdad in the eighth century, new ports and trading routes with the East were also established. Considerable commercial traffic passed through the ports of Siraf and Basra. Muslim merchants established colonies along the Indian coast and into China and even entered Korea and Japan. After the fall of the Chinese Tang dynasty in the 10th century, Arabs and Persians lost their colonies in the East. First the Bedouins, later the Seljuks, then the crusaders interfered with land routes leading from the Persian Gulf to the eastern Mediterranean. The Fatimids conquered Egypt and encouraged trade in the Red Sea by providing protection and low taxes. By the mid-13th century the Persian Gulf trade revivified by a commercial rivalry under Caliph al-Nasir, who ruled between 1180 and 1225 with the cooperation of the Seljuks, and it received a new impetus under Mongol rule. Muslim merchant colonies were also established in East Africa. Land routes were open, safe, and free all the way from Beijing in China to Layazzo in Lesser Armenia.

The main port on the Persian Gulf was Qays in the 13th century and later Hormuz. A pair of customs manuals from 15th-century Aden and Hormuz detailed the traders, ships, routes, and harbors. In the same century a remarkable book called *Kitab al-Fawaid fi usul ilm al-bahr wa l-qawaid* (The book of useful information on the principles and rules of navigation) was written by the acclaimed ship captain and navigator of the Indian Ocean Ahmad ibn Majid. The *Kitab al-Fawaid* provided detailed descriptions of harbors, navigational aids, and marine astronomy. Throughout the 15th century Portuguese traders and adventurers had tried with various degrees of success to navigate the Indian Ocean, until an encounter with Ibn Majid changed their fortunes. During a "friendly meeting" with a Portuguese captain, Ibn Majid became drunk and revealed to him the secrets of how to avoid the strong waves that had heretofore destroyed the Portuguese ships by steering clear of the coast of Malindi. This information, together with the acquisition from the Arabs of a technologically advanced compass, allowed the Portuguese eventually to capture most of the great maritime ports, ships, and shipbuilding sites that had been dominated by the Muslims.

IBN BATTUTA IN JEDDAH

The traveler Ibn Battuta arrived at Jeddah after his pilgrimage in 1330 to Mecca, and he and his companions sailed on a boat called a *jalba*. Some of these boats carried camels. For two days they sailed with a good wind. But then the fickle wind changed drove them off course, and stormy waves lapped overboard and made passengers grievously seasick. These terrors continued until they landed at Ras Dawair, located between Aydhab and Sawakin, a harbor and an island port, respectively, on the African coast of the Red Sea. They found onshore a hut shaped like a mosque containing water stored in ostrich

egg shells. They drank, cooked food, hired camels from local tribesmen called Bejas, and traveled with them through a country with many tame gazelles. The travelers reached the island of Sawakin, which had no water, no cereal crops, and no trees. Boats carried potable water to the island. However, large reservoirs collected rainwater. The local diet included the flesh of ostriches, gazelles, wild asses, and goats as well as milk and butter. They exported all of these foodstuffs to Mecca, including their cereal called *jurjur*, a coarse grained millet. According to Ibn Battuta, no sailing was done on the Red Sea by night because of the perils of shipwreck on the rocks. Ships found a land harbor every night and embarked again at sunrise (Ibn Battuta, 104–107).

MARITIME TECHNOLOGY

Ships and shipbuilding on the Red Sea and Persian Gulf were important to the expansion of Islam because the Red Sea and Persian Gulf were the two western outlets of the Indian Ocean. The waters bathed the Arabian Peninsula, southern Iran, the shores of East Africa, the Indian subcontinent, the southeastern Asian islands, and the Malay Archipelago. The monsoon winds (from Arabic *mawsim*, "season") were important in determining which ship could be navigated, how it could be sailed, when it was safe or foolhardy, whether it made port for the night, where it might go, and when. In the Red Sea treacherous alternating winds blew irregularly most of the year.

Since pre-Islamic times the Persian Gulf Arabs of the regions that now constitute the coastal areas of Saudi Arabia, Oman, Bahrain, Kuwait, and the United Arab Emirates were mariners who went to sea for commerce, for warfare, and for raiding. Ships often traveled in convoys with armed guards onboard. Merchant ship design also was affected by the necessity to withstand attack. Therefore, hull shape and

ship design were determined partly by product carrying capacity, partly by the need to reduce vulnerability, and partly by the necessity for spacious holds to retain captured people, many of whom were pressed into slavery, and material booty that often included horses. The two basic types of medieval boats and ships were galleys, rowed by oars and used as important combat vessels, and sailing ships. Earlier classic sails were square and mounted, centered on a mast with equal proportions of the sail extending on each side of the mast and at right angles to the ship's hull. From the late ninth century to the 14th century, however, sails were triangular lateen sails, with a rigging consisting of a short mast, a long yard, and a triangular sail, with both fore and aft sails that when stretched out parallel to the length of the ship allowed for reasonably precise steering. To change tack or direction, the early lateen rig allowed good use of wind power and reasonably flexible shifts in direction.

Arab ships called *koumbarion* may have been galleys or may have been sailing ships; more likely they were hybrids uniting sails with supplementary oar power. A great variety of types of ships existed, with such names as *tarrada*, *safina*, *ghurab* (a galley ship); *kurkur* and *ammaliyya* (freight ships); *karib*, *zabzab marakib*, *tayyara sagitta*, *gripo*, *linys*, and *baghla*. Some were large sailing ships commonly used in the Gulf of Oman and the Indian Ocean. Other vessels functioned as hybrid oar-rowed galleys and sailing ships. The latter were particularly ideal for commerce and corsairing.

On the Red Sea and Persian Gulf both warships and pirate ships were more likely to be sailed than rowed. In the late Umayyad and early Abbasid periods Muslim ships used Greek fire. The ship carrying Greek fire, a destroyer, was called a *harraqa* (lit. "fire ship," from the Arabic verb *haraqa*, "to burn"). The same name was later used for a pleasure boat on the Tigris and Euphrates Rivers.

The typical ship of the eastern Indian Ocean was a sailing cargo vessel called a *dhow*, a word of Persian or Indian origin. It was a sleek, double-ended hulled ship, sometimes with a long overhanging bow and a raking stern. Customarily, the hull was made of teakwood imported from Burma, India, or East Africa. The shell was created first from the outside in, as in a caravel, with planks laid edge to edge, with mortise and tenon joints, and using no nails. Planks were sewn together with palm tree or coconut tree fiber. The surface was coated with shark oil and bitumen.

The rig consisted of fore and aft sails called in Europe "the Arab lateen." The sails were quadrilateral with the forearm clipped off. The yard usually was longer than the mast and sometimes longer than the ship itself. A mast, called the *mizzen* (perhaps from the Arabic word *mizan*, meaning balance), supported the fore and aft sails. Sails were woven originally from palm leaves or papyrus and later from cotton, linen, or hemp. Steering was accomplished by one or two oars at the quarters of the ship. A stern rudder may have been used as early as the 13th century. Anchors were made of stone; iron was rare. Red Sea and Persian Gulf ships were comparable in size and tonnage to those on the Mediterranean.

Shipbuilding required wood and iron, both of which were in short supply in the Arabic world, with wood imported from what today is called Burma and Kenya and the Maldives and Laccadive Islands.

PIRATES AND CORSAIRS

Ships customarily were unarmed but sailed in convoys. On the Red Sea armed escorts were rare, but the sea was patrolled by government ships under both Fatimid and Mamluk leaders. Piracy was a social and practical problem requiring armed protection or special financial treaties in which the pirates withheld attacks if

16th-century engraving of the Turkish pirate Ariadeno Barbarossa (Khayr al-Din), founder of the state of Algiers. Snark/Art Resource, NY.

paid lump sum amounts or if provided annual prepayments of tribute for "protection."

The Arabic term for "corsair," *qursan*, derives from the Italian *corsale* and is used to refer to the politically authorized privateers who staged attacks upon enemy ships, as distinct from the authentic pirate, called *liss al-bahr*, or "sea thief," who acted for purely private gain. In the western Mediterranean and the Atlantic Ocean *qursan*, or organized attacks upon Christian ships by such privateers, as opposed to individual piracy, were considered permissible in the jihad against the Christians. During the crusades of the 12th and 13th centuries, pirates acting on their own account in Ifriqiya (North Africa) and the western Mediterranean attacked Christian and Muslim ships alike, often playing off the rivalries between the

two groups. In the 16th century the Barbary corsairs established veritable states in Algiers, Tunis, Tripoli, and elsewhere under the protection of the Ottomans.

PORTS AND CUSTOMS

Islamic ports often included a breakwater, lighthouse, customhouse, and caravanserai. Anchorage apparently was mainly in the open. Boats and barges carried passengers and cargo to the shore. International trading ports had customhouses called *dar al-mukus*, *maks al-munakh* in the case of caravans, or *rasm al-jumruk*. The towns usually enforced customs by a bureaucracy consisting of overseers, mediators, and translators. Goods were classified by export or import types, size of ship, and whether the commodity was part of the state monopoly or free market merchandise. In Egypt state monopoly goods passed through a controlled, price-fixed market called the *matjar*. Free market goods were sold by auction called *halqa*, or in the open retail markets, the *suq* or bazaar.

The head of the trading community, customarily paid by the local authorities, was called the *wakil al-tujjar* (commercial trustee). The *wakil*, if Jewish, customarily was a rabbi; if Muslim, a *qadi*. As a rule the *wakil* was a rich, influential merchant with knowledge of the law and jurisprudence who managed his own or the community's warehouse or local bank and communications center. The *wakil* supervised international and local transit trade. In particular places the *wakil* collected and levied taxes and dues and also punished lawbreakers.

Overland Trade

While many of the major trading routes strategically passed through or near the coastal port cities, these cities in turn often were connected to extensive inland trade networks. Land trade flourished under the Persian Samanids, one of the most prosperous, though shortlived, of the dynasties that exercised de facto power in the ninth century during the decline of the Abbasid caliphate. From their capital in Bukhara in present-day Uzbekistan, they encouraged trade in the lands they controlled in Khurasan and Transoxania and developed international trading markets via Khwarizm, from which Muslim caravans crossed the northern shore of the Caspian Sea to reach the important city of Atil, located on the Volga River. This northern route permitted trade with Viking-controlled Russia and beyond to Sweden and Finland. The Vikings and Russians traded luxurious furs, slaves, and wax in exchange for Muslim-produced textiles and metal goods.

The conversion to Islam of the Turkish peoples during the 10th century opened up vast land trade routes to the Muslim world. The Turkish Bulghars of Volga embraced Islam en masse in 921 after their contacts with Samanid merchants. Important Central Asian land trade routes passed through the major manufacturing and trade centers of Nishapur, Merv, Balkh, Bukhara, Samarqand, and the aforementioned Khwarizm; from them luxury items such as fur, amber, and walrus tusk ivory (both of which were believed to have aesthetic as well as medicinal and magical properties), as well as sword blades, leather, and other basic goods, were transported to Baghdad and farther west. The Seljuks converted in 956 and by 1050 had established the seat of their powerful empire in Baghdad. Many other Turkic tribes embraced Islam from 960 onward. In particular, the Turkish Seljuk conversion to orthodox Sunni Islam and their allegiance to the Abbasid caliphate had enormous political as well as economic consequences: The containment of the Fatimid caliphate to Egypt and their devastating defeat of the Byzantines in 1071 and of the weakened Persian Buyid regime gave rise to one of the most vigorous and significant land trade routes in medieval Islamic his-
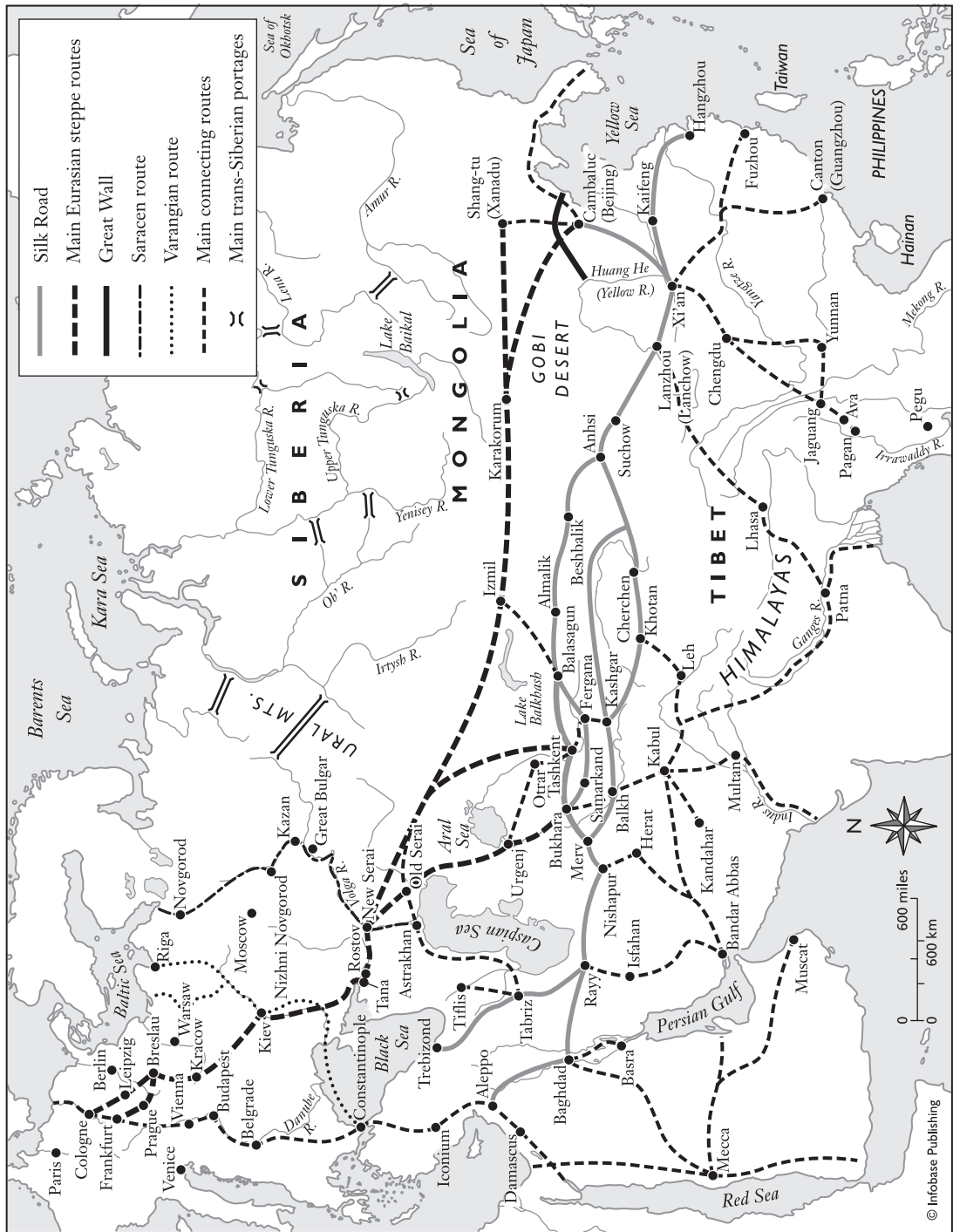
Main Eurasian Routes in Mongol Times. This map depicts the main Eurasian trade routes during the ascendancy of the Mongols as a military force and imperial presence.

tory, extending from the Mediterranean along the Silk Road as far as China.

THE GOLDEN HORDE

Mention must also be made of the trade routes of the legendary Golden Horde, the rise of which is associated with the Mongols and their founder, Genghis Khan (c. 1162–1227). Geographically the Khanate of the Golden Horde comprised present-day Mongolia, Tibet, parts of China, parts of Iran, Uzbekistan, Turkmenistan, Siberia, and other areas of the Russian steppes. By the time the Mongols had converted to Islam during the rule of Uzbek Khan (1313–41), they not only dominated most of the Russian, inner and Central Asian, Islamic, and Byzantine trade routes, but had founded new cities that became major Islamic centers of trade, such as Sarai and New Sarai, both located at the lower end of the Volga River. The thriving slave trade with Egypt furnished most of the new slaves that formed the ranks of the Mamluk rulers. Surviving artifacts, weaponry, gold and silver luxury items, ceramics, pottery, metal works, and hoards of coins give evidence of the thriving trade among the Golden Horde, Byzantium, and China.

Between 1332 and 1333 Ibn Battuta reached the Golden Horde traveling in a wagon caravan under the protection of the Mongol khan. Ibn Battuta was impressed by the size of the caravan of wealthy Mongols, comparing it to "a large town." He was also surprised by the leading role played by young women among the nomadic Mongols; a caravan would consist of some 20 or 30 carts tied together and led by an ox that would be driven by one girl. Along the journey the Mongols would stop and let their animals—oxen, horses, and camels—run free, secure in the knowledge that no one would dare to steal them because of the extreme harshness of the laws against theft. Ibn Battuta described the khan's caravan as "a vast city on the move with its inhabitants, with mosques and bazaars in it, the smoke of the kitchens rising in the air for they cook while on march" (Dunn, 167). He also marveled at the contrast between the tent structures in which the Mongols camped and their interior opulence. The khan's tent was covered with golden tiles, and inside he sat upon a silver throne, with his four wives seated beneath him. The horses drawing the wives' wagons were covered in silk, and even their slaves wore clothes encrusted with precious jewels.

SAHARAN TRADE ROUTES

After the establishment of the Umayyad caliphate in Muslim Spain, the new converts to Islam forged important trade routes linking sub-Saharan West Africa, North Africa, and Spain, from which gold and luxury goods passed into Christian Europe. As early as the eighth century Muslim merchants from North Africa and Spain gained a foothold in the trans-Saharan trade routes that passed through newly created urban centers, such as Sijilmasa and Tahert, allowing the Muslims to trade with the African kingdoms of Ghana, Mali, the latter including the legendary city of Timbuktu, and elsewhere. Altogether, there were three commercial networks across the Sahara: the western, leading from Sijilmasa to Awdaghust in Ghana; the central and most important route, leading from Ifriqiya to the Niger bend; and the Egyptian, which stretched from Egypt to Niger via the Siwa oasis and Kufra.

The Islamic monetary system was based on gold, and indeed, gold was the most important commodity acquired from the African trade network. The Andalusi Umayyads and their enemies the Fatimid Shia of Egypt vied with each other politically as well as economically; the result was a trade boom between the rival Muslim dynasties and the African commercial networks in the 10th and 11th centuries. The rise of the Almoravids in the 11th century,

Mediterranean Sea

to Cairo →

TIBESTI MOUNTAINS

Approximate traditional locations
of peoples

Trading routes

Contemporary political
boundaries

Kanem Saharan kingdoms

Kanem

Lake
Chad

Qayrawan
Tripoli
Fezzan
Tunis
Ghadames
Ghat
Agades

Niger R.

S A H A R A

AHAGGAR
MOUNTAINS

Zenata

Tuareg

S U D A N

Gao
Tadmakka
Songhai

Sijilmasa
Tuat

Fes

HIGH ATLAS
MOUNTAINS

Taghaza

Timbuktu
Niger R.

Walata

Kumbi-Saleh
Ghana

Sanhaja
Berbers

Bambuk

Akjoujt
Senegal R.
Takrur

ATLANTIC
OCEAN

600 miles

600 km

N

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which united Islamic Spain, the Maghrib, and the western Sahara into a single empire, ensured the continuing importance of the West African trade routes in the global Muslim economies.

WATER AND PERILS OF CROSSING THE DESERT

Water was a precious element of the Muslim economy. Methods for assuring adequate water supply exercised the ingenuity of engineers, caliphs, and common water carriers who made their money providing the fluid that distinguished the wealth that irrigated crops provide from the poverty integral to parched arid soil. Surviving the perils of the desert was impossible without an adequate water supply. Travelers were taught how to carry and conserve their water rations. Water carriers sold water, canteens for carrying water, and watering services for caravan animals. Ibn Battuta's caravan on the way from Syria to Medina stopped first at Dhat Hajj, which had underground water beds, before heading on to the parched Wadi Baldah. They remained at Tabuk for four days to rest, to water the camels, and to prepare the water supply for crossing the fearsome desert between Tabuk and al-Ula. Professional water carriers camped beside the spring. They had water tanks resembling great cisterns made of buffalo hides. From these reservoirs they watered their camels and filled their water skins. Each amir and person of rank had a private tank for his own camels and personnel. All others made private financial agreements with local water carriers to water their camels and fill their water skins for a fixed sum of money.

From Tabuk the caravan traveled with great speed by night and day to escape the desert perils that were well known and deadly. Heat and erratic winds killed even the well prepared. Halfway through the desert the valley of al-Ukhaydir was likened to a valley of hell. Once, pilgrims were caught there by a fierce simoom wind. The people in desperation drank their last water supplies after they had bought and sold a precious drink of water for a thousand dinars. But the desert claimed its triumph when all water sellers and buyers perished of thirst.

Five days out from Tabuk, Ibn Battuta reached the well of al-Hijr, which had abundant water. But no one would draw water there, no matter how thirsty, because the Prophet prohibited anyone to drink those waters in the hills of red rock near the rock-carved dwellings of Thamud. Half a day farther on was the pleasant village of al-Ula with palm gardens and water springs. There the pilgrims stopped, bought provisions, washed their clothes, and left all surplus items so as to carry only essentials on the road to the holy city of Medina (Ibn Battuta, 72–73).

MEANS OF TRANSPORTATION

Goods carried on camelback moved in large caravans over remarkably long distances. Mule and donkey were used for short distances. Wheeled transports essentially disappeared in the Near East after the rise of the Islamic empire. Why?

(opposite page) *Trans-Saharan Trading Networks. The main purpose of the medieval trans-Saharan trade was an exchange of salt from the desert regions of the Sahara for gold from the sub-Saharan kingdoms of the Sudan. The trade linked the sucessive Sudan empires of Ghana, Mali, and Songhai with the Saharan states, as well as with Middle Eastern and European merchants. In addition to providing foodstuffs and salt, the trade exposed the traditionally oral Sudan cultures to the Koran and the written language of Arabic. The leaders and businessmen of the Sudan kingdoms valued extensive trans-Saharan trade and often converted to Islam in order to ingratiate themselves with the Arab merchants.*

Some have said that Roman roads decayed and made wheeled transport clumsy and dangerous. Others maintained that Arab ruling groups financially benefited from breeding, rearing, renting, and selling camels. Camelback transport seemed more economical and more efficient than transport by cart. A notable exception to this general rule occurred with the extension of Islam into Central Asia and the Russian steppes during the epoch of Mongol empires (13th century onward). In these regions the vast and rugged terrains favored the transport of goods in large caravans composed of wheeled carts, often pulled by oxen, together with camels and other pack animals.

BORDER SECURITY

The traveler Ibn Battuta reported that no one was allowed to pass over the Egyptian border into Syria without a passport from Egypt or into Egypt without a passport from Syria to protect property and avoid spies from Iraq.

There were customs officers, clerks, and notaries who collected daily revenue of 1,000 gold dinars. The road guards were Bedouin who at nightfall smoothed down the sand until it was trackless. The following morning the governor of the territory inspected the road; if there was any track in the sand, he commanded the Arabs to catch and apprehend the interloper and take him to the governor for punishment. In that way the frontier was guarded against customs evaders and spies.

Geography and the Atlas of Islam

The scientific study of geography in the Arab-Islamic world took its impetus from the expansion of Islam into Africa and Asia, as Muslim travelers recorded their experiences of the people and places incorporated into the Islamic empire. Geography flourished as a science particularly during the reigns of the Abbasid caliphs al-Mansur (r. 754–775) and al-Mamun (r. 813–833). Part of the activities of al-Mansur's famous *Bayt al-Hikma* (House of Wisdom) included the patronage of the translation of Greek, Persian, and Indian geographical works into Arabic. Al-Mansur and his successors funded the construction of observatories, production of maps and instruments, and translation and adaptation of Indian, Iranian, and Greek geographical and astronomical treatises. From India the Arabs borrowed the idea of imaginary Mount Marv, the highest point on dry land directly under the North Pole, the division of the inhabited region of the Earth into nine sections, and the calculation of longitude from Ceylon, the Cupola of the Earth. From the Greeks the Muslims accepted the concept that the inhabited world was limited to one-quarter of the Earth; that there were "continents" such as Europe, Libya, Ethiopia, and Scythia; and that the Indian Ocean was landlocked between Asia and Africa.

In mathematical geography the Arabs accepted the system of seven latitudinal climes from the equator to the polar circle. Ptolemy's *Geography* was translated repeatedly. An especially influential version was written by al-Khwarizmi (c. 820). From Iran the Arabs took ideas of descriptive geography and cartography, including the method of describing the world following the four cardinal directions, east, west, north, and south, and the division of the Earth into seven equal geometric circles called *kishwarhã*. The central circle represented Iran. Under the patronage of the caliph al-Mamun, Muslim geographers and astronomers made their own original contributions to geography, including the accurate measurement of an arc of a meridian and a world map that surpassed those of Ptolemy and Marinos of Tyre in accuracy.

Classical descriptive geography had two schools that flourished between the ninth and 11th centuries. First was the Iraqi school, which followed the Iranian system of *kishwarhā* but substituted Iraq for Iran as the center of the Islamic empire. This school included Abu l-Qasim Ubaydallah Abdallah ibn Khurradadhbih (c. 820–c. 911), Ahmad b. Abu Yaqub ibn Jafar ibn Wahb al-Yaqubi (d. 897), Abu Ali Ahmad b. Umar ibn Rusta (fl. 903–913), Ahmad ibn al-Faqih al-Hamadhani (ninth century), and Abu l-Hasan Ali ibn Husayn al-Masudi (d. 956). All of these scholars wrote world geographies. Al-Yaqubi and al-Masudi based their geographies on their own extensive travels. Their personal experiences seem to have had little effect on their geographical concepts.

Abu Zayd Ahmad b. Sahl al-Balkhi (d. 934) founded the second school, which was followed by such important Muslim geographers as Abu Ishaq ibn Ibrahim al-Farisi al-Istakhri (late 10th century), Abu l-Qasim Muhammad ibn Hawqal (943–after 973), and Shams al-Din Abu Abdallah al-Muqaddasi (late 10th century), who placed Mecca at the center of the Muslim universe. They introduced the idea of a country as a geographic unit and widened geography to include what later generations would call ethnography, study of languages and races of peoples, their occupations, customs, and religions. These authors introduced eyewitness observations into their narratives. Al-Muqaddasi, the last and most original representative of this school, created the systematic foundation of Arab geography by discussing its uses and scopes, geographic terminology, the various methods of division of the Earth, and the value of empirical observation. He was also novel in his insertion of topographical descriptions of the locations of mines, routes and distances, territorial divisions, and details of the languages, religions, and customs of the inhabitants.

They created wonderful maps, and the Balkhi school is credited with the introduction of perspective in cartography. Geographical texts usually had a series of 21 maps, one each for the 20 climes of the Islamic lands and one world map. Their image of the world conformed to the pre-Islamic concept of the bird-shaped land, with the "head" in China and "tail" in North Africa, surrounded by the Encircling Ocean.

AL-BIRUNI (d. 1050)

Abu l-Rayhan Muhammad ibn Ahmad al-Biruni (d. c. 1050), a native of Khwarizm in Iran, was one of the greatest and most original scholars of medieval Islam. He excelled in mathematics, astronomy, the physical and natural sciences, linguistics, and historiography as well as in geography and wrote numerous treatises on these topics. He was employed in the courts of Jurjan in Iran and Ghazna in Afghanistan. He served in the embassy of Sultan Masud ibn Mahmud (r. 1030–41) on his military expeditions to northern India, where he taught the Greek sciences, studied Sanskrit, and wrote his *Description of India* (*Kitab al-Hind*). Completed in 1031, it is the first geographic work written by a Muslim that describes India in detail. He critically compared the contributions to geography of the Arabs, Greeks, Indians, and Iranians. An advanced theoretician of geography and astronomy, he was also a bold thinker. He recognized the difference in the calendar between the Northern and Southern Hemispheres and argued that, contrary to his contemporaries' dominant views, life was possible south of the equator. He alone among Muslim geographers conjectured that the Indian Ocean communicated with the Atlantic.

AL-IDRISI (d. 1166)

The world geographer Abu Abd Allah Muhammad al-Sharif al-Idrisi (d. 1166) was employed at the Norman court of Roger II in Sicily (r. 1130–54). At the behest of Roger II, he used data produced by Muslim and European geographers

Egypt, surrounded by the Mediterranean and crossed by the Nile. Image from the Al-Idrisi Geographic Atlas, *12th century.* Erich Lessing/ Art Resource, NY.

and travelers to produce his *The Book of Roger* (*Nuzhat al-mushtaq fi ikhtiraq al-afaq* or *Kitab Ruger*). *Nuzhat al-mushtaq* was created as a description of a large map, each chapter detailing itineraries within one of 70 sections illustrated by a regional map. He innovatively subdivided each of the seven Greek climes into 10 longitudinal sections, starting from the west. Some information was incorrect or outdated even at the time al-Idrisi was writing. Yet as a universal geography, his work remained unsurpassed in the Islamic world, and among mapmakers al-Idrisi's cartographic tradition survived as late as the 16th century.

Merchants

In the West the main maritime merchants were Andalusian and North African Muslims, Jews, Syrians, Egyptians, and Greeks. The Franks were stationed around the Gulf of Eilat. Around the Arabian Peninsula Muslim merchants and ship owners shared the waters with non-Muslim traders. From the time of the earliest Umayyad caliphate onward, Arab and non-Arab Muslim merchants engaged in trade with non-Muslim Iranians, Indians, Africans; the peoples of Central, inner, and East Asia; the Mediterranean; and Europe. Many of these people converted to Islam, while others—such as the Jews, most of the Chinese, and some of the Turkic and sub-Saharan African tribes—though not Muslims, were nevertheless significant traders in the Islamic commercial network. A group of Muslim merchants known as Karimis controlled most of the trade on the Indian Ocean. They guaranteed the quality of the goods they carried and sold, made substantial profits, financed rulers, and enjoyed protection from them on land and sea. Customarily, the Karimis owned their ships and were called *nakhoda* but did not captain them. Most sailors were freemen, not slaves.

For several centuries Jewish communities were important in trade and transport in the Maghrib. The Radhanite Jews conducted trade between the Islamic and Christian lands in extensive trade routes traversing Scandinavia, central Europe, the Mediterranean, the Middle East, and Asia. Other important Jewish communities existed in Aden and in Indian ports.

Goods

Traders in the Indian Ocean dealt in a wide variety of goods including spices, copper, silver, gold, iron, timber, salt, and elephants. From the 13th century on, India imported horses from Arabia and Syria. Lively trade also persisted in finished goods such as colored cotton textiles from India, heavy silks and brocades from the Middle East, household accoutrements and war implements made of metal, highly decorated furniture, and leather goods from the Middle East and al-Andalus. Precious and semiprecious stones from South Arabia, coral from the Red Sea, pearls from the Persian Gulf, African ivory,

and Chinese porcelain were also important trade items. Foodstuffs included luxuries such as sugar, candy, and special oils. Egyptian grain was sent to Mecca. A wide range of spices were used for food flavoring and preservation. Other spices were dyes for coloring textiles. Some spices were medicinal and pharmaceutical. Others were used in liturgy, such as oils for anointing. Passengers, particularly pilgrims traveling to and from Mecca and the Shiite shrines in Iraq and Iran and even Buddhist pilgrims were also transported by water. Slaves in large numbers were taken from East Africa to Iraq, Iran, and China.

galleries were shops of jewelers, booksellers, and glassmakers. In the square near the first door were stalls of the major notaries. In each were five or six witnesses and the *qadi* authorized to perform marriage ceremonies. Other notaries had offices throughout the city. Near the notaries' stalls, stationers sold paper, pens, and ink.

In the middle of the passage was a large round marble basin, surrounded by an open pavilion with marble columns enclosing a copper fountain that shot water high into the air, called "the Waterspout." The western door, or "Door of the Post," had a passage for shops of candle makers and sellers of fruit. The northern door, "Door of the Confectioners," had to

Merchant Cities

COMMERCE IN THE UMMAYAD MOSQUE IN DAMASCUS

In Islamic cities the bazaar, or marketplace, is typically located near the congregational mosque. A good example is the Umayyad Mosque in Damascus, which Ibn Battuta considered the most magnificent mosque in the world, noble and matchless in beauty, grace, and perfection. Caliph Walid I, who reigned from 705 to 715, built the mosque with 12,000 craftsmen on the site of a church. This mosque had four doors. The southern door, called the "Door of Increase," was approached by a large passageway where dealers in secondhand goods had their shops. A large bazaar, one of the finest in Damascus, extended along the south wall of the mosque, where once the palace of the caliph Muawiyya had been.

The eastern door, also called the Jayrun door, was the largest of the mosque doors; it had a passageway leading to a large colonnade entered through a quintuple gateway between six tall columns. Along both sides of this passage were pillars supporting circular galleries where cloth merchants had their shops. Above these in long

Shown here is the courtyard with the Bayt al-Mal (treasury) and one of the three towers of an Umayyad mosque that were the first minarets in Islam. The mosque was built in 715. Giraudon/ Art Resource.

its right a Sufi lodge (*khanqah*) with a large water basin in the center and wash basins with running water. At each of the four doors of the mosque was a building for ritual ablutions, containing about a hundred rooms abundantly supplied with running water.

THE TRADE IN KNOWLEDGE

Every major Islamic marketplace had its booksellers. While the lucrative trade in items such as furs, silk, gold, silver, precious jewels, metals, ivory, textiles, ceramics, glassware, sumptuous spices, and slaves was extensive and dazzling, it must not be forgotten that the Muslims considered knowledge among the most valuable of all commodities. Much of the religious, scientific, and philosophical knowledge for which the Arab-Islamic world achieved fame was disseminated in the form of books that Muslim merchants transported along the sea and land routes connecting the vast regions of Dar al-Islam. As the example of Ibn Battuta and other medieval Muslim travelers makes clear, scholars and pilgrims often traveled in merchant caravans, taking advantage of the safety that these afforded, in order to study with renowned masters scattered across the Islamic lands and to purchase much-sought-after books. Biographical dictionaries of illustrious Muslim scholars often list the books that a scholar acquired in his travels in one Islamic country and introduced into another. Muslims excelled in myriad topics, including Greek philosophy, medicine, mathematics, agriculture, botany, navigation, and other technological advances, which became known in the West through the translation of books from Arabic into Latin and other European languages. Yet it is also true that Christians sometimes acquired this scientific knowledge through direct contact with Muslims in the context of coastal trade. Such was the case of the famous 12th-century mathematician Fibonacci, who learned the principles of algebra, arithmetic, and geometry from Muslim tradesmen in Bejaia (Algeria) (Watt, 53–64).

IBN BATTUTA IN MOGADISHU, SOMALIA

In the 14th century Ibn Battuta sailed from Zayla on the northern coast of Somalia for 15 days to arrive at the large southern town of Mogadishu, a community of merchants who owned large numbers of camels that they slaughtered by the hundreds daily for food. When a ship entered port young men riding in small boats called *sumbuqs* met the traveling merchants. Each young man carried a covered dish containing food that he presented to a merchant on the ship, whom he invited to be his guest. Each merchant on disembarking went only to his new host's house, and the host acted as his benefactor, selling goods for the merchant and buying stock for him. This protected the visiting merchant from being cheated, for any sale made for too low a price or sold when the host was not present was an invalid sale.

Hospitality in Somalia included food served three times daily, and on Friday, the *qadi* and one of the *wazirs* gave Ibn Battuta a set of clothes that he wore to the mosque for prayer. The shaykh welcomed him; put on sandals, ordering the *qadi* and Ibn Battuta also to wear their shoes; and they walked to the palace, all the other people walking barefoot. Ceremoniously carried over the shaykh's head were four canopies of colored silk, each topped with a golden bird.

Financial System

COINAGE

In the time of the Prophet, the Arabs of the Hijaz had no coinage of their own but used coins of the Byzantine and Sassanian emperors.

The Arabs apparently began minting coins at the time of the Umayyad caliph Abd al-Malik, who reigned between 685 and 705. He introduced a mint in Damascus and coined gold, silver, and copper. Precious metals were mined, imported, and minted into coins. African gold imported into Muslim lands allowed the creation of the embossed gold dinar, which became a major coinage for centuries. Scholars estimate that more than two-thirds of the gold circulating in the Mediterranean and Europe originated in these West African trade routes. Islamic silver coins have been discovered in archaeological excavation sites in Scandinavia and in the Wychwood Forest north of Oxford, England.

The year 697 is the date of the first Islamic gold dinars that only have Arabic inscriptions, with no portraiture, marking a clear ideological departure from Byzantine and Sassanid coinage, which bore the image of local gods or the ruler. The earliest Islamic inscriptions are taken from the Quran and articulate such statements as the fundamental doctrine of Islam, "In the name of God"; "There is no God but God, the One; no one is associated with him"; or "sovereignty belongs to God." Inscriptions on coins soon began to be used as slogans manifesting sectarian beliefs. The coins of Shiite dynasties typically stated, for instance, "There is no god but God; Muhammad is the Apostle of God; Ali is the friend of God." Some Shiite and Abbasid coins bore the Quranic legend "Say! I ask of you no recompense for this other than love of kin" (Q 42:23), as a slogan intended to accord divine sanction of their rival claims to the caliphate based upon kinship ties to the prophet Muhammad's family. The Kharijites issued coins bearing their rallying cry, "Authority belongs to God alone."

Under the Umayyad caliphs who ruled from 661 until the year 750, gold dinars were used, and Islamic silver dirhams were introduced at Damascus and at mints in Armenia, Iraq, and Iran. Copper coins with inscriptions and simple images were used throughout the empire. Some Umayyad coins also indicated the date and place of their minting, the full name of the caliph, and that of his heir. The early ninth-century Abbasid caliphate had inscribed the name of the caliph himself and his heir and sometimes the name of the provincial governor. If any other secular ruler's named appeared, as in Tulunid Egypt or Samanid Khorasan, this was indication of autonomy. Two public assertions of individual sovereignty were mentioning the ruler's name during final blessing of the sermon, or *khutba*, which immediately precedes the Friday prayer service (*salat*), and the appearance of a ruler's name on the coinage, *sikka*. Thus, when the Abbasid caliphate began to wane in the ninth and 10th centuries, giving rise to the Samanids and other dynasties, to say that a caliph had only the *khutba* and the *sikka* meant that he had the external trappings of royal sovereignty but lacked real power.

When Spain was part of the Umayyad caliphate (756–1031), the mint for gold, silver, and copper coins was located in Córdoba. The independent Umayyad amirs of Spain struck only silver dirhams. Spain's coinage resembled that of northwest Africa from approximately the time of the Almoravid conquest in 1086 until the year 1492. Remarkably, Christian kings of Castile and Toledo and the counts of Barcelona also struck Islamic-type coins with Arabic inscriptions.

The Fatimids, who ruled in North Africa between 909 and 1041, introduced in the mid-10th century a new coin design with concentric circular inscriptions. The Christian Normans of Sicily struck Arabic gold quarter-dinars, which the Italians called *daris,* for nearly 25 years after they conquered the island of Sicily. The Almoravids created handsome gold coins called *maravedis* by the Christians, who then imitated them in Spain, France, and Italy. The Almohad dynasty introduced a new type of

Shown here is a gold dinar coin from the Sulayhid dynasty. Jibla, Yemen, 1094. This coin was issued by Queen Arwa, who took over after the death of her husband, Ahmad, who reigned from 1067 to 1084. HIP/Art Resource, NY.

gold coin with horizontal lines of inscription surrounded by a square with further inscriptions between the square and the outer circle. Made of silver, these Almohad coins were imitated by Christians, who called them *millares.*

Copper coinage was minted in Egypt around 1225. By the beginning of the Mamluk sultanate, circa 1250, Egypt had gold, silver, and copper coinage. In 1261 under the sultanate of Baybars al-Bunduqdari (r. 1260–77), Mamluk coinage changed design and achieved a distinctive Mamluk appearance. Although Baybars reestablished the Abbasid caliph's sovereignty, a coin minted in 1262–63 bears only the full name and titles of Baybars inscribed over an image of a lion, a symbol of power. The Abbasid caliph's name is not even indicated.

Nearly all Islamic coins were die-struck, although some copper coins were cast in molds. Apparently, workers in the mint were paid by a surcharge based upon the mint's production.

Mint customers were also surcharged for the cost of fuel and other materials of the mint and were likewise required to pay a tax on coinage to the government. Coin brokers called *mawrids* bought up small lots of metal bullion to take to the mint for melting down and making into coin. The buyer of a coin or user therefore also paid part of the *mawrid*'s profit as part of the cost of coinage.

RATE OF EXCHANGE

Merchants and bankers in the Islamic world usually weighed out payments using a balance and coin weights. Some merchants and bankers were willing to count coins. However, the relationship between the gold dinars and the silver dirhams was not fixed. The market determined value. The relative price of the two metals was affected by daily supply and demand.

In Europe and in the Muslim world, gold and silver tended to shift from areas where they were undervalued to areas where they were highly valued. In the Islamic empire the ratio of gold to silver was 14 to 1. In Europe it was 12 or 10 to 1. Gold then moved eastward and silver westward. Some critics describe this as a famine of gold in the East and a famine of silver in the West. Merchant financiers made fortunes on the fluctuating rates of exchange between the two monetary zones.

In the 13th century, however, the trend reversed. The Islamic world began once again to mint silver coins, and Europe reminted gold coins. Silver started to float eastward and gold westward. By the early 14th century a spectacular boom occurred in the price of gold. Southern Europe felt it first. In Venice the success of the ducat was caused by a demand for gold. The ratio rose to 13 to 1 by 1297 and over 14 to 1 by 1308, while in France the coining of large quantities of gold under Philip the Fair (r. 1268–1314) raised the ratio to nearly 14 to 1 in 1299, 16 to 1 in 1309, and over 19 to 1 in 1311.

MONEYLENDING

Moneylenders, primarily Jewish, and tax collectors became important for investors on land and sea. Jewish banking families enabled Muslim traders and merchants to draw commercial bills or buy letters of credit. International trade required levels of trust among people who did not necessarily share the same laws and customs but who could depend upon integrity of family relationships. Again, Jewish merchants proved critical liaisons between the Muslims and Christians. Jews were partners in trade with Muslims and with Christians during the eighth through 14th centuries over several seas and continents.

FINANCING TRADE

Commerce, whether local, national, or international, was costly and required the felicitous union of capital and merchandise. As one savvy medieval Muslim merchant explained, "For the owner of capital may not find his way to profitable trading activity, and the person who can find his way to such activity may not have the capital. And profit cannot be attained except by means of both of these, that is, capital and trading activity" (Udovitch 129). Islamic law and Muslim economic theorists devised three contractual agreements by which capital and trading activity could be joined: through simple loans, partnerships, and the *muqarada*, which combined features of both.

In a loan agreement the merchant or trader borrowed money or commodities from an investor (*sahib al-mal*) and was required by law to return both the capital and a mutually agreed portion of the profits. This way both parties avoided the sin of usury. Yet under this arrangement the merchant had more to lose because he was legally responsible for returning the capital to the investor even if the business adventure failed.

A more equitable arrangement was the partnership association, known as *sharika*. Islamic law contemplates partnership agreements through property (*milk*) or through contract (*aqd*). In the former two persons may decide to share the ownership of a piece of property or become joint owners through inheritance. Neither partner may do anything to the property without the other's consent. Of more relevance here are the partnership arrangements made through contract. Several options were available: Two parties might agree to invest a sum of money in a business adventure, each agreeing beforehand upon the amount of capital, profits, and liability to be shared. Alternatively, the two parties might enter into a completely equal partnership (*mufawada*) whereby an equal sum of capital was invested by both and each equally incurred any ensuing profits or liability. Craftsmen practicing the same or related trades often entered into partnerships with each other to share profits and minimize the burden of loss. This arrangement was not accepted by all the schools of law, however. The Hanbalis and Malikis approved of such partnerships, while the Shiis and Shafiis forbade it, arguing that the practice was envisaged for investment capital and could not be applied to work.

The most favored contract arrangement apparently was the *muqarada*, judging from the abundance of references to it in the Cairo *geniza* documents and the Islamic sources, including the Hadith. In the *muqarada*, also known as *qirad* and sometimes as *mudaraba*, one or more investors entrusted their capital in the form of money or merchandise to an agent (*amil*), who conducted trade with it. Upon completion of the business deal, the agent had to return both the principal and a mutually agreed upon portion of the profits. As Udovitch observes, the *qirad* combined the best elements of the partnership and loan arrangement. As in a partnership, both investor(s) and agent

assumed shares in the profits and assumed certain risks, the former with regard to the capital invested and the latter with respect to his time and effort. And as in a loan agreement, the agent, as with the borrower of a loan, did not incur any personal liability beyond the original amount of capital entrusted to him and the previously agreed share of the profits. The agent's freedom from liability for the capital in the event of an unsuccessful transaction made the *muqarada* the most popular form of contract in international trade (Udovitch 129).

The *muqarada* was an institution that existed in pre-Islamic Arabia, where it was commonly used by Arab merchants involved in long-distance and caravan trade. Numerous hadiths attest that the prophet Muhammad and his companions and followers used the *muqarada* system to conduct trade and finance business transactions. In legal terms the *muqarada* is therefore considered *sunna*, owing to the precedent of the Prophet's tradition. The first Arab Muslims exported the institution of *muqarada* as they expanded outward to form the Islamic empire. It was adopted in the Middle East, parts of Central Asia, North Africa, Sicily, and al-Andalus, from which it directly influenced the development of the *commenda* in 13th- and 14th-century Italy, as noted.

Farmers and Pastoralists

Agriculture in Islamic lands included two separate but interdependent activities, cultivating crops and raising animals. Where the land had fertile soil, sufficient rainfall, or the possibility of irrigation, crops were grown. Animals were grazed on steppeland, the desert, mountains, and wherever the soil was rocky, thin, or of poor quality. Sedentary farmers who grew crops kept few or no large animals. Draft animals for plowing or for cartage were more usually rented than raised. Pastoral peoples in Central and inner Asia, sub-Saharan Africa, and Arabia required adequate grazing land for their animals. Pastures were in short supply in the dry summer season and during drought. Therefore, nomads were required to migrate seasonally to find grazing land. To give just two examples, camel pastoralists would spend the winter in the Arabian Nafud desert and the summer months in the more tolerable climates of Syrian and Iraqi deserts. North African pastoralists alternated seasonally between the desert and high plains or southern fringes of the Atlas Mountains (Hourani 100).

The idea of a complete separation or even opposition between the agricultural and pastoralist economies is historically inaccurate. Under normal circumstances the relationship was one of mutual interdependence, or symbiosis. Pastoralists devoted solely to grazing animals could not produce all the food that they needed, and settled farmers relied upon pastoralists to supply them with meat, hides, wool, and pack and transport animals. Markets were set up in strategic locations where farmers and nomads could trade in the commodities to meet their respective needs. Given the situation of mutual interdependence, mixed economies where people practiced farming and animal grazing were just as common as those engaged solely in agriculture or pastoralism, if not more so. It was not unknown for nomads and farmers to occupy the same space and to make lasting pacts to share the use of water and land. Pastoralists might cultivate crops as well as tend their flocks during certain seasons, while settled farmers might contract pastoralists to graze animals for them. To the mutual interdependence between farmers and pastoralists, one must add the relationship between the countryside and the city. In the Islamic Middle Ages farmers and pastoralists required a strong government and large, prosperous urban centers to invest in the irrigation of the countryside and to secure

its protection from bandits and rebels. Cities and the central government in turn needed the produce and revenues from farmers and nomads. Urban-based merchants could not survive without rural raw materials and animal products necessary to exercise their crafts.

The symbiotic relationship between farmers and pastoralists did break down at different times and in different places because of a variety of factors, including climatic change, abrupt changes in the population of one of the sectors, political policies of rulers, the existence of a strong or weak centralized government, and the prominence and political stability of urban centers.

The Prophet and early Umayyad and Abbasid caliphs favored city life and settled agricultural communities. The legal systems strongly supported private land rather than collective control of land and gave full ownership to those who reclaimed unused land. Preferential tax rates intensified the tillage of land and the opening of new land to cultivation and irrigation. Construction, repair, and improvement of irrigation systems also allowed lands that had originally been grazed to bear crops. Sorghum and hard wheat required comparatively little rainfall and fertile ground. Sugarcane, rice, colocasia, and coconut palms could be grown on saline land.

Grazing land in the regions in the orbit of the Abbasid capital were reduced in size and increased in distance from the major cultural centers, a situation that benefited agriculturalists. Yet this imbalance shifted in the opposite direction in the 10th and 11th centuries as the centralized authority of the Abbasid caliphate weakened, and ecological changes gave rise to the development of large marsh areas in southern Iraq. The absence of a strong centralized government capable of maintaining the upkeep of irrigation systems enabled pastoralists to recover some abandoned agricultural lands for animal grazing. A similar process occurred at the same time in the Maghrib under the influ-

ence of the migration of Egyptian-based Arabian Banu Hilal tribes to Tunisia. As the centralized Zirid government disintegrated and the lively urban trade economies suffered, nomadic pastoralism gained in economic prominence over urban trade and agricultural production. The balance in pastoralism, agriculture, and urban commerce and industry would be restored under the Almoravids and their successors.

In a global economy stretching from the Atlantic coast to the Indian Ocean sharing a similar climate, soil type, and vegetation, imbalances between agriculture and nomadic pastoralism could be easily remedied. Only cataclysmic events such as severe famine, plague, or the destruction produced by the Mongol invasions could do more systemic damage to Islamic economies. Fruits, vegetables, and crops native to India, China, and other eastern countries were introduced all over the Islamic world, causing a revolution in economic production, and many of these crops were also introduced into Europe via Spain and Sicily. Traditionally, herders managed large flocks of sheep, goats, camels, horses, and cattle that produced meat, milk, hair, and hides that pastoral peoples used in their own lives, in local economies, and for sale to city dwellers. The international pilgrimage to Mecca, the expansion of overland trade, and the cultural practice of traveling in search of knowledge dramatically increased the need for pastoralists who could supply the transport animals for these purposes. Wool and hides were important raw materials for the textile and leather industries. These were exported to Europe in raw, semiprocessed, or fully finished forms.

NEW AGRICULTURAL CROPS AND A "GREEN REVOLUTION"

Islamic military conquests created an Arab "green revolution." New crops, many of Indian

origin, were introduced to the Islamic Middle East and to the countries of the Mediterranean Sea. Since the seeds and plants in their home countries originally had heavy summer rains, these plants required irrigation when grown in the arid Middle East and the Mediterranean basin. Sugarcane, rice, oranges, other citrus fruits, bananas, watermelon, artichokes, eggplant, and the industrial plant cotton were among the crops that were introduced into these regions as a result of the restoration of ancient irrigation systems and Muslim hydraulic technological advances in the form of the *saqiya*, an animal-driven machine, and the more efficient current-driven water wheel called *naura* or *noria*.

Crops The agricultural crops that could be cultivated with Muslim hydraulic innovations enriched and indelibly altered the classic Roman-Mediterranean "tridiuum" diet of wheat, grapevines, and olives. Likewise, two Mediterranean nonirrigated cereals, hard wheat, *Triticum durum*, and sorghum, became part of the staple diets of Muslims throughout the Middle East. Sorghum, like rice, was a summer crop but could be rotated with dry farming as well as irrigated farming. Using Arab farming techniques, soils earlier assumed unfit for agriculture or marginal were put under cultivation with the addition of fertilizers and soil additives. Of the newly introduced crops, sorghum, hard wheat, and watermelon could be grown on sandy soil. Sugarcane, colocasia, and eggplant thrived in high-salt soil. Islamic administrative manuals often listed 12 or more gradations of soil according to fertility, physical quality, and effects upon agronomy.

Islamic Spain grew new varieties of plants in open fields and in botanical gardens, such as in Toledo and Seville. Sugarcane originally was Indian but reached Persia in Sassanian times. In early Islam sugarcane was cultivated widely, from northern India to the Tigris and Euphra-

tes Valleys. By the 10th century sugarcane was grown in the Mediterranean, from Lebanon and Palestine in the east, in Egypt, across North Africa, and wherever land could be irrigated. In the Iberian Peninsula sugarcane was grown in Granada, in the Guadalquivir (Wadi al-Kebir) valley, and on the eastern coast as far north as Castellón de La Palana. Sugarcane was assumed to have high water requirements and was irrigated every four to eight days. Discarded sugarcane was used for animal fodder.

Bananas or plantains originated in Southeast Asia and entered Mesopotamia early, probably before Islam. By the ninth century bananas were especially prominent in the agriculture of
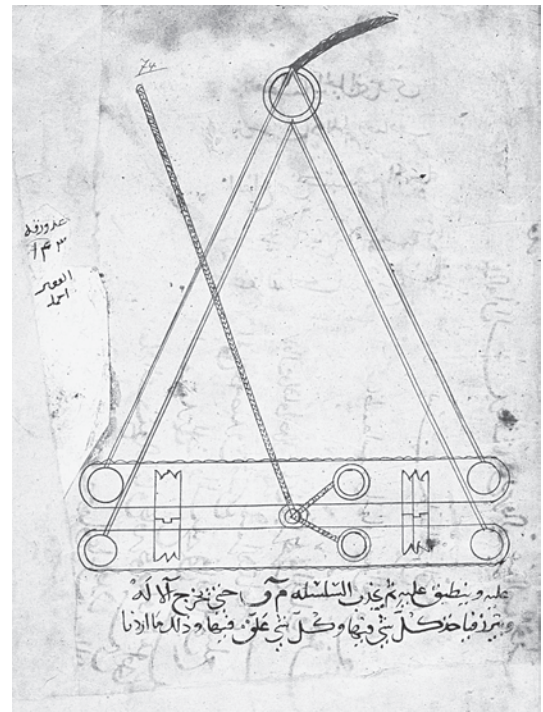
Shown here is a design for a threshing machine from Kitab al-Hiyal (Book of Ingenious Devices) *by Musa bin Shakir, ninth century.* Bildarchiv Preussischer Kulturbesitz/Art Resource, NY.

Granada in southern Islamic Spain. The bananas of Almuñécar on the southern Andalusian coast were famous throughout the Arab world. Watermelons, originally from Egypt and sub-Saharan Africa, were grown in Spain by 961. Spinach was cultivated by Hispanic Muslim agronomists in the 11th century, as were colocasia and eggplant, which originated in India. Eggplant became a popular staple vegetable in Spain.

Annual crops included the cereals emmer, wheat, and millet; the legumes chickpeas, lentils, fava beans, and peas; and a wide range of fruits and vegetables. Honey had been the traditional sweetener for food and drink but was replaced by sugarcane. Cotton became the principal fiber crop in most of the Islamic world. Other industrial crops included plants that created dyes, spices and condiments, perfumes, medicines, and drugs.

Labor on large farms customarily was provided by sharecropping tenants who signed short-term contracts. Wage labor by day or week was common. Slave labor was rare in agricultural production. Landed tenants were subjected to increasingly high taxes, rents, and other exactions of control over their ability to raise salable crops.

Water Conservation, Irrigation, *Qanat*
Water determined which crops could be grown and where. Soil quality and temperature of soil and air also were important. However, most croplands of the Mediterranean climate received low or variable rainfall. Farmers therefore chose crops requiring little water, such as fig trees and olive trees, which possessed extensive root systems and had low rates of transpiration. The Mediterranean plow, called the *ard*, crumbled the surface soil to facilitate increased rainfall penetration and limited evaporation. Fallowing allowed soils to recoup their nutrients after harvest. Hillsides were terraced to prevent erosion.

Artificial irrigation was extensive and ingenious. Though some irrigation systems were traceable back to antiquity, much new construction, extension, and repair began in the eighth century. New methods for capturing, storing, lifting, channeling, and spreading water prolonged the irrigation season. The *qanat* was an underground canal of pre-Islamic Iranian origin that captured ground water from the depths of the Earth and carried it by gravity over long distances. The Achaemenian empire of Persia diffused this technology into the conquered lands of Egypt, Oman, and southern Arabia. In the Islamic period the Umayyads introduced the *qanat* into Spain and the Maghrib. New water storage dams and older water diverting and spreading dams were used frequently. The *naura* or *noria* was a wheel-powered lifting device that used water currents in rivers and canals to lift water great distances in boxes, buckets, or pots. The *noria* expanded out from Iraq and Syria into most of the Islamic world, including Spain, where some continued functioning well into the end of the 20th century. Animal-powered devices raised water out of canals, rivers, and cisterns for wells.

Fertilizer Fertile soil required fertilizer. Islamic farming manuals suggested that animal manure and human excrement, euphemistically referred to as "night soil," be added to crops. Particular soils required other animal products such as blood, urine, powdered bones, horns, and ivory. Vegetable matter was used, such as olive oil sediment, les, straw, husks, leaves, rags, shavings, and ashes. Mineral matter also was used for fertilizer, and particular soils had gravel, dust, chalk, marble, lime, crushed bricks, and broken tiles added to increase fertility. Furthermore, the land was frequently plowed, hoed, dug, and harrowed.

Nevertheless, land that was overcultivated was eroded by wind or in wetter climates by rain. By the 11th century agricultural production began

to decline, and this process was intensified by war and various invasions. The Persian historian Juvaini wrote that the Mongol invasion of Khurasan left "a world which billowed with fertility . . . laid desolate, and the regions thereof became a desert, and the greater part of the living dead, and their skin and bones crumbling dust" (Dunn, 81). Generally, the horrific Mongol invasions that took place between 1220 and 1260 ravaged much of the fertile lands of Persia, Iraq, Azerbaijan, and Merv and killed off the farming population. As a result, in some areas agricultural decline became chronic and continued through the ages. In the 19th and 20th centuries soil erosion and agricultural decline intensified in certain areas under the pressures and policies of European colonial rule.

FARMING MANUALS

Various 10th- through 12th-century books on farming included the *Kitab al-Filaha al-Rumiya* (Greek book of agriculture) compiled by Qustus al-Rumi (early 10th century) and translated into Arabic by Sarjis ibn Hilya. Another traditional farming treatise was the anonymous *Nabatean Agriculture*, *Kitab al-Filaha al-Nabatiya*, which dealt with the agricultural traditions of the Iraqi Nabateans. It was translated by Abu Bakr ibn. Qays ibn Wahshiya in the early 10th century. Muslim Spain produced several treatises on agronomy. In the 11th century agronomist Albucasis or Abu al-Qasim al-Zahrawi of Córdoba (d. 1040), the arboriculturist Abu al-Khayr al-Ishbili, the pharmacologist and agricultural theorist Abu l-Mutarrif ibn al-Wafid (d. 1074), the agronomist Muhammad ibn Bassal of Toledo (d. 1105), and the agronomist Ahmad ibn Muhammad ibn Hajjaj of Seville (alive 1100) wrote books on crops and their uses. In the 12th century Abu Zakariyya ibn al-Awwam of Seville authored the *Kitab al-Filaha* (*The Book of Farming*), the agricultural treatise

considered the highest achievement of Hispanic-Muslim agriculture.

FOOD AND FAMINE

Famine in the Islamic world was widespread. Between the years 661 and 1500 there were approximately 186 major episodes of severe food shortages recorded in chronicles. Most of these famines occurred in Egypt, Greater Syria, and Iraq. In Egypt famine usually resulted from the erratic inundation of local land by the Nile River. In North Africa and Andalusia food shortages were caused by erratic climate, such as drought, hail, and excessive heat or cold; pest infestation by rats, worms, or locusts; depredations by armies; and manipulation of grain supply by government and merchants. At times of famine, the mortality rate was high, markets and mosques were closed, and tenements, shops, and slaves were sold cheaply while food was bought at astronomical prices. Famines wreaked havoc with government revenue and taxation.

Abnormal, antisocial acts were recorded during famines, including theft, the sale of children, prostitution, and even allegations of cannibalism. The Baghdadi physician and philosopher Muwaffiq al-Din Abd al-Latif al-Baghdadi (r. 1162–1232), who lived in Cairo between 1194 and 1204, wrote a short description of Egypt entitled *al-Ifada wa l-Itibar* (Utility and consideration), in which he recorded a severe famine in Egypt. When the Nile flood in the year 1200 was low, land could not be cultivated, and food prices rose meteorically. Where land had been inadequately inundated, there was no seed. During the sowing of seed in 1202, there was pestilence. In cities mass funerals were conducted at the major mosques, and corpses lay unburied in homes and gutters. Women tried to sell themselves as slaves or prostitutes in order to buy food. Travelers were murdered, and bands of the poor on Roda Island in the

Nile adjacent to Cairo hunted human beings as food. Parents consumed children, physicians consumed patients, and people sold human flesh. Communal prayer services, invocations of saints, and Sufi mysticism attempted to understand and endure God's unknowable will.

The effect of famine upon disease was dramatic. Malnutrition caused pellagra and rickets in children and generally lowered all resistance to other diseases such as tuberculosis, diarrhea infections, measles, and diphtheria. Epidemics of typhoid, typhus, and plague were rampant. Famines were more likely symptoms than causes of political and economic ill health.

Travel Books

RIHLA TRAVEL DIARIES

Rihla, meaning travel and by extension a narrative genre of travel writing, derives from an Arabic word meaning originally "to saddle one's camel in preparation for a long journey." The Arab-Muslim love of travel was inspired by a famous hadith of the prophet Muhammad, who urged believers to "seek knowledge as far as China." From the response to this prophetic maxim developed the medieval custom of "traveling in search of knowledge" (*al-rihla fi talab al-ilm*). In these lengthy journeys, often lasting years, scholars would depart from home, usually with the impetus of going on the pilgrimage to Mecca (hajj), and travel from place to place seeking out renowned scholars under whom they studied Hadith and the other religious and/or secular sciences. It was through such journeys that great books authored in the Islamic heartland of Iraq, Mecca, and Syria would be transmitted to al-Andalus, the Maghrib (North Africa), sub-Saharan Africa, Central Asia, and beyond. Travelers began to write personal narratives of their travels to distant places, which gave rise to the literary genre

called *rihla*, the characteristics of which combine the genre of an autobiographical travel diary with geography and literary artifices of fiction, such as the obligatory prologue justifying the journey by the desire to go on pilgrimage to Mecca (Netton 62–63).

Famous authors of *rihla* travel diaries include the 10th-century scholar Ahmad ibn Rashid ibn Fadlan, who traveled in 921 in an embassy from Baghdad sent by the Abbasid caliph al-Muqtadir bi-Llah (r. 903–932) to the kingdom of the Bulgars on the frigid steppes of Russia. The Persian philosopher, poet, and traveler Nasr-i Khusraw (1004–c. 1078) voyaged over seven years from Persia to Palestine and Egypt, studying and teaching Shii Ismaili philosophy and theology. Usamah ibn Munqidh (1095–1188) was a warrior who fought in the Crusades with Saladin but also was a courtier and comrade of Frankish nobles and knights in Palestine. He wrote his autobiographical travel diary based on his observations in 1175. The Spanish geographer Ahmad ibn Jubayr's (1145–1217) descriptions of his pilgrimage journeys from Spain to Mecca in the 12th century gave the *rihla* its definitive characteristics as a narrative genre. The Moroccan jurist Muhammad ibn Battuta's voyages to Asia and Africa before his death in 1377 animated his fine powers of observation with the spirit of earlier *rihlas* to create a treasure trove of architectural, cultural, and anthropological details. The *rihla* recorded where people lived, where they prayed, what they ate, what they dreamed, how they traded, what medicine and pharmacy they practiced, how they dressed, how men trimmed their beards, what perfumes people wore, what battles they fought, how they married, and how they died.

These Muslim travelers preserved in their writings remarkable impressions of foreign worlds and their peoples. The *rihla* often had the intimate familiarity of a diary for personal remembrance as if for sharing with friends,

rather than a formal treatise for teaching pupils or the wider world. Writers shared their wonderment at spectacles and their confusion at bizarre customs and habits. Ibn Fadlan, for instance, was astonished at his first sight of the northern lights and the Land of the Midnight Sun. He had trouble finding times for nightly ritual prayer in a country that had no night. Usamah ibn Munqidh was startled and revolted that his Frankish friend graciously offered to take back to Europe Usamah's 14-year-old son to teach him the glory of Western chivalry. The sophisticated Muslim fighter thought the Franks primitive in the law that used physical ordeal as a means of testing truth, and barbaric in medicine that amputated diseased limbs that Muslim or Jewish physicians might have treated and cured. So the Islamic warrior told the proud friendly crusader that the boy was pledged to visit his grandmother and could not accept the generous gift.

THE *AL-KITAB* OF IBN FADLAN (10TH CENTURY)

Ahmad ibn Fadlan wrote a remarkable 10th-century travel chronicle, simply entitled *al-Kitab ila Malik al-Saqaliba* (Ibn Fadlan's embassy to the king of Volga Bulgaria), which described his voyage to the king of the Bulgars of the Middle Volga. This king of the Slavs who ruled in northern Russia wrote in the year 920 to the Abbasid caliph al-Muqtadir bi-Llah in Baghdad to ask him to send an emissary to teach him the true faith and the laws of Islam and to build him a mosque. To this end, one year later the caliph sent the eunuch of his ambassador Nadhir al-Harami and Ibn Fadlan, a client of al-Muqtadir's army secretary (*katib al-jaysh*), Muhammad ibn Sulayman. Ibn Fadlan recorded the difficult voyage of 2,500 miles through the harsh, arid, frozen Russian steppes. He described the countries of the Turks, the Khazars, the Rus, the Slavs, and the Bashkirs and marveled at their religious beliefs, their kings, their women, their customs, their burials, their landscapes, and their extreme climate.

A Baghdadi accustomed to the desert heat, Ibn Fadlan was astonished at the inhumanly cold weather that sometimes froze his beard so solid that only his sitting before a fire could thaw it out. From Bukhara, Ibn Fadlan and the Muslim company traveled 400 miles through the frigid northlands, remaining in al-Jurjaniya, south of the Aral Sea. He described two men who with 12 camels went to the forest to collect firewood but because they forgot their flints and steels to make a fire for camping overnight by morning had frozen to death with their animals from "violence of the cold." It was so cold that the local streets and markets were empty. He slept tightly wrapped in clothes and furs, but still his cheek stuck to his pillow. Cold made the earth split and a huge tree break in half.

When conditions thawed somewhat the party moved northeastward after they bought shaggy Bactrian camels and huge amounts of food for traveling. Knowledgeable locals warned them that they would die of cold, and they nearly did. Weather north of the Caspian Sea made the previous frigidity seem "like summer." They so loaded themselves with clothing to protect them from frostbite that each wore a tunic, a caftan, a sheepskin robe, a felt cloak, then overall a burnoose, allowing space only for their eyes. Under those coats they wore trousers plus fur-lined trousers, slippers plus light boots plus overboots. They were so heavily laden with clothing they could barely mount their camels.

He visited the Oghuz Turks, who lived as nomads between the Caspian Sea and the Ural Mountains. They lived in hair tents in apparent poverty yet owned vast animal herds of 10,000 horses and 100,000 sheep. Ibn Fadlan attempted to teach them the Quran and explain the rudiments of the Muslim faith. He urged Etrek, the Oghuz general, to convert to

Islam and gave him letters from the caliph's ambassador Nadhir al-Harami, who was traveling in a different group that had not yet arrived at the Oghuz encampment. Etrek refused and promised that on Ibn Fadlan's return journey Etrek would write the caliph his answer. One century later the Oghuz Turks were Muslims.

Moving northwest between the Ural and Volga Rivers, Ibn Fadlan reached the Turkish Pechenegs and then on May 12, 922, nearly a year after leaving Baghdad, arrived at the tents of the king of the Slavs. There he presented his caliph's letter and gifts of perfume, cloth, and pearls for the queen.

The Bulgar king not only wanted to build an Islamic mosque but also asked for money to build a fortress. While Ibn Fadlan listened to the negotiations, he observed the wonders of the northern lights, the midnight Sun, and the detrimental effects of short arctic nights on Muslim prayer periods. Ibn Fadlan quoted the king's ancestors as explaining the northern lights as the "believing jinns and the infidel jinns" that fought every night as they had fought since the time of creation. But the midnight Sun was a perplexing problem for Ibn Fadlan, who needed to pray five times a day. He found another Muslim who knew the local methods. He talked one evening with the king's tailor, originally from Baghdad, while waiting for the call to evening prayer. Both men heard the call, but when they left the tent they saw it was daybreak. Ibn Fadlan asked the muezzin which prayer he had called. The answer: dawn prayer. Evening prayer was joined to the sunset prayer, and during the very short night, night prayer was joined to the dawn prayer. With enthusiasm and meticulous concern for detail, Ibn Fadlan described the country's plants and animals, food and drink, social customs and marital habits, and costume and dress of particular tribes and classes of people within them. He chronicled the Slavs'

trading partners, the Rus, who probably founded Novgorod and Kiev, and the Vikings, who as marauding seamen were raiding England, Ireland, North Africa, and the Mediterranean Sea. But they also were trading fur and amber throughout Europe. By the 11th century the Vikings were in Normandy, from which they invaded England in 1066 and as the Normans also conquered Sicily and parts of Spain and Italy.

Ibn Fadlan described a Viking chieftain's funeral. Placed in his long ship, sword at his side and worldly wealth in the boat with him, the Viking chief's dogs, cattle, horses, and slave girls were killed to serve him in the afterlife, and then the boat and its cargo of the dead were set on fire. With the ashes the Vikings built a round barrow mound and in the center erected a large wooden tablet with the chieftain's name and the name of the king of the Rus.

According to Ibn Fadlan, the Rus had beautiful bodies. The men were tall as palm trees, fair complexioned with white skin. They wore neither tunics nor caftans, but a garment that covered one side of their bodies and left one arm and hand free. Each man carried an ax; a broadsword with a very broad grooved blade, like a Frankish broadsword; and a knife. From their fingertips to their necks they were tattooed in green with trees and figures. Each of their women wore on her breast a box made of iron, silver, copper, gold, or wood that demonstrated her husband's wealth and station, and from the box a knife attached to a circle hung at her breast.

NASIR-I KHUSRAW'S *SAFARNAMA* (*BOOK OF TRAVELS*) (1004–1072)

Nasir-i Khusraw was famous for his philosophical works and his eloquent poetry in Persian. Born in 1004 in Kubadhiyan in Marv to a family of landowners and government officials, he

received the full name Abu Muin Nasir ibn Khusraw ibn Harith al-Kubadhiyani. He had been a bureaucrat, a revenue administrator, and a poet. A powerful dream vision awakened him from his 40-year sleep of unknowing and propelled his quest for truth (a literary topos reminiscent of the prophet Muhammad's spiritual awakening upon being called by God at the age of 40). He left Marv in 1046 and began his seven-year journey, which he related in his *Book of Travels*, the *Safarnama*. He returned to Balkh in 1052.

Originally intending a pilgrimage to Mecca by joining a caravan for the Hijaz at Nishapur, Nasir instead took a northern route across the Caspian coast of Iran into eastern Anatolia, down into Syria and Palestine, and then on to Egypt and Cairo. He, his brother, and a Hindu slave boy passed through Gavan and Damzan in the province of Qumes, through Daylam and Taram to Tabriz and then Khoy in Azerbaijan, and to Van and Akhlat in Armenia. From there Nasir-i Khusraw began the descent toward Syria, passing through Aleppo and Beirut on the way to Jerusalem. From that holy city Nasir-i Khusraw made his first hajj (Hegira, pilgrimage), and returned from Mecca to Jerusalem. Then he spent several years in Cairo, the center of the Fatimid caliphate. From Cairo he performed the hajj three times. Then he traveled down the Nile River and crossed the Red Sea to the Hijaz. Thereafter he traversed the Arabian Peninsula, stopping at regular caravan sites such as Taef, Falaj, and Lahsa. Nasir-i Khusraw then ascended to Basra in Iraq. Going northeasterly, he nearly retraced his original northern path. He visited Isfahan, Tabas, and Qaen. On reentering Khorasan, Nasr-i Khusraw moved through various cities, including Marv Rud, and after traversing southern Iran ended his journey in Balkh in October 1052.

The *Safarnama* recorded his adventures and his observations of the 11th-century Islamic world from Transoxania to Egypt. His long, circuitous itinerary probably was associated with his passion for the Ismaili tradition. His travel route enabled him to avoid the Sunni and Abbasid areas of the Islamic world while nevertheless touring every important center of Ismaili Islam west of Transoxiana. Ismailism created the historical context for Khusraw's life, his prose and poetry, and his journey. The political turmoil was also religious, with battles between dynastic factions such as the war between the Abbasid caliphs who ruled from Baghdad and the Fatimids who ruled a vast domain in Egypt. In Khorasan two rival Turkish tribes struggled, the Ghaznavids and the Seljuks, although both pledged allegiance to the Abbasid caliph.

Nasir-i Khusraw described the exotic people he met, recorded the customs and folklore of places he visited, and documented with particular delight the public ceremonies in Egypt. While he recorded interesting architecture of many cities, towns, and mosques on his itinerary, he exulted in his observations of the Dome of the Rock in Jerusalem and the Haram at Mecca.

USAMAH IBN MUNQIDH (1095–1188)

Usamah ibn Munqidh's life span between 1095 and 1188 covered the period of the First Crusade through to Saladin's reconquest of Jerusalem in 1187. Usamah ibn Munqidh was in exile from his noble family of Shayzar and enjoyed peacetime perquisites as a government official in Cairo and Damascus. This gentleman warrior fought against Muslims in many internecine battles. But his major battles were against crusaders as he wielded weapons as a warrior under the command of Saladin. Nevertheless, he maintained friendships with particular Christians and even some men who were crusaders. He often traveled to crusader lands for business or for diplomacy.

Usamah ibn Munqidh named his autobiographical travel volume, written in 1175, *The Book of Instructive Example*, *Kitab al-I'tibar*. His aversion toward the Franks and their culture made him eager to shield his teenage son from their influence. He revealed wonderful details about daily life of a Muslim fighter during the First Crusade; about hunting for lions and leopards; about war wounds, diseases, and injuries and their treatments; and about a powerful warrior's view of his own might diminishing then disappearing as he aged.

Usamah ibn Munqidh displayed a special interest in Frankish medicine, which he considered curious and primitive. He related many examples. The lord of al-Munaytirah wrote to Usamah's uncle asking for a physician to treat the ill, and he sent a Christian physician named Thabit. Thabit was away for 10 days, and when he returned he revealed how he had started to treat a knight with a leg abscess and a woman suffering from insanity. For the knight he applied a small poultice to the leg until the abscess opened and cured. For the woman he prescribed a medical diet to moisten her humors on the basis of the theory that her mental disease was caused by excessive dryness. Yet he could not complete the treatments because a Frankish physician arrived to say that the man knew nothing about treating people.

The Frankish doctor asked the suffering knight whether he would prefer to live with one leg or to die with two. The knight replied that he wished to live with one leg. To this the physician demanded help from a strong knight and a sharp ax. A knight arrived with the ax. The physician laid the leg of the patient on a block of wood and instructed the knight to strike the leg with the ax and chop it off at one blow. He did, but the leg was not severed. He struck another blow that made the leg bone marrow flow out. The patient died on the spot.

Then the Frankish doctor examined the woman and pronounced that she had a devil in her head that had taken possession of her. He ordered her hair to be shaved off and prescribed a diet with garlic and mustard. Seeing that her insanity worsened, the physician then surmised that the devil had penetrated through her head. So he took a razor, made a deep cruciform incision on her head, peeled off the skin at the middle of the incision until the skull bone was exposed, and rubbed it with salt. The woman also died instantly.

Some Frankish physicians were worthy of their titles, however. In Usamah ibn Munqidh's hometown of Shayzar an artisan named Abul-Fath had a son whose neck was afflicted with scrofula. Every time a wound would close, another opened. When Abu l-Fath took his son along when he went to Antioch on business, he met a Frank who offered to prescribe medication to cure the boy. His medical recipe was as follows: Take uncrushed leaves of glasswort, burn them, then soak the ashes in olive oil and sharp vinegar. Treat the scrofula with them until the spot on which it is growing is absorbed. Then take burned lead, soak it in ghee butter, and treat him with it. That will cure him. The father treated the boy accordingly, the sores closed, and the boy was cured. Usamah himself successfully treated many with this medication for this disease.

He also documents his experience as a warrior and gives a detailed account of how warfare was waged, including the use of siege warfare tactics, armor, and powerful swords capable of cutting through the enemy's armor to sever an arm in a single blow. A faithful Muslim, he believed that "victory is from Allah . . . and is not due to organisation and planning or to the number of troops and supporters" (Ibn Munqidh 22).

THE *TRAVELS OF IBN JUBAYR* (1145–1217)

Muhammad ibn Ahmad ibn Jubayr was born in 1145 in Xativa, Valencia, into a family of civil

servants. His reputation for his religious learning and poetic skills won him the post of secretary to the governor of Granada, Abu Said Uthman b. Abd al-Mumin. He is best known for the record of his travels, entitled the *Travels of Ibn Jubayr, Rihlat Ibn Jubayr*—a two-year journey that began as a pilgrimage to Mecca as an act of penance for the sin of drinking wine. His travelogue preserves important information about the coastal towns of the Mediterranean and the Arabian Peninsula.

He left Granada in 1183 in the company of a friend and traveled to Ceuta; there he boarded a Genoese ship to Alexandria, by way of Sardinia, Sicily, and Crete. He vividly describes the obstacles he endured at the hands of Egyptian customs officers. From Alexandria he traveled on to Cairo, Kus, Aydhab, and the Red Sea and finally reached Mecca. He spent nine months in the holy city, where he performed the pilgrimage, which he narrates in great detail. Upon leaving Mecca he visited the holy sites in Medina and then continued his journey across the desert to Kufa, Baghdad, and Mosul in Iraq, and Aleppo, Damascus, and Acre in Syria. From Acre he embarked on another Genoese ship to return home but was caught up in a violent storm in Sicily, from which he barely escaped alive. Boarding another ship in Trapani on the Sicilian western coast, he reached the Iberian Peninsula via Cartagena, from which he made the journey home to Granada in 1185.

Ibn Jubayr's *Rihla* is regarded as the best exemplar of this literary genre and the author as responsible for endowing it with its definitive characteristic, namely, the prologue that explains the initial religious impetus of the voyage, usually either the search for knowledge or the undertaking of pilgrimage, thereby distinguishing his work from other travelogues. Subsequent writers, including Ibn Battuta, imitated his style and at times copied shamelessly from his descriptions. In the work, written as a diary with daily entries, Ibn Jubayr mixes several literary styles, including simple but lively, almost journalistic, descriptions, with ornate rhymed prose and poetic verse.

IBN BATTUTA (1304–1377)

In the year 1325, at the tender age of 22, Shams al-Din Abu Abdallah ibn Yusuf al-Lawati al-Tanji, known as Ibn Battuta, set off alone from his home in Tangiers on a pilgrimage to Mecca and Medina. For safety on the dangerous roads and for companionship, he joined travelers and merchants he met on the way. His record of his adventures included minute details of architecture, customs of rulers, foods and costumes of familiar and exotic peoples he met along the way, and descriptions of ships, animals, carts, bows, arrows, weaponry, and musical instruments. During his 30 years of travel adventures he had many brushes with death from disease, injury, or attack before he returned to Fez in 1355.

The first time Ibn Battuta received alms as a pilgrim was from the governor of the city of Constantine after Ibn Battuta and his companions had camped outside town in rain so torrential that they left their tents for the security of houses. The governor replaced Ibn Battuta's soiled, old, worn headscarf with a new headcloth of fine Syrian fabric and hid in it two gold dinars.

Ibn Battuta left Tunis in November with the annual pilgrim caravan for the Hijaz, intermittently serving as *qadi* (judge) to the pilgrims. Following a coast road through Susa, Sfax, and Qabis, where it rained incessantly, they traveled to Tripoli accompanied by a hundred horsemen and archers who kept the Arab brigands at bay. In Fez he contracted marriage with the daughter of a religious student. Upon arrival at Alexandria he admired its beauty, well fortified with four gates and a magnificent port. He thought it unequaled in the world except

for Kawlam and Calcutta in India, Sudak in the Crimea, and Zaytun in China.

In Alexandria Ibn Battuta visited the partially ruined famous lighthouse, one of the "wonders of the ancient world." There he met two mystics who were holy men of the city, one who wore a prodigiously large turban and the other who inspired Ibn Battuta to travel to India and China by requiring him to visit the sages Farid al-Din in India and Burhan ad-Din in China to convey the holy mystic's greetings. Amazed at this prediction of distant travel, Ibn Battuta never stopped journeying until he had met each of these holy men.

Ibn Battuta traveled toward Cairo through Damietta and other towns on the banks of the Nile River. People in the houses beside the river drew water from it in buckets. Houses had steps leading to the river. Since in Damietta sheep and goats pastured at liberty both day and night, the city was said to have walls of sweetmeats and dogs that were sheep. The city was newly built after having been destroyed by the Franks in the time of the Egyptian Ayyubid ruler al-Malik al-Salih Najm al-Din al-Ayyub (r. 1240–49). Anyone who entered the city could not leave without obtaining the governor's seal stamped on paper to display to the gatekeepers or the seal stamped on their forearms. As for the local food, Damietta's cooked seabirds were tasty but had very greasy flesh, and the buffalo milk was peerless for sweetness and lovely taste. A Damietta fish called *buri* was exported to Syria, Anatolia, and Cairo.

When Ibn Battuta left for Fariskur, a horseman from the governor of Damietta stopped him to present a gift of coins. Thereafter, he visited Ashmun, a large, ancient town on a canal that had a wooden drawbridge at which all boats would anchor, and in the afternoon the baulks were lifted to allow vessels to pass up and down. The Nile traveler did not need to carry any provisions, for along the bank there was a continuous opportunity for bathing,

praying, shopping, and any other diversion thanks to the uninterrupted chain of bazaars from Alexandria to Cairo and from Cairo to Aswān in Upper Egypt.

Ibn Battuta's description of the glories of Cairo typified his enthusiasm. He called Cairo "the mother of cities": mistress of wide, fruitful lands; boundless in its multitude of buildings; peerless in beauty and splendor; meeting place of all who came and went; stopping place for the mighty and the feeble, whose throngs of people surged as the waves of the sea. Cairo had 12,000 water carriers who carried water on camels, 30,000 hirers of mules and donkeys, and 36,000 boats belonging to the sultan and his subjects, which sailed up the Nile then downstream to Alexandria heavily laden with goods and valuable merchandise.

Cairo's pleasure garden on the banks of the Nile opposite Old Cairo was called "The Garden"; there people promenaded and enjoyed beautiful sights and amusements. Ibn Battuta observed a festival to celebrate the sultan's recovery from a fractured hand. Merchants decorated their bazaars, displayed rich stuffs, and hung ornaments and silken fabrics in their shops.

Cairo's Mosque of Amr was highly esteemed and so large that the road ran through it from east to west. Cairo's madrasas were too numerous to count. The hospital, or *maristan*, situated between the two castles adjacent to the mausoleum of Sultan Qalaun, was so beautiful that no description was adequate to praise its innumerable medical appliances and medications. He reported the hospital's daily revenue to be the large sum of 1,000 dinars.

Many religious lodges or convents called *khanqahs* were devoted to the dervishes, who were primarily Persian religious savants and adepts in Sufi mysticism. Each house had a leader, a doorkeeper, and an admirable organization. The steward of the house inquired in the morning what food each dervish desired,

and then when they gathered for meals, he provided each person his requested bread and soup in a separate dish, none sharing with another. They ate two meals per day. All dervishes were allotted winter and summer clothes and a monthly allowance of between 20 and 30 dirhams, and every Thursday night they received four items: sugar cakes, soap for clothes washing, money for a bath, and oil for their lamps. These men were celibate. Married men had separate convents.

After years of adventures Ibn Battuta arrived at Timbuktu, continued his travels along the Niger River, and then returned to Morocco after recrossing the Sahara. Finally, he arrived in Fez in December 1355. There he kissed the beneficent hand of the commander of the faithful and concluded his travel book called *Tuhfat al-nuzzar fi gharaib al-amsar wa ajaib al-asfar* (A gift to those interested in the curiosities of cities and the marvels of passage).

JEWISH ECONOMY AND TRADE

The enormous economic advances of European Christians in the realms of trade, commerce, industry, and banking in the high and late Middle Ages shifted the balance among Christians, Jews, and Muslims. After loss of control of strategic maritime routes of the Mediterranean and threatened by Vikings and other invaders, early medieval Christian economic activity was reduced to small-scale economies centered on agricultural production. Landlocked and severely restricted in trading directly with Muslim merchants, Christians depended mainly on Jewish middlemen to supply spices and other manufactured items they needed. Canon law prohibitions against usury

and an ecclesiastical culture often hostile to the world of finance and trade exacerbated sectarian divisions as Christians were compelled to borrow money from Jewish creditors.

By the high Middle Ages, however, the economic tide was beginning to turn. Christians were able to compete directly with Jewish and Muslim merchants and to become full partners in the global economy. As a result, Jews lost economic leverage in sectors they once monopolized. Economic competition was often accompanied or fueled by communal and religious differences that were themselves exacerbated by the fact that the notion of a free market economy did not exist in the Middle Ages. Local, national, and international markets were subject to the edicts of rulers. Royal grants were needed to establish markets, which were held only on certain days of the week. Permission had to be obtained from local authorities to engage in trade, prices of commodities were fixed municipally, and institutions such as guilds and communes jealously guarded the prerogative of monopolizing their crafts and industries. Such circumstances fomented economic rivalry, violence, and conflict among Christians and between Christians and Jews. Increasingly, Jews, beholden and answerable only to the monarch, found themselves at odds with the competing interests of the church, nobility, and merchant class.

Jews in the Service of the King

Hasdai ibn Shaprut is just one illustrious example of the many, many Jews throughout the Middle Ages who made their living in the service of Christian and Muslim rulers. In the realms of Christendom, a Jewish person in this relationship was known as a *servus camare regie*, a "serf of the royal chamber." The concept of Jews as servants or serfs to the royal chamber

appeared in royal documents of Castile, Aragon, and Portugal of the 12th century; of 13th-century Germany and Sicily of Frederick II of Hohenstaufen; and of France and England during the same period. The legal implications of this status are discussed in chapter 2, Society. It suffices here to reiterate that the condition of *servus* was not one of lowly servitude comparable to the relationship between a Christian serf and a manorial lord. Rather, as Frederick Hohenstaufen himself put it, it meant that "the Jews in the Empire and in his kingdom, according to common law, [were] directly subject to [his] authority" (Abulafia 48). King Ferdinand of Aragon expressed the relationship between the Jews and the king in terms of ownership: "The bodies of all the Jews who are in our kingdom and lordships are ours, concerning which we may by our royal power and supreme authority ordain and dispose according to our will" (Abulafia 52). Such expressions meant, in effect, that the church and the nobility were excluded from benefiting financially from Jewish economic activity through taxation.

Jewish *servi*, as Abulafia observes, were royal civil servants who enjoyed economic privileges that other Jews did not. At a time when most Jews were forbidden to own land, in 1144, Ramon Berenger IV of Aragon granted "his Jew" Zecri of Aragon a plot of land as recompense for services rendered to the Crown (Abulafia 49). In 15th-century Portugal, where the general Jewish population was forced to wear the dreaded Jewish badge, royal *servi* such as Don Isaac Abravanel were exempted from this ignominious obligation. Such privileges and grants were bestowed by royal decree, and any Christian who dared to ignore them or to harm the Jews who enjoyed royal protection risked a heavy fine, paid directly to the royal fisc, and the loss of royal favor (*amor*).

Jewish dependency on royal favor was manifested spatially as well: In the streets of France, for example, the King's Road (Le Chemin du Roi) intersected with the Jews' Road (Le Chemin des Juifs). Physical proximity to the royal palace proved to be a godsend on occasions when Christians attacked Jewish communities. Moreover, the Crown disposed of unparalleled power to act both to the detriment and to the benefit of Jewish economic interests, such as in 13th-century France under Philip Augustus (r. 1180–1223), who in 1206 and again in 1218 issued royal edicts placing a stay on debts owed to Jewish moneylenders. At the same time, however, the French king prohibited clerics in his realm from excommunicating any Christian who traded or worked with Jews (Nahon 209–210).

Commercial Decline and Fall

Though Jews were major merchants, traders, and bankers in the early Middle Ages in Europe, the Mediterranean, Palestine, and the East, their commercial power diminished by the 14th and 15th centuries. Italian city-states with excellent fleets encouraged Jewish traders in the 13th-century Mediterranean to switch from Middle Eastern trade to the India route. During the crusades and the commercial revolution Jews everywhere lost their preeminence in trade and banking. Though no longer major ship owners in 14th-century Barcelona, Valencia, and Majorca, Jews continued to participate in sea trade. They worked via the "command system," under which a stable partner stayed ashore and provided cash and goods to traveling merchants. The shore-based partner assumed the risks of loss by shipwreck or piracy and gained the benefits of major profit if the voyages were successful. Therefore, Jews were among the wharf watchers waiting anxiously for the return of heavily laden merchant ships.

Before the 14th century Jews performed unique and necessary mercantile services.

Governments sometimes protected them, promoting their safety, and often actively invited their settlement. Jewish "economic men," as one scholar called them, were such substantial taxpayers that they were royal allies helping provide the sinews of war and the muscles of trade and banking. Even in countries with intense local anti-Semitism, Jews necessary to the economy thrived. When considered economically superfluous, Jews were pushed out of commerce by exclusionary laws, by personal attack of competitors, and by newly flowering yet deeply rooted old prods of hate.

State officials in a 15th-century edict of expulsion of the Jews from Sicily recognized the ruin to Christian industry if all Jews were banished at the same time. Sicilian bureaucrats petitioned King Ferdinand to delay implementing his draconian measures because the artisans of the realm were predominantly Jewish. Mass expulsion would be to the detriment of the kingdom, since it would be instantly deprived of craftsmen who supplied essential products such as iron mechanical utensils, agricultural tools, and equipment for ships, galleys, and other means of transport.

The Jewish loss of the monopoly in money-lending to the Christian bankers of Italy, France, and Spain has already been noted. Certain municipal governments made specific agreements for Jewish merchants' rights to work while minutely regulating the professions. Siena, for instance, took a percentage of the strictly enforced rate of interest that city officials permitted Jews to charge on lent money. A Latin petition from Moses son of Diodato, Solomone son of Manuele, and Rosso Levi, Jews of Siena, unanimously requested the 12 leaders of the Commune of San Gimignano to enter a pact with them on July 16, 1309, allowing them freedom to live and practice in town and to receive six deniers per pound as interest and not more from anyone. If agree-

able, the Jews would sign a legal mandate with the town syndic.

When town leaders thought government benefited more from confiscating Jewish goods, houses, and money than from Jewish taxes and tributes, Jews were ousted or killed. In cities whose local Christian merchants would not or could not compete with Jewish traders, Christians applied politics and religious solidarity to commercial self-interest. They prevailed despite generations of legal protections for fair dealing with the Jews. Noble citizens and vassals of Venice, for instance, petitioned their senate to revoke Jewish shopkeepers' and bankers' privileges and concessions, relegating them to work only in the Jewish ghetto.

A document dated October 27, 1412, sheds light on the nature of economic competition between Christian and Jewish merchants in Retimo, Italy. It shows that Christian merchants were no longer willing to tolerate a situation in which their Jewish competitors maintained a systemic economic advantage over them. The document complains that the Jews of Retimo captured all profit and proceeds from the art and profession of commerce and dominated the economic life of that locality and district. Jewish business people occupied nearly all the shops, stalls, and stores on or near the town square. This caused great harm and destitution to the Christian faithful because Jews sold their merchandise in this market while Christian citizens did not own those lucrative shops and the resulting profit. Therefore, aware of the damage and injury the locals suffered because of the Jews, the people demanded that the Jews be ousted from the town square and they and their economic activity confined to the Jewish ghetto.

In Retimo and in those times and in those places that trade and travel suddenly were closed to Jews, their optimistic rationality required the Jews to discover other frontiers to

which to apply reason, talent, ingenuity, independence, and integrity in order to flourish again financially. The Venetian Senate lawfully revoked the legal concession that Marcello, rector of Retimo, had granted to Salomon, son of Lazarus son of Meir, to his sons, heirs, heirs of heirs, and descendants, allowing them to keep shops and stalls in the square, outside the limits of the Jewish quarter. Injustice wielded a new stiff rule and iron rod of the law. Thereafter, the Jews vanished from Retimo square.

Jews in Dar al-Islam

For most of the Middle Ages the problems that Jewish merchants faced in Christendom did not obtain in the lands under Muslim rule. With a few notable exceptions, such as the Almohad expulsion of Jews and Mozarab Christians in 12th-century Muslim Spain, Jews were fully integrated in the Islamic economy, as the Cairo *geniza* documents attest time and again. While some expelled Jews emigrated north to Christian Spain and France after the Almohad expulsions, just as many emigrated to Islamic Egypt, where they continued to practice commerce freely in the important trade cities of Cairo and Alexandria. Prior to the rise of the Almohads, it was normative for Andalusi Jews to engage in commerce independently or in partnership with Muslims in al-Andalus. Muslim Spain was an indispensable stopping point of all Jewish merchants traveling east to west and vice versa.

Jews played a vital role as middlemen in the Islamic slave trade. Jewish slave traffickers traveled to central Europe and took European slaves into al-Andalus. The medieval Jewish merchants known as Radhanites virtually dominated Eurasian trade between Christendom and the lands of Islam between the seventh and early 11th centuries, of which the traffic in European slaves played a significant part. Apart

from the import of slaves, Jewish merchants able to travel to Christian Europe imported essential raw materials such as animal hides, timber, and metal into Islamic countries where Muslim and Jewish craftsmen and artisans fashioned them into manufactured and luxury products. In return, Jewish traders traveling from Dar al-Islam imported spices, silk, and other manufactured goods and agricultural products into Christian Europe and Scandinavia. Large and prosperous Jewish communities were concentrated in virtually every major city and port under Islamic rule.

Crafts and Professions

Jewish economic life had much variety. An individual person usually practiced several crafts and professions, especially Jews, who served in both the Jewish community and in the larger Christian or Muslim worlds. Hasdai ibn Shaprut, for example, was a linguist, grammarian, physician, and rabbi in the Jewish community in Spain. He also served as courtier and minister of foreign affairs for the Muslim caliph Abd al-Rahman III, who reigned between 912 and 961.

Jews practiced within legal restrictions of cross and crescent. Yet Jews worked in almost every manual and intellectual trade that their contemporaries practiced except when specifically prohibited by law. Until the 12th century Jews of the Levant, Persia, Syria, and the East generally worked the land as landowners, agricultural laborers, millers, fruit growers, tree planters, vineyard owners, wine sellers, corn dealers, cattle dealers, and owners of olive presses. In eastern towns and cities Jews dealt in buying and selling merchandise and became important merchants and traders. Some were general commodity dealers, clothiers, pearl dealers, booksellers, and dealers in ship stores. Some Jews owned ships. As the Cairo *geniza*

documents attest, numerous Jews thrived as traveling merchants, agents, and commodity brokers.

Some Jews in the Levant, Persia, Syria, and the East were builders and sellers of houses; others were innkeepers. Among the craftsmen were tanners, dyers, manufactures of silk and purple cloth (especially in Greece and Turkey), artisans, and glass manufacturers (especially in Antioch and Tyre). There were many goldsmiths. Many crafted water clocks. Yet others were soldiers, musicians, scholars, and slave owners, while others trafficked in the slave trade, mainly taking Slavic and other eastern European slaves to Islamic and Asian countries. Many eastern Jews practiced medicine and surgery.

In Germany, northern France, and England legal documents and other evidence attest to Jews working in a large variety of crafts, some similar but many very different from trades and professions of Jews in the East. Scholars, professional scribes, moneylenders, financiers, merchants, and barterers were common. Some Jews were salt dealers, retail shopkeepers, booksellers, and spice importers.

Other Jews worked as armorers and as minters of coins. The range of documented crafts includes masons, tanners, bookbinders, card painters, sculptors, stone engravers, tailors, goldsmiths, glaziers, grinders, turners, assayers, box makers, cowl makers, and mousetrap makers.

In Germany, northern France, and England there were Jewish agriculturists, smiths, bakers, dairymen and cheese makers, butchers, and hunters. Some Jews were innkeepers. Others were sailors, soldiers, and travelers. Yet others were doctors. Peddlers abounded, particularly for ornaments. Sellers of gold-embroidered gloves, hats, furs, and dyestuffs were common.

In the south of France, Spain, and Italy before the 14th century, still other crafts and trades included such surprises as lion taming. Physicians and surgeons were plentiful and at the top of the list of professions. Merchants of

Meir Magino (right) was a silk manufacturer of French origin who lived in Venice during the 16th century. Meir was granted a patent by Pope Sixtus V in 1587 for his improved method of silk manufacture and was granted a patent for a method of glass cutting and polishing as well. He wrote a book on improved methods of silk production.

all kinds included dealers in carriages, cloth, wine, corn, fur, horses, leather, spices, and bullion. Land-based commerce included mule sellers, farm stewards, crop collectors, herdsmen, hide dressers and tanners, vineyard owners, and timber merchants. Craftsmen included tailors, weavers, upholsterers, goldsmiths, silversmiths, metalworkers, iron founders, blacksmiths, locksmiths, shoemakers, silk mercers, gilders, carpenters, basket weavers, and makers of scientific instruments.

Public officials in great profusion included clerks of the treasury, finance ministers, major-domos, revenue officers, royal minters, couriers, and officers of papal households. Yet other

Jews made their livings as jugglers, astronomers, pawnbrokers, apothecaries, scholars, poets, mechanics, soldiers, navigators, and, as in northern Europe, peddlers.

There were even Jewish pirates on the high seas. In 1521 a notoriously famous Jewish pirate named Coron had prepared a strong fleet to meet the Spanish galleys that were to join Andrea Doria's 19 ships.

Moneylending

Of all the professions in which medieval Jews excelled, commerce and banking were preeminent. The Jews' most conspicuous service to Europe was to refine the instruments of commerce. Because both Islamic law and the Christian Church protested against usury and virulently condemned moneylending for profit, the Jews created apparatuses for credit and mechanisms for exchange. These financial instruments promoted the evolution of the modern capitalist state. Jews developed the circulation of capital within their own towns, cities, and nations and then supported movements of money internationally. As the Cairo *geniza* documents demonstrate, Jews acted as international bankers and factors. They granted multiple types of letters of credit and exchange for Jewish, Christian, and Muslim clients. Jews had dependable family associations in other far-flung Jewish communities. They also created in foreign lands those financial mechanisms that their local markets required. Money that Jews made available for borrowing benefited agriculture, industry, town commerce, and international trade.

Jews devoted themselves to business and to moneylending not necessarily by choice. They were forced into financial pursuits by thrust of circumstance, by restrictive laws, and by express invitation of rulers and town councils. Commerce as a livelihood fit well in the narrow empty spaces between the legal barriers preventing Jews from working in trades restricted to Christians or Muslims. A survival imperative to enable Jews to make enough money to feed their families and to pay their taxes in many instances developed into exclusive expertise and commercial necessity for the larger society in which the Jews lived. Christians and Muslims by religious prohibitions could not lend money for interest. Jews could and did. Kings, clergymen, aristocrats, and townsmen cultivated relationships with Jews as skilled local bankers and facilitators of international credit. Those who encouraged the financial successes of Jews took a percentage of the profit through taxation.

Financial expertise made Jews valuable to particular realms and cities and to their rulers, who physically protected the Jews. Trade and banking profit certainly generated Jewish wealth and advanced the prosperity of those who controlled Jewish income by taxing it and by appropriating it. Kings, the aristocracy, and towns gained mightily from Jewish moneylending.

Rates of interest that Jewish moneylenders charged were relatively low, considering the scarcity of specie and the extraordinary risks incurred. If one examines Jewish moneylender interest rates in comparison to risk and in contrast to rates charged by other financiers, Jewish interest was not excessive. Sometimes it was considerably lower than the rates extracted by Christian competitors. To call a Jew a usurer was an attribution of profession, not necessarily a condemnation of excessive interest charged.

However, in certain times and places ecclesiastical protest against Jewish usurers was stimulated by a malevolent triad of interests. First were the convenience and ease for clerical rabble rousers to stir up hatred against the people lending money. Borrowers resented having to request funds, to accept controls over their debt, and to pay interest on what they owed. Second, some churchmen claimed to have little

knowledge of economics and entrepreneurship, their risks and rewards, and disdained the apparently simple work of commerce and banking. Third, canon law and clerical prejudice castigated the lending of money for interest. Moneylending therefore made Jews vulnerable to oppression or expulsion when debts of the nobility and the populace converged with political hatred of Jews among the Christian clergy.

CRUSADES, MONEYLENDERS, AND MASSACRES

During the Crusades there were many occasions when zealous pilgrims pillaged Jewish communities and massacred Jews on their way to the Holy Land. There seemed powerful logic in the idea that before warriors avenged themselves on Muslim unbelievers abroad they ought first to kill local unbelievers. But monetary motives for massacring Jews were even more compelling.

England during the 12th century exemplified the dangerous alternations between cherishing Jews because of their practical business talents and eliminating Jews because of their financial power as creditors. The kings of England from at least 1164 cultivated the services of Jewish moneylenders. The king borrowed money when he needed it. The Crown taxed every financial transaction and benefited mightily from every loan a Jewish banker made to any borrower. In Yorkshire the lords, gentry, and religious houses all required dependable financial credit. The Jewish financial community of York was established and thrived until its horrendous massacre in 1190.

King Henry II and Queen Eleanor of Aquitaine had protected England's Jews. Henry's death in July 1189, however, led to the crowning in London's Westminster Cathedral of their eldest son, Richard the Lionhearted, and to anti-Jewish violence. Jews bearing rich wedding gifts from the realm's Jewish communities were refused admission to Westminster, rebuffed, kicked by palace guards, then stoned by the mob. A rumor spread that the new king ordered the Jews destroyed if they would not convert to Christianity. Rioters attempted to penetrate the Jews' strongly fortified stone houses, and when they could not they ignited the straw roofs. Jews who escaped from the flames were ruthlessly butchered.

Jacob of Orleans and others slew themselves rather than accept baptism. Wealthy Benedict of York was baptized for the 24 hours of the riot but recanted before King Richard the very next day. Though King Richard hanged several of the rioters and proclaimed the freedom of the Jews and his personal protection of them in England and in his French dominions, anti-Jewish riots erupted soon after Richard crossed the Channel to join Philip Augustus in the crusade. At Lynn, Norwich, Stamford, Bury Saint Edmunds, and Lincoln Jews were viciously attacked.

Virulent anti-Semitism had its culmination on Friday night, March 16, 1190, when 150 Jewish men and women of York had sought protection in the royal castle from a mob incited by their noble debtors, local burgesses envious of Jewish wealth, and fanatical clergymen. The mob led by the nobleman Richard Malebisse, deeply in debt to Jewish bankers, besieged Jews who had taken refuge in the castle's Clifford's Tower, led by their leader and rabbi, Joseph of York. The Jews were offered the choice between baptism or death. With no hope of escape, the Jews elected to kill themselves and burn down the tower. When at daybreak the Christians captured the burning citadel, the mob returned to York Cathedral, where records of debts due to Jews were kept in safekeeping. The rioters compelled the guardians to turn over the books to them. The mob then burned the debt records in the sanctuary.

After the massacre of Jews in Clifford's Tower, King Richard returned to England. He

introduced a new bookkeeping system whereby all debts due to Jews were registered in duplicate in offices of the Crown. Therefore, he protected his important source of taxes and tallages on goods, chattels, debts, gifts, offerings, ransoms, licenses, and fines. King Richard personally owed thanks to Jews who earlier had helped ransom his life after he had been captured. Jews had paid three times as much as the whole city of London in order to enable their king to return home.

As a minority community living under Christian rule and enjoying the fiscal status of the "property" of the king, Jews often were victims of economically motivated conflicts. Recently scholars such as Nirenberg have argued that the resort to violence to resolve economic as well as political disputes and to restore one's honor was a "systemic," general feature of life in the Christian, Jewish, and Islamic Middle Ages (Nirenberg 125ff.). Unable to attack the monarch directly, if the circumstances permitted, overworked and overtaxed Christians turned their wrath upon Jewish royal fiscal agents who roamed the towns and countryside collecting the king's taxes. Anger and resentment over debts incurred to Jewish moneylenders also erupted in violence, as the attack against the Jews of York in 1190 illustrates. Christian merchants required by law to charge fixed prices for their goods reacted with violence when Jewish merchants were granted permission to charge lower prices for the same commodity. Such was the conflictive relationship between Christian and Jewish butchers in Aragon, a situation that was further complicated when Muslims were banned from establishing butcher shops and forced to buy Jewish nonkosher meat (Nirenberg 170–171).

While religious difference certainly could inflame violence in the economic sphere, it would be inaccurate to consider all outbreaks of violence as religious or the product of anti-Semitism. Christian peasants and merchants, infuriated by exorbitant taxes and oppressive policies, rose up and violently attacked the Christian nobility and even members of the church. Jews also committed violence against their fellow Jews or Jewish converts to Christianity. Court records from 15th-century Valencia attest to a long-term feud between two Jewish families of silversmiths, the Maymó and the Agi, who competed with each other for occupational and social preeminence, which ended in the murder of Pau de San Martí, a *converso* member of the Agi clan, at the hands of Mossé Maymó. As Meyerson points out, this murder was by no means unique or unusual, but rather "an act of normative violence guided by the dictates of a Jewish honor culture" fueled by aggressive social and economic competition (Meyerson 58). Nor was religion the issue, since both families had Jewish and *converso* members. While it is tempting to the modern mind to see in these uprisings the acts of a "mindless mob," the uncomfortable truth is that the resort to violence was systemic and driven by its own internal logic.

CHRISTIAN MONEYLENDERS

The Crusades slowly, definitively broke the Jewish near monopoly upon moneylending. Jewish bankers had handled international trade and travel and necessary intercity or intercountry monetary exchanges. They were experts with the complicated western European coinage, handling hard currencies, account monies, and credit monies. From the time of the Carolingian kings to the mid-13th century, the silver standard predominated, and the silver *denier* was the largest denomination of coin actually struck. Gold became the standard when Genoa struck its first gold *deniers* in 1252. Other city-states of Italy, the principalities of Spain, and other regions of northern Europe followed suit, minting their own currency.

Slowly but surely from the 12th century onward, financial pragmatism outweighed

Christian prohibitions against usury. Formulas were found to enable Christians to compete with Jews in the profit economy, and particularly in the area of moneylending. Profit could be gained through commissions earned from rates of exchange when money was loaned in one currency and recuperated in another. Thomas Aquinas deemed it "lawful" for Christians to borrow money from professional usurers under certain circumstances. Christian moneylenders of Italy, Spain, and France as well as the Knights Templar replaced Jewish bankers in many regions. As a result, popular and ecclesiastical resentment against the figure of the moneylender became more "ecumenical," especially when Christian interest rates exceeded those of the Jews.

The French chronicler Matthew of Paris, writing in 1235, criticized the Christian capitalist bankers known as the Cahorsin (derived from Cahors in southern France) in the strongest terms. He labeled them a "horrible nuisance" and complained bitterly "that there was hardly any one in all England, especially among the bishops, who was not caught in their net." He especially scorned their disregard for "the needy" and their attempt to disguise their usury "under the show of trade" (Matthew of Paris 2; Cave and Coulson 180).

Humanism and Religion

Individualistic essentials of rational humanism, firmly grounded in an understanding of times past, present, and future, existed in the proto-capitalism of medieval Jewish commerce of the 11th, 12th, and 13th centuries. Modern scholars viewing the Middle Ages only through the lens of modernity falsely assume that the philosophical concept of selfhood and the development of an individualistic voice were Renaissance humanistic phenomena signaling the beginning of the modern mind. Self-responsibility, expression of individualism, and personality developed, according to that modernist prejudice, only after men could free themselves of the stranglehold of oppressive medieval religion.

Yet God suffused most medieval Jewish commercial documents, God's name being the very reason each Cairo *geniza* page or fragment endured. God was everywhere, and people thanked God for events both bad and good, praying perhaps seven times a day. God also was nowhere specific. God everywhere in the background placed the creature made in God's image, the living person, in the foreground, responsible for skillfully using every talent with which God endowed him in God's own image. Man in the foreground was the principal actor on life's commercial stage. Parallel with omnipresent references to God and God's will in the Cairo *geniza* letters are the writers' passions for the present and their clear perception of Jewish history, local history, and their place in both. These included common people whose names would have been lost to the future except for the fact that they signed the letters they wrote. Jews believed in their own powers with God's encouragement to change their status, relieve their pain, protect their families, improve their minds by study, and thrive in a foreseeable earthly future.

VIRTUES OF TRADING

Rationality guided merchant transactions. Commercial requirement for profit inevitably provoked rational advice: Sell silk where silk sells for more money than less. Withhold from market nonperishable wares when the market is slow or poor, then provide abundantly when conditions improve. Find bargains. Buy low to sell high. While of course medieval Jewish traders followed specific commercial traditions or laws, such as purveying certain commodities in one market rather than another, no tradition guaranteed profit. On evidence, merchants distinguished quality and appropriately charged

for it. Indigo in a specific city in a particular year, if first quality, sold for 20 coins, if second quality, for 16, and if lower quality, below 10. Traders listened to news from returning travelers but made decisions on site according to current market conditions.

Independence was another essential virtue of the medieval Jewish trader. Whether traveling with one or a dozen companions, each trader essentially was alone with his ethics and his wares during the course of a summer season, a year, or several years away from family and familiar customs. Independently, the trader, partner, or group agent exchanged an article or service of value for some other value such as money or goods. The trader was responsible for his own record keeping, tolls, tariffs, tax paying, ordering, storing, packing, transporting, protecting, promoting, and selling of goods for profit. Only then did the trader book passage home with goods for import or simply with his money and souvenirs.

As in any market, independent analysis of current actual data processed by thoughtful prediction of the immediate future determined individual commercial acts. Letters exchanged between Jewish merchants provide important details of local prices and the scarcity or abundance of a product in a given market. A letter writer might even provide prices for a long list of wares per quantity to the fraction of a coin. Upon observation of his market, a seaside merchant sold his wax and pepper for 133 coins, while another withheld goods until the market improved, but then he felt forced to sell for 130 immediately before ships with buyers departed so that he would not be left with unsold wares. With that sales money, rationally determining its highest, best, and appropriate use, he elected to pay back part of a debt, to apply part against his own account and part to his partner's profit account. The remainder he spent on coriander and inexpensive soap for resale, reckoning that new ships arriving soon with ready customers

should keep that particular local market active and competitive and yield profit for him. People from Persia soon expected in town might buy generously.

Honesty in dealing and reporting was a necessity of fair trade, and among medieval Jewish traders meticulous commercial books led to reputations for honor. Honorable, dependable men and women of integrity were trusted more often with goods and valuables, therefore making more profit than those less trustworthy. *Geniza* letter writers praised with honorifics the person of scrupulous fairness in handling the commercial books, paying monies as due and when due, interpreting ambiguities fairly, and resolving disputes equitably. Integrity and ethics had their severest tests during times of public disasters, such as war and pestilence.

Travelers and Traders

Throughout the Middle Ages Jews were consummate traders and travelers, voyaging back and forth between the territories of the old Roman Empire and the Silk Road that linked western Europe, Byzantium, Africa, the Middle East, Central Asia, and parts of India and China. Between the seventh and 11th centuries Jewish merchants, called Radhanites, were virtually able to monopolize certain markets, such as import of spices from the Middle East and Asia into Europe. At the same time, travel was the only way that Jewish communities living in the Diaspora could maintain contacts with each other. Study and learning were essential components of Jewish cultural identity. Jewish scholars traveled thousands of miles in search of knowledge, whether to study with a renowned rabbi or to buy or sell books. Moreover, merchant scholars such as Perahya ben Joseph and Benjamin of Tudela confirm that trade and scholarship seamlessly coalesced in Jewish culture.

Even after the near monopoly of Radhanite trade had come to an end, Jewish merchants continued to indulge and prosper in local and international commerce. The Cairo *geniza* documents repeatedly demonstrate that in the 11th to 14th centuries Jewish traders were completely integrated in the Islamic global market that encompassed Africa, the Iberian Peninsula, the Mediterranean, the Middle East, and Asia. The same may be said of Christian Europe, where Jews continued to provide the essential services of importing spices and luxury items from Asian and Middle Eastern markets and moneylending and banking, although their monopoly on these activities declined in the aftermath of the Crusades.

THE RADHANITES

Jewish merchants collectively known as the Radhanites dominated trade between the lands of Christendom and Islam up to the 11th century. Their commercial activities and travels are well documented in a variety of sources, the most detailed being *Kitab al-Masalik wa l-mamalik* (The book of roads and provinces), written circa 870 by Abu l-Qasim Ubaid Allah ibn Khordadbeh, the Muslim director of posts and police for the Iraqi province of Jibal under the Abbasid caliph al-Mutamid (r. 869–885). Ibn Khordadbeh mentions that the cosmopolitan, polyglot Radhanites were fluent in Arabic; Persian; the Romance languages of the Iberian Peninsula, Italy, and the Frankish empire; and the Slavic languages.

He describes a merchant class whose journeys spanned the world from the Rhone valley in the land of the Franks to China, and whose commercial activities encompassed trade in a vast array of products and goods. Typically, Radhanite merchants embarked from the harbors of the French Mediterranean on ships laden with European eunuchs, slave girls and boys, furs, metals, and swords and landed in Pelusium, Egypt. From there they continued their journey overland in camel caravans and traveled on to the Suez in Egypt. Boarding ship once again, they sailed from the Red Sea, stopping off at important port cities near Medina, Jeddah, Oman, and Yemen in the Arabian Peninsula, before taking the East Sea to Sind, India, and China. Radhanite merchants set sail from China with ships overflowing with aloe, musk, cinnamon, and other spices, as well as luxury manufactured items. Once back in the waters of the Mediterranean, they would disperse, some journeying on to Constantinople to sell their wares to the Byzantines, others returning to the Frankish kingdom to sell their goods. Jewish merchants arriving in the Frankish-controlled Mediterranean would also sail to Antioch and travel overland into Iraq, where they would sail down the Euphrates River to Baghdad to trade with Muslim merchants.

Alternatively, Radhanite merchants who returned to the Frankish kingdom crossed the Pyrenees into the Iberian Peninsula to trade with Christians, Jews, and Muslims. Crossing the Strait of Gibraltar by ship, they journeyed by land into the profitable North African markets of Morocco, Tunisia, and Algeria before continuing on to the marketplaces of Egypt, Syria, and Palestine, on their way once more to Iraq. Ibn Khordadbeh also confirms that the Radhanite merchants who began and ended their trade expeditions in the Frankish Rhone Valley traveled to Constantinople on their way to the Slavic lands, where the majority of slaves were acquired, and on to Khazar territory in inner Asia. Their trade took them overland into the Balkans; from there they headed toward the Oxus River on their way back to Central Asia and China.

In the 10th and 11th centuries eastern trade routes became increasingly unstable with the fall of the Tang dynasty in China in 908, the defeat of the Khazar kingdom by combined forces of the Russian and Byzantine armies in
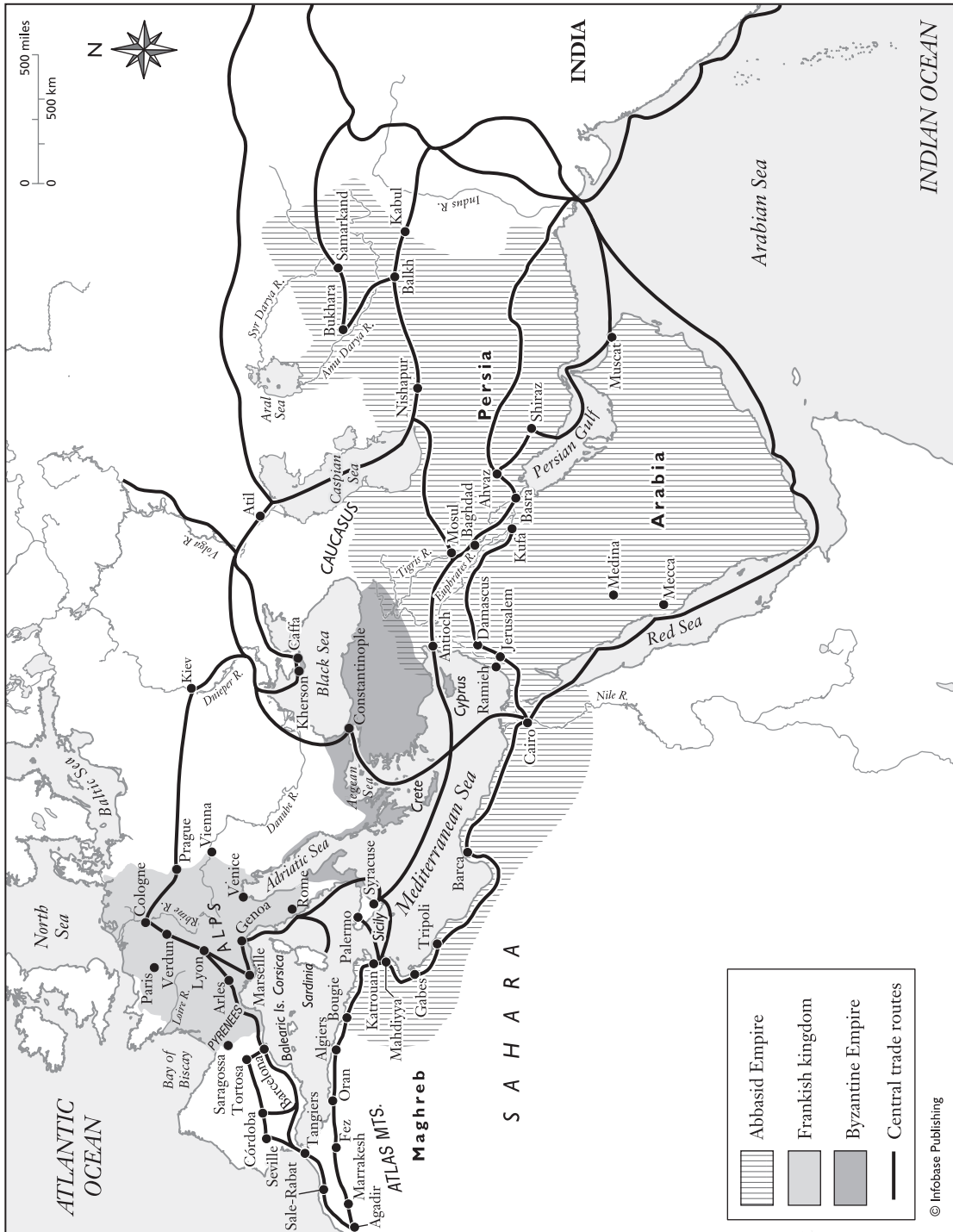
World of the Radhanites, Ninth Century.

1016, and the first onslaught of Turkic incursions into the Arab Middle East and Persia. As a result, the lucrative Silk Road and other trade arteries were closed to the Radhanites and other merchants. Also, more and more, Radhanite merchants had to compete with Christian merchants from the Italian city-states who engaged in trade directly with Muslim and Asian merchants.

PERAHYA BEN JOSEPH (12TH CENTURY) AND OBADIAH OF BERTINORO (1470–1520)

Scholarship enlivened mercantile travel. Some merchants while traveling afar were avid students and scholar adventurers. Some Jewish traders while abroad added intellectual duties to responsibilities for merchandise and for profit. They obligated themselves to ritual prayer, routine study, book buying, transcribing books, translating treatises, and even teaching in a Hebrew school, a yeshiva. Importers, exporters, middlemen, and merchants dealing in pepper, cinnamon, cloves, cardamom, coral, silver goblets, Brazil wood, and copper kitchenware oftentimes also were philosophers and poets. Wealthier merchant scholars traded at and visited academies. They bought books abroad for themselves and their libraries. They purchased ritual items and scrolls important to the yeshivas they endowed at home. Some merchants supported scholars at home in formal partnership with them. Two great 12th-century Jewish thinkers and writers who celebrated such trader support were Judah Halevi and Moses Maimonides.

Merchants seeking profit burnished their world wanderings and knowledge with the patina of intellectual curiosity. Traders from Cologne, Mainz, and Worms went to the merchandise fair at Troyes to trade in goods and to purchase items for personal consumption and gifts. The Troyes fair was a social meeting ground where business deals were sealed and marriages arranged. But Jewish scholars also went there to sit at the feet of the great philosopher and philologist Rashi (Rabbi Shlomo Yitzrachi [d. 1105]) or to breathe the rarified intellectual atmosphere of that revered 11th-century rabbinical luminary's library. Merchant scholars congregated in Narbonne in the south of France, where both trading and literature made for good business.

Perahya ben Joseph, a 12th-century merchant and thinker, typified the role of study in medieval Jewish travel and the importance of prayer and scholarship for merchants abroad. Perahya ben Joseph embarked to Messina, Sicily, traveling with his young brother, Moses. Perahya wrote to his parents that he had not wanted to desecrate the Sabbath by travel, so he originally booked passage on a ship captained by a Christian mariner. Since he could not guarantee disembarking at a lighthouse before the Sabbath, Perahya took a different route. He arrived safely in time to find his uncle, Mevasser, who appropriately acknowledged family duties by providing food and lodging for wayfaring relatives.

While business there was good, cultural life was primitive. In his letter to his parents, Perahya bragged that he served as a copyist of important rabbinic texts and that the people sought to employ him as a schoolmaster. He complained that the streets of Messina were dirty and that it took effort to study and pray because of the lack of intellectual resources and the failure to observe the traditional times of public prayer.

The Italian scholar Obadiah of Bertinoro, who was born about 1470 and died around 1520, left Naples for Palestine, visiting Jewish communities in Sicily, Rhodes, and Egypt. He arrived in Jerusalem, settled among the 70 Jewish families there, and wrote his famous commentary on the Mishnah, a standard text still studied today. Obadiah judged his Jewish

neighbors as ignorant people as well as poor. Obadiah nevertheless found their habits and manners important for his work as representing accurately an earlier, simpler life such as in the Mishnaic texts he was interpreting. His book enumerated graves of Jewish sages and holy sites, yet this was no mere Palestinian itinerary. Obadiah knew Arabic. He cultivated his powers of minute observation. His detailed scholarly studies of the *Gemara*, the commentaries on the Mishnah texts, and his integration of this scholarly understanding with clear practical observations made Obadiah's books on his Jerusalem sojourn beginning in 1488 valuable travel literature as well as durable philosophical disquisition.

THE *TRAVELS* OF BENJAMIN OF TUDELA (12TH CENTURY)

The life and travels of a 12th-century Spanish rabbi and merchant scholar simply known as Benjamin of Tudela, a city in the Kingdom of Aragon, is known to us thanks to his travel diary. The *masaot Binyamin* (Voyages of Benjamin), alternatively entitled *Sefer ha-masaot* (The book of travels), meticulously documents Benjamin's 13-year sojourn of trade, scholarship, and travel. Embarking from his native Spain in 1160 with the intention of going on pilgrimage to Jerusalem, he traveled to France, the Italian city-states, Constantinople and other Byzantine cities, Syria, Palestine, Iraq, Persia, the Arabian Peninsula, Khuzistan, Samarkand, parts of India and China, Egypt, Abyssinia, Nubia, as well as to the northern European lands of Germany, Bohemia, Slavonia, and Russia, returning home finally in 1173.

The *Travels* read as ethnographic diary, for Benjamin took pains to provide a demographic count of the number of Jews residing in all the towns and cities he visited and to assess the activities of their community leaders. With exactitude he depicts the customs of Jews and non-Jews alike, noting important religious landmarks, buildings, and markets, and the geographical account of his itinerary is praiseworthy for its accuracy. Writing about Baghdad, for example, he especially admired the wealth and erudition of the Jewish community there. Between Baghdad and the city of Karj on the other side of the Tigris River alone there were 28 synagogues; the Great Synagogue was constructed with marble columns covered with silver and gold and adorned with gilded engravings from the Psalms. He was particularly struck by the Jewish population of Kawlam on the coast of Malabar in India. Its small community of some 1,000 Jews was "black," as were the rest of the population, whose religion was based on Sun worship. He notes with a tinge of surprise that they were "good Jews," strictly observing all the precepts of the law. And where Perahya ben Joseph might have remarked with derision that their learning could not compare with that of the rabbis of Toledo, Narbonne, or Worms, Benjamin graciously remarks that they assiduously studied the Torah, the prophets, and a bit of the Talmud and Halakha (Benjamin, 112).

Not surprisingly, Benjamin lingers most in his descriptions of Jerusalem and the Holy Land, accounting for every tomb, shrine, and landmark of Jewish sacred history. He is to be lauded for the equanimity and dispassion with which he portrays Christians, Muslims, and other non-Jews, neither engaging in the fantastical and lurid hyperbole of certain Christian explorers nor adopting the tone of cultural snobbery that some Jewish travelers such as Perahya ben Joseph displayed toward their coreligionists.

From Sephardic Spain, naturally, Benjamin of Tudela in his *Travels* has much in common with the Arab-Islamic literary genre known as *rihla*. As was mentioned, he began the *masaot* with a prologue explaining his intention to go

on pilgrimage to Jerusalem—a literary topos common in Islamic *rihla* literature as well.

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4

WARFARE
AND WEAPONS

Much of medieval social life and history revolved around the central pivot point of warfare. The history of the Middle Ages is in large part the history of countless local and civil wars, interstate political and commercial wars, wars between rival empires, and holy wars involving Christians, Muslims, Jews, and others deemed heretics. Warfare made fortunes for kings, queens, knights, armament makers, technologists, bankers, cities, and the religious institutions that supported military campaigns. Yet wars also devastated fortunes and destroyed towns, manors, cathedrals, and untold numbers of people.

The religious culture governing the lives of medieval Christians, Jews, and Muslims also impinged upon matters of military conflict and weaponry. Saint Augustine's (d. 430) doctrine of the "just war" made it theologically licit for Christians to engage in combat for defensive purposes and for the church to wage war in order to fight "heretics" and compel them to return to the Christian fold. Israel's tradition of divinely guided warfare, based upon models of righteous as opposed to unrighteous anger, is well documented in the Bible. The rules of engagement are strictly controlled by Jewish law, particularly regarding the matter of fighting on the Sabbath. The Muslim tradition of jihad, or holy war, is likewise subject to the dictates of the Quran, the customs of the prophet Muhammad, and the codes of Islamic law, which delineate the legitimate means and aims of warfare.

Despite profound religious differences that often set Jews, Christians, and Muslims against one another in warfare, the three communities shared and participated in the same military culture, which extolled the virtues of chivalry in combat. Jews could be found serving as knights, soldiers, and military advisers whether living under the cross or the crescent. The Crusades in the Holy Land and the Spanish Reconquest witnessed numerous occasions on which Muslim and Christian armies joined forces to fight a common enemy, or in which individual mercenaries placed personal monetary gain before religious loyalties. Such cultural exchanges also facilitated the transmission and adoption of military technologies.

CHRISTIAN WARFARE AND WEAPONS

Christian Perspectives on Warfare

The image of the medieval Christian knight waging war for God and king is so familiar that it is easy to forget that warfare was once deemed anathema to the Christian way of life, and especially to the doctrine of Christian love. After all, Jesus had taught that "if someone strikes you on the right cheek, turn and offer him the other" (Matt. 5:39). Moreover, the earliest Christian communities were convinced of the imminent second coming of Christ (the *parousia*) and spiritually withdrew from the mundane world, having no stake in defending the secular order. The earliest church fathers, Quintus Septimus Florens Tertullian (d. 230) among others, condemned war as immoral and explicitly forbade Christians to participate in it, going so far as to demand that anyone so doing be excommunicated. In a similar vein Origen Adamantius (d. 251), another church father, ruled that warfare was strictly a matter for the secular powers and that the Christian's role should be limited to praying for the victory of those fighting for a just cause.

The church's attitude toward war would indelibly be changed by Constantine's conversion to Christianity and the so-called Edict of

Milan (313), which recognized Christianity as a religion that could be practiced openly; church and state could now be conjoined in the same cause. A momentous meeting in the year 397 of Saint Ambrose, the bishop of Milan (d. 397), and the emperor Gratian resulted in the declaration of Christianity as the official state religion and the concomitant outlawing of other "pagan superstitions." Church leaders began to encourage rulers to wage a holy war on pagans for the sake of God and the church and to defend the empire from heretical "traitors." To this end Saint Ambrose upheld three key principles of legitimate warfare: War should be for a just cause, such as to defend the Christian empire, and it should be fought only on the authority of the legitimate ruler. Following the ideals of the great Roman orator Marcus Tullius Cicero (d. 43 B.C.E.), Ambrose further insisted that war must be fought justly, meaning that it should be defensive, agreements between combatants should be honored, and the defeated should be treated with clemency. This more permissive attitude toward war would gain further impetus and justification with the fourth-century invasion of the Germanic "barbarians," which would eventually destroy the Roman Empire, and with the threat of the Donatist heresy, which divided the North African Church.

SAINT AUGUSTINE AND THE DOCTRINE OF JUST WAR

Augustine of Hippo was directly involved in the Donatist controversy that threatened to split asunder the North African Church. Clergy were divided between the Donatists, who maintained that no one could be ordained as a bishop if he had previously collaborated with the pagan Roman authorities during the period of the persecution of the church, and the majority position, which permitted the ordaining of persons whose repentance was sincere. As bishop, Augustine chaired the church councils that attempted to resolve the schism through peaceful negotiations, yet the recalcitrant Donatists refused to cooperate and resorted to violence to further their position. In response, Augustine began to regard the Donatists as heretics and reasoned that it was legitimate to use violence to "compel them to come [back] in" to the orthodox church (Chadwick, 222–223). The resultant theological doctrine of a just war (*jus ad bellum*) emphasized the underlying purpose driving the conflict. It drew a critical distinction between Christian fighting for God in order to combat evil and wickedness and warfare fought under the auspices of a pagan state and solely to serve evil and base goals.

Ultimately, the warriorlike Germanic tribes who destroyed the Roman Empire converted to Christianity in the fifth and sixth centuries, and their military ethos would infiltrate the dominant Roman Catholic culture. These Germanic Christians, the ancestors of the great Charlemagne, transformed their ancient pagan heroes into Christians and made the Christian soldier martyred for the sake of God the spiritual ideal to be emulated. But the Germanic military ethos also had its dark side, and the centuries following the breakup of the Roman Empire into individual European kingdoms witnessed also the degeneration of the Christian ideal of fighting honorably for a just cause into the base lust for military glory and plunder.

THE PEACE OF GOD AND THE CRUSADER ETHOS

Europe's poor peasants and local church personnel bore the brunt of military violence after the collapse of the Carolingian empire in the ninth century. During this and the following century the situation came to a head as warring knights no longer had any regard for the "col-

lateral damage" they caused to peasants caught in the crossfire and did not hesitate to steal provisions from them or to plunder local churches. In response to this situation and to the absence of a powerful centralized government, the church took it upon itself to provide protection to the poor and defenseless members of society and to channel the knights' military aggression toward more suitable Christian causes. A number of solutions were found. In 989 the bishops of France led the way at the Council of Charroux (western France), where they declared the Peace of God (*Pax Dei*) banning violence against the persons and property of all defenseless non-combatants, including the poor, children, women, and even farm animals.

The Christian knight now had a new identity as a servant of Christ and a new sacred purpose—to uphold the peace and defend the weak and the poor. Moreover, the church assumed an unprecedented proactive role in preserving the peace as bishops and even popes formed their own armies. Pope Gregory VII (r. 1073–85), for instance, formed the Knights of Saint Peter in 1073 in order to protect Rome. Those who broke the peace by offending the poor and robbing the clergy thus faced not only interdiction (prohibition from receiving the sacraments) and excommunication, but also military defeat. The Benedictine monastery of Cluny (Burgundy), founded in the 10th century, also played a key role in promoting the Peace of God movement by taking the extraordinary step of pronouncing liturgical curses on aggressors. The church extended the peace by declaring the Truce of God, which sought to impose further limits on fighting, such as banning warfare on Sundays, on feast days, and during the Lenten season.

But if the church considered unlawful and un-Christian the ravaging of the poor and defenseless Christian, it adopted a different view vis-à-vis aggression against non-Christians. Between the ninth and 11th centuries Viking raiders had been making incursions into Christian territories across Europe, and it was entirely in keeping with the principles of just war to repel them militarily. The defense of the Christian kingdoms in the north of the Iberian Peninsula against the Muslim armies of al-Andalus and especially the desire to defend the Eastern Church and to recover the Holy Land after the crushing victory of the Muslim Turks over the Byzantine army at Manzikert in eastern Turkey in 1071 more than justified the concept of crusade.

In 1095 Pope Urban II summoned the Council of Clermont (central France) and enjoined a mixed synod of clergy, monks, and laymen to take up the crusade in order to liberate the Holy City, Jerusalem, from its "pagan" captors "who know not God" (Thatcher and McNeal, 520). Although the notion of crusade was not without its detractors within the church, its defenders, starting with Urban II and including the French abbot Bernard of Clairvaux (d. 1153) and the church doctor and philosopher Thomas Aquinas (d. 1274), emphasized that it satisfied the three key requisites of a just war. They argued that the crusade was a just cause, waged to defend the church and retake the Holy Land from the Muslims. It satisfied the requisite of right authority, meaning that war could be declared only by a legitimate secular or ecclesiastical authority, and it was being waged with a right and charitable intention, "to correct this foolish people (the Muslims), over-eager for the pleasures of the world, lest the Lord find them insipid and rank, corrupted by crimes at the time He wishes to speak to them" (Thatcher and McNeal, 519). In other words, launching the Crusades against the Muslims was an act of Christian charity, insofar as it was believed that military defeat would induce the enemy to repent its numerous sins of corruption and immorality before the second coming.

The sense of divine mission that drove the Crusades and the Reconquest of the Iberian

Peninsula also entailed heightened spiritual rewards. Whereas previously Christian participation in a just war was deemed a commendable act by the church, popes invested the crusader wars against the infidels in the Iberian Peninsula and the Holy Land with the same status as the pilgrimage to the major shrines in Rome and Jerusalem: Both pilgrims and crusaders were promised the heavenly rewards of remission of all sins and eternal life.

It must further be noted that the Crusades and the Reconquista of the Iberian Peninsula provoked the church to rethink its position on the participation of the clergy in warfare as active combatants. Traditionally, the church banned its personnel, whether monks or secular clergy, from participating in warfare. Even as Urban II declared the Crusade at the Council of Clermont, many bishops argued that under no circumstances should monks and clergy participate directly in the fighting. The 12th-century canon lawyer Gratian wrote in his *Decretum* that bishops could command wars waged under the auspices of the church. The symbiosis between Christian and knight reached its apogee in the military orders that were formed from the 12th century onward to fight the Muslims in Spain and the Holy Land, the most well known of which were the Knights Hospitaller, founded in 1099; the Knights Templar, founded in 1120; and the Knights of Santiago, founded in 1170. The Knights Templar, for instance, were organized as a monastic order. They followed the Cistercian rule designed for them by their patron, Bernard of Clairvaux, and pledged vows of poverty, chastity, obedience, and piety.

Christian Chivalry

Chivalry (from Old French *chivalerie*, "horseback warfare") was the philosophy and practice of valorous military service on horseback. Celebrating honor, truth, virtue, gentility, and courtesy, a knight held land tenure in exchange for his military service in armor on horseback. Knights fought battles for their overlords, customarily providing 40 days worth of military service annually. Distant campaigns both secular and religious required longer, more arduous service. Professional fighters who were paid for military services, called mercenaries, often were necessary. England hired military specialists such as sappers, miners, and makers of siege engines. Mercenary armies in the later Middle Ages became the rule for preserving cities and monarchies. In Italy, for example, mercenaries formed close corporations electing their own leaders, called *condottieri*. In Germany the *Landsknechte* increased in specialization and qualification as soldiery became more and more organized and professional.

With the 10th-century declaration of the Peace and Truce of God, chivalry gained a decidedly religious character. Knights took a sacred vow to use violence only in the defense of the weak and defenseless, and, in exchange, the church ordained these knights with a special blessing called the *benedictio novi militis* (benediction of the new soldiers). The *benedictio* developed into an elaborate ritual: The would-be knight first had to confess all his sins. He then spent the entire night in a vigil of fasting and prayer. Afterward he took a symbolic bath and donned a white robe to symbolize the purity of his soul. He would then kneel before the clergyman, renew his baptismal vows, and recite a solemn vow of chivalry. His chosen patron (godfather) would then strike him on the cheek with the sword in the name of God and Saint George, the patron saint of knights. The ceremony culminated with the blessing of his sword on the church altar.

Although there was no one definitive chivalric code that governed the behavior of all knights across Christendom, the basic norms of chivalry included belief in and defense of the

church and all its teachings; respect, and protection of the weak and defenseless; obedience and humility toward one's feudal lord and king, provided he did not break the laws of God; bravery in warfare and the pledge to wage unrelenting war against infidels; constant truthfulness and honoring of one's word; generosity toward the poor; and gentility toward ladies.

The professional soldier required several basic accoutrements: horses, weapons, flags and banners, and attendants. As we have seen, the very term *chivalry* derives from the French word for warfare on horseback, *chivalerie*. And, indeed, the battle horse was indispensable to the identity of the chivalrous knight. But knights needed other horses as well, a steed for travel and a packhorse. Multiple attendants were needed to carry the knight's weapons and armor, to conduct the horses, and to help the soldier to mount and dismount his horse. To complete the chivalric ensemble, the knight also needed to carry attached to his lance a banner or flag with his arms emblazoned upon it in order to be identified easily on the battlefield. The armorial decoration of flags and banners gave rise to the complex tradition of heraldry.

Though heraldry was not exclusively military, it was important for identifying combatants, for rallying troops, and for maintaining battlefield morale. Heraldry was the science of representing geographic, political, and family origins for a person, entity, or group expressed in visible symbolic colors, designs, and devices. Heraldic devices appeared in chivalric ceremonies and on coats of arms, shields, helmets, horse armor, flags, banners, pennants, buildings, sculptures, stained glass windows, tents, ships, armored vehicles, and military engines. Faithfully imitating the prevalence of heraldry in medieval life, few military chronicles, paintings, and graphics omit heraldic devices.

Warfare stimulated technological invention. Ingenuity of metallurgists, chemists, scientists, technologists, and armorers throughout Europe created spectacular arms and armor, siege engines, tension devices such as the ballista and crossbow, and torsion machines such as the magnon and trebuchet. Armament makers created incendiaries such as Greek fire and gunpowder. The earliest literary mention of cannon dates to 1327. By the year 1350 poet Petrarch described as familiar daily events the firing of marvelous military instruments loudly discharging metal cannonballs with flashes of fire. Men and women warriors risked their limbs and lives to the effectiveness of these inventions.

Arms and Armor

Arms and armor technology affected the fate of nations. Arms and armor determined the morbidity and mortality rates of knights, city police, citizens maintaining the peace, warriors fighting battles in Europe, and knights crusading in the East and battling the Muslims in the Iberian Peninsula and the Mediterranean. For these men and women successes of armament techniques allowed life, and failure of arms technology meant life-threatening injury, imprisonment, ransom, or death. Arms and armor users and makers were vitally concerned with the science and technology of arms: quality of metal, precision of its forging, ingenuity of martial design, installation of safety features, inventiveness of adjuvant weapons tactics, cunning of mechanical disguises and deceptions, strategic new weapons and novel uses of old arsenals, fine fabricating and refining of new military hardware, and intellectual bravura, beauty, and variety of military hardware.

In medieval Europe warriors adapted many of the weapons and much of the technology of Roman soldiers, as witnessed by the popularity of the fourth-century treatise *De re militari* (On military matters) written by the Roman tactician Publius Flavius Vegetius Renatus. By the

Late Middle Ages, English, French, Castilian, Catalan, German, and Italian translations of *De re militari* were in circulation throughout Europe. In the race to acquire the best weapons and weapon technology, sworn enemies had no qualms about adopting and adapting the expertise and instruments of the "Other" for their own ends.

SWORD, DAGGER, AND RAPIER

The most dependable personal combat weapon for both offensive attack and defense was the common sword, a sharply pointed blade with one or two cutting edges set in a hilt attached to a handle, which was encased in a metal guard or crosspiece. The knuckle guard on a sword hilt was called the knuckle bow. Two types of

A woodcut of Maximilian I in an armorer's shop. Burgkmair, Hans the Elder (c. 1473–c. 1553), woodcut from *Der Weisskoenig*: Maximilian in an armorer's shop. Courtesy of the Metropolitan Museum of Art, New York. Harris Brisbane Dick Fund.

common medieval swords were the short sword, which could be used with one hand, and the long sword, which required two hands to wield it successfully and surely. Swords customarily were forged from iron, though often made of steel. Arab armament makers in Toledo and Damascus made especially fine swords. Damascene steel, important in armor and weaponry as well as jewelry and automata, was variegated iron and steel, often richly embellished with acid-incised floriate and geometric designs.

Sword design probably was derived from the dagger, a double-bladed knife. Usually worn in a sheath at the belt, the dagger was an instrument for self-defense and general utility, even sometimes taken to the dining table for cutting and carving. An *anelace* was an ornamented decorative dagger. The dagger a knight used when wishing to commit suicide with a merciful coup de grace was called the *misericord* (Latin *misericordia*, "mercy, compassion"). *Misericord* also was the name for a monastery's room where certain strict rules were relaxed and for the underside shelf of a flexible choir stall seat in a church or chapel allowing a standing celebrant to lean. The stiletto was a short dagger with a thick blade.

The rapier was a short, small sword useful for rapid thrusting and was one of the preferred weapons of fencing in the 14th through 17th centuries. Fencing, the sport of offensive and defensive actions with swords, became popular in 15th-century Germany, where fencing guilds appeared in the middle of the century, and in Spain, where the first fencing manual appeared, systematizing its techniques. Three types of swords customarily were used. The foil was a light, flexible, blunt thrusting weapon. The epee was a dueling sword, straight, rigid, and narrow bladed for thrusting, with no cutting edge. The saber was a flexible broadsword with an essentially triangular blade and cutting edges along the front and one-third of the back. Arab,

Persian, and Turkish warriors wielded a curved steel sword with the blade on the convex side called a scimitar. The cutlass was a popular short sword for cutting, not thrusting, with a slightly curved, wide flat blade.

In literature and life, a cherished sword as personal weapon often was named and had symbolic as well as practical importance. King Arthur's sword was called Excalibur, its title derived from the legend of its origin. Only the elect could withdraw it from the stone in which magically it had been thrust, *Ex cal (ce) libre (are)* (Latin, "to free from a stone"). Or it may have been named after the Old Irish invincible sword Caledvulch or Caladbolg. Curtana was the sword of the chanson de gestes hero Roland. King Edward the Confessor's sword of mercy, a blunt-end, pointless sword, was called Curtana. This sword carried before English kings at coronation was placed beside a sharp-pointed sword, the Sword of Justice.

At the ceremony of knighting, an overlord or lady gave the knight a personal sword. In fact, for a knight in feudal knight's tenure, a sword was part of a total war ensemble, which consisted of the horse, armor, and weapons given by the overlord to the man in feudal tenancy, in addition to the land. The sword was the major weapon crusaders carried to and from the Holy Land. The practical design uniting handle grip with blade was cruciform. This shape had the added advantage of being a symbol of Christ's cross and emblem of the church militant.

LANCE, HALBERD, MACE, MORNING STAR

The *lance* as martial weapon was a pointed iron or steel head on a long wooden shaft, carried and wielded when a knight charged at full speed on horseback. Lances were used in jousts, formal, ritualized, martial exercises in which mounted knights competed for prizes or ransoms, as in war. Jousts were war games often with legal outcomes but without actual battles. Events taking place in enclosed fields, called lists, were enhanced with elaborate armor, horse armor, music, art, food, and festivity. In romances and poetry love jousting was an expression for sexual intercourse.

Another weapon 15th-century knights used on horseback was a triple threat, the ingeniously designed halberd consisting of a single asymmetric blade with three purposes united in the same piece of steel: A sharp-edged pointed spear integrated with the blade of a battleax in turn had integral to it a hooked point for grabbing onto the opponent's armor in order to drag him from his horse. Once on the ground encased in 100 pounds of metal protective gear, a knight was nearly helpless, unable to move quickly or precisely. Related to the halberd was the bill, also a multipurpose weapon wielded on long wooden shaft while on horseback. The bill was an English adaptation of a common agricultural tool, and the style with a long pole or spike, called a billhook, was favored by infantrymen for its ability to kill both armed knights and their horses in a single blow. The best halberds and bills had continuous iron from the head many feet down the shaft, rendering them less likely to shatter and break than those weapons whose metal heads simply were affixed to the poles.

The seventh-century Franks' infantry tactics depended upon the heavy-headed single-bladed ax called the *francisca*. They also used shield, sword, and dagger. The Franks slowly adopted armor and horses so that by the middle of the seventh century they wore breastplates and helmets.

A *Bergbarte* was a practical and ceremonial ax with a long blade set asymmetrically on its handle. Its shape was derived from the ax used by German tin miners and silver miners for shaping timbers and shoring up mine tunnels. Men and women in positions of authority carried a secret weapon enclosed in a baton, a cer-

emonial stick held by secular or ecclesiastical dignitaries, a sign of importance, adjunct to pointing and gesticulating, and concealing a small sword or cutting weapon such as a lancet, a small lance as fine as a double-edge-bladed, pointed surgical scalpel. Batons were also employed in medieval jousting tournaments, in which the objective was not to kill the opponent. In France the *baton* was one of the few weapons that commoners were permitted to use in dueling with enemies.

Armorers fabricated powerful bludgeoning instruments such as the mace, a heavy staff or club with a metal head capable of inflicting severe damage upon armored knights. In 12th-century Europe the flanged mace, its metal head covered with protruding metal spikes, became increasingly popular; it is thought to have been adopted from the Muslim world, where it was widely used. A variation on the mace was the morning star, whose spikes resembled a rayed star. Because of its ability to knock out a person and make him "see stars," the name probably had ironic connotations with the planet Venus, Lucifer, the light bringer, appearing in the eastern sky before sunrise. The mace as secular scepter of authority or sovereignty resembled the weapon.

LONGBOW, SHORTBOW, JAVELIN

Fighters skillfully used bows and arrows. In the hands of a powerful archer, a longbow could shoot with devastating accuracy and penetrating power a sharply pointed arrow that could tear through the flesh. If metal-barbed, the arrow caused excruciating pain and damage when pulled out by the warrior, comrade, or physician. Well-forged arrowheads were attached to supple, slender, strong shafts held on the archer's back or at his side in a quiver, often anchored to a baldric, a fabric or leather band worn diagonally across the chest and back, attached at one shoulder and tied or buckled at the opposite hip.

Foresters also wore baldrics, such as Chaucer's Yeoman in the *Canterbury Tales.* Knights, monarchs, and ecclesiastics sported baldrics for ceremonial occasions, encrusted with jewels, mottos, medals, emblems, and appliqués.

Short bows had less thrust and less velocity than longbows. While the longbow string with its attached arrow was stretched to the level of the bowman's ear and then released, the short bow string stopped at the bowman's chest and was fired from the midbody. At the Battle of Crécy (1346), a decisive battle in the Hundred Years' War between England and France, the French favored the short bow, drawn back only to the bowman's chest and therefore customarily of shorter range and less velocity than the longbow. Indeed, although outnumbered three to one, the English soldiers prevailed, in large measure because of the greater speed of the English (or Welsh) longbow. The crossbow derived directly from the short bow. Richard the Lionhearted (r. 1189–99) admired it and went to considerable expense to hire mercenaries skilled in its use. But the crossbow was difficult and time-consuming to load, whereas the sleek longbow was swift and sure.

Javelins were throwing weapons, like arrows or darts, made of strong, dense wood such as the cornel tree or whippletree, meant for hand thrusting or propelling by a thong. Sometimes they were barbed with iron points. A javelin also could be propelled by a ballista. Before the year 800 the Franks used a formidable barbed javelin to cast or to stab, in addition to their famous throwing ax, the *francisca*. The iron of the javelin's head continued down the wooden stave almost to its bottom. Therefore, when the javelin struck a warrior, the barb remained fixed in the victim, almost impossible to draw out. If the flung javelin struck a shield, the enemy could not eliminate it by striking off the iron head because of the metal's long extension down the shaft. This enabled the Frankish warrior to step on the javelin's tail, pull the shield

from the warrior, and strike him with another spear through the head or heart.

CROSSBOW AND ARBALEST

Before the invention and common use of the gun and early rifle, the crossbow was a formidable fighting and hunting weapon. The bow with its crosspiece or stock through the center had a string attached to it. The crossbow could be drawn by hand or with a windlass. When it was drawn, a trigger released the string, propelling the arrow, bolt, or quarrel with silent discharge, destructive precision, and impressive penetrating power backed by hundreds of pounds of "pull." The arbalest was a larger, sturdy steel version of the crossbow with a wooden shaft and mechanism for shooting arrows, bolts, stones, and a type of flying missile called a quarrel. The larger size and superior tensile strength of the arbalest were considered to give an unfair advantage to its wielders, which aroused concern within the church. During the Second Lateran Council (1139) Pope Innocent II (1130–43) forbade the use of the arbalest against Christians and Catholics, leaving open the possibility of its use against "infidels."

Crossbows customarily were constructed of steel or laminated horn, whalebone, and flexible woods covered with birchbark. Some were decorated with arabesques, intarsia, or inlays of ivory and variegated woods. The *buttcap* was the thickened end by which a crossbow was held. Usually it was inscribed or incised with a mark for shooting.

King Buys Arbalesters' Service   Kings could not acquire all their warriors from tenure agreements and often hired mercenary soldiers for foreign wars or for securing of domestic peace. In 14th-century England King Edward II required swordsmen and crossbowmen to quell border insurrections and to keep peace in north country towns. In 1314 the king ordered London's mayor and sheriffs to provide 300 crossbowmen, arbalesters, plus their armaments for work in the town of Berwick on the river Tweed.

Though King Edward specifically requisitioned 300 arbalesters, London sheriffs could muster only 120 warriors for this adventure, each provided with protective body armor and helmets for duty, *haketons* and *bacinets* with *colerettes*, plus the arbalests and quarrels. On December 4, 1314, the 120 men plus 20 commanders and six carters started their 17-day journey to Berwick. The long Latin indenture described their wages as 4D (four denari) per day, while each commander earned 6D. Bacinets with iron colerettes cost 5S (five soldi) 1D each, and each arbalest 3S 5D. Each quiver cost 3D, and quarrels were bought at 20S per thousand. Packing crates for arms required three carts with four horses each as well as two carters per cart, each cart costing 2S 2D daily.

GRENADE AND CALTROP

The grenade was a ferocious armament named after the voluptuous bright red fruit the pomegranate. The 15th-century ball-shaped hand grenade was filled with gunpowder and metal particles. When it exploded it spewed fragments widely and powerfully. King Louis XIV's special military units for hurling the weapon were called grenadiers.

Known since ancient Roman times, a caltrop was a sharp-spiked, four-pronged iron ball used as a military obstruction for war horses, elephants, or humans. The horse stepping near a caltrop either in fright bucked his knight out of the saddle or if stepping on the armament was instantly lamed, helpless and useless to its rider.

HEAD ARMOR

To protect the vulnerable human body against instruments of personal destruction caused by

Sir Fitzralph wears chain mail from head to toe.
From a brass rubbing, Pedmarsh Church, Essex, England 1320.

cutting, thrusting, hitting, and bludgeoning, medieval armorers created effective total-body or partial-body encasements primarily fabricated from metal links or metal plates. Armor was a fighter's defensive body covering, from head to foot. *Armor* also was the term for the total offensive and defensive accoutrements of warfare. Metal link armor was called chain mail.

In the early Middle Ages there were sometimes notable differences in the degree of headgear protection soldiers enjoyed in battle, depending on their rank. For instance, Frankish battle commanders of the seventh century wore metal helmets, while their soldiers on foot or on horseback wore leather helmets. The armored hat was a round-topped head piece, peaked and opened in front but rounded and falling low at the back, covering the nape of the neck. Their shields were made of wood with iron edges.

A *casque* was an armored defensive or ornamental helmet, with or without a *visor*, the hinged section of which was designed to be raised or lowed to protect the forehead and eyes. Derived from the headgear of the Roman legionnaires, the *casque* was the most commonly used head protection throughout Europe between the ninth and 13th centuries. Another Roman-inspired head protection was the *spangenhelm*, popular between the seventh and 11th centuries, which consisted of several plates of iron joined by rivets. The casque and spangenhelm were no match for the technological advances in the 14th century, particularly the improvement of the crossbow and the invention of the longbow, which could easily pierce through them.

Some typical metal head covers that provided greater protection for the crown, scalp, forehead, face, and ears included the great helm (*heaulm*), which was first developed in the 12th and 13th centuries and was forged from several sheets of steel that completely covered the face.

A vervelle band separates bassinet from camail
From brass rubbing, Sir Thomas Braunstone, Wisbeach Church, Cambridgeshire, England, 1401.

The *bassinet* or *bascinet* was a light, conically pointed steel helmet, or a chain mail hood that quickly replaced the other models across Europe in the 14th and 15th centuries because of its lighter weight and the greater visibility it afforded. Often a bassinet was worn with a *camail* (French *coif de mailles*, mail hood), a chain mail hood with buckled fastening worn over an iron skullcap popular in the 13th century and thereafter, covering the head, neck, and shoulders. During the Hundred Years' War both English and French soldiers wore the greater bassinet, so called because of the added *Klappvisier*, a special visor with raised surfaces to protect the nose and eyes.

The greater bassinet would give way to the *armet*, a popular 15th- to 16th-century helmet, possibly developed in Italy. The *armet* consisted of four pieces: the skull, the visor, and two interlocking cheek plates, which provided complete protection for the head, face, and neck. Most 15th-century Germanic soldiers seemed to have preferred the *sallet*, a slightly lighter version of the *armet*, characterized by its flared tail.

A *bevor*, a hinged metal attachment for a helmet or *armet*, protected the lower part of the warrior's face and throat. Later it became the movable face guard of the bassinet, consisting of overlapping plates. The Burgundian burgonet was a bonnetlike metal helmet with nose and cheek protections, featuring a brow piece, the *umbril*, as an eye protector. The *bourquinotte* was a closely related metal helmet. In the 15th and 16th centuries further protection to the neck and throat was provided by the *gorget*, which was likewise the name for a necklace, badge, or emblem suspended from the neck, pendant on the breast.

Military archers wore a small iron skullcap, the *capeline*. A *casquetel* was a light, open helmet without *bevor* or visor. A *chapel de fer* (French, "iron hat") was a helmet resembling a cowl or

A gorget   From the arms of Juston de Rudshield, Yorkshire, England, c. 1437.

hood worn over a *camail*, the chain mail covering head, neck, and shoulders.

A knight's head and face fully enclosed in armor could not be easily identified from afar or even up close. Helmet adornments were identifying devices. Often they were symbols of love, family, or household. A *cimier* was a removable heraldic device or whimsical favor of courtly love floating from or cresting a warrior's helmet. A knight's *cimier* could consist of exotic birds' plumage, horsetails, sculptured animals, or miniature models of human figures. A feather plume or crest adornment was called a *penache* (Latin *penna*, "feather"), the word still used today for describing flamboyant flourish and style. A *cimier* was related to the *lambrequin*, also called a *cointise*, a scarf or fabric favor worn from the peak of the knight's jousting helmet. A woman wore a lambrequin flowing from the peak of a pointed headdress such as a *hennin*.

BODY ARMOR

Ingenuity of full-body armor craftsmanship becomes self-evident when analyzing its purposes in protecting life and preventing injury and death. Armor was required to be relatively impenetrable yet flexible enough to allow the wearer to mount, ride, and dismount, either alone or with help of a squire or mechanical winch or windlass; to wield hand weapons for cutting, throwing, or thrusting; to shift position in the saddle to allow comfort and safety and to prevent skin abrasions; to eat, urinate, and defecate while armed; to endure the effects of cold or heat and bodily temperature changes caused by exertion, sweating, fear, and exhilaration; to avoid ground obstacles and jolts and jostles of horsehoofs on uneven terrain; to ride in benevolent concert with the well-trained but mortal animal; and to see, hear, and retain sensory alertness while wearing 100 pounds of metal.

Much medieval armor that survived the centuries looks small when compared to modern people's physiques, leading people falsely to conclude that the medieval armor wearers were shorter and lighter than men and women of the 21st century. The paleopathology record is unclear. Many tall skeletons suggest that six-foot-tall people were not unusual. However, the major reason for the small size of much protective armor is the age of the medieval owners. A knight at the ceremony of his investiture might be a youngster aged 13. If he had not experienced his adolescent growth spurt, small armor reflected age, not heredity or diet.

Body armor ranging down from shoulder to toes, in quasi-alphabetical descent, included the *aillette* (Fr. "little wings"), a small square shoulder shield worn on each shoulder of a knight's armor, the origin of the modern epaulet. Armor sections were connected one to another by an *agraffe*, an ornamental fastener for closing a garment's neck or for securing armor pieces one to another, in the form of a hook, clasp, or buckle, or a pierced, open-work metal clasp of two interlocking pieces. In building construction an *agraffe* was a cramp or hook joining girders. An *armilause* was a short silken cloak worn over armor. The *aketon* (*aqueton*) or arming coat was a full-length button-down coat that was worn in the 13th to 15th centuries either as a complete armor in itself or as a padding over which additional armor would be worn. In the later period shorter versions were worn as padding under the jupon, a quilted protection worn over a breastplate.

Armor protecting the chest was called a breastplate. A common armor breastplate was the *cuirass*, which in fact consisted of plates for the breast and the back, joined by hoops of steel and tassets to protect the hips. A plastron was a protective metal armor breastplate *cuirass* worn by warriors and fencers. Another chest-covering armored vest was the stomacher. *Pal-*

lettes were armor armpit protectors, the steel plates shaped like saucers.

A brigandine was a triple-layered, light-weight armor for foot soldiers consisting of a sandwich of leather or cloth spread with metal leaves or scales, resembling a common cloth garment but providing protection against thrusting and cutting weapons. Easy and cheap to produce, the brigandine was popular among the lesser nobility and other men-at-arms. Brigands on the highway or pirates on the sea wore brigandines (and, demonstrating linguistic perseverance of military terminology, companies of brigands were called brigades). Another disguised armor was the *broigne*, a rugged leather or linen jerkin strengthened with metal or bone framework. It was popular with 12th-century knights before the *hauberk* became the principal dependable protection. The hauberk was a flexible chain mail *tunic*, a shirtlike garment with round neck and narrow sleeves, reaching down to the knee or ankle.
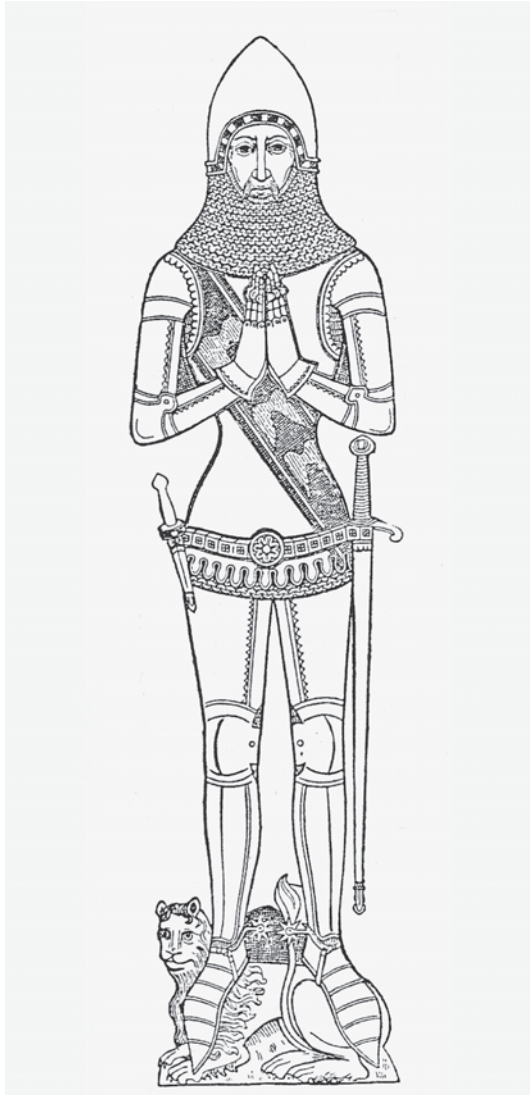
In northern Europe a coat of body armor made of metal links or chain mail was called a *byrnie*. Thick leather used with armor or under it often was *cuir bouilli* (French, "boiled leather"), animal skin softened in resin, then shaped while wet for protecting skin and flesh. Likewise used in corsetry, jewel boxes, furniture, carrying cases, and wall coverings, armor *cuir bouilli* often was tooled, incised, painted, gilded, or embroidered. Another type of armor undergarment was the short, fitted, and quilted doublet. Worn under a hauberk, cuirass, or *bliaut*, it later became a variety of the military gambeson, a padded military tunic fabricated from leather or sturdy cloth. The military gambeson was worn alone or under a habergeon, a sleeveless chain mail coat, lighter than a hauberk. A related undergarment was the *gippon*, a padded, quilted short tunic, tight-fitting and buttoned as an undergarment attached to breeches, resembling a doublet.

Armor for the inside of the forearm was called *epaule de mouton*. A gauntlet was the usually hinged, flexible metal glove armor. To throw the gauntlet at the feet of an adversary was to pledge battle. Knee cap armor was called

A knight wears a jupon crossed by a baldric and a bassinet with chain mail. From a brass rubbing of Sir John Wingfield, Letheringham Church, Suffolk, England, c. 1400.

genouillieres. Hip armor, especially the metal clasps over the hips, was called the *girdle.* *Tassets* also were metal armor hip protectors, usually constructed with four to eight overlapping plates, one side hinged, the other buckled.

The *greve* (*greave, shynbald*) or plate shin cover was the standard defense for the lower leg between the 14th and 16th centuries. Footsoldiers wore the *jack,* a hip-length quilted, padded military doublet, usually sleeveless and tight-fitting, worn over a *hauberk.* Alternatively, the jack itself might be armored with small, interdigitated, metal leaves, making it the medieval ancestor to the modern bulletproof vest. Later developing into the *jacket,* a man's close-fitting upper-body garment, its name may derive from the French common country peasant name Jacques.

Protective leg armor was the jambeau. A *jaseran* was fine chain mail body protection or a fabric jack sewn with metal plates. A *mandilion* was a type of *tabard,* an open-sleeved, hip-length garment with heraldic emblems, which knights wore over armor. A 16th-century English version, the Colley-Weston ward, was worn at a 90-degree angle, with the front and back draped over the arms, for purely decorative purposes. A *tabard* was a short-sleeved or sleeveless short coat, open at the sides, worn over armor or by civilians over a shirt. As worn by knights, the tabard usually had armorial devices emblazoned on front, back, and sleeves. Heraldic colors identified the wearer's social group.

Another over-armor garment was the *manteline,* a short parade mantle or cloak, often hooded and elaborately decorated. A mantle was a semicircular or rectangular cloak clasped at the neck or shoulder with an *agraffe* or fibula and sometimes embroidered and bordered with braid or fur. Foot armor included the broadtoed foot covering or boot called the *sabaton.* Long pointed-toed armored shoes were called *poulaines.*

HORSE ARMOR

Horse armor, or "barding," was as necessary for the animal as for the warrior riding its back. The swords, lances, and weapons that could penetrate a human body could equally disable or dismember a horse. Therefore, a war horse wore protective metal plates for its neck, breast, and flank, called a bard. Head armor for horses included the *chamfron,* which became widely used in the 14th and 15th centuries. A horsehead *tester* had cutouts for the animal's eyes and ears. A *peytral* protected the horse's breast, while the *crinet,* made of overlapping steel plates joined by leather straps or rivets, protected its neck. Armor for the horse's haunches

On a caparisoned horse, an armored knight rides to battle. From a 15h-century woodcut. Courtesy of Galeria Medievalia, Tenafly, New Jersey. Reprinted in *The Middle Ages,* ed. E. V. Gillion, Dover Publications, New York.

was the crupper. Worn alone or with the *peytral*, crupper, and *chamfron* was the caparison, a horse's ornamental and ceremonial blanket, embellished with armorial devices and often ornamented with bells and fringes. It identified its rider's household and rank and ostentatiously affirmed place and wealth.

Siege Techniques and Equipment

Besieging a castle or town wall could be either passive or active. Technically, a siege was the military tactic of surrounding and isolating the enemy and patiently awaiting its surrender from starvation from absence of food, water, or ammunition. The active siege of a walled castle or walled city, however, required instruments and machines to enable warriors to get over the wall, under the wall, or through the wall.

SIEGE LADDER AND TOWER

For climbing over, a siege ladder was quick and easy, presupposing the invaders could get across a moat or water-filled defensive ditch surrounding the castle or city. Some invaders carried their own collapsible draw bridges such as Konrad Kyeser had recommended in his treatise on warfare entitle *Bellifortis*, which was published in 1405.

A more sophisticated method for surmounting a wall was the *beffroy*, or siege tower. The tower customarily was on wheels and crossed the moat on a planked bridge taken along for the purpose or crossed it on planks after part of the moat had been filled in with heavy mud. Towers sometimes were five to seven levels high, each level interconnected by ladders and each level representing a site in which armed warriors could wait until those on the tower's top level could cross over on an extension bridge to the top of the wall and there fight the

defending armed guards. Methodically, warriors would ascend from the lower levels to the higher until all the armed men in the tower reached over the wall, fought inhabitants, and opened the gates to the castle or city, enabling the rest of the army to move in for the final kill. The *bellfroy* was used to devastating effect during Godfrey of Bouillon's siege of Jerusalem during the First Crusade in 1099.

Defenders would fight from the top of the fortification and battlement on a walkway called an allure circumnavigating the wall. On the allure bowmen could shoot down upon the invaders. Bowmen could hide behind the upright vertical merlons of the parapet and shoot through the lower sections, the embrasures. Defenders also could throw stones down upon the warriors in the war tower. Boiling water or boiling oil also were effective. Any means to ignite the tower such as by hurling flaming torches at an oil-soaked wooden structure would propel the besiegers to escape as human incendiaries or to incinerate in place.

SAPPERS, MINERS, TORTOISES, TURTLES

To get under a wall of a castle or city required the work of sappers and miners. These audacious warriors literally made tunnels underneath the castle perimeter walls to undermine them and ultimately cause them to fall. Sappers built trenches up to the town or castle walls and then borrowed beneath the wall to plant an incendiary device that would make the wall breach or fall. While their compatriots raised a ruckus to distract the defenders, miners would burrow under the wall, digging furiously while protected by a wheeled or otherwise established covering called a tortoise or *testudo*, usually to protect the miners from any missiles hurled from above and to hide their mining activity. Under protection of a tortoise, miners would tunnel under the wall, and, if the wall construc-

tion permitted and the invaders required, the miners would create a large enough cavity within the wall such that burning wood and flammable items ignited within would rupture then collapse the wall.

Attackers also could take cover under a turtle defense mechanism that, as the tortoise, customarily was wheeled into place, allowing the invaders to do their work unseen or, at least, protected from missiles and missives thrown from above. Defenders often would countermine, digging a shaft from inside the fortress to enter the mine chamber. Or defenders might use floodwater from the moat, fire, or acrid smoke to repel invading miners.

BATTERING RAMS, MANGONELS

To get through the wall invaders might attack with a battering ram. Usually a long, powerful pole with a boring head, sometimes sculptured to resemble a ram's head, it was held by 10 to 20 strong warriors who then ran with it to propel it to hit the wall at a particularly vulnerable spot, or by multiple attacks on the same position, to breach the wall.

The *mangonel* (from the Greek *magganon*, "engine of war") was a hurling siege engine that resembled a gigantic, long-handled spoon set in a wheeled or heavily fortified wooden scaffold. A large boulder weighing 100 or 200 pounds became a powerful projectile when placed in the cup of the spoon, hauled back by a windlass, and then, when the arm was released, flung against the wall. Once the wall ruptured, foot soldiers could enter the castle or town. Stones were not the only items flung through or over walls. Dead and diseased animals and dead bodies also were catapulted by *mangonels* for the purposes of introducing disease and demoralizing the defenders. *Mongonels*, catapults, and other sling machines such as the *trebuchet* flung fire and incendiaries over and through walls. Fire was among the most feared

weapons against the besieged, whose water resources usually were limited and difficult to deploy.

MAGNONS

Tension and torsion were the two methods for propelling artillery. When the cord of a bow was stretched and released, it provided propelling power for an arrow or bolt. Torsion enabled siege engines to hurtle heavy missiles against or over a fortification's wall. A missile was placed in a depression or shallow hole at one end of a beam. The beam itself was placed between two sets of horizontally stretched ropes that were then twisted by several strong men. When released, the beam had accumulated considerable power and hurled its missile against its target. While aim was imprecise, the range of these beams provided both light and heavy artillery. Short- and long-range throwing machines were called *magnons*. Remarkably, these powerful torsion devices were fair weather armaments only. Rain essentially disarmed them because wet ropes could achieve little torque.

BALLISTA

For reasonable accuracy of aim and portability, some military tacticians favored the ballista, which could fire a bolt or a javelin. The sixth-century Byzantine scholar, historian, and military writer Procopius of Caeseria (Palestine) described these tension machines in his *History of Justinian's Wars*. They have the general shape of a bow, but in the middle there is a hollow piece of horn loosely fixed to the bow and lying over a straight iron stock. The ballista warrior wishing to shoot the enemy pulled back the short strong cord joining the arms of the bow, placed in the horn a short stout bolt four times as thick as an ordinary arrow, half its length and not feathered like an arrow but furnished

with wood projections exactly reproducing the shape of feathers. Men standing on each side of the ballista drew back the cord with little devices. When they let it go, the horn rushed forward and discharged the bolt, which struck with a force equal to at least two arrows. It broke stones and pierced trees.

Another chronicler described the ballista as not a bow held in a left hand and bent with a right, but rather a device spanned by a barrier that the warrior stopped, placing both feet against it while he strained at the cord with the full force of both arms. In the middle of its semisecular curve that reached down to the middle of the stock, missiles of various kinds could be placed then propelled through it by the released cord. Missiles powerfully pierced and embedded themselves in a wall or other obstacle they struck.

ONAGER, TREBUCHET, SAMBUCA

The *onager*, a heavy artillery war machine, was a mobile, open framework, winched, and single-springed, single-armed *catapult* (Greek, to smash downward, penetrating a shield). This medieval variant developed from the classical Roman machine, whose backward kicking action resembled that of a wild ass (*onager*). The main difference between the classical Roman and medieval *onager* was that the former used a sling to launch the projectile, whereas the latter employed a fixed bowl, which allowed several projectiles to be launched at once.

An especially important mobile military vehicle for launching missiles was the trebuchet, also a variety of catapult and a successor to the *onager*. Though some military scholars believed the trebuchet was invented in the 12th century in the Mediterranean, it is now known that it was invented in China in the fifth century B.C.E. The technology slowly spread westward, being adopted by the Persians, Arabs, Byzantines, Germanic peoples, and Nordic

peoples and introduced into the Mediterranean via Italy in the 12th century. The Mediterranean variant may have been an adaptation of the large counterweight *mangonel*, called in Arabic *manjaniq*, which had been commonly used in the Islamic world since the 10th century.

A *sambuca* (from the ancient Greek *sambykē*) was a wall-breeching siege device, as triangular in shape as the harp it resembled, as if the musical instrument were leaning against the town wall. Since the time of Philip of Macedonia and his successor, Alexander the Great, the ancient Greeks had used the *sambuca* to conduct sieges from the sea. The *sambuca*'s characteristic gigantic ladder allowed the easy transfer of marines from ships over the walls of enemy coastal towns. In the Middle Ages the *sambuca* was deployed to scale high castle walls.

GUIDO DA VIGEVANO'S SIEGE ENGINES

Guido da Vigevano, court physician to Queen Jeanne of Burgundy (d. 1348), spouse of King Phillip VI (r. 1328–50), wrote a fine technological treatise called *Treasury of the King of France for the Recovery of the Holy Land beyond the Sea* (*Texaurus Regis Francie acquisicionis Terre Sancte de ultra mare*), presented in 1335 to the king to help him combat the infidel and regain the Holy Land from the Muslims. Guido's treatise describes siege engines. These brilliant mechanical military devices included catapults with a ballistic missile launcher to hurl stones and arrows against enemy soldiers, city walls, battlements, or ships. He also developed a mechanical contrivance utilizing a mathematical cube-root extractor, a brilliantly designed torsion spring, and universal joint plus winch. Guido's catapults had prefabricated, portable, multipurpose, interchangeable parts.

He also created paddle wheel boats. His siege towers used structural iron. He made tanks, armored fighting wagons propelled by crank-

shafts and gears, with a steerable front axle. One of his tank designs was wind-powered, propelled by a windmill mounted on its top.

Guido da Vigevano influenced scholars and physicians such as Giovanni da Fontana, Konrad Kyeser, and Roberto Valturio (1405–75), who wrote the first illustrated book on weaponry, *De re militari* (*On Military Matters*). Guido's book also had connections with the anonymous artillery maker who wrote *The Firework Book* (*Das Feuerwerkbuch*), the first teaching manual for gunners. Guido da Vigevano's treatise was not a detailed instruction manual aimed at military engineers. Instead, he wrote it for his king and that intelligent audience who might or might not be engineers capable of creating the magnificent machines he devised. His delightful illustrations are vivid and comparatively naturalistic. However, since Guido was a physician, he knew that Christian knights fought not only non-Christians but formidable diseases and poisonings in the field. Therefore, Guido's text also provided the king with various remedies for his troops' field injuries and illnesses. Among his poison antidotes was a soup to counteract aconite poisoning, using slugs that feed on aconite leaves. Guido da Vigevano was an imaginative, ingenious precursor to great Renaissance engineers and artists such as Leónardo da Vinci.

Gunpowder

The Chinese invented gunpowder in the ninth or 10th century. In the 13th century a text attributed to the probably fictitious Marcus Graecus, entitled *Liber ignum ad corburendos hostes* (Book on ignition), offered a formula for gunpowder using the word *sal petrosum*, for saltpeter. The acclaimed English Franciscan friar, philosopher, and scientist Roger Bacon (1212–94) relied upon Graecus's *Liber ignum* to describe gunpowder in his own book on alchemy, *De mirabili potestate artis et naturae* (Concerning marvellous power of art and nature), dated 1242. Georgius Agricola (d. 1555), the German scholar, scientist, and acknowledged "father of mineralogy," detailed a recipe for a careful multistep process for refining saltpeter in his *De re metallica* (On metals), which was published posthumously in 1556. Vannoccio Biringuccio's treatise on pyrotechnics (*De la pyrotecnia*), published in 1540, meticulously described gunpowder compounds of many kinds made from three simple, basic ingredients: saltpeter, sulfur, and charcoal.

Each firing engine and martial instrument required different proportions, qualities, and mixings of powders, depending on size of weapon, weight of missile to be shot, distance of propellant, and gunning style. But since all force depended ultimately on the saltpeter's purity, cleanliness, and power, recognized by burning it, Biringuccio gave recipes for uniting it with particular types of wood charcoal. Powder for heavy guns, for instance, required three parts of refined saltpeter, two parts of willow tree charcoal, and one part of sulfur incorporated by fine grinding and careful drying, though not so dry as to allow easily ignited elements to explode. Biringuccio therefore judiciously moistened the dry ingredients with water, vinegar, or *aqua vitae*. Biringuccio favored ordinary water.

Feudalism was losing much of its military might because of rigid adherence to outmoded ideas of chivalry and of military tactics and because battles were taking longer than the customary 40 days that an armored knight under knight's tenure was obligated to provide service to an overlord. Technology helped bring feudal military might to an end not with a whimper but the loud bang of gunpowder in guns and cannon. King Edward III used guns in the Hundred Years' War. Apparently, guns were not used at Crecy or at Agincourt but may have been employed for sieges at Rouen and Meaux. Artillery certainly was used in one suc-

cessful siege of the Hundred Years' War, when Henry V used it at Harfleur.

GUNS AND CANNON

The cannon itself apparently was a European invention. Biringuccio described guns as possibly invented in Germany, their forms evolving from effects of the fire powder, gunners' desires, and differing abilities of those who made guns. The oldest surviving guns were made of iron, probably by welding rings around a series of wrought iron bars placed lengthwise to form the bore. Iron was the metal of choice for fabricating the gigantic, heavy cannon called bombards and of small guns or mortars. Iron was supplanted in the 15th century by bronze casting, simpler to fabricate and more reliable in product. The earliest illustrated gun, depicted in an Oxford manuscript dated 1327, seems to have been made by metal casting.

By mid–14th century cannon had become familiar. A Florentine document dated 1326 described bronze guns firing iron balls. In February 1326 13 people were assigned to superintend the manufacture of cannon and iron balls for the defense of the city of Florence. A Genoese battleship in 1338 had firearms onboard when it appeared with the French fleet in Southampton, England. A chronicler of the siege of Metz in 1324 records the use of cannon. The Scots deployed cannon at the siege of Stirling in 1339 and Germans used them in 1331 during the siege of Cividale in Friaul (Italy). In 1342 King Alfonso XI of Castile and León (d. 1350) used artillery at the siege of the Spanish Muslim port city Algeciras. Petrarch in 1350 noted that military instruments discharging metal balls with tremendous noise and flashes of fire had until recently been rare and viewed with astonished admiration that they now were common, familiar armaments.

Bell founding as described by the Benedictine monk and metallurgist Theophilus Presbyter (1070–1125) in his *Schedula diversarum artium* (List of various arts) could have influenced gun founding. Later in 1467 the Byzantine historian Michael Kritoboulos (also known as Kritoboulos of Imbros [c. 1410–70]) described casting bronze guns for the siege of Constantinople utilizing a core of clay mixed with linen or hemp placed in an outer reinforced mold. *Bombards* were powerful, unwieldy, awkward weapons, shooting heavy balls of stone. Utilizing great quantities of gunpowder, they required many workmen and sappers. Yet in his *History of the Ottomans* Kritoboulos recounts that the bombards the Ottoman Turks used to capture Constantinople were the largest ever made. Generally, cannon were easier to handle and move because of their lightness, and they shot balls of iron smaller than those of bombards, discharged more frequently with greater effect. Iron balls generally were superior to stone for hardness and penetrating power. Cannon also could be fixed in place with fewer supports than larger devices required.

Three common cannon were the double cannon, known as the cannon royal; the regular cannon; and the *demicannon*. According to Biringuccio, a cannon's diameter was about 22 times that of the ball it shot. Weight of the iron ball discharged was between 50 and 60 pounds. The weight of a bronze cannon was from 6,000 to 7,000 pounds, and reinforced cannon weighed up to 9,000 pounds. *Demicannon* discharged iron balls weighing 25 to 30 pounds, and double cannon used 120-pound missiles. In weight they were proportioned to their quality. Other slender cannon for long-range shots discharged stone balls not good for breaching walls but reliable for shooting at infantry, cavalry, and armed ships at sea.

CULVERINS, MOBILE CANNON, CATAPULTS, DIVING GEAR

A culverin was a lightweight, portable, long-barreled cannon designed in the 14th century

by the armament engineer Konrad Kyeser, who described it in his military manual *Bellifortis*. Biringuccio fabricated culverins and demiculverins that discharged at frequent intervals, were easily loaded, and were efficiently moved. They shot iron balls weighing 30 pounds in place of stone, while demiculverins' shot weighed 15 pounds.

Konrad Kyeser created multiple-tubed cannon with revolving barrels and devised cannon-equipped armored vehicles. He built remarkable floating, folding bridges and movable assault towers. He also created underwater artillery and diving suits. A diving helmet and a deep-sea diver's waterproof tunic, lead soled shoes, and helmet were depicted in a manuscript written around 1430 pertaining to the Hussite Wars (1420–34). That manuscript also contained a drawing of a cannon mounted on a carriage with two wheels and other contemporary brilliant machines such as reinforced gun screens, a machine for boring cannon, and a cannon on a warship. One intriguing illustration was of a hand mill with a rod and crank system that could have been used for making gunpowder.

SAKERS, FALCONS, *MERLINS*, MUSKETS, PISTOLS

Biringuccio replaced what he called ancient weapons such as the *springards*, the *cerbottane*, and the *caccia-cornacie* with powerful shooters called *sakers*, also called the quarter cannon, that discharged 12-pound missiles. Falcons discharged six-pound iron balls, and falconets utilized three- to four-pound missiles. *Merlins* and muskets were firing instruments adapted for shooting at frequent intervals, using little powder and easily handled. Infantry captains favored them on campaign because they were adapted for offense against the enemy and excellent in defense of a place, shooting balls of iron or lead weighing one to two pounds.

Between the 14th and 17th centuries wall guns, tripod-held or fork-mounted *arquebuses*, portable guns or small cannon, and hand-held guns commonly were bronze-cast. Lighter and safer guns were iron forged, and when well and evenly tempered, excellent, serviceable weapons. The iron *arquebus* and pistol, in various sizes, shot a ball of lead weighing an ounce or less. The best *arquebus* and pistol shooters aimed to surpass in battle the lethal accuracy of the best archers on foot and on horse. For instance, Spanish *arquebusiers* fighting for the Habsburg emperor Carlos V (d. 1558) inflicted a crushing defeat on the French during the Battle of Pavia in 1525.

King Buys Armed Barge for Overseas Battles Since ancient times rulers have commissioned armed ships and mariners to serve their ends, to engage in defensive or offensive warfare to protect their coastal or island territories from invasion or to secure control of lucrative trade routes. Viking longships and galleys hurled stones, arrows, lances, and other projectiles during their invasions of western European countries. In the Mediterranean Byzantine emperors had a long tradition of maintaining a strong navy fleet of ships equipped with projectiles to launch the dreaded Greek fire, a powerful incendiary device derived from lighting crude oil mixed with other combustible materials.

Kings requisitioned oceangoing armed barges and boats from private citizens as well as from towns. London provided for King Edward III in 1373 a fully rigged, tackled, and armed barge called *The Paul of London* delivered to its master, William Martlesham, for the king's expedition on the sea. The barge had one mast with three top castles, eight couples of new head ropes, three forestays, two trusses, two yard ropes, one winding rope, one "grapenel," and all appropriate equipment for mariners fore, aft, top deck, and below, including four

trestle tables, two dozen shovels, two great tankards, and 20 iron chains. Ammunition included 60 bows, 500 bow cords, 400 sheaves of arrows, 200 darts, 30 lances, and 4,000 quarrels for the *arblasters.*

Master William plus two shipmen acted as contract sureties. All three pledged to the mayor of London all their personal goods, movable and immovable, in London or beyond the sea, to relinquish within 40 days after return to port the armed barge as the ship originally was provided or to answer and make satisfaction for anything lost by their error.

Women's Arms

Modern readers usually are surprised that medieval women bore arms. Women have never been weaponless by tradition or by experience. Joan of Arc was not the only medieval fighting woman. Armed medieval queens guarded their realms. Armed noblewomen protected their castles. Armed craftswomen and market workers protected their bodies, wares, and cash. Women market thieves, highway murderers, high seas pirates, felons, and other "babes" with blades used weapons just as men did, defensively, offensively, and with the same lethal effect. Even whores needing to protect their bodies to use them for other good nights and armed women in the underworld prudently protected themselves, using the same weapons and the same armor as queens, noblewomen, and men. For powerful women, for ordinary women farmers, and for craftswomen protecting themselves, their families, and their possessions, weapons extended might.

WARRIOR QUEENS AND LEADERS

In the year 60 Boudicca, queen of the Celtic Iceni tribe of East Anglia, led her troops against the Romans on the battlefield called High

Joan of Arc from Vie des femmes célèbres *(Lives of famous women) by Antoine Dufour. Ms. 17. French, c. 1505*   Giraudon/Art Resource.

Cross in London. Later in the 12th century Queen Boudicca's fervor as a fighter became legendary inspiration to medieval women and men. Her war-wagon wheels were said to have daggers mounted on every spoke. From under the modern streets of London archaeologists have discovered charred remains of her battles in the then devastated cities of London and Colchester, where she and her warriors ferociously fought.

Queen Maud Augusta of England (d. 1167) was the daughter of King Henry I (1068–1135) and was called and crowned "Lady of the English," *domina anglorum.* Married in the year 1114 at age 12 to Holy Roman Emperor Henry V (1081–1125) and later wed to Geoffrey of Anjou (1113–51), 10 years her junior, Maud

was mother of the future Henry II of England (1133–89), who married Queen Eleanor of Aquitaine (d. 1204). As Queen Maud she was an armed warrior who conducted sieges and defended castles.

As did a nobleman of her time, Maud inherited her power and fought to keep it. King Henry I of England (r. 1100–35) made his daughter Maud his heir. On Christmas Day of the year 1127, the king convened his council of nobles and ecclesiastics to swear them to acknowledge Maud as his heir. Upon the king's death, however, most of the noble barons and church leaders reneged on this pledge and supported the movement to install Maud's cousin Stephen of Blois on the throne of England.

In the ensuing coup d'etat Stephen had himself crowned king at Westminster Abbey in 1135. Queen Maud joined forces with her stepmother, Queen Adelizza, Henry I's widow, to regain the crown from her cousin. Maud held Arundle Castle against Stephen's strong armies. In the Battle of Lincoln (1141) between the armies of Stephen and Maud's half brother Robert, the earl of Gloucester, Stephen was captured and taken before Maud, who had him imprisoned in Bristol castle. This intrepid woman styled herself Maud the Empress, daughter of King Henry, heir to the throne. In the end, however, Stephen would prevail, and a truce was agreed upon between him and Maud whereby the throne would pass to Maud's son Henry upon Stephen's death.

Countess Matilda of Tuscany (1046–1115) was known for always having her sword at hand. During her 30 years of prolonged military endeavors, she powerfully commanded troops and earned great success in battle. Her war cry and that of her soldiers was "For Saint Peter and Matilda!" Saint Peter referred to Pope Gregory VII, keeper of the keys of Saint Peter. Countess Matilda was his military champion, close friend, and spiritual daughter. On her tombstone she had inscribed: "This war-

rior woman disposed her troops as the Amazon Penthesilia. . . . Thanks to her through so many contests of horrid war, man was never able to conquer the rights of God."

Learned in four languages, German, French, Italian, and Latin, she disdained indoor crafts such as embroidery and excelled in arts of the spear. Taught to ride weapon in hand as a lancer and carry a pike as a foot soldier, she could well wield battleax and sword. Matilda made her first foray into battle at her mother's side. She and her mother, Beatrice of Lorraine, defended the reformist papacy of Pope Alexander II (r. 1061–73) against the supporters of the schismatic antipope Honorius (d. 1072). Countess Matilda as warrior fought in battle assisting another warrior woman, just as Queen Maud of England joined martial forces with her stepmother Queen Adelizza. Sometime before 1071 Matilda married Geoffrey the Hunchback (d. 1076).

Matilda's magnificent fortress at Canossa was the source of the modern phrase "coming to Canossa" to describe a colossal public humbling in which a person who previously had held proud position recanted and humiliated himself. Coming to Canossa recalls the triumph of the papal power over the temporal power of Emperor Henry IV (r. 1050–1106). When Gregory excommunicated Henry, the emperor lost the support of his German backers and was forced in the dead of winter to cross the Alps and beg the pope's forgiveness. At the time the pope was staying as a guest in the Matildaças castle at Canossa. To disgrace him and chasten him, she forced Henry to spend four days shivering and barefoot, essentially begging outside her castle gates. The emperor, mightily shamed, succumbed to the pope and his military ally Matilda at Canossa.

Henry IV regrouped his forces and attempted to dispossess Matilda of her territories. Their armies met at Sorbara (near Modena, Italy) in 1084, and she triumphed. After Gregory VII's death in 1085, she would continue to

join military forces with his successors, Pope Victor III (r. 1086–87) and Pope Urban 11 (r. 1088–99), forming other great partnerships. Although twice married, she had no living heirs and thus willed her property to the Chair of Saint Peter; she died at age 70 in the year 1115 after a full, dangerous life.

Queen Eleanor of Aquitaine (1122–1204) was something of a free spirit who invested the same indomitableness that she displayed in the arrangement of her marriage to the French King Louis VIII in her active involvement in the Second Crusade. In 1137 Eleanor agreed to marry Louis on the condition that her territories would remain independent of France and that her oldest son would be crowned both king of France and duke of Aquitaine. Inspired by listening to Abbot Bernard of Clairvaux preach the crusade in 1146, both she and her husband decided to take up the cross and join the Second Crusade. She personally commanded the feudal soldiers from her duchy.

Margaret of Anjou (1430–82) played a prominent military role in the Wars of the Roses (1455–85), which pitted the House of Lancaster against the House of York for the control of England. Margaret led the Lancastrian forces against her archenemy Richard, duke of York, and contrived military strategy.

When John IV of Montfort, the duke of Brittany, died in 1341, his wife, Joanna of Flanders, the countess of Montfort (c. 1365–74), played a key role in the Breton War of Succession (1341–64) for the control of the duchy that had broken out between her husband, John, and Charles of Blois (c. 1319–64). During the conflict Charles was captured and taken prisoner by the forces under the command of Count John. The French historian Jean Froissart (d. c. 1410), a chronicler of the events, describes in moving language how Joanna held her infant son in her arms as she urged her supporters to go to her aid and secure the duchy for her son. After this moving maternal scene we encounter her dressed in full armor astride a battle horse riding throughout the town "street by street" urging the people, men and women, to defend Montfort. She exhorted the women in particular to dismantle the carriageways and to collect the stones to be catapulted against the enemy. Seizing the opportunity, Joanna led a daring raid with 300 soldiers to Hennebont (Brittany), where the enemy tents were camped. They killed the guards, burned the campsite to the ground, and heroically escaped the French troops, who pursued them to a nearby castle, where they were given refuge.

WARRIOR LADIES OF MANORS AND LADY KNIGHTS

As warrior leaders guided their nations in war, household warriors protected their homes and families. The 14th-century countess of Buchan defended Berwick Castle against the attack of King Edward I. She dramatically defended her domain before succumbing to superior forces of the king. He hung her up in a cage on the ramparts of her own castle for his soldiers to mock. Lady Alice Knyvet in 1461 refused to relinquish her Bokenham Castle to the king and triumphed. The king had ordered 10 commissioners and a justice of the peace to claim the castle on the spot by trumped up legal proceedings. When they arrived they found the drawbridge up and Alice and her 50 men armed with swords, glaives, bows, and arrows.

From a castle tower Alice taunted the justice of the peace, threatening personally to engage in war against him even unto death if he ventured to seize her castle from her. In the end Lady Alice prevailed and kept her castle.

Women's letters preserved their shopping lists for armor acquisition. A 15th-century Englishwoman, Margaret Paston, committed to guarding her properties, valiantly defended herself, her buildings, her movable goods, her household servants and retainers, and her chil-

dren. Often left to her own devices when enemies attacked the extensive Paston manors, Margaret Paston was the chief protector when her husband, Sir John Paston, was away journeying on business. He later was a political prisoner in the Tower of London. Lady Margaret Paston brilliantly defended her castles while bombarded walls crumbled and her household men fell dead at her feet. In one letter to her husband in late 1449, she requested that he send to her at their castle called Gresham various armaments: crossbows, grappling irons, *quarrels* or iron shooting bolts for crossbows, and short poleaxes for protecting the doors. These would enable her and 12 retainers to protect the house against Lord Molyns's aggression. She also asked Sir John please to send home almonds, sugar, and fabric for the children's clothes. Lady Margaret's defense arrangements were part of the usual hazardous duties of the woman at work, armed and prudently protected. Years later, in October 1465, Margaret Paston reported to her husband another act of violence against their property, this time at the hand of the duke of Norfolk. Margaret did not then have an adequate army to protect people and property. But she courageously dealt with the aftermath of that attack and the assaults upon the lives of her people.

A letter from Petrarch to Cardinal Giovanni Colonna, written in the year 1343, marvels at the military prowess of Maria of Pozzuoli, a virgin more at home in the company of soldiers than of women, more adept at bearing arms than bearing her charms, a woman "who cares not for arts and crafts, but for darts and shafts," with marshal skills and a hardened, sturdy, battle-scarred body that would be the envy of any male soldier. He describes her as being the first to spring into battle and one of the last to withdraw. And as any hardened male soldier, she bore with "incredible patience hunger, thirst, cold, lack of sleep, weariness" (M. Keen 193).

It may also be a surprise to know that there were female orders of knighthood. In the Iberian Peninsula of the 12th century women played a decisive role in the defense of the Mediterranean city of Tortosa against a Muslim attack. In 1149 Count Ramon Berenger conquered Tortosa from the Muslims. Yet months later the Muslim armies quickly regrouped and launched an attack to regain the city. Unable to send further reinforcements to defend the territory, Ramon is said to have entertained thoughts of ordering the people to surrender. Outraged, the women of the town donned male clothing and in a daring raid forced the Moors to raise the siege and retreat. In gratitude for their participation and in honor of their extraordinary bravery, Count Ramon Berenger founded the Order of the Hatchet (Orden de la Hacha). The "brave women" members of the order, called knights (*cavalleras*), received virtually the same privileges as male knights, including exemption from taxation and even received preferential treatment in public assemblies.

An Italian nobleman from Bologna founded the religious Order of the Glorious Saint Mary in 1233, and it received official approval from Pope Alexander VI in 1261. For the first time female religious knights gained the rank of *militissa*. Also, 15th-century England and the Low Countries witnessed the rise of knighting of women. In England some women knights were honored with the Order of the Garter, the highest honor of knighthood. Even a new terminology emerged to distinguish noncombatant wives or relatives of male knights, called *chevaleresses*, from women knights who engaged in battle, called *chevaliers*.

For Margaret Paston, as for Lady Alice Knyvet, the countess of Buchan, and Maria of Pozzuoli, bearing and using defensive armaments were prudent necessities. Warrior queens, household warriors, and female knights did not depend on prayer or on men. Commanding

women used the same instruments of protection and armaments of destruction that men used. Women rode war horses with spear, lance, pike, and sword and wielded these instruments as expertly as did the men who fought as soldiers. Sometimes men fought under the woman warrior's jurisdiction, such as the fighters commanded by Countess Mathilda of Tuscany and Jeanne of Flanders.

Warrior women, as did men warriors, clashed in hand to hand combat or combated the enemy on war horses. The science and technology of weaponry protected life, family, and property and promoted peace.

Heraldry and Arms

A coat of arms originally was a vest or tunic with identifying insignia to enable others to recognize the wearer's household, family, nation, or corporation. Knights, squires, and heralds wore coats of arms. The phrase soon came to mean not the garment but the identifying insignia, the heraldic device called the charge, with symbolic geometric shapes, plants, and real or fantastic animals, almost always portrayed in six specific symbolic colors, red, orange, blue, green, purple, and black, plus gold and silver, arranged in particular symbolic positions on a shield-shaped background. Heraldic devices, blazons, or arms were applied to the clothing and armor of soldiers, to the barding of horses, and to the costume and livery of all members of a household, as well as to architecture, and they adorned household items such as flags, blankets, tents, weapons, and furniture. Heraldry was inextricably associated with secular clothing for men, women, and children and affected certain clerical clothing and vestments. Heraldry logically could be studied with art, architecture, jewelry, household furniture, and costume but was routinely associated with armaments and armor.

THE ART OF HERALDRY AND HERALDIC ARMS

A main purpose of heraldry was to identify the origins and the social position of the wearer or holder of the colorful emblem or device. By viewing his arms, one could distinguish the birth order of a particular son of a family, his bloodline, and his legitimacy or illegitimacy. A fourth son, for instance, had all the family colors and symbols plus a small, footless black bird called a martin or *martlet*. A baton, resembling a ceremonial stick used by secular or ecclesiastical dignitaries, was a heraldic ordinary band or bend diagonally superimposed upon all other heraldic devices or charges. If the diminutive or one-quarter-width band was a bend sinister, that is left-handed, as opposed to *dexter*, right-handed, that baton sinister in England signified *bastardy*. In France the baton denoted consanguinity, membership in the same bloodline.

Heraldry was the art of announcing, representing, and explaining the colors, symbols, and placements of objects on a shield, the total design called arms of a person, family, household, guild, province, university, corporation, or official organization. There were numerous types of arms. Arms of a family were adopted by a person and clan and shared by all descendants. Arms of allegiance were gained by marriage. Arms of community demonstrated belonging to a corporation or a legal body such as a city or university. A ruler could grant or concede arms of concession. A ruler or a nation was identified by arms of dominion or arms of sovereignty. Arms of patronage were indications of specific jurisdiction for lords of manors and governors of provinces, and patronage arms customarily were added to family arms on the shield. Arms of pretention depicted the insignia or identifying device of a geographic area claimed but not possessed, commonly added to the bearer's own family

arms. Arms of succession were the emblems of a family whose estate the possessor inherited rather than gained by marriage or royal concession.

BLAZON, CHARGE, POSITION

Blazons or heraldic devices or arms were painted on a shield; appliquéd or embroidered on a surcoat; painted, incised, or engraved on a helmet; sewn onto the costume and livery of all members of a household; applied to the design of horses' caparisons; and otherwise adorned garments, hats, capes, blankets, body armor, horse armor, swords, flags, furniture, and architecture.

The heraldic device on a coat of arms or escutcheon was called the charge. Figures included geometric shapes, plants, and real or fantastic animals, almost always portrayed in six flamboyant colors plus gold and silver, arranged in particular positions. The fess (Latin *fascia*, a band, a fillet) was a horizontal band crossing the middle of a heraldic field, one-third the shield's width. The pale was a vertical band. Fess superimposed on pale made a cross.

Specific heraldic colors were used with generally accepted figures, such as the lion, depicted in particular positions. A heraldic animal or human figure depicted as walking was called ambulant as distinguished from sejant, sitting up. If the sejant figure was a four-legged animal such as a lion or yale, it sat with all four legs visible. A figure or animal reclining was couchant, lying down with alert, upraised head. It was dormant if sleeping with head down and eyes closed. An animal or figure ascending from the earth or from the sea was described as assurgent. A coward was a heraldic beast with its tail between its legs. (The name probably was derived from the timorous, undependable rabbit Coart in the beast epics *Reynard the Fox* and *Ysengrimus*.) A full-faced portrait of a horned beast, showing no neck, was said to be *caboched* or *cabossed*.

A heraldic ordinary or charge placed above its usual position was enhanced. A fess or charge placed lower than its usual position in a coat of arms was *abased*. Arms in *dimidiation* combined maternal and paternal families. Those dexter, on the right-hand side, depicted half of the male side joined with the sinister, left-hand, half of the female side of a family.

Figures in heraldry and ornament were accosted if they were placed side by side rather than *addorsed*, back to back, or *aspectant*, face to face. A charge was erased if a head or limb was shown torn from the body, indicated by a jagged edge. A double-queued charge was an animal in heraldry, usually a lion, with two tails. Queued beasts had single tails. The great 14th-century herald and jurist Bartolus de Saxoferrato was granted double-queued arms. A gold roundel or ring called a bezant signified that the bearer had been to the Holy Land on pilgrimage. A sign, symbol, or attribute for a person or an abstract idea, accompanied by a motto, was an emblem (Latin, *emblema*, inlay or insertion).

LION AND YALE

The lion was the most common heraldic beast, the king of beasts, with three major traits, according to the anonymous second-century allegorical Christian text *Physiologus*: the ability to cover its tracks, to sleep with open eyes, and, as a bear, to lick into shape its unformed cubs. In heraldry the major positions in which the lion was depicted included rampant, the lion rearing up on its hind legs, with its body weight on the left leg, the posture suggestive of aggressive, fierce high spirits. A lion *chouchant* was lying on its belly, its legs and paws extended forward and its attentive head lifted. A lion *dormant* was lying down, head resting on front paws, mouth and eyes closed. *Passant* was a lion walking, with its right forepaw raised. A lion *passant gardant* was walking with its head toward

the viewer. A lion *passant regardant* was a walking lion with its head looking backward to the left or sinister side of the shield. A lion *salient* was reared up as if ready for a leap. A *sejant* lion was sitting on its haunches with its forelegs on the ground. A *stanjant* lion was depicted with its body in profile, its face toward the viewer. Baby lions such as the lioncel, a lion's whelp, also were common in heraldry, often appearing several per shield.

Other animals in the heraldic zoo included domestic animals such as geese and ducks and mythical beasts such as the yale, an animal the size of a horse with an elephant's tail and a boar's jowls. Gracing the coat of arms of England and many a bestiary, the yale was depicted with extravagantly long horns that could adjust direction as battle required. At need, one horn could point forward and the other behind to pierce with deadly accuracy any invading enemy.

COLORS, TINCTURES, METALS, FURS

Colors on a heraldic shield were accepted pigments and hues in the emblems and devices, each with a technical title derived from Old French. There were six tinctures: blue was called azure. Red was *gules*; green, *vert*; purple, *purpura*. *Sable* was black, and orange was *tenne*. The two metals represented on heraldic arms were silver, called *argent*, and gold, *or*.

Furs in heraldry referred to patterns of certain colors, metals, and shapes, such as *ermine*, imitating the pure white winter fur of the smallest weasel, a stoat, commonly with a black-tipped tail. *Ermine* in heraldry described a silver or white field with sable, black, spots. *Ermine reversed* was white spots on a black field. The heraldic fur *erminois* was black spots on a gold background. *Sable* imitated the sumptuous rich black fur of the small carnivore related to the marten. *Vair* and *potent* emulated the fur of a north European gray squirrel with a blue-gray back and white belly, its fur highly prized in the

13th and 14th centuries for trimming and lining ceremonial robes. Skins typically were arranged and sewn together as small alternate-colored squares, called *menu vair*. Sumptuary laws restricted larger squares, *grand* or *gros vair*, for use by the higher social classes. On a heraldic shield, the fur was represented by a series of cup-shaped or bell-shaped spaces of two or more tinctures, usually azure and argent, arranged to alternate in imitation of the way the actual animal hides were sewn together. Heraldic *countervair* described bells of the same tincture arranged base to base.

CADENCY

Cadency in heraldry was the mark superimposed upon arms, flags, or banners to demonstrate the descent of various sons in a family. It was almost exclusively practiced in England, Scotland, Ireland, and Wales and rarely occurred in continental Europe. The first son merited a *label*, also called a *bend*, an ordinary or diagonal band across a shield. A *bendlet* was a narrow bend, one-sixteenth of the shield. A *colise* was even narrower. The label or bend sometimes had a tassel, drawn upon the upper portion of the shield, sometimes with three dependent points. The second son in cadency was represented by a *crescent*, a crescent-Moon-shaped charge, with its horns pointing upward. If the Moon points were *dexter*, pointing to the right, the charge was said to be *increscent*, or waxing. If the points were *sinister*, to the left, the charge was *decrescent*, or waning. The third son's sign was a *mullet*, a star of usually five triangular rays or sometimes six or more. A *martlet*, a footless swallow, martin, or small black bird, represented the fourth son, perhaps because this son had no "footing" in the ancestral lands. (A *martlet* also was a small martin, a fur-bearing animal related to the ermine.) An *annulet*, a small metal or stone ring, meant the fifth son in the family. The sixth son was represented by

the *fleur-de-lis*, the seventh, a rose. The eighth son in cadency was indicated by a *cross moline*. The cross was tipped with *millrinds*, resembling the iron support for the rotating millstone of a water-powered or wind-driven mill mechanism. A ninth son had a *double quatrefoil*, two four-lobed devices.

FESS, PALE, CROSSES

One of the most common heraldic devices was the *cross*, also one of the simplest charges made from a vertical upright band, the *pale*, taking approximately one-third the field, plus a horizontal band crossing it perpendicularly, the *fess*, also one-third wide. More complex variations of pale plus fess had decorations at the ends of the cross's arms such as smaller crosses and flowerets. Each of these had its technical title. The *cross botony* or *treffled cross* had triple buds, trefoil shapes, three-lobed, symbolizing the Trinity. The *cross-crosslet* had small crosses at each end. *Crossfitchy* had the lower end of the cross sharpened to a point. A *crossflory* was decorated with *fleurs-de-lis*, the stylized lily, an official royal emblem of France since the days of 12th-century King Louis VII and used by Charlemagne and the Carolingians. A very important heraldic badge, it often took the form of the *flory counterflory*, with the fleurs-de-lis alternately pointing inward and pointing outward.

The *cross moline* had *millrind*-like terminals. A *cross of chains* consisted of four chains fixed to a central *annulet*, which was a small metal or stone ring or fillet around a column's shaft, the ring indicating a fifth son in cadency.

Yet other crosses in heraldry included the *cross of Jerusalem*, surrounded by four crosslets. The *cross of Malta*, or *Maltese cross*, had arms narrow at junction but expanding toward the end, each arm indented at its extremity. The *cross of Saint Andrew*, or the *saltire* cross, was X-shaped white on a blue background. The *cross of Saint Anthony*, or the *tau* cross, was shaped like the Greek letter *tau*. The *cross of Saint George* was a red cross on white ground. The *cross of Saint Julian* was a saltire, or X-shaped cross, with its arms crossed. The *cross of Saint Patrick* was a red saltire on an argent, or silver or white, ground. The *cross patee* was narrow at the juncture, widening toward the ends, forming nearly a square. In the *cross patriarchal* the upper arms were shorter than the lower. In the *cross potent*, or the *cross of Jerusalem*, four *T*s were terminals. The *cross quadrate* had a square superimposed upon the conjunction of the arms of the cross. The *cross quarterpierced* was an empty square marking the conjunction of the arms. The *Latin cross* had its three upper limbs equal, the lower longer.

BAR, CARBUNCLE, CHEVRON

A *bar* in heraldry was a horizontal strip across the shield, no more than one-fifth the shield's width, being horizontal and neither dexter, tending toward the right, nor sinister, toward the left. Heraldic subtypes included the *bars gemelle*, two bars together. A *bar closet* was a half-bar consisting of one-tenth the shield. A *barrulet* was half a closet, a quarter-bar, therefore, one-twentieth of the shield. A heraldic shield charged with 10 barrulets was said to be *barruly*, alternating the metal and tincture.

A *carbuncle* was a stylized depiction of a precious stone or jewel with multiple rays of light emanating from the stone's center. A *cartouche* was an ornament in the form of a scroll, sometimes bearing an inscription or a coat of arms. In heraldry the cartouche was an oval escutcheon of the pope and churchmen of noble descent. A cartouche also was the equivalent of a lozenge or scroll for a lady. The *lozenge* was a shape important in ornament and structure, having four equal sides, two acute angles, and two obtuse angles forming a diamond or a rhomboid. Commonly, it was the shape for the

coat of arms of a lady, as well as a heraldic device within a coat of arms.

A *chevron* was a heraldic ordinary in the form of an inverted letter *V*, one-third the width of the shield. If an upright V shape, it was an *inverted chevron*.

ACHIEVEMENT, HATCHMENT, CANTING ARMS, *IMPRESA*

Canting arms were a device revealing the real or pretended name of the bearer. The Medici family, for instance, had three medicine pills (Latin, *pilula*, "a little ball"), a small ball of medicine for swallowing whole. This later became the family's *impresa*. An *impresa* (Latin, "enterprise") was an emblem or device with a *motto* used to identify a person by commemorating a significant personal quality or past event. The device could be purposefully enigmatic yet allusive and intelligible to those of a similar social class and education. For example, after France's King Louis XII in 1499 had invaded Italy, he created as *impresa* a spiny porcupine with the words "I fight hand-to-hand and at a distance," Latin, *cominus et eminus.* Judges, ecclesiastics, artists, bakers, and great banking families such as the Medici and Farnese had *impresas* applied to their ceilings, tapestry borders, jewel casket covers, personal jewelry, and ceremonial costumes. A device was *fimbriated* if bordered with a fringe or narrow band.

Since the 13th and especially the 14th century popes have been known to own and bear personal arms and to employ heraldry. Almost invariably, medieval popes hailed from noble and aristocratic families and would thus own their own family arms prior to assuming the papacy. Pope Boniface (1294–1303) is known to have borne arms. The official arms of popes, insignia of their supreme leadership of the church, were surmounted with the keys of Saint Peter in saltire and a tiara with three crowns representing the Trinity. The arms of the Holy

See consist of the tiara and two crossed keys, the right one gold (*or*) and the left silver (*argent*). The right key alludes to the spiritual power of the heavenly kingdom, while the left represents the pope's temporal power. Joined by a cord with bows, the two keys signify Peter's power to "loose and to bind."

BARTOLUS DE SAXOFERRATO (1313–1356)

One of the first treatises on the science of heraldry was written by the versatile 14th-century Italian lawyer Bartolus de Saxoferrato (1313–56). Bartolus was a doctor of law, judge, professor at Perugia, ambassador, and acquaintance of Emperor Charles IV. Charles's gift of arms to Bartolus led the learned lawyer to write his *De insigniis et armis* (Tract on insignias and arms), a brilliant explication of the history and meaning of arms, the laws governing their use, and the problems of trademark laws concerning them. Bartolus made numerous important contributions to topics not covered by Roman law, especially in the areas of civil law and international conflict law. He wrote about tyranny and reprisals, defined property and eminent domain, distinguished human from civil rights, and elucidated sovereignty. Lawyers from other countries such as Spain and France routinely referred to his legal opinions when Roman law was deemed insufficient, and even English lawyers respected him, despite the nonapplicability of the concept of civil law in that kingdom.

COLLEGE OF ARMS AND COURT OF ARMS

Heraldry probably was imported to England by the Normans, who conquered England in 1066, transforming William the Conqueror, duke of Normandy, into William I, king of England. Yet the first *heralds' college* or *college of arms*

would be chartered some three centuries later by Richard III in 1483 or 1484, headed by an earl marshal. The college had three kings of arms, known, respectively, as *Garter, Clarenceux*, and *Norroy*. Garter was the badge of the highest order of English knighthood, the Knight of the Garter: a dark-blue velvet ribbon, edged and buckled with gold, with the French motto embroidered in gold: Evil to him who evil thinks, *honi soit qui mal y pense*. It was worn below the left knee. The historian Froissart attributed its creation to King Edward III, about 1344. The king was dancing with a beautiful woman (Seldan in 1644 identified her as the countess of Salisbury) who dropped her garter. The king gallantly donned it saying, "Evil to him who evil thinks."

The Clarenceux was an English chief herald or king-of-arms who directed the funerals of knights south of the Trent River. He also was called the surroy. His northern counterpart was the norroy, charged with arranging funerals and hatchments for dead knights north of the Trent River.

The college of arms also had six *heralds*, who were announcers of identity at a tournament, court, or town, representing Lancaster, Somerset, Chester, Richmond, Windsor, and York. The four *pursuivants* of the college of arms were apprentice heralds who announced arms and households of knights performing in battle and jousts, known as Red Cross or Rouge Croix, Red Dragon, or Rouge Dragon, Portcullis, symbolized by the heavy, grilled, and barbed castle or town gate, and Blue Mantle.

Questions of heraldic arms possession, ownership, and depiction often went to court, a court of chivalry called the *curia militaris*, military court, instituted in the late 14th century in England and France, under the jurisdiction of a constable. A constable (from Latin *comes stabile*, count of the cavalry stable) was a military commander in chief, later a hereditary title. The court adjudicated military matters and questions of who had the right to use particular charges, colors, and furs in arms. It followed civil law, particularly the ideas of the jurist Bartolus.

In one sense the chivalric, military, and heraldic culture of the Christian Middle Ages was decidedly Christian. As we saw, in late antiquity a *Christian* justification had to be invented for Christians to engage in warfare. Augustine's theory of a just war laid the basis not only for active participation in battle by lay Christians but for direct ecclesiastical involvement. In the following centuries the church would command its own army, found and approve monastic military orders whose soldiers were self-proclaimed "soldiers of Christ," declare "holy wars" (against the infidel Cathars), and launch the Crusades against the Muslims. While the Peace and Truce of God movements attempted to set limits to aggression against one's fellow Christians, virtual total war was allowed to be waged upon non-Christians and heretics. Medieval history is filled with examples of occasions when the primary goal of defending the church conflicted with the goals of secular rulers or even the Holy Roman Emperor. Equally, however, church and secular kingdoms joined forces in a common military cause, such as the Crusades. Either way, both church and kingdoms wielded powerful armies and navies equipped with state-of-the-art military technology.

The church influenced and was in turn influenced by the secular culture of chivalry, heraldry, and even courtly love, as knights were encouraged to displace the secular love of and devotion to a courtly lady with love and devotion for Mary, Christ, or the church. Conversely, the medieval feudal knight's devotion and obedience to his lord or lady were, theoretically at least, meant to be second only to his love and obedience to God and church.

To insist, however, on the decidedly *Christian* character of the European medieval culture of chivalry and heraldry is perhaps to exagger-

ate. The following section focuses on medieval Muslim military matters, revealing certain intriguing parallels with Christian chivalry and heraldry. We shall see, however, that whereas Christendom took centuries to articulate a cogent theory of just war that could be reconciled with the nonviolent Jesus paradigm, the Quran itself establishes the mythic paradigm of just war and proper rules of engagement.

ISLAMIC JIHAD, WARFARE, AND WEAPONS

Jihad as Holy War and Striving in God's Path

The earliest Muslim articulations of jihad define it as "warfare with spiritual significance," in order to distinguish it from ordinary warfare waged purely for secular goals (honor, revenge, booty, control of territory, resources, etc.). As the scholar David Cook argues, the translation of *jihad* as "holy war" is not entirely accurate; in legal theory it more closely resembles the Christian theological notion of "just war" (Cook, 3). Cook, Bernard Lewis, and other scholars remind us that the Arabic word literally means "striving," and it is often followed by the phrase "in the path of God," *fi sabil Allah*. In its origins this "striving in the path of God" had clear military connotations and objectives for the sake of a just cause, a concept born of the social and political context that embroiled Muhammad and his followers in wars against the pagan Quraysh tribes who had driven them out of Mecca. Other spiritual concepts and goals inherent in jihad are covenant, redemption, apocalypse, and conversion.

The idea of a just cause or legitimate justification for military engagement is spelled out in numerous quranic verses that seem to legitimate the Muslim resort to war in the aftermath of the forced emigration to Medina: "Permission is given to those who fight because they are wronged. Surely Allah is capable of giving them victory. Those who were driven out of their homes merely for saying, 'Our Lord is Allah'. . . Indeed, Allah will support whoever supports Him. Allah is surely Strong and Mighty" (Q 22:39–40). The Quran also includes jihad in its notion of the "salvific covenant" between God and the Muslims in which Muslims sacrifice their lives and wealth to God in return for a place in paradise (Cook, 9): Allah has bought from the believers their lives and their wealth in return for Paradise; they fight in the way of Allah, kill, and get killed. That is a true promise from Him in the Torah, the Gospel, and the Quran; and who fulfills His promise better than Allah? (Q 9:111).

The redemptive nature of engaging in jihad is most pronounced in the Hadith literature. Hadith compendiums compiled in the ninth century tend to discuss jihad immediately after discussing the Five Pillars of Islam, perhaps giving rise to the belief that jihad is Islam's "sixth pillar." Several Hadiths speak of distinctions among the "true believer," "the sinning but repentant believer," and the "hypocritical believer" who wage jihad and are killed. The hypocrite goes to hell, but while the first two are considered martyrs (*shuhada*) and go to paradise, the repentant sinner's reward is greater. His bloodshed redeems him, washing away his sins and placing him in the highest rank of heaven, just below the prophets, or even endowing him with the power of intercession. In the logic of redemption, shedding one's blood and being killed in the path of God atone for one's sins. This idea is similar to that of the Christian doctrine of redemption through Christ's blood shed on the cross, which inspired

medieval Christian ascetics and flagellants to beat themselves until blood flowed as an act of penitence. Hadiths such as those described underscore the importance of the spiritual intent of jihad: "Hypocrites" who do not fight for God's sake, but rather for material gain, "to show off," or for personal power and glory are condemned to hell.

The first period of Islamic conquests of the Arabia Peninsula and beyond into Iran, Syria, Iraq, Egypt, North Africa, Spain, and parts of France in the seventh and eighth centuries reveals the universal, missionary character of Islam, combined with apocalyptic beliefs in the imminent end of the world. Muslims had to fight ceaselessly against the unbelievers, the infidels, until all humankind either embraced Islam or submitted to the authority of the Muslim state. Until this goal of submission was achieved there could be no comprehensive, lasting peace. According to many Hadiths jihad was to be "in force until the Day of Resurrection," and a final apocalyptic battle between the last true Muslims and the Antichrist was imagined. Some Hadiths spoke of the arrival of a messianic figure, the *mahdi*, who would conquer any remaining infidels before the end of time and defeat the Antichrist (Cook, 23–24).

Conversion to Islam was another goal of jihad, since the earliest canonical Hadiths attest Muhammad established the paradigm of first inviting the polytheist enemy to accept Islam before declaring open war. Should they accept conversion, then war could not be waged; if they refuse to convert, they could elect to submit to the Muslim authorities and pay the poll tax (*jizya*) in order to avoid warfare and gain Muslim legal protection, as did the Jews and Christians. If they refused submission, then the Muslim was to "ask Allah for aid against them, and fight them" (Cook, 19–20). Or, as another early Hadith expressed it, "I was ordered to fight the people until they say, 'There is no god but Allah.' When they have said that, then their

blood and their property is protected from me, solely by reason [of saying it] and judgment upon them is in the hands of God" (Cook, 20).

These Hadiths and others like them reveal some of the limitations and restrictions of military jihad that distinguish it from secular war waged for mundane purposes. They form the nucleus of what would become codifications of the rules of jihad, at first organized as separate chapters in Hadith books and subsequently written as autonomous treatises dedicated exclusively to the topic. The earliest works, such as Abdallah ibn al-Mubarak's (d.797) *Kitab al-jihad* (The book of jihad), were composed by authors who had themselves engaged in warfare with Islam's enemies (the Byzantines, in Ibn al-Mubarak's case). As such, these theoretical treatises often responded to concrete situations and hence varied over time and place.

The jurist and founder of the Shafii school of law, Muhammad ibn Idris al-Shafii (d. 820), is responsible for classifying jihad as a collective duty (*fard kifaya*), meaning that in times of attack a sufficient number of able-bodied men could fulfill the duty on behalf of the entire Muslim community. Yet jihad could be declared an individual duty (*fard ayn*) at the time of defense, especially in the frontline areas of the battle. The Islamic conquests of vast areas across the globe, from Europe and Africa to the Far East, in which many peoples converted to Islam, but many others continued to practice their indigenous traditions, compelled Muslim legal theorists to define jihad, its aims, and its limitations more clearly.

JIHAD ETHICS

Because jihad was so important to Islam, and because it had so inherently spiritual a nature, right conduct in warfare was a significant issue for jurists, philosophers, military commanders, soldiers in the field, and even Sufi mystics. On the conduct of war the Quran imposed limits

on the actions of fighters, the rights in warfare, *ius in bello*, of those who fought in God's cause. The Quran said, "Do not transgress limits, for God loves not the transgressors" (Q 2:190). These "limits" were enumerated as the "10 commands" of the first caliph, Abu Bakr, the Prophet's successor:

1. Do not act treacherously.
2. Do not act disloyally.
3. Do not act neglectfully.
4. Do not mutilate.
5. Do not kill little children, old men, or women.
6. Do not cut off the heads of palm trees or burn them.
7. Do not cut down fruit trees.
8. Do not slaughter a sheep, cow, or camel, except for food.
9. Do not disturb people who devote their lives to prayer in cloisters.
10. Say the name of God over food that you eat that people bring to you on platters.

From the eighth century onward, numerous legal treatises were composed to explain in depth the issues of war raised by the Quran itself, such as the proper treatment of prisoners, both combatants and noncombatants (Q 47:4 and 8:67). In places of warfare, in the *dar al-harb*, how does one treat residents and grant safe passage, *aman* (Q 9:6)? How was booty to be shared (Q 8:41)? Jurists also were concerned with the definition and protection of noncombatants and the restrictions on the use of particular weapons. Who was subject to damage in war? What types of damage could be inflicted upon people? What types of damage could be inflicted upon their property? Was it licit to seek the help of non-Muslims in combat?

Underlying the differing opinions on these issues were the contradictions between the Quran's peace verses and its sword verses. Some jurists contended that the sword verses that required the infidel to be killed superseded the peace verses, and that the only people immune from attack were those who believed in Allah or who because of accidents of birth could not. The Quran's sura 9:5 commanded Muslims to fight all infidels. The Prophet prohibited targeting women and children. A good Muslim could kill any able-bodied polytheist male, whether actually fighting or not. Other jurists insisted on the sanctity of the peace verses. They maintained that incapacity to fight was the only criterion for protection. Therefore, a Muslim warrior could not attack old men, women, children, peasants, slaves, and hermits. The prohibition against direct attack, however, did not grant absolute immunity for noncombatants, because, according to most jurists, people exempt from attack, with the exception of the hermits, were subject to the laws governing prisoners of war. Muslim forces could enslave noncombatants or ransom them, according to the discretion of the ruler.

Another factor stimulating the differences of opinions were the historical exigencies arising from sectarian and theological divisions within Islam that caused Muslim theologians to debate who was a true Muslim and whether it was legitimate to fight other Muslims. Changes in Islam's political and military strength vis-à-vis its non-Muslim enemies also forced a revision of the doctrines of jihad. Opinions about the rules of engagement that dominated during the first centuries of Islam at the height of its military supremacy had to be readjusted to meet the realities of conquests by the crusaders, the Mongols, and the Spanish and Portuguese monarchs. For example, Ibn Hazm of Córdova (d. 1064), best known in the West as the author of *The Ringed Dove*, the famous treatise on the art and etiquette of love, wrote on jihad at a time when the Umayyad caliphate in Spain had disintegrated and the Muslims were under attack by the Christian armies. In this context he reasoned that any noncombatant male could be killed in war, even an "elderly

man, bishop, monk, or a blind man," at the discretion of the Muslim fighter (Cook, 58), thereby departing from the earlier traditions mentioned previously. The Hanbali judge Ibn Taymiyya (d. 1328) was forced to flee the Mongol invasions in his homeland in Harran (Turkey). He issued an important fatwa concluding that the Mongols, although they by then had converted to Islam, were in fact "false Muslims" and therefore "infidels" who must be fought against even more fiercely than overt infidels. This stance went beyond the traditional Hadiths that said it was enough to fight the infidel until he professed, "There is no god but Allah"—God would judge whether the conversion was sincere or not.

While fighting, Muslims were permitted to inflict damage on the enemy's property to the extent necessary to overcome him. Most jurists refused to allow unnecessary slaughter of animals, destruction of homes, cutting down of fruit trees, or the use of fire. The eighth-century Hanafi jurist Muhammad ibn al-Hasan al-Shaybani reported that Abu Naman ibn Thabat Abu Hanifa (d. 767), the founder of one of the four Sunni legal schools, allowed use of catapults and of flooding in order to defeat the enemy. These methods were to be employed even if, when they were used against the enemy target, women, children, and old men would die. If the enemy used Muslims as human shields, Muslim forces had the right to attack them. Abu Hanifa maintained that if Muslims stopped attacking enemies for fear of killing noncombatants, they would not be able to fight at all since there was no city in which there were no civilian noncombatants at all.

Noncombatant immunity was not absolute. Muslim forces were allowed discretion in fighting, but if in warfare innocents died as "collateral damage," then the blame was on the enemy who had made the protection of noncombatants impossible. Damage to the enemy was deemed self-inflicted harm. If Muslim forces violated normal restrictions on conduct, the reason was that the enemy provoked the result.

Strict reciprocity, however, was not a principle of Islamic war ethics. Even if the enemy wantonly disregarded humane treatment of combatants and noncombatants, Muslim armies were not permitted to respond in kind.

Islamic jurists also distinguished between wars against infidels and civil war or any dispute among Muslims, called *fitna*. Rules governing *fitna* did not permit Muslims to ally themselves with non-Muslims. Theoretically, no military decision making was permitted in non-Muslim hands. That prohibition was based on the belief that unbelievers would not apply the stricter code of conduct incumbent upon Muslims when fighting other Muslims. However, in practice numerous caliphs and rulers allied themselves with non-Muslims, such as the military alliances forged between the Christian kings of Castile, Aragon, or Portugal and the Muslim "petty kings," and subsequently the Almoravid, Almohad, and Nasrid rulers in Spain and North Africa. Some caliphs also had non-Muslim battle commanders, such as the Jewish generals employed by Andalusian caliphs. Michael Cook has noted the extraordinary variety of ways in which Muslim scholars conjoined the duty of jihad with the moral duty of "commanding right and forbidding wrong." The canonical Hadith collections record that the prophet Muhammad said, "The finest form of holy war (*jihad*) is speaking out (*kalimat haqq*) in the presence of an unjust ruler" (M Cook, 6, 490). There are numerous chronicle and Hadith anecdotes describing how intrepid individuals as well as wholesale armies invoked this Hadith as the justification for their rebellion against an unjust ruler. In the case of individual civilians, waging the "jihad of the tongue" against an unjust ruler would almost always lead to certain death by execution.

Mention must also be made of the changes in the definition of jihad that arose in conso-

nance with the rise of asceticism and Sufi mysticism, from the ninth century onward. The earliest mentions of a "jihad against the soul" or "the passions" occur in the writings of ascetics such as Ibn Abi Dunya (d. 894), al-Hakim al-Tirmidhi (d. 910), and Abu Talib al-Makki (d. 996). Al-Tirmidhi, the compiler of one of the canonical Hadith collections, includes the saying that "the fighter is one who fights his passions" (Cook, 35). Ibn Abi Dunya and others record sayings to the effect that the "worst of enemies" against which the Muslim must fight in order to enter paradise are his own soul and such things as his wealth, wives, and children that tie him to the mundane world. The acclaimed Sufi and *kalam* theologian Abu Hamid al-Ghazzali gave prominence to the distinction between "greater jihad" against the soul and the "lesser jihad" against one's military enemies. The idea originated in a ninth-century ascetic text that records a Hadith that when a group of fighters went to Muhammad, he said to them, "You have done well in coming from the 'lesser jihad' to the 'greater jihad.' They said, 'What is the greater jihad?' He said: 'For the servant [of God] to fight his passions'" (Cook, 35). Al-Ghazzali reinterpreted Quran 4:95 to differentiate between the militant jihad, in which Muslims fought *with* their bodies and possessions against a common enemy, and a spiritualized jihad, in which Muslims fought *against* their worldly possessions and self or soul. The great Andalusian mystic Muhyi al-Din ibn al-Arabi (d. 1240) also elaborates the idea of spiritual jihad as "spending in the path of God" by generously donating one's money or property as alms to the poor and needy and travelers and collections for the ransom of slaves or prisoners of war.

What is interesting to note is that this spiritual or "greater" jihad does not necessarily preclude or override engaging in military jihad. Indeed, the founder of the Qadiriyya Sufi order, Abd al-Qadir al-Jilani (d.1166), explained

that both the "inner jihad against the soul, the passion, the nature, and Satan" and the "outer jihad" against the infidels are intimately connected: Both are spiritual undertakings and "divine commands" (Cook, 44–45). Some Sufi and ascetic hagiographies relate stories of spiritual warriors, called *muttatawiun*, or volunteer fighters, who lived in frontier military outposts called *ribats* and divided their activities between the inner jihad of spiritual purification and military jihad against the unbelievers in search of martyrdom, the ultimate union with the divine (Bosworth, 776b; Rabbat, 493b). It must be recognized that these volunteer fighters were always in the minority; since the time of the Umayyad and the Abbasid caliphates it was established practice to have a professional standing army (*jund*) of soldiers who received a regular salary and stipends, as well as a share of the booty. The army would thus fulfill the collective obligation (*fard kifaya*) of waging jihad on behalf of all the caliph's subjects.

Slave Soldiers

GHILMAN

Since the mid-ninth century, the institution of military slavery had played a significant role in warfare and increasingly in the maintenance and governance of Islamic states. Originally, these warrior slaves were generically known as *ghilman* (s. *ghulam*) and served as the caliph's or ruler's palace guards or personal army, particularly in times of political strife, in order to prevent civil war and strengthen the central government. The institution began with the decision of the Abbasid caliph al-Mutasim (r. 833–842) to establish a new elite military with exclusive allegiance to him. When he was heir apparent, he demanded that the governor of Transoxiana send him large numbers of Turkish young men captured or purchased in war.

Once in Iraq, these youths had special barracks beside the royal palace in Samarra, segregated from contact with other army personnel and lacking any social ties or loyalties to the local population. According to Dominque Sourdel, the purpose of this maneuver was to prevent the repetition of the civil war that had broken out between local army forces loyal to al-Muta-sim's predecessor, al-Mamun, and those loyal to his challenger, al-Amin (Sourdel, 1079a).

The *ghilman* were required to marry Turk-ish slave women the caliphs selected for them. They learned only the elementary basics of Islam since their formation emphasized com-plex military strategies, tactics, and weaponry. The *ghilman* group originally served as the caliph's personal guard, but soon its members were promoted to high military command. The Turkish *ghilman* generals were the most visible, powerful members of the caliph's court. Al-Mutasim's slave regiment became the proto-type used by later Muslim rulers. It is also true, however, that in subsequent centuries the insti-tution initially founded to prevent civil war and increase the caliph's power ended by playing the role of catalyst of the political intrigue and strife that eventually disempowered the caliph and led to the establishment of the Mamluk dynasty.

MAMLUK WARRIORS AND RULERS

The Mamluks effectively seized power in 1249 shortly after the death of Malik Salih Ayyub (r. 1240–49), the last of the Ayyubid sultans. The Ayyubid dynasty had been founded circa 1171 by Salah al-Din al-Ayyub (d. 1193), the great Kurdish warrior known in the West as Saladin, whose feats included the overthrow of the Fatimid Shiites in Egypt and the defeat of the crusaders. The Ayyubid empire encompassed Egypt, Syria, Palestine, Upper Mesopotamia (Iraq) and Yemen. It was Malik Salih Ayyub who created the Mamluks by recruiting vast contingents of exclusively Turkic slave soldiers to replace the existing Kurdo-Turkish regi-ments loyal to his brother and political foe, al-Adil II. The Mamluk army murdered Malik Salih's son and heir, Turanshah, in 1250 and established their own dynasty, which lasted until 1517. As an institution, however, military slavery would survive in one form or another in the Islamic world right on through the 18th century.

The principal characteristics of military slavery were that the slave soldiers lived in "households" isolated from the rest of the pop-ulation and that particular executive and mili-tary positions were open only to men who had started their military careers as Mamluks, *mamalik*. While free-born Muslims formed part of the professional armed forces through-out the Muslim world, most of the highly trained and skilled leaders started their lives as Mamluks or *ghilman*. Succession to the sultan-ate usually was determined by an armed strug-gle among senior military officers or emirs from whom the sultans typically were chosen. Senior officials of the realm held military rank and very often were active in field command. Civilian officials mostly occupied bureaucratic positions working under military supervision and control. Mamluk control of the state was thus absolute and not limited to military mat-ters. Vital administrative institutions, such as the office of the chamberlain (*hajib*) and the vizierate, the latter of which traditionally had been held by civilian jurists, were replaced by a military officer, called the *naib al-sultana* (the sultan's vice-regent).

Mamluk warrior-rulers also became magnif-icent patrons of art and architecture through their spectacular wealth derived from lucrative trade routes among three continents whose products passed through Mamluk territories. Their foreign origins, social isolation, and rudimentary knowledge of Islam impelled them to seek politico-religious legitimacy through

artistic propaganda. The Mamluks as builders utilized traditional Islamic designs for religious and secular buildings that they lavishly decorated with carved stone, stucco, marble mosaics, and precious materials. Soaring tiered minarets, massive carved domes and entrances, and marble *mihrabs* were characteristically Mamluk, as were elaborate floral and geometric patterns in the carved stonework. Exquisitely calligraphied Qurans, manuscripts, brass bowls, basins, and trays inlaid with silver, gold, and copper show the classical Mamluk style that evolved around the 1330s. Inscriptions, armorial devices, and heraldic emblems were particularly emphasized.

The Mamluk sultanate represents the height of the institution of military slave rule of Islamic lands. In the midst of their internal battles for succession, the Mamluks successfully waged war against the Mongols, the Crusader States, and the Fatimids. Yet in the last century of their dynastic rule they were hemmed in by the Safavids, the Portuguese, and the Ottomans, the latter of whom usurped power from the Mamluks in 1517 but maintained the institution of recruiting foreign military slaves, henceforth referred to as "Neo-Mamluks."

While the dynastic rule of Mamluk slaves is an exceptional phenomenon in Islamic history, there were other instances in which military groupings assumed political control or exercised a heightened degree of power within an Islamic state that exceeded the role of military defense and offense. The gradual weakening of the Abbasid caliphate from the 10th century onward and political and military challenges posed by other contenders, Muslim and non-Muslim, fostered a situation in which military strength determined political and economic power. Many an Islamic dynasty came into being through the agency of military generals who took advantage of power vacuums created by weakening regimes. As noted, the Mamluks overthrew the Ayyubid dynasty, itself founded

and ruled by Saladin, the commander of the Syrian army who led the defeat of a Fatimid dynasty already in decline.

GHURIDS

The Ghurids were an eastern Iranian dynasty that forged a powerful military empire in eastern Persia, Afghanistan, and northern India during the 12th and 13th centuries. Based in the region of Ghur, Afghanistan, the Ghurids rose to power amid a military struggle between the waning Ghaznavid dynasty, which by the 11th century had been reduced to parts of Afghanistan and India, and the increasingly powerful Seljuk dynasty of Iran. The Ghurids converted to Islam after the first sultans of the Turkish Ghaznavid dynasty imposed their sovereignty in the 11th century. In 1150–51 the Ghurids had defeated the Ghaznavids in an epic battle in which they devastated their capital, Ghazna, and then claimed it as their own. By 1175 they had completed their absorption of the Ghaznavid state. With the help of Turkish slave soldiers (*ghulam*), the Ghurids spread their empire from Afghanistan to parts of Iran and India until they were finally overthrown in 1215 by Khwarizm Shah. Ghurid Islamic penetration into India was significant. By the time of the death of the leader Muizz al-Din in 1205, his Turkish slave military commanders had captured the city of Delhi, which would become the Sultanate of Delhi.

Like the Mamluks, the Ghurids were great patrons of the arts and used religious art as a means of establishing political legitimacy. In their origins the Ghurids adhered to the heterodox sect of the Karramiyya, whose literalist and anthropomorphic reading of the Quran, which affirmed God's corporality, prevailed in their hometown of Ghur. Once the Ghurid empire had been firmly established, the Ghurids sought to prove their adherence to and defense of orthodox Sunni Islam by patroniz-

ing the building of madrasas and mosques with beautiful minarets.

GHAZIS

Ghazis were "warriors for the faith." Their title derived from two Arabic words: the verb *ghaza*, meaning to strike or make a raid, and the noun *ghazwa*, meaning military expedition. From the time of the prophet Muhammad, the term *ghazwa* referred to those raids against the enemies of the new faith, Islam. The *ghazi* was thus "one who waged war for the faith." Ghazis were connected with Islamic chivalric orders and ultimately deeply influenced by Sufism. Historical chronicles mention their participation in the Muslim-Byzantine wars beginning under the Umayyads and continuing into the Abbasid period, from the ninth century onward. The Abbasid caliph al-Nasir (r. 1180–1225), in a last attempt to restore the power of his weakened caliphate, reorganized the *ghazis* into a quasi-religious fraternity of loyal soldiers, which combined the Islamic principles of chivalry with certain tenets of Sufism.

In Asia Minor the ghazis hailed mainly from nomadic Turkic tribes, and their zeal for jihad (and desire for booty) led them to initiate their own conquest of infidel territories, such as Anatolia, without first obtaining the permission of their patrons, the Seljuks. In the 13th century the Mongol invasions of Asia Minor forced many Turkic tribes to flee into Anatolia. Among the new refugees were Dervishes who joined the ranks of the ghazis, infusing them with their particular spirit of Sufism and jihad fervor. A contemporary 13th-century historian, Eflaki, wrote that the ghazis wore distinctive white headgear and that the sultan of the ghazis would undergo an initiation ceremony in which he would wield a club and recite the words "I shall beat down my passions with this club and with it I shall strike dead the enemies of the faith" (Melikoff, 1043b), words that reinforce the inseparable ties between spiritual and military jihad. This new ghazi spirit would lay the foundations of the Ottoman Empire of the 14th century.

ALMOGAVARES

It would be mistaken to assume that only Muslim states made use of mercenary or slave soldiers. In Christian Iberia the Spanish and Portuguese monarchs utilized the Almogavares as mercenary soldiers in their armies, primarily as light infantry but also in the cavalry. Customarily, they carried two or three javelins for hurling and a sword for close combat. The term *Almogavares* derives from the Arabic *al-mughawir*, meaning "one who makes hostile incursions," in other words, a raider, suggesting that the use of such soldiers may have been an adaptation of the Islamic practice of using mercenaries or slaves as soldiers. Perhaps because of their Arabized name, the 14th-century chronicler Bernat Desclot thought they were Saracens or possibly Christian Mozarabs. The Almogavares hailed from the mountainous territories of Aragon, particularly the region of Catalonia, and they fought as mercenaries for the Crowns of Aragon and Castile. Almogavares troops accompanied James I in his conquest of Valencia in 1238 and are also mentioned in the 13th-century legal code of Alfonso X of Castile and León as fighting alongside the Castilian monarchs. They were prominent in the Castilian-Aragonese armies that defeated the French after Phillip III invaded Aragon in 1284.

Their 14th-century Sicilian campaigns were considered spectacularly cruel and brutal. Captain Roger de Flor from Sicily worked for the Byzantine emperor Andronicus II. With 4,500 mercenaries, Roger sailed to the east to fight the Turks. After Roger de Flor was assassinated along with 130 of his entourage in 1306, Berenguer de Entenza emerged as the new leader.

The Almogavares defeated the Byzantines at the Battle of Cephissus and ruled the Duchy of Athens. Catalan culture prevailed there until 1380, when Athens reverted to the Crown of Aragon and later to the Florentines.

Weaponry

The weapons that Muslim armies used for warfare derived from several ancient traditions: Greek, Roman, Persian, Indian, and Chinese. Islamic invasions beginning in the mid-seventh century led to improvements in individual weaponry, such as swords and scimatars, and crew-operated weapons, such as siege engine mangonels, interchangeably called *manjaniq* (from which the word *mangonel* derives) or *arrada*. Siege machines became powerful, deadly stone-throwing devices that used power sources that included tension devices, tortion energy storage systems, human power, traction counterbalanced sling devices, and incendiary rockets.

Warfare treatises of great military engineers were preserved in the military libraries of early Byzantine Constantinople, Sassanian Iran, and courts of India. Arabic military treatises preserve parts of these books on warfare and military devices for offensive and defensive success. Early Muslim caliphs used the military engineering and siege devices of conquered peoples such as the Arabized Syrians, the Greek Byzantines, the Iranians, and the Turks. Early Umayyad armies that attacked Constantinople brilliantly emended siege engines they borrowed from various cultures. By the mid-eighth century, Caliph Marwan II had 80 stone-throwing machines stored at Hims in Syria. Islamic armies trained specialist siege troops. By the time the capital of the Abbasid caliphate had transferred to Iraq, Islamic armies had siege engine mangonels, *manjaniqs*, stationed in important Islamic fortresses. Military stone-thrower specialists accompanied most major expeditions.

SWORD, *SHAMSHIR, SHIRKARGAR, KILIJ*

Damascus swords were renowned for their high quality and beauty. Damascening was the technique of decorating iron, steel, or bronze with inlaid threads of gold or silver. Designs sometimes were geometric or floral and frequently consisted of Arabic inscriptions. Forging of these weapons created a so-called watered effect on sword blades and sometimes on the hilt, the grip, and the scabbard. Damascus swords were manufactured in the city of Damascus after the 10th century, but in the West the name *Damascus sword* was given to any fine weapon that resembled those from Damascus, the great marketplace on caravan routes between East and West. Many so-called Damascus swords were made in Persia and India.

Sword manufacture in Damascus between the 10th and 15th centuries used metal ore said to have originated in Lebanon. Some Damascus swords were straight and single edged, while others were straight and double edged. Most Damascus swords were curved and resembled either the Turkish *kilij* or the Persian *shamshir* (also called *scimeter* and *scymiter*). The strongly curved Persian *shamshir* was a cutting weapon. The saber's extreme blade curvature was purely for cutting, not for thrusting. The curve was perfect for the draw cut that Asiatic warriors favored and for which the weapon intentionally was created.

Blades were narrow but thick. They were decorated with the name of the maker or owner and sometimes the date. The hilts were simple and light with a single cross guard, or quillon, and a pummel projecting at one side. Other types of hilts were recurved quillons.

Scabbards ordinarily were covered with leather, sometime embossed, and the steel

The first attack on Constantinople in 1453 by the Turks is shown in this oil on canvas by Palma Giovane (1548–1628)   Erich Lessing/Art Resource, NY.

mountings were chiseled or inlaid. The hilts and mountings sometimes were decorated with carving, inlay, or enamel. Better *shamshirs* were made of watered steel. The blade had an even curve. The Turkish form had an uneven blade that required the scabbard to be slit at the back in order to stow the weapon. The Persian *shamshir* was carried edge down and hung from the left side of the belt by two slings.

A *shamshir shikargar* was a Persian hunting sword. It differed from the military *shamshir* popular in Persia and India primarily in its decoration. Hunting scenes were engraved or inlaid on the blades.

The *kilij*, or *qillij*, was a Turkish saber with a blade that was broader, shorter, and less curved than that of the Persian *shamshir*. The major difference between the *kilij* and the *shamshir* was in the point. In the Persian weapon the back was a curve nearly parallel to the edge. In the Turkish weapon the curve of the back stopped eight or 10 inches from the point, and the blade then widened out and extended to the point nearly in a straight line with a sharp edge on the back. Therefore, the Turkish *kilij* could be used for thrusting. It became a common Middle Eastern design in the 15th century and thereafter.

The *kilij* hilt was curved (later called pistol shaped) and made of horn, bone, ivory, or stone, fastened to the flat tang. The sword guard was a straight, slim crossbar, with balls or acorns at the terminal ends. The curve of the blade required the scabbard to be open at the top to contain it. The sling loops were generally on opposite sides of the scabbard that was hung in front of the wearer with the edge usually worn upward.

Metal Inlay   Islamic inlaying of metal upon metal used three basic techniques that were called by those who admired the workmanship in the West, particularly in England, false damascening, true damascening, and fire gilding. In fire gilding gold or silver was mixed with mercury into a thin amalgam paste and then pressed on the metal base. It was then heated to eradicate the remaining mercury. The precious metal residue then was firmly attached to the base. Since this layer of precious metal was very thin, it rubbed off easily. This sort of inlaying was common in the East and in parts of Europe.

False damascening was also called incrusting, and in India *koft*. The artisan covered the surface for decoration with cuts and scratches, with the burrs left attached. The precious metal inlay then was pressed in on the lines of the pattern. In the hands of a skilled damascener, this was a beautiful decoration technique. But false damascening did not last as long as true damascening.

True damascening, called in India *tah i nishn*, required a pattern cut in deep grooves with special burins that allowed the groove to be round at its bottom to accommodate wire, and, if accommodating other shapes of precious metal pieces, the groove was flat with straight sides. Customarily, a groove was two-thirds the diameter of the wire. The inlay was created from the softest procurable metal, generally a pure gold or silver. When pressed into the grooves, it was hammered down, or, more likely, the burr edges were pressed against it with a blunt punch or chisel. This held the inlay in position firmly and essentially permanently. The design that had been chased and then the wire or other metal shape worked down into it formed a delicate, intricate pattern. Since the ornamental damascening penetrated the steel, grinding did not remove it.

True and false damascening were used in Persia and India. True damascening was significant in the cities of North Africa and al-Andalus. The artisans of Turkey, Persia, India, and al-Andalus possessed great skill in inlaying Arabic inscriptions. The curvature of Arabic letters required precision, for a variation in the curve could change the meaning of the message.

LANCES FOR COMBAT

Mounted warriors often carried lances. The lance was the spear of the mounted solider. The four parts of the Western lance were the shaft, socket, vamplate, and grate. The long shaft, staff, or truncheon customarily was made of wood, initially of ash and then in the 15th century cypress in the West, and of lighter wood in the East. The length varied from 10 to about 14 feet in the West, shorter, to 10 feet, in the East.

The lance head, also called the socket or leaf because it was leaf shaped, was sharply pointed. However, a jousting lance customarily had not only a blunt head but three blunt points from approximately the 13th century on called coronals, cornels, or crownackles. These permitted the jouster to thrust his opponent firmly without the blade's penetrating his armor or body.

The vamplate was the hand guard adopted routinely in the 14th century, customarily made of iron, conical in shape, and five to 12 inches in diameter. The jousting vamplate was larger and more elaborately shaped. The 15th-century vamplate for warfare was nearly flat and the jousting more conical. The vamplate fastened to the shaft immediately in front of the grip or hanste.

The lance grate or grapper was a heavy metal ring fastened to the shaft right behind the grip. Its purpose was to distribute the shock over the entire body by bearing against the lance rest that was lined with felt. The grate was adopted for jousting around the year 1325 and was used until the end of the 14th century, when the lance rest was integrated into the war harness. The grate then became wider and had blunt spikes on the back that were forced into the lining of wood or lead in the lance rest.

Lances in the East were lighter, shorter, and therefore probably easier to wield than the European lances. The Turkish lances had light cylindrical shafts with fairly broad, flat heads. In Persia and India the shafts usually were wood but sometimes made of bamboo, the powerful grass. The heads were small, and the weight of the lance was counterbalanced by an ornamental spike on the butt. The spike was thrust into the ground when the lance was not carried, and in camp this kept the lance upright and prevented it from bending. Decorative parade lances were made of ivory cylinders strung on a steel rod. Some lances were made entirely of steel, the small pieces locked together to form a light, stiff, strong shaft.

SIEGE WEAPONS: *MANJANIQ*

The most significant siege weapons in Islamic warfare were the mangonels, called in Arabic *manjaniq*. The 15th-century military manual called *An Elegant Book on Mangonels* (*Kitab al-Aniq fi l-manajaniq*), written in Egypt or Syria in 1462 by Yusuf ibn Urunbugha al-Zaradkash (d. late 15th century), is said to be one of the most copiously illustrated medieval manuscripts to survive anywhere. Al-Zaradkash brought to light weapons technologies that had been lost in earlier Arabic and other treatises. The text was the most detailed instruction manual for the construction and employment of mangonels and provided invaluable information to siege engineers and military commanders, especially the Mamluks.

An Elegant Book on Mangonels explained, for instance, that the three basic methods for throwing stones depended upon either torsion or traction. The first system was torsion powered, relying on power stored in twisted ropes or skeins. The second depended on traction, using a beam-sling pulled by one or more men or women and, in more sophisticated later devices, by a counterweight. The third system worked essentially as a large crossbow. Al-Zaradkash's detailed illustrations indicated the suitable machines to be used for specific purposes, such as to be mounted on a fortified tower. *An Elegant Book on Mangonels* demonstrated, among other things, how to construct and then erect the weapon frame, how to mount the weapon arm on an axle, and how to attach the counterweight of the war mangonel, *manajaniq harbi*, a lethal ballistic machine. A man-powered mangonel was called a *manajaniq arradah*. The *arradah* was most likely a single-armed machine, like the Western *onager*, or "wild ass."

Arradah   The name *arradah* apparently was from an Aramaic word for "wild ass." The name is obviously a translation of the ancient Roman *onager*, which, as mentioned, also

meant "wild ass." A donkey with its rear legs kicking upward could have been the analogy for the single-armed machine or, for that matter, a beam-sling traction machine. Al-Zaradkash's military manual *al-Aniq fi l-manajaniq* illustrated the man-powered beam-sling weapon. Though not specifically mentioned by name, the prophet Muhammad's army is said to have used a weapon resembling the *arradah* during its siege of the walled city of Taif in Arabia in the year 630. This was a full generation before the Muslim Arabs were thought to have used the beam-sling *manajaniq* in Central Asia. By then the *arradah* had been used both against the Arabs and by the Arabs in northern Syria, in Egypt, in Iraq, and in Iran.

The Abbasid caliph al-Mutasim, who laid siege to Byzantine Amorium in central Turkey in 838, had each siege machine controlled by four men, and each machine was placed on a carriage carried by a cart. Perhaps a torsion-powered weapon, in the caliph's capital of Baghdad the *arradah* was described as requiring large quantities of rope, suggesting a man-powered beam-sling traction device. Whether the Islamic *arradah* was torsion powered or traction powered, these lightweight, powerful instruments were used throughout the Islamic world, mounted on fortification towers, on walls, and on battlements.

The 11th-century traveler Nasser-i Khusraw described Tripoli in Lebanon as having *arradahs* placed along the battlements for protection against the Byzantine Greeks likely to attack by ship. Throughout the Crusades Muslim warriors used the *arradah*. *Arradahs* were employed in North Africa and in al-Andalus (Muslim Iberia) as well.

The Christian Spanish military adopted the weapon from the Muslims, transforming the original Arabic spelling of *arradah* into the Spanish *algarrada*. The 13th-century Muslim scholar Fakhr al-Din Mubarakshah wrote in Arabic a treatise entitled The Art of War and Bravery (*Adab al-harb wa l-shuja'a*). There he listed the simple or single *arradah*, which he called *arradah-i yak ruy*; the rotating *arradah*, *arradah-i gardan*; the stationary *arradah*, *arradah-i khufta*; the fast-shooting *arradah*, *arradah-i rawan*; and last, the big *arradah*, *arradah-i giran*. Fakhr al-Din also used the analogy of the kicking donkey or little ass. He stated that attackers used a little ass, or *khark*, to bombard a parapet and its warrior defenders.

Ziyar The *ziyar* was a torsion siege weapon. Its twisted ropes or skeins were made of animal tendons, animal hair, or silk. Used from at least the 12th century, it was either single armed or double armed. Saladin's men effectively used *ziyars* during the siege of Acre in the Third Crusade (1189–92). In the 13th and 14th centuries the *ziyar* was used in Morocco and was sufficiently small and portable that one single ox cart could carry four siege weapons. It was used to throw stones or semiexplosive incendiary material. The bow *ziyar*, *qaws al-ziyar*, could shoot large arrows.

Saladin as prime minister, or vizier, of Ayyubid Egypt commissioned a military treatise by Mardi al-Tarsusi in approximately 1169 that described a gigantic two-armed torsion-powered siege weapon called the *qaws al-ziyar* and known in Europe as an espringal. According to al-Tarsusi's *Tabsirat arbab al-albab fi l-najat fi l-hurub* (Instruction of the valiant on prevailing in war), the frame for this weapon was gigantic, over 16 1/2 feet tall. It had strings or skeins of mixed silk and horse hair. The frame was made of unseasoned oak. The draw weight weighed one and a half tons. Even without the windlass, Mardi al-Tarsusi explained that 20 men were needed to pull back its bow string. The missile it shot had a head weighing four and a half pounds. In 1239 Emperor Frederick II (d. 1250) purchased a smaller *qaws al-ziyar*.

In early 14th-century Morocco a dismantled *qaws al-ziyar* required 11 mules to carry it. Al-

Zaradkash mentioned in his *An Elegant Book on Mangonels* a similar type of weaponry called the *kuskanjil.* It had three strings and two separate bow arms, resembling the double bows used in China.

The Bride, the Long-Haired One, the Mating Stallion *Manjaniqs* had suggestive, erotic nicknames. It was called the "bride" or the "long-haired one," the name probably referring to the numerous pulling ropes attached to one end of the beam. However, the *manjaniqs* themselves were compared to sexually excited stallion horses or camels, probably, according to experts, referring to the upward swing of the weapon sling and the way a stallion camel uses its tongue.

Shooting a *manjaniq* required practice to gain precision. At the siege of Mecca during a Muslim civil war in 691–692, a shooter tucked up his long robes, picked up a rock, placed it in the sling, and ordered his team of rope men to pull. The shooter did not release his hold on the sling immediately but judged the precise propitious moment against the tension of the pullers to achieve an accurate throw of the missile. Al-Hajjaj ibn Yusuf (d. 714), a governor in the service of the Umayyad caliph Abd al-Malik b Marwan (r. 685–705), recommended that the *manjaniq* master place the weapon to aim at the flag staff and so knock it down. This accurate shot demoralized the garrison, and the city of Mecca surrendered thereafter. The Arab historian Ahmad al-Baladhuri (d. 892) wrote an account of the Arab siege of Daybul, now Pakistan, in 712. The Muslim commander named Muhammad ibn al-Qasin used a *manjaniq* called "the bride" (*al-arus*) operated by 500 men. At Daybul there was a high temple surmounted by a long pole flying a red flag.

Manjaniqs were used against defenders on walls, on parapets, on buildings inside fortifications, and on ships attempting to break a blockade. So common were *manjaniqs* that they were used as analogies for describing other things. When the 11th-century traveler Nasir-i Khusraw saw a lighthouse north of Basra, Iraq, he said it was made of four gigantic timbers, like a *manjaniq.*

The earliest technical definition is from the *Keys of the Sciences*, *Mafatih al-ulum*, the famous compendium of technical terms for all the known sciences, religious and "foreign," written in the 10th century by Abu Abdallah al-Khwarazmi at the behest of a vizier in the court of Bukhara. The elements of the *manjaniq* consisted of the supporting frame or chair, the *kursi*; the sow or axle, called *khinzira*; and the arrow or beam sling called the *sahm* that had a piece of iron called an *istam*, to which the sling was attached. The acclaimed belletrist Abu Uthman Amr b. Bahr al-Jahiz of Basra (d. 869) mentioned another type of *manjaniq* in use in the ninth century, called the "daddy long legs," or *rutilah.*

Human-powered *manajaniqs* were used until the 15th century even though more powerful counterweight *manajaniqs* had been invented, and guns already were employed in the 14th century. The simple reliable human-powered *manajaniq* was a useful high-trajectory antipersonnel weapon.

Luab, Arab, Turkish, and Frankish *Manjaniqs* Al-Tarsusi described the early Islamic *manjaniqs* as belonging to four basic families, the Arab, Turkish, Frankish, or European, and the much smaller *luab*. The Arab *manjaniq* was the most accurate and reliable. But it was difficult and complicated to build. The Turkish was the easiest to erect but erratic to shoot. The Frankish incorporated features that overcame the inherent problems of the simple Turkish *manjaniq*. All *manjaniqs* powered by teams of rope pullers had specific maximal ranges, about 400 feet, and also minimal ranges, about 260 feet. The best wood for the beam sling was cherry. Cedar also was used. The axle and frame were made of unseasoned oak. The *manjaniq* arm was

cut from a single piece of timber. The metallic elements included an iron hook for the sling and iron nails for the frame. For a human-powered *manjaniq* three-quarters of the arm was on the sling side of the axle and one-quarter of the arm on the rope puller's side. Ropes were made of hemp. The smallest human-powered *manjaniq* had a restricted range. It was mounted on a single pole. Its arm moved side to side, enabling the military operator to aim it in any direction. The arm was mounted on a turner, or *lafata*, that was a rotating swivel.

Frankish, Maghribian, Black Bull, Devilish *Manjaniqs* The *manjaniqs* of the 12th and 13th centuries were known as the western European or Frankish *franjiyyah*; the western Islamic or Maghribian *maghribiyyah*; the black bull device, *qara bughawiyyah*; and the eastern "devilish" device, *shaytaniyyah*, from the word *shaytan*, meaning "devil." The devilish device was human-powered and used against the crusader-held city of Damietta in Egypt in 1218.

The *manajaniq al-arus* could shoot in any direction. The fast throwing mangonel, *manajaniq-i rawan*, and the Persian devilish device, *manajaniq div* (from the Persian *div*, meaning "demon"), probably were related to the *manajaniq ghury*, possibly introduced by the Ghurids, who, as mentioned, ruled northwest India until 1215. The *manajaniq sultani* resembled the *manajaniq ifranji* in that it was a small weapon mounted on a pole, rather than on a frame. Two sets of five ropes were tied to two iron rings attached to a splayed H-shaped piece of iron that was fastened to the beam-sling arm.

The treatise by al-Tarsusi, which Saladin had commissioned, described a counterweight mangonel or trebuchet. A band of freebooters in 1089 under the leadership of Khalaf ibn Mulaib seized the central citadel of Salamiya in central Syria. To demonstrate their power and sovereignty, they tossed a respected local leader over the walls using a *manjaniq*.

In 1138 the Byzantines placed the Syrian Arab fortress of Shayzar under siege. An eyewitness to these events, Usamah ibn Munqidh, the Arab-Syrian gentlemen-warrior, recalled in his memoirs that the *manjaniqs* could throw a stone farther than the distance covered by an arrow and that one stone projectile had the power to destroy an entire building. He saw the mangonels breach the outer wall of Shayzar.

Al-Tarsusi also described the Persian *manjaniq*, which was very similar to the Turkish variety, except that the beam-sling had an iron ring at its lower end to which a netting bag filled with rocks was attached. The bag would hit the earth as it dropped, so a trench was excavated between the base frame timbers, enabling the bag of rocks to complete its arc when the weapon was loosed. A pulley system to pull the beam-sling down and therefore raise the counterweight had not been necessary. A novel element in the Persian *manjaniq* was the inclusion of a large crossbow or *jarkh* into the release mechanism. This *manjaniq* could be operated by one person and hurl colossally heavy missiles.

The black bull *manjaniq* was used in Akhlat, Turkey, in 1229. It also was mentioned in an epic poem called *Destan of Umur Pasha* (15th century) that described a crusader naval assault on Izmir that the Turks repelled. The poet told of an African Moor who built an amazingly small *manjaniq* that was especially pernicious. It was impossible to count the number of Europeans he killed. The Europeans on their ships shot their mangonels and threw rocks, but this African with his single *manjaniq* destroyed them all and broke their boats to pieces.

When the Mongols overran Central Asia and Iran in the 13th century they started using counterweight *manjaniqs* because they recruited Muslim and European specialists to operate these stunning weapons. Muslim artillerymen also were recruited by the rulers of southern

Vietnam in 1282. In the 14th century the Moroccan traveler Ibn Battuta described the *manjaniqs* aboard Indian Ocean ships that hurled rocks and incendiary devices. Upon his return he observed that a town on the coast of Malabar used *manjaniqs* against transports that attempted a beach landing.

CROSSBOWS

Great crossbows were rare in Islamic military treatises. However, in his *The Elegant Book on Mangonels* al-Zaradkash describes gigantic crossbows, which he calls *qaws al-aqqar*. Some of the manuscript illustrations show the weapon with a spanning or stringing table frame or with a toothed winch. The Sassanian Iranians used an arrow guide, an earlier form of a crossbow, against the seventh-century Arab Muslim invaders.

The first real crossbow was a *foot bow*, or *qaws al-rijl*, mentioned in the Islamic Middle East in 881 when used by Abbasid troops against rebels in southern Iraq. The *qaws al-rijl* also was used in the city of Tarsus in the mid–10th century. Egyptian marines under the Fatimids paraded with their stirrup crossbows, the *qaws al-rikab*, in the 11th century. This crossbow shot heavy bolts.

The Persian crossbow, called the *charkh*, was spanned by a windlass or pulley. This heavy weapon was mentioned in the magnificent epic poem *Shah Nameh*, written before the year 1000 by the Persian poet Firdawsi (d. 1020). The epic described the Persian ruler who led his army against the Turkish foe. The warriors of Baghdad who were with Zanga, the son of Shawaran, were men chosen from Karkh. He ordered them to take their places on foot with their windlass bows in front of the elephants. If two miles of mountains had been in their way, they would have pierced the rock's heart with their arrows. No one was able to withstand their shots.

Persian windlass bows were called *kaman charkh*. The Arabs borrowed the Persian term and called their crossbows *jarkhs*. Turks called their crossbows *carhs*. In India the Indian Islamic armies used the *charkh* until the 16th century.

INCENDIARY WEAPONS

Fire weapons were important in Islamic, Indian, and Byzantine warfare. In the Middle East oil was abundant from olives, pine resin, or petroleum deposits. As early as the fourth century the Persians used advanced military pyrotechnics that water could not extinguish. The fourth-century Roman writer Ammianus Marcellinus knew that the secret ingredient was called naphtha. Early Byzantine armies, as did the Roman, used incendiaries made of resin, oil, bitumen, and sulfur attached to arrows or javelins. By the sixth century the Byzantines used fire pots called *chouzia*.

In the seventh century the Byzantines invented Greek fire. Greek fire was credited with having saved the Byzantine Empire from the Muslim Arab invasions. Kallinicos, the presumed inventor of the weapon, was a Syrian Christian architect who deserted the caliph in 673 and took his knowledge of mixing crude oil with other ingredients to the Byzantine Empire. The Byzantines obtained their oil from the land north of the Black Sea where crude oil oozed to the surface. Once ignited, the mixture of crude oil and other ingredients was so difficult to extinguish that fire burned on the waters of the sea. Fire weapons became more and more dependable as methods were developed to project Greek fire using siphons and blowing tubes and to prevent blow back onto the warriors through the use of projectiles.

In 1054 a European mercenary in service to the Byzantines pretended to be an envoy to the camp of the Turkish army besieging Manzikert. Suddenly, he produced "three bottles of

naphtha," which he threw against the enemy's siege engines before galloping back to safety. These grenadelike weapons had fuses probably already ignited and perhaps hidden beneath the soldier's cloak.

Islamic incendiaries were powerful against 12th- and 13th-century crusaders. The early eighth-century Umayyad caliphs assembled incendiaries before major siege campaigns. They used fire weapons in river warfare inside Iraq in the mid-eighth century.

The first reference to Greek fire or *naft* in siege warfare was during Abbasid caliph Harun al-Rashid's attack on Byzantine Heraclea in the year 802. One account states that *manjaniqs* propelled rocks wrapped in *naft*-soaked fabric over the walls. A 12th-century source described large clay pots containing *naft* covered in felt before being thrown. Handheld *naft* grenades in the 12th century were used against Indian war elephants. *Naft* throwers rode in *hawdahs*, carriagelike enclosures, on the backs of four elephants during a caliphal parade to impress a Byzantine ambassador in the year 912. Apparently, Muslim warriors attempted to lure an enemy onto *naft*-soaked ground, where he would be consumed by deadly fire.

Naffata   As noted, Muslims used Greek fire flame throwers at sea. A Latin text described the Saracens making a hearth on the bow of their ship upon which they rested a bronze vessel filled with specific ingredients and then built a fire under it. Similar weapons were used earlier against a rebel-held castle in northern Iraq and during a civil war in 934. One army tried to use *naft* siphons in open battle, but when the wind changed, the flames were blown back onto the users.

A flame thrower was called a *naffata*. A poet of the 10th century described a flame thrower, a *zaraqat al-naft*, as a yellow metal tube having an ignition fuse in its mouth. When ready to project, it rushed by as quickly as the wind. It made wind that enveloped men in a cloak of darkness (smoke) like a protecting fortress. Its handle was like a pig's tail standing on its head. When one pulled the handle, the weapon released its wind, which struck like a spear. It spit lightning between two nights, the dark night inside the machine and the darkness of the smoke. It plunged into the battle naked for the most terrible vengeance. A targeted person could not escape, neither in surrender nor in retreat.

In the 13th century the Syrian historian Shams al-Din Abu Abdallah al-Jazari described the *naft* siphon with nonreturn valves. Other Arabic sources depicted a *naft* projector with a small brass tank for the volatile fuel. The stream of oil-based liquid was ignited by a rose, or *warda*, mounted on top of the nozzle. This was a slow-burning fuse to produce the shooting star, the *shihab*, as long as a spear.

Qidr Iraqi   As we have seen, *naft* was a deadly weapon against the crusaders, whose siege machines were easily ignited. Special professional makers and wielders of incendiaries formed part of the Islamic troops. Arab swimmers carried *naft* into the harbor during the Third Crusade when Saladin's garrison was besieged at Acre. Damascus coppersmiths created copper containers. The copper *naft* pots were hurled by a *manjaniq* and burned the Christian siege engines to cinders. The Iraqi pots, *qidr Iraqi*, also were shot from *manjaniqs* during the siege of crusader-held Damietta in 1249. They were described as large casks with a tail aflame, the length of a large spear, which exploded on impact. The purest Iraqi *naft* was called "white" and was a clear liquid, but "black" *naft* could be converted to white by a process of oil refining. The *naft* mixed with animal or vegetable fat, lime, resin, and sulfur made it adhesive, much like modern napalm. But saltpeter added to *naft* made it even more destructive than Greek fire.

By the 10th and 11th centuries seven different purifying methods for saltpeter were used, and by the late 13th century apparently there were 70 methods. Packets of *naft* were attached to arrows, javelins, spears, maces, and grenades. Before the development of guns, Arab-Islamic military technical texts such as the 13th-century treatise by Hasan al-Ramah depicted early rockets attached to a rod with an incendiary warhead. In the 13th century Fakhr al-Din Mubarakshah's *Adab al-harb* (The art of war), which had been commissioned by a Muslim ruler of northern India, included assorted incendiary devices including fire arrows, an iron fire shovel, and containers for burning oil.

DABBABAH, DARAJAH, SHIELDS, SHEDS

Aggressive uses of fire weapons required protection of the warriors in the field. Islamic armies utilized mobile sheds and shelters. A particularly popular protective shed was called the crawler or *dabbabah*. During Muhammad's siege of Taif in the early seventh century, a *dabbabah* was used, but because it was covered with fresh cowhides it tended to burn when red hot iron bars were dropped upon it. Later *dabbabahs* were fire-proofed with iron sheeting. If the mobile shelter had a defensive tower, it was called a vertical crawler, a *zahhafah*.

Other protectors included the *darajah*, which was invented in the 10th century. In the 14th century the Turks called their smaller infantry protections "little frogs," perhaps because they advanced in short bursts or jumps. The eastern Iranian or Afghan *karwah* was called *garwah* in India and also was a small protector covered in bullock hide. Al-Tarsusi in the 12th century described a complicated protective structure specifically designed to protect missile-throwing siege machines, the *shabakah*. Its frame absorbed the shock of enemy missiles. Because it could be tilted, the machine it was protecting

Shown here is a 16th-century Turkish round shield with a lancelike center. It is made of red velvet, gold braid, steel, and wood. Erich Lessing/Art Resource, NY.

could return fire. A 14th-century manuscript on the art of war, *The Treasure Trove of All the Sciences* (*Kitab al-makhzun fi jami al-funun*) by the Egyptian Muhammad ibn Yaqub ibn Khazzam al-Khuttali, contains an illustration of a fighter on horseback bearing a double-edged sword flanked by two foot soldiers, each of whom wield fire projectile devices. All three soldiers as well as the horse are shown wearing a fire-proof substance.

Islamic Heraldry

Across the Islamic world Muslims, as did Christians and Jews, employed hereditary heraldic emblems on military and nonmilitary items. The Egyptian Mamluk secretary Shihab al-Din Ahmad al-Qalqashandi (d. 1418) provides a description in his *Subh al-Asha* (Dawn of the night-blind) of how Mamluk princes (amirs) employed heraldic signs. He observed that it was customary for each amir to select his own special blazon with which he would mark his property, horse and camel barding,

weapons, and other items. The heraldic shields of sultans and caliphs bore mottos or slogans of their dynasties, accompanied by the ruler's name and patronymic, written in an ornate Arabic calligraphy that created animal or plant shapes. The Ottomans were the optimal representatives of this practice; the sultan's heraldic emblem was used as the state symbol for the duration of his reign and was imprinted on all official documents.

Perhaps because of the Islamic military institution of slave soldiers, the employment of heraldic emblems seems to have been confined to the ruling elites of sultans, caliphs, and amirs. Part of the ritual of officially naming a governor or amir included bestowing upon him the royal insignia. For instance, when Mamluk sultan Qalaun (r. 1279–90) appointed his cousin Muzzafir Mahmud as governor of Hama (Syria) in 1248, he sent him his heraldic emblems, which consisted of a flag decorated with sultanic streamers, a horse bearing a golden saddle, a silk neck cover for a horse, and a horse trapper. Muzaffir and his successors also bore the royal bendy and brightly colored chiefs (the upper part of a heraldic shield) on their armor.

Moreover, as Muslim soldiers did not adopt the helmet with the vizier covering the entire face, recognition on the battlefield was not an issue as it was in Christendom. Because Islamic societies did not develop a European-style hereditary feudal system, they had no need to create family coats of arms. Indeed, Muslim princes who were not designated heirs to a sultanate or principality and who opted for a religious or administrative career were banned from bearing heraldic arms.

The appearance of heraldry with the Ayyubid and Mamluk dynasties has led many scholars to argue plausibly that it may have been an adoption of the Christian European practice. During the course of the Crusades intense contacts were maintained between the Christian ecclesiastic and secular armies and these Islamic dynasties. Intense contacts between the Muslim world and Venetian and other Italian merchants may have been another focal point through which Muslims might have become aware of European heraldic symbols.

Heraldic emblems used to decorate the charge (the field of a shield) in the Islamic world include the rosette and the fleur-de-lis, both probably of European origin; felines; male rampant lions; and one-headed or two-headed eagles. The *tamgas* are heraldic symbols associated exclusively with the Ayyubids and Mamluks. The bendy bestowed upon the aforementioned Ayyubid governor of Hama al-Muzzafir included a stylized feline standing over a bendy of gold and red stripes. Most blazons were used to indicate the military rank of the person bearing them. For instance, the insignia of the cup bearer was a cup. The pen box was a common insignia of a 15th- or 16th-century military secretary. Various and sundry swords, such as the scimitar, dagger, and double-edged sword, decorate the heraldic emblems of armor bearers. Crescents, horns, and flags were the symbols of choice to ornament the shields of amirs.

One of the ironies of history is that warfare served as one of the most creative catalysts of cultural exchange. As we saw, during the Crusades in the 12th century, Muslim military technicians encountered what they described as the *manjaniq ifranj*, meaning Frankish or western stone throwing engine. The Islamic engineers studied, adopted, and adapted the weaponry of other cultures and had special names for Arab, Persian, Turkish, Roman or Rumi, and Byzantine siege engines. Beginning in the 13th century, the Mongols owed their devastating successes to their prowess as cavalrymen and to their adoption of a highly sophisticated siege technology that they learned while conquering northern China. But that Chinese information may have had Islamic inspirations, for the Chinese military engineers constructed their counterweight trebuchets with the aid of

the Muslim siege engineers whom they employed and who in turn had adapted what they adopted from other cultures.

In a further demonstration of the interrelationships among military cultures past and present, an 11th-century Byzantine military manual based some of its discussions on the descriptions of ancient sources. Its section on catapults was based upon the work of Biton of Syracuse (second century B.C.E.), and the portable devices concepts were modeled upon those of the Egyptian engineer Heron of Alexandria (d. 75 C.E.). For throwing and assault devices the Byzantine manual depended on the works of the second-century Roman engineer Apollodoros of Damascus. Islamic heraldry was also influenced to a certain degree by its contacts with Christendom. Insignia such as the fleur-de-lis and the rosette bear the hallmarks of this process of acculturation, while the later Ottoman shift toward calligraphic emblems illustrates the cultural change toward more decidedly Islamic symbols.

The following section focuses on medieval Jewish military matters, showing the extent to which Jews living under the cross and the crescent participated in the chivalry and heraldry traditions of the dominant culture. Moreover, even during periods of repression when Jews theoretically banned from owning or bearing arms, we shall see instances in which this rule was breached in the main and witness the prominent role played by Jews in fabricating weapons and advancing military technology.

Jewish Military Matters

Jews in the military distinguished themselves as courageous warriors and dependable cap-

tains when fighting under the banner of either the cross or the crescent. Jews used the same arms and armor as their contemporary local Christian or Muslim colleagues. A Jew in Lombardy or Venice at the end of the 15th century was likely to carry a fashionable long sword slung low on his left hip while wearing the stylish *saioni* (a knee-length garment with wide cuffed sleeves, a collar, and a belt) on top of a laced jerkin called a *justaucorps*. Similarly, an elegant young Jewish bride in an Italian mounted procession would be wearing the latest style in equestrian gowns, and among the young people on foot and on horseback in her bridal parade would be a man in a short tunic and tights carrying a long sword on his left hip and a typical 15th-century halberd over his right shoulder. In the background a Jewish hunter aimed a typical 15th-century crossbow at a bird high in a tree.

Medieval Jews were famous for creating navigational and cartographic instruments that might help locate an army or navy even across long distances. Jews do not seem to have created unusual or innovative arms and armor. But they wielded with distinction whatever armaments they used.

Jewish Laws on Warfare

The biblical commandment "You shall not murder" (Ex. 20:13) established a general moral principle of the sanctity of human life and the need to preserve it to the extent possible. At the same time the history of Israel as related in the Hebrew Bible is filled with episodes in which Israel engaged in both offensive and defensive warfare. The Bible thus provides some insight, general principles, and precedents of Jewish engagement in warfare, the occasions that justify bellicose action, and the treatment of prisoners of war, whether combatants or civilians. In the Diaspora the rabbis

continued to debate the morally correct posture to take on questions regarding war as novel circumstances arose.

THE *RODEF* PRINCIPLE

One important biblical precedent is found in Exodus 22:1–2, which states that if a thief breaks into someone's home in the middle of the night and is beaten to death, "no blood guilt is incurred," yet restitution must be made if it occurs "after sunrise." According to Jewish law persons such as the thief who pursue another person with the express intent of killing him or her are called *rodef*. The Mishnah (oral law) provides guidelines to the written law explaining that in such cases self-defense is a justification for murder: "The Torah decreed, 'If he comes to kill you, kill him first'" (Sanhedrin 72a; cf. BT Berakhot 58a and 62b). The Mishnah and later rabbis reasoned, moreover, that bystanders must also involve themselves in the defense of their neighbors: "Neither shall you stand idly by the blood of your neighbor" (M. Sanhedrin 8:7; BT Sanhedrin 73ff.; Rambam Hilkhot Rotzeah 1:6–16; Shulhan Arukh, Hoshen Mishpat 425:1–2). Still, murder must not be committed lightly; there must be a reasonable certainty of *imminent* danger to a life. Nor is it permitted to murder innocent persons wantonly to save one's own skin or to sacrifice the life of one member of a community in order to save the whole. According to the oral law, "One life may not be given priority over another" (M. Ohalot 7:6, Rambam, Hilkhot Rotzeah 1:9; Hilkhot Yesodei Ha-Torah 5:5, 5:7).

TORAH AND RABBINIC VIEWS ON WARFARE

The Bible recounts many instances in the history of Israel of what could be termed "biblically mandated" or "divinely sanctioned" wars. In the battles against the Hittites, the Amorites, the Canaanites, the Perizzites, the Jebusites, and the Hivites whose land Israel was "given as an inheritance," the Jews were commanded to "not let anything that breathes remain alive. You shall annihilate them," that is, to engage in what would be today be classified as "mopping-up operations" to murder surviving soldiers and noncombatant civilians (Deut. 20:16–18).

Some biblical scenes show the prophets and patriarchs experiencing anxiety over the divine mandate of collective punishment and the murder of innocent civilians, the most famous episode being Abraham's attempt to intercede on behalf of the doomed population of Sodom (Gen. 18:23–33). Other biblical passages reveal commandments against committing unnecessary and gratuitous acts of cruelty in war, for instance, "When you go out as a troop against your enemies, be on your guard against any evil thing" (Deut. 23:10). The medieval French rabbi Nachmanides interpreted this verse to be a clear warning to soldiers in the heat of battle not to give in to those baser instincts that can transform even the most morally upright person into a vicious killer. Rabbi Maimonides stipulated in his *Sefer ha-mitzvot* (Book of commandments) that during the siege of a city, one side of the city should remain free so as to allow innocent civilians to escape, an opinion that was seconded by Nachmanides.

Biblical exegesis (Midrash) exhibits a concern to establish moral limitations on warmaking. One midrashic interpretation of Deuteronomy 20:10, "When you draw near to a town to fight against it," considers that making war implies actual fighting and "not starving it, depriving it of water, or killing by means of a deadly disease" (Midrash Tanaim to Deut. 20:10). Maimonides' judgment that an escape route must be provided to cities under siege is in accord with this Midrash interpretation.

FIGHTING ON THE SABBATH

Fighting by definition entails work, and thus fighting on the Sabbath or holidays was technically forbidden. Carrying and bearing arms interfered with pious observation of duties to God. A major obstacle in Jewish warfare even at the time of the biblical Hasmonean uprising against Hellenistic Seleucid rule (167 B.C.E.) was that the Jews were prevented from carrying arms on the Sabbath. This exposed them to the peril of being attacked without being able to defend themselves. Nevertheless, the requirement to save lives almost always took precedence over the ceremony of the Sabbath. Rabbis gave their soldier parishioners dispensations to carry and use weapons on the Sabbath. Even on the battlefield Jewish generals attempted to balance their religious duties with the exigencies of war. In 11th-century Muslim Granada the assistant vizier Samuel ibn Nagrela (d. 1056) controlled and suspended battle on the Sabbath when he could and observed the quiet prayer times in his battlefield tent. But when he could not control aggressors, he invoked God's help to vanquish them.

Jewish Soldiers

WARRIORS IN CLASSICAL ARMIES

Jews had distinguished themselves as important warriors in classical times. The first-century Roman citizen and Jewish historian Flavius Josephus records the presence of Jews in the army of Alexander the Great in his monumental *Jewish War* (*Bellum Iudaicum*). Ptolemy I Soter (d. 323 B.C.E.), appreciating the bravery and loyalty of the Jewish soldiers, took many Jews into his garrisons.

In his apologetic treatise in defense of Judaism, *Contra Apionem* (*Against Apion*), Josephus

remarks that Ptolemy VI Philometor (191–145 B.C.E.) and his wife, Cleopatra II (185–116 B.C.E.), entrusted their whole kingdom to two Jewish generals of the Egyptian army named Onias and Dositheus, whose bravery and loyalty safeguarded the queen in times of great peril. In fact, two other Jewish generals saved her throne from attack by her own grandson, named Ptolemy Lathyrus. Even Mark Anthony received martial assistance from Jewish soldiers. Nonetheless, he exempted Jews from service because they were not allowed to carry arms or to travel on the Sabbath. In 418 the Western Roman emperor Flavius Honorius (d. 423) issued a decree that was later renewed by Eastern Roman emperor Theodosius II (r. 408–450), by the Merovingian king Clotaire II (584–629), and by the Byzantine emperors, which forbade Jews to enlist in the Roman army. This may or may not have been due to their Sabbath observance. In the case of Theodosius II, it may have been inspired by his anti-Semitic policies, which included the destruction of synagogues.

JERUSALEM AND THE TEMPLE

The Jewish literature of calamity routinely related the particular current atrocity to the destruction of the Temple in Jerusalem and the Jews' aspiration for its rebuilding. The memory of Jerusalem and the Temple was foundational to Jewish society, pervading the liturgy, philosophy, art, music, holidays, rationality, mysticism, and civilization of medieval Jewry. Invariably, the depiction of a remembered disaster was followed by a promise for rebuilding, for restoration, for reconstitution. Because references to the Temple and its fortunes were so pervasive in medieval culture, it is convenient to provide a brief chronology of the Jewish preoccupation with Jerusalem and the key events affecting the city over the course of 3,000 years.

In the era of the patriarchs about 1,800 years before the Common Era, Canaanites occupied Jerusalem. In 1300 B.C.E. Joshua with his Israelites defeated the king of Jerusalem but could not hold the city against the Jebusites. King David conquered the city in 1004 B.C.E., made it his capital, and selected the site for the Holy Temple that his son, King Solomon, built years later in 960 B.C.E. The kingdom of Judah fell to Nebuchadnezzar of Babylon in 586 B.C.E., and the First Temple was destroyed. The Second Temple was dedicated in Jerusalem in 515 B.C.E. The Persians captured Jerusalem in 350 B.C.E. Alexander the Great began his Hellenistic dominion in 332 B.C.E. After Antiochus IV (r. 175–163 B.C.E.) desecrated the Temple in 168 B.C.E., the Maccabees revolted between 167 and 164 B.C.E. and recaptured then rededicated the Temple under Jewish control in 165 B.C.E. The Roman military and political leader Pompey the Great (106–48 B.C.E.) invaded Jerusalem in 63 B.C.E., and the Roman client king Herod I (74–4 B.C.E.) ruled the Jewish kingdom in 37 B.C.E., renovating the Temple in 20 B.C.E.

In the first years after the birth of Jesus Christ, Roman procurators ruled Jerusalem. In the year 70 C.E. the Jews revolted. Both the Temple and the city were destroyed. In 130 the Roman emperor Hadrian (r. 117–138) built his Aelia Capitolina on the city ruins. Jerusalem fell to the Byzantines in 324, to the Persians in 614, and to the Arab Muslims under Caliph Umar ibn al-Khatta in 638. Christians captured Jerusalem in the First Crusade in 1099. Muslim Mamluks took control of the city in 1260 and held it for 250 years. In 1516 the Turkish sultan Selim I (r. 1512–20) added the holy city of Jerusalem to the Ottoman Empire, in which it remained until the 20th century.

BATTLE IN MEDINA

By the time Muhammad emigrated to Medina in the early seventh century, some of the Jews were armed and ready to resist him, while others entered into strategic pacts with him. They were brave, dependable fighters, but they lacked strategic skill and organization. One of the Jewish tribes, the Banu Nadhir, were originally allies of the Medinan Muslims; however, they switched allegiances and sided with the Meccan polytheists against Muhammad and even made an aborted attempt to assassinate him when he visited them. In retaliation Muhammad ordered the Banu Nadhir to leave the city of Medina. Subsequently, at the Battle of the Trench, which took place in 627, Muhammad's army successfully defended Medina from the Meccan coalition of Arab tribes led by the Quraysh. Two Jewish tribes, the aforementioned Banu Nadhir and the Banu Qurayza, allied themselves with the Quraysh-led confederation. As this was the second time the Banu Qurayza had broken their treaty with Muhammad, the Prophet punished the Quraysh by ordering the massacre of all the adult males, sparing only those who agreed to convert to Islam. An obvious parallel to this episode of mass murder may be found in Deuteronomy 20:10–13, where Israel is commanded to "put all [the town's] males to the sword."

After their departure from Medina the Banu Nadhir settled in Khaybar, a prosperous oasis populated by Jewish tribes. In need of arms and money to further his cause, Muhammad with his army marched on Khaybar in 628. The Jews of Khaybar, after having "fought like lions," surrendered. They were allowed to remain in the oasis, provided they submitted half of all produce to the Muslims. Many of the Jews stayed on, while others chose to emigrate to Babylonia in 628.

Marhab ibn al-Harith   A clear demonstration of power is praise by the enemy. The Muslim prophet Muhammad's biographer Ibn Hisham described the Jewish Arabian warrior Marhab ibn al-Harith. Marhab was said

to wear two armor cuirasses, a double turban, a helmet, and two swords, one on each hip, and he carried a three-pointed lance. Marhab was a powerful warrior and was renowned as a skilled poet. This Jewish warrior was known for his bravery in defending a Jewish fort at Khaybar, where he ultimately died in 628. He was described as uncommonly powerful and courageous. He was killed after challenging by poetry one of Muhammad's warriors to fight him in hand-to-hand combat. Some sources say that the warrior answering the challenge was Muhammad's cousin and third successor Ali. Others, such as Ibn Hisham, claim that the powerful Jewish warrior was killed by Muhammad ibn Maslamah, who had offered to fight to avenge the death of his brother, killed by Marhab. When Marhab accidentally dropped his sword, Muhammad seized the opportunity and thrust him through.

Huyayy ibn Akhhab Another Jewish warrior who caused the Muslims grief was the prophet Muhammad's virulent antagonist Huyayy ibn Akhhab. Chief of the Banu al-Nadhir, Huyayy was executed at Medina in March 627. Muhammad's biographer, Ibn Hisham, described him as "to the enemy of Allah." As so many other Jewish warriors, Huyayy was also known as a scholar and was said to have disputed with Muhammad on particular mystical letters at the beginning of particular suras in the Quran. When Muhammad drove the Jews from Medina to Khaybar, it was Huyayy who united the Jews with Arab tribes in their unsuccessful revolt against Muhammad. As we saw, Muhammad took the fortress of the Banu Qurayza and carried as prisoners between 700 and 800 Jews to Medina, where he executed them in the marketplace. Taken as a captive before Muhammad, Huyayy defiantly proclaimed that he did not reproach himself for making war on Muhammad. The Prophet had also captured Huyayy's daughter, Safiyyah, whom he ultimately married after she had converted from Judaism to Islam.

JEWISH SOLDIERS IN FRANCE AND ITALY

In France and Italy in the sixth century, Jews valiantly defended their cities. In 508 the king of the Ostrogoths, ruler of Italy, and regent of the Visigoths Theodoric the Great (454–526) besieged the city of Arles as part of his dispute with his rival, the Merovingian king Clovis I (r. 481–511), over the leadership of the Goths. In Arles Jewish fighters who pledged their allegiance to Clovis in gratitude for his past protection actively defended the city. Similarly, the city of Naples in 536 was besieged by Flavius Belisarius (505–565), the legendary general of the Byzantine emperor Justinian (r. 527–565). The Jews performed two important military acts. First, they supplied the city with practical necessities during the siege: foodstuffs, armaments, armor, and cash to survive. Second, they fought so courageously to defend that part of the city nearest the sea that Justinian's men dared not attack that area. Though General Belisarius ultimately thrust his way through the city gates, the Jews nevertheless maintained their heroic resistance. The contemporary chronicler Procopius in his *Gothic Wars* (*De bello Gothicorum*) (the eighth volume of his *History of Justinian's Wars*) testified to Jewish might and courage.

A 14th- or 15th-century copy of a 13th-century Hebrew chronicle relates an intriguing account of Jewish implication in King Pippin the Younger's (751–768) recovery of Narbonne in 759 C.E. from the Muslim armies that had occupied the city since 720. Under Pippin and his son, the great Charlemagne, the Carolingians pursued their policy of containing Muslim power, capturing Aquitaine and crossing the Pyrenees Mountains to take Barcelona in 801 or 803.

Territories under Carolingian control were organized into counties governed by royally appointed counts, marquises, or dukes. Following this tradition, the 14th-century Hebrew text states that a delegation was sent to Babylon (or Baghdad) to find a scion of the House of David to be installed as count of Narbonne to reward the Jews for their exceptional service to the Carolingian dynasty. This Davidic descendant was called Prince Makhir. The event is mentioned in a 13th-century Christian text, the *Gesta Karoli Magni ad Carcassonam et Narbonam* (*Deeds of Charlemagne at Carcassonne and Narbonne*), with the slight difference that the Jewish community requests Charlemagne to confirm the status of their existing leader as a descendant of King David.

The Hebrew and the Christian chronicles also differ in another important aspect: In the former the military protagonists of the Carolingian conquests of Narbonne and Barcelona are Prince Makhir and his son. In the *Gesta Karoli* the protagonists are the Frankish Christians Theodoric and his son, Count William of Toulouse, who would later be considered a saint. Scholars disagree about the historicity of these two versions and, consequently, the Jewish or Christian identity of the warrior heroes. The thesis of a Jewish principality is put forth mainly by one scholar, Zuckerman, who argues that the Jewish identity of Prince Makhir was expunged from the Christian texts. For instance, an eighth-century Latin Christian charter mentions a certain Magnario as the count of Narbonne, and Zuckerman identifies this Magnario with the Jewish Makhir. Zuckerman also identifies Count Aymeric, the hero of two 13th-century Christian chansons de geste, the aforementioned *Gesta Karoli* and the *Aymeri de Narbonne*.

The majority scholarly opinion, however, disagrees with the Zuckerman thesis, noting the lack of contemporary evidence corroborating Pippin's or Charlemagne's appointment or recognition of a Babylonian Davidic prince as count of Narbonne. They also point to the lack of continuity even in the Hebrew sources between the alleged eighth-century installation of the Babylonian Makhir as count of Narbonne and the 13th- and 14th-century Hebrew texts chronicling the event. Finally, the thesis identifying as the same person Prince Makhir, Aymeric, Theuderic, the father of Saint William, count of Toulouse, has long been discredited. So, too, have paleographic and onomastic studies discounted that *Magnario* could be a Latinized version of the Hebrew name *Makhir*. On the other hand, one of Zuckerman's sources, the ninth-century *Poem in honor of Louis the Pious* (*Poème sur Louis le Pieux*) by Ermold Nigellus, includes a detailed account of the siege of Barcelona in which Count William takes care to ensure that no fighting take place on the Jewish Sabbath and holy days. While Zuckerman interpreted this as proof positive of Count William's Jewish identity, most scholars see it as evidence of an astute and conscientious leader who reasoned that it was best to respect the religious and cultural sensibilities of a multiethnic army.

Scholars have long recognized that from the 11th and 12th centuries Christian and Jewish religious communities mythologized their past with claims that Charlemagne had personally bestowed land grants, property, or other privileges upon them. While the historicity of these events has been challenged, it is nevertheless important to note that Jews were no different from Christians in claiming a portion of the Carolingian legacy. Moreover, whether or not a Jewish principality of Narbonne ever existed, there is no doubt that Jews figured among the soldiers of Carolingian armies and that they generally thrived in Charlemagne's kingdom, leading some scholars (e.g., Benbassa, 1991) to speak of a "Carolingian golden age" of the Jews.

In sum, early Carolingian warfare was a powerful prelude to empire. King Pippin II of

the Franks had built a complex military machine during the eighth century to reestablish the *Regnum francorum*, the area representing modern France and much of western Germany. King Pippin and his successors used an extremely well-trained army, particularly skilled in hand-to-hand combat, regimented troop movements, horse-mounted fighting, and lengthy sieges employing sophisticated artillery. And Jewish soldiers and generals figured among their ranks.

SOLDIERS IN GERMANY

In Cologne, Germany, Jews bore arms and expected to defend the city in case of war. The rabbis of the Rhineland granted Jews permission to fight if their cities were under siege. Emperor Henry IV, who had been so colossally humbled by Pope Gregory VII and his powerful ally Matilda of Tuscany at her castle of Canossa, had been deserted by priests, princes, and various of his cities. But the Jews of the city of Worms defended Emperor Henry and lent him armaments and sturdy warriors. The Emperor thanked them for their courage by releasing them from paying particular taxes in the towns of Frankfurt on the Main, Dortmund, Nuremberg, and other commercial cities.

SOLDIERS IN SPAIN

In Visigoth Spain Jews revolted against the local government and fought alongside Hilderuc, the count of Nimes (France), as he waged a rebellious war against his enemy the Visigoth king Wamba (r. 672–680). When Wamba crushed the rebellion in 673, he expelled the Jews from Narbonne and subsequently from the entire Visigoth kingdom. Only those Jews who converted to Christianity were allowed to remain in the kingdom. During the Muslim pacification of the Iberian Peninsula, Muslim generals entrusted to Jewish fighters and diplo-

Knights dress in mail covered with tunics stand in four portals adjacent to Gothic grotesques from the Darmstadt Hagaddah, Germany, 15th century.

mats the guardianship of cities they conquered in Spain. Christian and Muslim historical sources coincide in mentioning that as the Muslim armies advanced throughout the peninsula certain captured cities, such as Córdoba, were left in the charge of Jewish militia, while others, such as Malaga, Granada, Seville, and Toledo, were controlled by joint Muslim and Jewish militias.

In Christian Spain Jews enjoyed the special favor of King Alfonso VI of León and Castile (r. 1067–1109), particularly after the conquest of Toledo in 1085. Eager to secure Jewish loyalty against the Muslims, Alfonso VI offered them fiscal and other aristocratic privileges. In

gratitude, the Jews placed themselves at the king's service, including in the military. In 1086 Jews served under the command of King Alfonso VI against the Berber Almoravid ruler Yusuf ibn Tashfin (d. 1106) in the Battle of Zallaqa. The king is even said to have taken into consideration the Jewish prohibition of fighting on the Sabbath in his negotiations with the Muslim enemy over the day on which to commence hostilities. Under King Alfonso VIII, who reigned between 1166 and 1214, many Jewish warriors fought courageously against the Muslims. Many Jewish warriors were wealthy, educated fighters as comfortable with the sword as with the book.

Jews also served in the army under King Ferdinand (Fernando) III of Castile (r. 1217–52) in the conquest of Seville in 1248 and were included among the beneficiaries of generous land grants and other privileges in the subsequent repopulation of the city, after the exile of most of its Muslim inhabitants. The king granted them three mosques to be transformed into synagogues. The Jews under Ferdinand's successor, Alfonso X (r. 1252–84), were faithful courtiers despite suffering from some anti-Jewish policies. During the Castilian Civil War of Trastámaras (1366–69), Jews also bravely defended the cities of Toledo, Briviesca, and Burgos for King Peter (Pedro) I of Castile and León. In the siege of Briviesca in 1366, the Jews mounted a vigorous yet unsuccessful defense against the invaders and were subsequently burned alive in the tower where they had retreated. After the definitive victory of Henry (Enrique) II of Trastámara over his brother, Pedro, in 1369, Jews loyal to the murdered king were killed, forced to sacrifice their families, or, as with the Jews of Burgos, ransomed by their relatives for huge amounts of money.

Kaula al-Yahudi Individual warrior captains and generals merited the keen appreciation of the leaders who appointed them. The eighth-century general Kaula al-Yahudi was a warrior leader appointed by the Muslim general Tariq ibn Ziyad (d. 720). Kaula headed an army of Jews fighting against the Visigoths. Kaula

The wicked son is portrayed as a particularly violent soldier. He wears a helmet (embellished with silver leaf), carries a dagger, sword, club, and shield, and bares his teeth. The last element helps in characterizing him and relates to the instruction in the text to "set his teeth on edge." He has starkly black eyes, and the profile of his face reveals a flat nose with bulbous tip. The artist has depicted the wicked son in a different manner than all other human figures in the manuscript. He points aggressively to his name, and he is the only son to look directly at his respective panel. The Prato Haggadah. An illuminated medieval manuscript in the making, Folio 5v—The Wicked Son.

was most famous for his victory at the Battle of Jerez in 711. He and his troops went on to occupy part of Catalonia. Al-Hurr ibn Abd al-Rahman's disastrous governorship of Spain (716–719) was characterized by increasingly restrictive laws limiting the rights of Jewish and Christian Hispano-Romans and illegally confiscating their property. In response Kaula al-Yahudi rebelled against him, yet al-Hurr had a larger and better equipped army and forced Kaula to retreat to the town of Lerida, where in a fierce battle al-Hurr defeated and subsequently executed him. Al-Hurr then attempted to capture Jews in his army. When they fled, they took refuge in cities in Catalonia among the numerous Jewish inhabitants. News of al-Hurr's abuses reached the caliph, Umar ibn Abd al-Aziz, who deposed him.

Samuel ibn Nagrela, also known as Samuel Ha-Nagid (993–1056) as statesman, scholar, grammarian, poet, Talmudist, and warrior general, counseled the caliphs, negotiated treaties, and as battlefield tactician fought the wars of his rulers. In his 29 years of service as the vizier to two caliphs, in all but two years between the period 1038 and 1056, Samuel Ha-Nagid led the royal army as its commander in chief in the field on campaign or in training.

As chief strategist, tactician, and field operations manager of the military force of Granada, Samuel often was on the battlefield fighting and leading his troops to victory. In almost every campaign he was victorious. Often in dire peril, he recorded several close encounters with death. In one close call he was ambushed and saved by skill and his light-weight armor that enabled him to flee on horseback across a river. His pursuers' heavy armor burden made it dangerous for them to pursue him across the river. In another suspenseful incident Samuel was imprisoned. Just before his impending execution his own warriors rescued him and returned him in triumph to the rich, cultured life of the court.

12TH-CENTURY WARRIOR TRIBES

The 12th-century rabbi Benjamin of Tudela encountered two Jewish warrior tribes during his world travels, which commenced sometime after 1159 and ended in 1172. One of the tribes was living in Yemen in the district of Tehama and was intent on warlike expeditions. Even more remarkable was an independent Jewish warrior tribe living in the highlands of Khorasan near Nishapur that numbered many thousands of families and considered themselves descendants of the original biblical tribesmen of Dan, Zebulun, Asher, and Naphtali. They lived in a Jewish princedom governed by one Joseph Amarkala Halevi.

Jews Armed and Disarmed

In the 12th and 13th centuries the Jews of Worms were well practiced in bearing arms. The Jews of Prague were particularly noted for their martial abilities. Spanish Jews enjoyed the privilege of wearing arms and not only called themselves knights but used noble, martial names. Many of the Jews expelled from Spain in 1492 sought refuge in neighboring Portugal, where they were highly prized for their skills in weapon making.

Jews often were disarmed, however, thereby rendering them incapable of self-defense. In England in 1181 a statute read, "No Jew shall keep with him mail or hauberk but let him sell or give them away, or other way remove them from him." English Jews in earlier years had ranked as knights.

By the end of the 14th century the Jews of Majorca in 1390 were forbidden to carry arms into their ghetto. In 1412 Juan II, king of Castile (1406–54), prohibited Jews to carry swords, daggers, or similar arms. During Purim celebration, the Jews of Italy held tournaments in which boys fought on foot while their elders rode horseback through the streets, flourishing

wooden staves. To the blast of horns and bugles, the men tilted at an effigy representing the hated Haman, later burned on a mock funeral pyre. In 1481 eyewitnesses during the reign of King Juan II of Portugal recorded seeing Jewish cavaliers mounted on finely caparisoned horses and mules, wearing richly decorated cloaks, cassocks, silk doublets, closed hoods, and gilt swords.

Jewish Heraldry

The Portuguese description of finely decorated Jewish cavaliers accords with evidence of a Jewish heraldic tradition. The Jewish use of coats of arms dates as least to the 14th century. The charges decorating Jewish heraldic shields bore biblical motifs such as the star of David, the menorah, and even the Jew's hat, which medieval Jews were forced to wear in northern Europe as a sign of distinction. They also employed animals as heraldic emblems, notably the lion (also favored by Christian monarchies) and the eagle. Other than the religious specificity of the insignia, Jews did not differ from their Christian neighbors in the use of heraldry. As did the Christians, Jews emblazoned their movable and immovable property, clothing, and even tombs with heraldic insignias.

A Jewish community of a medieval city might bear its own unique heraldic seal. In 13th-century Paris Jews used the eagle rising on a *semis* of fleurs-de-lis. Jewish individuals or families also used personalized heraldic emblems on their clothing and arms or as seals. For instance, in the late 14th century a certain Jewish man named Byfegin of Koblenz, Germany, used a heraldic seal bearing the image of a lion rampant crowned with a Jew's hat. Also in the late 14th century Kalonymos bar Todros, the *nasi*, or head of the Jewish community, used a lion rampant as his heraldic shield, and his son, Todros bar Kalonymos, maintained this tradition. As the personal "property" of medieval Christian monarchs, Jewish communities or their representatives sometimes adopted the heraldic coats of arm of Christian families as a sign of allegiance or proof of loyalty.

On balance Jewish military and heraldic culture closely resembles the practices of medieval European Christendom. Both Christian and Muslim rulers employed Jewish soldiers and generals in their armies and entrusted them to maintain control in areas captured. Jews, as did Christians, celebrated their warrior heroes in chansons de geste and, as did Muslims, in Arabic poetry. And Jews, as did Christians, grappled to find a theological and moral basis to justify waging war and to delimit wartime atrocities. Such concerns are also present in Islamic culture, which subscribes, as do the Jews and crusading Christians, to the scriptural paradigm of divinely mandated wars. Even as Muslim and Christian armies fought each other on the battlefields of the Iberian Peninsula and elsewhere, cultural borrowing is in evidence in weapons technology and heraldic practices.

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Christian Warfare and Weapons

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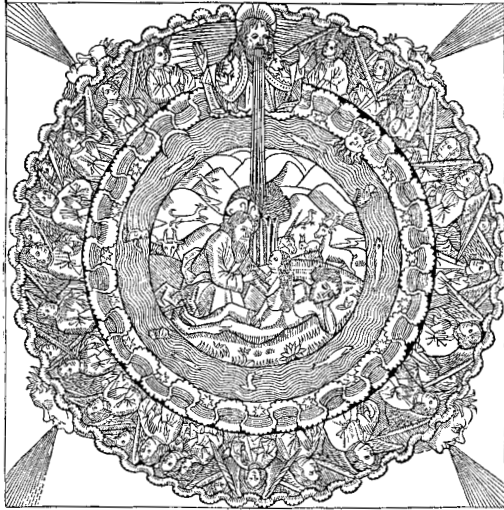
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5

PHILOSOPHY
AND RELIGION

The history of "Christian," "Jewish," or "Islamic" philosophy is inseparable from each tradition's encounter with the ideas of the Greek philosophers and its attempts, with varying degrees of success, to reconcile the dogmas of religious faith with the truths of Greek reason. The monotheism shared by Christians, Jews, and Muslims presented each community with similar issues to reconcile: Could Aristotelian logic be deployed to prove the existence of God? How could the Aristotelian notion of the eternity of the universe be reconciled with such central Abrahamic beliefs as the existence of God, his creation of the world, the end of the world, and the last judgment? The Abrahamic notion of God's oneness could be conceptually reconciled with the Neoplatonic idea of the one or the Aristotelian prime mover. Yet it was not so easy to resolve the quintessential epistemological conflict between a Neoplatonic one that by definition could have no knowledge of imperfect material things and the omniscience of the Abrahamic God, his creation of individual souls, his knowledge of individual deeds, and the notion of divine providence. Regarding the latter, how could the idea of the providence of an omnipotent God be reconciled with the notion of human free will?

The very fact of these shared problems made it only natural that Jews, Christians, and Muslims would borrow from each other to resolve their respective theological and philosophical conundrums. In this respect, Judaism and Christianity are particularly indebted to the legacy of Islamic philosophy. The Abbasid caliphate patronized the translation of numerous philosophical treatises of Aristotle and other philosophers that had long been lost to the West. To this initial effort of translation must be added the original contributions of Muslim philosophers who continued the Greek tradition of philosophical interpretation, investigation, and commentary largely independently of the currents and demands of the Muslim theologians.

While the discussion of medieval philosophy reveals numerous points of contact and influence among currents of Christian, Jewish, and Muslim thought, the topic of theology discloses the major focal points of dissent and polemic. Medieval Christian, Jewish, and Muslim theological tenets were often articulated with the express intent to counter internal heresy as well as to refute the dogmas of other religious traditions. Indeed, Greek philosophy was often deployed for the polemical purposes of refuting the rival traditions and "proving" the veracity of one's own. This was most apparent in the defense of such difficult doctrines as the Christian Incarnation and the Trinity, the status and purpose of the Mosaic law, or the creation or preexistence of the Quran.

CHRISTIAN THEOLOGY AND PHILOSOPHY

Monotheism, Trinity, and Incarnation

Medieval Christians believed in one God, in monotheism. The central Christian mystery, however, was the unity of God in the Trinity. God was viewed as three persons, the one God existing in the Father, Son, and Holy Ghost. The kernels of this central tenet of Christian theology were derived from scripture, such as Matthew 28:19 and parallels, articulated by the church fathers and declared official doctrine in church councils. Numerous early church fathers and theologians pondered the mystery of the triune God in order to make the concept

understandable (and believable) to the faithful and to defend their beliefs against rival Christian beliefs, Hellenistic charges of irrationality, and Jewish (and later Muslim) accusations of blasphemy and polytheism.

The most difficult point of contention was surely the belief in the miraculous Incarnation of God and the concomitant role of the Christ's death and resurrection in the Christian economy of salvation. Incarnation technically meant Christ's assumption of human nature in the second person of the Trinity. The Word was made flesh, to dwell among people (John 1:14), but how could the divine indwell in human flesh, much less suffer and die? The divine and the human natures of God united in a single person were in perfect hypostatic union, two distinct natures, divine and human, indivisibly interanimated. The invisible, incomprehensible, and timeless God was united with a visible, understandable, temporal but sinless man. But how could this be so and what was the exact relation of the human to the divine in Jesus? The early centuries of church history witnessed numerous and contradictory attempts to define the nature of Christ. Some maintained that Jesus was fully human and that God only temporarily "indwelled" in him, the Nestorian position. Similarly the Adoptionists held that Christ, though fully human, had been "adopted" by God as his Son. The Arians recognized the divine nature of Christ but asserted that the Father and the Son could not be coeternal because Christ had been *created* by the Father.

The details of these debates will be discussed in the section on heresy (*see* pages 360–365). Here it suffices to note that these "Christological controversies" would force the church to refine its definitions of Christ and the Trinity in successive ecumenical councils. An early official statement of this Christian doctrine of the Holy Trinity and the Incarnation was the *Athanasian Creed*, probably composed during the life of fourth-century Saint Athanasius. The faithful reasserted this creed on the feast of the Holy Trinity and in the sacrament of *communion*. Often this creed was called in Latin *Quicumque vult salvus esse*, the opening phrase of the statement of belief: Whoever is willing to be saved. The Holy Ghost was the third person of the Christian Trinity, coequal and coeternal with God the Father and God the Son.

Even more important in the history of the church was the definitive statement known as the Nicene Creed, which was adopted at the First Ecumenical Council of Nicaea in 325 and revised in 381 at the Second Ecumenical Council at Constantinople in order to combat the Arian heresy. The major difference between the earlier version and the later one regards the definition of the Holy Spirit, asserting that the Spirit is "Lord and giver of life, who proceeds from the Father, with the Father *and the Son* he is glorified." While all the church fathers agreed that the Holy Spirit proceeded from the Father and that Jesus Christ was begotten of the Father, not all accepted the addition of the words "and the Son" (*filioque*; pages 361–362) in the statement about the Holy Spirit. It was defended by Augustine and vigorously deployed in the sixth century in the Spanish Church's quest to prove the divinity of Christ against the Arian heresy that Jesus was only human and not divine, but "adopted" by God. The Greek Church contended that "and the Son" had no clear scriptural basis and should not be added officially to the creed, and this stance was ratified in 431 at the Third Ecumenical Council at Ephesus. Even today the "*filioque* controversy" of the Nicene Creed continues to be one of the crucial theological issues separating the Roman Catholic from the Eastern Orthodox Church.

In early medieval art the Trinity was expressed graphically as three interlocking circles in a form called the *triquetra*. Because of its continuous, never-beginning, never-ending design, it also represented eternity, often appearing on Celtic

crosses and liturgical objects. The triquetra was derived from an ancient mystical symbol consisting of three interlacing arcs, circles, or pointed ovals. In later iconography, God the Father was depicted as a hand or an eye emerging from the clouds. One of the most enduring symbols of Jesus Christ was the lamb, *Agnus dei*, the Lamb of God (John 1:29). This graphic portraiture represented the eschatological triumph of Christ according to the vision of the Apocalypse in Revelation. Musically the Lamb was celebrated in the *Agnus dei* section of the mass. The dove represented the Holy Ghost. Other depictions of the Trinity used figural representation. God the Father appeared as a bearded patriarch. The Son held a cross or was shown crucified, often with his feet resting on a globe. The Holy Spirit in the form of a dove flew above Jesus Christ's head. Sometimes it appeared as a shower of gold enveloping the Son.

The Trinity was guiding and guarding force in Christianity.

Original Sin

Original Sin was the belief that the human condition was perpetually marred by the stain of sin after Adam's disobedience of God in the Garden of Eden. Tempted by evil in the form of a snake, Adam and Eve had deliberately disobeyed God's prohibition against consuming the fruit from the Tree of Knowledge. After Eve bit the apple and Adam also ate, God in wrath expelled them from the beneficent garden. The knowledge they acquired by eating the mystic apple comprised the understanding of good and evil, the comprehension of their gender differences, and the intimation of creation. Having broken their covenant with God, they were banished from the garden and condemned forever to painful work "by the sweat of their toil," and Eve and future daughters had to endure pain in childbirth.
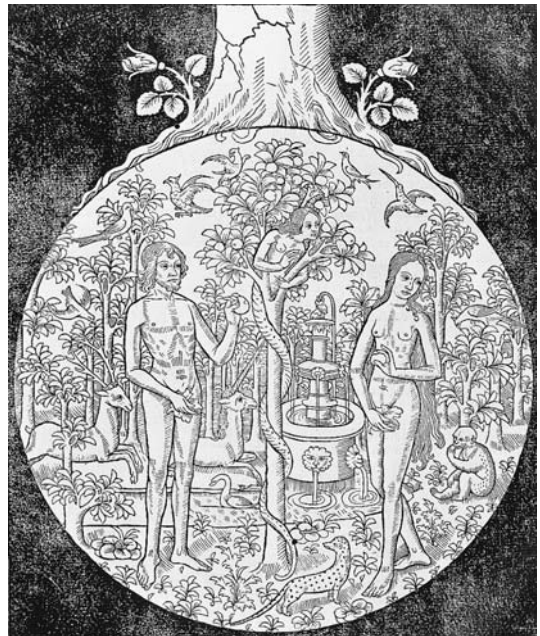
The root or fruit of evil was the apple Adam and Eve shared in the Garden of Eden. This Paradise scene depicts the process by which the evil Serpent (or Lilith) enticed Adam and Eve to eat their way out of bliss and into sin. From a woodcut in a Bible, Vérard, c. 1501, Paris. Courtesy of the Metropolitain Museum of Art, New York. The Elisha Whittelsey Fund, 1951.

The doctrine of Original Sin was first articulated by Saint Augustine of Hippo as a response to the cosmology of Manichean dualism and the concomitant problem of evil. The Manicheans conceived of evil as an ontological reality manifested in the physical world and all that was in it. An evil god created and ruled over the material world, while the good God created the invisible world of the spirit. Augustine saw in the story of the Fall the key to the problem of evil by locating its origins in human agency, specifically in human disobedience of the divine will, rather than understanding it as a product of divine creativity or an ontological

reality. All was not lost, however. All humans were born with the stain of Original Sin, but God held out the promise of human redemption through Christ's death and resurrection.

FELIX CULPA

Adam and Eve's Fall from God's grace was viewed as the Fortunate Fall, the *felix culpa* (Latin, "happy fault"). Humankind's acquiring Original Sin from Adam and Eve, the first parents, required Christian salvation. Without fall from grace there would be no need for a blessed ascending to grace. *Felix culpa* beautifully united the Old Testament with the New Testament. If voluptuous Eve had not sinned in the Garden of Eden, there would have been no necessity for the pure, spotless Virgin Mary. Mary was the second Eve. Jesus Christ, the new first man of redeemed humanity, was the second Adam. Eve's sin and Adam and Eve's fall from grace in the Garden of Eden in eating the forbidden fruit required humankind's redemption and salvation by the sacrifice of Jesus in the Crucifixion.

Each Christian required baptism to wash away the taint of Original Sin, vigilance to prevent further sinning, and constant sacramental reconsecration. The art and act of consuming holiness in the form of the Eucharist, eating the flesh and drinking the blood of Jesus Christ, undid the original evil caused by eating the apple from the Tree of Knowledge.

Essential to the complicated idea of *felix culpa* was the concept of imputation (Latin *imputare*, "crediting the unearned"). Imputation meant crediting of what one person earned to another, including guilt or righteousness. The medieval Christian notion of the triple imputation evolved from the writings of Saint Paul, particularly his *Epistle to the Romans* 3:21–30, and the treatises of Saint Augustine. Adam and Eve created Original Sin and this sin was imputed thereafter to all humankind. God sent his son, Jesus, to Earth for double imputation. The sins of humanity were imputed to Jesus Christ, who "took on the sins of the world." God's mercy to and forgiveness of Jesus Christ as agent and surrogate for sinning men and women enabled those who believed in him to receive God's grace. God's acceptance in grace of the resurrected Jesus imputed God's promised salvation to humankind. Salvation, then, flowed through the millennia by triple imputation of Original Sin in the garden imputed to all earthly people imputed to Jesus Christ, whose generous sacrifice imputed future salvation to believing Christians.

Theologians of the Greek Orthodox Church rejected the doctrine of Original Sin and the idea of triple imputation, preferring to consider Jesus Christ as imparting the state of grace.

Crucifixion and Resurrection

The second article of the Nicene Creed, which was adopted at the First Ecumenical Council of Nicaea in 325, states:

> For us men and our salvation he came down from heaven: by the power of the Holy Spirit he was born of the Virgin Mary, and became man. For our sake he was crucified under Pontius Pilate; he suffered, died, and was buried. On the third day he rose again in fulfillment of the Scriptures; he ascended into heaven and is seated at the right hand of the Father. He will come again in glory to judge the living and the dead, and his kingdom will have no end.

The facts of Jesus' death are well known: Jesus Christ, the Son of God and second person of the Trinity, was executed by being nailed to a cross. Crucifixion was a common capital punishment among the Romans, who customarily preceded it by scourging the convicted criminal.

Three days after his death by crucifixion, Jesus was said to have risen up from the dead, his Resurrection. The three Marys observed and reported this miracle, as did the Twelve Apostles, according to Mark (14:50). All four Gospels—by Matthew, Mark, Luke, and John, the four evangelists—are consistent in depicting Christ's ignominious death and glorious Resurrection.

The Nicene Creed provides a theological explanation for these events. Christ's Incarnation was the means through which humanity and God are reconciled and become one once more (cf. 2 Cor. 5:19), a concept that would later be known as the doctrine of atonement. As the Greek church father Athanasius explained in his *De Incarnatione verbi* (On the Incarnation of the word), "[Jesus] was made man so that we might be made gods" (Athanasius, 54), in other words, so that humanity would be deified once more. Christ's death is portrayed in the creed as an atoning sacrifice done "for our sake," the price that must be paid to redeem humankind from the bondage or debt of sin (e.g., Col. 1:20; 1 Cor. 6:20; Rev. 5:9). The Original Sin of Adam and Eve incurred a debt to God that cannot be forgiven without satisfaction and that no human being alone is capable of repaying. Christ alone in his dual condition as God and man was capable of achieving satisfaction on behalf of all mankind.

The Twelve Apostles were the dozen original disciples of Jesus: Andrew, Barnabas, Bartholomew, James the Less, James the Greater, Philip, John, Jude, Simon, Matthew, Peter, and Judas. After Judas committed suicide in despair over his betrayal of Jesus, Matthias replaced him in traditional lists of the Twelve Apostles (Acts 1:26). The Apostles' Creed was a short statement of essential Christian beliefs, similar to the Nicene Creed and Athanasius's Creed mentioned earlier, which was reputedly formulated by the Twelve Apostles after the Holy Spirit descended upon them on Pentecost Sunday. These 12 chief disciples shared Christ's

Last Supper, the celebration in Jerusalem of the Jewish Pesach or Passover feast of the seder, foreshadowing his betrayal. In consecrating the bread and wine during that seder service, Jesus Christ initiated the first Communion, a first Eucharist. This was liturgically commemorated during the three sacred days called the Triduum Sacrum, which consisted of Maundy Thursday, Good Friday, and Holy Saturday, the last three days of Holy Week, specifically commemorating this Last Supper, the Passion, and the death of Jesus Christ.

Saint Paul often was classed as an apostle, as were several other saints including Saint Barnabas. The principal missionary to a given coun-
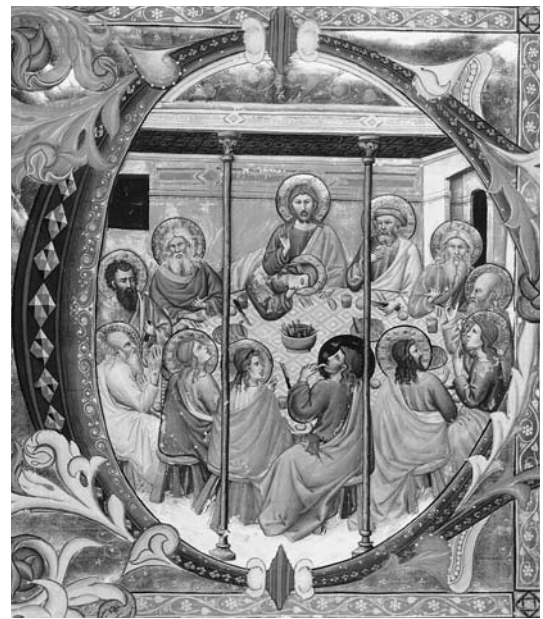
At a round table the saintly participants in this Last Supper sit upon trilegged stools while using their knives to cut breadsticks as well as to prepare for those foods that may have been "impaled" upon the spiked platters shared by several diners. The scene takes place within an initial C from a leaf in a choir book. Florence, Italy, late 14th century. M653, f.4. Courtesy of the Pierpont Morgan Library, New York.

try usually was referred to as its apostle, as Saint Augustine was said to be the apostle of England and Saint Patrick the apostle of Ireland.

Mary, the Mother of God

CHRISTOTOKOS VERSUS THEOTOKOS

Clarifying Mary's role in the Incarnation became essential in the christological controversies that characterized the first centuries of the church. The Athanasian Creed, the Apostles' Creed, and the Nicene Creed all affirmed that Jesus "was born of the Virgin Mary" and hence made of the same "substance" as Mary. Not so clear, however, was the relation of Mary to Jesus as the second person of the godhead. Some reasoned that Mary's role must be restricted to that of the *Christotokos*, meaning in Greek "the one who gave birth to Christ." The problem with this position, which was advocated by the patriarch Nestorius in the fifth century, was that it implied reverting to the division of Christ's nature into two distinct substances, one in which the divine indwelled but was not coeternal with God, and the other human. In order to maintain the doctrine of the hypostatic (mystical) union in which Jesus was simultaneously and fully God and man, the Third Ecumenical Council at Ephesus upheld as official dogma the doctrine that Mary was the *Theotokos*, "the one who gave birth to God." That is, the sinless Mary gave birth not just to a man but to God as man. Even before its official promulgation in the fifth century, many church fathers of the third and fourth centuries, notably Origen, Dionysius of Alexandria, Athanasius, and John Chrysostom, had already referred to Mary as *Theotokos*.

IMMACULATE CONCEPTION

The Virgin Mary was central to the Christian Incarnation. This human woman was vessel for Christ's assumption of human and divine nature as the second person of the Trinity. She gestated in her corporeal womb God born on Earth as a human baby boy. The Immaculate Conception pertains to Mary. It was believed by some that only a special sinless human being not deprived of the sanctifying grace of God as were the rest of humanity stained by Original Sin could be the bearer of God. Though officially declared church dogma in the 19th century, the origins of the doctrine may be traced to ninth-century England, where the Feast of the Conception of Mary was celebrated. The great Scholastic theologians were at odds over the question. Even Bernard of Clairvaux, who almost single-handedly revolutionized 12th-century spirituality with his advocacy of a personal devotion to the Virgin, rejected the doctrine on the philosophical grounds that the soul did not enter the body at the moment of conception. Thirteenth-century Franciscans such as John Duns Scotus enthusiastically adopted the concept, as did Pope Sixtus IV, who in 1483 officially recognized the Feast of the Immaculate Conception on December 8 but did not declare belief in it to be official church dogma—a Solomonic decision that would be reiterated at the Council of Trent. Mary's immaculate life history was significant for theology, philosophy, liturgy, and art.

EVA-AVE ANTITHESIS, MARIOLOGY, AND MARIOLATRY

Mary's absolute antithesis was Eve. In literature and art, woman was portrayed as embodying either of the two Christian opposites in the Eva-Ave antithesis. Eva was the temptress, herself tempted. Ave was the salute of the angel Gabriel to the blessed Mary, who was the mother yet virgin, perfect, and peerless. A woman descendant of Eve was thought a creature of nature, a seducer and corrupter who stimulated men to lust, sin, and damnation. A follower of the Virgin Mary, however, was

imperious, just, noble, spotless, by inspiration and by grace stimulating men to blessedness on Earth and promising sanctification thereafter.

This dichotomy was influenced by Aristotelian and Neoplatonic thought whereby the animal or irrational passions, materiality and fleshliness, were identified with the feminine and contrasted with the intellectual and spiritual, conceived of as masculine principles. Aristotle's antifeminism later translated into
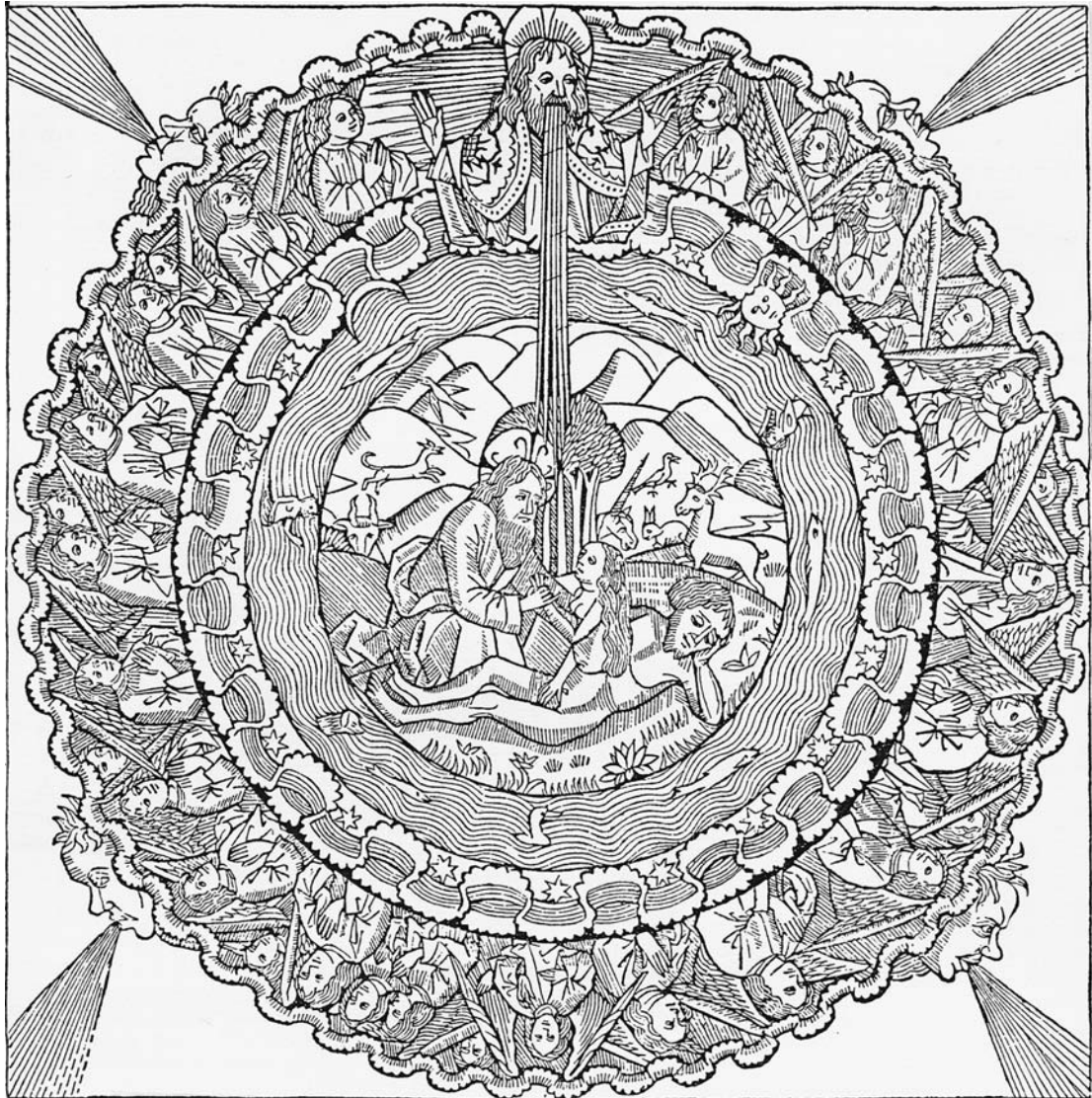
The twice-told Eve was created by divine ostectomy from Adam's rib. From woodcut Bible, Cologne, Germany, 1479.

virulent misogynistic Christian thought in the works of certain theologians, such as Albertus Magnus and especially the book of pseudo-Albertus Magnus called *Women's Secrets* (*De secretis mulierum*), perniciously perverting science to political goals.

At the same time, the pivotal role of the Virgin Mary in the Incarnation held out the promise of Christian redemption for all and vindicated the feminine. Mary was upheld as the model of human perfection for all and in particular for women. If a human woman, believed by nature to be weaker and more prone to sin than a man, could attain the perfection of virtues that Mary had, then there was hope for all. The imitation of her humility, virginity, and purity provided women in particular with a means of gaining autonomy over their bodies as they renounced marriage, childbirth, and the trappings of society in order to dedicate themselves completely to God. Virginity and chastity were proof positive that humans could rise above their sinful nature.

Numerous stunningly beautiful churches and cathedrals dedicated to Our Lady, Notre Dame, and the preponderance of masses, prayers, poems, and mystical praises of Mary demonstrated that mariology, the systematic study of the life of the blessed Virgin Mary, sometimes was transformed into mariolatry, Marian worship (from Greek *latrein*, "worship"). Mariolatry was the enthusiastic, exaggerated, "excessive" praise of the Virgin Mary in 12th- and 13th-century Europe. Some faithful pious people attributed greater power to her than to her Son. Mystical theologians such as Saint Bernard of Clairvaux wrote allegorical commentaries on the Song of Songs, stimulating fervor for the virtues of the Virgin. Likewise, mystic visions of Saint Catherine of Siena and Saint Bridget of Sweden praised Mary as the preeminent blessed intercessor, interceding between a human supplicant and God. Mary was celebrated as the especially gracious mother of the redeemer,

Alma Redemptoris Mater, and the powerful support of Christians, *auxilium Christianorum*.

VIRTUES OF THE VIRGIN

Virtues of the Virgin were praised in poetry, liturgy, and art. Most qualities centered on Mary's purity. Many derived directly from the Old Testament's Song of Songs. Mary was beautiful as the Moon, bright as the Sun (*pulchra ut luna, electa ut sol*, 6:10). Mary was the rose of Sharon (*flos campi*, 2:1) and the lily among thorns (*lilium inter spinas*, 2:2). She was the tower of David (*turis David*, 4:4), fountain in my garden (*fons hortorum*, 4:15), and spring of running water (*puteus aquarum viventium*, 4:15).

Mary was a closed locked garden (*hortus conclusus*, 4:12). Yet other Scriptures called her the flawless mirror (*speculum sine macula*, Wisdom 7:26) and the enclosed gate (*porta clausa*, Ezekiel 44:1). Mary was wise (*virgo sapientissima*), the mother of God (*mater Dei*), and queen of heaven (*regina coeli*).

SEVEN JOYS AND SEVEN SORROWS OF THE VIRGIN

Prayers and litanies devoted to the Virgin Mary were associated with events in her life. Since the 13th century the Seven Joys of the Virgin customarily were contrasted with her Seven Sorrows. The Seven Joys included the Annunciation, Visitation, Adoration of the Magi, Presentation of Christ in the Temple, Christ among the Doctors, the Assumption, and Coronation of Our Lady. The annunciation referred to the archangel Gabriel's announcement to the Virgin Mary that she would give birth to Jesus, the Messiah. The Annunciation also announced to the shepherds that Jesus was born and miraculously incarnated (Luke 2). The Christian feast of the Annunciation was celebrated on March 25. The Visitation of Our

The Presentation of Jesus Christ in the Temple.
Woodcut, Peter Drach, *Der Spiegel menschlicher Behaltnis,* Speyer, 1500.

Lady was the Christian feast day commemorating the Virgin's visit to her cousin Elizabeth, mother of Saint John the Baptist (Luke 1:39–56). The Christian feast day introduced in the 13th century was celebrated on July 2.

The Adoration recalled the shepherds' adoration of the infant Christ at Bethlehem. Similarly, the three kings carried gifts to celebrate Christ's birth, the Adoration of the three Magi. The presentation of Christ in the Temple coincided with a purification feast and Candlemas, a Christian feast celebrated in February. Following Judaic tradition (depicted in Leviticus 12), two turtledoves or two young pigeons were sacrificed for the ritual purification of a new mother. The Christian Feast of Purification (Luke 2:22) commemorated the consecration of Christ at the Temple in Jerusalem, the rite simultaneously purifying his mother, Mary. Candlemas was celebrated with ritual processions of lighted candles honoring both the Virgin's purification and her presentation of Christ in the Temple, 40 days after his birth.

Mary was relieved to find her absent child in the Temple. Disputing among the doctors, Jesus demonstrated his youthful brilliance in theology and philosophy. Mary's death, after Christ's crucifixion, was associated with miraculous events. Mary's assumption followed her death, her dormition (Latin *dormitio*, "the falling asleep"). Mary was received into heaven, her body uncorrupted, perfect, and pure. Often depicted ascending on a mandorla pallet, her almond-shaped or oval-framed symbolic bed was associated with both the Virgin's womb and Christ's wounds. This mandorla, also called the *vesica piscis* (Latin, "fish bladder"), was an ellipse-shaped frame or aureole surrounding also the holy figure of the transfigured Christ. In the Assumption, Mary was "taken up" into heaven. Christ, however, "went up" in the Ascension. The Ascension was Christ's final triumphal appearance on Earth before leaving his astonished apostles at Bethany, outside Jerusalem, and ascending from Mount Olivet into heaven (Luke 24), celebrated in the liturgy on the sixth Sunday after Easter. After Assumption, Mary was crowned Queen of Heaven (*Regina Coeli*).

In contrast to the Virgin's Seven Joys were her Seven Sorrows, first commemorated in 13th-century Italy. First of the agonies piercing Mary's heart was the rejection of her child Jesus. Second was the Flight into Egypt. Third was Mary's fright and sorrow when the young boy Jesus disappeared from home before she discovered him disputing in the Temple with the doctors. Jesus bearing his cross was the fourth agony Mary endured, preceding the fifth horror of the Crucifixion, Jesus Christ's execution on

A 1487 oil on panel by Hans Memling depicting the Virgin Mary with the apple. Courtesy of the Memling-Museum, Brugge, Belgium, photograph, © A.C.L., Brussels.

the cross at Calvary. Her sixth sorrow was Christ's descent from the cross. Commonly called the Pietà, the crucified Christ was represented as removed from the cross, cradled in the arms of the sorrowing Virgin, with the three Marys and various saints lamenting. Mary's final sorrow was her parting from her beloved Son before his Ascension. The Seven Sorrows of the Virgin were the focus of a church festival established in 1423 by the Synod of Cologne.

Grace and the Seven Sacraments

Grace was God's generous divine assistance to humankind whether or not deserving of this

blessing. The early church father Tertullian called grace the divine energy working in the human soul. Saint Augustine considered it God's mercy to prevent damnation caused by Original Sin. Grace was thought to be conveyed in or through the seven sacraments. These seven acts were baptism, communion, confirmation, penance, extreme unction, holy orders, and matrimony.

Baptism was a religious initiation rite into the Christian Church. Baptism was actual immersion in a pool of water or in a baptismal font in the baptistery, a section of the church or particular building dedicated to baptism. Otherwise, baptism was a sprinkling of holy water by means of an aspergill, a sprinkler or brush for dispensing blessed waters. Baptism signified the spiritual purification for ritual celebration of Christ in the Eucharist.

Communion was the rite creating spiritual union between a Christian and Christ in celebrating the Eucharist. Communion commemorated Christ's Last Supper. In eating the spiritual food of eternal life, the supplicant Christian obeyed the precedent established by Jesus, "Unless you eat the flesh of the Son of Man and drink his blood you have no life in you. . . . He that eats my flesh and drinks my blood abides in me and I in him" (John 6:53–56). The body and blood of Jesus Christ become truly present in the bread and wine of communion by the process of transubstantiation.

Transubstantiation was the theological doctrine maintaining that during the consecration in celebrating the Eucharist, the bread and wine actually were converted to Christ's body and blood. Of the original wafer and wine only the appearance and taste remained, mere accidents, not realities. The Fourth Lateran Council in 1215 mandated belief in the doctrine of transubstantiation. Contradiction was heresy. Saint Thomas Aquinas provided transubstantiation with a cogent philosophical explanation, insisting on the basis of the Aristotelian argu-

ment that universals could truly be in particulars that Christ's body and blood could truly be present in the bread and wine.

The Greek Church also maintains that during the eucharistic celebration the bread and wine are really transformed into the body and blood of Christ, yet it did not adopt the dogma of transubstantiation. Greek Orthodoxy opted to refrain from philosophical speculation about the transformation, limiting itself instead to considering the change in essence (*metousiosis*) to be a "mystery" that can only be known through divine revelation and not through human reason. When Protestant theologians, following Huldrych Zwingli (d. 1531), asserted that the body and blood were present only figuratively or symbolically, the Catholic Church reacted at the Council of Trent (1546–63) by reasserting the literal belief that the confessed supplicant could actually eat the body and drink the blood of Christ. The doctrine of transubstantiation was thought to be a stimulation to love, *stimulus amorus*, just as portraits of Jesus Christ's crucifixion stimulated veneration.

Confirmation was the anointing of a baptized believer with chrism, a holy oil. Chrism essentially consisted of olive oil mixed with balsam, consecrated by a bishop at the blessing of oils on Maundy Thursday and signifying diffusion of divine grace. The chrism was kept in a sacramental vessel called a chrismatory, which blended chrism with other consecrated oil used for baptism, confirmation, anointing of the sick, extreme unction for the dying, and other significant liturgical events requiring holy oil. Confirmation enabled the believer to receive the Holy Ghost in affirmation of faith in Jesus Christ.

Penance (Latin *poenitentiae*, "regret" or "repentance") was a necessary precondition for forgiveness. A sinner had to express sufficient loathing and contrition for his or her sin as an offense against God. The penitent expiated the sin by prayers, good works, fasting, pilgrimage, almsgiving, and crusading. Extreme unction

was the final sacrament for a baptized believer at the point of death. A priest performed the final anointing with blessed oils, chrism, accompanied by ritual prayers.

Holy orders was the only one of the seven sacraments empowering the individual to administer divine grace to the faithful by other sacraments, such as the Eucharist, and by the word. A spiritual power was conferred upon the one taking holy orders after a period of training, preparation, and consecration. This allowed proper adherence to all ecclesiastical and liturgical duties.

Matrimony as a sacrament meant marriage. Remarkably, not until the 16th century during the Council of Trent were marriages required to be performed by clerics in churches. A clandestine marriage was a non-church-sanctified but perfectly legal marriage. The bride and groom simply pledged, "I take you to be my spouse!" before one or two witnesses, plus, if possible, exchanged rings. The ceremony was civilly and clerically recognized as a conjugal union. Matrimony as sacrament served the purposes of uniting a man and woman for procreation, for preservation of the species, for comfort, companionship, and satisfaction. Its essential religious properties were unity and indissolubility.

The Council of Trent was an ecumenical council of the Roman Catholic Church for solving problems of dogma, liturgy, ecclesiastical government, discipline, and matters of state raised by the Protestant Reformation. With interruptions and postponements caused by plague and politics, the council met in 1545–47 under Pope Paul III, in 1551–52 under Pope Julius III, and in 1562–63 under Pope Pius IV. The council issued decrees pertaining to the seven sacraments, Original Sin, baptism, transubstantiation, veneration of relics and images, invocation of saints, indulgences, mariolatry, the index of forbidden books (*index librorum prohibitorum*), regulation of feasts and fasts, and other controversies of canon law.

Excommunication

Excommunication was the rite of expulsion from the community of Christians on Earth. It also was an implied rejection from the community of saints after death, unless God's grace sanctified the individual. The act of ecclesiastical censure was performed with a ceremony of excommunication often referred to as bell, book, and candle.

A 14th-century English proverb listed the liturgical objects as candle, book, and bell, though later ecclesiastical directions insisted, "Do to the book, quench the candle, ring the bell!" This publicly announced a person's expulsion from the community of believers and deprived him of rights to receive or to administer the seven sacraments. Excommunication forbade social interaction with other Christians. It was used with great ferocity in unions between secular and ecclesiastical authority. The University of Paris, for instance, used excommunication after denunciation from church pulpits as punishment for medical malpractice. Throughout the centuries excommunication was a powerful weapon in the papacy's disputes over temporal authority with Holy Roman Emperors and European monarchs. In 1076 during the height of the Investiture Controversy, Pope Gregory VII excommunicated Emperor Henry IV after the latter deigned to try to divest him of his papal powers. The only rights and privileges of the church that the excommunicated might have were last rites at time of death.

Trinal Triplicities

Christian numerological fascination with the perfection of the number 3 led to trinal triplicities, configurations of 3s, 3 times 3, and other numbers multiplied by 3 in Christian philosophical, liturgical, architectural, and literary schema. There were two Trinities: The Virgin Mary, Saint Joseph, and Jesus were the earthly Trinity paralleling the heavenly Trinity of the Father, Son, and Holy Ghost. The three churches were the church triumphant in heaven, the church expectant in purgatory, and the church militant on Earth. The three churches were explicated in the Apostles' Creed, which was recited daily in monasteries during the three canonical hours of *matins*, *prime*, and *compline*. The three estates of the church were Rome, Christendom, and the spiritual sovereignty, in which the church's ideas and judgment reigned supreme. The Trinity and the three ecclesiastical estates were represented in the pope's tiara, a triple-tiered crown of power.

The three Magi, Caspar, Melchior, and Balthasar, were described in the Gospel of Matthew as traveling from the East following a star to present gifts to the infant Christ. Originally they may have been Persian astrologers, but by the third century they were redefined as kings, and by the sixth century they were venerated as saints and listed in the book *Excerpta Latina barbari*. In early Christian art there were two, four, or six magi. By the later Middle Ages but before the discovery of America in 1492, the Magi personified the three known continents paying tribute to Christ, Europe, Asia, and Africa, probably the reason Balthazar was portrayed with black skin. Likewise, there were three major prophets, Isaiah, Jeremiah, and Ezekiel, who complemented the 12 minor prophets, four clusters of three prophets each, representing Old Testament authors of the shorter prophetic books, namely, Hosea, Joel, and Amos; Obadiah, Jonah, and Micah; Nahum, Habbakuk, and Zephaniah; Haggai, Zechariah, and Malachi.

Three counsels of perfection were the three vows of monasticism. A monk or nun vowed chastity, the complete abstention from sexuality; poverty, the complete abjuration of personal property; and obedience, the complete

In this allegorical feast the Prodigal Son, sharing a mazer with buxom Flesh, plays backgammon with vanglorious World, whose right foot trammels the head of Conscience, while aged Avarice quaffs a glass pitcher with lion-mouthed handle. To bagpipe tunes played by Reason, Avarice hands her accomplice, Selfishness, a stolen money bag. Woodcut by Cornelis Anthonisz, Germany, c. 1540. Courtesy of the Metropolitain Museum of Art, New York.

submission to a superior's will or to God's will, except, of course, for a counsel to sin.

Christian interpreters of Plato's three states of creation in the *Phaedo* named basic states of all elements of the cosmos: being, doing, and suffering, respectively, the causes of existence, generation, and destruction. Being incorporated the duality of doing and suffering, *agere et pati* (Latin, to do and to suffer), therefore during their three ages Christians were actors or patients. Trinal triplicity even bound signs of the zodiac, the four elements and the four contraries. Airy signs (Gemini, Libra, and Aquarius), earthy signs (Taurus, Virgo, and Capricorn), fiery signs (Aries, Leo, and Sagittarius), and watery signs (Cancer, Scorpio, and Pisces) graced illustrated Christian calendars.

Mystical triads included the 12th-century mystic Saint Hildegard of Bingen's three perfect equal spaces in the human body. The distance from the top of the head to the top of the throat equaled the distance from the throat to the navel, which equaled the distance from the navel to the groin. Uniting the microcosmic human body with the macrocosmic universe, her three equal human spaces paralleled the three cosmic spaces situated between the highest firmament and the lowest clouds, the clouds and the Earth's surface, and the surface and the Earth's center. The great 13th-century mystic Saint Bernard, the abbot of Clairvaux, preached his three stages of mysticism. Knowledge of God began with purgation, pure truth as seen only with a pure heart. One ascended to illumination, surrender to God's will and meditation upon the Passion of Christ. The highest stage, contemplation of God, was mystic union with the divine presence achieved by imitation of perfect holiness. Mystic soul by triadic ascent became one with godhead.

Three theological virtues, faith, hope, and charity (1 Corinthians 13:13), combined with four cardinal virtues, fortitude, justice, prudence, and temperance, to form the seven Christian virtues. Virtues battled opposing vices, the seven
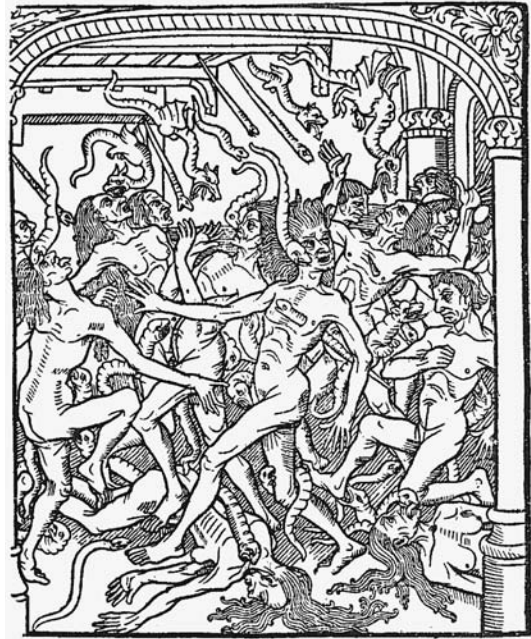
Sloth, as one of the seven deadly sins, leads to infernal punishment by snakes in a hellish snakepit. From Nicolas Le Rouge, *Le grant kalendrier et compost des Bergiers*, Troyes, 1496.

deadly sins, pride, envy, anger, sloth (or moroseness), avarice, gluttony, and lust. Abstract ideas personified as allegorical figures projected battles within minds. Opposite ideas warred for acceptance in a thinking person's brain: love versus hate, sensuality versus chastity, determined human choice via free will. Allegory was mind battle made visible, *psychomachia*. Triplicity pervaded philosophy, theology, literature, art, architecture, furniture decoration, jewelry, medical books, and sermons in cathedrals and churches.

Prefiguration

Prefiguration, also called typological symbolism, was the interpretation of the Old Testament, its themes, characters, and the religion

of Judaism, as predicting, prefiguring, and foreshadowing the New Testament. All things, old and new, were related in form (*omnia in figura contingebant illis*). Eve sinning in the Old Testament garden prefigured the New Testament's pure, spotless Virgin Mary, the second Eve. Adam typologically prefigured Jesus Christ, the necessary second Adam. In the Old Testament covenant, the patriarch Abraham incompletely sacrificed his son, Isaac. That act prefigured the Christian God the Father's offer of his only begotten Son, Jesus Christ, for sacrifice. While Abraham's sacrifice was aborted and imperfect, God the Father was complete and perfect in sacrificing his son, Jesus. The old order of the Old Testament was perceived as a necessary but imperfect and incomplete, prophetic truth foreshadowing the absolute truth of the new order.

Church music and ecclesiastical art represented Christ as the mystic winepress. Augustine used the metaphor of Christ as a cluster of grapes from the promised land, crushed under a winepress. He made double reference to prefiguration in the spies of Moses returning from Canaan carrying bunches of grapes on a pole (Numbers 13) and God's tramping down the vintage of the grapes of wrath (Isaiah 63). The grapes on the pole prefigured Christ on the cross. Christ in the winepress with his blood (or wine) flowing prefigured him on the cross. The screw of the winepress with a spiral thread on its upright (the *stipes*) predicted and typologically adumbrated the cross and Crucifixion.

Typological symbolism was made manifest in the extended heritage of the true cross, the genealogy of the wooden cross of Christ's crucifixion. Beginning in the Garden of Eden its provenance was traced in unbroken succession to the seventh century and beyond. A continuous chain of arboreal events linked the Fall, the Felix Culpa, and the redemption of mankind. Adam took a branch from the Tree of Knowledge with him when he left the Garden of Eden. This wood became the pole upon which Moses raised the brazen serpent, considered a prefiguration of the Crucifixion. The queen of Sheba saw and worshipped that wood when she visited King Solomon. That same wood, found floating in the pool of Bethesda, made the cross upon which Christ was crucified.

Legend linked the wood to political and military successes of Christian emperors. In the fourth century, Helena, mother of Constantine the Great, rediscovered the wooden Rood. Later in the seventh century, Emperor Heraclius recovered it and honored it in the Exaltation of the Holy Cross. Holy Cross Day was a Christian feast celebrated on September 14 commemorating Emperor Heraclius's rediscovery of the true cross in Jerusalem. Classical antiquity also was thought to prefigure Christianity. Jupiter's impregnating the virgin women called the Danae foretold the more perfect method of Mary's conception of Christ.

The Holy Grail was a legendary bowl, chalice, or dish Jesus Christ used at the Last Supper. Joseph of Arimathea also used that same vessel for collecting Christ's blood at the Crucifixion. By the 12th century in literature the quest for the Holy Grail, said to confer mystical, healing powers, was an allegorical attempt to achieve a pure, sanctified life within the secular active world. Though probably of Celtic origin, Irish and Welsh, and connected to fertility rites associated with legends of the fisher king, the grail also was said to originate from the halls of King David, part of the patrimony of Jesus Christ. Holy Grail quests appeared in numerous Arthurian romances, generally those associated with the Knight of the Round Table, Sir Perceval. Examples are Chrétien de Troyes's *Perceval*; the *Prose Lancelot*; Robert de Boron's *Estoire du Graal*; *Perlesvaus*; the Welch *Peredur*; Wolfram von Eschenbach's *Parzival*; and the English *Joseph of Arimathie*. In Malory's *Morte d'Arthur* Sir Galahad achieves the goal.

Exegesis and Fourfold Interpretation

Scripture, along with secular romances and epics, was thought interpretable on four levels of meaning. First was the literal, surface denotation of the words or tale. If four horses were described, then these literal animals had hooves, manes, and horsehair. Events described in the Old and New Testaments were interpreted historically, at face value. However, a second level of meaning was the allegorical, in which a christological interpretation was read into Old Testament events and personages. The tropological level of meaning was the moral, ethical, instructive message of the text. Last, and most difficult to achieve, was the anagogical meaning, which was the mystical and eschatological interpretation that anticipated the unification with God at the end of time.

Saint Augustine, the great monastic leader John Cassian (d. 435), and Pope Gregory the Great (590–604) were preeminent interpreters of Fourfold Analysis. This technique was based on Origen's Threefold Interpretation. Origen, the third-century Alexandrian biblical scholar, who was influenced by the Neoplatonist Philo Judaeus, discovered three meanings in Holy Scripture. He distinguished among the somatic, the psychic, and the pneumatic, corresponding to the three human constituents, namely, the body, soul, and spirit. Therefore a given scripture could be read on three levels, the literal, moral, and spiritual or allegorical. This was an alternative to the Augustinian Fourfold Interpretation, which Augustine explained in his celebrated distich: *littera gesta docet quid credis allegoria; quid agis moralia, quo tendis anagogia*. The literal teaches the facts, the allegorical what you believe, the moral what you are to do, and the anagogic, where you are going.

Line-by-line exposition of a sacred text was called exegesis (Greek, "explain" or "nar-

St. Jerome with his lion writes a manuscript in his study. From engraving, Albrecht Dürer 1471–1528, German. Courtesy of the Metropolitan Museum of Art, New York.

rate"). Opposing the Alexandrian school's early writers favoring allegorical interpretations of scriptural text, including Origen and Saint Clement, was the Antioch school, which preferred literal interpretation. Among its most famous exponents were Saint John Chrysostom, the Syrian bishop of Constantinople (347–407), and Theodore, bishop of Mopsuestia in Cilicia (d. c. 428). Saint Jerome favored literal interpretation and Saint Augustine allegorical, but both attempted when possible to unite the two types of meanings. Thomas Aquinas favored the Fourfold method of literal, allegorical, tropological, and anagogical exegesis, along with such other Scholastics as Peter Lombard (d. 1160) and Alexander of Hales (d. c. 1245).

Angels

A Christian angel was a divine messenger and ethereal spirit. From the Greek word meaning "messenger," an angel was known in Hebrew as a messenger of Jehovah, *malak Jehovah*, and particularly important in Jewish Kaballah tradition as well as in Muslim theology. In Christianity, an angel was a close companion of God in the great chain of being. This magnificent expression of the interrelatedness of all elements of the "world order," the *ordo mundi*, positioned God at the top of a gigantic chain of which the major links were interconnected and interanimated each to each. After God were choirs of angels, cherubim and seraphim, then man and woman in the middle of the chain, followed by beasts, plants, and then inanimate stones. Human ability to ascend to the level of angels using reason and rejoicing in soul was balanced by human tendency to descend toward bestiality in indulging carnal pleasures.

An angel was a high-ranking minister in the world order whose winged radiance was light-bearing and an illumination of human understanding. The fallen angel Lucifer, whose very name meant "light bearer," pridefully thought himself God's equal. This diabolical presumption caused him to be cast down from the heavenly realm of light into perpetual darkness of hell. He was identified with Satan because of a misreading of Isaiah 14:12. Sometimes Venus, the morning star (as in Psalm 109:3 and in 2 Peter 1:19), was also called Lucifer, the light bringer, though without any satanic implication.

An angel as minion of God announced God's *gospel* (Anglo-Saxon: "good news"). Archangel Gabriel, for example, in the Annunciation to the Virgin informed her of her selection as God bearer. Honoring Gabriel and Mary, pious Christians intoned the *angelus*, probably the most frequently practiced liturgical devotion, beginning with the short psalm phrase or *versi-cle*: "the angel of the Lord has announced to Mary," *Angelus domini nuntiavit mariae*, commemorating Incarnation and praising Mary for accepting Gabriel's Annunciation.

In addition to Gabriel, other archangel messengers and intermediaries closest to God were Michael and Raphael. Jewish tradition added four more archangels: Uriel, Raquel, Saniel, and Ramiel. Archangels were members of the highest rank in the nine orders of angels. After the archangels and ordinary angels were principalities, powers, virtues, dominions, thrones, cherubs (those chubby, nude infants or child angels, often depicted in architectural decorations, frescos, paintings, and manuscript illuminations), and seraphs. In typical trinal triplicity, the number and order of angels were arranged in three hierarchies called the celestial hierarchies containing three choirs of angels each, composed of seraphim, cherubim, and thrones; then the cluster of dominions, virtues, and powers; then the principalities, archangels, and angels. According to Dionysius, only archangels and angels had a mission to humans.

Angel materiality and spirituality caused considerable disagreement among early church fathers. The predominant medieval doctrine explicated by Thomas Aquinas, Duns Scotus, Albertus Magnus, and Bonaventura identified angels as spiritual beings who are pure and disembodied intellect. Therefore they differed from a human soul. They formed their own species, not being composed of form or matter, but were subsistent forms, immortal and incorruptible. Thomas Aquinas said that an angel could never be located in any one place because it did not have appropriate dimensions or extension. But an angel could move and act by applying its power to the place it wanted to be.

Angels were said to know and understand, according to Saint Augustine in his *City of God* (11:29), by a combination of supernatural knowledge called *scientia matutina* and natural knowledge called *scientia vespertina* infused into

angelic intelligence at the time of creation. Most Scholastic writings explained angels as created simultaneously with the material universe. God elevated angels to a state of grace to test them, afterward they would exist in a state of either supernatural beatitude or eternal damnation. The angel touch was the representation of celestial ministers and minions with wings. Human beings having ascended to such superior spirituality were also depicted as wearing halos and feathered wings.

Angels were associated with Jesus Christ at critical events in his life. Angels announced his incarnation, his birth, ministered to him in the desert, strengthened him in his agony, and were the first witnesses of his Resurrection. (Matthew 28:2–7; John 20:12). Angels were of paramount importance in the Book of Revelation.

Apocalypse and Eschatology

The allegorical vision of Saint John the Evangelist in the Book of Revelation was the last book of the New Testament, also called the Apocalypse. Recording his vision of the future as it appeared to him while in exile on the island of Patmos, where the Roman Emperor Domition had sent him in 95 C.E., John wrote prophecies, instructions, and warnings about the end of the world. He described the Four Horsemen of the Apocalypse, namely, the Conqueror, War, Famine, and Death, who rode horses, respectively, white, fire-red, black, and pale, and were depicted as furiously riding, trampling king and commoners. These four riders from Revelation (6:1–8) were associated with the perils of the seven churches. Saint John's epistle was addressed to the seven churches in Asia Minor: Ephesus, Smyrna, Pergamum, Thyatira, Sardis, Philadelphia, and Laodicea.

In Saint John's depiction of the end of the world, the Lamb of God will open the final latch of the great book of life. The breaking of

this seventh seal would herald seven angels sounding seven trumpets standing before God. The first angel would cause hail, fire, and blood to consume the Earth. The second angel would quench a great burning mountain thrown into the sea. Subsequent angels would release scourges and plagues. The seventh angel would sound a trumpet voicing to the prophets the mystery of God. This terrifying allegorical vision foretold Christ's Second Coming, his New Jerusalem on Earth, Satan's overthrow, and the final destruction of the wicked.

Saint John also included descriptions of the apocalyptic beasts. These were the four symbols of the Four Evangelists: Matthew, Mark, Luke, and John, who wrote the four canonical Gospels narrating the life of Jesus Christ, his teachings, his miracles, and his death and resurrection. Saint Matthew was depicted as a winged man; Saint Mark was a lion. Saint Luke was an ox, and Saint John, an eagle. In Revelation (4:7), the apocalyptic beasts have eyes all over their bodies; in Ezekiel (1:10–11) they have eyes on their faces only. These apocalyptic beasts differ from the beast of the apocalypse, which was a phantasmagoric beast from the sea, a panther with bear's feet, lion's mouth, 10 horns on its head crowned with diadems, and seven heads inscribed with blasphemous names, the heads representing seven hills on which the great city of Rome was built, associated with the whore of Babylon and the sacred number 666 (Revelation 13 and 17).

Eschatology was the theological, philosophical, literary, or artistic study of the four last subjects of the end of time, the *eschaton*, namely, death, judgment, heaven, and hell, the important four subjects of the Apocalypse. The Revelation divulged the secrets the Christian faithful needed to understand the full meaning of Christ's incarnation, of the need for the sacraments, the purpose of confession of one's sins, of the horrors of the Last Judgment, and to hope for the resurrection of the body and the

final reunion with God. Perhaps more than any other book of the Bible, the Revelation, as well as the Book of Daniel and other apocalyptic messages of Holy Scripture, were subjected to the Fourfold Interpretation to decipher their powerful messages and to try to anticipate when the feared yet hoped for Second Coming of Christ would occur.

Purgatory, Penance, Indulgences

If Revelation spoke mainly of the Final Judgment and the casting of the damned into hell and the joyful entrance of the righteous into heaven, other books of Scripture led theologians to ponder about purgatory. Purgatory refers to the period following the death of the individual and prior to the resurrection of the body and the subjection to the Last Judgment. During this span of time the soul of the dead person is purged of its sins in preparation for the Final Judgment. The term *purgatorium* does not appear in church documents until the 11th century, but many doctors of the church, including Origen, Tertullian, Augustine, and Gregory of Nyssa, refer to the concept when they speak of the temporal punishments that the person will suffer after death in order to purge the stain of sin that continues to cling to the soul, for while the sacrament of baptism in Christ removed the stain and guilt of Original Sin, individual Christians still owed God satisfaction of the debt incurred from their personal sins.

Only the saints were believed to die with their souls perfectly purged of all sin and vice. The odor of sanctity that surrounded them and their ability to perform miracles post mortem were signs of the purity of their souls and their proximity to God. Ordinary sinful Christians

still owed God the liability of their guilt (*reatus culpae*) and the liability of punishment (*reatus poenae*) for their sins. The confession and repentance of one's sins absolved a person of the liability of guilt, but the liability of punishment also had to be paid. The church taught that one's stay in purgatory could be shortened and the punishments lessened by temporal sacrifices and good deeds done in the here and now. In the Carolingian period the faithful enthusiastically responded by donating their wealth to monasteries and the church so that prayers could be said regularly for their own souls and those of their loved ones. The confession of sins and sincere acts of penance were indispensable elements in the reconciliation with God.

The 10th century saw the church's fomentation of indulgences as a means of remitting the temporal punishment due to God for sins committed. The church held the mystical power to grant indulgences for meritorious acts. The indulgences are dispensed from the "treasury of merits of Christ and the saints" whose sacrifices benefit the Christian community. Most famously in 1095, Pope Urban II and his successors granted the plenary indulgence to all those who went on the crusades to the Holy Land or died along the way. A similar indulgence was granted to those who fought in the Reconquista, the wars to conquer al-Andalus for Christianity. Pilgrims to major shrines of saints such as Rome and Santiago of Compostela were also granted an indulgence for the full remission of their sins. Indulgences were one of the central issues of the Reformation because Luther and his followers accused the church of error in providing indulgences in exchange for monetary donations.

Ever since Innocent III decreed in the Fourth Lateran Council of 1215 that every Christian must confess his sins once a year, the

(opposite page) *Four Horsemen of the Apocalypse furiously ride, trampling king and commoners.* From Albrecht Dürer's *Apocalypse*, Nuremberg, 1498.

A winged triple-mouthed devil devours three sinners; two are eaten up to their chests, another bitten in half. Animaloid demons stir hot caldrons. In one hellhole, three men, one wearing a bishop's mitre, and a woman are immersed in flaming fluids, arms bound to their sides, gazing at the round table's foods and utensils. From a woodcut in Antonio Bettini's Monte Sancto di Dio, Florence, 1491. Courtesy of the Metropolitan Museum of Art, New York. Harris Brishane Dick Fund, 1925.

mendicant preachers, parish clergy, and monks emphasized confession and repentance and the need for penitents to express sorrow and contrition for their sins as a means of shortening their time in purgatory. The 13th-century spotlight on an affective spirituality centered upon Christ's humanity, suffering, and passion;

devotion to the Virgin and her sorrows; and Christ and Mary's sinlessness was designed to induce Christians to experience guilt and contrition for their own sins, which would, in turn, spurn them to purge their sins via confession and acts of penance. Dante's *Purgatory* magnificently dramatizes the fate of repentant souls struggling to purge the sins of pride, envy, wrath, sloth, avarice, gluttony, and lust through the appropriate forms of penance. The structure of *The Divine Comedy* reflects medieval belief that purgatory was spatially located between heaven and hell.

Apocrypha

The Apocrypha were the so-called hidden writings, not officially part of the Old Testament or the New Testament canon. Books of the Apocrypha were declared spurious by the early church fathers. But artists thought them stunningly exciting and utilized them in literature and graphic art. Especially important were the Gospel of Nicodemus describing Jesus Christ's descent into hell, the gospel of Thomas depicting Christ's early life, the Book of James describing the nativity and childhood of the Virgin and of Christ, and the so-called *Letter to Adso*. Recently the gospel of Judas, a second-century Coptic text that vindicates the figure of Judas and his role in the economy of salvation, has come to light. Instead of a reviled turncoat tempted by the devil to betray Jesus for 30 pieces of silver, Judas is depicted as an accomplice of God's divine plan to redeem humankind through the sacrifice of his Son.

Saints

Saints were holy men and women endowed with the power to intercede between a Christian supplicant and God in this life and the next. The

Byzantine holy men and women of late antiquity dramatically manifested in their own bodies through superhuman feats of asceticism, self-mortification, and prayer that it was possible to defeat the temptations of the flesh and to rule over one's passions. Inspired by God's grace and by the paradigm of the early martyrs of the church, the saints inflicted and willingly endured all manner of spectacular suffering in the imitation of Christ. Having conquered their own bodies, the saints gained power over demons and the forces of nature, carrying out exorcisms, curing diseases, and quelling bad weather in the manner of Christ. Saints acted as local patrons intervening in the affairs of the community, "reaching out a hand to those in distress" (Brown, 121). The prayers of saints were believed to open the gates of heaven. A saint's prayer was especially efficacious, powerful to intercede spiritually on behalf of the believer, as his capacity to perform miracles demonstrated.

The cult of the saints was the merited annual celebration of a feast called the *saint's day*, which commemorated the dramatic events in the saint's history, notably conversion, martyrdom (if applicable), virtues, and miracles. The origins of the cult go back to Saint Ambrose, bishop of Milan (d. 397), and his transcendental decision to appropriate the veneration of dead saints in the service of church doctrine and the needs of lay and ecclesiastical community. The miracles performed by the relics of dead saints were compelling proof of the truth of the doctrine of the resurrection of the dead and the immortality of the soul. Relics on the altar became necessary for the consecration of churches. In late antiquity and the early Middle Ages it was the role of local bishops to pronounce judgment on the authenticity of the remains of a saint and to sanction the saint's formal public worship. Between the 10th and 12th centuries the Holy See increasingly reserved for itself the exclusive right to canonize saints in line with the general trend toward the centralization of the powers of the church. In 1173 Pope Alexander III banned bishops from promoting the veneration of saints without the direct authority of the pope, and Pope Innocent III made papal authority in matters of canonization official policy in a bull issued in 1200. From then on the procedures for canonization become more intricate, requiring the testimony of numerous eyewitnesses to the miracles performed by the saint and an advocate in pro of the saint's canonization, the *advocatus Dei* (God's advocate), and the an advocate in contra, the *advocatus diavoli*, or devil's advocate.

Sources for saints' lives that were read out during the liturgy of the saint's feast day include the extraordinary compilation called the *Golden Legend* (*legenda aurea*) written by the 13th-century Dominican friar Jacobus de Voragine, later archbishop of Genoa. Spectacularly popular and influential, it was arranged according to the calendar. Jacobus described the saint's days and works with spectacular, lugubriously detailed martyrdoms as well as minutely described virtues of canonized and locally worshipped sufferers for God's word. Caxton published the first English version of the *Golden Legend* in 1483.

Christian Philosophers

From its very beginnings, Christian theology manifested fundamental differences from Greek philosophy in the theory of knowledge (epistemology) and of cosmology. For the theologians knowledge originated from God through biblical revelation and the incarnation of Christ, while for the philosophers knowledge was obtained through rational reflection on empirical data from the natural world. The existence of God, and doctrines such as the Holy Trinity, God's creation of the world, Original Sin, the incarnation of God in Jesus Christ, the sacraments as agents of divine grace, the resurrection of the body, the immortality

of the soul, and the last judgment were deemed a "folly" (Cor 1:18–31, 2:1–2) that could not be proved rationally.

SAINT AUGUSTINE OF HIPPO (D. 430)

While Augustine of Hippo (d. 430) technically falls outside the period of the Middle Ages, no other thinker influenced medieval theology and philosophy more than he. A preeminent doctor of the church, Saint Augustine was born in the fourth century to a pagan father and Christian mother. After a Christian education, he thought to become a lawyer, a writer, and after living for 15 years with a mistress he joined the Manicheans for nine years, and then became a Neoplatonist. He was attracted back to Christianity by the enticing sermons of Saint Ambrose. In the year 387 at the age of 33 he was baptized and he became a priest in 391, living a monastic life. He significantly affected the Christian Church in Africa and worldwide, for his reign as bishop of Hippo was remarkably long and vigorous, from approximately 396 to his death in the year 430.

The experiences with Manichaeism, Neoplatonism, and other schools of thought led Augustine to refine and devise what would become major church doctrines, such as Original Sin and the role of grace and the sacraments in redemption. With magnificent clarity Augustine explained basic Christian concepts in his autobiographical *Confessions* and the *City of God*. The *Confessions* brilliantly analyzed the emotions of the Christian experiencing sin and the inner workings of the human will. The *City of God* contrasted Christianity with the heathen world. He also wrote important treatises on the Trinity and trinal qualities of God, *De Trinitate*, and on predestination. Even after the rediscovery of Aristotle in the 12th century, Augustine's writings remained for medieval Scholastic theologian-philosophers an indispensable point of reference.

While Augustine utterly rejects and condemns his former Manichaeism, he continues to embrace Platonism, as well as Neoplatonism and Stoicism, by essentially Christianizing them. From the Platonists he learned that God was fully spiritual and transcendent and that evil was merely the privation of the good. Yet he also tempered the radical understanding of the one as posited by Plotinus, for whom the one is of such absolute unity and transcendence that it is beyond all being and goodness.

Augustine also Christianized Platonist epistemology: Whereas for the Platonists the observation of the sensory world is used to extrapolate knowledge of eternal universal forms, for Augustine knowledge begins by the retreat into the internal world within oneself from which one rises above to the eternal truth of the word. According to the Platonists human memory played the essential role in transferring knowledge of particulars to knowledge of universal truths. Augustine substituted human memory with the doctrine of divine illumination, thereby placing the archetypal eternal forms of the Platonists within the mind of the triune Christian God. Searching the depths of one's mind, one encountered Christ, the divine light from which all knowledge emerged.

Many of Augustine's writings were also aimed at combating the heresies of his day. His observations on God and free will were aimed at the Manicheans, who believed that eternal evil opposed the eternal good God. Saint Augustine maintained that God was omnipotent and absolutely good. Evil was privation of some good that could have been. Evil was not a physical, ontological reality, but rather resulted from the imperfect character of creatures. Moral evil sprang from free will.

Augustine was also a vociferous opponent of the Donatist controversy, which threatened the political and theological unity of the church. The Donatists insisted that priests and bishops who had betrayed the church during the Dio-

cletian persecution (303–305) should not be allowed to exercise their office and administer the sacraments. Such clerics were impure and their sacraments should be considered invalid. Differing, Augustine considered Christ as the true minister of sacraments and the church "one" because of mutual charity of its members. The church was holy not because its members were holy but because its purposes were holy. The church contained both good and evil men but not until the last Day of Judgment would one know who is who. Augustine distinguished between validity and regularity in administering the sacraments.

During his last 30 years, Saint Augustine fought the Pelagian controversy, as he clarified the concepts of the fortunate fall and Original Sin. Augustine believed that at creation man had supernatural gifts, which had been lost in the expulsion from paradise. Therefore man suffered a hereditary moral disease and an inherited legal liability for Adam's sin. Only God's grace could save man from these evils. The whole human race was predestined as a "mass of sin," *massa peccati*, out of which God elected some souls to receive his mercy, whether they merited mercy or not. God in his inscrutable wisdom therefore separated the elect from the nonelect.

BOETHIUS (c. 475–526)

Anicius Manlius Severinus Boethius (c. 475–526) made one of the earliest attempts to synthesize Aristotelian logic and Christianity, in the same manner that Augustine Christianized Platonism. Boethius was born into a Roman aristocratic family during the reign of Emperor Theodoric in Ravenna and even served briefly in the imperial court as master of offices. As such, he was well schooled in the Greek language. Among the Aristotelian corpus known in pre-12th-century western Europe were his writings on logic, which Boethius translated

into Latin. Boethius's translations and commentaries on Aristotle's *Categories* and other works were the standard texts used by Christian logicians until the 12th century. His *Theological Treatises* (*Opuscula sacra*) provided a method of using Greek logic to expound Christian doctrine. Falsely accused of treason and magic, Boethius was relieved of his position at the court, condemned to death, and cast into prison, where he wrote his masterpiece the *Consolation of Philosophy*.

The *Consolation of Philosophy* is a prose work interspersed with verse, which recounts a dialogue between him and Philosophy personified as a woman. Boethius presents himself dejected and utterly confused by his change in fortune. The essential existential question that Boethius raises is whether it is possible in this life for the good person to obtain true and enduring happiness. From his perspective it appears that this is not so, for the wicked prosper while the good are oppressed. Philosophy comforts him, however, by arguing that true happiness is not damaged by contingent setbacks such as he has experienced. She shows him that one must distinguish between the ornamental good of fortune, such as riches, status, power, and sensual pleasure, which are ephemeral, and the true goods of the virtues, wisdom, and sufficiency. Boethius's losses are unimportant since he retains these higher goods. Philosophy goes on to demonstrate that the highest good and perfect happiness not only are in God, but are God. Just as God is impervious to change in his perfection, so, too, is Boethius untouched by the changes in his temporal fortunes. Appealing to the concept of divine providence, Philosophy states that everything happens because of God's will, and she further teaches that apparently unjust rewards and punishments on Earth always serve a hidden purpose. In his case, his suffering serves to increase his virtue.

The *Consolation* was one of the most widely read books in the Middle Ages and the Renais-

sance. It was translated into every medieval vernacular language, including an Old French translation by Jean de Meun and a Middle English translation by Chaucer. It was a curriculum staple of universities until the 12th century, when the new Aristotelian writings supplanted it. Nevertheless, it continued to be consulted by the great 13th-century Scholastics, such as Thomas Aquinas, and its prose-verse format ensured its popularity beyond the university classroom and library.

SAINT ANSELM OF CANTERBURY (1033–1109)

Born in Italy in 1033, this English Benedictine monk is second only to Saint Augustine among the Christian philosopher-theologians prior to Saint Thomas Aquinas. He is best known for his ontological argument for the existence of God. His career began in 1059 when he entered the Benedictine abbey at Bec in Normandy as a novice. Because of his profound intellectual and spiritual gifts, he quickly advanced in leadership, being elected prior in 1063 and abbot in 1078. His administrative duties as prior and then as abbot did not impede him from being a teacher as well as one of the most prolific writers of philosophy and theology. Anselm's reputation as a man of God extended well beyond the confines of the Benedictine abbey, for during his life he also served as confessor and spiritual adviser to the kings and queens of Europe, among them Queen Matilda of England. A lifetime of dedication to God and the church culminated in his 1093 election as archbishop of Canterbury, a position he would hold until his death in 1109. Yet Anselm's tenure as archbishop would be mired in the turbulent struggle for power between the monarchy and the church. King William Rufus of England and his successor, Henry I, both vigorously pursued a policy of wielding royal authority over ecclesiastical affairs in their realm, and both mon-

archs refused to submit to papal authority. In this antagonistic atmosphere Anselm was exiled twice from England, yet still managed to write some of his most important theological and philosophical tractates.

Two of Anselm's most influential writings, the *Monologion* and the *Proslogion*, center on the use of logic and rational philosophy to prove the existence of God. The motto that sums up Anselm's "theistic proofs" is "faith seeking understanding" (*fides quaerem intellectum*). For Anselm, *fides quaerem intellectum* does not imply that faith is subordinate to reason or that reason be subordinated to faith. Anselm's goal, rather, is to employ reason to gain a deeper understanding of God for those who already believe, and to convince those who do not of the existence of God.

Anselm's theistic proofs unfold with a series of propositions that lead inexorably to the ontological existence of God. To summarize the most salient points of the *Monologion*, he posits that there must be some one thing that is supremely good, through which all good things acquire their goodness, and that is good through itself. There must be some one thing through which all existing things exist, and that one thing must exist through itself and therefore be greater than all other existing things. Consequently, there must exist the best, greatest, and most sublime thing among all other existing things. In the *Proslogion* Anselm would go on to synthesize this complicated line of reasoning into his one famous "single argument": God is "that than which nothing greater can be thought."

Written as a dialogue between a believing philosopher and the fool of Psalm 14:1 who claimed, "There is no God," the masterful *Proslogion* is directed toward the unbeliever. Since that than which nothing greater can be thought exists conceptually in the understanding, it must also exist in reality. On the basis of his theistic proofs Anselm then proceeds to

define the attributes of God. God must be omnipotent, for were that not so, we could conceive of a being more powerful than he. Similarly he must be self-existent, just, good, and merciful and possess every pure perfection. Heavily influenced by Platonic thought as mediated through Augustine, Anselm also imagines that the greatest and most perfect of beings should be eternal, stable, uniform, invulnerable, unchanging, outside time and space.

Anselm's most famous and influential treatise, *Cur Deus homo* (*Why God Became Man*), brilliantly employs rational logic to prove the Christian theology of grace and redemption. The central argument is that after the fall humans lost the ability to will for justice for its own sake and retained only the will for personal happiness. The pursuit of happiness leads inevitably to sin, and the restoration of this will for justice can only come about through the agency of divine grace. Since the fall human beings incurred the debt of sin, which had to be repaid in order for God to receive satisfaction. It was therefore necessary that a human agent partake in the process of redemption, but no single human can make satisfaction for himself or herself because the size of the debt is far larger than any one person can pay. Nor could an ordinary human or an angel make satisfaction for the whole of sinful humanity, because then humanity would be indebted to a creature other than God. Hence only one both fully divine and fully human could undertake the double role by offering his own life to redeem the sins of humanity.

SAINT THOMAS AQUINAS (1225–1274)

Scholasticism reaches maturity with the recovery of the entire corpus of Aristotle's works in the 13th century, due to visits of western European scholars to Muslim Spain. There Western scholars rediscovered Aristotle and discovered the extensive corpus of commentaries and original works by Muslim philosophers such as Avicenna (Ibn Sina) and Averroës (Ibn Rushd).

Thomas Aquinas (1225–74) was born in northern Italy near the Benedictine monastery at Monte Cassino, where he began his studies at the tender age of five. He pursued his higher education at the University of Naples, where he encountered the "new" Aristotelian corpus and the newly formed Dominican mendicant order. After joining the Dominicans, he completed his education at the Universities of Paris and Cologne. Under the aegis of the famous Dominican Albertus Magnus (d. 1280), he deepened his knowledge of Aristotle as mediated through the writings of Averroës. He would later serve as one of the Dominican chairs of the University of Paris's Faculty of Theology and his expertise in the new Aristotelianism would make him a central figure in the church's stance against the so-called Latin Averroists spearheaded by Aquinas's contemporary Siger of Brabant (d. c. 1280). Siger, a philosophy professor at the Faculty of Arts at the University of Paris, along with his followers were labeled Averroists owing to their imitation of Averroës, the greatest of the Islamic philosophers (*falasafa*). As did Averroës, they studied Aristotle's works for their own sake independently of religious bias and without the explicit goal of reconciling faith with reason. Siger propounded the so-called doctrine of double truth, which claimed that the truths of reason and the truths of revelation could be simultaneously valid even if apparently contradictory. The vigorous opposition that Thomas Aquinas and his mentor Albertus Magnus waged against the Latin Averroists is partly responsible for the church's Condemnations of 1270. The Condemnations declared as heretical 13 propositions of Aristotle regarding metaphysics, creation, and the soul and threatened anyone teaching them—singling out Siger by name—with trial before the Inquisition.

In this painting by Filippino Lippi, Saint Thomas Aquinas confounds the heretics.   Scala/Art Resource.

Aquinas was a prolific writer of some 60 books and treatises, as well as an acclaimed teacher and preacher. His ingenious synthesis of Aristotelian philosophy and Christian revelation earned him the title of "Angelic Doctor." Followers of his philosophy were called the Thomists. The year before his death in 1274 Aquinas experienced several bouts of mystical ecstasy that caused him to renounce writing and live out his life pondering the divine secrets that had been revealed to him, making all he had written of little value.

It is within the context of the debate over the heterodoxy of Averroism that Aquinas would achieve fame for masterfully reconciling reason and revelation, philosophy and theologian, Aristotle and Augustine, to create a synthesis of the best of human and divine knowledge. Aquinas's main achievement was to counter the Averroist interpretation of Aristotle that could be used to subordinate faith to reason and to focus instead on those points of contact in which the knowledge obtained from reason and that obtained from revelation over-

lapped and mutually reinforced each another. As Aquinas argued in his magnum opus *Summa theologiae*, knowledge obtained in the light of divine revelation and knowledge obtained in the light of human reason were neither contradictory nor mutually exclusive; both could be deployed to treat such transcendental topics as God's existence.

The *Summa theologiae* is divided into three major parts, Theology, Ethics, and Christ. Part one is famed for Aquinas's promulgation of *The Five Ways*, his *quinque viae* (Latin, "five roads"), five arguments to prove the existence of God, which is heavily indebted to Aristotelian metaphysics. The conclusion that God existed was impossible to deny because (1) All motion requires a first mover; (2) all effects need a first cause; (3) the existence of anything mandates a necessary being to cause existence; (4) all comparisons require a perfect standard and God is that standard; (5) the purposes of inanimate objects demand a directive intelligence. In short, Aquinas posited that everything comes about through the divine will, which preexists in him and predestines the fate of all. Yet predestination does not deny humans free will because God, who is the first cause of everything, is also the author of human freedom of choice.

God is the only being whose essence is his existence and who is pure spirit. This pure spirit is defined as absolutely perfect knowledge, since he knows himself and all his creations, and as will, since his will is the cause of all existence. On the basis of these three processes, spiritual being, will, and knowledge, Aquinas deduced the proof of the existence of the Trinity.

Part two of the *Summa*, Ethics, Christianizes the Aristotelian idea that man's ultimate moral aim is the highest good, defined as his happiness. In Aquinas, God is the highest good and thus the moral end goal of humanity. By repeating good actions a person develops a *habitus*, a "moral habit or quality" that enables him or her to do good easily. Sin and evil deeds are also habit forming and originate in the human will, which decides against reason to aim for a lower "changeable good" rather than pursue the highest good, which resides in God and his moral law. Only through instruction in the divine law aided by grace is humanity able to redeem itself of its Original Sin. When speaking of the divine law, Aquinas recognizes two parts, an old and a new. The old law consists of the universally valid moral laws of nature; the laws still followed by the Jews pertain only to them. The new law is grace, "a free act of God" that is instilled into the essence of the individual soul and transforms it, creating the person anew with his or her sins forgiven. Aquinas upholds Augustine's doctrine of justification by grace.

Part three, on Christ, aims to demonstrate that the incarnation was absolutely necessary in order to lead humanity back to God. The union between the divine logos (word) and human nature that was rent in the fall can only be overcome when both are joined together in the person-God Christ. Christ's divine nature was truly divine and his human nature truly human and deliberately included the imperfection of physical suffering in order to make his humanity evident. In this way, through his freely chosen suffering and death, he could fully bear the consequences of human sin and redeem humanity, reconciling people with God and ensuring their delivery from hell and the devil. For Aquinas, it therefore follows that the sacraments are equally necessary for mankind's redemption, since they are the instruments through which justifying grace is infused into humanity.

Aristotelian philosophy also provided Aquinas with a means of explaining the concept of divine grace. Aquinas reasoned that grace inhabited the soul not as a substantial form, but as an accidental form, meaning that it was not an essential part of a person that makes him or her unique, but rather incidental to a person, as

is hair, skin, or eye color. With the infusion of grace through the sacraments the person becomes a Christian man or woman, insofar as she or he receives the disposition to be able to model his or her life in obedience of God. The sacraments were thus instrumental causes of grace and salvation. Appealing to Aristotelian epistemology of universals and particulars, Aquinas believed that grace was really in the sacraments in the same way that universals could be in particulars.

In the *Summa theologiae* Aquinas uses philosophical reason to prove the truths of revelation. Yet reason, philosophy, and nature are subordinate to revelation, theology, and grace in his thinking, and, moreover, he posits that revelation is needed in order to prevent mankind from falling into error through the sole reliance on reason. Specifically, revelation is needed to understand those truths that cannot be understood solely by human reason, namely, the Trinity, the incarnation, the sacraments, the Resurrection, and the Immaculate Conception. Aquinas's vindication of revelation had political consequences as well; for just as reason was subordinate to revelation, so, too, were lay humans to be subordinate to religious and secular authorities to be subordinate to the church. The political implications of Aquinas's thought were not lost on Pope Boniface VIII, who directly quoted the Dominican in his papal bull *Unam sanctum* (1302), which asserted the papacy's temporal authority over the kings of England and France.

Finally, mention must be made of the polemical aspects of Aquinas's thought as expressed in his *Summa de veritate catholicae fidei contra gentiles* (*Treatise on the Truth of the Catholic Faith against Unbelievers*). The master of the Dominican Order, Raymond of Peñafort (d. 1275), reportedly commissioned Thomas to compose a work against the "infidels" that would dispel their doubts and induce their conversion to Catholicism. In the prologue Aquinas observes

that when disputing against Christian heretics one should use both the Old and the New Testament; when disputing against the Jews, the Old Testament; however, when disputing against Muslims and "infidels," natural reason must be employed in the absence of a shared authoritative text. Hence, the work is divided into two major parts, the first dealing with the truths that can be ascertained through the human intellect, and the second treating those truths for which human reason alone is insufficient. The first part covers the existence of God, God in himself, that is, his knowing and his will, his creation, and the way all things have God as their ultimate aim. The second part mirrors the first structurally, discussing God in himself as the Trinity, then the incarnation and the sacraments, and finally the Resurrection.

JOHN DUNS SCOTUS

John Duns Scotus (1265/66–1308; birthplace unknown) was a Franciscan friar, a priest, and one of the most brilliant and influential philosopher-theologians of the late 13th century. A convinced Aristotelian, Duns Scotus is the author of several commentaries on Aristotle's works and successfully applied Aristotelian logic and thought to theological topics such as the existence of God and the attributes of God. His numerous philosophical writings deal with metaphysics and the theory of knowledge.

Duns Scotus's theistic proofs apply the Aristotelian theory of the necessary existence of a first efficient cause or prime mover to God. Duns Scotus's argumentation may be summarized as follows: No effect can produce itself; nor can an effect be spontaneously produced from nothing; and since a circle of causes is impossible, an effect must be produced by something itself. A series of causes cannot regress infinitely; there must be some causal power that is self-sufficient and independent, possessing its own power without imperfection, since depen-

dence is a kind of imperfection; such an independent agent must be a first agent. He infers from this the law of "triple primacy," showing that this first agent, which is by definition first in efficient causality, must also be first in final causality and first in preeminence. The three primacies are coextensive: that a being so endowed also possesses will and intellect, must be infinite, and that there can only be one such being: God.

Duns Scotus applied Aristotelian metaphysics to the difficult question of the substance of the body and the soul and their fate in the afterlife. As Aristotle did, he believed that matter persists through both accidental and substantial change and that substantial form is what gives matter its unique, individual form. He went on to posit the existence of "prime matter," defining it as matter entirely devoid of form that underlies every substantial change. Against the majority opinion of his Franciscan brothers, he denied the theory of "universal hylemorphism," which held that all created beings, including angels, are composites of both form and matter. Instead, Duns Scotus maintained that formless prime matter actually exists and that it is possible for some substances to have more than one substantial form.

The implications of Duns Scotus's thesis for the body-soul dichotomy were significant. Most other medieval Christian thinkers believed that the only substantial form of the human being is the soul, so that when a person dies and the soul departs the matter that constitutes the body, the remaining corpse is not the same body as existed prior to death, since what made that person unique was the now-departed soul. Yet Scotus, along with other Franciscans, maintained that it was "obvious" that the corpse of a person is the same as the body that existed before death. Therefore, the human being must have two substantial forms, a "form of the body" (*forma corporeitatis*) that endows the person with her or his unique individual features, and an "animating form" or

soul that breathes life into the body. Upon death the animating soul departs from the body yet the *forma corporeitatis* keeps the body numerically whole at least for a while. His thesis paves the way to acceptance of the theological concept of the immortality of the soul.

Duns Scotus's ideas on the human will, freedom, and morality enter into dialogue and debate with those of Saint Thomas Aquinas. Both philosopher-theologians accepted the Aristotelian division between an intellectual appetite and a sense appetite. The intellectual appetite is aimed at universal objects, while the sense appetite focuses on particulars. Taking the notion of goodness as an example, the will of the intellectual appetite is aimed at goodness in general as a universal principle, while the will of the sense appetite seeks satisfaction in one or another particular good thing. Whereas Aquinas identifies the intellectual appetite completely with the will, Duns Scotus argues that the intellectual appetite is one of two components or "affections" of the will, the other being the affection for justice. Aquinas follows Aristotle more closely in a theory of ethics that posits that humans naturally incline toward their own good, meaning that the ultimate goal or point of a moral life is happiness. Thus the will is that capacity to choose that which will make one happy. Duns Scotus takes the example of the Ten Commandments to argue that this places limits on human freedom, for if the human will consisted solely of the intellectual appetite, that is, if it could only seek individual happiness, then humans would not be able to choose freely to act in accordance with a transcendent moral law that is not determined by the conditions of human happiness.

WILLIAM OF OCKHAM (1287–1347)

William of Ockham stands alongside Aquinas and Duns Scotus as one of the most prominent 13th- to 14th-century philosopher-theologians.

At an early age he entered the Franciscan Gray Friars Order and he began his education in theology and philosophy. A student of metaphysics and logic, he is forever associated with the methodological principle known as "Ockham's razor"; however, his writings span a variety of themes including natural philosophy, epistemology, ethics, and theology. Some of Ockham's views were regarded with suspicion, and accusations of heresy were raised at the papal court in Avignon in 1327. As a result, William was called to Avignon in 1328 to defend his views and never returned to England.

Controversy would continue to follow him as he became embroiled in the heated political-theological debate between the Franciscans, who advocated the doctrine of "apostolic poverty," by which Jesus and the apostles owned no personal property at all and survived by begging and living off the generosity of others, and Pope John XXII. The Franciscans maintained that their own practices represented the ideal of the "imitation of Christ," in opposition to Pope John XXII (1316–34), who rejected the doctrine of apostolic poverty. William of Ockham was asked to intervene in the debate between Pope John XXII and the head of the Franciscan Order, Michael of Cesena. Ockham's findings were dramatic: He concluded that the doctrine of apostolic poverty was correct, that the notion that Christ and the apostles owned property was heretical, and that the pope was "stubbornly heretical" to persist in his error, and therefore he should abdicate the papacy! Ockham, Michael of Cesena, and their followers fled Avignon in the dark of night and sought refuge in Munich under the protection of Louis IV of Bavaria, the Holy Roman Emperor, who himself was engaged in a political dispute with the pope. Ockham remained there under Imperial protection until his death.

Ockham's Razor Ockham is considered revolutionary for his break with the traditional medieval theories of knowledge. He challenged the Neoplatonic and Aristotelian views of his predecessors Augustine, Aquinas, and Duns Scotus, among others, that universals played an essential role in the knowledge of individual things, arguing instead that direct knowledge of particular things was possible without the mediation of universal ideal types. Ockham's razor held that "plurality is not to be posited without necessity" (*Nunquam ponenda est pluritas sine necessitate*) (Ozment 56). In other words, the simpler explanation is always better. Individual things could be grasped through intuitive knowledge. At the same time, humans also had the capacity for simple abstractive knowledge forged from the memory of what they once empirically verified, as well as for complex abstractive knowledge of things constructed from their own imagination and that do not exist outside their own mind. Hence there was no need to posit the Platonic notion that universals are "real" and have an independent existence outside the mind.

Ockham's challenge to the theory of universals had tremendous theological and political implications. For one thing, it was easier for the Scholastic "realists" who defended the reality of universals to defend the doctrine of the Trinity. The realists deployed the theory of universals to demonstrate how a universal God could be in many places at one time, how the one could be simultaneously three, and how God could become incarnate, crucified, and resurrected in one man, Jesus. Conversely, Ockham's nominalism could lead to skepticism, to a belief in three gods, and could only explain the universal significance of Christ's death and resurrection as a result of divine plan.

Similarly, Ockham's refutation of universals posed a grave challenge to Scholastics such as Aquinas who deployed the theory that universals could be in particulars to explain how grace inhered in the sacraments, and, subsequently, to sustain that such grace is indispensable for

salvation. Ockham challenged the indispensability of the sacraments by arguing that the grace necessary to salvation could be obtained by doing one's natural moral best. Moreover, if it was no longer credible to argue that knowledge of the particular things of the world can be traced back to one ultimate, efficient cause, then it becomes difficult to use that logic to prove the existence of God. The existence of God becomes once again a matter of faith rather than a proof that can be conclusively demonstrated through reason. After Ockham, theology is progressively forced to drop its pretensions of being a truly rational science and once more reflects mainly on matters of revelation. Finally, for the realists the metaphysical scheme of knowledge of particulars to universals endowed the church with a unique position in the world as mediator between humanity and God via the sacraments, and as an instrument of humanity's knowledge of God. Ockham's nominalism and his dispute with the papacy led him to conclude that while the church plays a unique role as mediator between the human and the divine, this role is an artificial, man-made, historical arrangement and not an essential link in a metaphysical hierarchy of being.

Clergy and Canonical Hours

The active life, *vita activa*, versus the contemplative life, *vita contemplativa*, distinguished the two major branches of the medieval clergy: those who devoted their days, nights, and lives to working with God's people and their immortal souls, and those who spent their lives cloistered in prayer. A man or woman who consecrated life to serving in the church and took specific vows was a member of the clergy. Among men there were eight orders of clergy ranging in ascending order of rank from the *ostiarius*, lector, exorcist, acolyte, *subdeacon*, deacon, priest, to bishop. The higher grades of

Christian ministry were called the major orders, and from the days of Pope Innocent III included the priesthood, diaconate, and subdiaconate. The lower forms of ministry were construed as the minor orders, which had included subdeacons until the year 1207, when Pope Innocent III elevated them to majors. The conferring of minor orders differed from ordination to holy orders, which was one of the seven sacraments. Taking holy orders empowered the clergy to administer divine grace to the faithful by means of other sacraments, such as the Eucharist, and by the word. This spiritual power was conferred after training, preparation, and consecration. Priests were addressed as "Father." Women leaders of convents and monastic houses were addressed as "Mother."

Some of the most spectacular medieval works of art were connected directly or indirectly to the requirements of Christian liturgy. A public religious service of church or cathedral, the liturgy (Greek, "public service") was dependent upon the notable numbers of hours that lay people as well as professional religious were required to celebrate God and the saints.

Every day consisted of eight canonical hours. The 24-hour day was interrupted eight times at three-hour intervals for required Christian prayer in the divine service beginning with matins, lauds, prime, terce, sext, nones, vespers, and compline. Sometimes vespers and compline were joined to allow a six-hour sleeping period. Stricter monastic houses required prayer every three hours. Each hour's devotions consisted of several psalms, canticles, readings, antiphons, and prayers called collects, and the rite of the Eucharist. A collect consisted of an invocation, a petition to God, and a celebration of divine glory.

CELIBACY OF THE CLERGY

Celibacy is the renunciation of marriage and all sexual acts. Owing to the lack of evidence in

the Gospels that Christ had ever married or enjoyed sexual relations, and the dogma of the virgin birth, celibacy was widely practiced in the primitive church and was regarded as a sign of sanctity in late antiquity. (It was not universal, however, for many of the earliest apostles, including Saint Peter, were married men.) Hermits, monks, and anchorites all practiced celibacy as part of their ascetic renunciation of the world. Early church councils, such as the Council of Elvira in the Iberian Peninsula (300–306) and the Council of Carthage (390), ruled that priests, nuns, deacons, bishops, and all others holding church offices or having anything to do with the holy sacraments should observe perfect continence and abstain from all sexual relations. Not until the 11th century was Christian celibacy universal in the Western Church. Enforcing the rule of clerical celibacy was one of the key programs in the Gregorian Reforms spearheaded by Pope Gregory VII between 1050 and 1080.

The period of reforms coincides with the Investiture Controversy. Thus for Gregory, the spiritual purification of the clergy, which also included the abolition of the practice of simony, was essential to his larger goal of definitively reestablishing the superior authority of the church over the secular authority of the emperor. In 1074 Gregory published a papal encyclical absolving the laity from obeying bishops who allowed married clergy under their jurisdiction. All sacerdotal marriages were declared unlawful concubinage and the laity was dissuaded from hearing mass from a married priest or receiving the sacraments from him. Pope Gregory demanded that bishops take action against clerics who would not give up their wives or concubines by depriving them of their benefices. In the Eastern Orthodox Church married men may become deacons and priests, but they cannot be ordained bishops; nor may an unmarried priest or deacon marry after being ordained. Generally the Reformed

Churches reject clerical celibacy, although during the reign of Henry VIII of England (1509–47) clerical celibacy was enforced among the Anglican clergy.

Monks and Friars

A monk living in a monastery, such as a member of the Benedictines and Carthusians, was called *brother*. Church duties fixed these monks in one place, *stabilitas loci*, dedicated to praying in isolation and retreat, not necessarily to teaching and preaching. Benedictine monks, the Black Monks, and Benedictine nuns, established by Saint Benedict of Nursia in the sixth century and by his sister, Saint Scholastica, shared the identical rule for monastic living. The Benedictine rule was the set of regulations for religious life emphasizing individual humility in the renunciation of one's own will, absolute and cheerful obedience to one's superiors, prayer and the strict observance of the divine office, manual labor, and stable monastic administrative order.

The Carthusians followed the Benedictine rule. Carthusian monks were an important order of contemplative hermit monks who vowed themselves to silence. Saint Bruno founded this order in 1084 after Bishop Hugh of Grenoble had a portentous dream about seven stars, foretelling Bruno and his six companions. Bruno built in the Alps near Grenoble and Vienne the magnificent Grande Chartreuse, the architecturally exquisite monastery in which each monk had a separate cell or house with a garden opening onto a communal cloister. There were a typical charterhouse and a common refectory in which all, including the lay brothers called Donates, abstained from meat and ate only a vegetarian diet. Carthusian habit or clothing was a pure white cowled and hooded gown.

Cluny monks belonged to the powerful monastic movement founded in the 10th cen-

tury by William of Aquitaine at Cluny in Burgundy. About 1,000 monasteries flourished in the 12th century as part of the so-called Cluniac Reform, emphasizing strict interpretation of the Benedictine rule. It celebrated personal spirituality, splendor of worship, celibacy of clergy, and manual labor. The Cluniacs repressed simony, the purchase of ecclesiastical privileges, benefits, and positions. Simony was named after the magician Simon Magus, who in the Bible (Acts 8:18) attempted to buy Saint Peter's secrets of power. Cluny monks were efficient financial managers of ecclesiastical holdings.

The Cistercians were a monastic order based on strict interpretation of the Benedictine rule. It was founded in 1098 by Robert, abbot of Molesme, at Cistercium, or Cîteaux, as an alternative to the Cluniac monasteries, which, in his opinion, had become lax in their adherence to the rule. In order to fulfill completely the duties of the divine office the Cistercians had lay associate brothers who undertook all the tasks of manual labor and the material affairs of the order, leaving the monks free to devote themselves completely to prayer. The Cistercians were called White Monks probably because their habit was white or gray worn under a black scapular (Latin, *scapulae*, "shoulder blades"), a narrow cloak or stole, part of the monastic habit required by the Benedictine rule to represent the yoke of Christ symbolically.

Saint Bernard, abbot of Clairvaux (1090–1153), was the great reformer of the Cistercian Order. Under his influence the monastery at Clairvaux became the chief of the Cistercian monasteries. This Italian branch of the Feuillants, a strict monastic order of Benedictines and reformed Cistercian monks, followed the mystical, contemplative teachings of Saint Bernard. A staunch opponent of the rational philosophy of the Aristotelian Scholastics of Paris, Bernard advocated a more affective piety that centered on the imitation of Christ and devo-

tion to the Virgin Mary. Cistercians characteristically chose monastic sites marked by clear-flowing water. Names of their monasteries preserve that passion, such as Clairvaux, Rievaulx, and Fountains Abbey.

A friar (Latin *frater*, "brother") was a member of a religious mendicant or begging community. Originating in the 13th-century founding of the Franciscan and Dominican Orders, the friars represented a new kind of spirituality that met the needs of western European societies whose centers had shifted from the rural countryside to the urban center. Rather than locate their houses in the remote wilderness and high mountaintops as monks had traditionally done in keeping with their ethos of the renunciation of the world, the friars established their houses in the bustling urban centers where they could better serve the needs of the people and carry out their imitation of Christ. These brotherhoods were dedicated to preaching of the Gospel, to apostolic poverty, and to earthly virtue in imitation of Christ (*in imitatio Christi*).

Their theological conviction that Christ and the apostles owned no personal or communal property sometimes set them at odds with the wealthy powerful monasteries and the Holy See. Yet their pious example and skillful, charismatic preaching proved indispensable in attracting the laity toward the established church and countering the Cathar heresy. The four great orders of the high Middle Ages, as established by the Council in Lyon of 1274, were the Franciscans (Gray Friars) or Minorites, or Friars Minor, founded by Saint Francis; the Carmelites (White Friars), founded between 1206 and 1214; the Dominicans (Black Friars), founded in 1205 by Saint Dominic of Silos; and the Augustinians, officially recognized in 1216. Other significant mendicant orders included the Trinitarians, founded in 1193; the Mercedarians, founded in 1218; and the Servites, founded in 1233. Friars were important in

democratizing religion. Though they lived in convents they actively worked with the populace in a town or city. They established the concept of the third order, which allowed lay men and women to remain within society while following a simpler version of the rule adhered to by the friars. Placing the emphasis on a life of penance, the lay members of the third order were enjoined to love God, love their neighbors, renounce sin, and turn toward God through acts of charity, forgiveness, and compassion. Often friars were figures of malice in satires. Geoffrey Chaucer's merry, hypocritical, wanton Friar in the *Canterbury Tales* was the best beggar in all four orders.

The *Franciscans* were followers of Saint Francis of Assisi (1182–1226). The founder of the Franciscan Order started life as a cloth merchant in the family business. But after hearing a sermon on Matthew 10:19, he decided to consecrate his life to preaching repentance and imitating the poverty of the apostles. In contrast to his contemporary Peter Valdo of Lyon, who also preached apostolic poverty but shunned the authority of the church, Francis was utterly loyal to the church and would not preach before obtaining the necessary ecclesiastical permission. Francis celebrated God simply and graciously and praised the natural world for its beauty and its manifestation of God's divine ingenuity and universal plan. His delightful "Canticle of the Sun" (Latin, *canticum solis*) is a hymn praising divine revelation in nature. It contains the line "I praise you, dear God, with all of your creatures, above all Brother Sun." A classic collection of legends and traditions about Saint Francis and his companions was called the *Little Flowers of Saint Francis*, the *Fioretti*, preserving charming depictions of Saint Francis and the early Franciscans' daily spiritual life.

Saint Dominic founded the Dominicans, the Order of the Friars Preachers, circa 1205. A native of Old Castile, Spain, he was austere, strict, efficient, and dedicated to disciplined life after the rule of Saint Augustine. Dominic three times was offered a bishop's seat and thrice declined but obtained for his preaching brethren important privileges in 1216 from Pope Honorius III in Rome. A man of heroic sanctity, Saint Dominic attempted to win heretics, such as the Albigensians, back to the church. His followers continued teaching his doctrine after his death in 1221.

The Carmelites were a 13th-century male mendicant religious order, the Brothers of Blessed Virgin Mary of Mount Carmel. They were also called the White Friars. The Discalced or Barefoot Carmelites were members of the women's religious order of Carmelites founded in 1562 by Saint Teresa of Ávila, who received *amor dei* (Latin, "love of God"), a vision of an angel plunging a long pointed spear with a flaming tip into her body, piercing her heart and impregnating her with God's love.

The Augustinians followed the rule of Saint Augustine. The monastic group consisted of several Italian hermit brotherhoods that Pope Alexander IV grouped together for efficiency in 1256. Their rules emulated those of the Dominican Order. Augustinian friars were separate from the Augustinian Canons, who in the mid-11th century banded together to live in poverty, celibacy, and obedience, though able to follow professions either contemplative or active. Augustinian friars worked and preached in the belief that faith was identical to truth. In opposition to Augustinians were the Thomists, followers of Saint Thomas Aquinas.

Sects, Dissent, Heresy

Not all Christians in every century and every country accepted all the complex mysteries of the Trinity, the Incarnation, and Original Sin. Discussions, dissents, and rebellions were variously tolerated or suppressed with punishment and censure. Some dissent was tolerated as

agreement to disagree. Some heretical ideas led to excommunication from the community of the faithful. Early Christianity rejected violence as a means to correct conflicting Christian ideas. Early church fathers such as Tertullian maintained that no one could be coerced into participating in religion because choice by its nature was voluntary and one who did not believe gladly would not honor God. Saint Cyprian of Carthage (d. 258), a disciple of Tertullian, said that the Lord alone was master of the iron rod and he alone was permitted to shatter earthly vessels. John Chrysostom (d. 400) condemned violence against heretics as an inexpiable crime. Rather than resort to violence the church preferred to appeal to heretics through logic and persuasion. The various creeds discussed, as well as the holding of ecumenical councils and the composition of treatises against heresy, are the product of this policy of employing dialectic to persuade people of truth and to counter error.

However, later in the fifth century during the lifetime of Saint Jerome and Saint Augustine, Christians elected to kill Christians for crimes of doctrine, partly in response to acts of violence committed by heretics against the Catholic Church. Indeed, Augustine redacted the just war doctrine as a direct response to violent attacks perpetrated by the heretical Donatists against the church, arguing that it was unseemly that the church not be allowed to take up arms in defense of a just cause. In fourth-century Trier, the Spanish Christian Priscillian denied the Trinity and Resurrection, denounced marriage, forbade eating of meat, and cited as his authoritative text various apocryphal writings. He was put to death along with many of his followers. By the early 13th century campaigns for annihilating heretics were routine. The Inquisition tried in its courts those accused of heretical ideas and acts and brutally punished heretics by prison and auto-da-fé, execution by burning at the stake. Other

heresies were crushed by crusade, such as the Albigensians, who were murdered, their towns burned, and their culture obliterated.

The same logic was used in declaring the crusade against the Muslims in Jerusalem and in the Iberian Peninsula. Since Muslims believed in the same God as Christians and acknowledged the messianic mission of Jesus and the virginity of his mother, mendicant theologians reasoned that Islam was a form of Christian error, a heresy. Saint Francis's famous attempt to preach to the Ayyubid sultan al-Malik al-Kamil and to convince him to convert to Christianity and thus avoid warfare typifies this understanding of Islam as heresy. Also in the 13th century the mendicants departed from the "Augustinian equilibrium" that enjoined a relative tolerance of the Jews in Christian society as the guardians and "living letters" of the Mosaic law whose superseding by the advent of Christ served as a constant reminder of the victory of the church. The Mendicants argued that the Jews had abandoned the law of the Old Testament in favor of the "blasphemous" Talmud and were therefore also heretics. A catalog of typically ingenious variations upon the monotheistic Christian ideal follows.

ARIANS, ADOPTIONISTS, AND NESTORIANS

Arianism was the concept of the third-century priest Arius of Alexandria, who maintained that in the Trinity, the Son and the word were not coequal to God the Father. God represented a superior substance and quality, while the Son and word were inferior. Saint Athanasius vigorously attacked Arianism. It developed into later doctrines denying the equality of all three members of the Trinity. One such was adoptionism. This eighth-century, essentially Spanish, doctrine insisted that Jesus Christ was simultaneously the Son of God and the Son of

man. Jesus was adoptive in humanity. However, he was not adoptive in divinity.

Partially derived from Arianism, adoptionism was associated with Nestorianism. The followers of Nestorius (d. 451), a Christian abbot of Antioch, who later became patriarch of Constantinople, insisted that the Virgin Mary should not be called "mother of God" (*mater Dei*) or God bearer, *Theotokos*, but rather *Christokos*, the bearer of Christ. As a human being, she bore Jesus and mothered him. She was human and he was human. Nestorius therefore also denied Mary her immaculate conception.

The Council of Ephesus declared Nestorius's doctrines heretical. That fifth-century ecclesiastical council of Greek and Roman bishops in Asia Minor condemned as heresy the Nestorian claim that Christ's dual human and divine natures were separate, essentially converting Christ into two persons, a human who suffered and died, and the divine logos that dwelt in him but did not suffer and die. Accordingly, in their insistence to maintain separate the dual natures, they also rejected the doctrine of the Virgin as mother of God, *Theotokos*. The council confirmed Mary's title and led to the extravagant portraiture of the Virgin as holy mother of God, *sancta Dei genetrix*, and of course, Mary, mother of God, *mater Marie Dei*. This ultimately became an incentive to mariolatry. In Antioch, Arabia, and Egypt, the Nestorians effectively transmitted ecclesiastical doctrine. They also were preeminent transmitters of scientific ideas.

MANICHEANS, ALBIGENSIANS, AND CATHARS

The Manicheans were a Christian heretical sect that was austere, severely ascetic, and vegetarian. They built their views on Gnosticism (Greek *gnosis*, "knowledge"), a religious movement that influenced early Christianity and Jewish Kabbalah. Gnosticism was characterized by knowledge of God by revelation and the belief that those God selected for revelation, called the elect, were destined to redemption, and not others. Gnosticism distinguished between the creator God, the demiurge, and the more remote dispassionate divine being.

According to Gnosticism, God created three classes of beings, the spirit, the psyche, and matter. The Manicheans took their name from their charismatic leader, the Persian prophet Mani (d. 251), who, in turn, was inspired by dualistic Zoroastrianism. They formulated a philosophical belief in equally powerful divine forces of light versus Satanic forces of darkness. Manicheans ontologize evil by claiming that it is a physical reality identified with the material world. The material world, including the human body, is evil, hence their vegetarianism and renunciation of marriage in an effort to elevate the soul to escape the confines of the body. For the Manichean, the perfect elect were to be supported by the more worldly hearers. Saint Augustine, having once been a Manichean, vigorously fought their doctrines.

At the height of its influence, Manicheism spanned the British Isles to China. It is the probable origin or influence of the Albigenses and Cathar heresies. The Albigenses thrived in 12th-century southern France. Their ideas were especially powerful in the town of Albi. The Albigensians rejected the flesh and the material world as utterly evil. They believed that the New Testament was an allegory, not divinely inspired literal writ. Their conviction of the evil of the flesh led them to spurn the sacraments as instruments of grace. They refused to believe in the Resurrection of Christ's body, and they repudiated marriage and sexual relations. They disdained authority of the church, insisting that the cross was a symbol of victory of Satan over Christ. Their most zealous members were called Perfecti. They abstained from sex and from eating of meat. Many elected death by *endura*, a voluntary starvation, a holy anorexia

efficiently depriving the body of all desires, even the will to live.

The Albigenses were a branch of the Cathari sect (Greek, "pure, clean ones"). The Cathars flourished in Germany, Italy, and particularly in the south of France, dedicating their lives to spiritual purity. As did the Manicheans, they saw the world as potent antitheses: the Kingdom of Light versus the Kingdom of Darkness, purity battling against evil, absolute good versus absolute bad.

The Inquisition brutally persecuted Albigenses and Cathars and the Albigensian Crusade destroyed them. Between the years 1208 and 1218, Pope Innocent III ordered a crusade of Christians against these heretics. Conducted with great cruelty by Simon of Montfort, the Albigensian Crusade destroyed most of southern France, including the major Provençal courts and the region's lucrative commerce and trade. A war cry of the Albigensian crusaders apparently was "Kill them all. God will know his own!" The pope's legate happily reported to Rome that God's wrath raged wondrously against the city of Béziers.

DONATISTS, PELAGIANS

Saint Augustine confronted three heresies that empowered him to clarify and codify ideas on God's goodness, Original Sin, and God as the sole creator of the universe who alone sustained everything in being. First he struggled against the Manicheans, who, as we saw, ontologized evil and darkness and placed them on par with the forces of goodness and light. Augustine countered with his definition of evil as a privation of good and his emphasis on concupiscence, the failure of the human will, as the agent of sin.

Second, Augustine combated the Donatist controversy, which had caused a political and theological schism in the church. Donatism derived its name from its founder, the Berber Christian Donatus Magnus (d. c. 355). Donatus maintained that the Christian "traitors" (*traditors*) who had forsaken their faith during the period of the Diocletian persecution (303–5) and collaborated with the Roman authorities in the oppression of the church should not be allowed back into the Christian fold. They refused to accept the sacraments of any priest or bishop implicated in the persecutions. The Donatists insisted on the holiness of the African church of saints and claimed that sacraments were invalid if offered by tainted priests and bishops. They persisted in their belief even after their position was banned at the Ecumenical Council of Arles in 314. Moreover, despite Constantine's conversion to Christianity and its official recognition as a state religion in 313, the Donatists continued to consider the emperor to be diabolical. Against the Donatists, Augustine argued that Christ is the true minister of sacraments and that the church remains holy and the sacraments valid independently of good or evil behavior of its personnel who administer them.

Augustine's third and final battle was fought against the Pelagian controversy. Pelagius (354–c. 440) was a rigorous ascetic monk from Britain who denied the doctrine of Original Sin. He taught that Adam had condemned humanity to sin through his "bad example" and that Christ offered the possibility of redemption through his "good example" and not through his sacrifice, death, and resurrection. Christians could overcome sin and achieve salvation through the strength of their will tempered by rigorous asceticism and good deeds. Augustine's notion of the fortunate fall and Original Sin vindicated the role of Christ's crucifixion and resurrection and the infusion of grace through the sacraments in the divine economy of salvation.

BRETHREN OF THE FREE SPIRIT

The Brethren of the Free Spirit denied the existence of a supernatural God and believed

that "God does not dwell down to the waist only, but also below it." They asked such impudent questions as "How could God Who created sensual appetite also forbid it?" As did other dualists such as the Manicheans and Gnostics, they delighted in the human body. Inspired by Joachim of Floris, an abbot from Calabria (1145–1202), the Brethren of the Free Spirit boldly and creatively rejected the Trinity. To them, Trinity represented three ages. The age of the Father corresponded to the Old Testament era. This was succeeded by the age of the Son, which for particular reasons was thought to end in the year 1260. Dominion then would pass to the age of the Holy Spirit. Then angels of the apocalypse would lead men to be tutored directly by God.

Joachim's prophecy of the coming spiritual church and the age of the spirit became dangerously popular. The established church challenged it. In France, Almaric of Bena, near Chartres (d. 1204), continued to promote the ideas of the Brethren and was called to Rome to defend his doctrine. Pope Innocent III ruled against him. The Lateran Council of 1215 condemned Almaric's doctrine and destroyed his writings, which were thought derived from the work of John the Scot, Erigena.

Almaric emphasized that the creator and the creature were identical. God, he said, was the unitary essence of all creatures. Ideas create and were created. All things that are divided into parts and are transitory ultimately return to God to rest unchangeably in God and to become one single individual in God. Abraham and Isaac were not different but of the same nature. All things were one and that one was God.

The mysticism of the Brethren of the Free Spirit was based upon joyousness and antinomianism. They believed in divine goodness, not in divine judgment. To man united with God and endowed with divine grace, everything was sacred. There was no more need to submit to any law since man no longer could

sin. They quoted the first epistle of John, "No one born of God commits sin. For God's nature abides in him. He cannot sin because he is born of God." Therefore the perfect man could do whatever he pleased for no matter what he did he could not sin. If sin did not exist, certainly God could not punish it. Virtue was no more praiseworthy than sin was reprehensible.

Remarkably, the Brethren of the Free Spirit attempted to combine chastity with sinless sexual love. Women and men were considered equals. The ideal angelic love they practiced permitted union of man and woman to ascend from the bodies to sanctification. They did not view human sexuality as polluting, sinful, or inherent in Original Sin. The Brethren refused to link human procreation to Original Sin for that linkage poisoned erotic life, making Christians suffer guilt in marital relations. Rather, Brethren of the Free Spirit attempted to return to the original order of creation as original love and as sanctity. Sex was not sin requiring absolution. As they said in an Inquisitorial trial transcript, natural sexual acts were so honorable they could equal in value prayers in the presence of God. To the brothers, the body was not an enemy to be crushed by asceticism but rather a gift to be praised in sanctifying the world.

The brethren's ideas on sex and sanctity were reminiscent of Jewish Kabbalistic ideas. Nothing in God's creation was for God's displeasure and God's disapproved. Everything was an excuse to praise God's glory gloriously.

Medieval Christian theologians and philosophers endeavored to prove through reason and revelation the difficult dogmas of faith. The christological controversies surrounding definitions of the Trinity, the incarnation, the virgin birth, and the immaculate conception caused numerous divisions and schisms within the church. The Great Schism that separated the Western and Eastern Churches in the 11th century was but one more in a long line of lesser schisms that pitted the church against

the Arians, Gnostics, Donatists, Nestorians, Pelagians, Manicheans, Cathars, and all other Christian groups declared heretical.

The continued attempts to reconcile faith and reason and to explain and prove church doctrine in terms of Greek rational philosophy consciously aimed to persuade nonbelievers of the errors of their belief systems. The appeal to reason was thought especially useful in the effort to make Christianity acceptable and understandable to the polytheistic nations of the British Isles and northern Europe who would become absorbed into Christendom between the sixth and 11th centuries. At the same time treatises such as Aquinas's *Summa contra gentiles* reflect the compulsion Christian theologians and philosophers felt to dispute with Jews and Muslims to win their conversion to the "true faith." The mendicant Dominicans in particular were resourceful in exploiting the common monotheistic ground upon which Christians, Jews, and Muslims stood to use the twin armaments of revelation and reason to turn the hearts and minds of their opponents. The irony is that they employed many arguments and methods made available from Jewish and Muslim philosophers and theologians. The following sections explore the Jewish and Muslim contributions to medieval philosophy and theology. As did Christians, Jews and Muslims each in their own way sought to reconcile reason with revelation and to polemicize against the Other.

JEWISH PHILOSOPHY AND THEOLOGY

Jewish philosophy in the Middle Ages was inseparable from theology. Ideas about God were inextricable from Jewish law. Jews viewed the law, the Torah, as God's word and expression of God's will, making knowledge of God central to Jewish thought. The major source for understanding God was the Old Testament of the Bible, which medieval Jews referred to as the Tanakh, a trio of biblical segments. The first section is the Torah itself, the Five Books of Moses, also called the Pentateuch, including the books of Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. The Prophets, Neviim, are the second segment, consisting of Isaiah, Jeremiah, and Ezekiel. Third are the Sacred Writings, called Hagiographa or Ketuvim: Psalms, Proverbs, Job, Song of Solomon, Esther, Ruth, Lamentations, Ecclesiastes, Ezra, Nehemiah, and Chronicles.

Inspired by these books, Jewish philosophers such as Saadya Gaon (d. 942), Bahya Ibn Pakuda (fl. 11th century), Rashi (d. 1105), Judah Halevi (d. 1141), Abraham ibn Daud (d. 1198), Maimonides (d. 1204), Nachmanides (d. 1270), and Hasdai Crescas (d. 1410) wrote treatises on God's existence, God's essence, God's oneness, God's attributes, God's eternity, God's creation of the world, God's creation of people, God's creation of souls, and God's providence. Most significantly, philosophers reconciled relationships between divine intentions and human actions because God created human reason and free will.

If God's will was law, then each person was responsible both to know that law through study and rationality, and to express that law through ritual. Faith alone rarely justified belief. Philosophers grappled with harmonizing brilliant achievements of physics, optics, engineering, and astronomy with traditional Jewish thought proclaimed in the Torah and the Talmud. The Talmud consists of two distinct groups of texts, the Mishnah and the Gemara. The Gemara are commentaries and interpretations of the Mishnah, itself a comprehensive six-part series of traditional oral laws governing all aspects of personal and professional life.

Jewish translation of Aristotle's Ethics *into Hebrew,* Sefer Ha Midot, *15th century Spain.*   Mic. 2315
Sefer ha-Midot, Ethics of Aristotle, Spain 15th c. folio 23v–24r.

The first topic of Mishnaic laws is agriculture, called Zeraim, "seeds." Calendrical events, the appointed times for feasts and festivals, form part two, the Moed. The third section, called Nashim, pertains to women, marriage, divorce, and family vows. The law of damages, Nezikin, constitutes the important fourth section on civil and criminal law. Holy Things, Kadoshim, include rituals and ceremonies of the Temple. Finally, laws of ritual purity, Taharot, govern such intimate personal subjects as bathing, menstruation, and sexual relations. Since Judaism in the Middle Ages, as today, was a way of living as well as a theology and philosophy, philosophers extended intellectual inquiry beyond theory to practical necessities of life. Their vibrant ethical codes and their recodification of ancient Jewish ethics guided and governed Jewish daily living in every medieval city and town in which Jews lived, worked, thought, and prayed. Medieval philosophical texts balanced in fine tension the theories and practices of rival schools of thought within Judaism, such as the fundamental biblical textualists called the Karaites versus the rabbinic oral interpreters of law, the Rabbanites. More dramatic were the intellectual stresses and strains between traditional Jewish theology of one omniscient, creative, and good God with classical Greek thought in the Neo-

platonist thesis that the world and its components emanated from a first principle, and between Jewish revelation and Aristotelian rationalism, holding that the knowable world derived from scientific observation via theoretical sciences, such as mathematics, physics, and metaphysics, and practical sciences, such as ethics, politics, and economics.

Islamic philosophy also added torque to Jewish thought. Classical Greek philosophical treatises, especially Aristotle's works, often were accessible to Jews both in direct translation from the Greek and through Arabic translations of Greek scientific and metaphysical texts with Muslim interpretation. Jewish philosophers also debated with contemporaneous Muslim philosophers such as Alfarabi, Averroës, and Avicenna, and with practitioners of the Muslim Kalam theology called the Mutakallimun. Christian philosophy enunciated by Albertus Magnus, Duns Scotus, William of Ockham, Thomas Aquinas, and Bernard of Clairvaux also touched Jewish thought either as influence or as adversary.

Both Muslim and Christian law and politics also affected Jewish philosophy. Throughout the Middle Ages Jews thrived or suffered under the crescent and the cross, living under Islam as a protected minority, the *dhimmis*. Under Christianity Jews often were safeguarded as valuable moneylenders, commercial traders, and physicians and tolerated in their subjugation as proof that the old Mosaic law had been abrogated by the new law of Christ. In the later Middle Ages, under both Muslim and Christian rules, Jews were less tolerated, more despised, oppressed, subjugated, and persecuted.

All these intellectual tensions animated the writings of the best medieval Jewish philosophers, who celebrated God while making discoveries that sometimes contradicted holy writ. Medieval Jewish philosophers of the ninth through 15th centuries expressed a surprisingly optimistic rationality. They attempted synthesis of physics with metaphysics, natural law with God's law, science with revelation, verifiable proofs with traditional faith, natural observation with textual exegesis, logic with lore, and analytical mind with passionate heart. Jewish philosophers and theologians recommended living both with the Jewish prophetic ideal and with practical vigilance.

The Shema and the Decalogue

The Shema was Judaism's preeminent prayer affirming three major Judaic concepts, God's unity, God's love, and people's daily requirement for ritual reminder to praise God by moral action. The texts derived from Deuteronomy and Numbers customarily were recited in Hebrew, beginning with (1) "The Lord is our God and God is One": *Shema Yisrael, Adonai eloheynu, Adonai echad.* This glorious unity must be praised and each Jew must teach this to his and her children (Deuteronomy 6:4–9:2). A Jew must love God and obey God's precepts. Personal responsibility unites moral acts with natural law. If one loves God with heart and soul, God will send the rains for fields and cattle, the seasons, and success. Practical morality of God's love and loving God also must be taught to children (Deuteronomy 11:13–21). Finally, God told Moses to instruct people to wear ritual fringes on their garments to remind them daily of moral duty, responsibility for all of God's commandments, and personal obligation to obey them (Numbers 15:37–41).

On Mount Sinai God gave Moses the Decalogue or the Ten Commandments, which codified life instructions for the people of Israel (cf. Exodus 20:1–17 and Deuteronomy 5:6–21). The Decalogue became the succinct, basic moral code of all Jews. Later the Ten Commandments were incorporated into Jesus Christ's Sermon on the Mount and followed by

Christians. According to the teachings of Tertullian, Augustine, and Gregory the Great, the Ten Commandments were divinely inscribed in men's hearts as well as on tablets of stone.

The Decalogue consisted of (1) God's self-identification: I am the eternal God who led you out of bondage in Egypt. (2) You shall have no other gods besides me. (3) You shall not invoke the name of God with malice. (4) Remember the Sabbath day and keep it holy. (5) Honor your father and your mother. (6) You shall not murder. (7) You shall not commit adultery. (8) You shall not steal. (9) You shall not bear false witness against your neighbor. (10) You shall not covet your neighbor's wife or property.

Jewish Philosophers and Biblical Interpreters

SADDYA GAON (892–942)

The philosopher, biblical interpreter, grammarian, and Hebrew philologist Saadya ben Josef al-Fayyumi (892–942) was born in Fayyum, Egypt. In 915 he started his travels through Palestine, Syria, and Iraq and became a member of the famous intellectual Academy of Sura in 922. Six years later at age 36, he was elected the academy's eminent director, called the Gaon. While in Baghdad in the year 933 he wrote his most important philosophical work, the *Kitab al-amanat wa l-I tiqadat* (*The Book of Doctrines and Beliefs*) while in the midst of an intellectual and existential turmoil. As a contemporary of his described the situation, Muslims, Jews, Christians, and Magians all are walking in error and darkness. Only two kinds of people are left in the world. One group is intelligent but lacking in faith. The other has faith but is lacking in intelligence.

To help overcome the perplexities of Jews who studied science as well as theology, who cherished reason as well as revelation, and who needed help sorting through conflicting theories and ardent promoters of rival ideas, Saadya translated the Bible into Arabic and wrote a commentary on it. Called *Tafsir* (Ar. "commentary"), this philosophical interpretation of Scripture influenced both Jews and Christians. Two centuries later Saadya's emphasis on reason, accuracy, and literary as opposed to literal interpretation of certain biblical passages would inspire some of the writings of Maimonides. Saadya was stunningly prolific, writing philosophical analyses, political polemics, grammars, dictionaries, a lovely *siddur*, a practical prayer book including his own fine poetry, and a celebration of the obligation of prayer. In the year 912 he composed a two-part Hebrew dictionary called *Egron*, in which he alphabetically arranged first parts of words so readers could write poetry in *acrostics*, poems whose first letters of consecutive lines read vertically spell a word, name, or phrase, and then alphabetically listed final syllables of words to help readers write rhymes.

Saadya's *Kitab radd Anan* (Refutation of Anan) used law and linguistics to subvert the Karaite movement and its structure of laws. The dissident Karaites, meaning "Scripture readers," rejected the oral tradition of the rabbis and their interpretations of Scripture, believing instead in strict exegesis of the literal Bible, which each Jew had a duty and right to read. Anan ben David created this powerful schismatic group in Persia in 760 after having been passed over for the major position of exilarch of the Babylonian Jewish community. He condemned the Geonim, their academies, and the *Talmud*. Stripping the Bible of anthropomorphism, figurative interpretation, and what the Karaites considered superfluous law, Karaites insisted that their Scripture readings and ascetic living were rational, correct, and beloved by God.

Flourishing between the eighth and 12th centuries, the Karaites accused the rabbis of

perverting the meaning and attributes of God. Karaite power peaked in the 11th and 12th centuries in Palestine and Egypt. Internal animosity of the Jewish communities and external attack during the crusades ultimately crushed them. Before that, however, Saadya censured the Karaites for their ignorance of the Hebrew language, gross misinterpretations of the Bible, and unethical activities. Saadya's attack unified the Karaites and led them to codify their beliefs. Likewise, scholars following Saadya, rebutting the Karaites, systemized rabbinic theology to justify the ways of rabbis to medieval Jews. These thinkers were called Rabbanites.

Emphasizing reason and rationality, Saadya Gaon's *The Book of Doctrines and Beliefs* was influenced by the methodic syntheses of his contemporaries the rationalist Islamic Mutazilites who flourished in eighth- and ninth-century Baghdad. Saadya extolled God's omniscience but asserted that God never would create anything unreasonable nor act without reason. Human reason could help people understand God's divinely inspired Torah, but God's exalted reasons for imposing certain laws were beyond the most elevated human intelligence. Saadya's conviction that God created the world out of nothing, *creatio ex nihilo*, required logical proof of God's existence. He argued for existence of God as creator via four ideas. The universe is limited and cannot possess an unlimited force. Second, all things are compounds. Composition is derived from some external cause. Third, changes observed in all beings are generated by an external cause. Finally, time is finite. If time were infinite conceiving of the progress of time from the present moment to the future, or from the past to the present moment, would be impossible.

Saadya attempted to reconcile man's free will with God's foreknowledge. He ascribed God's granting of freedom of the human will to God's benevolent justice. Man has the power and the ability to do what God commanded him to do, as evidenced both by reason and by Scripture. The wise one will not insist that a person do a thing beyond his ability and strength. Ability to act must necessarily exist before the act so as to give the person free choice either to act or to abstain from acting. If the ability to act came into existence only at the moment of the act and coexisted with it, then ability and action would be mutually interdependent and neither would cause the other. If ability to act arose after the act, a person could take back an act already performed. Both of these ideas are absurdities. A man's power to act must exist before his action so that by his power he may be able to fulfill God's commandments perfectly.

Just as a man's action is a positive act, so abstention from a certain action is a positive act. By abstaining a man does the opposite of it. Not so for God, who in abstaining from creating things does not act at all. God creates with no opposites. Man abstaining from doing one thing actually chooses the opposite. If he does not love, he hates. If he is not cheerful, he is angry. Failing to shout aloud, he elects silence. Failing to jump, he elects standing. Failing to study, he languishes. For man there is no true intermediate action. Man's freedom consists of far more than the mere consent to action without causing the action, as the Muslim Mutazilites maintained, believing that God foreordained and therefore caused the act, not man. Saadya's proclamation of absolute freedom of the human will derived from this distinction between God's acts and man's acts. God as creator creates substances. Man, incapable of true creativity, acts only by producing accidental conditions, thereby acting even when avoiding a particular explicit act. Man's ability to act, his freedom of will, is present in both deeds and passivity, both acts. God's not interfering with man's freedom is not God's act but rather God's absolute passivity. Human freedom therefore is completely assured.

Man performs no action unless he chooses to do it. It is impossible for man to act without free will or if failing to exercise free will. The law does not prescribe punishment for one who commits an illicit act unintentionally not because he has no free will but because the actor is ignorant of the cause and effect of his particular action. Therefore one who unintentionally killed a person might have intentionally struck him down but mistaken his identity, as if hewing wood intentionally and with free will but unintentionally failing to identify the correct tree. Or as in the case of one who desecrated the Sabbath by picking up wooden sticks, the gathering of the sticks was intentional but the person forgot that the particular day was the Sabbath. The creator does not allow his power to interfere in the least with the actions of men; nor does he compel them to be obedient or disobedient. Saadya offered proofs for this doctrine in sense perception, reason, Scripture, and tradition.

Saadya Gaon's *Book of Doctrines and Beliefs* extolled human reason. It revered personal responsibility for acts and omissions to act. It exalted God's creation of human free will as God's most sublime and terrifying gift.

RASHI (1040–1105)

Rashi is the acronym for the famous 11th-century commentator on the Bible and Talmud Rabbi Solomon Yitzaki (1040–1105). Rashi was born in the great commercial city of Troyes in the north of France. Even today it is difficult to find a Hebrew Bible that lacks Rashi's marvelous combination of literal and philological exegesis called *peshat* and ingeniously free interpretation with homilies called *derash*. Having studied in France and Germany, he established in 1070 a rabbinical academy in Troyes, which became a renowned center of learning where he worked as revered teacher and interpreter of the law. Merchant scholars made spe-

cial trips to the market fairs in Troyes just to sit at the feet of the famous scriptural commentator and grammarian.

Rashi wrote numerous *responsa*, written answers to questions asked on Jewish religion, philosophy, and law. Directors of Talmudic academies, the Geonim, encouraged questions from outside their own communities, allowing their answers to establish precedent and reputation for excellence. A typical *responsum* had five parts: a statement of the case, usually in the form of a question; a preliminary response according to the law; then, contradictory opinions and Talmudic discussion; next, analysis of relevant Talmudic sections; and, finally, the decision. Rashi's crisp, clear, quotable *responsa* are preserved in the *Sefer ha Pardes*, a collection of halakhot and decisions, and the Ashkenazic prayer book *Mahzor Vitry*.

Rashi's *Commentary on the Bible* covered every book but three Hagiographa, namely, Ezra, Nehemiah, and Chronicles. In his commentary on Genesis 1:1, Rashi argued that neither Christians nor Muslims battling for control of the Holy Land in the crusades in 1096 had a right to it. The Holy Land belonged to God, who already had given it to the Jews. Rashi made his commentary on the Babylonian Talmud a practical guide for daily life by mining the text for its rich lode of resolutions to commonplace personal, social, and commercial questions as well as theological quandaries.

After Rashi's early death at age 45, his disciples created the school of commentators on the Talmud called the Annotators, or *Tosafists*, including Rashi's sons-in-law, Rabbi Meir ben Samuel and Rabbi Judah ben Nathan, and grandsons, Rabbi Shmuel ben Meir and Rabbi Jacob Moses Tam. Rashi's thought and distinctively lucid style were so influential that the Franciscan exegete Nicholas of Lyra (d. 1340) in his *Postillae Perpetuae* copied parts of Rashi's commentaries point for point and

phrase for phrase, earning him the pejorative title "Solomon's ape," *simia Solomonis.* The pejorative epithet is surely inspired by resentment since Nicholas of Lyra was a Jewish convert to Christianity, and it is also exaggerated, given Nicholas's dependence upon other Christian commentators, such as Thomas Aquinas. Nicholas of Lyra in turn influenced Martin Luther's translation of the Bible. Rabbi Solomon's thought was so revered that in 1475 in Reggio, Rashi's *Commentary on the Bible* was the first dated Hebrew book ever printed.

BAHYA IBN PAQUDA (11TH C.)

A rabbi and judge in 11th-century Muslim Spain, Bahya ibn Paquda was best known for his remarkable book *Duties of the Heart* (*Hovot ha-levavot*). *Duties of the Heart* taught ethics as reconciliation between inner intent and outward deed: Good deeds were meaningless if not heartfelt. Moral action was necessarily and literally hearty. Words not from the heart were as if not spoken. Pious actions not motivated from the heart were not godly. Ritual observance without heartfelt passion was mere ceremony.

Just as the mind has duty to learn, the tongue has duty to speak truth, and the hands have duty to give charity, so, too, the heart has duties more profound and more numerous than any other bodily part. Each anatomical part has obligations in some Jewish ceremony, such as the arm and forehead in the wearing of the ceremonial *tefillin*, the small Scripture-containing boxes strapped to hand and head during prayer. The heart's superior duties encompass human conscience.

This first systematic work on Jewish ethics was written in Arabic and firmly founded on the Jewish Talmud while including both Aristotle's ethical views and ideas from the Muslim *kalam*, the Islamic scholastic theology emphasizing reason as part of faith. *Duties of the Heart* probably thrilled more than it logically persuaded. The book is filled with splendid fables, legends, tales, and anecdotes explaining and embellishing the central premises. God's existence can be proved by the argument of design. The world is so gloriously complicated and harmonious that it could have been created only by a creator, and not originate from nothing. God's three essential attributes knowable from study of nature's design are God's existence, God's unity, and God's eternity. God's oneness is God's purest manifestation. Bahya ibn Pakuda founded his argument on the existence of the creator on three propositions: First, a thing cannot be its own maker. Second, the series of successive causes is finite. Third, compounds owe their existence to an external force. The universe, even the four elements of earth, air, fire, and water, is a compound consisting of substance and form. This universal plan and unity are discernible to reason and curiosity.

Loving God and trusting God ennoble every act of the human body, with the heart leading every other anatomical part, creating in the heart-stimulated mind a cheerful optimism no matter life's vicissitudes. Human spiritual life has "10 gates": Gate (1) is divine unity; (2) is wisdom; (3) is divine worship; (4) trust; (5) unity of action; (6) humility; (7) repentance; (8) self-examination; (9) asceticism; the culmination is Gate (10), love of God. The first gate proves God's existence and attributes, following the arguments of Saadya Gaon. Through the gate of wisdom, we can study the created universe, the creatures in it, and both revere and thank God for divine wisdom. Gate three differentiates gratitude people feel toward God for gifts versus mere thankfulness to people for theirs. Gate four reaffirms personal responsibility to earn and to better one's fortunes while nevertheless trusting in God's providence. The fifth gate examines pleasure and power, concluding by

celebrating legal balance and practical equilibrium between abstinence and self-indulgence.

Gate six defines the strength and power of humility. Compared to God's attributes, people's talents and achievements are paltry, probably ridiculous. Not weakness, understanding God's power is self-understanding. Not servility, a God-loving person properly appreciates God's other human creatures. With a heart full of compassion, a good Jew can observe the human conduct of others and judge the self among the others, ready always to admit error and repent it. Therefore gate seven delineates the four elements of acceptable repentance both to man and to God: regret for the wrong, stopping to do wrong, confession and seeking forgiveness, and promise never to repeat the offense.

The eighth gate is self-scrutiny and self-discipline that derives from contemplating the world's excellences. This study includes possibility of human possession of some divine wisdom. Such understanding of God's magnificence is superior to strict formalistic following of the law. The best method to achieve that wisdom is to pass through the ninth gate of asceticism, available only to a few select earthly beings. These people achieve asceticism's highest degree of inner detachment from worldly goods while nevertheless living among temptations of society.

Nevertheless, each intelligent person willing to acknowledge the duties of the heart has the capacity to love God totally. Few can pass through the 10th straight gate illumined with a mystical light of understanding wherein the human soul unites with God's divine light. At this exalted incorporeal level of love, to which we can aspire in our hearts even if our minds and bodies will not allow its achievement, all the 613 commandments of the Torah, the total obligatory blessings, the panoply of 613 *mitzvoth*, are easy, formulaic services to the totally loved, totally loving God.

JUDAH HALEVI (1075–1141)

Poet, philosopher, and physician, Judah Halevi was born in Toledo, Spain, and was a passionate defender of Jews, of rationality, and of its purest form in inspired revelation. He celebrated Palestine as the sacred site of revelation. He extolled excellence of the Hebrew language and the Jewish religion as the preeminent belief because of its venerable age, tradition, and prophetic magnificence. Aristotelian philosophy was fine for those who could aspire to no more. But for those who had potential both to study philosophy and, after rigorous attention to body, mind, and right ritual, to receive inspired revelation, there was no sense in settling for less. According to Judah Halevi, philosophy and science were estimable and enjoyed in the medieval world thanks to the Greeks and Romans, whose sources were the Persians, who gained their knowledge from the Chaldeans, who learned what they knew from the Jews. Christianity and Islam also originated in Jewish thought. If all sciences and all faiths agreed on certain basics, then if one had the choice, no one should accept as true the derivatives when the original word could be obtained straight from those who received it directly from God.

Truths about Judaism and about the nature of God simply were beyond philosophy's scope of knowledge. Judaism must be lived and loved. Only Jews as inheritors of the mental and spiritual ideas of the prophets could so adore God and be right both in holy intention and in sacred practice.

Asked to answer arguments of philosophers, unbelievers, and scholars of religions other than Judaism, Judah Halevi presented his responses in ingenious format of five fictional discussions among a Turkish Khazar king named Bulan whose bad dreams about being fine in his religious intent but dangerously defective in his religious practice prompted his interviews of an Aristotelian philosopher, a

Christian, a Muslim, and a Jewish rabbi, called *Haber*. Judah Halevi's great philosophical work called *The Kuzari* (*Kitab al-Khuzari*) was inspired by the reports of Hasdai ibn Shaprut (d. 915–970), the philosopher, linguist, physician, and head of the Córdoban Jewish community, who in 960 had written to the warrior Khazar tribe living in the Ural Mountains of south Russia about their first king and followers who had converted to Judaism.

The Kuzari dramatically depicts the arguments for that king's conversion to Judaism. The ruler, at first unwilling to believe Judaism worth studying, progressively found it the superior philosophy and theology. Judah Halevi's rabbi argues for God's creation of the world not only by logic but by history, an unbroken chain of knowledge from Adam to Noah to Moses. Philosophers might argue that God cares not for the created world or for people or their prayers. Jews, however, by prophetic and spiritual insight heard firsthand God's words, his commandments and prohibitions, and experienced God's rewards and punishments. Just as sunlight penetrates diverse objects differently, penetrating ruby and crystal with shining brilliance, then, with lesser penetrability, air and water, and least, the most opaque, impenetrable wood and earth, so likewise human minds understand God. Some merely know the common attributes and familiar name of God, *Elohim*. Those comparable in radiant understanding to the ruby and crystal can apprehend the more exaltedly spiritual and inspirational intellect, *JHVH*. To know this *tetragrammaton*, the sacred four-letter Hebrew name of God, *JHWH* or *JHVH*, probably *Jahweh*, later rendered *Jehovah*, too holy to speak, for which Jews substituted yet another Hebrew word *Adonai*, signified for Judah Halevi the perfect love of God.

People can learn from Scripture three qualities of God's works: God's *actional*, God's *relative*, and God's *negative* qualities. Analogizing God's actions from our own, the Bible speaks of God as merciful, vengeful, and powerful because of God's visible acts in the world. Similarly, God as blessed, exalted, praised, and holy is known only by God's position relative to human beings. God's negatives derive from his difference from human beings who know sensation and motion. God is not so bound, but to express God's ineffable wonders we are obligated to use such negative language as God is living, meaning not dead. God is solitary, unified, and one, not many. God is first, without any antecedent cause. God is last, never ending. These *nots*, *nevers*, and *negatives* of course are positives, as in the ideas of Maimonides. Jews learned to understand these divine attributes because God chose the people of Israel and personally and directly through Moses gave them the Ten Commandments.

Israel is the heart among nations. Judah Halevi described the human heart as more sensitive than the rest of the body, in disease as in health. It feels both more intensely. The heart is more subject to disease than any other organ, and sooner than other organs the heart becomes aware of dangers to its health and tries to repel them. So Israel is among the nations, having greater responsibility and sooner punished for errors. Just as other organs affect the heart, so Israel suffers because of its assimilation within other nations. Israel even suffers while other nations are in peace. Just as the four elements create minerals, the minerals benefit the plants, the plants serve the animals, and the animals benefit man, so humanity exists for advancing Israel, and Israel for benefiting the prophets and the pious. Purified Israel gives all the world improvement and closeness to God.

Ceremony inherently is important. While for Saadya Gaon, Bahya ibn Paquda, and Maimonides, ritual to be valuable had to be rational commandment, for Judah Halevi traditional commandment would be rational if human beings had the capacity to understand

it. Holidays and festivals symbolize historical truths and God's government. Therefore each person must observe them correctly. However, tradition requires measure, not ascetic excess or physical denial. Fear, love, and joy together create celebration. God does not prefer our fasts to our feasts in his name. A good Jew does not try to escape from the world but rather loves the world, living, and loving a long life.

People need other people to remain in a high state of exaltation in contemplating God, even though one might crave to escape to the angel level of Enoch and Elijah. Therefore all parts of the body must be cherished, without neglecting any, feeding the body with good material things just as one feeds the soul with good spiritual things. Exercising the body has its parallel in exercising the spirit via meticulously celebrating the Sabbath, the festivals, and the Day of Atonement. All keep a pious person fit.

Free will is reconcilable with God's foreknowledge. All acts and events fall into one of four classes: the *divine*, *natural*, *accidental*, and *voluntary*. Divine events such as earthquakes we can prepare for only mentally for we cannot avoid them physically. Natural events such as the growth of a plant or animal occur because of secondary causes, producing their effects regularly, uniformly, and predictably, provided they do not encounter interference. Accidental events occur by secondary causes that can be hindered by one of the other three classes of acts. Death in wartime is such an accident or chance event. Acts we control by our free will are voluntary actions. Free will, however, is an act's secondary cause. Human will ultimately is derived from God, but divine will does not form a *necessary* chain of causation. Speech, for instance, is not necessarily caused while the pulse is. People master their own speech versus silence, praise versus blame, and love versus hate. All such deliberate conduct proves human freedom.

How do we know what we know and how do we act rationally? People have three types of soul: vegetative, animal, and rational. Our rational soul has five external senses of seeing, hearing, smelling, touching, and tasting, providing us with colors, sounds, fragrances, tactile sensation, and tastes of sweet and sour. We also possess six internal senses consisting of four sensory powers and two motor powers. First, internal sense is *common sense* or *forming power*. That unites external senses, a *synesthesia*, so we know, for instance, that honey is thick, yellow, and sweet. Next is the *composing power* or imagination, composing or dividing what forming power provides. Next, with the *power of judgment* we determine whether what we perceive is right or wrong; whether we love or hate it, believe or deny it. All such judgments then are stored in the *factual memory*. Refining these four sensory powers for action are two motor powers. *Desire* moves us to seek what is agreeable and pleasurable. *Anger* causes us to reject and avoid the disagreeable.

Judah Halevi's rabbi's concluding salute both to Judaism and to the Khazar king is to leave for Jerusalem, the place most conducive in all the world to purity of heart and clarity of mind. There revelation and love benevolently trump rationality.

ABRAHAM IBN DAUD (1110–1180)

Although Abraham ibn Daud was one of the first Jewish philosophers who deliberately synchronized Aristotelianism with Judaism, his remarkable philosophical book *The Exalted Faith* (*Emunah ramah*), written in 1161, rarely was quoted in its time and was essentially ignored thereafter. The author himself discouraged readers by avoiding elegant style and literary grace, cramming his pages with brilliant but complex scientific ideas, and stating at the beginning that anyone innocent of philosophical questions of determinism and free will

and unconcerned with his ignorance should not open this book, and anyone especially learned in religion and philosophy need not read this book. Only welcome readers were those not yet able to see the rational necessity of beliefs and practices known from tradition, as well as the friend who originally asked him the questions he wrote *The Exalted Faith* to answer. If God determines human action, why does God punish? Why does God admonish? And why does God send prophets?

If man has free will, that will is not under God's control. Biblical statements, moreover, are inconsistent, and their very contradictions demonstrate they are not to be taken literally. Passages needing most exegesis are those that oppose reason. Objections to determinism are greater than to freedom. But to prove this, the principles of Judaism must be harmonized with true philosophy. This must follow the study of science. That leads to study of the divine attributes and the consequences flowing from them. These require learning physics and metaphysics. Abraham ibn Daud's book *The Exalted Faith* consists of complicated, technical, compressed though often stunningly original analyses of Aristotle's thought.

Since Judaism is a practical religion, not a theoretical theology, deeds stand steps higher than faith. Yet humanity among other creatures in the sublunary world is distinguished from others by the rational soul. Abraham ibn Daud asked, How should a person use the soul and use earthly time? The soul has two choices: to face upward toward the angels and receive wisdom in the form of theoretical knowledge or to face downward and judge other corporeal powers via practical reason. But that soul must not unduly or unsystematically devote itself to one sole occupation.

The aim of man is wisdom; in fact, science and the most exalted science is the knowledge of God. The human body is an animal, which leads the person to God. Some spend all their time feeding the animal, others clothing it, others curing its ills. Curing is not a bad occupation, for it saves the body from disease and death and helps it attain higher life. But medicine is not a valid life goal and devoting all one's time to it injures the soul. Some people spend time in less significant matters such as grammar, language, and mathematics, whose only valuable application is astronomy. Yet others occupy themselves exclusively in "twisting threads," paltry acts.

Abraham ibn Daud considered medicine and law good professions for earning a living and a reputation since both improve the ills of life, person to person via law, and the human person to internal humors via medicine. Medicine might be the more important because if mankind were just, there would be no need for law. Necessity for medicine would remain. Yet spending life in legal casuistry and hypothetical cases on the pretext of sharpening wit is mere continual twisting of threads. A little might be necessary but much is a waste of time. Therefore let the religious person first learn how to prove the existence of God, know the meaning of prophecy, understand the nature of reward and punishment, and contemplate the future of the world. Let the pious learn also how effectively to defend these matters before an unbeliever. Any leftover time can be devoted to legal discussion and legal analysis. Then it will be harmless.

Abraham proceeded to analyze Aristotelian substance, accident, the 10 categories, which he found imbedded in Psalm 139, matter, and form. Primary matter is free of all form and, deviating from Aristotle's view that matter is eternal, represents the first stage in creation. The next stage follows logically in endowing formless matter with abstract corporeality. Next are specific forms of the four elements; then their compounds through minerals, plants, animals, and, finally, man. His discussion of motion introduces a new proof for the exis-

tence of God. Derived from Aristotle's *Physics* this argument influenced Maimonides, whose work in turn affected Thomas Aquinas's *Summa contra gentiles.*

The soul is not eternal. According to Abraham ibn Daud, the soul is created and given to the body when it comes into being. Where does the soul come from and where does it go after a person dies? Two alternatives to an eternal soul are (a) that the soul existed independently before the body was born, as Plato taught, then dies with the body or (b) that the soul remains alive after the body's death. If the first were true, that would injure the soul by making it suffer the defects of matter. The second equally is impossible. If the soul could exist before and after the body, why bother connecting it to the body at all? That also would harm the soul for obligating it to share the body's corporeal accidents. God in his wisdom would not make anything so unreasonable and purposeless.

How does the soul survive and how can there be individual immortality? Abraham does not answer directly. He proves, however, that metempsychosis, transmigration of souls, is impossible, for the soul of each person is suited to the individuality of its body. Each body has its own soul. A living person theoretically could have a soul that lived in a previous person's body only if the two bodies were identical in every way. That, however, would not be transmigration but rather reappearance of one who had died and returned. But, he maintained, this has never yet happened.

Much of the science, rationality, physics, theory, explanation, ideas on prophecy, and Aristotelian logic and metaphysics that the learned world associates with Maimonides appeared first in the writings of Abraham ibn Daud, who rarely is praised for his *The Exalted Faith.* Instead he is remembered enthusiastically for his historical work called *Book of Tradition, Sefer Ha Kabbala,* also written in 1161,

attempting to depict the golden chain of Jewish learning beginning with patriarch Abraham as the first link through Moses to his contemporary 12th-century thinkers making the latest links in the lustrous chain. With a virulence comparable to that of Saadya Gaon, Abraham starts his book with acrimonious diatribes against Karaite beliefs and achievements. Among Abraham ibn Daud's major claims to remembrance are his descriptions of the lucrative Muslim slave trade and the development of major centers of Jewish learning in Spain, North Africa, and Egypt. In the year 960 four great rabbis left Sura Academy in Babylon for fundraising in Europe. Pirates captained by the admiral of the caliph of Córdoba captured the ship, selling their captive Rabbi Moses as a slave to the Jewish community in Córdoba, Rabbi Hushiel to Kairouan in North Africa, and Rabbi Shemaryah to Alexandria, Egypt. Each Jewish community paid handsomely and each redeemed scholar thereafter established an important academy.

MAIMONIDES (1135–1204)

The towering intellectual of the Jewish Middle Ages was Moses ben Maimon (1135–1204), called Maimonides, the Rambam. He was born in Córdoba into a distinguished Sephardic family and died in Cairo, Egypt. His early brilliance as a scholar became readily apparent despite necessary world wanderings that began at the age of 13 when his family abandoned Córdoba after the Almohad conquest of the city in 1148 and their notorious demand that Christians and Jews convert to Islam, abandon the city, or face execution. Young Maimonides studied and wrote while he and his family migrated from Córdoba to other cities in Spain; then Fez, Morocco; then briefly to Palestine, before settling in Fustat, Egypt. Maimonides became a physician, Jewish community leader, distinguished scholar, and acclaimed authority

on Jewish law, the *halakha*. His voluminous writings, mostly in Arabic, have a clean, clear, powerful style. His genius for systematic organization is complemented by strong rhetoric and lucid explication of complexity. No matter how difficult or sacred the subject, Maimonides' crystalline, assertive style made it accessible to the neophyte yet satisfying when not infuriating to the expert. Maimonides revolutionized Jewish legal studies; integrated classical Greek thought, particularly Aristotle's, with Judaism; and reconciled revelation with rationality. His heritage thrives today.

At age 23 Maimonides began his influential *Commentary on the Mishnah* writing in Arabic with Hebrew characters so that all should be able to read it and understand it. Called the *Luminary*, *Siraj*, Maimonides' summary, ordering, and explication of Jewish law was completed in 10 years. He intended to compress the essence of the *Gemara*, which only the learned were likely to read to interpret the *Mishnah*, the oral law, and to state which of several conflicting opinions merited belief. Maimonides included important ethical analyses of the *Sayings of the Fathers*, *Pirke Avot*, which he published as a separate treatise called Eight Chapters, *Shemonah Perakim*. Also in this *Commentary on the Mishnah* are his famous *Thirteen Principles of Faith* stating with memorable and memorizable clarity the essential theology and philosophy of Judaism.

This formulation of the *Thirteen Principles* explicating God's existence and powers persists in substance and style in modern prayer books. Article (1) affirms God's existence. The pious Jew believes in (2) God's unity, (3) God's incorporeality, and (4) God's eternity. These ideas lead inevitably to Article (5), God's exclusive claim to worship. The next principles pertain to (6) prophecy and the law, (7) the uniqueness of Moses among all other prophets, (8) God's giving the law to Moses in its entirety, and (9) that law's eternal immutability. Article (10) considers God's omniscience. Articles (11), (12), and (13) are eschatological statements of last things: reward and punishment for earthly acts, the promise of the coming of the Messiah, and an analysis of the idea of the resurrection of the dead.

Maimonides wrote his even more audacious code of law, *Mishneh Torah*, in Hebrew, compiling this vast legal code in 10 years of unremitting work beginning in 1166, unifying the oral and the written law. His purpose as stated in his introduction was his own benefit, to save him in his future advanced age from having to consult the voluminous, incompletely ordered Talmudic law whenever necessity or desire demanded.

Shown here is a c. 1351 southern European vellum miniature from Moses Maimonides, Mishneh Torah *(Jewish code drafted in c. 1166).* Giraudon/Art Resource.

The original Mishnah that Maimonides cataloged, ordered, and interpreted was itself a legal codification of Jewish law from about the year 200, consisting of traditional oral law only reasonably logically arranged. The Mishnah plus the Gemara, the commentaries on the Mishnah, together form the Talmud, the text of the Jews' laws, legends, commentaries, philosophy, and ethics, as well as miscellaneous statements on medicine, astronomy, and agriculture. The Jerusalem Talmud, written in Aramaic and Greek, was edited in the fourth century; about a sixth of it is *aggadah*, nonlegal stories, legends, folklore, aphorisms, and explanatory tales. By contrast, the Babylonian Talmud, written in Hebrew and Aramaic, is three times as long as the Jerusalem Talmud, consisting about two-thirds of *aggadah* and considered more "accurate" than the Jerusalem Talmud.

Maimonides' brilliant review in his *Mishneh Torah* of Jewish theology, metaphysics, and ethics includes the *613 Commandments* or precepts of the Five Books of Moses, the *Pentateuch*; Genesis, Exodus, Leviticus, Numbers, and Deuteronomy, divided into 14 groups. The book's alternate title, "Strong Hand," *Yad hazakah*, refers both to the numerical meaning of the Hebrew word *yad*, "fourteen," and to Maimonides' powerful guiding hand, teaching, selecting authorities, and benevolently imposing interpretations. Maimonides' detractors, such as the French Talmud authority Abraham ben David of Posquières (1125–98) in his *Objections*, *Hassagot*, accused him of a presumptuous arrogance that might cause people to stop studying original texts. Other scholars, even those most admiring Maimonides, such as Nachmanides, objected to Maimonides' prodigiously bold ordering and logical arrangement of laws, his lack of quoted sources, and his insistence on his own reliability, perhaps infallibility.

Mishneh Torah remains a classic essential text that through the ages influenced not only Jewish but also Muslim and Christian thinkers. Maimonides' passion for Aristotelian logic, ethics, and natural law was shared by such Muslim thinkers as Alfarabi (d. 950), Averroës, and Avicenna (d. 1137) and such Christian notables as Albertus Magnus, Duns Scotus, William of Ockham, and Thomas Aquinas. Maimonides' Aristotelianism reached its proud pinnacle in his *Guide for the Perplexed* (*Dalalat al-hairin* in Arabic, *Moreh Nebuchim* in Hebrew). Polemical controversy swirled so ferociously around that pivot point that in 1234, 30 years after Maimonides' death, Christian authorities intervened and burned copies of the *Guide for the Perplexed* as heretical for both Christians and Jews.

Maimonides' *Guide* and Aristotelian Natural Law Maimonides integrated into his spectacular *Guide for the Perplexed* (*Moreh Nebuchim*), written in Arabic, the concept of natural law traceable back to the Greek philosophers Plato and Aristotle and to the Roman Stoics. Aristotle's ethics particularly captivated Maimonides, enabling him to synchronize discordances between Jewish tradition and Greek philosophy. Natural law is that superior moral law superseding any governmental law that exists in "the nature of things." According to natural law a person's rationality grants certain rights of being. Natural law is a component of God's universal law. Reason enables a person to understand God's law, the objective, knowable principles capable of rational proof. By study and analysis of reality, by rational judgment of *what is*, the human being acts toward other people and toward the world in ways that further existence. This pattern of behavior is benevolently self-interested. Rational men and women pursue what advances life and, in most circumstances and whenever able, shun what inhibits life.

Maimonides' rational philosophy translated for Jews Aristotle's view of natural law knowable through human reason. Although other

philosophers such as Abraham ibn Daud preceded Maimonides in reconciling Aristotelian and Judaic ideas, Maimonides was the most effective and cogent medieval exponent of natural law. Things exist and are what they are, not by human will or arbitrary command but by the necessities of their own nature. Maimonides stated in his *Guide for the Perplexed* ideas familiar to such great 17th-century natural law philosophers as Algernon Sydney and especially John Locke, who wrote the *Second Treatise on Government* and the *Essay Concerning Human Understanding*. Natural law persisted with surprising consistency across cultures, religions, and millennia. The idea of a supreme being, infinite in power, goodness, and wisdom, whose workmanship we are and on whom we depend, as Locke phrased it, plus the idea of ourselves as understanding rational creatures, equals the foundation for our human duties and for our rules of action.

Moral law is so scrutinizable and consistent that it might be counted a science because of testable propositions proving value of right versus wrong. This objective natural law transcends both human will and convention. Human beings and human institutions ideally conform to it. This natural law carrying the sanction of God's will nevertheless securely celebrates human power both to understand and to act, therefore imposing human responsibility for human action. That *things are what they are* because of natural necessity activated Maimonides' philosophical books. The philosophy that things are what they are also energized daily living of Jewish traders and travelers, as their own letters preserved in the Cairo *geniza* documents depict vividly.

The *Guide for the Perplexed* was dedicated to thinkers whose scientific and philosophical studies collided with religion, who while remaining faithful to Judaism were perplexed and bewildered by the ambiguous and figurative language in holy writings. Maimonides' disciple Rabbi Joseph originally asked his mentor to explain certain esoteric ideas and words in the book of the Prophets as well as the philosophical system and methods of the Kalam form of Muslim scholastic theology as expressed by local Islamic thinkers called the Mutakallimun.

The Mutakallimun maintained that a Muslim's reason was a source of truth in addition to the authority of the Quran and the Sunna, the tradition. They intended to prove the creation of the world, individual providence, and the reality of miracles. They opposed Aristotelians who believed in the eternity of motion, God's ignorance of human particulars, and immutable natural law. For Joseph and all other Jews who found it difficult to accept as true any teaching based solely on literal interpretation of the Torah, Maimonides discussed biblical expressions that must be taken as literary or figurative rather than literal. He analyzed homonyms, similes, metaphors, allegories, and hybrid forms of literary allusions and reality. Maimonides maintained that whatever Scripture could be explained by reason is valid to accept as literal. But whatever defies reason must be explained as literary. Maimonides viewed as an allegory the Genesis narrative of Adam's fall from God's grace. Adam equaled intellect, Eve was body, and the Serpent represented imagination.

Since Torah law "speaks the language of man," it is imperative to know which biblical and prophetic words were meant figuratively to help understanding versus which passages were stated as literal fact. Simple inconsequential devices often illumine profound, difficult subjects. Parables and stories may have little inherent value but through them holy law is intelligible. The deeper meanings of words of law are like pearls. Sages said that if a man loses a precious pearl in his house, he can find it by lighting an inexpensive candle. Hidden meaning is included in the literal meaning of that simile of a pearl lost in a dark room full of furniture. The pearl exists but it is invisible and

useless to its owner until he kindles the light and finds it. Likewise, King Solomon said, "A word fitly spoken is like apples of gold in vessels of silver" (Proverbs 15:11). Silver vessels with very small apertures wrought by silversmiths form a beautiful filigree network. Each word in this simile has correspondences. Plain meaning is as valuable as silver. But the protected hidden meaning is worth more than gold. A golden apple overlaid by silver filigree appears from afar to be silver but the sharp-sighted person keenly observing looks within and sees the apple's gold. Likewise, literal meanings in the Bible have sound pedagogic purposes; furthermore, they lead the thoughtful to concealed wisdom and profound truth.

In describing God, Maimonides maintained that certain metaphysical truths are accessible to all learned and illiterate people, and all must understand these truths. Among these essentials are that God is one, incorporeal, free of emotion, free from privation, and not comparable to other creatures such as those God made. To assume that God is corporeal or possesses human properties and human attributes would be a sin bordering on idolatry. So Maimonides proposed God's negative attributes. We understand God and know more of what God is *not* than what God *is*. Maimonides explained that faith is thought, not mere utterance. Faith is conviction, not mere profession. Therefore he rejected as divine attributes any definition of God, partial definition of God, quality of God, or relation of or to God. Since definition of a thing includes its efficient cause, and God is a primal cause, God cannot be defined nor described.

Maimonides reviewed the four dogmas the dominant religions including Judaism, Christianity, and Islam uphold: creation from nothing, *creatio ex nihilo*; God's existence; God's incorporeality; and God's unity. Classical Greek and Roman philosophers essentially rejected the *creatio ex nihilo* idea, but the Mus-

lim Mutakallimun defended it and based their proofs of the other three dogmas upon it. Maimonides believed that God's existence, incorporeality, and unity are proved independently of God's creation of the world. He judged the Mutakallimun sadly mistaken in their ignoring of the exquisite order, law, organization, and unity of the natural world, and he methodically refuted their seven arguments supporting *creatio ex nihilo*. In his *Guide* Maimonides also refuted Aristotle and argued both that the universe was created and that God created it. Maimonides described minutely the magnificent analogy between cosmos, the universe, and microcosmos, the universe in miniature, man.

Prophecy according to Maimonides is inspiration from God passing through a person's active intellect to the rational faculty and then to imagination. Prophecy is the highest form of human accomplishment achievable by physical, intellectual, and moral training combined with inspiration. Maimonides distinguished true prophecy from mere extraordinary courage and ambition to perform great deeds because of the "spirit of the Lord." Among inspirational, inspired dignitaries who did not rise to the height of prophets were Jephtha, Sampson, David, Solomon, and the Hagiographa authors. Maimonides defined 11 degrees of prophecy recorded in the Bible, differentiating a prophet from a wise man, knowing by intellect alone, and from a diviner or dreamer, knowing by inspiration alone. Moses was the greatest of all prophets for he alone received God's word directly from God.

Imagination, according to Maimonides, was the essence of prophecy. He demonstrated primacy of imagination by analyzing figurative language, hyperboles, allegories, and symbols in prophetic books. Jacob's wrestling with the angel, Balaam's speaking ass, and Ezekiel's translation from Babylon to Jerusalem were not literal events, but allusive and figurative. Most good intelligent people cannot train their

imagination to prophetic powers. But they can benefit mightily from indirect instruction through ceremonies and strictures of Jewish law. Almost all ritual has logical purpose and educational effect. In contrast to mere ritual formalism and uncritical observance of rite, the intelligently observed ritual, as Maimonides instructed the perplexed; intense study; training in the law; and highly educated intellects move a Jew more quickly and much closer to knowledge of God. Human perfection begins in knowing God. It culminates in imitating God.

Maimonides on Optimism and Evil Maimonides believed that God's works all are perfectly good. God produces only existence and that existence is good. Evil exists and can be attributed only indirectly to God in that he creates the corporeal element, such as the human body, as it actually is. That corporeal element, always connected with negatives, is the source of all destruction and evil. Yet it is important and good. How so? Throughout *The Guide for the Perplexed* Maimonides accepts the judgment of Genesis 1:31: "And God saw everything that he had made, and behold, it was very good." The corporeal element, lowly source of death and evils, likewise is significant for the permanence of the universe and the continuation of the order of things. One thing departs; the other succeeds. No evil comes down from God above. The evil that men cause to one another arises from nonexistence because evil originates in ignorance, which is the absence of wisdom.

Men frequently think that evil things in the world are more numerous than good things. Many sayings and songs of nations dwell on this false idea that a good thing is found exceptionally, while evil things are numerous and lasting. Maimonides castigated the otherwise sage Muslim philosopher Rhazes al-Razi (d. 935) in his well-known book *On Metaphysics* for stating that more evil exists in the world than

good, an idea Maimonides considered mad and foolish. Comparing the happiness of man in his time of prosperity with his inevitable grief, pain, defects, paralysis of limbs, fears, anxieties, and troubles, al-Razi considered existence itself a punishment and a great evil. Scorning this pessimism, Maimonides reiterated his view of the benefits God bestows, God's perfect goodness, and the absolute good that flows from God.

Maimonides distinguished three kinds of evil. First is caused by a person's being subject to genesis and destruction because she or he possesses a body. That body may have great deformities or paralysis of some organs. This evil may be inherited in the natural constitution of this person, or it may develop because of changes causing injury. Change is divine necessity. Divine wisdom requires that genesis take place only through destruction, for without destruction of individual members of the species, the species themselves would not exist permanently. This continuum suggests God's beneficence and goodness. Without change and destruction there could be no generation. There would be one single being but no individuals forming a species of those who live, reason, and die. Whatever is formed of any matter receives the most perfect form possible in that species of matter. In each individual case, defects are in accordance with the defects of that individual matter. It is impossible for man to be absolutely free of this sort of evil. Nevertheless, such evils are few and rare. Thousands live in perfect health and truly deformed individuals are atypical and exceptional, not a thousandth part of the realm of the perfectly normal.

The second class of evils consists of those that people cause to each other, using power and strength against one another. Evils of violence are more numerous than the first type, but though they originate in ourselves we cannot necessarily avert them. Nevertheless, even

this evil of violence is not so widespread in any country of the world. It is rare that a man plans to kill his neighbor and rob him of property by night. Though there are many wars, if we consider in the course of time the whole inhabited Earth, then even those wretched events are not truly frequent.

The third class of evils, the largest and the most numerous, comprises evil a man causes to himself by his own actions. These evils men actually select, such as excessive eating, drinking, and loving. Indulgence in undue measure or improper manner, such as the eating of bad food, yields diseases and afflictions of both body and soul. Sufferings of the soul are of two types. Since the soul resides in the body, properties of soul depend on condition of body. Second, a soul accustomed to superfluous things acquires strong habits of desiring things necessary for preservation neither of the individual nor of the species.

The ignorant and perverse in thought are always troubled and pained because they cannot get as much of superfluous things as certain other people possess. To gain the expendable and unnecessary, people expose themselves to great dangers by sea voyages or in services to kings. When suffering consequences of the course they elected, they complain about the decrees of God. They blame the bad times. They fault justice for not enabling them to buy large quantities of wine to make them drunk or to get their numerous concubines adorned with ornaments of gold, embroidery, and jewels for the purposes of driving them to voluptuousness beyond their capacities. They condemn God for not helping evil-disposed people to obtain the evil they seek. All human difficulties and troubles derive from desiring superfluous things. God's mercy toward his creatures clearly is demonstrated in his provision of necessities for existence and his avoidance of things illusory and deceptive. God gave us existence and reason, which are enough.

Maimonides' responsible rationalism required thinking beings to observe reality acutely; know the self accurately; study, refine, exercise, and train the mind; cherish and protect the body for itself and as precious vessel for the soul; reject irrational self-destruction; celebrate *whatever is*; and exult in reason as the way to revelation. Science demonstrated natural law, that part of God's law knowable to human intelligence, a universal order of complexity, multiplicity of form and function, yet exquisite unity. When rightly understood, God's law generates gratitude and hope and inspires productivity and integrity.

NACHMANIDES (1194–1270)

Born in Aragon, Spain, Nachmanides was a philosopher, physician, rabbi, and significant commentator and teacher of the Talmud and Bible. Having introduced scholarly ideas from France and Germany into Spain, Nachmanides balanced scientific rationalism against traditional authority and found biblical authority to outweigh rational philosophy. Whereas his intellectual mentor Maimonides celebrated human reason as capable of understanding God's plan, Nachmanides gloried in God's mysteries beyond human comprehension, content to study God's word. His important *Commentary on the Torah* (*Perush ha-Torah*) piously explained the meaning of the Torah, providing human reasons for each law and rational explications from word analysis. More mystical in his scriptural interpretations than Maimonides, who attracted learned intellectuals to his circle, Nachmanides was interested in teaching the law to the common intelligence. Nachmanides tried mediating between those who admired Maimonides' ideas that philosophy could yield ultimate truths and those who saw truth only in the revealed words of Bible and Talmud.

After a rancorous debate in Barcelona in 1263 with Pablo Christiani, a Jewish convert

to Christianity, on the subject of Jesus as Messiah, which Nachmanides summarized in his *Sefer ha Wikkuah* (Book of debate), he exiled himself to Palestine in 1267. Successfully teaching Talmud and Torah there until 1270, he died at age 76. His ideas on humility are notable. Being humble before people enables one to achieve one's best self-interest in encountering God's spirit. A proud man has no room in his being to receive God's ineffable love. Nachmanides advised his son to view every man as greater than he. Respect a wise, wealthy man. Also respect the poor unwise man. Even if you know you are richer and wiser, believe that in any sin you are more guilty, and he more innocent, for if that poor unwise man sins, he moves from error to error, whereas you act from desire. Nachmanides rejoiced in mind as the pathway to revelation. But the path's itinerary, topography, and gates of destination derived from understanding the traditional Word of God.

HASDAI BEN ABRAHAM CRESCAS
(1340–1410)

Barcelona-born Hasdai Crescas wrote in Hebrew in Christian Spain his startling examination and exaltation of Judaism called *Light of the Lord* (*Or Adonai*). More spiritual than intellectually Maimonidean, more emotional and intuitive than Aristotelian, Hasdai Crescas nonetheless used logical proofs for his theses. He confidently argued against Maimonides' intellectualism, accepting only part of the concept that intellect and reason alone elevate man above beasts, that rationality is the essence of soul, that the soul actuates form of the human body, that speculative study makes the soul immortal, and that immortal soul has the capacity to unite with the thought and knowledge of the universe and with God its maker. How could belief in the existence of God be one of Maimonides' 613 Commandments for a true Jew if a commandment implies existence of a commander? Objects of a command must be controlled by human will. God's existence cannot be a commandment because belief in God is not subject to will, only proof of fact. He refuted Maimonides and Aristotle on finitude. Hasdai Crescas predicted an infinity of space outside the known world. Remarkably, he predicted the possibility of many worlds.

Infinity negated several of Maimonides' 26 proofs of God's existence, God's unity, and God's incorporeality. Maimonides maintained that God has only negative attributes, as in our knowing what God is not, not what God is. But Hasdai Crescas explained God's positive attributes of existence, unity, and incorporeality by means of an ingenious elaboration upon the Islamic distinction in Alfarabi and Avicenna between things *possibly* existent and *necessarily* existent. Any effect of a cause is merely possible and exists necessarily only because of its cause. All things by their own nature are "possible existents" but require a cause to make them exist or not exist. God is that necessary cause.

Hasdai Crescas used spare, cool logic to promote warm spirituality. Hasdai analyzed six basic principles of Judaism: God's knowledge of existing things, God's providence, God's power, the meaning and sources of prophecy, free will, and life's purpose. Other Jewish concepts Hasdai Crescas deemed important but claimed that Torah still could exist without them. So he excluded these from Maimonides' *Thirteen Principles of Faith*, namely, creation, immortality, reward and punishment, resurrection, the law's eternity, praise of Moses as the best prophet, priestly foreknowledge, and belief in the Messiah.

God's knowledge is closely connected to man's free will. God's knowledge has three parts. God knows the infinite, in particular detail. God knows the nonexistent, because the future does not yet exist. God knows the contingent; that does not make contingency and

man's participation in it any less contingent. God in the Bible sometimes interferes directly with humankind, sometimes by an intermediary with man's acts. Reward and punishment on Earth are not controlled by human acts, but reward and punishment after life are. Hasdai Crescas rejects Maimonides' ideas that evil originates not from God but from the nature of matter and its accidents and that highest good depends on intellectual perfection. The Bible clearly states, according to Hasdai Crescas, that God rewards individually those acts he commands that man obeys and punishes individually those acts man disobeys.

If God has foreknowledge of man's future acts, how can man have free will to act according to his desire and contrary to God's knowledge of outcome? First, omniscient God knows in advance the universe and universals, not contingent particulars that are the stuff of daily life. Second, though God rewards and punishes people for conduct and people have responsibility for actions, determinism is not fatalism. Education, effort, advice, striving, and human perfecting are valuable because free will is partly contingent, partly determined. An act is not fated to exist. It requires a cause. Absent cause, the act does not exist. Given the cause, the act as its effect is necessary. Effort causes an effect, therefore determines it.

A person constrained or compelled to act in a particular way is not free and should not be punished. Though in the aspect of eternity every act of man is determined, yet each person acts in life according to his own soul's dictates. Earthly rewards and punishment resemble fire. Fire burns a person who unintentionally stands too close to it. Like fire, rewards and punishments are not unjust. They simply *are*. Sometimes earthly suffering is blessing disguised, sometimes just desserts for unremembered past error, sometimes the individual's participation in a group's rightful penalty. Though evil never originates from God, punishment with the aim

of justice is from God, therefore making even punishment good.

Presuming Excellence

Under the banners of the crescent and cross, massacres, expulsions, forced conversions, crusades, and ghettoization could have propelled medieval Jews to pessimism. But they optimistically insisted upon presuming excellence in the world. The philosophical tradition of optimistic realism pervaded the works of 10th-century Saadya Gaon; 11th-century Rashi and Bahya ibn Paquda; 12th-century Maimonides, Abraham ibn Daud, Judah Halevi, and Nachmanides; and 14th-century Hasdai Crescas. This optimism is also evident in the ability of Jewish philosophers such as Saadya Gaon, Maimonides, and Crescas objectively to draw upon and engage ideas from Muslim philosophers and theologians, adjusting them to suit the particular exigencies of Judaism. Presuming excellence and celebrating what is helped a medieval Jew exult in living a very difficult life. Presuming excellence enabled a Jew to shun two sins and promote a *mitzvah*. Since a mitzvah was both blessing and obligation, a blessed obligation, then if one had the power to do good that did not harm others and only extended the good, one had an obligation to do good. The mitzvah of *limud lekaf zekus*, avoiding false judging and false concluding, facilitated the necessary giving the benefit of the doubt. It stimulated intentional selection of positive over negative interpretation. This mitzvah helped a Jew avoid two sins. The Talmud required avoiding the sin of *loshon hora*, malicious speaking, evil talk, and insidious gossip. Badmouthing was derived from evil thought about the person talked about. A related sin was *yetzer hora*, the evil inclination to anger and to pride, *gaavah*. All people possessed that evil inclination. Talmudic texts sometimes described it as an indwelling

evil spirit that incited people to do bad things. But people had free will to choose either to indulge that inclination or to control it. An excellent way to avoid both *loshen hora* and *yetzer hora* was daily to perform an act of interpretation of reality in which one gave a person or an event the benefit of the doubt.

According to the doctrine of *limud lekaf zekus*, if a concept, interpretation, or act was likely to be good, people were obligated to conclude it was good, if it was equally possibly good or bad, people still had to conclude it was good. If it was apparently evil, still people were obliged to look for good in it so that error of perspective did not create false conclusions. Faulty judging caused unnecessary violence and misery.

It was necessary to seek partial good or temporary, provisional good until people knew beyond all shadow of all doubt that the bad was bad. Even then, when knowing that what seemed evil *was* evil, Jews were forced to control a will to self-pity and hatred of the perpetrator. Dealing with the evil for itself, they were obliged to eliminate it as quickly as possible with the most effective means.

PURPOSES OF *LIMUD LEKAF ZEKUS*

These intellectual acts surrounding *limud lekaf zekus* had three purposes. First was profound self-interest. God judges us as we judge our neighbors. If we desire God's compassion, we must show compassion to people.

A second value of *limud lekaf zekus* also advanced the self. By giving the benefit of the doubt, people increased in holiness. The more joy found in living, the less evil performed while living. By fixing errors that could be fixed, by not complaining against what could not be fixed, and by appreciating the good even in the flawed, people became better human beings. Presuming excellence honored God's creation. Jews were encouraged to bless

creation *as it was* and to hallow God, who created it.

People had power to increase good and to increase evil in the world. Celebrating good, seeking it, and finding it amplified the amount of good in the world. Appreciated, honored good itself was a prayer of thanks to God for creating it. Honored good also inspired others to look for and to find the good. Thereby the world's overall quantity of excellence increased, a further excuse to praise God for good.

Conversely, evil increased if people complained, badmouthed others, and assumed evil. All these errors increased violence. Starting a verbal or physical fight because of a misunderstanding due to not giving benefit of the doubt was thought to increase evil. A wrong conclusion was bad not simply because it was false, even if there was much reason to presume evil. A false judgment was bad because it deprived the good of being appreciated as good, and thereby decreased the perception of good in the world.

No good person willingly imitated another's errors. Just as whoever increased the quantity of the world's perceived good augmented holiness, whoever decreased the world's perceived good diminished holiness. That may be why Dante in his *Divine Comedy* placed in the lowest circle of hell the people meriting the worst eternal torment, those who on Earth encouraged discord. Dante condemned sowers of discord who intentionally caused others to fight, who incited violence among those who otherwise would keep the peace.

Finally, routinely giving benefit of the doubt increased personal pragmatic happiness. Presuming excellence beautifully prevented quarreling. Nothing so conveniently prevented self-destructive anger. Assuming goodness almost never destroyed tranquility. Presuming excellence created peace. Peace in the household was called in Hebrew *shalom bayit*. Just as presuming excellence created peace in the

macrocosmic household, the country, city, village, and the family, so presuming excellence promoted peace in the microcosm of the individual human mind.

This mitzvah of *limud lekaf zekus* was temporally creative. The individual had choices to see reality as positive despite present potential negatives, and to influence that reality by stimulating more good. By imitating God's good works, the medieval Jew celebrated God as creator of goodness. This idea subtly differed from the comparable Christian honoring of peace by giving benefit of the doubt.

PRESUMING EXCELLENCE AND THE CHRISTIAN GOLDEN RULE

Jewish giving benefit of the doubt was self-interested. The Christian Golden Rule also was self-interested as an exchange of trust before trust was earned. Trust others as we wish to be trusted. Assume good intentions as we wish our good intentions understood. Jesus Christ said in the parables of the Gospels, and in the Sermon on the Mount (Matthew 5–7), Forgive us our sins as we forgive sinners, as in the Lord's Prayer. Judge not that you be not judged.

Similar to the Jewish concept that God judges us as we judge our neighbors were the Christian Gospels of Matthew, Mark, Luke, and John telling of the watchers who observe earthly acts. Matthew considered three watchers: the immanent who dwells within, the imminent who is coming any minute, and the surrogate who is the substitute. No one knows when the Lord will come. In Jesus's parables, these three levels of watching, now, forthcoming, and substitute, were explicated in the wise and foolish virgins and in the unfaithful servant. God or the day of judgment or both might arrive immediately or very soon. People were obliged to be ever ready to prove their goodness. In the related parable of the least brothers of God those people who fed the hungry, clothed the naked, and welcomed the stranger treated those vulnerable people as God's substitutes. Acting benevolently to the hungry, naked stranger was acting as if one were dealing with God himself. Therefore the benevolent person demonstrated merit for heaven.

Similar Christian and Jewish philosophical and religious concepts of self-interest had one major difference. The Christian emphasized a necessary present purity and right action leading to future heavenly reward. The Jewish mitzvah stressed benevolently changing the present to reflect God's intentions for men and women alive on Earth. The Christian view encouraged current action for future reward. The Jewish view encouraged current action for current reward. The Christian place of grace was heaven. The Jewish place of grace was Earth. The Jew creating more good for personal pleasure while alive was praising God's creation of life as good. Prayer in this medieval Jewish view of life was surprisingly individualistic. Prayer provided the pious person with the chance to change *what is* rather than assuming that God willed reality as the person perceived it. Looking for the good and finding it, therefore presuming excellence, gave to each individual a personal mirror to reflect a pattern of God's acts back upon the holder of the mirror. As in the popular medieval *mirrors of princes* in which an ideal of perfect leadership was presented for imitation, life could mirror art and art imitate reality.

ISLAMIC PHILOSOPHY AND THEOLOGY

According to Islamic belief, God commanded Muhammad to recite the words and laws that

were set down in the glorious Quran, the sacred book of Islam. The word *quran* means "recitation" and Muslims considered God to be the author of the Quran whose words were transmitted unchanged to and through his faithful Prophet. The basic profession of faith for a Muslim is the *shahadah*: "There is no God but Allah, and Muhammad is his Prophet." If belief in God and Muhammad is enjoined in the *shahadah*, obedience to God and his chosen Prophet is likewise conjoined in scriptural declarations such as "Oh you who believe, obey God and the Prophet, and do not waste your deeds" (47:33).

To be a believer and not waste one's deeds means to find the Quran absolutely authoritative, to interpret and properly understand its meaning and precepts correctly. The Quran encapsulates instructions and guidance required for the daily concrete decisions of life that have direct bearing upon the entire fabric of existence, corporate as well as individual. It contains "theocratic" provisions about the ordering of political, social, and economic life for a whole nation, its rulers, and its subjects. The sacred Scripture also establishes the five fundamental basic "pillars" or necessities for the good Muslim life: the profession of faith, *shahadah*; ritual prayer, *salat*; obligatory payment of charity, *zakat*; fasting during the month of Ramadan, *sawm*; and pilgrimage to Mecca, *hajj*. It also lays down the rules of engagement for the "just war," or *jihad*, to protect the House of Islam (Dar al-Islam) from its enemies in the House of War (Dar al-Harb). In the Quran "all affairs are sorted out and decided as commands" from God (44:4–5).

Islam means "submission to God's will." But the Quran endows humanity with reason and free will to choose to follow "the right path" or "the beaten path," called the sharia, or to go astray and suffer the consequences of sin and disobedience. Surrendering to the will of God means accepting personal responsibility for all

aspects of one's life, for as the Quran warns, on judgment day each person's "hands and legs will testify against them regarding what they have done" (Q 24:24).

As the last of the Prophets of God, Muhammad also represents the culmination and measure of human perfection. The basic customs and practices of Islam are preserved in the right method of conducting oneself, called the *sunna*, which is explicitly based upon the actions, sayings, and decisions of Muhammad handed down to his Companions. The Companions, in turn, transmitted these traditions, the *Hadith*, to future generations. The Hadith became the source of a doctrine of imitating the life of Muhammad, which is affirmed in the Quran and which became known in the West as *imitatio muhammadi*.

As the Jews and Christians had before them, Muslim theologians and philosophers often disputed with each other about faith versus reason. They debated the grand metaphysical issues such as the nature of God and the Quran, the creation of the universe, prophecy and revelation, and free will versus predestination. Orthodox Sunni traditionists, Shiis, esoteric Sufis, speculative theologians (Mutakallimun), and of course the Muslim philosophers (Falasifa) all engaged Greek philosophical thought in varying degrees and with distinct objectives. For the most part orthodox Sunnism rejected Greek philosophy, and especially metaphysics, as contrary to the dogmas of the Quran and the Sunna. Shii Islam and Sufism were more receptive to certain Hellenistic metaphysical and Gnostic ideas that supported their particular theologies. As for the rationalist theologians, or Mutakallimun, they, too were essentially apologists who applied Greek reason solely to defend the ineffable truths of quranic revelation. Only the Muslim philosophers, though believers as well, maintained the Greek legacy of philosophical rational speculation.

The Quran: The Fountain of Sunni Theology

Sunni theology must of necessity begin with the Quran. Both the composition and the authorship of the Quran are attributable to God. As the deity clearly states, "We have made it an Arabic Quran" (Q 43:1). Thus God spoke in Arabic to his chosen prophet Muhammad and reminds Muslims, "Read, for the Lord is the most beneficent, who taught by the pen, taught man what he did not know" (96:3–5). The Prophet is passive in relation to the sovereignty of the divine initiative. Yet Muhammad was neither a mere vessel for God's words nor a voice speaking holy thought by rote. Muslims believe that the Quran is the pure divine word, but it is equally and essentially connected to the innermost personality of the prophet Muhammad. The Prophet did not mechanically record the word of God; it flowed through the Prophet's heart.

The series of incandescent divine revelations began in about the year 610 and continued to almost the end of the Prophet's life in 632. Muslims believed these words to be the very word of God. Muhammad was considered a "benevolence to the creatures of the world" whose message was to say, "This is what has been revealed to me. Your God is one and only God" (21:107–108). Many believe that the revelations were written and arranged in their current order during the life of the Prophet.

The Quran also describes itself as clear and self-evident (*quran mubin*), and indeed, from the dogmatic perspective, its message is clear: belief in the absolute oneness of God, the creator and Lord of the universe; belief that Muhammad is the Prophet of God; belief in the angels and spirits (*jinn*); belief in the resurrection of the dead and the Last Judgment; belief in the rewards of paradise for faithfully fulfilling God's commandments as prescribed in the five pillars of Islam; and belief in the punishments of the hellfire for willful disobedience and the failure to repent one's sins.

A Christian and a Jew would recognize much in the Quran's concepts of theology, cosmology, and soteriology. And yet they would also discover in the Quran a familiar unfamiliarity both in substance and in style. Adam, Noah, Jesus, Moses, and many Jewish patriarchs and kings appear in the Quran. Abraham is a central quranic figure. Joseph, David, Solomon, and Job, their stories, revelations, and lessons, all are transmitted. The Quran depicts Muhammad both as being the ideal type of prophethood, prefiguring these biblical prophets, and as superseding them as the best and the last. Muhammad as the "seal of the prophets" represented the culmination of all promises to past and present incomplete, revealed religions. Therefore although Jews and Christians as "peoples of the book" indeed possessed the word of God depicting their history and beliefs, they received only an incomplete form. Islam was the predicted fulfillment and perfect culmination of Judeo-Christian tradition.

The quranic creed of the absolute unity of God rejects the Christian theology of Jesus as the Son of God. Unlike Judaism, however, which utterly rejects Jesus's prophethood as well as his divinity, the Quran recognizes Jesus as a prophet in the line of Adam and even refers to him as the "spirit of God" (*ruh Allah*) and the Jewish Messiah (*al-Masih*). The Quran praises the Virgin Mary and affirms the virgin birth but depicts Jesus as a righteous man, and one who did not die on the cross. According to the Quran someone else died in Jesus's place (as in certain Gnostic apocryphal gospels). Also the Quran portrays Abraham as a kind of archetypal or Ur-monotheist who was neither Jew nor Christian, but the first to manifest the essence of Islam in his complete submission to the will of God. In the Quran, however, Abraham nearly sacrifices his son Ishmael, not Isaac. Therefore the whole history of the Jews was

subordinated to the Arab son of Abraham, Ishmael, coequal with Isaac and Jacob. Despite these considerable differences, in Islam, as in Judaism and Christianity, God's authority as mediated through Scripture (and through the person of Christ for Christians) is preeminent.

Four principal subjects were significant in the Quran's imaginary: retribution, sign, exile, and covenant. God consistently invoked his own retribution against nations, cities, and individual people who failed his test. Various signs manifested God's existence. Signs authenticated the prophethood of Muhammad. Just as Abraham was exiled, so Muhammad was exiled in his Hegira, *hijra* or "migration," from Mecca to Medina. The covenant that God established with the earlier Jewish and Christian prophets, Noah, Abraham, Moses, and Jesus, was passed on to Muhammad and his community. The Quran revealed the covenantal signs of retribution and exile to warn the Muslims against repeating the errors of the Israelites and Christians and refusing to submit to the will of God.

The Quran also shares with the Hebrew Bible and the Christian Revelation stories of sacred violence and divine retribution. Muhammad is both Prophet and political statesman, a position comparable to that of the biblical prophets and prophet-kings Aaron, David, Solomon, and others, but contrary to the Christian notion of Jesus as the Messiah destined to reign over the eschatological kingdom of heaven, not the earthly realm of humanity. As did the Hebrew prophet-kings Muhammad led armies and engaged in warfare and disputations to defeat the unbelievers and the enemies of God in order to secure their political submission, be they the pagans of Mecca, the Jews of Medina, or the Christians of Arabia. And just as the Hebrew Bible depicts Jewish victory over their enemies as the design and will of God, as rewards for their righteousness and obedience to him, so, too, does the Quran portray Muslim victories as a divine act, miracle,

and reward for fidelity, and defeat as divine retribution for infidelity. The Israelite defeats described in the Quran serve as a lesson and a warning to the Muslim believer of the consequences of unbelief, cowardice, and hypocrisy. The Quran and especially the Hadith literature distinguish themselves from Jewish and Christian Scripture in the attention that they devote to the concept of "holy war," or jihad, defining its spiritual objectives (such as martyrdom and the expiation of sin), establishing the rules of engagement, and fixing its legal prescriptions (the just distribution of the spoils of war, treatment of prisoners, and so on).

Certainly the Quran's style and language were the features most surprising and unfamiliar to Christians and Jews. The literary style and powerful rhymed prose of the Quran shocked medieval readers new to the Quran. Those accustomed to holy books such as the Five Books of Moses or the Gospels of Saints Matthew, Mark, Luke, and John expected more or less unified historical narratives with a chronological order and cohesive structure. Western scholars have long thought that the Quran's 114 chapters, called *suras*, were thematically unrelated to one another, with no evident chronology or defined structure, except that they varied in length from the second sura, the longest, to the last, the shortest. (The first sura, *al-Fatibah*, is a short prayer and functions as a prologue to the rest of the book.) Despite some disagreements, both Western and Muslim scholars now agree that the Quran does possess a structural integrity, thematic coherence, and narrative logic, albeit quite different from those of the Bible.

There is agreement, for example, on the division of the Quran into "Meccan suras" and "Medinan suras," referring to those chapters revealed during the period when Muhammad and his community were still based in Mecca and the period that followed the Hegira, *hijra* (migration), to Medina, respectively. Each set

of suras has distinguishing characteristics: Generally the Meccan suras tend to begin with oaths or commands, and thematically they deal with eschatological topics such as cosmic catastrophes, the last judgment, paradise, and hell; and they comment extensively on the Quran's status as revealed Scripture (Robinson, 103, 112). Though often shorter than the Medinan suras, they contain narrative sections that recount the "signs" (*ayahs*) of God's power and mercy in nature and history; relate many of the familiar biblical stories such as those of Moses and pharoah or Noah and the flood; and polemicize caustically against those who would deny the revelations and Muhammad's status as prophet. Many hymns and liturgical prayers also belong to the Meccan suras.

Regarding the Medinan suras, the predominating themes relate to the edification and guidance of the new Medinan community. Eschatological warnings of hellfire and polemics against unbelievers are toned down in favor of legislation regarding prayer, almsgiving, marriage, inheritance, waging of war, observance of Ramadan and the performance of the hajj, and exhortatory passages affirming the rewards and punishments accruing to Muslims for belief and righteousness or disbelief and sin. Muhammad's status as prophet statesman in the tradition of Abraham, Moses, Ishmael, Isaac, Jacob, and the other prophets is explicitly affirmed.

As far as the structural cohesion and order of the suras are concerned, the scholars Neal Robinson and Amin Ihsan Islahi show a thematic-linguistic coherence between chapters, as a key word found near the end of one sura will appear in the same or a derivative form near the beginning of the succeeding sura (Robinson, 271). Moreover, internal cohesion of individual suras is achieved through linguistic devices characteristic of the Arabic language, such as rhyme, wordplay, and alliteration, words derived from the same root form, or
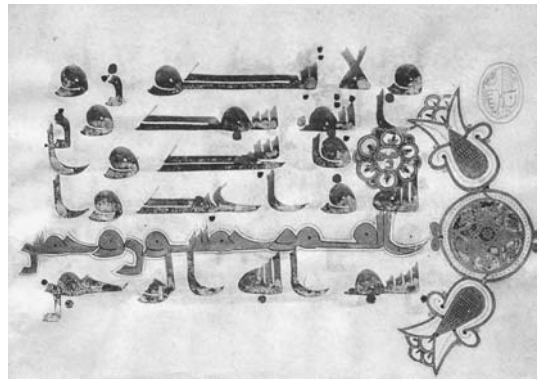
A page from the Quran from the empire of the caliphate, Tunis, ninth century. Giraudon/Art Resource.

words that have similar sounds. These devices deliberately lend a semantic coherence to a given chapter (Robinson, 162–170). Semantic coherence is further enhanced by ordering the themes being treated with the use of symmetrical or chiastic structure. For instance, according to Robinson (149–150), sura 54 (a Meccan sura) has the following pattern: Verses 1–8 deal with eschatology and polemic against the unbelievers, verses 9–42 consist of narratives about the punishment of past unbelievers (Lot, pharoah, etc.), and verses 43–55 return to the themes of eschatology and polemic but end with a promise of reward for the righteous believers.

For believing Muslims, the Quran's allusive structure and its exquisite Arabic poetry and rhymed prose endowed it with an inimitable beauty that conclusively proved the Quran's infallibility (*ijaz*) and miraculous nature. But as God's word and law, the Quran had to be understood in order to be obeyed. Because the Quran is considered of divine origin and divine authority, it could be taken to mean either that the task of later generations consisted of determining as precisely as possible what the text means and adhering strictly to that meaning or

that determination of meaning should serve as the basis for proceeding to elaborate an extension of the sense of the words to their very limits to meet the requirements of the world that came into being after the holy book was complete. Either way the tasks of philology, interpretation (*tawil*), and exegesis (*tafsir*) were the fundamental starting points of developing Islamic theology and law.

ARABIC: THE SACRED LANGUAGE OF THE QURAN

Because the Quran was revealed in Arabic, it became a sacred language for Arabs and for Muslims who are not Arabs. Classical Arabic (as opposed to the modern standard variety and dialects), is defined in quranic terms. Muslim grammars, lexicons, and similar linguistic aides for classical Arabic often restrict themselves to the vocabulary in the sacred text itself. Transmission of the Arabic text by Muslim scribes has been meticulous and precise because of their profound reverence for the language of God. That reverence, combined with a profound "antipathy to idolatry and to anthropomorphic depictions of the Divine in any form, is in part responsible for the remarkable creativity of Arabic calligraphy."

Etymologically, Arabic is a very complex language with words of the same root branching off into different sets of meaning. Words in the Quran can signify entirely different things and their meaning can be fixed only with reference to context, to instances of similar uses elsewhere in the Quran, and to the logic and wider worldview of the Quran. Quranic Arabic is distinguished by its reliance on the qualities of sound and eloquence, rhetoric and metaphor, assonance and alliteration, onomatopoeia and rhyme, ellipse and parallelism. As noted, these linguistic devices are not merely aesthetic; often they hold the key to deciphering the Quran's message. The Quran has cadences and sprung rhythm, pauses and stops, eloquence and stylistic beauty that even the most magnificent translator considers untranslatable. Rhyme, so rich in Arabic, does not translate well into English.

INTERPRETATION OR EXEGESIS

Sunni and Shiite Islam diverge on this issue of the proper methodology for the traditional interpretation of the Quran. In its simplest manifestation the dispute rests on whether interpretation, or *tawil*, was to be synonymous with exegesis, or *tafsir*, following the Quran and the tradition, as the Sunnis maintained, or whether allegorical exposition should be favored to decipher the inner, hidden meaning concealed from the exoteric reader, as the Shiites alleged.

Allegorical and esoteric interpretations of the Quran were applied by other branches of Islam as well, including the tradition of ascetic mysticism usually identified with the Sufis, the Druze, the Alawis, and of course the Muslim philosophers.

Ilm al-Kalam Theology and the Mutakallimun

A 14th-century Muslim theologian defined *ilm al-kalam* as "the science which is concerned with firmly establishing religious beliefs by adducing proofs and with banishing doubts" (Gardet, 1141). As this definition makes clear, *ilm al-kalam* is an authentically Islamic science, literally, the "science of the word of God," born out of the need to establish and defend the tenets of the true faith against doubters and detractors, be they from the Sunni traditionists, from the rival branches of Islam, or from the philosophers. Indeed the first Mutakallimun, or rational theologians, emerged in the aftermath of the Battle of Siffin (Iraq) in 657, which pitted

the Iraqi supporters of the fourth caliph, Ali ibn Abi Talib, against the Syrian supporters of Muawiya, the first of the Umayyad rulers. From the ensuing schism of Islam into Sunnism, Shiism, and Kharijism (those who refused to side with either of the other two factions) arose theological as well as political disputes over the nature of the caliphate, the definition of the true believer, the conditions for salvation, and the related issue of human free will or predestination, as well as the nature of divine unity and God's attributes. Contact with other religions, notably the Syrian Christian dogma of the logos, the "freethinking" philosophical systems of Iranian Mazdeism and Manicheism, and Greek science and philosophy, induced the Mutakallimun to define more clearly their positions vis-à-vis these other groups.

The Mutakallimun were not a unified group of thinkers, but rather divergent schools of thought. The most significant schools were the Qadiriyya, the Mutazila, the Jabriyya, and the Asharis, who differed on certain points, especially on the question of free will. For instance, the Qadiriyya, who flourished in eighth-century Damascus, derived their name from their belief in man's free will; man has the power of determination (*qadr*) over his actions and manifests his faith by freely choosing to do good works. Those who freely choose to sin are not true Muslims, but infidels (*kafirs*). *Jabriyya* is a blanket term applied to those who deny humanity's free will and maintain that all human acts, whether good or evil, are the effect or creation of God's "compulsion," or *jabr*.

THE QADIRIYYA

The Qadiriyya movement has its origins in seventh- and eighth-century Syria and Iraq, where debates centered upon the theological issues of free will and the problem of evil and the political issue of the appropriate response to an unjust ruler. The political was interrelated to the theological because in the early centuries of Islam rulers who had used violence to gain power, such as Muawiya, had justified their actions on the basis of "divine compulsion" (*jabr*).

In its theological manifestation, qadirism is associated with the *Epistle* (*Risala*) of the acclaimed Iraqi ascetic preacher Hasan al-Basri (d. 728). Al-Basri's *Risala* defined the doctrines of the Qadiriyya movement: (1) God creates only good, therefore evil stems from human free will and the actions of the devil. (2) Humanity has the free will to choose between doing the will of God and following his own or the devil's inclinations. (3) God only leads human beings astray if they first have given him the occasion to do so by demonstrating the intention to sin.

Hasan al-Basri was not the first to uphold these doctrines, but he was the first to articulate them in such a systematic way, making them the ideological program of the Qadiriyya. In the mid-eighth century under the impetus of the Kharijite Muslim Shabib al-Najrani (fl. 718), the doctrines of the Qadiriyya would take a more radical stance on the question of free will. The Shabibiyya Qadiris believed that neither the deeds of people nor their destinies in the hereafter are predestined by God. God knows that a person will sin and also that that person has the free will to choose not to do so. God's foreknowledge neither affects nor effects the outcome of human deeds. Man is left to his own "discretion" (*tafwid*) to do good or evil.

THE MUTAZILA

The Mutazila are by far the most significant school of the Mutakallimun theologians and one of the most important branches of Islam. Their school was founded in eighth-century Basra (Iraq) by Wasil ibn Ata (d. 748), who in turn was a disciple of the famous ascetic preacher of Basra Hasan al-Basri. Mutazilism flourished between the eighth and 10th centu-

ries in Basra, and a second rival school was established in Baghdad and thrived during the same period. Doctrinally the Mutazila maintain some of the same positions as the Qadiriyya, namely, belief in human free will and ultimate personal responsibility for one's good and sinful acts.

As the self-proclaimed "People of justice" (*Ahl al-adl*), they staunchly defended the necessity of God's justice: Predetermination is of necessity unjust because it would mean that God acted unjustly by foreordaining the consignment of some people to hell with no hope of repentance or redemption. They specify, however, that God does not create evil deeds; he can only create the good. Man's actions, good or evil, are the product of a "contingent power" (*qudra*) that God has created.

On the question of divine unity, the Mutazila argued that God is the absolutely one, the sole creator, incorporeal, who cannot be seen in this world or the next. They propagated the doctrine of "the promise and the warning," which defined true faith as freely obeying the deeds prescribed by the Quran. Those who commit the mortal sins and do not repent will surely go to hell. Against the Qadiriyya, the Mutazila upheld the doctrine of the intermediate position between the true believer (*al-mumin*) and the unbeliever (*kafir*) (*al-manzila bayn al-manzilatayn*), meaning that a true believer who sinned was not an unbeliever (*kafir*). Finally, on the famous debate over the Quran's relation to God, the Mutazila affirmed that the Quran was created rather than a preexisting part of God's essence, basing the position on the verse "We have sent it down as an Arabic Quran" (12:2). The implications of this were that they held the Quran to be "the sole basis of their system of religious doctrine," leading them to reject most of the hadith traditions and the legal doctrines derived from them (Schacht, 258).

Mutazilism even enjoyed the status of the official doctrine of the Abbasid court in Baghdad. In 827 the caliph al-Mamun (813–833) even went so far as to force the Baghdad ulama and judges to adopt Mutazilite doctrine in a zealous campaign that came to be known as the "inquisition" (*mihna*). Mutazilism suffered serious setback in the ninth century during the reign of Caliph al-Mutawakkil (r. 847–861). By this time the Sunni traditionists, especially represented by the Hanbali school, which upheld that the Quran and the Hadith constituted the fundamental bases of Islamic law and doctrine, had gained ground over the Mutazilis, whose appeal to reason was especially attractive to the Hanafi school, which supported the use of analogical reasoning (*qiyas*) and personal opinion (*ray*) in formation of law (Martin et al., 28).

THE ASHARIS

After the discrediting of the Mutazila in the 10th century, *kalam* theology underwent a revival thanks to the impetus of a former Mutazili, Abu l-Hasan Ali ibn Ismail al-Ashari (873–975). The Asharis originated as an offshoot of the Mutakallimun and theologically stand between orthodox Sunnism and speculative *kalam*. Their founder, Abu l-Hasan al-Ashari, was born in Basra (Iraq) but spent most of his life and died in Baghdad. Initially al-Ashari had been one of the luminaries of the Mutazili Mutakallimun, but in the year 912–913, he underwent a spiritual conversion after a series of visions of the prophet Muhammad. In the first vision the Prophet appeared to him and ordered him to reject *kalam* and adhere strictly to the "true tradition," meaning Sunni orthodoxy. Al-Ashari interpreted this dream to mean the total renunciation of rationalist *kalam*. In a subsequent vision, however, the Prophet told him to maintain the "true tradition," but not to abandon *kalam*. For al-Ashari, this meant using the *kalam* method of rationalist argumentation to defend the truths of Sunni orthodoxy. The Asharis had their stronghold in Baghdad at the

Nizamiyya Madrassa (College), which was founded in 1066 by the Seljuq vizier Nizam al-Mulk of Persia (d. 1092) for the express purpose of propagating and defending Sunni Asharism against their Mutazili and Sunni traditionist rivals. Al-Ghazzali would later become the college's most famous rector.

The most controversial issues concerned the thorny questions of the attributes of God and free will versus predestination. Contrary to the Mutazila, the Asharis affirmed that Allah's knowledge, sight, and speech were eternal attributes, and hence inseparable from his essence. From this it follows that the Quran, as God's speech, is likewise eternal and hence uncreated. Similarly, while the Asharis rejected the anthropomorphist idea that Allah had a humanlike body, they reasoned that quranic descriptions of God's hands, face, and sitting on a throne were nonetheless real attributes whose exact nature remained a mystery. They should be accepted literally, without asking why or how (bi la kayf). The Asharis also wrestled with the question of humanity's free will to choose between doing good or evil: Not wanting to forgo Allah's absolute omnipotence, they defended the position that God wills and creates all acts whether pious or sinful, but that God "attributes" (kasb) to man his actions, and thus man is deserving of the attendant rewards or punishments. The Asharis rejected the Mutazila notion of intermediacy between Islam and unbelief (al-manzila bayn al-manzilatayn) and argued that the unrepentant sinful Muslim remained a believer but would be punished by the hellfire.

With these differences in mind, some generalities can be made regarding the Mutakallimun. They all essentially agreed that a Muslim's reason was a source of truth in addition to the authority of the Quran and the Sunna, the tradition. They intended to prove the creation of the world, individual providence, and the reality of miracles. They opposed the Aristotelians, who believed in eternity of motion, God's ignorance of human particulars, and immutable natural law. But they adopted much classical science and philosophy. For instance, Islam upheld four dogmas that Muslims shared with Judaism and Christianity, namely, God's creation of the universe from nothing, creatio ex nihilo; God's existence; God's incorporeality; and God's unity. Classical Greek philosophers essentially rejected the creatio ex nihilo idea, but the Muslim Mutakallimun defended it and based their proofs of the other three dogmas upon it (Friedlander xlvii). For them God's existence, incorporeality, and unity cannot be proved independently of God's creation of the world. According to Maimonides, the Mutakallimun ignored the exquisite order, law, organization, and unity of the natural world and gave seven arguments supporting creatio ex nihilo.

Kalam did not admit the existence of law, organization, and unity in the universe. The several parts of the universe had no relation to each other. They all consisted of equal elements, not of substance and properties but of atoms and accidents. Law of causality was ignored. Man's actions were not the result of will and design but were mere accidents. The system was not based on positive facts nor evidence nor reason but on illusion and imagination.

Forms, as in Plato's basic concepts, did not exist and whatever seemed to be formal was not real. Anything conceived as form was created by the one God, who himself was not describable, not locatable, incorporeal, omniscient, and omnipresent. One reason Muslim art rarely depicted the human form was that God was too great and ineffable to be described and therefore could not be portrayed.

The Mutakallimun adhered to 12 propositions that were foundational to their ideas of the universe, the way it functioned, and the way knowledge could be acquired. These affected the distinctions in perceptions of such diverse items as a millstone, iron, cream, and divisions

of time. First, all things were composed of atoms. Second, there was a vacuum. Third, time was composed of time atoms (that is, many parts that because of their short duration cannot be divided). Fourth, substance cannot exist without numerous accidents. These accidents possessed existence such as color, taste, motion, rest, combination, separation, wisdom, folly, free will. Fifth, each atom was fully furnished with accidents and could not exist without them. For instance, in a heap of snow the whiteness existed in each atom of the snow, not in the heap as a whole. When a body moved, it did not itself have movement; but each atom moved and therefore the whole body was in motion.

Sixth, accidents did not continue in existence during two time atoms. God created a substance but was incapable of creating a substance without accidents. The essential characteristic of an accident was that it was incapable of enduring two periods. Immediately after its creation it was destroyed and another accident of the same kind was created. God created in the same substance a different accident or discontinued creation altogether and that substance ceased to exist. Proposition seven was that both positive and negative properties had real existence and were accidents that owed their existence to some *causa efficiens.* Eighth, all existing things, all creatures, consisted of substance and accidents, and the physical form of a thing was likewise an accident. Animality, humanity, sensibility, and speech were accidents comparable to blackness, whiteness, bitterness, and sweetness. The substance of all things was made of equal atoms. The body of an angel, a snake, and a plant all had the same substance made up of equal atoms, and only accidents distinguished one form from another.

Ninth, no accident could form the substratum for another accident. Tenth, the test for the possibility of an imagined object did not consist in its conformity with the existing laws of nature. Everything conceived by the imagination was admitted by the intellect as *possible.* There was no reason why a body should be in one place and not another; that a man should not have the height of a mountain, possess several heads, and fly in the air; or that an elephant be as tiny as an insect or an insect as gigantic as an elephant.

Eleventh, the idea of the infinite was equally inadmissible, whether the infinite was actual, potential, or accidental. That is, there was no difference whether the infinite was formed by a number of coexisting things or by a series of things, of which one part came into existence when another had ceased to exists, in which case it was called accident infinite. Finally, the senses misled and in many cases were inefficient. Their perceptions therefore could not form the basis of any law or yield data for any proof.

The rational theology of the Mutakallimun influenced medieval debates regarding faith versus reason not only within the Muslim world but also among Jewish theologians living in Islamic lands. For instance, the doctrines of the Karaite Jewish sect, elaborated in the 11th century by Yusuf al-Basir of Jerusalem, were based upon Mutazila writings.

Falsafa: Islamic Philosophy

Islamic philosophy, *falsafa*, maintained the legacy of the classical Greek philosophers such as Socrates, Plato, Aristotle, Pythagorus, and Plotinus. Unlike the Mutakallimum theologians of the Kalam tradition, whose sole objective was to defend the true faith by sometimes borrowing and transmuting Greek rationalist thought, the great Muslim philosophers such as al-Kindi, al-Farabi, Avenpace, Avicenna, and Averroës were philosophers in the classical tradition. Christian and Muslim philologists working in the famous Bayt al-Hikma (House of Wisdom), founded in Baghdad in 832 by the Abbasid

caliph al-Mamun, produced translations into Syriac and Arabic of the Greek philosophical treatises on metaphysics, physics, medicine, and other natural sciences, most of which were unknown in the Latin West after the fall of the Roman Empire in the fifth century. The first generation of Muslim philosophers, best represented by al-Kindi, al-Farabi, and Ibn Sina, were greatly influenced by Neoplatonic metaphysics, commenting upon and transmuting the works of classical writers such as Plato, Plotinus, Alexander of Afrodisia, Proclus, and Galen. Greek ideas of God as creator, concepts of the human soul, definitions of reality, the limits of knowledge, and the boundaries of free will were important for Muslim theology and ethics.

AL-KINDI (805–873)

Educated at Basra and Baghdad, Abu Yusuf ibn Isaac al-Kindi was a physician, philosopher, astrologer, and court tutor who was born in 805 and died in 873. Known in the Arab world as the "Philosopher of the Arabs," he is the first true Muslim philosopher. He was responsible for establishing the contours of Islamic philosophy, fixing its terminology in Arabic, and confronting head-on the issue of the relationship between the truths of philosophy and the truths of revelation. He argued that both revelation and reason have the same goal of leading humanity toward the good, and he quoted the Quran to argue that speculative reason is licit and even propitiates a better interpretation of the sacred book. He owned a vast library; wrote copiously about Plato, Aristotle, and Pythagorus; and applied mathematics to the physical world and to medicine. His treatises, such as *On the First Philosophy* (*Fi l-falsafa al-ula*), are not mere commentaries on the Greek authors, but original works in their own right, albeit heavily influenced by Neoplatonism. Al-Kindi considered God the intelligent cause of the universe, mediated to man though successive emanations of the soul. Man was free and immortal, but his body was subject to decay influenced by the stars. As did other Muslim Neoplatonists, he found little contradiction between Plato and Aristotle.

Aristotle distinguished between two types of form: one with matter, which underlies sensation and deals with things; and another with no matter, the substratum of the intellect, which dealt with that which is above mere things. Form that resided in matter actually is perceived. It was as such in the mind and became actual in the mind. But the mind did not apprehend it unless it was first potentially in the mind. The mind was one, and not anything other than itself.

Feeling also existed only in the soul. It was not part of the soul, as a hand or stomach is part of the body. The faculty of feeling was the soul itself. Similarly the sense datum in the mind was the perceiving agent in conformity to what was in the mind. But the sense datum of a material thing was outside the perceiving mind.

Intelligence, according to Aristotle, was the mind when it apprehended the object of comprehension and the form that has neither matter nor sensuous representation and was one with mind. Nothing assimilated anything through its own receptivity except what belonged to it potentially and not in actuality.

The intellect resembled the soul and was much higher in importance than sensation. There were four types of intellect. The first type of intellect derived from primal intelligence was the cause of all that is comprehended. The second type of intellect derived from the mind and the object of comprehension was already potentially in the mind. The third type of intellect worked efficiently in the mind that already acquired it, just as writing comes naturally to the scribe proficient in writing who practices it whenever so inclined. The fourth type of intellect went forth from the mind when one desired to communicate it and it worked an effect on others.

AL-FARABI (870–950)

Ranked with Aristotle as one of the greatest philosophers and teachers, Abu al-Nasr ibn Muhammad ibn Muhammad ibn Turkhan al-Farabi was born to a Turkish family in Farab (Turkmenistan) and educated by a Christian physician in Baghdad. Known as the "Second Master" (the first was Aristotle), he produced analyses of Greek philosophers that attempted to make compatible otherwise antagonistic concepts of God, soul, time, and space.

He wrote an amazing and unique syncretism of Aristotle and Plato called *On the Agreement of the Philosophy of Plato and Aristotle (Al-Jam bayna rayay al-Hakam Aflatun wa Aristutalis).* For instance, Aristotle affirmed that the universe was eternal while Plato denied it. Aristotle assumed a prime mover of the universe; therefore, the world had no beginning in time, and that time was relative to motion. Plato conceived of a dualistic metaphysics that divides the universe into an intelligible abstract realm of forms or ideas, which are eternal, perfect, and unchangeable, and a perceptible realm of things in the created universe that are imperfect because they change and decay. From the form of the good, sometimes called the Platonian God, all the other forms emanate.

Al-Farabi resolves these contradictory positions by essentially substituting the Aristotelian thesis of the eternal universe for Plotinus's *Theology* (erroneously attributed to Aristotle), which identified God as the first mover. Plotinus also influenced al-Farabi's concept that the materially comprehensive world emanated from God. Al-Farabi devoted many books to the idea of the soul, its intellect, its unity, its substance, and its substantial problems. As musicologist and composer, he created chants that Dervishes sang and still sing today. His utopian *Model City* created a heavenly city on Earth.

His epistemology consisted of knowledge divided into generally accepted concepts (such as the Sun, Moon, intellect, and soul) plus concepts that required verification (such as that heaven consists of spheres and the world has been created in time). Every concept must have a prior concept. Yet the concluding concept may be established without connecting it to the preceding concept. This is true of being: the necessary and the possible. We cannot verify concepts without having previously understood other things. If we wish to verify that the world has been created in time, we must have the prior certainty that the world is composite. All that is composite has been created in time. Consequently we also know that the world has been originated in time.

He accepted Aristotle's law of noncontradiction, whereby of two sides of an opposite, one must always be true, the other false. The whole is greater than any part of it. Al-Farabi defined logic as the science by which we become acquainted with the methods that assist us in our concepts of things and guide us to their verification. Logic helps us to distinguish the complete from the deficient, the certain from the approximate, the likely from the doubtful, and ultimately leads to the complete, certain concept that contains no doubt.

Some things that are possible to exist are not present. In order for a thing to exist, it must have a cause. If it becomes a necessary being, then it attains necessary existence through something other than itself. From this it follows that it is necessary for it to belong to that which naturally always has a possible existence and became a necessary being only by virtue of something else.

AVICENNA (ABU ALI AL-HUSAIN IBN ABDULLAH IBN SINA) (979–1037)

Born in 979 and dead by 1037, this Galen of the Muslim world was a skilled physician whose first major medical feat was to cure the sultan of Bukhara. As reward, the sultan opened his

library to the precocious student, who had memorized the Quran by the time he was 10 years old. He wrote his medical treatise, *The Canon of Medicine*, which endeared him to Muslim, Christian, and Jewish physicians and continued to be the authoritative text of Western medicine well into the modern period. Avicenna served as vizier of the court at Hamadan. In his autobiography, he confesses that he had read Aristotle's *Metaphysics* several times, yet it was only after reading al-Farabi's commentary, on the aims of the Metaphysics of Aristotle (*Fi aghrad Aristu fi Kitab Ma bad al-tabia*), that he was finally able to understand the Greek master. His metaphysics required that cause and effect are simultaneous, and therefore God and the world are coeternal. God created intelligence and the soul and these emanate from the heavens and reach the world as we know it by great chains of being.
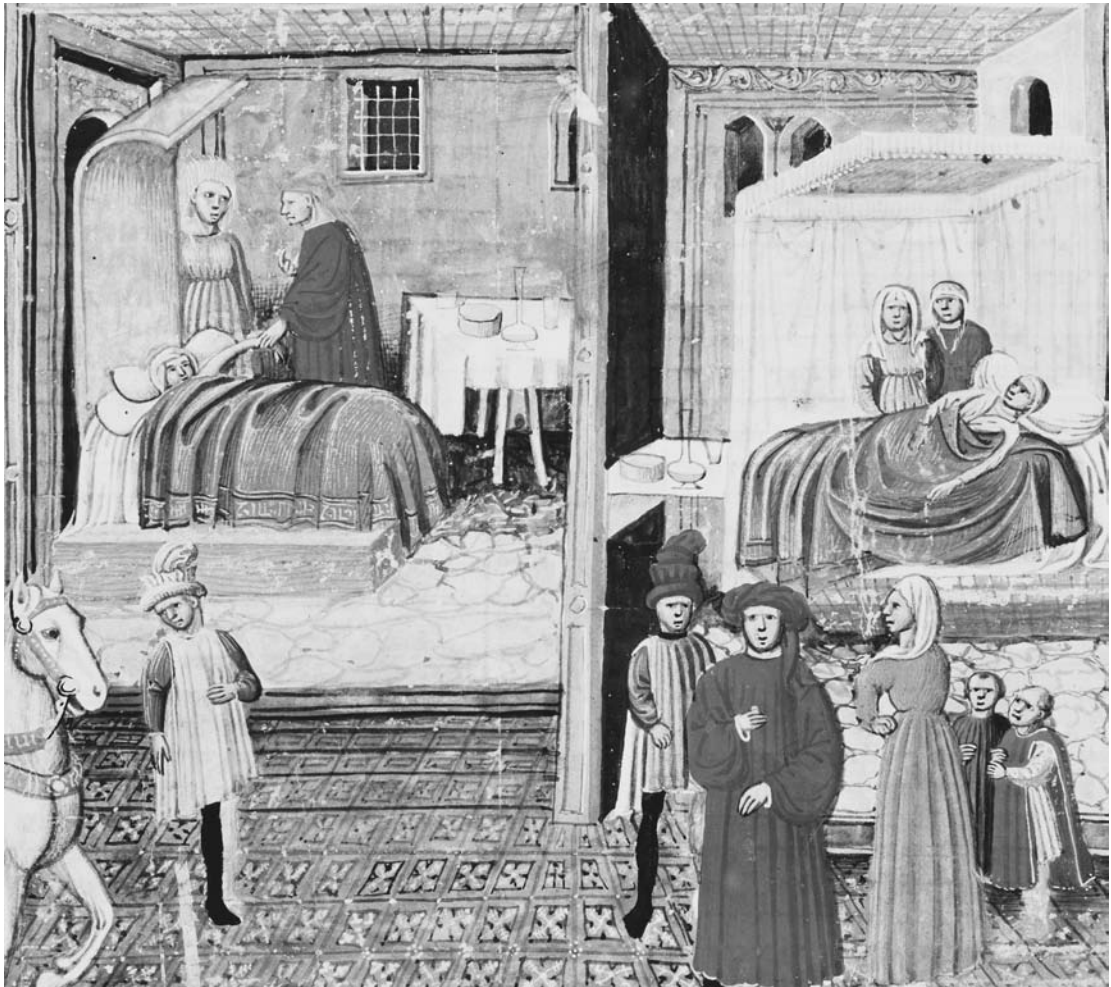
The Doctor's Visit, a manuscript page from the Cannon Maior *by Avicenna.*   Scala/Art Resource.

God sustained intelligence that is inherently eternal. But extensions of intelligence do not depend on God, who does not care about matter. Avicenna was more mystic than rationalist, though his full theory was explicated in the now lost *Philosophia Orientalis*. He probably was influenced by Mazdeist mysticism.

Souls are everlasting. Which soul will not be fitted out and armed with everlastingness? Avicenna's research shows how a soul exists within a live body; the aim and end for which it is there; what measures exist for it in the hereafter, of eternal delight and perpetual punishment, and of temporary punishment that ceases after a duration of time after the death of the live body; and the possible intercession lawgivers promise concerning four angels and throne bearers.

In arguing on the nature of the soul Avicenna postulated a full-grown man suddenly coming into existence although suspended in empty space, with eyes covered and limbs separated. This "flying man" would have no sensation but nevertheless would become aware of his being and of his self. This argument on the soul anticipated by many centuries René Descartes's "I think; therefore I am," *cogito ergo sum*. Avicenna believed that being was an accident of essence. Contingent beings required necessary causes sustaining their existence. Thomas Aquinas accepted this version of the cosmological argument. Avicenna's Neoplatonism was evident in his doctrine of creation as a kind of emanation, and in his belief that celestial substances are kinds of intelligence.

Infants do not possess mental essence. Yet later in life people have axiomatic mentally grasped ideas without learning them and without reflecting on them. Does such primary mental form arise out of sense, experience, or divine outpouring? What we perceive is true for what we have perceived, but our experience does not prepare us for what we have not yet perceived. For example, we know that every animal we observe chews with the lower jaw. But that does not mean that all animals do so. The crocodile chews with his upper jaw. What we perceive holds good only for what we observe but not for what we have not yet observed. We possess a mental form that is an essence, other than a body and not within a body, standing by itself. The essence supplies to the rational power the power of perceiving and brings about the perceived forms.

Our conception that a whole is greater than its parts is not formed because we have sensuously felt every part of every whole. There is a mental essence. The rational soul conceives rational forms to be a source of completion and perfection for it. Thought, sorrows, joy, longings hamper the power and withhold it from reaching perfection. The soul attaches to the noble essence called generic universal mind and in the language of the lawgivers is called divine knowledge.

THE SUNNI-KALAM REACTION: AL-GHAZZALI (1059–1111) AND *THE INCOHERENCE OF THE PHILOSOPHERS*

Called the guide to the true faith, the living reaffirmation of Islam, and the embodiment of religious thought, Abu Hamid Muhammd ibn al-Ghazzali is one of Sunni Islam's most venerated theologians. His autobiography, *The Deliverer from Error* (*Al-Munqidh min al-dalal*), and his theological magnum opus, *The Revival of the Religious Sciences* (*Ihya ulum al-din*), formulate a staunch defense of Sufism as the surest path to ultimate truth against the *kalam* theologians, the Ismaili Shiis, and especially the philosophers. In his own person al-Ghazzali passed through the stages of staunch Sunni orthodoxy and a *kalam* theology heavily indebted to Asharite ideas to the conviction that a sober Sufi mysticism would lead the devout seeker to God. His autobiographical confession of the skepticism that led him to

renounce his position as rector of the prestigious Nizamiyya Sunni Ashari Madrasa in Baghdad and the spiritual journey that led to his ultimate conversion to Sufism stand on par with Augustine's *Confessions.*

Al-Ghazzali's relationship with philosophy is complicated. He studied philosophy, especially the works of al-Farabi and Avicenna, and wrote several commentaries on them, including *The Aims of the Philosophers* (*Maqasid al-falasifa*). In the end, however, he uses the philosophical method of logic to denounce Greco-Islamic philosophy, *The Incoherence of the Philosophers* (*Tahafut al-falasifa*), for its inability to provide the "seekers of truth" with the ultimate answers. Al-Ghazzali particularly takes issue with Aristotelian and Neoplatonic theories of emanation as espoused in the works of Avicenna for the inconsistencies and contradictions of their methods and results. He lambasted the philosophers' blatant contradictions and inconsistencies, for instance, regarding the creation or eternity of the universe, as proof of the insufficiencies of philosophy to lead man to the ultimate truth. He refutes their theories of the eternity of the universe, the doctrine that God does not know particulars, and their denial of the resurrection of bodies as gratuitous suppositions that cannot be proved rationally. Instead, he affirms the Asharite thesis of human acquisition (*kasb* or *iktisab*) of their actions through God's compulsion or agency, making humans responsible for their own actions, but God the ultimate creator of them. While philosophy can lead to knowledge of the material world, of the things within the grasp of human intelligence, it cannot explain or prove the metaphysical questions such as existence and nature of God, creation, or the reality of the afterlife and divine justice. Whereas on these questions philosophy leads to doubt, confusion, and skepticism, revelation and mystical insight yield truth and assurance.

Al-Ghazzali does not reject philosophical reason altogether; indeed he uses the logical method to refute his adversaries. It is more precise to say that he domesticates and Islamizes philosophy by establishing limits that subordinate it to the truths of revelation, and appropriates and transmutes Aristotelian and Neoplatonic ideas in the service of Sufi theology. For instance, his cosmology is Neoplatonic in inspiration, although he divides the universe into three realms rather than two: the material world (*mulk*), the invisible world (*malakut*), and an intermediate world (*jabarut*). The *malakut* is God's creation, the realm where his will is prescribed. It is the perfect, immutable, true reality comparable to Plato's world of ideas. The material world, *mulk*, is also God's creation but is an incomplete and imperfect replica of the *malakut*. From his own personal experience as a Sufi mystic, he perceived that Sufi ecstatic experiences and even ordinary dreams allow humanity to capture a glimpse of this sublime invisible world. He applied these philosophical arguments to the Sufi path of mystical ascension, lending it a theoretical foundation that would make Sufism an acceptable and normative part of Sunni Islam.

Al-Ghazzali was a prolific writer on subjects such as knowledge, ethics, and the soul. For instance, he believed that man shares with other animals external and internal senses, but man has two qualities unique to him: knowledge and will. Knowledge means power of generalization, conception of abstraction, and possession of intellectual truth. Will means the strong desire to acquire an object that after due consideration of its consequences is deemed good. That is the opposite of animal desire. Children lack these two qualities but have abundant passion, anger, and all external and internal senses. They acquire knowledge later according to latent powers in man. There are varying stages or degrees of knowledge among the prophets, the ulamas, the Sufis, and the philosophers. Divine knowledge knows no bounds. The highest stage of knowl-

edge is reached by one to whom all truths are revealed intuitively. By virtue of his exalted position he enjoys direct communion with the most holy.

Human nature consisted of four elements that produced four attributes, al-Ghazzali said: the beastly, the brutal, the satanic, and the divine. Man shared qualities with the pig, the dog, the devil, and the saint. The pig was repulsive for its appetite, its lust, its gluttony. The dog's passion barked and bit and hurt others. The devil spawned these two animals, emboldened them, and dimmed reason's sight, the divine attribute. Divine reason properly controlled appetite and passion. The pig of appetite begot shamelessness, lust, and slander. The dog of passion begot pride, vainglory, ridicule, wrath, and tyranny. Controlled by satanic power they produced deceit, treachery, meanness, and perfidy. But divinity in man created knowledge, wisdom, faith, and truth.

The word *nafs* meant "self." That was the substratum of appetite and passion. The Sufis called it the embodiment of the vices. *Nafs* also meant the "ego." When it subjugated passions and mastered them, it was called the peaceful self, *al-nafs al-mutmainna*. The Quran says that God is pleased by peaceful *nafs* at rest. When the self upbraided man for his actions, it was called conscience, *al-nafsi al-lauwama*. When it freely indulged gratification of passion, it was the inordinate self, *al-nafs al-ammara*.

Al-Ghazzali's ideas revolutionized Sunni Islam and Sufism, and his humanism and cogent defense of revelation against philosophy endeared him to Jews and Christians as well. He advocated and practiced tolerance of other religions and especially learning from their best. He advised Muslims to look to the pious Jew for the model of religious reverence. Jewish philosophers appreciated and translated his works and esteemed his admiration of theirs, and he influenced many Christian philosophers such as William of Ockham.

THE PHILOSOPHERS RESPOND

Avenpace (d. 1138) Al-Ghazzali's *Incoherence of the Philosophers* dealt a near mortal blow to rationalist philosophy in the Muslim East, but it continued to thrive in Islamic Spain. Abu Bakr ibn Muhammad ibn Yahya al-Saigh al-Sarakusti, known as Avenpace, was a vizier in the Muslim Almoravid court of Spain. Born near Zaragoza at the end of the 11th century, he died in 1138, poisoned by those who accused him of scorning the Quran and being an atheist. He was an illustrious poet, scientist, musician, mathematician, and astronomer as well as one of the great philosophers of Islam, known for his commentaries on Aristotle's works and his Neoplatonism. Avenpace wrote a popular book called *The Hermit's Guide* that Albertus Magnus and Saint Thomas Aquinas used liberally, as did the Muslim philosopher Averroës, and the French Jewish philosopher Moses of Narbonne (d. 1362). Avenpace considered human intellect an emanation of the agent intellect, the supreme being. He also distinguished between human and animal activities.

Human perfection is difficult but possible. A regime is a concurrence of actions for a particular end. No single action can be a regime and no single person can have a regime. That is, the only regime of the solitary man must be the image of the perfect government of the state where judges and physicians are absent because rendered useless in that perfect state where every individual has the highest degree of perfection of which man is capable. Everyone there thinks according to the highest justice and does not neglect when acting any custom or law. There will be no fault, no joke, no ruse. In an imperfect state, the solitary man shall become the element of the future perfect state.

It is the nature of the animal soul to obey the rational soul. But the man not in the natural state who allows himself to give way to rage or who gives way to passions acts according to

animal nature. He is worse than the animal that honestly obeys its own animal nature.

Abubacer (d. 1186) Abu Bakr Muhammad ibn Abd al-Malik ibn Tufayl al-Qaysi, known as Abubacer in the West, was born in early 12th-century Guadix, near Granada, and died in 1186 in Marrakesh. He served as court physician to the Almohad caliph Abu Yaqub Yusuf (r. 1163–84) and was the mentor of the great philosopher Ibn Rushd, whom he introduced to the caliph and encouraged to write his magnificent commentaries on Aristotle. Ibn Tufayl is the author of one of the most remarkable and singular works of medieval literature, the philosophical novel *Hayy ibn Yaqdhan* (*Alive, Son of Awake!*), whose translation into English in the 17th century under the title *The Improvement of Human Reason* directly inspired the author of the popular novel *Robinson Crusoe.*

The protagonist of *Alive, Son of Awake!* is stranded on a desert island and isolated from all human contact. He is raised by a roe, and yet through his own voyage of discovery observing the physical world, he realizes various truths: that the universe has spherical form, that things that exist must be produced in time, that everything created must have a creator or "voluntary agent" that transcends time, is incorporeal, and is perfect. This realization led him to ascend spiritually and intellectually from contemplating the things of the inferior world of creation to contemplating and desiring the one creator.

Averroës and *The Incoherence of the Incoherence* (1126–1198) Muhammad ibn Ahmad ibn Muhammad ibn Rushd, known as Averroës, was born in Córdoba in 1126 and died in 1198 in Marrakesh. He succeeded his mentor Abubacer as court physician to the Almohad caliph Abu Yaqub Yusuf and served as chief *qadi* (judge) of Córdoba and Seville. He was stunningly important among Christian thinkers for hundreds of years, especially
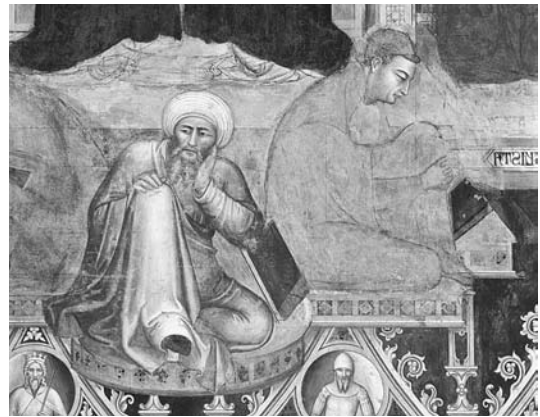
Arius and Averroës, detail from the Triumph of Saint Thomas Aquinas. Scala/Art Resource.

during the 13th century, when at the University of Paris Siger of Brabant (d. c. 1284) led a school of thought based on Averroës's teachings. Jewish thinkers praised him. A brilliant jurist and judge in Seville and Córdoba in service of the Almohads, he was trained also as a physician and natural scientist. He was a careful literal interpreter of religious and secular documents and admired Aristotle as a man chosen by God. If Aristotle is the greatest philosopher, Averroës is the greatest "commentator of Aristotle." His magnum opus, *The Commentary on the Metaphysics of Aristotle* (*al-Tafsir*), was obligatory reading in the University of Paris and continued to be considered the definitive Aristotelian commentary well into the modern period. His treatise *The Incoherence of the Incoherence* (*Tahafut al-tahafut*), a meticulous commentary and searing critique of al-Ghazzali's *The Incoherence of the Philosophers*, constitutes one of the great debates in the history of Western philosophy.

Averroës believed that there was one eternal truth, and that what was true was true and what was false, false. He is falsely attributed with the so-called doctrine of the double truth: There were two ways of knowing the one eternal

truth, one through revelation of the Quran, the other through natural philosophy with the aid of Aristotle and other natural knowledge. Double truth was possible when a proposition could be proved theologically true and philosophically false or philosophically true and theologically false. In fact, it was Siger of Brabant who attributed this idea to Averroës. What Averroës actually postulated was a tripartite anthropology that divided humanity into three groups: the masses who must accept unconditionally and literally the truths of revelation and the law, the theologians who engage in the debates of speculative theology (*kalam*), and the philosophers who engage in rational speculation. In order to prevent skepticism and doubt among the other two groups, the philosophers must keep their truths strictly to themselves. The last great philosopher of Islamic Spain, he was the last and best of the Muslim Aristotelians.

His metaphysics defined time as an accident of motion. Time cannot be slowly composed. Time arises by degrees and would exist after it was nonexistent previously, prior to its existence. *Earlier* and *later* are two designations for parts of time. Time would have to exist before there was any time. It is impossible to imagine that no time preceded a particular thing that exists in actuality in the present moment. An error will occur when we think of time as a line. Since the line possesses spatial motion, exists in actuality, and by necessity is finite, it cannot be infinite. A straight line cannot be infinite. Al-Farabi composed long dissertations on the subject of things existing and things changing. If time forms an eternal continuum, then it follows inevitably on an eternal motion that is continuous and uniform. If there is in the "here" on Earth an eternal motion, there must be an eternal mover who is ever the same. If there are many movers there cannot be one eternal motion ever the same and continuous. This first mover cannot be of material nature. The mover becomes intelligible by virtue of

the motion that takes place in time and continues without end.

Natural science demonstrated finiteness and infinity, blended with the body or "engraved" on it, such as the heat of fire and the cold of water. This potentiality was absolutely necessary for its existence. It was connected with the classical essential *hyle*.

Although Averroës enjoyed the patronage of Abu Yaqub Yusuf's successor, Yaqub al-Mansur (r. 1184–99), in the end he became a victim of political circumstances of his times. Embroiled in war with the Christian armies, the new Almohad caliph desperately needed the support of the Maliki theologians, who, emboldened by al-Ghazzali's criticism of the philosophers, succeeded in having Averroës condemned and his books burned.

Jewish philosophers living in Islamic Spain were enriched by their reading of the great Muslim philosophers, al-Farabi, Avicenna, Averroës, and others, and these contacts enhanced their treatment of the classical themes of faith versus reason. The great Jewish philosopher and physician Maimonides dedicated his *Guide for the Perplexed* to thinkers whose scientific and philosophical studies drove them into collision with religion.

Ismailis

The Ismailis took their name from Ismail, but not the Ishmael who was son of the prophet Abraham. The Ismailis and Ismaili Islam evolved from a bitter dispute over who was the seventh imam. Ismailis believed it was Ismail, son of the sixth imam, Jafar as-Sadiq. The Ismailis were a branch of Twelver-imam Shiite Islam. Ismaili ascendancy within Islam peaked when the sect conquered Egypt, founded Cairo, and ruled a large territory stretching from Tunisia to Palestine between the years 909 and 1171.

Ismaili theology mixed orthodox Shiite dogma with Neoplatonic philosophy, esoteric Christianity, and other mystical influences. The Ismailis started with the Neoplatonic theory of emanations. The Sincere Brethren of Basra, the Ikhwan al-Safa, elaborated the theory of cosmic emanations in which periodical manifestations of the universal intellect appeared on Earth. The sequence of manifestations began with Adam; then Noah, Abraham, Moses, Jesus, and Muhammad; and concluded with the imam following the sixth imam of the Shias, Ismail, and his son, Muhammad Ismail. These formed a cycle of "seven speakers," or *natiq*.

Seven people who also were emanations of transcendental powers lived in the interval between speakers, reinforced the work of the last speaker, and prepared for the work of the speaker to come. This hierarchy was a progressive unfolding of the divine mind revealing itself in ever more flawless, magnificent manifestations, each one perfecting the work of the one before it. Divine revelation did not conclude at any date notable in the history of the world but continued to unfold in increasingly greater radiance and perfection. With the same cyclical regularity, the seventh *natiq* had his own more perfect follower. The Mahdi was an even more complete manifestation of universal mind and was destined to surpass all previous prophets *including* the prophet Muhammad. At the appearance of the Mahdi life would change radically, as though paradise erupted on Earth. Hence what was prohibited would become permissible; for instance, Muslims would be permitted to enjoy wine.

Since Muhammad considered himself the seal of the Prophets and therefore the termination of the process of perfection of prophesizing the revealed religions, and since the Quran represented God's final words of divine revelation, the Ismailis undermined traditional Islam as practiced by both Sunnis and Shias. On balance the Ismailis formed part of Shiism, yet they transmitted their ideas in allegorical interpretations of the Quran and by initiation of their members into ever higher orders of secret knowledge. Al-Ghazzali wrote a fiery refutation of the Nizari Ismailis, also known as the Assassins, entitled *al-Mutazhiri.*

Just as the Neoplatonists aspired to strip away the corporeal husk and enter the divine dwelling place of the universal soul, so the Ismaili initiate removed the bodily husk of the law by ascending to ever higher and purer knowledge. Ultimately the Ismaili would soar to the world of pure spirituality. The outward sense of the Quran was like Adam's body. Its exterior was visible but its soul was hidden. With increasing subtlety, the Ismailis tried to penetrate beneath the bodily wrapping of literal expression to the *tawil al-tawil*, the "secret interpretation of the secret interpretation."

The Ismailis regarded the Fatimid caliph Abu l-Ali al-Mansur al-Hakim (985–1021) as the divinely appointed guide of Islam, its cosmic active intellect (*al-aql al-faal*). In the year 1017 al-Hakim revealed himself as an incarnation of God, the cosmic one. In 1021 he vanished, probably by assassination, and his followers refused to believe him dead. He was thought to be alive, in occultation, and would return, *al-raja*. Modern-day Druze of Lebanon still believe in the divinity of al-Hakim.

Extravagant *tawil* inspired offshoots of the offshoots, such as the *Hurufis*, those who interpreted the letters of the alphabet, founded circa 1397 by Fadl Allah from Astarabad. He claimed to be a divine manifestation and his revelation the most perfect truth. The Hurufis used a kabbalistic method of interpreting the Quran.

NASIR-I KHUSRAW (B. 1004)

Abu Muin Nasir ibn Khusraw was born in 1004 in Kubadhiyan, Iran, and was a noted poet and prose writer, traveler, and Shii philosopher and preacher. The Ismailis claimed the 11th-century Persian Nasir-i Khusraw as their philoso-

pher and teacher of their cause. Known as the travel writer of the seven-year voyage, the *Safar-nama*, he followed an intinerary that took him to Jerusalem and Mecca, and most particularly to Cairo, where he remained for years studying and teaching Ismaili theory and custom. (See the discussion of travel literature in chapter 3: Economy and Trade.) Many of Nasir-i Khus-raw's treatises and poems described mystical Neoplatonic analyses of reality as a garment of radiant illusions covering an even brighter and shinier secret soul. Study of the external husks allowed peeling away of the dross to expose the precious kernels of hidden truth.

He took an oath to serve as the *dai* (mission-ary) of the imam of the Fatimid court of Cairo, Abu Tamim al-Mustansir bi-Llah (1036–94); there he thrived teaching and preaching the *dawa* (missionary dogma) of the Ismaili faith. The Sunnis persecuted him mercilessly and apparently forced him into exile in the valley of Yumgan in Badakhshan, where he died some-time between 1072 and 1078. Nasir-i Khusraw's writings were significant contributions to 11th-century Persian literature. His prose *Wajh-i din* (*The Face of Religion*) exemplified the application of Ismaili *tawil* to Islamic principles and prac-tices. Likewise, his *Shish fasl* (*Six Chapters*) sum-marized the Ismaili interpretation of basic Islamic tenets. His *Zad al-musafirin* (*Book of Travelers' Provisions*) analyzed ideas of Plato and Aristotle and argued against early Muslim phi-losophers. His poetry exhorted men to require God in earthly life, to work for self-purification, to relinquish material gain, and to excel in spiri-tuality. He lamented the "falsity of this world" and the misery of his exile in Badakhshan.

THE NIZARI ISMAILIS ("ASSASSINS")

The Nizari Ismailis, who acquired the name of "Assassins," emerged as an offshoot of the Ismaili Shia. In the mid-eighth century the Ismailis separated from the Shia and recognized the leader Ismail Ibn Jafar as seventh imam in the line from the Prophet's son-in-law, Ali ibn Abi Talib. In the late 11th century a dispute over the successor to Caliph al Mustansir, who died in 1094, initiated a battle between conser-vatives, who supported the new caliph and the old order in Cairo, and radicals who pledged allegiance to Nizar, whose followers were pri-marily Ismailis from the eastern empire of the Seljuk Turks. The Nizari Ismailis perfected the art of assassination, named after them.

Their leader, Hasan al Sabbah, was a puri-tanical ascetic who executed his own son for drunkenness. An avid writer on philosophy and theology, he produced as his most important work a treatise that uses philosophical logic to expound what became one of the central doc-trines of Nizari Ismailism, the doctrine of *talim*, meaning that the authority of the imam in mat-ters of religious faith was absolute and must be accepted unconditionally. This use of logic to defend the authority of religious faith even influenced the thought of al-Ghazzali, despite his overall rejection of Ismaili Shiism.

In 1090 Hassan al-Sabbah seized the Persian castle of Alamut, the first of many castles and strongholds for his group of Ismaili warriors known as "those who sacrifice" (*fidais*). In the 12th century they expanded their influence from Persia to Syria, where their customary victims were Muslims, especially Islamic lead-ers. Christian crusaders encountered the Assas-sins in Syria. Their devotion to the cause was so fanatical that they captured the literary imagination of Provençal Christian poets, who compared themselves to assassins in their courtly love loyalty to their ladies. But political assassination was the Nizari Ismailis' most effective weapon, and this was understood and feared by writers associated with Emperor Frederick Barbarossa (r. 1155–90) and by the chroniclers William of Tyre (1130–85), Mat-thew of Paris (1200–59), and Jacques de Vitry (1180–1240). The sect in Syria claimed the

Assassin name that later generalized to other nations of passionate political assassins.

Many lurid tales were written about the Nizari Ismailis. The Christian traveler Marco Polo passed through Persia in 1273 and described the Assassins' prefabricated gardens in the mountain fortress and valley of Alamut in which drugged devotees tasted the ecstasies of paradise that would greet their honorable deaths after a murder mission. Assassins may or may not have used the drug hashish to taste the intoxication and oblivion that their martyrdom would stimulate. Arnold of Lübeck (d. c. 1214) told the tale in the 12th century of the Assassin chief's giving his warriors daggers they would use for killing and then intoxicating them with a strong potion that plunged them into dreams of fantastic passion, pleasure, and delight. This they were promised to possess eternally as reward for their deadly deeds.

No medieval Muslim authors connected the drug hashish with the sect. Whether or not they actually used the drug, the Assassins in their fanatical behavior imitated the strange, demented acts of hashish addicts. The scholar Bernard Lewis concludes that the tales linking the Nizari Ismailis to the use of hashish are without foundation and most likely stem from the polemic of their enemies to explain their zealotry and murderous deeds.

THE DRUZE

The Druze were another offshoot of Ismaili Shiism, which originated in Syria in the 11th century under the impetus of Muhammad ibn Ismail al-Darazi (d. c. 1019). They referred to themselves as the Unitarians (*al-Muwahhidun*), reflecting the doctrine of the cosmic emanation from the one and return to the one through the process of gnosis. The Druze believed in reincarnation: that the number of Druze souls was fixed, and that each Druze person was born again. No one could convert to being a Druze;

one could only be born into the religion. Their esoteric belief system considered each individual who attained the higher levels of the Druze hierarchy as an incarnation of divine principles. Neoplatonic emanations of the universal intellect were expressible in ever more powerful and perfect holy people on Earth. Whereas the Ismailis had proclaimed that the Fatimid imam al-Hakim was the incarnation of the cosmic principle of the active intellect (*al-aql al-faal*), al-Darazi went even further and formulated the thesis that the imam was the embodiment of the highest cosmic intellect (*al-aql al-kulli*). According to this cosmology, the imam is the optimal representative of *tawil*, the hidden inner truth, and thus ranks above the exoteric truth (*tanzil*), whose optimal representative is the prophet Muhammad. Al-Darazi's successor, Hamza ibn Ali (d. c. 1021), is the architect of the doctrine of the divinization of the imam al-Hakim as the embodiment of the cosmic one, the godhead.

Throughout the centuries the sect retained communal cohesiveness. (Today the Druze live primarily in Syria, Lebanon, and Israel, and they are no longer considered Muslim.) The Druze distinguished between those who participated in religious ceremonies, the elect, the worthy, called the *wise*, who were initiated into Druze teachings. Everyone else, the majority of the believers, was among the ignorant, who did not participate in the sect's religious ceremonies. Both men and women were initiated into the teachings. Modern Druze initiates wear the medieval black robes and white turbans crowned with red.

THE NUSAYRIYYA ALAWIS

The Alawis are a sect of extremist (*ghuluw*) Shiism, so called because of their doctrine of the deification of Ali ibn Abi Talib, the nephew of the prophet Muhammad. The movement was founded in the mid-ninth century by Muhammad ibn Nusayr al-Namiri, who also proclaimed

that the 10th of the 12 Shiite imams, Ali ibn Hadi, possessed a divine nature. Alawi doctrine is secret, esoteric, and Gnostic in nature. They believe that Ali ibn Abi Talib is the supreme eternal God (*al-ilah al-azam*) and that in the beginning of time the souls of the Nusayris were lights that rebelled against God and were flung to Earth, where they were trapped in material bodies. As a result of this fall God appears in a trio of manifestations, as an incarnation of himself, the supreme God (*al-mana*), accompanied by two hypostases, the "veil" (*al-hijab*) and the "gate" (*al-bab*), who serves as the intermediary with the initiated believers. For the Nusayri Alawis, this cosmic trio consists of Ali, the prophet Muhammad, and Salman al-Farisi of Iran (c. seventh century), one of the prophet Muhammad's companions, who converted from Zoroastrianism to Islam in Medina. The Alawis combined elements of twelver Shiite belief with customs and liturgy of neighboring religions. Muslim lore combined with esoteric Christian rites created a mosque ceremony resembling a Christian mass. Iranian Zoroastrian rites and practices included the celebration of pre-Islamic Persian religious feasts.

Most Alawi religious practices were considered secret and closed to non-Alawis. Alawis believed that women had no souls and that the deified souls of men who were true believers would become the stars in the heavens. (Even today modern Alawis have been considered quasi-Muslim. In 1974 Lebanon's twelver Shiite imam issued a religious ruling (*fatwa*) declaring Alawism an authentic branch of Islam. It is now centered and dominant in Syria; the Syrian president, Bashshar al-Assad, is Alawi, as was his late father, Hafez al-Assad.)

THE BOHRAS

The Bohras of western India had been a Hindu caste that converted en masse to Ismaili Islam in the 11th century. Later the Bohras, whose name meant "traders" in the Gujarati language, split from the Nizari sect. The most numerous Bohras, called the Dawoodi or Daudi Bohras, were conservative in personal behavior and adherence to Islamic law, yet progressive in modern technology. They adopted those parts of Western culture specifically not forbidden by Islam. Daudi Bohras followed a strict, centralized religious hierarchy led by the *dai al-mutlaq*, whose absolute authority was unquestioned. Daudi Bohras men were bearded and customarily wore gold-trimmed white hats. Women wore a colorful head-to-toe dress called a *rida*.

Arabic Language and Translation

The centrality of the Quran elevated Arabic into the lingua franca of the Islamic empire. It became the language of religion, government, commerce, literature, and science from the Iberian Peninsula across the southern and eastern shores of the Mediterranean, Iraq, and Iran into western Central Asia. Even on tombstones throughout the Islamic world Arabic inscriptions predominated.

Because Arabic was considered a sacred language, early Muslims hesitated to translate it into other languages of Islamic peoples such as Urdu or Persian. Once this psychological barrier was overcome—out of practical necessity—Arabic became the most widely translated language in the world in the Middle Ages, both in the number of books translated and in the number of languages into which these translations were made. Arabic also was the language in which problems of translation were carefully and systematically investigated. The first book ever printed in England, in 1477, was the *Dictes and Sayings of the Philosophers*. This was an English version of an Arabic original called the *Kitab mukhtar al-hikam wa mahasin al-kalam*, written about the middle of the 11th or early

12th century by Mubashir ibn Fatik. Classical Arabic, the language of the Quran, was the medium of literary, philosophical, and scientific writings as well as a practical language widely used in government, society, and commerce. In the medieval Islamic world, Arabic was the equivalent of Latin and Greek in the West.

Translations from Arabic in the Middle Ages belonged to two main groups, both selected for content rather than for artistic or literary merits of the works translated. The first group consists of translations from Arabic to other Islamic languages. First was Persian, then Turkish, and then later other more remote languages of Islam. This group consists chiefly of books on religion, law, and history. The second group consists of translations from Arabic into non-Muslim languages, first into Hebrew, then directly or indirectly into Latin, and thereafter into European vernacular languages. These were principally works on philosophy, theology, science, and medicine, the so-called useful sciences. An early translation of the Quran was produced in the Latin West especially for the purpose of enabling missionaries to refute it. Peter the Venerable, the abbot of Cluny (d. 1156), had the Quran translated into Latin in 1143. This Latin translation and those that followed were the basis for versions in other Western languages including English. Most translators of Arabic worked with the Latin intermediaries. One of the first to translate the Quran directly from Arabic to English was the 18th-century British scholar George Sale, whose work was published in 1734.

The Muslims believed that a proof of the Quran's divinity was its miraculously beautiful and inimitable style. Therefore some theologians argued that the Quran could not be translated into other languages because translation would be a desecration, a blasphemy. Others believed that the Quran could be translated within certain limits so long as the translations were considered commentaries. But they were never given the same status as an official translation.

Contemporaries recognized the problems inherent in translation of nonsacred texts as well. The great Jewish philosopher and physician Maimonides (who wrote primarily in Arabic) discussed the problem in a letter to his translator Samuel ibn Tibbon in 1199. According to Maimonides, whoever wishes to translate and aims at rendering each word literally and at the same time adheres slavishly to the order of words and sentences in the original will suffer much difficulty and the translation will be faulty and untrustworthy. The correct method requires the translator first to grasp the sense of the passage thoroughly and then to state the author's intentions with perfect clarity in the other language. That can only be done by changing the order of the words, replacing one word by many words or many words by one choice word, and adding or subtracting words so that the subject is perfectly intelligible in the new language of the translation.

A common form of this translation from Arabic into other languages was introduction of concepts totally foreign to the original. An early Arabic chronicle called *History of the Muslim Conquests* (*Futuh al-Buldan*), by Ahmad ibn Yahya al-Baladhuri (d. c. 892), gives the full text of an *aman*, the technical term for a safe conduct or pledge of security granted by Muslims to a non-Muslim person or group who surrendered to the protection of the Muslim state. This particular *aman* was given to the people of Tiflis after the Arabs captured their city. The *aman* in its customary form was a unilateral contract that indicated, as in the letter addressed to people of Tiflis, conditions under which their surrender was accepted. The simple Arabic phrase ending it caused numerous controversies. The Arabic *hadha alay-kum wa-hadha lakum* meant "this is what was due *from* you" and "this is what was due *to* you." If modern translators defined these as rights and obligations, they implied a system of political and legal thought not relevant to the Muslim *aman*.

Significant cultural difficulties arose from translating classical Arabic. Classical Arabic created a literature written for and by groups of relatively small interlocking coteries. Those who spoke and wrote Arabic were cultivated, sophisticated, highly literate, and scholarly and belonged to a community "in-group." Arabic users were bohemian and literary, and particularly fond of alluding to ancient proverbs, verses, historical incidents long forgotten, and legendary persons and events. Arabic writers were masters of intertextuality (*muarida*), engaging in intellectual repartee by imitating or emulating a long dead author for purposes of homage or polemic.

Naturally such subtleties of language were lost upon the first generations of Western translators of Arabic texts. Nevertheless, the project of translation, even for polemic purposes such as refuting Islam, represents valuable instances of historical exchange between cultures. The translations into Latin and vernacular languages of Arabic translations of Aristotle, Plato, and the other Greek philosophers; the translations of Averroës's Commentaries on Aristotle, of Ibn Tufayl's philososphical novel *Hayy b. Yaqdhan*; of Avicenna's and al-Ghazzali's works; and of the numerous writings on medicine, the natural sciences, and literature by Muslim luminaries have enriched and indeed become part and parcel of Western knowledge.

Reading

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Tweedale 1997, Copleston 1950 and 1953, Cross 1999, Duns Scotus 1997, Leff 1958, Ozment 1980, Williams 2003, Wolter 1986 and 1987: John Duns Scotus; Bosley and Tweedale 1997, Klocker 1992, Leff 1958 and 1975, Spade 1999, William of Ockham 1995, Ozment 1980, Wolter 1983: William of Ockham.

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6

MYSTICISM AND MAGIC

Alchemy, astrology, divination, magic, and mysticism were attempts to interpret the past, understand the present, and predict the future. Mystical and magical texts were intentionally exclusive and esoteric, meant to repel the inquisitive eye and mind of those not elected into the circle of students. In contrast to inclusive, exoteric texts in medicine and metallurgy meant to teach and inform, mystical and magical texts intended to instruct only those with privilege to know the secrets and to deceive those who could not be trusted with the keys to the inner sanctum of knowledge. Some magic texts actually were called keys, *clavicula*. Obscurities and ambiguities in the medieval originals make modern interpretations of 10th- through 16th-century books on magic and mysticism stunningly perilous. Were the *eagle* and *peacock* flying in an aviary or were those birds and a *toad* arcane names for sublimation, distillation, and other chemical reactions?

The history of modern experimental science is also the history of magic and occult science, with practitioners using many of the same apparatuses, similar or identical raw materials, chemicals, acids, alkalis, and reagents. Some chemical scientists and metallurgists drew the same conclusions as alchemists. Some astronomers agreed with the celestial sightings of astrologers. Intention differentiated scientists and technologists from magicians and mystics, but not always. Writers of medical texts customarily wrote to inform, instruct, and expand the reach of their knowledge to the widest popular audience, who then could credit the writer and God for the valuable information. Writers of alchemical and astrological texts wrote to retain as secret those concepts that only initiates could fully appreciate.

Initiates sought to imitate the creative powers of God, as in attempts to create in laboratories an elixir of life that conferred immortality and to read in the starscape of a horoscope a person's future already planned by God, unknown to mortals, and now revealed. Truths revealed to mystics and magicians were personal and individualistic, gained through often painful and disciplined preparation, such as long fasting, physical deprivations, spells, and trances. Crowning the initiate's introduction to mysteries by his or her own efforts was God's grace, allowing the prepared mortal alchemist, astrologer, diviner, or mystic to enter the sacred gates leading ever closer and higher to the divine source of knowledge.

Mystical and magical knowledge represented a progression from ignorance to illumination to union with the supernatural. For Christian, Jewish, and Muslim mystics alike, the final stage of mystic perfection was union with God, God entering into the human being and the being entering divinity. Indeed, a Christian mystic such as Saint Bernard of Clairvaux (d. 1153) probably would have had little difficulty interpreting contemporary Jewish mystical texts. Jewish and Christian mystics shared methods of interpreting Scripture and of generating spiritual trances, attempts at enlightenment, and many occult symbols. The melding of mystical symbolism in the Iberian Peninsula is such that it is sometimes difficult to pinpoint Jewish, Christian, or Muslim origins.

Similarly, Jewish, Christian, and Muslim alchemists alike anticipated the quest of the 16th-century alchemist Paracelsus for the philosopher's stone, the secret of immortality. For Paracelsus and his alchemist forbear, the final goal of mystic perfection was to decipher God's secrets and to use them to live longer and better in the earthly world.

CHRISTIAN MYSTICISM AND MAGIC

Mysticism (Greek, "the practice of those initiated into mysteries") differed from magic and

the occult sciences. Intrinsically related to religion, mysticism was the practice of entering into a level of relationship with God, culminating in a unity between the mystic and the godhead. One may distinguish two major trends of Christian mystical thought and experience. One trend, represented by Pseudo-Dionysius and the proponents of *negative theology*, is heavily indebted to Neoplatonic conceptions of the divine and Stoic ascetic ideas of the purgation or purification of the soul or annihilation of the will as the path to mystical illumination. For many of these mystics, Moses's ascent up Mount Sinai, where he encountered God, served as a model of the soul's inward journey. Meister Eckhart (d. 1328) is representative of the Pseudo-Dionysian school of medieval mystics who believed God was inside the human soul, requiring a journey toward deity within by annihilating the will and lifting the soul toward God.

The other trend, represented by Saint Bernard of Clairvaux the Cistercian abbot, is Christ-centered and emphasizes the need for the intervention of God's grace through Christ to lift the mystic upward. It is an affective, somatic experience of the divine as expressed in the telling initial verse from the Song of Songs, "Let him kiss me with the kisses of his mouth!" In this path of spirituality the soul becomes the mystical bride of Christ yearning to consummate a union with her bridegroom.

In addition to the Cistercians, other orders practiced spirituality through particular types of mystical encounters with divinity, such as the monastic Carthusians and the mendicant Franciscans and Carmelites. Whether the mystic's chosen biblical paradigm was Moses on Mount Sinai, the Song of Songs, or some other text, tropological (mystical) interpretation of Scripture (one of the four methods of biblical exegesis) was a potent instrument in the contemplative process.

It is important to note that women were well represented in both mystical traditions. As Carol Walker Bynum has persuasively argued, women were particularly attracted and susceptible to somatic mystical experience, mystical ecstasy, stigmata, extreme fasting and consumption of only the Eucharist, and divine visions. These bodily experiences allowed women mystically to identify fully with Christ's bodily suffering, endowing them with a moral and spiritual authority that in ways paralleled male clerical domination of the sacramental mysteries. The spiritual quest of some male and female mystics led them to eschew church ritual and the sacraments as unnecessary for the soul's journey to God. Many would be condemned for their heresy and some even executed. Yet other mystics, such as Saint Francis, his spiritual companion Saint Clare of Assisi, and Saint Catherine of Siena, defended orthodox belief, were staunchly loyal to the ecclesiastical authorities, and vigorously supported the church's struggle against heresy.

Visions, voices, ecstasy, trances, speaking in unknown languages (the so-called speaking in tongues), fits, writhing, crying, and paranormal states of being were commonplaces among stages of mystic investigation. Mystic reporters such as Marjorie Kempe, Julian of Norwich, Walter Hilton, Richard Rolle of Hampole, Saint Bridget of Sweden, Saint Catherine of Siena, as well as the earlier contemplatives such as Clement of Alexandria, Origen, Saint Augustine, Saint Peter Damian, Saint Hildegard of Bingen, Saint Gertrude, and Saint Francis of Assisi, each had a personal experience perceived as objective reality leading to a certitude of understanding of esoteric lore.

Magic, as distinct from mysticism, was the practice of attempting to control natural forces by other than natural means, with or without the help of God. Magic essentially assumed that divine, malign, or benign spirits dwelled within all things. If harnessed, their power was then under the magician's dominion. Magic and occult sciences sought three powers: Magic

extended human ability and expanded man's intellectual and physical reach, magic tried to prevent evil and protect good, and magic predicted the future.

Magic and supernatural sciences included astrology and alchemy as well as prestidigitation, intentional creation of illusions by slight of hand. Much medieval magic required spells, incantations, and complex ritual. Black magic, thought to be demonically inspired, was believed to cause harm, death, and destruction. White magic, however, believed to be divinely inspired, supported excellence, health, fertility, safety, success, and triumph.

Occult virtues were inexplicable, inherently powerful elements affecting human existence. They were thought to reside in herbs, stones, animal flesh, and astronomical phenomena such as comets and eclipses. The Renaissance occultist Heinrich Cornelius Agrippa (1486–1535) in his *Philosophy of Natural Magic* (*De occulta philosophia libretres*) maintained that human intellect and reason alone could not discern causes of potent qualities, but philosophers could discover them by experience and intuition.

Christian Mystical Traditions

PSEUDO-DIONYSIUS

Pseudo-Dionysius is the name given to an anonymous fifth-century mystic theologian who wrote a corpus of mystical works entitled *Corpus areopagiticum*, which the author ascribed to the Athenian Dionysius whom Saint Paul converted to Christianity (cf. Acts 17:34). One of the founders of negative theology, Pseudo-Dionysus was deeply influenced by Neoplatonic philosophers such as Plotinus (d. 270) and Proclus (d. 485) in his understanding of the godhead. The godhead was utterly transcendental, above and beyond (*hyper*) being, exis-

tence, or intellect, absolutely Other, and beyond the realm of human understanding. As Pseudo-Dionysius maintains in his treatise *Mystical Theology* (*Theologica mystica*), it was not possible to speak positively about the godhead because it shares no characteristic with finite existence. Affirmations of the divine names of the godhead must be negated, not because God is deprived of anything, but rather because he is utterly beyond existence and nonexistence. One could not say what God *is*, only what the godhead is not. Therefore it was useless to attempt to attain knowledge of God through intellectual understanding.

The true mystic must transcend speaking and reading about God and attempt to comprehend the divine names intellectually and reach the place of silence, darkness, and unknowing where she or he will encounter the deity. Pseudo-Dionysius refers to the biblical passage of Moses's ascent up Mount Sinai to explain this silent, dark unknowing. Moses's ascent occurs in stages: First he contemplates God through his sensory perception, then through his intellect; finally he enters the unknowable realm of darkness beyond the mountain peak.

The paradigm of Moses's ascent of Mount Sinai inspired the mystical-ascetic notion of a threefold process of seeking union with God: the purgative, illuminative, and unitive (or contemplative), which correspond to the body, soul (or mind), and spirit, respectively. The first step focuses on purifying the body through ascetic practices, fasting, prayer, infliction of hardships on the body, or even acts of charity and almsgiving. The second step leaves behind deeds of one's own effort and allows the Holy Spirit to work within the soul illuminating it in an esoteric understanding of nature and Scripture. The soul's illumination is mediated through the Incarnation. The final stage is a direct unmediated experience of union with the divine through mystical ecstasy or a numinous vision.

MEISTER ECKHART (1260–1328)

Meister Johannes Eckhart was a remarkable German theologian, Neoplatonist philosopher, and mystic who celebrated the union of the individual soul with God and the ineffability of the godhead. Prior of the Dominican Order, Eckhart created writings on God that were heavily inspired by Pseudo-Dionysius's asceticism and negative theology. God is ineffable, beyond description. He is unnatured nature, all-embracing love, both absolute being and nonbeing, and the being of all creatures is immanent in him. The Trinity is the self-manifestation of the godhead and the godhead is superior to the three persons of the Trinity. The temporal birth of the Son of God to the Virgin Mary is but a manifestation of his eternal birth, along with the birth of the Son that takes place within the individual soul. To Meister Eckhart, the deified Christian was intimately united with Christ. Through grace the Christian could virtually become Christ himself.

The individual soul is an image of God and ever since the fall, humanity's destiny has been to return to God by allowing him to do his work within the soul. To this end, Eckhart advocated spiritual detachment not from the exterior world, but from the inner world of one's passions and will, a means of emptying oneself completely, casting out all images of the soul until arriving at one's own nothingness. Only after a person left all creatures and images behind could she or he reach that ultimate detachment that was the door to the inner kingdom. That deepest substance Eckhart called the "Ground of the Soul." Just as God was inexpressible, so the human soul was inexpressible. God glowed brightly in the soul's beauty, and Eckhart thought man noble, *homo noblis*, and deified, fit to be like God.

A charismatic preacher, Eckhart emphasized in his sermons and theological writings spiritual redemption and union with God through the work of the soul. Consequently, prayer was superfluous, as were church rituals, penance, and the sacraments. He considered life a merciful gift of God. He considered his daily life as having the same perfection and blessing as an afterlife. The divine, Eckhart insisted, was revealed in everyday life and if not experienced in crude reality, then truly could not be present in any way at all.

Pope John XXII (1316–44) reviewed Eckhart's writing and condemned as heretical 17 sentences Eckhart wrote and judged 11 sentences as verging upon heresy. Twice on trial, Eckhart died before a papal bull condemned him and his works.

MARGUERITE PORETE (D. 1310)

A contemporary of Meister Eckhart, the Beguine mystic Marguerite Porete was similarly inspired by the Pseudo-Dionysian corpus in the writing of her masterpiece, *The Mirror of Simple Souls* (*Mirouer des simples âmes*). *The Mirror* beautifully articulates the soul's quest for God through the annihilation of the soul in the tradition of ascetic mysticism and negative theology. The work unfolds as a narrative between the soul and the distant emperor God, to whom she has sent her portrait, love, and reason. Love of God, however, is the key to the soul's annihilation in its search for the divine, for she writes that she was so filled with contemplative love of God that she had no need for masses, sacraments, or prayers. This nullification of the theological rationale of the sacraments would invoke the ire of the church. The bishop of Cambrais, France, had her books publicly burned in the main square of Valenciennes in 1306, and she herself was tried by the Inquisition in Paris and burned at the stake there in 1310.

BERNARD OF CLAIRVAUX (1090–1153)

Bernard of Clairvaux, the founder and abbot of the reformed Cistercian monastery at Clairvaux,

was a powerful, charismatic preacher; acclaimed mystic; and prolific writer of spiritual treatises. He marshaled his oratorical skills to preach the Second Crusade, in which he would have to intervene personally by traveling to Mainz in order to prevent a riotous mob of crusaders from massacring a group of Jews who had sought shelter in the palace of the archbishop. Bernard's mysticism is born of a profound devotion to the Virgin Mary and the miracle of the word made flesh, and of a desire to counter the Aristotelian rationalistic trend that in his opinion had invaded the theologians of his day to the detriment of the mystery of faith. The mystical ascent toward God was trodden through contemplative love rather than intellectual rationalism.

Nowhere does Bernard express these ideas more poignantly than in his masterful *Sermons on the Song of Songs.* Taken at its literal face value, this lovely book of wisdom is a dialogue in verse between a human bride and bridegroom who speak of their mutual love, the celebration of their wedding feast, and the joys of erotic consummation and union. The blatantly erotic tone of the verses and the absence of any reference to God or the divine law have led Jewish and Christian sages throughout the ages to interpret the text as an allegory of God's love for Israel, in the case of Jewish exegetes; or for the church or the Virgin Mary, in the case of Christian interpreters; or of God's love for the soul, in both Judaic and Christian traditions.

Bernard's sermon explicating the enigmatic meaning of the first verse of the Song of Songs, "Let him kiss me with the kisses of his mouth," instructs his monastic brothers on the threefold path of Cistercian mysticism. In it he shows that even scriptural interpretation is a method of affective piety, for the Song of Songs is a "book of experience." The soul of the mystic seeker is the bride of Christ and he must not think that he can immediately experience Christ's kiss, the most intimate union with God. The mystic must make a threefold ascent upward from the "kiss of the feet," to the "kiss of the hand," to the "kiss of the mouth."

The kiss of the feet corresponds to the discipline of the body via penitential devotions and strict asceticism. But the human effort of penitential discipline alone is insufficient to enable the mystic to complete his ascent toward God. God's grace is necessary to lift the mystic further upward. The kiss of the hand refers to the intervening hand of grace that God sent in the Incarnation of Jesus of Nazareth. This spiritual grace helps the soul to become filled with the spirit of Christ and thus to reach its ultimate goal, the kiss of the mouth. The first two stages of the purifying kiss of the feet and the illuminating kiss of the hand are essential to attaining the uniting kiss of the mouth.

GERTRUDE THE GREAT (1256–1301/02)

The Cistercian female monastery of Helfta in Saxony produced its share of women mystics who practiced the tradition of mysticism inspired by Bernardine's tropological interpretation of the Song of Songs. Among the 13th-century mystic luminaries of this monastic house were the sisters Gertrude and Mechthilde of Hackeborne and Mechtilde of Madgebourg (d. 1282), the latter of whom spent most of her life as a lay Beguine and entered the monastery toward the end of her life. All of these women left behind treatises of their spiritual illuminations and visions richly peppered with the mystical interpretation of biblical verse. Mechtilde of Madgebourg's beautiful treatise *The Flowing Light of the Godhead* was translated from Low German into Latin and was read throughout western Europe, including by Dante, whose inspiration for the imagery of light in his *Paradiso* was derived directly from this Beguine-Cistercian woman's descriptions of the divine luminosity.

Gertrude the Great was given to the Helfta Abbey as a child gift (*oblate*) at birth and spent her entire life behind the walls of this Cistercian monastery. From earliest childhood she experienced visions of Christ, who appeared to her as a young man inviting her to join him in mystical union. Accordingly, Gertrude's mysticism is imbued with spousal imagery of the soul wedding Christ. She wrote her *Spiritual Exercises* (*Exercitia spiritualia*) as an instruction manual to her fellow nuns, providing them with seven daily devotional exercises that mirror the *Opus Dei* or seven prayerful meditations composing the divine office.

Throughout the *Exercitia spiritualia* Gertrude emphasizes contemplative love of God and draws frequently from the language of the Song of Songs and the Apocalypse. The goal of the mystic is to reach the seventh stage, corresponding to the final prayer at compline, in which the soul "becomes oblivious to the world and is consummated in loving union with God." She enjoins her monastic sisters to first rid their hearts of all distracting passions and affection and to devote their affection, love, and thoughts exclusively to God in prayer. Thereupon the soul will be united with its spouse Christ, who is surely already present in the soul. Then the mystic bride will be able to contemplate the "face of God," who is "pleasant and comely" (Song 6:3), and in her desire her cheeks will "blush with the alpha and the omega" (Apoc. 1:18), and "Honey and milk will drip down" (Song 4:11) from the mouth of the bridegroom to the mystic soul/bride.

As the scholar E. Ann Matter observes, it became common practice from the 11th century onward among ecclesiastical exegetes and mystics like Gertrude the Great and Bernard of Clairvaux to employ allegorical interpretation in conjoining the bridal imagery of the Old Testament Song of Songs with passages from the New Testament Apocalypse. In this way the bridegroom of the Song of Songs prefigures the triumphant Christ of the last judgment, who receives the glorious church bedecked as a bride.

SAINT TERESA OF ÁVILA (1515–1582)

The granddaughter of a *converso*, or Jewish convert to Christianity, Teresa of Ávila entered the Carmelite Convent of the Incarnation when she was 20 years old but was soon dissatisfied with the laxity of the rule followed there. When she was aged 40 she began to receive visions of Christ surrounded by an indescribably beautiful light. With the support of her spiritual brother Saint Juan de la Cruz (1542–91), she founded a reformed Carmelite Order called the Convent of Saint Joseph in 1562 based on a life of rigorous silence, poverty, self-denial, and a trademark shoelessness, which would earn the order the epithet of the Discalced ("barefoot") Carmelites. Her numerous writings include her autobiography, *Libro de la vida* (*The Life of St. Teresa of Ávila by Herself*); *El Castillo interior o las moradas* (*The Interior Castle or the Mansions*); and *Camino de perfección* (*Way of Perfection*).

Teresa's commentary on selected verses of the Song of Songs, known as *Meditaciones sobre los Cantares* (*Meditations on the Song of Songs*) and *Conceptos del amor* (*Conceptions of the Love of God*), shows the extent to which her mystical visions were inspired by meditation upon the erotic spiritual imagery of this book of wisdom. Of the first verse, "Let him kiss me with the kisses of his mouth! For your breasts are better than wine, and your anointing oils are fragrant," the spouse draws the bride so closely to him that she swoons in ecstasy in the arms of the divine, drawing near to his wounded side to drink the milk from the divine breasts. With ecstatic pleasure the soul exclaims, "Your breasts are better than wine." In another famous vision, gloriously captured by the Renaissance sculptor Gianlorenzo Bernini's statue *The*

Ecstasy of Saint Teresa (1646), the saint recounts a recurring vision of an angel who appears to her holding a long, golden, inflamed iron-tipped dart in his hand, with which he repeatedly pierces her heart, reaching into her entrails, leaving her totally afire with the pain and ecstasy of the love of God.

Saint Teresa's famous description of the soul's journey in *El Castillo interior* reveals a mystical imagery that belongs to the legacy of Islam but is Christianized in the search for Christ. The soul's quest for God is a journey to the castle within, a castle made of crystal. The soul must progress through the seven dwellings or resting houses of the castle, each mansion dwelling inside the other, each marking the successive stages of the soul's progress, the innermost mansion closest to God. Beyond the walls of the outermost castle is the devil, who takes the form of filthy beasts or vermin that try to tempt the soul and prevent it from arriving at the next mansion.

In the prologue to the *Interior Castle* Teresa claims not to remember where she has seen this castle imagery. And while it is true that numerous mystics, Bernard of Clairvaux, the 14th-century Spaniard Ramón Llull, among others, have compared the soul to a fortress besieged by spiritual enemies, none of these Christian writers envisages the soul's journey through seven concentric dwelling places in the way Teresa does. A number of scholars, most notably Miguel Asín Palacios and Luce López-Baralt, have found clear precedents for the image in Islamic Sufi mystic writings going back to the ninth century. Beginning with the text of the ninth-century Iraqi mystic Abu l-Hasan al-Nura's *Maqamat al-qulub* (*Stations of the Heart*), there has been an unbroken tradition in Islamic mysticism of employing the motif of the soul's journey into seven concentric castles marking the seven stations (*maqamat*) of the soul's journey toward God. The same motif is found in the writings of the 13th-century Shadhili mystics of al-Andalus and in other Spanish Muslim mystical works. The terminology of "mansions" would certainly remind Christian mystics of John 14:2, "In my father's house there are many mansions," yet Teresa's use the term *morada* as a *permanent* state of the soul, rather than a *temporary* dwelling, echoes the Sufi concept of the stage on the path of mystical perfection, called a *maqam*, or "station/dwelling."

SAN JUAN DE LA CRUZ (1542–1591)

The Islamic influence on Spanish Christian mysticism is just as apparent, if not more, in the religious poetry of Teresa of Ávila's spiritual partner and cofounder of the Discalced Carmelite Order San Juan de la Cruz (Saint John of the Cross). Juan de la Cruz was born into a humble family near Ávila and entered the Carmelite Order in 1563. As is Teresa, he is believed to be of *converso* background, his mother having allegedly been of Muslim heritage. Shortly after he was ordained a priest in 1567, he joined forces with Teresa of Ávila in the reform of the Carmelite movement and would become the director of the new Discalced Order. The rule of both monastic and mendicant orders demanded of members strict obedience of their superiors and prohibited monks or friars from transferring to another order. Consequently, when Juan refused the command to return to his original Carmelite house in Medina del Campo, he was taken prisoner in 1577 and taken to Toledo. There he was thrown into a small, stifling cell and subjected to physical and mental torture for nine months until his miraculous escape in 1578. During his captivity he was comforted with celestial visions, and he composed some of his most exquisite and ecstatic mystical poetry and prose. His most famous writings include the enigmatic *Noche oscura* (*Dark Night of the Soul*), *Llama de amor viva* (*Living Flame of Love*),

Subida del monte Carmelo (*Ascent of Mount Carmel*), and *Cántico espiritual* (*Spiritual Canticle*).

While imprisoned in Toledo he composed his *Spiritual Canticle*, a meditation on the Song of Songs in which he identifies his soul as the bride searching and yearning for the bridegroom Christ. Yet his poetic mystical language, symbolism, and terminology, as well as the "self-exegesis" he employs to explain his incomprehensible ecstatic utterances, are entirely consistent with the Sufi tradition of "inebriated" poetry.

The poetry and prose of Juan de la Cruz richly meld the Christian traditions of Pseudo-Dionysian mysticism, the spiritual struggle against the devil of the early desert fathers, and the Bernardine spirituality of the Song of Songs with symbols and generic tropes that were current in Sufi poetry and do not find a parallel in the Christian mystical tradition. Among the seemingly endless list of symbols and tropes of Sufi origin that characterize the writings of both Juan de la Cruz and Teresa of Ávila one may mention the dark night of the soul; the wine of mystical intoxication; the lamps of fire that illuminate the ecstatic soul and simultaneously symbolize the divine attributes; the alternative spiritual states of straitness and breadth (*apretura* and *anchura* in Spanish, *qabd* and *bast* in Arabic); the silkworm that metamorphoses into a butterfly, signifying the soul's spiritual progress; and the metaphor of the soul as a garden or orchard that must be irrigated with spiritual waters, rain, or a fountain.

HILDEGARDE OF BINGEN (1098–1179)

Scholars such as Carol Walker Bynum have persuasively argued that the imagining of the soul as the bride of Christ is more characteristic of male spirituality than female, and that male mystics drew upon the Songs of Songs bridal imagery far more than did their female counterparts. Often the male writers of the lives of mystic female saints imposed on them a bridal imagery that is not reflected in their own writings.

Hildegarde of Bingen exemplifies a female mysticism that was not conceived in bridal terms by the mystic herself, but that was represented as such by the male authors of her *Life*. The 10th child of a noble German family, Hildegarde was given as an infant to an anchoretic hermit named Jutta to receive a religious education. Following the harsh life of solitude, prayer, and meditation of those "dead to the world," Hildegarde began to receive visions and divine illuminations from an early age, which she confided only to her mentor, Jutta, and to her confessor, a monk named Volmar. When Jutta died, Hildegarde was 38 years old and left her anchoretic cell to become the head of a monastery near the anchorage where she had spent her life until then.

Aged 42, she received a vision in which the heavens opened and she was illuminated with a blinding light of divine inspiration, in which God granted her complete esoteric understanding of Scripture and commanded her to write down what he had revealed. Hildegarde was a loyal follower of the church and mindful of the dangers that the Cathars and other heretics were doing to it at that time. Hence she first sought approval from Bernard of Clairvaux to disclose her visions, and he, in turn, called the matter to the attention of Pope Eugenius III (1145–53), who granted her permission. Hildegarde's most notable visionary writings include the *Scivias*, short for *Scito vias Domini* (*Know the Ways of the Lord*); *Liber vitae meritorum* (*The Book of Life's Merits*); and *Liber divinorum operum* (*The Book of Divine Works*).

The visions related in *Scivias* typify a mysticism that remains deeply marked by the anchoretic struggle against the diabolic temptations taunting the body and soul and diverting them from God. Hildegarde engages in a spiritual combat against the assaults of the devil.

Whereas Hildegarde's hagiographers portray her experiencing tender and erotic images of a bride soul yearning for union with the bridegroom Christ, in Hildegarde's own writings she draws inspiration from the biblical prophets Noah, Joshua, Jacob, Joseph, Moses, Samson, Solomon, Jeremiah, and Saint Paul, all powerful men whose historical struggles served as a model for her spiritual combat. In one series of visions she sees a woman with a perfect human form in her womb. When the woman gives birth, the devil stirs up a whirlwind and tries to snatch the baby, but the child takes refuge in a cave, climbs a mountain, and is finally admitted into the tabernacle. Hildegarde explains that the woman is Mary and the child Christ, but the child is also the soul who repels the devil's assault and is rewarded with the aid of the hand of God, who saves her and draws her into the tabernacle.

SAINT CATHERINE OF SIENA (1347–1380)

Catherine of Siena was born into a humble middle-class family. As a little child she began to receive visions of Christ and to practice asceticism, vowing by the age of seven to consecrate herself to Christ. At the age of 16 she joined the Dominicans as a tertiary (layperson) and lived a life of anchoretic seclusion in her parents' house, which she would leave only to care for the sick and attend mass. Her celestial visions increased, culminating in 1370 in a series of lengthy trances that revealed to her the divine mysteries of hell, purgatory, and heaven, and charged her with the task of intervening in public affairs. With the same devotion that she applied when caring for the sick, she now devoted herself to curing the political ills of her time. She intervened in the papal schism of 1378 on the side of Pope Urban VI (1378–89) and was dispatched as a papal envoy to forge a peace among the Italian states and prevent a civil war.

Catherine of Siena typifies the 14th-century female tradition of a somatized mystical piety centered upon eucharistic devotion and prolonged fasting as the means of *imitatio Christi* and achievement of union with Christ. Women mystics such as Catherine of Siena, Mary of Oignies (1167–1213), Catherine of Genoa (1447–1510), Angela of Foligno (1248–1309), Rose of Viterbo (1235–52), and Columba of Rieti (1467–1501) were noted for their ecstatic eucharistic visions, which were usually triggered by a triad of meditative prayer, unnaturally long fasts, and charity that involved caring for the sick and giving food as alms. Many performed miracles that featured providing food to the poor and curing the sick. In addition to extreme fasting or eating of only the Eucharist, these women imitated Christ's suffering by eating substances unfit for human consumption and associated with suffering: Angela of Foligno drank the water left over from washing the sores of lepers, Catherine of Siena drank pus from the wounds of the sick she tended, and Catherine of Genoa ate lice. Most received the stigmata.

The mystical obsession with food and fasting had multiple Christological associations. The first sin of Adam and Eve involved eating the forbidden fruit. Redemption results from Christ's sacrifice of his body and blood on the cross, of which Christians partake when they eat his body and drink his blood in the Eucharist. Catherine's extreme fasting manifests an ascetic renunciation of all worldly pleasures, including gluttony, one of the seven deadly sins, which was often linked to the sin of lust.

Most of all, as Carol Bynum points out, food was the symbolism that allowed women mystics to identify bodily and spiritually with Christ's suffering humanity. Just as blood oozed from Christ's crucified body, so does blood ooze from the female body in menstruation, miraculous secretions, and lactation, the milk of which in the Middle Ages was also

understood as blood. Just as Christ gave his body and blood as food, so do women give of their bodies in lactation and in their role as preparers of food. And just as women shed blood in childbirth, so, too, did Christ in shedding his blood give birth to the world and bleed to feed all souls (Bynum, 179). Consequently, for these women, the mystical experience of Christ assumes the form of identification or fusion with Christ through suffering rather than the erotic motif of spiritual marriage.

It is true that in the famous spousal visions Catherine had as a child, she saw herself marrying Christ—an experience that led her to resist her family's pressure to marry and to devote her life to Christ. Yet her hagiographer the Dominican Raymond of Capua (d. 1399) altered the record of this vision to suit the more acceptable bride of Christ imagery, writing that Christ had married her by placing on her finger a silver or golden ring, which Catherine could always see and feel. In Catherine's own writings, however, she denied this image, saying that "we do not marry Christ with gold or silver but with the ring of Christ's foreskin, given in the Circumcision and accompanied by pain and the shedding of blood" (Bynum, 175). For her, nuptial imagery was always a metaphor for Christ's blood and suffering. Blood was by far the most important symbol in Catherine's writings. All her letters and prayers began with homages to the sacred or precious blood of Christ. Toward the end of her life, her devotion to Christ's blood would culminate in her receipt of the stigmata. After receiving communion at mass at a church in Pisa in 1375, she stayed on contemplating the crucifix, when suddenly five rays descended from it and pierced her hands, feet, and heart, inflicting her with such pain that she swooned in ecstasy. She died five years later; the last words she spoke on her deathbed were "Blood, blood," the fruit, no doubt, of her mystical delirium.

JULIAN OF NORWICH (c. 1342–1413)

Virtually nothing is known about the English contemplative mystic Julian of Norwich prior to the mystical visions that she experienced at the age of 30. While lying on her deathbed, Julian had a series of visions that would become the basis of her autobiographical *Sixteen Revelations of Divine Love*. Prior to the expulsion of the Jews from England in 1290, Julian's hometown of Norwich had had a thriving scholarly Jewish community, and there are many compelling indications that suggest that Julian herself may have hailed from a *converso* family. Her *Revelations of Divine Love* contains many Hebrew words, including *shalom* (peace, wellbeing in all things), and in her meditations she gives prominence to the *shema*, the Jewish affirmation of the unity of God (Lev. 19:18; Mk. 12:28–31). She also seems to have sought guidance from the Norwich Benedictine monk Adam Easton, who taught Hebrew at Oxford University and whose sermons and writings drew heavily from the Jewish rabbi David Kimhi, particularly his commentaries on the Book of Isaiah and his treatment of God as mother.

Especially striking in Julian's *Revelations* is her conception of God and/or Jesus as mother. In her *Revelations* she envisioned God as loving, protecting, sustaining, and nurturing like a parent, but above all like a mother. In some of her visions she saw God in a blend of parental and nuptial imagery: "And thus I saw that God enjoys that He is our father, and God enjoys that he is our mother, and God enjoys that he is our very Spouse and our soul is his beloved wife. And Christ enjoys that he is our brother, and Jesus enjoys that he is our Savior" (Julian of Norwich, 61). She also conceives of Jesus the savior in maternal terms: "Our savior is our very mother in whom we be endlessly born and never shall come out of him" and who "sustains us in his womb" (Julian of Norwich, 69, 74). As

did Catherine of Siena, Julian used nursing imagery in referring to drinking of Christ's blood as nursing from his breast. The Christ-as-mother imagery is also present in the spiritual writings of Bernard of Clairvaux and before him in the works of early church fathers such as Clement, Origen, Irenaeus, John Chrysostom, Ambrose, and even Augustine, who were inspired by the female imagery in the books of wisdom.

Julian also followed the mystical tradition of seeing suffering as a way of identifying with Christ's humanity and fervently believed that all her revelations were grounded and conjoined in his passion. Yet she also maintains that God is in our "sensuality," body, as well as in our "substance," soul, each helping the other to attain human redemption and knowledge of God.

Christian Magic

The mystical quest for union with God takes several paths and was conceived of many ways. In a trifold process, the soul's journey began with the purgation of sin and the will, leading to illumination through grace and culminating in union with God in the form of mystical ecstasy. For some this union was a spiritual marriage between the soul bride and the bridegroom Christ. Other visions were more maternal, with the soul nursing from Christ's breasts or being born in the womb of Christ's suffering. The defeat of the passions and demonic temptations assailing the soul and body and the annihilation of the will were also fundamental in the mystic's progress toward union with the divine and knowledge of the divine.

The mystic sought knowledge of God for his own sake; references to elements of nature—flora, water, milk, honey or other substances—often appeared in visionary writings as metaphor of the quest for or experience of God. Practitio-

ners of magic, alchemy, and the other occult sciences, however, strove to uncover the secrets of nature; for some, the deciphering of these mysteries was a prelude to discovering the ultimate mysteries of God. By mastering the secrets of nature, such as the ability to transform base metal into gold, the alchemist-magician could learn to purify the soul and achieve union with God. But for others, gnosis of nature was a means of obtaining a godlike control over one's own world or of controlling the lesser supernatural forces working in the world that were believed to cause illness, madness, social unrest, or natural disaster.

ALCHEMY

Alchemy was the chemical, scientific, and philosophical inquiry into secrets of human life and nature. Alchemy has roots in ancient Egypt, India, China, classical Greece and Rome, and the Islamic world. Medieval western Europe discovered alchemy in the 11th and 12th centuries from the translated texts of Muslim alchemists such as the pharmacist, physician, astronomer, and alchemist Jabir ibn Hayyan (d. 815), known to the West as Geber. Indeed, the term *alchemy* is from the Arabic *al-kimiya*. Notable Dominicans such as Albertus Magnus and Thomas Aquinas were known to have studied Latin translations of Arabic alchemy texts. The Franciscan friar and scientist Roger Bacon (d. 1292) may be considered European Christianity's first true alchemist. He centered his investigations on the philosopher's stone, also known as the elixir of life, the magical substance believed to remove all corruptibility from the human body to prolong its life for centuries. Note that the Franciscan and Dominican alchemists changed the goal from immortality to long life, in keeping with Christian doctrine that mortal life was but a prelude to the apocalyptic resurrection of the body and eternal life.

The attempts of the Scholastics to harmonize the goals of alchemy with orthodox Christian doctrine must be understood in light of the simultaneous attempts to reconcile the truths of faith and reason, as discussed in chapter 5, where it was shown that the Franciscan Scholastic William of Ockham (d. 1347) dealt a veritable death knell to Thomas Aquinas's thesis that knowledge obtained through revelation and knowledge obtained through reason were not necessarily incompatible. An important consequence of Ockham's conclusion that revealed truths cannot be proved through rational philosophy was the edict of Pope John XXII (1316–34) banning alchemy and prohibiting all church personnel from practicing or writing about it.

Consequently, the study of alchemy moved out of the church and was taken up by nonecclesiastical scholars such as the flamboyant 15th-century French alchemist Nicholas Flamel, who claimed to have discovered the secrets of the philosopher's stone during his research into the Jewish *Kabbalah* and Islamic alchemical texts while he was studying in Spain. Under the influence of Flamel and his successors Agrippa and Paracelsus (d. 1541), alchemy would take a decided turn toward magic and occultism. Alchemists such as the eminent physician and occultist Paracelsus worked to discover the *arcanum*, one of the great chemical secrets or mysteries of nature. Paracelsus described the *Arcanum* as incorporeal, immortal, and beyond the understanding and experience of ordinary man and woman, requiring an adept to study and understand it. In medicine the *Arcanum* was as a marvelous *elixir*, the most potent medication entering the human body, the elixir of life. Paracelsus taught that it could confer personal perfection of life on Earth, immortality, and release from *prima materia*, the "original substance" of the still undifferentiated primal substance, chaos, the unconscious initial state of soul before removal of dross.

Alchemists intended to transmute base metals into gold. Gold making, or aurefaction, was the metallurgical effort to create a metal strong, incorruptible, beautiful, and rare, a fitting symbol of immortality and of perfection. Gold created wealth and possibility of everlasting health. This cultural preoccupation was exemplified in medicine's potable gold or gold salts, *aurum potabile*. A potion of drinkable gold, gold's quintessence, was the highest of all elixirs, rejuvenating, purifying, and preserving the human body. In medical texts it was a disease treatment, particularly for rheumatoid arthritis, and a favorite prescription of Chaucer's Physician in the *Canterbury Tales*. Cooks, philosophers, and artists also practiced aurefaction, creating the effect of gold by applying to baser items minute quantities of the precious metal, such as gilding with gold leaf in art, architectural decoration, and manuscript illumination. In cookery, chefs imitated gold with shining golden substances such as saffron and egg yolk, paralleling the alchemist's attempt at aurefaction. A third quest for the alchemist was the search for *alkahest*, the universal alchemical solvent thought capable of dissolving all stones, metals, and substances.

Paracelsus (1493–1541)   Paracelsus was the physician, occultist, chemist, and alchemist Theophrastus Bombastus von Hohenheim. Written primarily in German, not Latin, his enormously popular books included *One Hundred and Fourteen Experiments and Cures*. Paracelsus vigorously opposed Galenicals, the drugs or medications derived from the works of the second-century Greek physician Galen, including simples, compounds, decoctions, tinctures, extracts, and collyria. He railed against medical applications of the four humors, blood, phlegm, choler, and black bile, for changing the course of illness or disease. He disdained certain early scientific ideas as superstition and instead practiced alchemy, a secret science known only to

those few accepted as initiates in the mystical craft.

Paracelsus recommended treating syphilis and venereal diseases with mercury, an empirically proved and effective medication. Likewise, however, mercury was one of the five elementary principles composing all material substances, also called spirit or ether. Alchemy added mercury to the customary four elements of earth, air, fire, and water, forming the five elementary principles composing all material substance of the universe. Mercury was called the *azoth*, the essential first principle of all metals. Mercury was Paracelsus's universal medicine, counterpoison, and elixir of life, which he carried with him at all times in his sword pommel. He was depicted with that sword on the frontispiece of his book *Astronomica et astrologica opuscula* published in Cologne in 1567.

Furnaces and Equipment Alchemists also were metallurgists, though concerned with creating gold, not utilitarian alloys. In alchemy the adepts considered the creation and perpetuation of a bright intense fire as a critical element of their art. It equaled the Sun, which could destroy the corruption of philosophical chaos and order the disorders and imperfections inherent in base metals and impure chemicals. Therefore alchemists devised and emended elaborate furnaces with startlingly sophisticated technological expertise. The *athanor* was an alchemist's or metallurgist's furnace maintaining a high constant heat by means of a self-feeding charcoal supply tower.

The instruments and equipment of alchemists could not easily be distinguished from those of physicians, pharmacists, metallurgists, and gunpowder makers, for all were utilizing similar raw materials, similar techniques and procedures, though expecting highly dissimilar conclusions. Therefore a good alchemist's laboratory also contained the equipment a good follower of *Pirotechnia* would expect: alembics, crucibles, cucurbits, cupola furnaces, funnel bowls, *kuttrolfs*, pelicans, and worm condensers. A worm condenser, or a kuttrol, for instance, was a distillation bottle with serpentine-shaped entwined neck tubes for allowing water or fluid to flow drop by drop. In medicine and pharmacy it was used as a storage bottle for rare herbal and floral tinctures, alcoholic solutions, a type of Galenic, and a cosmetic. In alchemy, a tincture was a dye or fluid thought to cause transmutation, the conversion of one element into another, especially the translation of a baser metal into a more precious metal. A tincture also was an alchemical spiritual principle whose quality might be infused into a material thing thereafter called tinctured.

Hermes Trismegistus Hermes Trismegistus, whose name means "Hermes the thrice-greatest," was a Hellenistic syncretism of Hermes, the Greek god of writing and communication, and Thoth, the ancient Egyptian god of wisdom. As the god of writing, Hermes Trismegistus was the supposed author of numerous sacred texts on the secrets of the cosmos, the art of imprisoning demons, conjuring of spirits, animating of the statues of the god, and alchemy doctrine. Neoplatonic devotees of alchemy and mysticism claimed to derive the secrets of the writings of Hermes Trismegistus. Important concepts included the "emerald tablet" showing that the "things above" had their

(opposite page) *In a castle that represents the philosopher's furnace, Lady Alchimia dwells in state with her consort, the Athanor King. In accordance with the maxim "no generation without corruption," she carries a shield with the head of Medusa, emblem of the black purtrefaction that is indispensable to the alchemical process. Below she reappears in the guise of Iris; and on the right, Venus stands on her scallop shell, her body all roses, the red flowering out of the white.* Anon., 15th c. Biblioteca Apostolica Vaticana, Cod Pal. lat. 1066.

parallel in the "things below," a basic principle of the magical arts.

The *Corpus hermeticum*, a collection of second- to third-century Neoplatonic texts attributed to Hermes Trismegistus, were believed to hold the secrets to the gnosis of the divine, in keeping with the Neoplatonic view that the universe is arranged in a golden chain of being reaching from the uppermost being that transcends existence, down to the lowliest being composed of matter. Man's quest was to transcend his materiality and corruptibility and rise up to be reunited with the summit of all being, and alchemy was the key to the redemptive journey. Augustine attacked the *Corpus hermeticum* in his *City of God.* The *Hermeticum* was lost in western Europe until its rediscovery from a Byzantine copy during the Renaissance period.

Eagle, Lion, Toad, Peacock's Tail   Alchemical names for laboratory-created substances were descriptive and whimsical and probably also code words for hidden mystical lore known only to true practitioners of the art. The eagle, green lion, red lion, and toad, for instance, were elements of the animal world but were actual chemicals in the lab. An *eagle* was mercury after the process of sublimation. Sublimation was chemical purification of matter by heating it, reducing it, and volatizing it. Because mercury was volatile and supposedly voracious, it resembled the imperious eagle devouring lesser birds. Mercury destroyed, consumed, and reduced gold to its first matter. The *spread eagle* in the alchemical aviary was sublimed sal ammoniac.

The *green lion* was a mineral substance used by alchemists to unite it with mercury, creating a *red lion*, the mineral matter remaining after the process of sublimation. The red lion also was called the eagle. Literary references to such colored beasts usually were arcane chemical names. The *green lion* was produced by the procedures of sublimation and separation, an analytic extraction process for separating the components of substances.

Another animal in the alchemist's bestiary was the *toad.* It represented the watery and earthy parts of matter that had to be united with volatile parts in order to achieve purification. As represented in bestiaries and on *transi tombs*, a toad devoured human corpses. The dead were food for worms and food for toads. The alchemical toad oftentimes was depicted as winged.

The *peacock's tail* was the many-colored surface of a metallic chemical reaction, resembling the plumage of a peacock, a symbol of immortality and of Christ's Resurrection (because its flesh was thought not to decay). Graphically or metaphorically describing the chemical reaction, the menagerie of early chemical terms, including the eagle and red and green lions, sometimes purposefully hid the true subject of discourse from those who would not, could not, or should not understand.

Philosophical Egg, Philosopher's Stone The philosophical egg was the combination of mercury plus sulfur and salt. Sulfur was the yellow chemical element consumed by fire. In alchemy, sulfur symbolized the soul. Allied with mercury, representing the spirit, and with salt or sal, the body, the combination was thought important in alchemy for particular chemical reactions. It was likened to the three essentials of a bird's egg: the white, the yolk, and the pellicle. Another definition of philosophical egg was an ovoid vessel in which the mercury, sulfur, and salt mixture was heated.

The philosopher's stone in chemistry and alchemy represented gold in its supreme, definitive form, or the stone was that which transmuted base metals into gold. Metaphorically, the philosopher's stone was the highest wisdom, the final achievement of emotional and intellectual perfection. Identified with an elixir

or a panacea, the philosopher's stone was thought powerful enough to prolong life indefinitely and to cure all disease and injury. Therefore the philosopher's stone, like the mythical fountain of youth, was the key to immortality.

In the process of transmuting baser metals into silver and gold, other metaphors were used to describe procedures. The *stone of whiteness* was the second stage of an alchemical process, changing metals into silver. The *stone of redness* anticipated the final success of *aurefaction*, for it was the culminating stage of the process of transmuting base metal to gold.

Assation, Calcination, Inhumation, Insuration   Other alchemical techniques included *assation*, placing a waxy substance in a glass vessel to dry it over hot ashes. Sometimes assation meant roasting or baking. *Calcination* was the metallurgical process of reducing a substance by fire to a *calx*, a powdered, friable substance. Alchemists purified metals by fire to separate them and to reduce them to "first principles" without destroying their essential virtues. *Inhumation* in chemistry and biological experimentation was the placing of a soluble substance into dung for the purpose of dissolution, or for development of an embryonic substance already germinating. Inhumation also meant burial. *Insuration* was chemical saturation of a substance with a liquid in order to dissolve it, usually to facilitate its purification. *Insuration* also meant saturating with a desiccator such as salt, before the process of *sublimation*, chemical purification by heating, reduction, and volatilization.

Alchemists created acids, alkalis, and substances they called their waters. *Aqua fortis* (Latin, "strong water") was nitric acid used in chemical separations of gold and silver and in alchemical distillations. *Aqua metallorum* (Latin, "water of metals") was an alchemical name for mercury. *Aqua permanens* (Latin, "permanent water") was alchemical mercury, the "water" of the Sun and Moon, "permanent" because it did

not evaporate. *Aqua vitae* (Latin, "water of life") was the alchemical ardent spirit or unrectified alcohol.

Just as the *arcanum* was one of the great chemical secrets or mysteries of nature alchemists worked to discover, the *arcanum of human blood* in the hermetic and alchemical writings was mercury. This base principle of metals metaphorically was comparable to the blood of animals nourishing their total bodies and to human blood animating the corporeal frame.

The *archaeus* was the alchemical vital force. This immaterial principle the Paracelsans believed presided over animal and vegetable economy. In human beings the chief *archaeus* was believed to reside in the stomach. Subordinate *archaei* regulated peripheral organs.

The *astrum* was a condensed, reduced oil exceeding the natural virtues of a substance, such as sulfur. It also represented a perfect, essential spirit or quintessence of a substance or of a human being. The human astrum was the microcosmic "heaven" engraved in a being at the hour of birth, replicating the celestial heaven and constituting the individual's character.

The *iliaster* was the alchemical first chaos of the universal matter, thought to consist of silver, salt, and mercury, the prime principle. A *rebis* was an alchemical hermaphrodite uniting the male and female principles and chemical opposites.

Argentum vivum (Latin, "living silver") was the name for quicksilver. It was a reduced or "digested" form of mercury, according to the Spanish philosopher, preacher, and alchemist Ramón Llull (d. 1315), who described it in his *Clavicula* (Latin, "a small key"), a short treatise on magic. Other claviculer texts were the *Clavicula of Moses* and *Clavicula Salomonis* (*The Key of Solomon the King*).

The *caput mortuum* (Latin, "dead head") was the alchemical and metallurgical remains after the procedures of distillation or sublimation, fit only for disposal. *Dragon's blood* was

the tincture of antimony. It was also an important vegetable pigment for red paint derived from the East Indian shrub *Draconea draco*, whose sap dried to a deep brown-red gum resin. *Humidity of the philosophers* was a viscous, vaporous, or unctuous oily liquid that was the result of chemical and alchemical procedures. An *ilech* was a compound of salt, sulfur, and mercury. In astrology, the ilech was the star associated with medicine. A milky fluid in chemical and metallurgical actions was called *lac virginis* (Latin, "milk of a virgin").

Lead was the heaviest base metal, dull pale gray, soft, and malleable. In alchemy lead was the heavy, lusterless primal substance to be turned by chemical transmutation and spiritual maturation into gold. The *philosopher's gold* was lead: *aurum philosophorum est plumbum*. References to philosopher's stone, philosopher's egg, and philosopher's furnace and fire remind us that the medieval title of philosopher was not simply inquirer into the nature of things, ideas, ethics, and human phenomena, but also explorer of scientific, chemical, and metallurgical phenomena. The Clerk-Philosopher in Chaucer's *Canterbury Tales* had but little gold in his coffers because he was an alchemist who had not yet transmuted enough base metals to live by his alchemical wealth.

ASTROLOGY

Astrology was the practical application of the art and science of astronomy to human uses. *Natural astrology* included the calculation and prediction of phenomena such as tides and eclipses, calendar making, time measuring, and weather prediction. *Judicial astrology* encompassed prediction of the influence of the stars and planets upon human affairs and prognostications by personal horoscopes. A *horoscope* (Greek, "hour observer") was the depiction of the configuration of the zodiac signs at the moment of a person's birth.

The *zodiac* depicted apparent movements of the Sun, Moon, and principal planets within an area of the celestial sphere, which extended eight or nine degrees on each side of the ecliptic. The yearly path of the Sun projected onto the celestial sphere inclined to the celestial equator by about 23 degrees. The Sun crossed the equator at the equinoxes. The zodiac was divided into 12 equal parts, the 12 signs of the zodiac. Through each one of these signs the Sun passed each month.

These 12 signs of the zodiac, along with their customary symbols, were Aquarius the water bearer, Pisces the fish, Aries the ram, Taurus the bull, Gemini the twins, Cancer the crab, Leo the lion, Virgo the virgin, Libra the balance, Scorpio the scorpion, Sagittarius the centaur archer, and Capricorn the goat. These signs were equally divided between the so-called *commanding signs* and *obeying signs*. *Commanding signs* were Aries, Taurus, Gemini, Cancer, Leo, and Virgo. *Obeying signs* were the remaining six: Libra, Scorpio, Sagittarius, Capricorn, Aquarius, and Pisces.

As opposed to the Sun, Moon, and planets, a fixed star was a heavenly body that always appeared to occupy the same position in the heavens, having no periodic revolution around the Sun. *Fixed signs* were Taurus, Leo, Scorpio, and Aquarius, so called because the seasons or the weather was reasonably "fixed" when the Sun entered those signs. Tempers of those born under them were believed to be stable and their creations durable, such as a tree planted, house built, or city founded. Opposite to the fixed signs were the *mutable signs*, the four astrological signs characterized by changeable, movable nature, and consequent instability of the people ruled by them. Mutable signs were Gemini, Virgo, Sagittarius, and Pisces.

Planets could increase or decrease their effect on the human condition depending upon their position in the night sky. A planet acquired its *dignity*, its strength to do either good or evil,

according to its nature, by entering a sign in which it was the ruler or exalted. Opposite dignity was *debility*, a planet in a sign opposite the sign ruled by the planet or in which the planet was exalted.

The *almuntem* was the prevailing or ruling planet in a person's horoscope. The *alcochoden* was the planet in a zodiac configuration determining length of life. The *apheta* was the planet delineating life's progress. When this planet carrying the native's life reached the *anareta*, the killing planet that destroyed form, the person died.

Genethialogy, the science of astrologically forecasting the physique, temperament, intellectual capacities, emotional behavior, and prospective profession of a person based upon the situation of the celestial bodies at the moment of a person's birth, was employed by physicians to determine the appropriate treatment of their patients (*see* chapter 8). For a king and queen wanting to assure particular qualities of leadership and fortitude in their heir to the throne, as for a merchant hoping for a child with attributes for entrepreneurship and stability, correct genethialogy promised predictability, order, and compellingly successful generational transmission.

Zodiac Man, Phlebotomy Man, Cautery Man Medical treatments, prognoses, and cures were thought connected with the movements of the heavenly bodies, and medical calculations with such early timing devices as the *astrolabe* assigned each human anatomical organ to the benevolent or malevolent influence of an astronomical sign. Many medical treatises depicted a *zodiac man*, a naked human figure with the inscribed symbols of the zodiac on each part of the anatomy demonstrating the body's specific guides and governors. In health, disease, or injury, Aries controlled the head. Taurus guarded the neck. Gemini controlled the shoulders; Cancer, the heart; and Leo, the

chest. Virgo reigned supreme over the stomach, Libra guarded the buttocks, Scorpio guided the genitals, and Sagittarius the thighs. Capricorn was lord of the knees; Aquarius, of the legs; and Pisces, the feet. A *zodiac woman*, though depicted less frequently than zodiac man, was a nude female figure with the astrological signs guarding each anatomical part.

Specific *phlebotomy points* were located on the zodiac man to determine the precise positions on the human body from which arterial or venous blood could be drawn at specific seasons for promoting general hygiene, for treating diseases or injuries, or for serving as adjunct to medication or surgery. Similarly, illustrations of the *cautery man* depicted the points on the *zodiac*
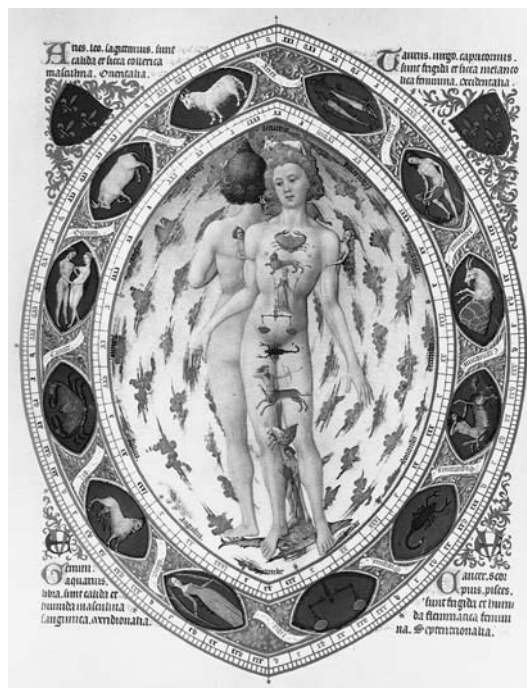
This zodiac woman or zodiac man from a book of hours unites astrology with Christianity. From the Limbourg Brothers' *Très Riches Heures* of Jean, duc de Berry, 15th century, Musée Condé, Chantilly.

man for a process known as *cauterization*. *Cauterization* was the process of scorching skin or a blood vessel with intense heat applied by a *cautery iron*, a long-handled iron heat applicator for scorching, scarifying, and coagulating blood.

Magic Circle, Magic Square   A magic circle was a symbol of creation in both alchemy and astrology. It also was a circle of holy names and signs and sigils painted, incised, or tiled on the floor, which protected a magician standing in its center from attack by the spirits he attempted to command.

Saturn was the magic planet. Board games, poetic structures, architectural components, and divinations favored the number 15, because of Saturn's propitious conjunctions with other heavenly bodies, as in numerical calculations reducible to a magic square. For adults and children, a *magic square* could easily be created by arranging the numbers from 1 to 9 in a square so that the sum of each row, column, and corner diagonal was equal to 15.

8	1	6
3	5	7
4	9	2

The sum 15 was significant in astrology because it was approximately one-half of the synodical period of 29.46 years of Saturn, the magic planet. A sigil square was constructed from letters of a particular spirit's name. The sigil itself was a magical or astrological device receiving its potency from the constellation, planet, or star under which it had been made. A *syzyges* was the astronomical conjunction or opposition of two heavenly bodies, particularly the new and full Moon with the Sun.

Calendars, Almanacs, and Astronomical Tables   Calendars were critical if all these conjunctions of the planets had effects upon daily human life and its seasons and weathers.

Therefore calendrical precision was essential. The calendrical reformation in 1582 by Pope Gregory XIII created the Gregorian calendar. It superseded the Julian calendar, originated by Julius Caesar in 46 B.C.E., to account accurately for Earth's 365 ¼–day passage around the Sun. By the 16th century, an error of 10 days had accumulated. Therefore the papal bull *Inter gravissimas* decreed leap years as century years divisible by 400. The year 1600 was a century year, as was our recent year 2000.

Planetary patterns and zodiacal rhythms, the music of the spheres, were called world music, or *musica mundana*. This *musica mundana* was closely related to *musica humana*, which delineated rhythms of the human pulse, periodic fevers, monthly menstrual cycles, and other indicators of the harmonies of the body with the music of the spheres. Two other forms of music were *musica vocalis*, animal and natural sounds, and *musica instrumentis*, music played on instruments or sung.

An almanac was a manuscript or early printed calendar describing phases of the Moon, weather prognostications, crop planting rotations, seasonal agricultural activities, household medications, astrological lore, and horoscopes. Often they included bloodletting or *phlebotomy* schedules.

Astronomical tables were mathematical computations and lists based upon astronomical observations, used to predict specific celestial conjunctions. For instance, the malevolent union of Jupiter and Saturn in Scorpio was thought by scientists and artists such as Albrecht Dürer to explain the 1484 syphilis pandemic. Astronomical tables also forecast weather and were used to elect auspicious times for human action, such as marriage, contract signing, travel, or business deals. Some astronomical tables included calculations of planetary longitudes and latitudes.

Alfonsine tables were the astronomical tables established by King Alfonso the Wise of Castile (r. 1252–84), with 50 Jewish, Muslim, and Chris-

tian astronomers participating. These tables forecast human and political events such as wars, plagues, and disease prognoses. Based on the Ptolemaic universe design, which asserted that the planets and stars orbited around the Earth, the Alfonsine tables were computed on meridians for Marseille, Paris, Pisa, Palermo, and London. They competed in popularity and ultimately superseded *Toledan tables*.

MAGICAL DIVINATION

Aeromancy studied predictions in perturbations of air.

Alectromancy was determination of future circumstance or truth by studying a white cock or cockerel eating grains arranged on letters of names. Simultaneously a spell was incanted.

Aleuroimancy and **alphitomancy** utilized wheat or barley cakes that the innocent easily ate and swallowed but choked the hidden guilty.

Cartomancy was the study of cards for divination and prophecy of future health, wealth, marriage, good or ill fortune, and time of death. Tarot cards were playing cards popular in 14th-century Europe both in a game of chance and for fortune telling. Usually 78 cards formed a pack, 56 in four suits, and 22 figured trump cards. The four suits comparable to modern diamonds, hearts, spades, and clubs were shekels, cups, swords, and wands, representing four professional classes, peasant, priest, soldier, and merchant. The wand or cudgel represented agriculture, the cup or chalice stood for clergy, the sword implied the warrior, and the shekels or money meant commerce. Major cards represented the king or lord, queen or lady, the knight, and the servant or knave. A common order of the 22 cards of the so-called major arcana was (1) juggler, (2) high priestess, (3) empress, (4) emperor, (5) pope, (6) lovers or

marriage, (7) chariot, (8) justice, (9) hermit or sage, (10) wheel of fortune, (11) strength, (12) hanged man, (13) death, (14) temperance, (15) the devil, (16) hospital or house of God, (17) star, (18) Moon, (19) Sun, (20) judgment, (21) world, and the last card, unnumbered, fool. If the fool preceded world, then world was the card 22. These were associated with the 56 or 52 cards of the minor arcana. Tarot probably was related to Hebrew Kabbalistic mysticism. Order and structure of the major arcana, the 22 most powerful cards in a Tarot deck, may have derived from the Hebrew number system and alphabetical sequence of its 22 letters.

Evidence of tarot practice dates to 14th-century Germany and soon thereafter it spread to Belgium, Spain, and France. According to an author known as Covelluzo, writing in 1480, the tarot was introduced to Italy from North Africa in 1379. A 1392 register of King Charles VI for his Chambre des Comptes listed payment to the artist Jacquemin Gringonneur for three packs of cards for the king's diversion painted in gold, diverse colors, and various designs. The name *tarot* has been attributed to the Hebrew word *Torah*, meaning "law," the five books of Moses of the Old Testament, and to the ancient Egyptian word *Ta-rosh*, meaning "king's way or royal road." Some scholars claimed *tarot* was an anagram of the Latin *rota*, meaning "wheel." Depicted on the 10th card, the wheel of fortune, were four letters written in Hebrew within the center, meaning *Yahweh* or *Jehovah*; the remaining four letters were *TARO*, *TORA*, or *ROTA*, depending on the viewpoint from which the letters were read. In addition to divination, contemplating tarot cards because of their intrinsic Kabbalistic mystic wisdom was thought to assist a person to ascend to higher consciousness.

Chiromancy was magical divination of the future by studying the lines of the hand, also known as palmistry.

Cleidomancy was prophecy by key twirled on a young virgin's third finger.

Coscinomancy was the art of prediction by means of a balanced, gyrating sieve or strainer. It stopped its movement when a favored answer or guilty person's name was spoken.

Geomancy was the study of the shapes and implications of thrown earth.

Hydromancy was divination by water signs such as tides, ripples, currents, swirls, and whirlpools. Subdivisions of the watery predictions were hydatoscopy if the augury was from rainwater, and pegomancy, if from spring water.

Lecanomancy spoke the future when precious stones were dropped into water.

Margaritomancy divined by a pearl in a pot.

Metaposcopy was the study of forehead lines, creases, and bumps.

Molybdomancy divined by melted lead dropped hissing into water.

Necromancy was divination by study of the entrails of corpses, or by summoning up the dead. Necromancy also was called the black art, conflating Latin *necro*, "death," with *niger*, "black."

Oneiromancy was the study of dreams. The Hebrew Bible was full of prophetic dreams and their clairvoyant interpretations. Jacob's ladder dream, Daniel's revelations of the future to King Nebuchadnezzar, Joseph's interpretation of pharoah's premonitory dream (Genesis 41) of seven fat, handsome cows representing seven years of abundance and seven scrawny, gaunt cows indicating ensuing famine Egypt was to suffer led to his release from prison after

being accused of attacking Potiphar's wife, who had tried to seduce him to bed. The Neoplatonist philosopher Ambrosius Theodosius Macrobius (d. 423) wrote a popular commentary on Cicero's *Dream of Scipio* that interpreted dreams and elucidated dream theory, causes, effects, and prognostic importance. Macrobius influenced the literary genre of the *dream vision* or dream allegory in which a persona fell asleep and dreamed a vision of past, present, or future love, religion, or politics. Dante's *Divine Comedy*, Chaucer's *Book of the Dutchess* and *Parliament of Fowls*, and the alliterative revival poems *Pearl* and *Piers Plowman* exemplify the genre.

Pillow faces   Magic mirrors depicted faces, as did magic pillows. Albrecht Dürer's magnificent depiction of pillow faces in *Six Pillows*, created in 1493, demonstrated pervasiveness of pillow divination. Divination herbs and spices eaten, smelled, tested for vigor when plucked from the ground, and kept attached to the bedstead also were used for divination of faces in pillows. The physiognomy of one's beloved, the facial appearance and its connotations, was readable in a pillow after having been slept on at night. In the morning its creases, depressions, and deformations when studied revealed hidden faces or serendipitous heads that would foretell the future. The herb *Eryngium campestre*, famous in English folklore as *lad's love* or *boy's love*, was a mystical aphrodisiac and also revealed in dreams visions of an unknown beloved or true love. The herb also was used to stuff pillows on Saint John's Day and other holidays in order to make the prognostic pillow faces.

Pyromancy was divination by objects burning in fire, the occult opposite of hydromancy.

Rhabdomancy was the art of using a diving rod, forked stick, or wishbone-shaped rod for finding water, lost objects, or veins of minerals

in mines. The German metallurgist Georgius Agricola's *De re metallica*, published in 1556, portrayed such exploration of mining areas for ideal locations of rich ores. Great wielders of the divining rod also could find escaped murderers and reveal hidden crimes. Some ascribed power of the divining rod to the devil.

Stichomancy was divination by opening a book apparently at random and reading the text for its revelations. Scripture yielded "lucky dips" of lucky lots of the saints, *sortes sanctorum*.

OCCULT SCIENCES

Spell and Taboo Words had power. The proper words could compel effects, even if the speaker did not understand the words used. *Spells* were incantations, words, or phrases thought to affect actions of people or things. Witches especially were accused of speaking or muttering negative spells to make men impotent, cause women to sleepwalk, induce cows to give birth prematurely, wither vigorous crops, shatter glass, or cripple legs. Positive spells had benevolent power to instill excellent memory, bodily healing, agricultural abundance, animal fertility, and sexual exuberance. An amusing 14th-century medical malpractice case testified to an ignorant man who falsely represented himself as a physician who had attempted to cure a woman's disease with a parchment upon which a Latin spell was written. The medical imposter was unmasked when in court he failed to translate or understand the curative spell.

A *taboo* was a forbidden word, phrase, or action. Violation of the taboo produced dire effects in people or things, such as the transformation of a man into a werewolf or a woman into a tree. Called a *geis* in Irish literature and lore, the taboo figured prominently in tales of the Celtic mythological hero Cuchulain. It was also prominent in the stories of the Welsh *Red*

Book of Hergain and the Irish *Yellow Book of Lecan*, both dating to the 14th century. Verbal taboo was important in many *marchen*, folk themes transformed in literature, such as Chaucer's racy *fabliaux*.

Witchcraft Witchcraft was a major form of medieval magic and mysticism. A *witch* (from Anglo-Saxon *wicca*, "a magician or sorcerer") was a woman or man thought to have supernatural powers derived from the devil. To those

The woman whose only interest is her own reflection becomes consort of the devil. Pseudoscientific texts such as Malleus Malleficarum (The Hammer of Witches), *by 15th-century Dominican Inquisitors Heinrich Kramer and Jacob Sprenger, claimed that women witches have had sexual relations with demons, knowing and loving demonic anatomy. Here a naked devil exposes his anus and tail to the vain woman who sees it reflected in her mirror. This illustrates the medieval adage: "The woman who loves her own mirror loves only the vile devil's ass."* From Geoffry de La Tour Landry's *Ritter von Turn*, Michael Furter, Basle, 1493. Courtesy of Galeria Medievalia, San Diego, California.

who believed in the malefic reality of witches, the witch world was the real world reversed, *whiddershins*, with the most sacred ideas and ceremonies of the Christian Church turned upside down and backward. Witches' feasts from their cauldrons were reversed blasphemous *communions* and *transubstantiations*. Witches praying during their bacchanalic sabbaths were said to be literally inspired by a spirit dwelling within them after lustily, sexually consorting with demons or with the devil himself.

Witch acts were described with venomous specificity in the book *Hammer of Witches*, or
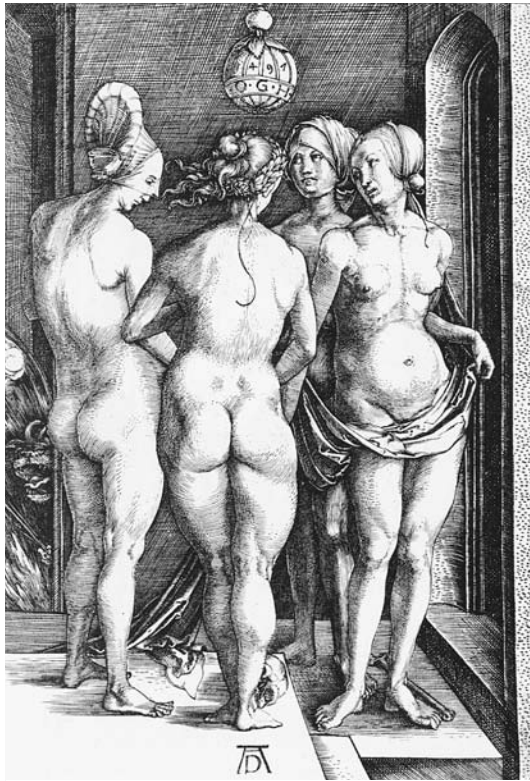
Four beautiful witches gather naked with a skull and bone beneath their feet while the Devil watches. From an engraving by Albrecht Dürer, Germany, 1497.

Malleus maleficarum. This pseudoscientific 15th-century treatise was written by the Dominican inquisitors Heinrich Kramer and Jacob Sprenger and was widely diffused throughout western Europe. Based upon Aristotelian and 13th-century natural philosophy, this work reinterpreted scientific attempts to comprehend the universe and the place of women and men within it.

The *Hammer of Witches* contained rules for detecting witches and noted punishable magic practices. It became a standard legal text for witch trials. Kramer and Sprenger derived their information from the pseudoscience of natural philosophers and the misogynist tradition exemplified in the book by Pseudo-Albertus Magnus (active 13th–14th centuries) called *De secretis mulierum* (*Women's Secrets*). Pseudo-Albertus Magnus provided the ideological basis for the conclusion that women were prone to witchcraft and deserved death. *Women's Secrets* depicted women's bodies, their sexuality, and their temperaments as naturally polluting and destructive. If science defined women as naturally corrupt and corrupting, logic required their avoidance, their persecution when necessary, and when they were proved guilty of perfidy, their execution. This subversion of science for political ends directly influenced the Dominican Inquisitors.

Pseudo-Albertus, an anonymous disciple of the real Scholastic theologian Albertus Magnus (d. 1280), was a cleric addressing other celibate men. He exaggerated and perverted benign physiological procedures. He misunderstood midwifery and despised prostitution. His fervor led him to suspect all women, especially elderly and medical women. Numerous women physicians, practitioners of traditional remedies, and alleged miracle workers were said to be divinely or demonically inspired. Many ended their lives in the pyres of the Inquisition. If they were demonic, their heresy merited death. Pseudo-Albertus's book quivered with

Using unnatural raw ingredients such as human flesh and magical cooking methods such as instant fireless heat, witches create an unholy sabbath meal. Witches' brews were thought to be perversions and inversions of pious Christian table manners. Food expressed spiritually and eating habits exemplified a person's virtue or vice. Gula,

or Gluttony, was thought to be the seducing sin that corrupted the world. While Pride was the deadliest sin, Gluttony was the first sin: Just as Adam ate his way out of Paradise, so man eats his way into sin. This sin tempts daily, is easy to commit, and is hard to forgive. St. Thomas Aquinas, St. Augustine, St. Paul, St. Gregory, interpreters such as Peraldus, Pennaforte, and even Chaucer's Pardoner connect the throat and stomach to the soul. Chaucer's Parson, following St. Thomas Aquinas, explains that the person succumbing to gluttony cannot withstand other sins. Magic rituals of eating, transformation of common foods into something other than what they seem, foods as proof of supernatural power, ritual food offerings to God, eucharistic transubstantiation of wine and bread into the blood and body of Christ all ally food with the spiritual condition. While noblewomen cultivated tastes and appetites as proof of education, political power, and economic supremacy, Christian moralists saw in elaborate foods and eating ceremonials the devil's method of acquiring converts. Witches' sabbath feasts were thought to praise the propitiate Satan. The devil further empowered his disciples, who, having tasted sin, were energized by the food of demonic love.   From Hans Baldung Green, *A Witches' Sabbath*, German, 1510. Courtesy of the Metropolitan Museum of Art, New York. Gift of Felix Warburg and family, 1941.

the extremist position of a celibate clergyman's fear of sexuality, menstruation, conception, abortion, and the unknown. Thirteen chapters of *Women's Secrets* concerned generation of the embryo, formation of the fetus, influence of the planets, teratology, monsters in nature, birthing the fetus from the uterus, signs of conception, prebirth sexual determination, indicators of "corruption of virginity," "signs of chastity," womb defects, impediments to conception, and sperm generation.

Kramer and Sprenger in their *Hammer of Witches* insisted that women's sexuality turned men's minds from good and seduced them to sin. Women's criminal proclivities were natural since all daughters of Eve were born to deceit and lies. Women's inherited criminal leanings derived from a defect in God's forming the first woman from Adam's bent rib, a rib from the breast bent in a contrary direction to a man's. As a defective, imperfect animal, a woman always deceived.

Sorcery The occult world of shadows rivaled the church's world of light. Sacerdotal representations of the dark world existed in the vivid language of sermons exhorting penance for sin for salvation, in graphic depictions of the last judgment, purgatory, and hell in which artists' and sculptors' demons exuberantly embodied vicious, horrid appearances and abhorrent acts. Sorcerers officiated in the demonic church in parallel to the priests who officiated in the Christian Mass. Initiates in magic and sorcery consulted *The Key of Solomon*, a key to magic mysteries attributed to none other than the Hebrew king Solomon, said to be the wisest of the wise, whose gift of brilliance was received directly from God, who also bestowed upon him prodigious wealth and power.

Sorcery and demonology were common in Christian, Jewish, and Muslim traditions. Persian and Arabic versions of Solomon's life suggested his power over celestial, terrestrial, and infernal spirits. The Persian epic poet Mansur Firdawsi (d. 1020) wrote the *Suleiman-nameh*, in which Solomon son of David, Suleiman ibn Daud, was obeyed by subterranean pygmies and gnomes, water spirits and undines, and elves and salamanders. Muslim Arabic magical texts reflected the belief that God gave Suleiman control over the good and evil spirits of the world, the *jinn* and the birds and the winds. In the Quran Suleiman entrusted the jinn to build his palaces, ponds, fountains, gardens, and precious carpets. When traveling Suleiman rode transported on their backs. He impressed on the necks of his servant jinn his magical seal of his signet ring. His magic ring gave him power over them and was the source of his wisdom. Solomon's ivory throne in the Bible had six steps, two lions at the arms, 12 lions on the steps. But the Muslims added magical elements to the two crouching lions. When Solomon mounted his throne the lions spread out their claws, and two eagles perched on top of the crouching lions shaded the king with their giant wings. According to the Quran, the magic throne first was owned by Balkis, queen of Sheba, from whom Suleiman stole it via a jinnee named Ifrit and thereafter hid magic books beneath the throne.

The 13th-century English Franciscan theologian Roger Bacon (d. 1292) denied that King Solomon wrote the books on demonology attributed to him. Pope Innocent VI (1352–62) commanded that a Greek text called *The Testament of Solomon* providing spells for evoking demons be publicly burned. The 12th-century Byzantine historian Michael Glycas alleged that *The Testament of Solomon* was used to summon jinn from the invisible world. The Byzantine historian Nicetas Choniates's (d. 1216) history of Emperor Manuel Comnenos mentioned a magic book in the hands of the emperor's interpreter, Aaron Isaac. That volume enabled anyone who read it to cause legions of demons to appear.

Magical texts such as *The Key of Solomon* and *The Testament of Solomon*, the practice of alchemy, Kabbalist-inspired tarot cards, and the use of astrology and astronomy for medical and other purposes reveal substantial influences of Judaism and Islam in Christian magical practices. Similarly, Christian mysticism inherited Neoplatonic concepts of the soul's purification, illumination, and union with the one. But such spiritual quests went hand in hand with the fourfold method of scriptural exegesis, inherited albeit transformed from Judaism, and were enriched by a profounder understanding of the Old Testament through the study of Hebrew and the insights of Jewish rabbinical texts, as well as contributions of Jewish converts to Christianity. As we saw in the examples of Julian of Norwich and Teresa of Avila, the most profound Christological mysticism drew from symbolism and tropes borrowed from Judaism and, in the case of Spain, from Islam. The following section explores in greater detail the major themes of Jewish mysticism and the medieval Jewish fascination with magic.

JEWISH MYSTICISM AND MAGIC

Jewish mysticism and magic contrasted dramatically with the rationalism, intellectualism, and philosophic sophistication of other vestiges of medieval Jewish life. Neither the intellectual and rational nor the suprareasonable and mystical alone represented the truth of medieval Jewry. Integrity of the medieval Jewish experience united both rationalist and mystical achievements.

Christian and Jewish mystical trends bear the hallmarks of a shared legacy of the adaptation of Neoplatonic philosophy and a shared tradition of biblical exegesis to decipher the sacred text's hidden meaning and discover the very nature of God. As did its Christian and Jewish counterparts, Islamic mysticism celebrated the search for God in the contemplative journey toward mystical ecstasy and in the esoteric interpretation of its sacred texts. Similarly, Jewish magic practices bear a striking resemblance to those exhibited in medieval Islam. Moreover, Jews, Christians, and Muslims alike distinguished between black and white magic. And as in Christianity in particular, Muslim theologians and jurists also struggled to reconcile scriptural paradigms of magic with theological prohibitions against blasphemy.

Jewish Mystical Texts

Some medieval Jewish texts appearing to be one thing truly were another. To the select initiated, apparently simple elements and words meant far more than their literal definitions. Secret words and their arrangements created a hidden language of acceptable superficial meaning to the multitude but transmitted secret messages to the initiates. Purposeful ambiguity and intentional obscurity protected either the sacredness of the message or the identities of its practitioners. Mystical books represent today both the glory and the difficulty of studying medieval Jewish texts. How does a modern reader know which things are what they appear to be and which not? Things were seldom what they seemed: Jackdaws strutted in peacock's feathers, and skimmed milk masqueraded as cream. Magic manuals were disguised as biblical exegesis. The holiest of holies was manifested by a hand, door, lamp, or tree. When was a tree a mystical, spiritual cipher and when mere earth-rooted garden greenery? When was a tree *exoteric*, shown to be what it was, no more, no less, and when was a tree *esoteric* with superarboreal mystical meaning?

Two basic types of Jewish texts were the *exoteric* or revealed, and the *esoteric* or hidden. Exoteric revealed truth of the Torah may have been difficult to understand but was not intentionally obscure. Likewise *exoteric* were most of the Bible, Talmud, and legal codes. The Jewish *esoteric* tradition, however, intentionally was exclusionary, using hidden lore, mystery, and secrecy. These characteristics especially were important in apocalyptical and visionary texts. This mystical, esoteric medieval Jewish heritage had three major classes: *Merkabah* mysticism, *Zohar Kabbalah*, and medieval *Hasidism*.

FOUR LEVELS OF INTERPRETATION, FOUR SYMBOLS

An intelligent medieval reader did not have to be a mystic or a Jew to see multiple levels of meaning in an apparently straightforward text. Every good allegory could be heard as a satisfactory story on its literal level and then, simultaneously, on its allegorical level as a conflict between two abstract or personified ideas, such

as good versus evil, passion versus restraint, sexuality versus celibacy, anger versus equanimity.

Rabbinic Judaism developed a fourfold method of scriptural interpretation: *peshat*, the study of the plain, literal meaning of a text primarily through philology; *remez*, use of rational philosophy to derive the text's *symbolic* meaning; *derash* (or Midrashic) interpretation, which seeks a practical, moral lesson from the biblical text; and *sod*, which refers to the mystical or allegorical interpretation to decipher the nature of God and the soul. The fourfold method of interpretation has ancient roots in Christianity as well. The evangelist Matthew was a Jew, as were all the original 12 disciples of Jesus, and in chapter 2 of his gospel he brilliantly applies *peshat*, *remez*, *derash*, and *sod* in his christological interpretation of the Hebrew biblical verses to explain the life of Jesus.

It has been noted that Christian exegetes from the time of the third-century Alexandrian biblical scholar Origen interpreted Scripture, literature, and art on three or sometimes four levels. Origen's threefold method of scriptural interpretation consisted of the literal, moral, and spiritual readings, which corresponded to human body, soul, and spirit. Under the influence of fifth- and six-century theologians, notably Augustine, Gregory the Great, and John Cassian, a Christianized version of the Jewish fourfold interpretation gained ground. The Christian scheme read the Old and New Testaments on the *literal*, *allegorical*, *tropological*, and *anagogical* levels, with the essential difference being that for Christian theologians, the allegorical, tropological, and anagogical readings of the Old Testament were always christological, figuring and symbolizing Christ and the meaning of the Incarnation. In Judaism as in Christianity, *sod*, the anagogical meaning, was essentially a mystical reading: not irrational but superrational, above and beyond reason. Anagogical and mystical meanings were revealed by contemplation and divine inspiration.

Medieval Jewish mystical texts were characterized by four major symbols: the hand, the door, the lamp, and the tree. These pervaded folk magic and popular mysticism as well as learned, scholarly mystic tradition. To the uninitiated, both modern and medieval, these signs were comprehended as decoration or simple literality. To the mystic, these objects revealed profoundest secrets, graphic reminders of God's promises to humankind, and small celebrations of God's glory. Contemplation upon the hand, door, lamp, or tree could lead the medieval Jewish mystic to visions of holiness in ecstatic encountering of God the absolute.

The purpose of the medieval Jewish mystic was to *understand* the nature of God. The mystic attempted to comprehend qualities that made God divine. The mystic endeavored literally to see, to apprehend sensually divinity. To those believing God omnipotent and inscrutable, medieval mystical attempts to analyze God's place, God's motives, and the workings of God's mind might seem odd, even blasphemous. Maimonidean rationalists, accustomed to loving though fearing the creator, the lawgiver, and king, found medieval mystical ecstasy arrogant, even superfluous. This Jewish mystical heritage provides the context for understanding otherwise inexplicable medieval signs, symbols, designs, and motifs, many of which endure to the present day in art and ceremony.

The Hand A graphic representation of mystical encounter with God was by metonymy, the part standing for the whole: God as the holy hand. In medieval Jewish art, as well as Christian, the holy hand of God reached out from heaven to instruct, to bless, to chastise, to participate in earthly acts, and, sometimes, to interrupt them. In medieval Jewish depictions of the *akedah*, Abraham's "binding" or sacrifice of his son Isaac, for example, God's hand reached out from heaven to stop Abraham

ready to sink his knife into Isaac's flesh. God's fingers interfered effectively to prevent ritual murder. In the *akedah* scene in a sixth-century mosaic in the Beth Alpha synagogue in Israel, the hand of glory blessed the event, reaching down to touch the tested faithful father Abraham. God's hand pledged henceforth to guide the future of Abraham's children.

Also directly intervening, not merely blessing from a distance, God's hand controlled actions of his prophets and seers. Ezekiel in the Valley of the Dry Bones was led, lifted, and held by hand. Ezekiel said, "The Hand of God was upon me and he carried me out and set me down in the midst of a valley full of bones." Three times in the third-century Dura Europos synagogue fresco located in northern Iraq, the heavenly hand touched Ezekiel, in three separate episodes of God's appearance, his theophanies. Triple representation is the common medieval technique of temporal simultaneity or synchrony. Events separate in time were placed together on the same artistic plane. Time, distance, and change, after all, were thought unnecessary rationalities.

In that same fresco a fourth portrait of God's heavenly hand reached down to a disembodied limb. Though desiccated bone could join another bone to bone to form a body, only God could make it breathe and live with his creative touch. This hand represented God's covenant with mankind at the moment of revelation. At the theophany, the revelation at Mount Sinai, God said to Moses: "Lo, I come to you in a thick cloud." God's voice emanated from the burning bush admonishing the astonished animal herder Moses to take off his shoes from his feet. God's fingers from the cloud pointed to Moses, the chosen receiver of law.

While God's hand passed down tablets of the law to Moses's hands, Moses stood on the mountain following God's warning to set a fence or gate or hedge around that law. "Take heed to yourself that you do not go up the mount or touch the border of it." This gate to the world of revelation was kept tightly shut by intentional obscurities of many medieval mystical texts. The gate was open only to the prepared spiritually adept among men and women.

God's commandments literally were handed down to Moses, then to the high priest Aaron, then to hands of the assembled multitude. This handing down of the law was evocation of God's pledge to his chosen people and affirmation of their mutual responsibilities: God's right to lead and enforce his rule, humankind's to obey and to praise. Joy in this covenant, thrilling man, woman, and child, also was signified by the holy hand and imitated by human hands, both as symbols and as gestures.

Blessing hands were the sign of God's priests, his lieutenants on Earth. After the Second Temple's fiery end, the ritual implements defiled, defaced, or destroyed, the Jewish priest could perform few other functions than the laying on of hands, symbolically transmitting God's guiding hand at Sinai and subsequent blessing, protecting, and by his gracious hand implying the shining radiance of his face upon his people. Even after death, God's hand directed destiny. Tombstones and funereal objects were decorated with the hand sign, conducting the spirit through the portal of life to afterlife.

The holy hand of promise, commitment, and joy also was a signal of protection. A God's hand crafted from metal, wood, or parchment was an important amulet. The hand in Eastern Jewish mysticism signified guardianship against evil spirits, so also warnings and stoppings by hand of influences of the evil eye. A common talisman, the stylized hand was hung from a doorpost, wall, or ceiling in the home or worn as a charm around the neck.

Remarkably, the hand charm was complemented both by the physical gesture of raised hands and the spoken or written words for

"hand held high": the Hebrew phrase meaning triumph, joyous vanquishing, and success. Jews leaving Egypt triumphant at the moment of Exodus walked (literally) "with a high hand," as if saluting God in celebration of success. This human "hand held high" was at once prayer for God's protection by his hand, confident offer of human hand in service to God's hand, and intimation of that close personal commitment that medieval mystics achieved, human hand to God's hand, when crossing through contemplation and grace the shining boundary between daily life and God's love.

The Door Passing from Egyptian bondage into freedom, Jews crossed the threshold into another existence. The gate, door, or portal was a second mystical icon serving multiple simultaneous religious ideas. Sometimes the door signified the Torah shrine where the holy scrolls were kept, themselves elaborations of the law handed down the mountain. Entrance to the ark and its secrets for salvation was achieved by passage through the gate or door to the synagogue itself. That message was: If you go regularly to the temple, study, and pray, you may learn what you need to know to pass successfully to the next realm.

The Beth Alpha mosaics suggest a third door: the promised gate that reading the Torah in temple leads to, namely, the heavenly portal. "Lift up your heads oh ye gates, and be lifted up you everlasting doors, and the King of Glory shall come in," as it says in Psalm 24:7. That such doors are more than mere decorative carpentry is proved by another mosaic synagogue floor (from fourth-century Hammath), depicting Torah curtains knotted on the holy door. The door of the holy of holies, the door to God's heaven, opens to the mystic either by correct study of the correct texts to pass ritually from this world to the next or by contemplation.

Often the holy door was depicted in *masoretic micrography*, the microwritten commentaries. A 10th-century Egyptian manuscript exemplifies that micrographic transition. Passage points from world to world, the doors at once signified to the viewer the possibility of journey, the hidden nature of "the other side," and the requirement for a proper key to the lock. Portal portraits appear even on mystical *matzoh*, the Passover ceremonial unleavened bread of Exodus. The locked door to the difficult path opens only for those able to unlock it with intellectual preparation, emotional equilibrium, spiritual purity, or the gift of permission.

Not for everyone was the door separating the realm of unknowing darkness, which was life on Earth, from the otherworld of visionary light. In fact, one of the most influential mystical texts of the Middle Ages and Renaissance making Kabbalistic lore accessible to all who could read was called *Portae lucis* (*Doors of Light*), printed in 1516 with illustrations by Paulus Ricius, the Kabbalist and Jewish convert to Christianity.

The Lamp Lamplight was a third mystical sign decorating medieval Jewish objects, especially the seven-branched menorah. The menorah is the oldest dependable Jewish insignia. Only in the late 18th and 19th centuries did the star of David, the shield of Solomon, become a definitive symbol of Judaism. The earlier, medieval hexagram or six-pointed star was often a Muslim or Christian as well as Jewish ornament. The star was a magical sign used by several cultures. Almost universally in the Middle Ages, the Jewish sign was the menorah, the seven-branched candelabrum providing perpetual light, representing God's radiance and the light of understanding.

In earliest extant Jewish art, oil lamps were crafted with other lamp designs applied, pressed in, or sculptured above, therefore lamp upon lamp. Such multivalent lights graced the oldest mosaic synagogue floors, tombstones, and manuscripts. Representing not only light of

intellectual illumination, the lamp signified God's promise of future restoration of the once radiant Temple. The menorah was an ancient sacred vessel of the sanctuary, among the implements of the most holy rituals, stored after the Temple's destruction, awaiting its rebuilding at the advent of the Messiah. Portraits of the ritual lamp, then, are exercises in temporal simultaneity or synchrony, symbolizing past glories, present promise, and visionary future.

God's word often took the shape of light. So frequent was the writing of Psalm 67 in candelabrum design it was called the *menorah psalm*. Letters of the words shaped the branches of the light holders: "God bless us, be merciful to us, and cause the light of his face to shine upon us."

Masoretic micrography made the shape of lamps. The minuscule letters composed words of biblical, Talmudic, or grammatical commentary. Though convolutions of letters and words formed Eastern lamp shapes as well, such as the Muslim-inspired "pregnant-hourglass" design, the menorah was the most common Jewish lamp shape, usually appearing with its snuffers and light trimmers attached.

Light's multiple meanings as a sign of the Jews, of Jewish law, and radiance of God's love had yet other mystical properties. The menorah psalm 67 in a 15th-century Florentine manuscript has the arrangement of words in the apparently traditional form. But in an esoteric game, the instructions below the lamp, the numbers corresponding to the letters for each branch, can be added, each sum translated back into a word, and the numbers of the words added to reach the ultimate sum and most radiant word: the name of God. This number and letter correspondence called *gamatria* depicted in the menorah branches had its roots in the Jewish mystical idea of living words.

In fact, the menorah was associated with the seven-branched tree of life. This was Adam's sinning tree. From this fruit tree derived the light of knowledge, the tree of Jesse, and the branches of consanguinity for the family tree of humankind.

The Tree   The juncture of tree of life and menorah symbolized mystically the Jewish resurrection tree. In manuscript portraits, and also in the third-century Dura Europos mosaics, the Mount of Olives in Jerusalem had a stylized tree atop it. The hill disgorged the buried righteous corpses on Resurrection Day. The living dead were to see the new glory of the ritual vessels in the newly rebuilt Third Temple at the time of the Messiah's arrival.

In a *masoretic micrography* series of three portraits from a manuscript from the same time and place as the Beasts of Prayer text, namely, Germany, around 1300, three priests pick olives from the tree of life for making olive oil for holy lamps. A priest using a dropper fills the light cups of the menorah. Every leaf, branch, hat, garment, and root is composed of tiny letters of holy words, as in all micrography. The manuscript scribe Solomon ha Cohen compounded ingenuity with wisdom and fantasy to break species specification: The tree roots are animal heads.

A second micrographic design situated the tree menorah even deeper in the animal world. The high priest stood with his olive oil vessel from the tree of life under a canopy or gate or portal between two crenellated towers. Literally, he stood between two worlds. The gates or door posts were composed of fabulous beasts, the arch overhead of animal heads, bodies, and tongues.

A third micrograph-menorah-tree had flowers on its branches, symmetrical leaves, tendrils, and buds. A pair of fantastical beasts flanked it, their paws on the tree-root candle stand. The beast, at left, winged and human-faced, was bird-hatted. On the right was an animal from paw to crown, capped by a second animal head and followed by a micrography

An adept Kabbalah holds the sefirotic tree. From an engraving, Ricius, *Porta Lucis*, 1516.

them. Once out of time, shape was eternal. As once shape was, now is, ever more shall be.

All four symbols demonstrate a medieval Jewish devotion to the sanctity of word and careful analysis of words' multiple levels of meaning. Words themselves were thought to have magical powers. Some inherent virtue, some occult power, residing in a word or the letters that formed it was believed to affect the world in which they were written or uttered. Magical uses of names, particularly names of God, were closely linked with other types of medieval Jewish magic practiced alike by common folk and the most learned rabbis.

JEWISH MYSTICAL TRENDS

Merkabah Among the three major types of Jewish mysticism, Merkabah, Zohar Kabbalah, and Hasidism, Merkabah is least known and most difficult for modern rationalists to comprehend. Its esoteric ideas spanned a millennium, from before the first century to the 10th century. Merkabah's ascetic visionary concepts were exclusive and theurgic, that is, God-compelling.

Merkabah means "chariot," referring mainly to Ezekiel's vision of the many-wheeled, moving throne of God and the divine figure inhabiting it. The learned mystics prepared themselves through ecstatic vision after self-purification, discipline, and sacred secret rites. They attempted to encounter some aspect of God: his chariot and heavenly dwelling hall.

Just as God granted visions to the prophets of old, so also he was expected to grace later saints with visions. Merkabah mystics therefore strove for mystical ascent of the soul. Records of their visions are the astonishing, voluptuously detailed heavenly halls literature, called the *heikhalot*.

The 10th-century Babylonian Hai Gaon described the physical process leading to revelation: When a man is worthy and blessed with

bird. Here mystical transformation obliterated earthly categories for God's creatures. The lamp was the Tree of Life and Death. The beasts were the priests tending it. The world's simple earthly categories were made insubstantial in that vision of creation that knew all creatures worthy of awe.

This cultural classlessness was isospecific, purposefully obliterating distinctions between lower animals and higher, between animal and vegetable, between human and spiritual figures. All were one phylum in the life history of the universe. Isospecificity characterized most mystical descriptions of hand, door, lamp, and tree. Just as these four designs obliterated class, so they eliminated time and were synchronous. Time's passage and mutability did not affect

certain qualities and he wishes to gaze at the heavenly chariot and the halls of the angels on high, he must follow certain exercises. He must fast for specific numbers of days. He must place his head between his knees, whispering softly to himself certain praises of God, with his face toward the ground. As a result, he will gaze into the innermost recesses of his heart. It will seem as if he sees the seven heavenly halls with his own eyes, moving from hall to hall to observe whatever glory therein is to be found.

One of the most important books of these explorers of the supernatural world is the *Book of Creation*, *Sefer yetzira*, an anonymous third-century text influenced by ideas of Neoplatonic philosophy. Indeed, it is thought to be the first text to transmit Hebrew concepts using the terminology of Greek philosophy. It describes God's act from the moment of "Beginning" and suggests that secrets of creation and of the creator can be learned by lesser makers, namely, those made in God's own image, human beings. The book of creation describes not only creation but the process as reducible to human purpose. It is a manual of occult creation magic.

God's complex procedure involved 32 elements, 32 ways of wisdom: the 10 numbers called *sefirot* and the 22 letters of the Hebrew alphabet. The numbers were not mere arithmetic ciphers but cosmological. Number 1 was the spirit of God plus the three elements: air, water, and fire, plus the two spatial dimensions of up and down, and the four cardinal points: north, south, east, and west.

Letters of language were instruments of creation. Words or the word operated to produce being. The Hebrew number-word universe had close correspondences between heavenly and earthly human rhythms, numbers and words ruling the workings and orderings of each life. Man the microcosm had a separate letter governing each part of his body just as a letter guarded and guided each aspect of the larger world. Anatomy, astrology, and astronomy magnificently converged.

The letter instruments of creation were thought dangerous in the wrong hands. So the sections of the Torah, God's words, were not given in the correct arrangement. According to the third-century rabbi Eleazar Kallir, if they were in proper order, then everyone who read the Torah might create a world, raise the dead, and perform miracles. Therefore the order of truth was hidden and known to God alone.

Yet the initiate, the person God permitted to know creation magic, could use the sacred alphabet. According to another third-century mystic, Bezalel, the sculptor of the tabernacle as depicted in Exodus 31, received his instructions directly from God. Bezalel built the gorgeous icon- and image-filled Temple, having "learned from God the combination of letters with which heaven and earth were made." Bezalel the artist created the creation in small. The tabernacle was the microcosm, magically imitating everything in land, in air, or in sea. This provided a paradigm of art's dangers: The great earthly sculptor was a potential seducer to idolatry, imitating God's creativity.

Medieval mystical utilizing of the 10 sefirot and 22 letters might magically animate a creation. Sculptured animals and human forms could be animated by correctly using God's names. This Merkabah mysticism was *theurgy*, the supernatural art evoking then utilizing divine aid. Particularly the Merkabah adepts used the holiest name to perform certain acts, compelling God's intervention. Several qualities of Merkabah animated the second important mystical tradition, the Zohar, which is generally known as the true Kabbalah.

Zohar Kabbalah   Zohar mysticism was a powerful 13th-century investigation not simply into God's word but into God's mind. This was study or *theosophy*. Mystics studying God's personality, the conflicting elements within the creator, bet-

ter comprehended their own relationship with divinity, which was direct, and, astonishingly, mutually energizing. From study of God arose power, but energy also flowed from student to the studied, from mystic to God.

Zohar is named after the bold, symbolic system of the *Book of Splendor*, *the Zohar*, apparently written in Spain about 1280 by Rabbi Moses ben Shem-tov de Leon. In form it is a spectacular forgery, an imaginative recitation attributed to a fanciful second-century rabbi, Simeon Ben Yohai from Galilee. Writing in pseudo-Aramaic, the medieval Hebrew masquerading as the ancient language, the 13th-century Moses de Leon dignified his imaginings and analyses as old tradition by using a pseudonym. *Pseudepigraphy* was a legitimate technique for writing a religious document, assuring the author's anonymity, and for following a time-honored Jewish tradition, as in *The Book of Enoch* and *Sibylline Oracles*. Pseudepigraphs were common in medieval Jewish writings.

Essentially the Zohar explored the 10 emanations of God, the lightning flashes of God's being, personality, or innermost self as revealed to a mystic inquirer. These were the Ten Sefirot, the words borrowed from earlier Merkabah mysticism, but in Zohar meaning something quite different. The earlier Merkabah numbers, *sefirot*, were outside God (extradeical). In the Zohar these *sefirot* were essentials of God himself (intradeical), inside him, within his mind.

Each *sefira*, a lightning flash of God's wisdom, was graphically represented as a branch or a sector of the *sefirotic tree: keter* ("the crown of God's transcendent royalty"), *chochniah* ("God's transcendant wisdom or mind"), *binah* ("understanding"), *chad* ("mercy"), *gevorah* ("sincerity"), *hesed* ("God's transcendent grace, righteous power"), *tiferet* ("God's royalty and kinship"), *netach* ("eternity via active grace"), *hod* ("splendor and active power"), *malkhut* ("God's kingdom, his presence connecting the higher with lower realms of existence").

These qualities were not always constant: neither the meanings of the individual names nor the power of each of the 10. Together they formed the godhead: *ein sof*, "the infinite." *Tiferet*, "the central quality," the king, the Sun, the bridegroom, always required union in sacred marriage, constantly thwarted, with *Malkhut*, the queen, the Moon, and bride. The 10 *sefirot* were described in wildly mixed metaphors, alternately 10 rivers, 10 heavens, 10 worlds, 10 aspects, 10 fountains, 10 streams, 10 gates, 10 crowns, 10 colors, 10 pillars. Each symbolic analogy artfully though infuriatingly blended with the other. The mystic orchard had not trees but kings; the queen was watered by the deep stream. A bizarre sensuality, an erotic fulsomeness, vivified the imagery.

In 16th-century elaborations of Zohar by Isaac Luria and his disciples, each *sefira* had within it the names of all other *sefirot* and their qualities, and all were interconnected by energy channels. Adam's sin in Eden disconnected *Tiferet* (the king) and *Malkhut* (the queen), a disaster requiring reconstituting the pipes of power. Reconstitution of the cosmos after Adam's "shattering of the pipes" was a complex celestial engineering problem for which Rabbi Joseph Hayyim Vital (d. 1620) suggested eight clusters of 10 *sefirot*. This total sefirotic configuration had its human counterpart in the body and limbs of the archetypal man, *Adam Kadmon*.

The most spectacular transmutations of Kabbalah mysticism occurred with the Christianization of Jewish mysticism, particularly after the expulsion of the Jews from Spain in 1492 and the establishment of Jewish communities in Renaissance Italy. Under the tutelage of rabbinic and mystic sages such as Elija del Medigo (d. c. 1490), Italian humanists such as Pico della Mirandola (d. 1494) learned Hebrew and appropriated Kabbalah to Christianity. Important christological changes included the identification of the first three *sefirot* with the Christian Trinity.

Clearly Zoharic mysticism, like Merkabah, was not a study for the common man or woman. The mystic must be well educated, a diviner not only of God's words, but of the words within letters, words within words, messages between the lines, concepts within the blank spaces.

The Zohar Kabbalah probably had more adherents than Merkabah, especially after the invention of the printing press in the 15th century. Printed books disseminated keys to the locked mystical portals to all who would read the now less secret texts. Nevertheless, Merkabah and Zohar were the mysticism of the select, the adepts. The complex ideas required learned interpretation, contemplation, and uninterrupted time for ecstatic transports from reality to vision.

Hasidism   Yet at one particular time and in one particular place, there developed a powerful mystic piety of the common people. This third important Jewish mystical tradition was the 12th-century German Hasidism. Exactly contemporaneous with this popular esoteric lore was the prevalence in Jewish religious manuscripts of bizarre bird-headed and animal-headed creatures, which could be called the beasts of prayer. Some biblical or holy figures, others common Jewish laborers and anonymous penitents, the beasts of prayer appeared with democratic animal-headed equivalence. Hebrew Bible and contemporary medieval leaders were equally resplendent in their animality as the bird-beaked righteous entering paradise or as the future apocalyptic feasters at the final banquet in the last days of the world. All classes of people at all earthly and cosmic times became beasts of prayer.

It is possible that the synchrony and isospecificity of the beasts of prayer derived from this Jewish mystical tradition. Most particularly, the beasts arose from the animal-celebrating popular mystic lore of Hasidism.

In that time and in that place there were three popular mystical preachers and writers from the same Kalonymous family. The father, Samuel, was called the *Hasid*, "the pious"; likewise, his son and disciple, Judah the Hasid; and his nephew, Eleazar the Hasid. Together they developed between 1150 and 1250 a magnificent moral mysticism called by their own contemporaries *Haside Ashkenaz*, the Devout of Germany.

Unlike earlier mystical beliefs of Merkabah intellectual adepts, and unlike later ideas of the Zohar, also more elitist than democratic, German Hasidism was a popular, ascetic, mystical piety that converted its adherents from the popular classes into the elect. This 12th- and 13th-century Hasidism had enthusiastic mass adherence because of the charisma of its leaders, the appealing qualities of its tenets, and the particular anguish of the age. Moreover, Hasidism did not require prolonged study and extensive learning. Preached in vernacular German, not Hebrew, its ideas were accessible to all desiring them. The major text, the *Book of the Pious*, the *Sefer Hasidim*, generally ascribed to Judah the Pious, was filled with delightful personal asides, idiosyncratic tales, and legends intermixed with spiritual theology. It introduced a vivid, benevolent, attainable mystic Jewishness with direct, simple instructions for spiritual successes.

The Hasid preached asceticism, a freedom from the bonds of worldly goods yet an altruistic concern for others' material necessities. What is mine is yours *and* what is yours is yours. Altruistic asceticism sometimes forced renunciation of certain bodily comforts such as warmth during cold weather and infliction of body-denying penances for particular sins.

Yet unlike his Christian mystic contemporaries, such as Saint Francis of Assisi, with whose notions the Hasid had considerable affinities, Judah the Pious did not deny himself or his adherents sexuality. Quite the contrary:

Hasidism was sensually erotic. Human love was earthly intimation of heavenly passion for God. The human body sometimes requiring abnegation usually required celebration. Through bodily ecstasies one ascended to heavenly ideas. Through the body descending to brute sense, one reaffirmed affinities to God's other animal creatures. Sex, especially the ascendant joy at the very moment of sexual climax and release, was a foretaste of paradise.

The Book of the Pious counseled loving God better than loving life. Sensual, ecstatic love of God was similar to other 12th-century Jewish expressions of passion for the divine, and simultaneously explanation for Jewish suffering. Jews were different from the world's other people, said the poet Judah Halevi, calling the Jews the world's suffering heart. Israel is to other peoples as the heart is to other parts of the body: It suffers for the whole and is more acutely pierced by grief than any other member. Jews feel, Jews sense, Jews suffer exquisitely. Jewish history depicts century after century of persecution in which Jews had almost nothing left to sacrifice to God other than their bodies. *The Book of the Pious* insisted that no other of the world's people besides the Jews were commanded to sacrifice themselves to sanctify God's name. While of course others had been persecuted and martyred, nevertheless Judah Kalonymous redefined the phrase "the chosen people" because of the horrific treatment of the Jews after the Second Crusade and similar anguishes of that age.

A Jew martyred for God's word must love God better than life. The pious Jew dying for God's word understood it because of praying in the vernacular. Prayer is the heart's petition. How could it be successful if the heart does not understand what the lips speak? When terror and pain inflicted by others became so unutterable that there only was the naked body remaining and no holy book, then the body became the book. The body was the holy book for praising God for whatever life was left, for praying with the residue of being. The paltry yet substantive, sensual body worshipped God with whatever of the senses remained. After death if mind or soul persisted in another state, then the God-lent body was all that was left to give back to God.

Humbling pride ordinarily portraying humankind as superior to animal kind, the Hasid penitently made restitution for human use and exploitation of animals. Hasidism ecstatically celebrated the interrelatedness of all God's creatures. Judah furthermore insisted on God's all-pervasive presence. He preached a Jewish pantheism, a timeless parallelism between the heavenly and earthly worlds; the present, an imperfect imitation of divine perfection. This Judaizing of Platonic archetypes doubtlessly was derived from such Neoplatonists as Philo of Alexandria. Judah the Hasid also recommended as the best preparation for mystic understanding of God a perfect "equanimity," a mental serenity, which, in a brilliant self-conscious pun, also meant bearing shame shamelessly.

Hasidism's moral, altruistic, ascetic equanimity, like that of Saint Francis, was preoccupied with the animal world. Again and again the *Book of the Pious* exhorted respecting and cherishing all creatures the holy one created in this world. Never beat nor inflict pain on any animal, beast, bird, or insect. Do not throw stones at a dog or cat. Do not kill flies or wasps. Never burden a beast with more than it can carry. Never amputate an animal's paw, unless to save its life, for not only will it suffer pain but it will be unable to chase flies from itself. Be kind to cats and wolves. You never know which cat or wolf once was a person transformed by a witch.

Since God endowed animals with spirituality, wisdom, and goodness, they must be honored with the same enthusiasm as humankind. This passion for animals converged with the Hasid's concentration upon Apocalypse now. Like Saint Francis of Assisi and many other

Christian mystics, the Hasid were preoccupied with eschatology's four last things: death, judgment, heaven, and hell.

There was good reason for such concern with the end. So horrendous was the persecution of 12th- and 13th-century German Jews, so frequent the horrors of accusation, punishment, and destruction of entire communities, religious ideas expressed passion for God's protection at both personal end of life and communal apocalypse at the world's end. Hasidim predicted this end would occur on a specific date. Sometimes they saw prefigurations of the end in mystical visions. Their visions were inspired by Jewish literary apocalyptic literature. Hasidim studied, analyzed, and popularized apocalyptic texts. *Ezekiel* had its profusion of animals. *Daniel* had its mystical beasts. *Job* had promise for the blessed's final feasting on the animals Leviathan and Behemoth. Particularly important was the *Book of Enoch*.

The visionary Enoch saw the whole history of the world from creation to the present as animal lore. Enoch described a creation populated by animals. He recounted all historic events as battles between bulls and birds, lambs and lions. The end essentially was an animal apocalypse: the lion lying down in peace with the lamb, the jackals and wolves of war quelled, and the heavenly flocks led by God the shepherd. Animals participated in all aspects of God's world perceived by human beings intellectually, emotionally, and mystically. Beasts of prayer literally embodied Jewish mystic reverence for all life.

Hasidism, Zohar Kabbalah, and Merkabah mysticism included in their intellectual plenitude Jewish art's beasts of prayer, literature's beast fables; the ark of animals analogy in princely love poetry, music, and dance of city and court; the animal references in medicine and science; and decorations and culinary lore of fabulous feasts and festivals.

Jewish Magic

Magic is an unexpected, unreasonable, or illogical effect created by an action, object, or word. A great magician could create an illusion of illogical marvels influencing events or manipulating people by using knowledge of physical laws, by employing special mechanical devices to create an impression of desired reality, and by performing ingenious sleight of hand. Jewish magicians, as did their Christian counterparts, practiced natural magic or white magic, as opposed to forbidden black magic that ostensibly employed demonic or devilish help to achieve its phenomena. Some Jewish mystics believed that select human beings through knowledge, training, and discipline could achieve wonders beyond reason. Their magic was imitative of God's brilliant power.

Rationalists and scientifically trained people rejected the idea of magic, generally justifying the inexplicable as either (a) possible to understand if all data currently absent were available to study and interpret or (b) impossible to understand because some concepts were beyond even the most intelligent person's mind, and unknowing and mystery were God's will.

Nevertheless, learned as well as credulous folk knew that some good things happen beyond wildest hope, and some bad things happen despite virtue, vigilance, and good planning. Between the realm of God's work and human work, the realm of magic seemed to infuse the simplest daily commonplaces to the most momentous lifetime events. Four classes of magic predominated in medieval Jewish mystical writings: travel magic, memory magic, wedding magic, and resurrection magic.

Science and modern technology have not yet caught up with medieval Jewish science fiction's instant travel. The great ninth-century rabbi Natroni, for instance, saying the appropriate words, could travel a several-day journey in a single instant. Another traveler,

the Earth-bound 12th-century voyager Rabbi Benjamin of Tudela, admiringly related the magical travel capacities of Alroy, who could render himself visible or invisible at will or cross rivers on his turban, and with the aid of the divine name travel a 10-days' journey in a mere 10 hours.

Students and scholars worrying about their imperfect memories had recourse to recipes to assure perfect recall. Though the Talmud maintains that eating animal hearts causes forgetfulness, a potent magical mnemonic in medieval Europe was the eating of a fox's heart. Memory charm cakes were recommended in *Sefer raziel*. Each cake baked and inscribed with holy and unutterable names of angels made a never-failing antidote to forgetfulness. Especially important magic memory cakes were made at the beginning of the month of Sivan. The recipe: Take wheat meal, knead it, and let it stand. Form cakes, and write thereon, "He made Memory among His wondrous acts. Gracious and merciful is the Lord!" Then take an egg, boil it hard, peel it, write on it the names of five angels. Eat the cake every day for 30 days along with the egg. You will learn everything that you see and never forget.

Since marriage was so perilous a human exploit, a little magic was useful for prognostication and for control. *Gamatria*, the art of correspondences between Hebrew numbers and letters, helped. To determine the likelihood of success of an arranged marriage, one simply added the numbers representing the letters of the names of the bride and groom. Subtract the sum of one from the other. If the resulting number was odd, the fates promised well. If the result was even, the marriage *gamatria* was not auspicious.

During the pledge of marital fidelity when the couple stood beneath the wedding canopy, the *huppah*, there was cause for some magical fancy footwork. If while reciting the vows the groom placed his left foot over the bride's right foot, he would have sovereignty over her for their lifetime. If she quick-stepped her right over his left foot, she would have marital mastery.

The new wife outsmarted and outstepped by her husband beneath the *huppah* could always resort to marriage-bed water magic. She would have dominion over him all of his days if at the very moment before climactic consummation of their marriage she asked him for a glass of water. While water from particular types of wells was recommended as efficacious, the request's words alone were expected to suffice.

The 10th-century wonder worker Aaron of Baghdad was a versatile medieval Jewish magician. Son of an unpretentious grain miller, Aaron had the capacity to prevent ships from sinking by his invoking the holy name of God. He was best known for his transformations. He skillfully restored to manhood a poor young fellow a witch had transformed into an ass. By magic powers vested in him but especially in the name of God, Aaron restored the dead to life. He inserted a small parchment inscribed with the divine name under the tongue of the dead person or into an incision in the right arm. Aaron of Baghdad's resurrection magic was one step below the highest mystical miracle, the creation of life.

THE GOLEM

Surely the most astonishing medieval mystical arrogation was the creation of a *golem*, a being human in all respects but lacking some important sense, such as the ability to speak. The legendary creation of a golem as described by Jakob Grimm in his 19th-century *Journal for Hermits* was remarkably accurate when compared to 11th- and 12th-century Jewish documents: He wrote that after saying certain prayers and observing certain fast days, the Jews make a figure of a man from clay or mud.

They then pronounce the miraculous name of God over him to bring him to life. Although he cannot speak, he understands what is said or commanded. Grimm said that they call him golem and use him as a servant to do house chores.

Grimm goes on to say that the golem is forbidden to leave the house. On his forehead is written *EMETH*, meaning "truth." Every day he gains weight and becomes somewhat larger and stronger than all others in the house, regardless of how little he was to begin with. In fear of the golem, the Jews therefore erase the first letter, so that nothing remains but *METH*, meaning "he is dead." Thereupon the golem collapses and returns to clay again.

One man carelessly let his golem grow. The golem grew very, very tall. Soon the man no longer could reach the golem's forehead. In terror, he ordered the golem to take off his boots, thinking that when he bent down he could reach his forehead. So it happened. The man successfully erased the first letter. But the whole gigantic heap of clay fell on the Jew and crushed him to death.

ISLAMIC MYSTICISM AND MAGIC

Mysticism and magic both bear witness to the supernatural powers of the divine. By the 10th century, Islamic mysticism had developed into a legitimate esoteric science (*ilm*) of religion, the principal aims of which were to seek a direct experience of God and a profounder, esoteric understanding of the Quran and of God. Most mystics or Sufis drew nearer to God and gained esoteric knowledge of him through an arduous process of study under several masters (*shaykhs*), meditation, ascetic retreat, and spiritual exer-

cises. The mystic's progress along this spiritual path of enlightenment, measured in stages (*ahwal*) and states or stations (*maqamat*), was gauged sometimes by the manifestation of supernatural gifts, called *karamat*. Those who attained the highest mystical states were called saints, or more precisely, the "Friends of God" (*awliya Allah*). The *karamat* of these persons were truly extraordinary, ranging from visions and apparitions of God or the prophets to clairvoyance and the power to intercede with God. Such thaumaturgic powers were considered a divine dispensation, a sign of divine favor, which emanated solely from God.

Magic is another matter. Islam is ambivalent in its attitude toward magic. The Quran refers to magic nearly 30 times and in a variety of contexts. It figures in the angelology and demonology, as angels, demons, and spirits called *jinn* are endowed with protective as well as harmful magical powers. Indeed, many mysterious illnesses, such as epilepsy and the evil eye, were believed to be caused by malignant spirits and could only be healed or cast out through magic. Without going so far as to forbid magic explicitly, the Quran does condemn the evil doings of men and kings, such as King Solomon, who made use of it for their own nefarious purposes. Yet magic is also associated with prophets such as Moses.

The Hadith are even more ambiguous on the topic, explicitly condemning some magical practices while tolerating others. According to one Hadith, Muhammad is said to have explicitly approved of the use of licit "Islamic" magic to cure a person possessed by an evil spirit. The curer was a recent convert to Islam who cured the afflicted patient by reciting the *Fatihah*, or "first sura," of the Quran. On the other hand, Muhammad, perhaps out of his zealous belief in the absolute oneness of God or out of resentment of the accusations of sorcery that his detractors hurled at him, is said to have counted "false magic," in which the name of God or

other Islamic means were not invoked, as among one of the seven mortal sins deserving of death. Despite these ambivalences and contradictions, magic is important in the Islamic tradition and Muslim thinkers sought to reconcile the ambiguities through the careful classification of magic practices, distinguishing between those that were permitted and those forbidden. Other scholars and legal theorists rejected magic outright, condemning it along with many Sufi practices and sciences. Many Muslims believed in and practiced magic, and it became an enduring feature of early Islamic storytelling in such works as *The Thousand and One Nights*.

Islamic Mysticism

The Arabic equivalent to the English word *mysticism*, *tasawwuf*, refers to wool (*suf*) possibly because of the robes made of wool that early mystics wore. *Suf* was probably the foundation of the word *Sufism*, the most prominent Islamic mystical movement. Islamic mysticism was inspired by the Quran. A believer meditating on the meaning of the glorious Quran would be filled with the overwhelming transcendence of God and realize his total dependence upon God and complete submission to his will. Such a believer would perceive a reality different from and superior to mere mortal concerns. God in the Quran, depicted as all-powerful, inscrutable, invisible, omniscient, and great, was also present, close, and near to every human soul relying upon him, "nearer to you than the jugular vein in your neck."

God's proximity to man was a persistent theme in the Quran. Before God created the world, he made a covenant, a *mithaq*, with human beings. He asked, "Am I not your Lord?" and they answered, "Yes, we testify." Muhammad in his life made a mysterious journey to Jerusalem and then another to paradise, where he approached God and had a direct vision of

Allah's face. For Sufi mystics, Muhammad's heavenly ascent or, *miraj*, served as a model for their own method or pathway to approaching and knowing God. Though Muhammad as Prophet declared "no mysticism in Islam," two interrelated movements in the early Islamic period led to praise or, at least, toleration of mysticism. The movement of piety required prayer, purity of intention, and renunciation of self-interest and worldly pleasure. The movement of meditation upon the meaning of the Quran was the more directly mystical movement important in Syria and Iraq.

In medieval Syria and Iraq mysticism and asceticism were practiced among certain Christian and Jewish groups. Eastern Christian ascetics and monks believed in self-abnegation as a means of achieving divine enlightenment. Jewish Kabbalists believed that particular words and numbers were related to spiritual condition. Both Christian and Jewish thought contemporary with early Islam embraced the Neoplatonic concept of an invisible realm of ultimate reality, virtue, and truth that was above and beyond obedience to earthly law. Muslim mystics also embraced the threefold Neoplatonic path of purification, illumination, and their union.

Abandoning the world, meditating upon the hidden meaning of the divine word in Scripture, and repeating the name of God in prayer might purify the heart and release it from worldly concerns in the movement toward direct knowledge of God. If God permitted it and helped, a properly prepared human being approach the divinity. Deciphering the hidden meaning of Scripture formed a central role in the mystic's journey toward God. Thus, as in Jewish and Christian practice, Muslim seekers also adopted the method of multiple hermeneutics, beginning with the literal interpretation and ascending progressively toward the allegorical and finally the anagogical reading.

HASAN AL-BASRI (642–728)

Muslim mysticism was inherent in the teachings of the ascetic preacher Hasan al-Basri of Basra, Iraq. He said that the believer wakens grieving and goes to bed grieving. This is all that encompasses him, because he lives between two fearful things. First is the sin that he has committed in the past and he does not know what God will do with him, forgive him or punish him. Second is the term of life Allah has allotted and that remains for him to live out, for he does not know what disasters will be inflicted upon him. He warned that every man must beware of the temptations of this dwelling place, Earth, for there is no power and no might except in God. Man must look toward and remember the future life. He believed that man was ultimately responsible for all his deeds, whether righteous or sinful, and thus could not attribute to God the "creation" of his actions. This line of thought endeared him to the Qadiriyya and Mutazili Kalam theologians.

AL-TIRMIDHI (d. 910)

Early mystics described God's closeness or distance with a vocabulary bordering on the erotic language of human love. God was the sole object of human love. God was to be loved for himself alone, rather than out of fear of his punishment or hope of his blessings and rewards. The only reason for a true believer to live on Earth was to tread a path to knowledge of God. God would allow those whom he chose to be near to him. The closer man approached to Allah, the closer Allah became to being man's "sight, hearing, hand, and tongue."

The ninth-century mystic Abdallah Muhammad ibn Ali, known as al-Hakim al-Tirmidhi, was born in Uzbekistan. He was on pilgrimage and praying in the Haram when suddenly he understood that he needed to repent his sins. He looked for the right way to live and made progress in curbing his passions and withdrawing from social life through rigorous asceticism, prayer, mystical contemplation, and dreams. He dreamed of the Prophet. His wife also had dreams and visions in which she was granted the secret names of God. He was persecuted and slandered but these afflictions purified his heart. One evening, as he was returning from a session of the liturgical recollection of God (*dhikr*), his heart opened and was flooded with sweetness.

How could men and women draw near to God? How would the world end? What happened next? Possible answers were the goal of a series of repetitions of Allah's name in the ritual ceremony called *dhikr*. Accompanied by rhythmic movements of the body and dancing, exercises in breathing and music, early Islamic mystics believed they could achieve an ecstasy that would free the soul from worldly distraction. Ecstasy might allow the true seeker to become a *wali Allah* ("friend" or "ally" of God) and experience a beatific vision, face to face with God.

RABIA AL-ADAWIYYA (d. 801)

Rabia al-Adawiyya of Iraq is considered the greatest of the early women mystics and is one of the major proponents of what would come to be known as the doctrine of *tawakkul*, trust in God. Born into a poor family circa 714, Rabia was kidnapped and sold into slavery as a child. After a miraculous escape into the desert, she spent several years living a life of solitude, prayer, and celibacy. She later returned to her native Basra, where she quickly gathered around her a school of disciples and others who listened to her prayers and wise sayings.

Rabia practiced *tawakkul*, a spirituality characterized by its complete reliance on God as part of her soul's journey toward union (*ittihad*) with God. Based on Quranic principles, the notion of *tawakkul* is also implicit in the Islamic view of an omnipotent and omnipresent God. Sufis such as

Rabia transformed the concept into a radical reliance on God alone for one's very sustenance, as seen in their renunciation of the world, retreat from larger society, and ascetic poverty. In Rabia's mystical poetry *tawakkul* is intimately related to love and divine grace. She writes of two kinds of love: a "selfish love" (*mahabba*) whose only object is God to the exclusion of all else, and a "purest love" of the beatific vision whereby "the veils which hide Thee fall, and I gaze upon Thee" (Rahman, 130). Her most famous prayer exquisitely shows the selflessness of her worship of God: "Oh Lord, if I worship Thee from fear of Hell, let me perish in it, and if I worship Thee in hope of Paradise, exclude me from thence, but if I worship Thee for Thine own sake, then withhold not from me Thine Eternal Beauty" (Smith, 345b).

SUFI MASTER AL-MUHASIBI (d. 857)

Sufi masters taught techniques that led to gnosis (*marifa*) and guided believers as they traveled on the ethical and theosophical path to knowledge. The Sufi language celebrated mystical preparation and mystical experience. It also encouraged mystical annihilation of the self among those traveling the same path to God. Abu Abdallah al-Harith al-Muhasibi was born in Basra but spent much of his life in Baghdad. Embracing a mysticism that was intensely moral and psychological, he was nicknamed *al-Muhasibi*, meaning "the one who calculates his actions," because of his conviction that the true seeker must constantly examine his conscience. He described the way of life of the seeker after true knowledge through the practice of constant repentance and pious fear (*taqwa*) of doing anything in body or mind that might be displeasing to God.

SUFI MASTER AL-JUNAYD (d. 910)

Abu l-Qasim ibn Muhammad ibn al-Junayd of Baghdad was a confidant of al-Muhasibi. He wrote about the nature of the experience at the end of the path of knowledge. He believed that since all things proceeded from God, they must necessarily return to him and be joined (*jam*) once again with him. The mystical seeker experiences this union with God in this life in an ecstatic experience known as "passing away" (*al-fana*). The experience of *fana* is to be differentiated from "union" (*ittihad*) with the divine, a notion that the "sober" (*sahw*) school of mysticism considered a blaspheming of God's absolute unity and otherness. The true and sincere believer ultimately would find himself face to face with God.

At the moment of God's covenant with mankind, all men then alive saw God and his attributes. Those seeking God mystically could achieve the same transcendent magnificence in which the individual existence disappeared and one was alone with God. But this revelation was only for a moment. The individual would return to the world carrying the memory of that moment of nearness to God. Love of God in its essence was the illumination of the heart by joy, because of its nearness to the divine beloved. The heart filled with radiant joy found delight in being alone with the recollection of the beloved. When solitude was combined with secret intercourse with the beloved, the joy of that intercourse so overwhelmed the mind that it no longer was concerned with this world and anything in it. Mystics such as al-Muhasibi and al-Junayd represent the so-called sober school of mysticism, in which the mystical ecstatic experience is perceived as indescribable and inexpressible annihilation in God.

ABU YAZID AL-BISTAMI (d. 875)

The kalam theologian al-Ashari believed that God's overwhelming greatness and power were unique to him and that the believer required God's direct guidance in order to perceive and

understand it. Mystics believed that Allah could enter into human life in whatever way he pleased. The sense of being filled with the presence of God, if only momentarily, was intoxicating. Sufis tried to express that inexpressible wonder in a dramatic, highly erotic language. Abu Yazid al-Bistami described the moment of ecstasy. The mystic was denuded of his own existence and filled with God. In the end he understood life was an illusion and best filled with alternation of the presence and the absence of God.

AL-HALLAJ (857–922)

The mystic Abu l-Mughith al-Husayn ibn Mansur al-Hallaj was executed in Baghdad for blasphemy. A pupil of the "sober" Sufi mystic al-Junayd, he nevertheless described his ecstasy in the intoxicated terminology of union with God. He earned the disapproval of many of his fellow Sufis by refusing to maintain secret the esoteric truths of his enlightenment. Rather, he boldly revealed them to the public in his charismatic popular sermons. He claimed not only that he saw and knew God, but that he was an attribute of God, God's truth, when he exclaimed the words *ana al-Haqq* ("I am the Truth"). Although a fervent Sunni, al-Hallaj was possibly influenced by the Malamati trend in Sufi thought in which, comparably to certain ascetic tendencies in Christianity, one debased oneself not simply to escape from the world but to generate reproach from the world. The mystic's self-mortification and mortal abdication would generate the contempt of observers but simultaneously create in the mystic a self-knowledge of his true spirituality and thereby connection with Allah.

AL-SUHRAWARDI (1145–1234)

The Sufis considered the Quran God's word and Muslim life on Earth the exercises for understanding the meaning behind the words of the Quran. Sufis imbued in Neoplatonic thought, such as Shihab al-Din Abu Hafs Umar al-Suhrawardi, were dedicated to the pursuit of divine illumination, *ishraq*, a radiation of divine light from which all being and authentic knowledge sprung, thus allowing mortal contact with the ineffable. Even the rationalist Avicenna, Ibn Sina, wrote about *ishraq* as the divine light enabling seekers to contact the hierarchy of intelligibles. *Ishraq* was for the mystics the systematic formulation of reality behind the words of the Quran. Al-Suhrawardi had numerous disciples in Iraq, Iran, Asia Minor, and India, where a Sufi order was founded bearing his name, the Suhrawardiyya.

IBN AL-ARABI (1165–1240)

Muhyi al-Din Abu Abdallah Muhammad ibn al-Arabi was an Arab from Murcia (Andalusia) who studied in Spain and the Maghrib before traveling to the East. On a pilgrimage to Mecca, he had a vision that the Kaba was the "point" where God's ultimate reality impinged upon the visible world. His book called *The Meccan Revelations*, *Al-futuhat al-Makkiyya*, described the universe as an endless flow of existence from God and back to God. The flow was symbolized by light. This process of endless flow derived from an overflowing of Allah's love, yet God also desired to see his own necessary being reflected. Sufi thinkers frequently quoted the divine saying (*hadith qudsi*) "I was a hidden treasure and I desired to be known. Therefore I created the creatures in order that I might be known" to manifest that God created human beings so that he might make himself known.

Creation took place by manifesting God's being through his names or attributes. According to Ibn al-Arabi, there were three aspects of God's names. In themselves, the names were part of the essence of Allah. As eternal archetypes or forms, the names were the patterns

upon which all excellence was created. Finally, the names of God were realized in specific existing beings on Earth. The names in active form were called lords. They manifested themselves in images produced by God's creative imagination. Concrete beings embodied images emanating from Allah's imagination.

All created things, therefore, manifested particular names through the mediation of divine images. Man, however, could manifest all of them. Human beings held a privileged status in the great created universe because, according to the Quran, God made the covenant, the *mithaq* with humanity, before creating the world. Ibn al-Arabi called the archetype through which man was made the "Light of Muhammad" (*al-nur al-muhammidiyya*) or the "Truth of Muhammad" (*al-haqiqa al-muhammadiyya*). This creation was the "clear mirror" in which the divine being could see itself fully reflected. Therefore while all human beings theoretically *could* be perfect manifestations of God, only certain persons *would* be such perfect manifestations. Ibn al-Arabi described such beings as the perfect man, *al-insan al-kamil*.

This concept was adopted in the 15th century by the Hanbali theologian and Sufi Abd al-Qasir al-Jilani, also known as al-Jili, who described the perfect man as one who fully manifested the nature of God, was made most fully in God's likeness, and was visible embodiment of the eternal archetype called the Muhammadan light.

Prophets were magnificent beings manifesting the names of God. Ibn al-Arabi's book called *The Bezels of Wisdom*, *Fusus al-hikam*, described the sequence of prophets from Adam to Muhammad and indicated the names of God each successive prophet exemplified. Muhammad was "the seal of the prophets," who most perfectly manifested God's name. Saints by their ascetic actions and possession of inner gnosis, *marifa*, could attain position as mirrors in which the light of God was reflected. Prophets were saints but not all saints were prophets required to mediate God's law to people. The invisible hierarchy of saints preserved order in the world. At the head of this hierarchy was a cosmic axis or *qutb*. Ibn al-Arabi's peers considered him to be the *qutb* and the most perfect manifestation of these saints.

The Muslim possessor of esoteric knowledge, *marifa*, was required to live within the limits of Muhammad's revelation. Ibn al-Arabi adhered to the minority Zahari school of strict and literal interpretation of the law revealed in the Quran and the Hadith. Nevertheless, he concluded that all revelations through prophets and lawgivers revealed the same ultimate reality. All people worshiped the same God, a doctrine known as pantheism. Light outflowing from Allah also was an inflow to Allah because human beings were mirrors reflecting God's knowledge back to him.

God's allowing the descent of creatures also permitted to mankind an ascent. This path of ascent led through various stages of knowledge of God and of the mystic himself: "He who knows himself knows his Lord." On the way back to heavenly union with God, the mystic could reach the archetypal images, the manifestations of the names of God in the "world of images," *alam al-mithal*.

Thereafter the mystic would see God. Briefly the veil over God's face would be lifted. In such a vision, there were two distinct, identifiable stages. First, the seeker ceased to be aware of his or her own personality and those of other creatures in the radiance of the vision of God, *fana*. Second, the mystic seeker saw God in God's creatures, *baqa*, and lived and moved among them ever after conscious of the vision of Allah. Therefore the most holy mystic was totally transformed by the vision of God and permitted thereafter to continue seeing the vision of God though no longer in Allah's presence but in the world of men.

In Ibn al-Arabi's vision of the reality of the universe, nothing exists except through God; God is the necessary being from whom all creatures owe their existence through an act of creation by God or a process of emanation from God. Ibn al-Arabi's concept of God's unity or necessary being (*wujud*) is essentially Neoplatonic. (The well-known term *wahdat al-wujud*, "unity of being," is thought to have been coined by Ibn al-Arabi but does not actually appear in any of his writings.) The culmination of the human purpose on Earth is to achieve perfect consonance with God's will for humanity. This unity between God and man (*jam*) differed diametrically from the separation between God and man that the Quran teaches. Therefore throughout many centuries, Islamic doctors of religion and law issued *fatwas* against the teachings of Ibn al-Arabi. Some Sufi masters accepted spiritual gnosis or *marifa* as the ultimate goal of their path to enlightenment, while others adamantly rejected it.

Sufis often expressed their overwhelming yearning for God and the divine through poetry. Ibn al-Arabi composed the vast majority of his works in poetic form. Persian poetry of rapture described the passion of the mystic for Allah as if it were an erotic-spiritual love affair between a man and a woman. Perhaps the most famous of the Persian mystic poets was Jalal al-Din al-Rumi of Balkh in Afghanistan, who was born in 1207 and died in 1273. His poetry expressed the mystic's yearning for union with the beloved. Ibn al-Farid stands out among the Arab mystical poets for his Bacchic descriptions of the intoxication of divine love and mystical union.

The exterior of the tomb of Jalal ad-Din ar-Rumi (Mevlana, 1207–73), founder of the Mawlawiyah order of mystics.   SEF/Art Resource.

SUFI STATES (*AHWAL*) AND STATIONS (*MAQAMAT*)

The Sufis developed an elaborate terminology to describe the soul's quest for annihilation in or union with God. Under the careful guidance of the Sufi master (*shaykh*), the Sufi's progress was tangibly measured according to the mystical states (*ahwal*) that she or he experienced, which corresponded to the stations (*maqamat*) along the Sufi path toward God. Al-Bistami is one of the earliest Sufis credited with articulating this system and terminology. The sevenfold *maqamat* progressed from repentance (*tawba*), to awe (*wara*), asceticism (*zuhd*), poverty (*faqr*), patience (*sabr*), trust (*tawakkul*), and satisfaction (*rida*). Correspondingly, the Sufi adept would progressively experience seven states: nearness (*qurb*), love (*mahabba*), fear (*khawf*), hope (*raja*), longing (*shawq*), witnessing (*mushahadah*), and conviction (*yaqin*).

Islamic mysticism has a long tradition of describing the journey of the soul through the

various stations using the motif of a castle. One of the earliest descriptions is found in the ninth-century Iraqi mystic Abu l-Hasan al-Nura's *Maqamat al-qulub* ("*Stations of the Heart*"), although the motif recurs in many other texts. For instance, it appears in the *Kitab al-Tajrad* ("*The Book of Spiritual Nakedness*") by Ahmad al-Ghazzali (d. 1121, the brother of the acclaimed theologian Abu Hamid al-Ghazzali), in a 15th-century text entitled *Nawadir* (*Extraordinary Things*), and in the writings of many Spanish mystics. The castle is composed of seven mansions arranged in concentric circles, and each mansion is made of a precious substance—crystal, ruby, emerald, diamond, and so forth. The outermost wall is surrounded by demons in the shape of dogs, the filthiest of animals in Islamic culture. The dogs continue to accost the Sufi traveler in an attempt to prevent him or her from advancing to the next station of the soul's journey along the mystical path to divine union or annihilation in God.

Sufi terms such as *stations*, *states*, and *annihilation*, as well as many Sufi symbols, would find their way into the writings of Jewish and Christian mystics in Spain. The impact of Islamic mystical thought in the writings of the 16th-century Spanish mystics Juan de la Cruz and Teresa of Avila has been noted. The mystical writings of the Jewish poet, philosopher, and mystic Solomon ibn Gabirol (1020–70) of Malaga were influenced especially by the Spanish mystic Muhammad ibn Abdallah ibn Masarra (833–931), who introduced Sufism into Muslim Spain, and the ninth-century *Rasail* (*Epistles*), a Neoplatonic philosophical and mystical treatise attributed to the Brethren of Purity (Ikhwan al-Safa).

The philosophical-mystical treatise known in the Latin West as *Fons vitae* (*The Source of Life*) was so imbued with Islamic mysticism that the Christian theologians who translated it in the 12th century were convinced that the author was either a Muslim or a Mozarab Christian. The *Fons vitae* speaks of the stations of the mystical path and employs many Sufi motifs such as the mirror that represents the light of true understanding (*marifa*). Ibn Gabirol's *Fons vitae* was enthusiastically read by Christian philosophers and mystics, the latter of whom include Saint Francis of Assisi. The *Fons vitae* would become standard reading among the friars of the Franciscan Order.

SUFISM AND THE FUTURE OF ISLAM: IBN TAYMIYYA (1263–1328)

In 13th-century Syria, the conservative Hanbali judge Ahmad ibn Taymiyya considered the Sufi tradition of Ibn al-Arabi dangerous for the future of Islam. Living under the Mamluks, Ibn Taymiyya considered the Mamluk soldiers and their sultans to be only nominally Sunni Muslims. He noted that many Mamluks had only recently converted to Islam and their ideas were inconsistent with the true meaning of his faith as Ibn Taymiyya understood it.

Ibn Taymiyya followed the Hanbali tradition of strict, literal following of the Quran, then the Hadith, then the companions of the Prophet, whose consensus had validity equal to that of the Hadith. Truth depended on transmitting religious knowledge by concerned, well-informed Muslims. A need for reinterpretation, or *ijtihad*, by individuals capable of it could allow a reasonable flexibility in Islamic law, sharia, but according to Ibn Taymiyya the scholars were not infallible.

Ibn Taymiyya railed against the popular practice of visiting saints' tombs (*ziyarat al-qubur*) to pray, denouncing it as an imitation of the Christian cult of saints. He and many other Hanbalis were deeply suspicious of the concept of the saints or "friends of God," which Sufis such as al-Tirmidhi and Ibn al-Arabi defended, arguing that they should be respected but not

venerated and, indeed, that all true Muslim believers are by definition "friends of God." The Sufi ritual of *dhikr*, repetition of the name of God, was a commendable practice but not obligatory and thus ultimately inferior to the ritual prayer and recitation of the Quran. The concept of man as manifestation of divine light was completely rejected in favor of man as a created being. No man could be absorbed into God's being because God was separate, inscrutable, and ineffable. One could draw near to God only by obedience to his will.

While in Damascus the world traveler Ibn Battuta (d. 1377) met the controversial theologian whom he described as one of the principal Hanbali doctors, a greatly competent man of wide learning, but with some odd quirks. Ibn Battuta described how Ibn Tamiyyah one day, while preaching to the people of Damascus from the pulpit, made a statement that other theologians disapproved of: He said that Allah descended from heaven to the sky over our world in the same bodily fashion that he, Ibn Tamiyyah, made a descent down a step, and, to illustrate, he stepped down one step of the pulpit. Suddenly a Maliki doctor contradicted him and objected. The common people were furious and beat the Maliki with their hands and their shoes so severely that his turban fell off, revealing a silken skullcap on his head. The people took the Maliki before the Hanbali *qadi*, who ordered him to prison. Other doctors objected to this and complained to the amir, who wrote to the sultan, who legally attested to Ibn Tamiyya's heretical statements. The sultan ordered Ibn Tamiyya imprisoned in the Citadel, where he remained to his death. During his time in prison he wrote his prodigious commentary on the Quran called *The Ocean*. The works of Ibn Taymiyya ultimately led to the development of the Wahhabis in the 18th century and the creation of modern Saudi Arabi.

DERVISHES

Dervishes, known also as *faqirs*, are mystics who belong to an order characterized by its adherence to a particular path (*tariqa*) or method of knowledge. They tend to be ascetic, subsisting only through begging, and practice elaborate initiation and other spiritual rituals that invariably involve *dhikr*. Some orders practice extreme fasting, leading to near starvation, drug inhalation, or music and dance in order to induce a state of ecstasy, such as the circular dancing of the so-called Whirling Dervishes of Turkey and Persia.

Some dervish orders adhered to the obligations of Islamic law, but many others were manifestly antinomian. Ibn Battuta had traveled by caravan to the Iraqi village of Umm Ubayda, where he observed the dramatic customs of a group of Ahmadi dervishes who resided in a gigantic monastery housing thousands of members. After the midafternoon prayer, musicians beat drums and kettledrums and the dervishes began to dance. Then they prayed the sunset prayer and ate a meal consisting of rice bread, fish, milk, and dates. After the night prayer they recited their litany. Then large loads of wood were carried in, and kindled into flame, and the dervishes went right into the fire, dancing. Some dervishes rolled in the fire. Some ate fire until the flames were extinguished entirely. Others took large snakes and bit their heads off.

Islamic Perspectives on Magic

Magic, according to the Islamic understanding, did exist insofar as an individual, through physical acts and the recitation of powerful words, could create a result that was neither logical, intelligible, nor accessible to all people. Only

The Dance of Dervishes, *from the Khamseh by Djami, early 16th century, probably from Tabriz, Persia*
Werner Forman/Art Resource.

those appropriately trained could achieve the desired effects. Muhammad was said to resent that some contemporaries considered him a magician or *sahir*; or one under a magic spell, *mashur*; or a practitioner of magic who worked with spirits, *kahin*.

Muhammad accepted the existence of magic but, according to the Quran (2:102), magic was introduced to humanity by devils at the time of King Solomon. In Babylonia, two angels named Harut and Marut used magic and taught each magician that they were offering a temptation. Harut and Marut taught occult knowledge that could create illusions and sow divisions between husbands and wives. Magicians could injure no one except with Allah's permission, however. The sura denies magicians any goodness in the afterlife and warns that they will be recompensed with the evil for which they sold their souls.

WHITE MAGIC AND BLACK MAGIC

Islam distinguished between authorized natural or white magic and unauthorized magic or black magic. In the 10th century Abu l-Faraj Muhammad ibn al-Nadim (d. 995), the author of the encyclopedia called *al-Fihrist*, dedicated a chapter to magic, which he called a praiseworthy system, *al-Tariqa al-mahmuda*, when it was the authorized white magic variety. But unauthorized magic he called a blameworthy system, *al-Tariqa al-madhmuma*. He explained magic as harnessing the jinn, devils, and other spirits to do the work of human beings. King Solomon had no fewer than 70 spirits attending him, and all of them were named. Ahmad al-Buni's (d. 1225) magnum opus on white magic, entitled *Shams al-maarif al-kubra*, explained the secrets of the names of God and of Islamic liturgical formulas, such as the *basmalla* (literally, "in the name of God"). He also revealed the esoteric meaning of numbers and magical squares, in which the sum of numbers in a square on the diagonal, rows, and columns always equals the same number, for the purposes of divination.

MALIK IBN ANAS (D. 795)

Magic was rigorously condemned by certain rational jurists such as Malik ibn Anas, the founder of the Maliki school of law. Ibn Anas believed that a person convicted of practicing black magic ought to be put to death without the chance to repent. He treated heretics similarly strictly. There were, however, numerous forms of magic that had impeccable Muslim heritage, such as *ruqya*, the use of amulets and talismans with quranic sayings.

IBN KHALDUN (D. 1415)

Ibn Khaldun wrote about magic in his *al-Muqaddima*, suggesting rational explanation for magical effects. He believed that true magic emanated from the soul. A lesser magic was performed with talismans, *tilasmat*, that required mystical help from the stars, the spheres, and the magical properties of numbers. However, Ibn Khaldun noted that an especially powerful form of magic was the power of suggestion. In suggestion magic, *sha wadha*, observers were compelled to perceive things that were not there. The magician skillfully manipulated their minds to see what their minds desired to see. He also described the popular letter magic, *simiya*, employing the magical properties inherent in words and letters that the Sufis practiced.

Islamic Magic
WITCHCRAFT AND DIVINATION

Many types of magic appeared in the Quran and they generally were not considered good.

In the penultimate sura, the believer laments that he needs refuge "from the evil of the female blowers upon knots" (Q 113:1–5). These verses allude to witchcraft in which a witch muttered curses over magical knots and then spat on them. According to some Muslim traditions, Muhammad himself became ill when a Jewish enemy in Medina cast a spell of this sort with magical knots. In the Quran suras 2:219 and 5:90 divination, such as by the casting of magical arrows or the casting of lots in the practice called *maysir*, was condemned.

Divination by arrows was called Satan's handiwork. Nevertheless, certain types of divination were thought means of engaging Allah's help. Divination was thought to elicit from Allah advice about which of several courses was the correct one to take, by the process of *istikhara*. Others sought Allah's help through dreams. One went to sleep intentionally requesting a divinely inspired dream to reveal a sign or direction for waking action. Dream incubation was called *ruya*. Drawing lots to determine the future was called *qura*.

SPELLS

Muhammad himself was said to permit particular spells called *ruqya* to treat certain diseases. *Ruqya* also was useful as an antidote to poison and to the evil eye. The process employed amulets or talismans. Muhammad himself used particular phrases or verses from the Quran that later became popular as magical charms to create particular effects if the verses were appropriately chanted. The throne verse, sura 2:255, as well as suras 113, 114, and 36, were thought to be particularly efficacious for their magical powers. In fact, the entire Quran is considered an amulet and tiny versions are worn as such around the neck or elsewhere on the body as divine protection.

In most cases the amulets or talismans would have to be made of a particular type of material—usually bone, animal skin, or wood, depending on its purpose—and the magical inscriptions would have to be written by a holy man or woman using a special kind of ink. In addition to the names of God or quranic phrases, some amulets and talismans bear the so-called seal of Solomon, a six-pointed star, or other drawings or tables consisting of numbers with esoteric meanings. Many amulets and talismans combine quranic inscriptions with pre-Islamic traditional lore and are commonly worn as jewelry by men, women, and children to protect them from the evil eye and ensure, safety while traveling; to secure a healthy birth and the survival of the newborn child; to contract a successful marriage; or to ensure a bountiful harvest or rainfall. Soldiers going off to war would wear them in the hope of gaining divine protection.

JINN, GHILAN, AFARIT

Polytheistic Arabs before Islam believed in a lively world populated by *jinns* who lived in natural objects such as sand dunes, rocks, pools, trees, and caves, along with other creatures said to be made of fire such as the *ghilan* (from which the English word *ghoul* may be derived) and the *afarit*. Human beings were thought to be made of clay. Angels were believed to be made of light. Fire creatures were invisible except when they took specific forms and performed particular types of magic, such as obeying the commands of the person who summoned them. For instance, a *jinn* would appear and faithfully serve the person who invoked the *jinn* by rubbing a magic lamp. This was an important form of magic in the great literary compilation *The Thousand and One Nights.* Intermediaries between mortals and the *jinn* were the diviners called *kahana*. If a *jinn* entered a person and transformed him, the person was called *majnun*, "crazy, mad, out of his wits." The *kahana* spoke in a rhymed prose, called in Arabic *saj*, and swore oaths.

ZAIRAJA

A branch of letter magic that later became important as a form of divination with calibrated lists of numbers to carry out magical calculations was the *zairaja*. This was related to the horoscope and astrology, called *ahkam al-nujum*. In his introduction to the study of history, *al-Muqaddima*, the 15th-century philosopher Ibn Khaldun mentions several books on the subject of *zairaja*, most notably by a 14th-century astrologer, Abul-Abbas al-Sabti, who dedicated an entire book to the topic.

ALCHEMY

Alchemy was an occult science that allowed the initiates to transform base metals into gold and to create an elixir of immortal life. As mentioned, the modern word *alchemy* is from the Arabic *al-kimiya*. It was often referred to euphemistically as simply "the Art," *al-sinaa*. Muslim scholars made significant contributions to the science of alchemy and to its transmission to the West. Eighth- and ninth-century scholars in the employ of the Abbasid Bayt al-Hikma (House of Wisdom) in Baghdad translated numerous Greek works on the topic, including the *Corpus hermanicum*, attributed to Hermes Trismegistus. Muslim alchemists expanding upon the earlier Greek heritage of hermetic, Aristotelian, and pre-Socratic works began to compose their own treatises, the most significant including the anthology of writings by Jabir ibn Hayyan (d. 815) known collectively as the *Corpus gebirianum*, and the *Mushaf al-jamaa*, a text attributed to the person identified as Ibn Wahshiyya (d. c. 951) and translated into Latin as *Turba philophorum*, *The Assembly of the Sages*.

Other significant Muslim alchemists include the 11th-century author Muhammad ibn Umayl, known especially for his hermetic-allegorical works; the 13th-century Iraqi alchemist Abul-Qasim Muhammad al-Simawi; the 13th-century Andalusian preacher Abu l-Hasan ibn Arfa Ras, who rendered his alchemical secrets in such exquisite poetry that it was said of him that if he could not teach you how to make gold, he could teach you to make poetry; and the 14th-century Egyptian physician Aydhamir b. Ali al-Jildaki, whose writings condensed the sum of knowledge of alchemy and magic.

Many of their works were translated into Latin in Spain and Sicily during the 12th and 13th centuries, along with the previous Arabic translations of the ancient Greek alchemists, and would be read by Thomas Aquinas, Albertus Magnus, Roger Bacon, and others. Thus the achievements of the 16th-century alchemists Flamel and Paracelsus in discovering the secrets of the philosopher's stone, the elixir of life, and the emerald tablet were anticipated by Muslim alchemists centuries earlier.

SHAPE SHIFTING, MAGIC MIRRORS, MAGIC LAMPS

In the spectacular stories of *The Thousand and One Nights*, magic events and supernatural creatures were integral to the wonder works of the Queen Scheherazade and her companions. Events and destinies turned on the pivots of magic mirrors, magic stones, magic lamps, and magic rings. Magical flying carpets instantly transported people thousands of miles from place to place. Magical mirrors could see things at impossible distances and in future time. Some supernatural beings acted by their supernatural nature. Other spirits were compelled by a magical object or charm, such as the *jinn* forced to go to work for the person who polished the stone or rubbed the magic lamp. These concepts were both Persian and Arabic in origin.

Another form of magical transformation was metamorphosis of people into animals, the process called *maskh*. The Quran (in sura 2:65)

described Jews who desecrated the Sabbath as transformed into apes. The Prophet also was said to have stated that other people were transformed into pigs, riding animals, and mice.

Sufi legends of North Africa described shape shifters who were holy men who could become animals. Moreover, holy men by their incantations and with the help of mystical animals were thought to be able to change their listeners and viewers into animals. Similar forms of magic appeared in popular epic romances such as the *The Romance of Antar* (*Sirat Antar*) and the *Accounts of al-Battal* (*Ahadith al-Battal*).

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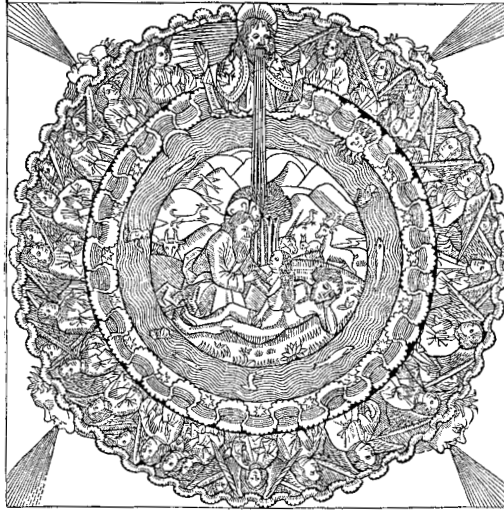
Medicine, Science, and Technology

Medicine, science, and technology in the Middle Ages represent an amalgam of knowledge harking back to the ancient civilizations of India, Persia, Greece, and China. In the Middle Ages this knowledge was preserved and improved upon by the countless numbers of Muslim, Jewish, and Christian scholars, inventors, and translators who labored tirelessly in the pursuit of knowledge per se and improvement of the health, well-being, and economic status of people within their own communities and beyond. Even in the midst of crusader aggression, conquest, pogrom, and ethnic cleansing, the transmission of knowledge between east and west continued undeterred, thanks to the patronage of the translation of texts, undertaken in large measure by Jewish and Christian scholars, and the invention of the printing press.

Medieval medicinal knowledge, surgical techniques, and popular remedies are mostly the product of the Greco-Roman heritage, represented by Hippocrates, Galen, and Dioscorides, among others, coupled with the advances made by Jewish, Christian, and Muslim physicians and scientists. Cultural exchanges among the three communities took the shape of both pragmatic medical treatment as well as the composition and translation of medical texts. Throughout medieval Christian Europe as well as Muslim Spain, Jews were prominent in the court as official physicians entrusted to treat the monarch and the nobility personally. The medical compendia of Muslim physicians and scientists, such as Rhazes's *Book of Medicine* (10th century), Abulcassiss's *Book of Surgery*, and Avicenna's *Canon of Medicine* (11th century), became standard medical texts for Christian, Jewish, and Muslim physicians alike. And medical texts like *The Book of Medicine* and *The Canon* took pride of place in the transfer of Eastern and ancient Greek knowledge to the Christian West, in which Jewish translators played a pivotal role. Access to these and other works via their translation from the Greek, Hebrew, or Arabic into Latin enabled Christian physicians and scientists such as Roger of Salerno (12th century) and Guy de Chauliac (14th century) to extend Western medical knowledge even further.

Today we would refer to the diseases and cures under the categories of neurology, ophthalmology, dermatology, plastic surgery, orthopedics, oncology, gynecology, obstetrics, urology, and proctology. Medical diet therapy for disease was a primary treatment for most illnesses and injuries of body and mind. Every nutrient, mineral, food, and drink was thought to have favorable or negative effect on physique or temperament. Even the most complicated surgical techniques had adjuvant diets before and after the knife.

MEDICINE IN EUROPE

King Charlemagne asserted that herbs were the friends of physicians and not simply the aid of cooks. Food was so important to medical treatment that prominent physicians such as Maimonides (12th century) said that any illness curable by diet alone should not otherwise be treated. Moreover, medical diets and menus entered law courts in the 12th through 15th centuries when a practitioner's prescribed diet to remedy asthma or arthritis, or to reduce postsurgical bleeding and accelerate wound healing, failed its purpose. The patient then sued the physician for malpractice.

In many European cities from the 12th century on, physicians and surgeons were licensed and their practices controlled by law. Medical and surgical guilds promulgated local standards of good medical and surgical care. Standards then were written into civil law. Master physi-

cians and master surgeons investigated infractions of the medical laws that after adjudication were enforced by civil authority. Physicians and surgeons who promised more in treatment regimens than they produced, who overcharged, or whose ministrations caused the patient increased suffering or death, called *iatrogenic sequelae*, were tried, and if proved guilty, convicted of medical malpractice. In the 14th century it became common practice within European kingdoms to protect physicians, patients, citizenry, and the honor of the medical and surgical guilds with a system of fines, forfeitures, and prison sentences. There were even monetary sureties that were prototypes of medical malpractice insurance.

Medieval medicine's surprising emphases on time, timing, and timers caused it to be called *chronophysica*, a time medicine. Early medical time measurers such as the astrolabe, *astrarium*, and *pulsilogium*, which measured the musical rhythms of the pulse, influenced the development of the modern mechanical clock.

Medieval texts describe the patient in hospital, clinic, or practitioner's office as treated by a formidable array of instruments appropriate to the disease or injury: scalpels, probes, retractors; forceps, saws, scissors; cautery irons, phlebotomy fleems; traction devices, dilators, specula, and prostheses. If the practitioner visited the patient at home, the precious instruments were carried in a fitted, compartmented case usually made of leather (*cuir bouilli*) or metal. Rich physicians had their instrument cases embellished with jewels and enamel.

An analysis of medicine and surgery rightfully begins at the head because many medical texts were organized by anatomical descent; injuries to the cranium and brain diseases were accordingly treated first. Some medical and hygiene texts had as frontispiece a depiction of a wound man or wound woman pictorially describing the range of clinical problems explicated within the book. A single distressed naked body had portrayed on it physical assaults on head, trunk, and extremities caused by domestic accident, war, and violence via sword, spear, lance, cudgel, warhammer, ax, crossbow bolt, arrow, carpenter's hatchet, mason's pick, and cook's cleaver. Destructive instruments caused physical depredations by cutting sinew, carving flesh, and breaking bones.

Likewise a bloodletting man, phlebotomy man, or vein man was a drawing, painting, etching, or engraving of a nude male surrounded by astrological signs indicating appropriate time and anatomical location for bloodletting or phlebotomy, head to toe. The zodiac man or zodiac woman, also called sign man or *Homo signorum*, was a naked figure with the 12 signs of the zodiac inscribed as the guides and governors of each part of the anatomy, head to toe.

In health, disease, or injury, Aries was thought to control the head. Taurus ruled the neck; Gemini, the shoulders; and Cancer, the heart. Leo governed the chest; Virgo, the stomach; and Libra, the buttocks. Scorpio guided genitalia and Sagittarius ruled the thighs. Capricorn controlled the knees; Aquarius, the legs; and Pisces, the feet. Propitious time for medicine or surgery was computed on a manual or mechanical timer such as an astrolabe from numbers derived from the patient's injury time, birth time, and the timings of celestial conjunctions associated with the constellation Aries in the case of a head injury or disease.

The Head

Headache and head injury drugs were plentiful, and their making exemplified pharmacology as practiced between the 11th through 16th centuries in Europe. Complex neurosurgical cases had presurgical and postsurgical diets. For cranial concussions, fractures, relief of abscesses, and extirpation of brain tumors the surgical instrument of choice was the trepan, a skull-

boring crown saw for lifting a circular section of bone. The trephine was an elaborated variation of the trepan with a transverse handle and skull-boring central pin to anchor the surgical instrument for precise neurosurgical incisions.

Before and after the knife, the sufferer of a head injury or head disease and the person simply enduring a headache depended on the panacea *theriac*. That medication generally was administered in pill form or *pilula*, a little ball. In addition to the *theriac*, dill in food, in wines, and in compounded medicines alleviated many aches and illnesses of the head. In pharmacotherapeutics dill, a fragrant medieval pot herb adorning salads, flavoring cheese, spicing pickles, and stuffing sausages, also was employed as a drug or chemical agent affecting the living being and its head ailments.

SURGICAL INSTRUMENTS

A cranial chisel and mallet often were the neurosurgical instruments of choice for patients suffering from skull fracture, severe concussion, brain abscess, or malignant tumor. While the chisel and knife allowed entry to the skull by means of a straight-line incision, certain neurosurgical problems required a more subtle surgical approach with the *trepan*, a circular saw for removing a disk of bone from the cranium. Since the trepanning saw had a wider shoulder than its bore, the instrument could not easily sink into the brain tissue.

Skull trepans or the later trephines had a central shaft for anchoring the instrument to the skull for easy rotation. Cranial elevators raised broken or depressed bone from the brain's surface to restore appropriate skull curvature. Other skull saws, probes, and drills were used for particular fractures and removal of foreign bodies such as arrow, lance, or sword fragments. Surgical techniques alleviated the symptoms caused by a severed seventh nerve, such as eye tearing, facial drooping, or saliva drooling. Humorists suggested that neurosurgery instruments even might be used to remove the stone of folly.

DRUGS

Patients had some relief from the pain of their wounds and of the surgery aimed at curing them. While there was no general anesthesia, there were powerful analgesics, tranquilizers, and narcotic and hallucinogenic drugs administered as a drink mixed with wine or as soporific vapors sniffed and inhaled. Balsam, poppy, mandrake, hysocyamus, and similar powdered dried seeds and leaves were burned in censers, their fumes breathed in by rhythmic fumigation. Medieval drugs were named according to substance use, singly or in combinations. Natural substances potent in their natural state, prescribed and taken as is, without essential change, preparation, or admixture with other drugs, were called *simples.* The subject of simples was treated under *pharmacognosy*, the knowledge of natural substances in natural forms. Dill was a *simple* when prescribed for headache and eaten as the raw or dried herb tossed with salad or when baked into headache cakes made with flour, butter, and sugar.

As a component of *theriac*, however, dill also was a pharmaceutical material used in preparing, compounding, and dispensing medicine; changing the natural substance to make it more potent; or joining, combining, and compounding it with other drugs to enhance its effect for healing. *Theriac's* 63 ingredients (or 61, according to the best medical opinions in medieval Bologna) included viper flesh, cardamom, and dill. Particular drugs working pharmacodynamically affected the total body, stimulated it, and changed the course of the illness or disease. A drug could increase or decrease one of the body's four major fluids, the four humors, blood, phlegm, choler, and black bile. Increase or decrease of volume consequently changed balances among the

humors and indirectly affected the disease process. Changing intrinsic environment effectively combated extrinsic disease. Drugs also favorably influenced the patient's mood and psychological affect, indirectly influencing healing. Conversely, other drugs were chemotherapeutic, changing not the host but the agent causing the illness, such as treatments for lice, worms, and other invading, indwelling organisms.

PREPARING DRUGS

Medieval pharmacists generally prepared remedies according to physicians' prescriptions. Physicians and pharmacists who utilized time-honored pharmacological methods for preparing drugs attributed to the second-century Greek physician Galen called their drugs *Galenicals*. Dill weed leaves steeped in boiling water made a tea or decoction, drunk warm or cool. Dill leaves, stem, and seeds also were served in a temperate water infusion. A tincture of dill was an alcoholic or hydroalcoholic solution, easily purchasable from a market pharmacy. Dill also was prepared in fluid extract, a concentrated liquid preparation with alcohol as solvent and preservative. A thick, concentrated, semisolid extract was diluted as dill broth or added to wine, ale, beer, or fruit juice or mixed into fruit sauces or cakes.

Dill sometimes was an ingredient in *collyria*, highly concentrated compound drugs usually diluted with egg white, applied externally for treating diseases of the head and eye. In all these forms, dill alleviated headache, relieved nervous tension, and relaxed muscles. Likewise, dill was important for easing insomnia; overcoming symptoms associated with headaches, dill helped digestion, settled colic, checked bowels, relieved upset stomach, and reduced fevers. Dill seeds heated in a fluid and the steam inhaled also stopped uncontrollable sobbing, and its attendant headache. As an aid to physicians and cooks, dill was so popular as a stimulus for headache-free physical fitness that medical texts referred to Greek masters of games who would not permit their athletes to eat any food without dill.

HEADACHE REMEDIES

Not all head pains had the same cause or the same qualities. The purposes of headache treatments were to reduce pain, to diminish frequency, to eliminate them by curing the body of their stimuli, or to prevent them by avoidance of foods or activities that caused them. Specific headache remedies were created for stinging head pain, half-head headache (that is, migraine headache), searing pain circumnavigating the skull, nervous-tension head pain, and headache associated with trauma, paralysis, epilepsy, or brain tumor. In addition to *theriac*, another panacea for head problems was potable gold. Even Chaucer's Physician prescribed "gold in cordial," a liquid preparation of gold salts.

Marjoram   A good pharmacopoeia for headache included the active ingredients of dill, marjoram, mandrake, and almonds. Sweet marjoram was added to foods as a condiment or taken as a Galenical. Marjoram was deemed useful not only against headaches, but also as an aid in removing "occlusions of the brain." As was dill, marjoram was effective for upset stomach and irritated intestines.

Mandrake   The powerful botanical mandrake or *mandragora* alleviated pain in the head and also insomnia. Mandrake dulled the senses and induced sleepiness, thereby acting as analgesic, soporific, and ameliorator of postsurgical pain. Along with opium poppy, hyoscyamus, and poison hemlock, mandrake was a narcotic, nervous system depressant, and important surgical anesthetic. Mandrake was a medical panacea curing virtually every infirmity, except, of course, death.

Almonds Almonds relieved headache and overcame anxiety. Raw, roasted, or toasted, they were added whole, cut, slivered, ground, or pulverized to omelets, fruit sauces, gravies, stuffings, stews, salads, cakes, breads, and pastries. As mood food, almonds were defense against melancholy, particularly in marzipan, the sweet dense almond paste used to make festive food sculptures ranging from unpretentious, brightly colored fruits and flowers to startling, delectable illusion foods called *subtleties*. Almond milk was the base for hygienic soups and sauces as well as a disguise for ill-tasting medications. To prevent drunkenness, whole almonds were served before alcoholic beverages.

Anger, unbridled fury, and ire also commonly caused headache. Anger's positive medical purposes were relieving toothache and mouth torments. Anger's distraction often prevented extraction. Anger also beautifully flushed white skin. Moreover, anger benefited patients suffering from paralysis. Anger might stimulate those with physiological paresis to exercise with vestigial muscle power, and anger forcibly shocked hysterical paralytics into mobility. Dill, marjoram, mandrake, and almonds could alleviate ire-caused headache. The *Tacuinum sanitatis* advised adding a dose of reason and contemplation.

Roses Foods and flowers causing headache included roses. Medical manuals accused roses of causing severe headache that resulted from blockage of nasal passages and sensations of heaviness and constriction in the nose, sinuses, and forehead. Nevertheless, gardeners copiously bred roses for aesthetics, symbolism, and cookery. In art and literature the rose represented perfect beauty. The secular, erotic *Romance of the Rose* was an allegory personifying a woman as a rose. Woman also was the rose and the rose a woman in the frequent portraits of gardens of love. Ecclesiastically encouraged portraits of the Madonna in the rose garden depict the Virgin Mary herself as the rose without thorns (*flos sine spinata*) and the rose of Sharon (*flos campi*).

Rose petals were common in cookery in rose-petal bread and rosewater flavoring in baking, and as an astringent and fragrance enhancer in cosmetics. Pharmacology required copious planting of crocuses in rose gardens in art and in reality. Crocus neutralized the power of roses to cause headaches and nasal constrictions and therefore were a necessary companion to roses in cookery and imagery. Recipes for rose foods usually added saffron, a spice made from flowering crocus introduced to Europe by the Arabs. Olfactory sensitivy of rose adorers required crocus, camphor, or rose abstinence.

BALANCING AGENTS

Almost every pharmacopoedic negative had a positive. Texts specified balancing agents. Celery's stimulation of head pain could be neutralized by lettuce. Elecampane's headache effect was countered with coriander seed. Garden nasturtium caused migraine headache. This popular flower cultivated for its ornamental crosslike appearance and tangy, pungent taste was a potent aphrodisiac. Recipes for *Potent Salad* recommended tossing watercress and nasturtium with vinegar plus chopped escarole or endive to accentuate stimulating effects while counteracting the attendant headache. Neutralizers also were necessary for other sexual energizers that concomitantly stimulated head pain, such as roasted chestnuts, onion, garlic, and eggs.

Face and Physiognomy

Popular and medical lore maintained that heredity was worn on the head as a human mask and that God alone knew the truth behind it. The face ideally conformed to underlying

EYES OF LAZY, RECKLESS, AND
VORACIOUS MEN

EYES OF MEN WHO ARE PACIFIC, LOYAL,
GOOD-TEMPERED, AND OF GREAT INTELLECT

EYES OF UNSTABLE, LUXURIOUS,
TREACHEROUS, AND UNTRUTHFUL MEN

EYES OF A CRAFTY MAN AND A
SIMPLE MAN

EYELASHES OF MEN WHO ARE PROUD,
VAINGLORIOUS, AND AUDACIOUS

NOSES OF VAIN, UNTRUTHFUL, LUXURIOUS,
AND FICKLE PERSONS

Examples of physiognomy   From engraving, Barthélemy Coclès, *Physiognomonia*, Le Petit Bernard, Lyon, 1549.

A physiognomy depicts foreheads signaling the irascible, vain, salacious, and vicious.   From engraving, Barthélemy Coclès, *Physiognomonia*, Le Petit Bernard, Lyon, 1549.

spirit. If the image did not conform to reality, then the face could be altered medically and surgically. This skin-spirit conjunction justified men's and women's use of medical cosmetics. Clerics, ecclesiastics, and secular citizens treated skin anomalies or injuries because nothing was thought to be merely skin deep.

Physical and hygienic defects were assumed to be a sign of moral failure or falsehood. According to medical anatomical treatises called the *Physiognomies*, prickly, scruffy eyebrows; flaking scalp; and opaque-pupiled eyes reflected hypocrisy, laziness, and greed. The honest man or woman who desired appearance to parallel morality used belladonna eyedrops, barbered the brows, and ate beets and borscht, beet soup spiked with the herb hellebore, to cure dandruff.

SUNBURN

Against facial sunburn, physicians recommended wide-brimmed hats, parasols, canopies, masks, and a good sunscreen lotion made from iris roots, finely chopped and boiled in white wine. If skin darkened nonetheless, savory (*saturija hortensis*) would bleach the tan. Arsenic compounds also whitened skin.

NEVUS AND DIASTEMA

The nevus, a small, dark, pigmented "beauty mark," was considered erotic no matter where located on the body. Nevi were thought caused by astrological configurations at the time of the individual's conception or birth, such as the planet Venus in the ascendant in conjunction with the Moon. According to the birth forecasting of *genethlialogy*, that celestial influence endowed the babe with a predisposition to lechery and lasciviousness. Inclination to ribald rakishness could be overcome by free will to yield a sexually controlled, abstemious, continent celibate. Therefore nevi necessarily were covered by medical cosmetics or removed by surgery.

A *diastema*, the large space between the two front teeth, similarly was a sure sign of lust. Chaucer's sexually voracious Wife of Bath's gap-toothed smile orally announced genital exuberance. A gap-toothed devout virgin had to fill the space cosmetically, or refrain from smiling.

HAIR

Hair mass, texture, and color had to match inherent temperament. Sparse, stringy hair signaled stinginess and querulousness. A benevolent, generous, prematurely balding

man's reputation would fall along with his hair. True baldness, on the other hand, represented soaring, triumphal intellect, just as excessive hairiness, *hirsutism*, demonstrated irrational bestiality.

Four popular piliators prevented hair thinning and balding. Aloe juice or wine from the herb *Aloe vera* stimulated hair growth. Caraway seeds also were effective in flavoring stews, desserts, wines, breads, and cakes. Ashes of burned southernwood leaves, *Artemisia abrotanum*, mixed in oil made a good scalp salve promoting hair regrowth. Madonna lily (*Lilium candidum*) leaves and stems mixed with honey made hair regenerate. Lily decoctions and tinctures also cleaned and cleared the complexion and kept facial skin wrinkle free.

Inheritance and age influenced hair color, and so did medical herbs such as sage, *Salvia*. Sage ameliorated so many pains and diseases that some texts said, "Why should a man die if sage grows in his garden?" Inhaled as vapor, boiled sage relieved toothache; eaten raw or drunk in wine sage cured nerve illnesses and paralyses. But sage also removed dark color from hair. Physicians therefore prescribed a weekly medical hair rinse of myrtle (*Myrtus communis*) and Oriental crocus (*Crocus sativus*) to darken sage-lightened hair or dye gray locks. Saffron enlivened and lubricated hair that myrtle made dry and brittle. Since 75,000 crocus stigmas made one pound of saffron, it was precious and expensive. As culinary spice and brilliant gold food coloring, saffron was so beloved by some leaders such as King Henry VIII that they forbade its cosmetic use.

Since a low hairline or narrow forehead was associated in the *Physiognomies* with stupidity, inability to learn, and venality, shavers and hair tweezers created a broad expanse of skin. Upper-class women and men vaunted their high foreheads. As did other social climbers who wanted to appear nobler than they were, Chaucer's Prioress exposed under her nun's wimple a forehead measuring a hand span wide and high.

The Eye

Consider a hypothetical powerful, valorous, noble knight who suffered occupational hazards of his profession. In addition to intermittent urinogenital dyscrasias from trotting and cantering on a horse all day, discussed later in the section on urology and proctology, the knight had the expected ophthalmic problems of a 30-year-old outdoorsman riding on dusty roads with spectacles on his nose beneath an armored helmet. After a triumphal set of jousts, he rode off in his blood-spattered armor to the castle of his beloved lady to have his sore eyes treated. His eight eye problems included myopia, nearsightedness. Road dust kicked up by his horse's hooves made him susceptible to blepharitis whenever he rode with his armored visor up. A stye had recently developed in his left eye. An incipient cataract with loss of transparency of the left eye's crystalline lens made his battlefield victories all the more marvelous. To complicate visual matters, pterygium, the wing-shaped hypertrophied conjunctiva, impeded vision in his right eye. Fortunately, his spectacular aim with lance and sword assured that bilateral teariness of epiphora resulting from his lacrimal fistula did not interfere with his martial skill. Equally significantly, since he primarily fought foes by day, nobody knew about his severe night blindness. Finally, he had trichiasis, the painful nuisance of an eyelash inverted onto his globe.

Medieval ophthalmic treatments for such distresses often began with a warm herbal eye bath, using "eye cups" to pour onto the eyes soothing waters fragrant with the ophthalmic herbs rosemary, sweet basil, purple violet petals, *Viola odorita*, and agrimony. Agrimony, rich in tannic acid, was significant for healing eye

inflammation and erythema and useful for treating cuts, warts, and burns. An ophthalmic feast dietetically relieved eye symptoms, from the fanfare of the first feast course through the final dessert. Diet, food preparation, even artistic presentation were contrived to ameliorate eye symptoms or eliminate them, to prevent exacerbation of disease, and, whenever possible, to cure.

OPHTHALMIC FEAST CEREMONIALS

Even preliminary feast ceremonials invoked health. The surveyor of ceremonies sang the traditional "Wassail" song, meaning "Be hale, hearty, and healthy! To your good health!" The surveyor then placed the jewel-embellished gold and silver vessel of the salt in front of the most noble who sat above the salt while all others sat below the salt, acknowledging who was worth his salt. Cocondiment with salt was fennel, the eye herb. A different herb would balance the salt if another bodily organ were troubled, as powdered mustard was used for an arthritic's feast.

The butler's task of testing of the wine by tasting served to identify not only poison but vintage. Ophthalmologic dietaries recommended against young wines, red or white, insisting on old wine, *vinum vetus*. New wines were thought detrimental to eyesight.

Cutting the bread's upper crust horizontally then presenting it to the most noble, signifying his position as "the upper crust," also had ophthalmic importance. The ethereally fragrant round bread loaf was colored and spiced with petals of iris and sweet violet, herbal eye aids. Other ceremonial breads with medicinal purposes had equally beautiful color: light green parsley bread for arthritics; golden saffron bread, like Jewish *challah*, for cancer sufferers; and pink rose petal bread for asthmatics. Purple iris and sweet violet bread was traditional eye bread.

Warm water herbally scented with ophthalmically helpful rosemary, basil, purple violet, and agrimony also was poured for hand washing from a whimsically designed animal-shaped pitcher, an *aquamanile*, serving triple purposes of ceremony, hygiene, and eye care. Sensory pleasure of food was prolonged by eating all banquet courses with the fingers. Forks, while fine for kitchen and barnyard, at table were thought foolish, foppish intrusions between the dexterous fingers and the willing mouth. Elegant finger choreography used forefinger and thumb in opposition as flesh fingers for conveying meat to the mouth. Middle finger and thumb served fish dishes. Fourth finger and opposed thumb conveyed fowl. Pinky fingers extended and kept free of gravy and sauces were spice fingers. Dipped delicately into salt, cinnamon sugar, or mustard, the pinky then with sensual flourish was moved to the tongue.

OPHTHALMIC FOODS

Paté de foie gras made from goose liver was good for eye care. The best foie gras was made from obese geese fattened on milk and pasta. Also useful were goat liver, chicken liver, and pig liver, especially of porkers fattened on figs, as well as fish liver, particularly cod liver. Useful then as now for its high vitamin A content, cod liver oil cured night blindness.

Herbed onion overcame eyestrain and helped eliminate blepharitis and stye by ameliorating pain, reducing inflammation, and sharpening sight. A typical recipe required seven ingredients that jointly and individually increased visual acuity. Onions were boiled in rose water with rue, which sharpened vision, plus fennel, which purified sight. Fennel relieved "mistiness" of the eyes caused by cataract or trachoma. After cataract extraction by surgical *couching*, depressing the opaque eye lens then removing it, fennel was a culinary additive and component of warm compresses applied directly to the eye.

Golden marigold or *Calendula* strengthened eyesight, concomitantly settling an upset stomach. Thyme was excellent for the dull-sighted, its oil also good against coughs. Clary, *Salvia sclarea*, the fragrant herb similar to lavender used in perfumery and in brewery as a frothy head maker for ale, had another name, *eye of Christ*, *oculus christi*, energizing medicine with the Holy Spirit.

Stewed eel was preeminent over other ophthalmologically helpful fish such as carp, bream, flounder, cod, herring, haddock, hake, halibut, lamprey, ling, loach, mackerel, minnow, perch, pickerel, pike, salmon, sole, sturgeon, and swordfish. Eel helped treat pterygium and trichiasis. Both were cured by surgery, which was followed by dishes, boiled, baked, broiled, or steamed. Trichiasis was treated with a forceps plucking out the offending lash and then the follicle cauterized with a gold or silver needle. Pterygium, the winglike triangular patch of hypertrophied conjunctiva, the triangle beginning at the inner canthus near our knight's nose and extending to the border of the cornea, having its apex at the pupil of his right eye, was removed surgically with delicate scalpels.

Roast peacock, also a potent aphrodisiac, sharpened sight as it stimulated blood flow, firmed muscles, raised spirits, and aroused genitalia. Peacock customarily was served spectacularly. After roasting, the bird was refeathered to look alive, limbs strutted, beak and claws gilded, camphor and cotton ignited in the radiant bird's mouth, making it ardently breathe fire.

Desserts for the eye included wild strawberry and cream sauce flecked with fennel over the seminal fruits, fig, pomegranate, and pear, all three enhancers of sight, also sexual stimuli. Wild strawberry (*Fragaria vesca*) was good for bleary eyes and destroyed "the web" of cataract. Strawberry and fennel used in decoctions, infusions, wines, and *collyria*, medications and salves in an egg white medium, also were adjuvant to intraocular surgical *couching* for cataract. A confection of puréed chestnut with pistachio was sprinkled with leaves of the succulent botanical recommended for eye inflammation, and for burn treatment, hens and chicks, also called houseleek, Jupiter's beard, or *sempervivum*.

People who had eye injuries drank absinthe wine, a liqueur made from the eye herb familiarly called wormwood, otherwise *Artemisia absinthe*. Though removing many impediments to sight, absinthe was used with moderation. Artemisia allowed one to see what was there and also what was not there. Stimulant of the mind and the nervous system, absinthe if taken in excess caused hallucinations. Taken to exorbitance, it induced delirium.

A knight or lady might dilate pupils with cosmetic eye drops distilled from the plant belladonna, the popular botanical that was used to make eyes look bright and clear, yet blurred and distorted objects viewed. The plant's name, *belladonna*, meaning "beautiful woman," created the illusion of large, beautiful, intelligent eyes that intimated honesty, dependability, and ethical good nature. Belladonna also helped hypocrites who wanted to appear more trustworthy and intelligent than they were.

SIGHT SYMBOLISM AND OPHTHALMIC ART

Physical impediments to sight were interpreted symbolically. The eye was thought to be the window of the soul. Looking into it, the discerning perceived true spiritual excellence or religious imperfection. Sight symbolically was linked to insight, knowledge, foresight, hindsight, and understanding. "To see the light" meant understanding life. "Seeing eye to eye" demonstrated social compatibility. Clear large eyes were necessary to successful negotiation for business or for pleasure. According to the *Physiologus*, shapes of eyes, eyebrows, and lashes

all had personality parallels and spiritual implications. Even in allegory Truth was personified and portrayed with radiantly beautiful, large, all-seeing eyes, whereas error or Mistaken Belief was depicted as blindfolded or blind.

The color and shape of festival foods were believed to stimulate eye healing. Golden marigold pudding was a delicate custard made with marigolds, graceful petals decorating it. Merely gazing at the strong symmetrical marigold flowers was said to strengthen eyesight. Elaborate illusion foods, *entrements* and *subtleties*, were culinary sculptures made of marzipan, spun sugar, or pastry, improving visual acuity while delighting the eye, amusing the intellect, and piquing the imagination. Our knight's eyes were energized by a subtletie after surgery to cure his epiphora caused by a lacrimal fistula.

The surgeon meticulously sutured the tear duct to eliminate the fistula. The knight then had presented to him a gold, jewel-encrusted wine pitcher. But no wine could be poured from that vessel for it was an edible illusion food called *appralere* made from almond paste, clary, fennel, rose petal, and rue and covered with real gold leaf, the metal used to treat conjunctivitis and epiphora. Gold was also thought to help arthritis sufferers. Gold leaf adorning foods appealed to both fact and fiction: While the gold was genuine, the edible illusion of appralere deceived sight while animating vision.

DR. PETER JULIANI'S EMPIRICAL EXPERIMENTS

Around the year 1247 Dr. Peter Juliani, otherwise known as Pope John XXI, amassed a treasure-trove of Italian medical lore in his extraordinary *Eye Book* (*Liber de oculo*). He also translated the treatises on eye diets, the *De dietus universalibus* (*On Universal Diets*), and *De dietis pariculares* (On Special Diets) by the Jewish physician Isaac Judeus (d. 950). Many of the *Eye Book*'s 93 congenial, short chapters became

a medical anatomist's delight for Peter Juliani depicted the seven tunics of the eye, the three humors, the vitreous, the crystalline, the albugineous, and the six extraocular muscles.

The son of a physician, Peter Juliani insisted that since eye disease was closely associated with general health, and health itself determined by nutrition, eye care and diet must be closely allied. He warned that people who had eye diseases must not fast for their eyes required nutrients obtained only from food. Furthermore, certain eye disorders were caused by inappropriate diet. Excesses in eating specific cheeses such as hard cheddar and particular green vegetables such as lettuce caused eye disease as surely as did smoke-filled rooms or smoky chimneys.

Juliani's science was gained from empirical experimentation and trial by experience. The reasons for success were deduced after a favorable effect was observed. Whatever failed was discarded with warnings against use. In his commentary upon Isaac Judeus's works on universal and special diets, Dr. Peter Juliani formulated six critical criteria for empirical scientific demonstration of medical effects of an administered drug. First, the drug must be unadulterated. Its own active agent must be demonstrable against known or unknown actions of another substance. Second, the patient's diagnosis must be unequivocal. The injury or illness must be the very one the drug is supposed to ameliorate or cure. Third, the drug must be given exclusively, not in company with any other drug whose effects would complicate analysis of cause and effect.

Fourth, the qualities of the drug—its heat, coldness, moisture, and dryness—either must be in precise harmony or must be in opposition to the qualities of the disease. According to humoral theories, a warm and dry drug countered a cold and moist ailment. Fifth, all experiments on the causes and effects of drugs must be repeatable. Not only performed several

times by the experimenter, they must be replicable by disinterested practitioners. Finally, patients must be human, not animals.

SURGICAL TOOLS

Numerous techniques existed to prevent blindness or to cure it. Instruments were specially designed for treating cataracts, excising eye tumors, repairing eye injuries, and completely removing a diseased eye. For treating cataracts by couching, a technique for depressing the opaque eye lens, there were special needles, droppers, curettes, and delicate scalpels. Iron ore ophthalmic magnets removed iron splinters and other foreign bodies shot into the eye by industrial accident or warfare. Ingenious eye training masks corrected crossed eyes or severe squint. The 13th-century Spanish physician Isaac Ibn Sahula wrote an astonishing disquisition on the anatomy of the eye, its surgical procedures, and eyelid suturing techniques for protecting sight.

A Jew who had eye trouble might invoke God and the biblical Tobias to add divine aid to surgical skill. In the Book of Tobit, Tobias is cured of night blindness by fish gall, high in vitamin A. A Christian would add to faith in the surgery a prayer to the patron saint of sight, Saint Lucy of Syracuse, whose name in Italian, *Lucia*, means "light." Her identifying device held in her hands was a pair of vigilant eyes.

The Nose

If the eye was window of the soul, the nose was pathway of the spirit, a medieval idea appreciated in our modern habit of saying "God bless you" or *Gesundheit* at a sneeze lest spiritual goodness exit or malign spirits enter at the head's nasal orifice. Numerous probes, forceps, and surgical scissors removed nasal polyps. Joseph ibn Zabara, the 12th-century Spanish

physician, included in his *Book of Delight* (*Sefer shaashuim*) recommendations for treatments of ear, nose, and throat problems with spatulas, syringes, syphons, and forceps; for removal of ear fluid and wax; and for probing for causes of deafness. Dental devices extracted teeth and incised gum infections.

Fascinating instruments were used for facial plastic surgery. The 16th-century Italian Christian surgeon Gaspare Tagliacozzi of Bologna pioneered physical reconstruction techniques especially for an absent nose, which were imitated by contemporary Italian Jewish surgeons, namely, Astruco di Napoli, Solomon di Rimini, and Deodat di Nola.

The viability of the patient's nose graft could be compromised by four possible complications: hemorrhage, inflammation or erythema, infection, and mortification or necrosis. Causes for each included the patient's underlying physical condition and surgical error. Rectifying surgical complications were reoperation, drugs, and diet, a well-ordered diet thought to be easiest and safest.

The fault for failure of surgery rested on two possibilities: nature and the surgical process. The wide natural world included all aspects of the patient's humoral balance and consequent physiologic condition, his usual diet and hygienic habits, and the effects of environment, such as macerating humidity or refrigerating frost. Also important natural causes that had effects on healing were the patient's mood, attitude, and personality. The patient, as all mankind, was understood to be a microcosm, the cosmos in small of God's macrocosm—a cosmology inherited from the ancient Greek physician Galen.

This smaller surgical world was nature's collaborator with the divine. Surgery included cutting, stitching, postoperative dressing changes, special postoperative diet, and timely corrections for any perceived imperfections that might compromise the final nose recon-

struction. Nature never was an excuse for faulty surgery, yet surgery was not responsible for otherwise explainable or even inexplicable natural calamities.

Neither nature nor surgery functioned solely nor was faulted solely. No fine surgeon would claim full credit for a superb surgical result any more than admit sole blame for a failure. "I cut. God cures!" said the great surgeon Guy de Chauliac. The surgeon acknowledged that terrible things sometimes happen to fine people and do not indicate surgical inadequacy. Sometimes good surgery yielded bad results. Human differences in physiology lead to variations in mortal condition. Equality of outcome was not a medical promise. Equality of opportunity was the shining surgical ideal offered the patient for rhinoplasty or hand surgery.

DR. TAGLIACOZZI'S SURGICAL NOSE GRAFT

Gaspare Tagliacozzi (1545–99) performed a seven-step rhinoplasty that he described in his wonderful surgical text called *De curtorum chirurgia per insitionem* (Surgical correction of bodily defects by grafting). Tagliacozzi learned the process from the 15th-century surgeon Antonius Branca of Sicily, who, in turn, worked with his father, Branca de Branca, who is said to have learned the technique of nose reconstruction from Indian doctors circa 1440. Surgical construction of a nose was beautifully logical. The surgeon created a cylindrical skin flap raised from the patient's upper arm and then attached it to the nose stump. When the skin flap adhered, the surgeon separated it from the arm and then sculpted it into a serviceable, durable nose.

In the first step, called delineation, the pedicle skin flap from the arm was delineated, dissected out, and delayed, and a piece of fabric was placed beneath the tissue and the bed of flesh beneath. Thereafter the patient required brief bed rest, a sparse diet, little liquid, and no wine for the first four days, then increased food and drink after the seventh day.

After 14 days, step 2, called eduction, freed an end or third margin of the now rectangular flap. A careful diet was accompanied by treatment of the graft with egg white diluted in rosewater along with dragon's blood, the medicinal red resin exudate from palmlike trees. This flap then was trained and manipulated into shape reasonably resembling a normal nose. This third step was called education.

A rhinoplasty patient is immobilized with a Tagliacozzi vest. From the *Life and Times of Gaspare Tagliacozzi, Surgeon of Bologna*, Martha Teach Gnudi and Jerome Pierce Webster, New York.

Engrafting or incision, step 4, applied the new flap to the nose defect. Ingenious, well-tailored surgical vests and hoods kept the patient's arm bound to his head until union of the separate parts and blood supply and granulation were established. The patient maintained this uncomfortable position for between 14 and 20 days. On restricted, easily digested, soft spoon food for the first week, he advanced to a "middling" puréed cuisine the second week, eating nothing requiring chewing, which would disturb his incipient new nose. Tranquility and cheerfulness also were prescribed to help healing. Rescission, step 5, severed the flap from the arm. Step 6, shaping and sculpting the flap into an acceptable nose formation, was called configuration and entailed making the nasal tip, forming the alae and the nares or nostrils. These were kept open with egg-white-dipped tents of metal.

The patient was required to have lots of sleep. Preoperatively and immediately postoperatively, he also had to abstain from sex. These six steps of the patient's surgical progress took between three and five months, or from 91 to 136 days, depending on the season of the year, his speed of wound healing, the presence or absence of complications, and his physical constitution aided by good diet.

The patient then free to leave Italy, he was responsible for helping his own healing in the seventh and final step called perfection, which refined and protected the new nose. Tubes in the nostrils at night and nose models worn over the graft by day protected it from injury and perfected it by impressing favorable shape on it.

This complicated procedure still is used in modern plastic surgery. Tagliacozzi and his followers employed two-armed forceps with scalpels or three-armed forceps for the longer incisions of skin flaps; the serrated edge on the instrument's arm was an adjustable tension clamp. For shaping the nostrils Tagliacozzi devised special scalpels and reamers, and for reshaping the columella space below the nose and above the lip, he designed special columella forceps, scalpels, and suturing needles.

If during the course of surgery a patient accidentally stopped breathing, Maimonides recommended that the practitioner perform a tracheotomy, making a small hole in the neck, then inserting a tube into the trachea to allow air to enter the lungs. Following Hippocrates and an Arabic theorist, Maimonides recommended for a patient in danger of suffocation that a cannula be inserted into the throat near the jawbone. One 11th-century Arabic text translated to Hebrew particularly recommends a breathing tube of silver or gold.

A MALPRACTICE CASE

Not every patient was grateful for his surgery. A surgeon's preeminence was no protection from lawsuits. Professional distinction granted little immunity and less peace. Malpractice cases were common in certain cities from the 12th century on. A few cases from England are particularly illustrative of this new trend. At the end of January 1424, William Forrest of London, England, was severely injured in the muscles of the thumb of his right hand. He was treated expertly. Three respected London surgeons, Dr. John Harwe, Dr. John Dalton, and Dr. Simon Rolf, London's master surgeon, cared for the patient. Despite his surgeons' excellent care and surgical consultation, William Forrest sued for malpractice in London's civil courthouse before the mayor and aldermen of the city.

Surgeons who originally examined William Forrest after his injury found his wound hemorrhaging so profusely that he sometimes lost consciousness and his physicians feared he would bleed to death. With his informed consent and in order to prevent exsanguination, Dr. Harwe cauterized the wound. Because of the resultant scar, the patient sued his surgeon

for maiming his hand. His plea was *iatrogenic sequelae*, worse injuries to the hand caused by surgical intervention. Eight expert surgeon witnesses testified for the defendant doctors. Among them was Dr. Gilbert Kymer, rector of medicine and chancellor of Oxford University. Some examined William Forrest's scar. Their opinion was that Dr. Harwe and the others acted entirely correctly. Their decision to use cautery, the procedures for wound healing, and every treatment were consistent with accepted, proper current surgical practice. They concluded that the disfiguring scar was due to a combination of effects: some quality of the original injury or some special defect in William Forrest's physiology. Alternatively, the constellation at the time of injury may have been at fault, for the Moon was dark in a bloody sign, under the malevolent constellation of Aquarius.

The court concluded that the surgeons who acted well surgically had made no mistakes and had been defamed maliciously and undeservedly. They were absolved and freed from fault attributed to them. Insofar as the court was able, it restored to them their good name, unsullied.

The rhinoplasty patient's nose and William Forrest's thumb demonstrated *chronophysica*'s time testing of medical success or failure. "Testing the cure" was recognized both in medicine and in law for particular medical or surgical techniques. Tagliacozzi's rhinoplasty step 7, perfection, was such a two-year testing of the cure. Patient individuality, surgical complexity, and correlative fault for failure were constants of the best medieval surgery and the best medieval surgeons.

CHRONOPHYSICA AND TIMERS

Before operating, a good surgeon consulted the *chronophysica*, time medicine, to determine the exact time of injury, precise hour of patient's birth, and, since if, for instance, he had a face injury, relative positions of celestial bodies in Aries, the constellation guarding and guiding health of the head and the face. Every bodily part had a chronophysical celestial time affiliate: Gemini governed the shoulders and arms, Sagittarius ruled the thighs, Pisces controlled the feet. Medical timings, along with the zodiac signs for the seasons of the year and the seasons of life, were juxtaposed on the calibrated disks of a medical astrolabe, an analog computer and timer that calculated the propitious time for surgery, the times for medications, and the patient's prognosis.

Other physicians used a *volvelle*, a device similar to an astrolabe, to ascertain astrological convergences and numerical medical data for diagnosis, treatment planning, and prognosis. A series of concentric pivoting disks were calibrated with astrological, astronomical, and hororary data. Though some *volvelles* were made of metal and as were astrolabes carried suspended by a thong on the physician's belt, others were parchment or vellum and integrated into medical books and hygiene texts.

The astonishingly accurate, huge, and exquisite 14th-century clockwork of the Italian physician Giovanni da Dondi was an *astrarium* that superseded the astrolabe as a medical timer. The *astrarium* consisted of seven dials displaying motions of the Sun, Moon, and then known five planets; a 24-hour dial; dates of fixed and movable feasts; nodes or points of intersection of solar and lunar orbits; and sunset and sunrise times in Padua. All simultaneous motions were geared, driven by a verge and balance wheel escapement powered by a hanging weight. A facsimile exists today in the Smithsonian Museum in Washington, D.C.

An ingenious pulse timer was Galileo's *pulsilogium*, a device for counting pulse rate, reaffirming a physician's tactile accuracy. Galileo discovered the isochronal properties of the pendulum when, bored at a Duomo church

service, he timed the altar lamp swings to his own pulse rate. This invention was not outmoded for pulse testing until the 18th-century scientist Sir John Floyer created his portable medical pulse watch.

Chronophysica directly and inexorably led to the development of the mechanical clock from these earlier manual measurers of medical time, the *astrolabe*, *astrarium*, *pulsilogium*, and pulse meters. Chronophysical classifications of patterns of behavior, body types, and personality configurations were descriptive and predictive. During outbreaks of deadly bubonic plague timing was thought to determine mortality. During the lethal contagion of 1348, height of the Black Plague, social forces required an instrument to measure time accurately. Plague did not cause the invention but the development of the mechanical clock. The most prodigious 14th-century clockmakers were physicians, astronomers, and astrologers, such as Giovanni and Jacopo da Dondi. Likewise, the physicians Nicholas of Lynn and Simon Bredon, also active in the 14th century, were known for their medical time-telling machines. Healing, Hippocrates said, was a matter of time. Time was the great healer so long as the healer accurately timed.

GENETHLIALOGY AND THE FOUR HUMORS

To calculate the time for healing, a good physician or surgeon needed to know the patient's age and precise date and hour of birth. According to *genethlialogy*, the science of birth forecasting, the precise times of conception and birth determined the patient's bodily constitution and temperament. The four temperaments, in turn, were based on profusion of one of the four humors or essential bodily fluids. Excess blood controlled the *sanguine* physique and personality, hopeful, vigorous, optimistic. Profuse yellow bile or choler was the sign of

the *choleric:* irascible, excitable, nervous demeanor. Abundant phlegm was the cause of the slow, lethargic *phlegmatic* constitution. Superabundance of black bile caused the sad, contemplative, introspective, intellectual *melancholic* disposition. Humoral balance determined health. Imbalance caused disease.

The melancholic patient's preoperative diet before rhinoplasty, for instance, differed from that for a sanguine patient, according to Tagliacozzi. The melancholic's presurgery meals
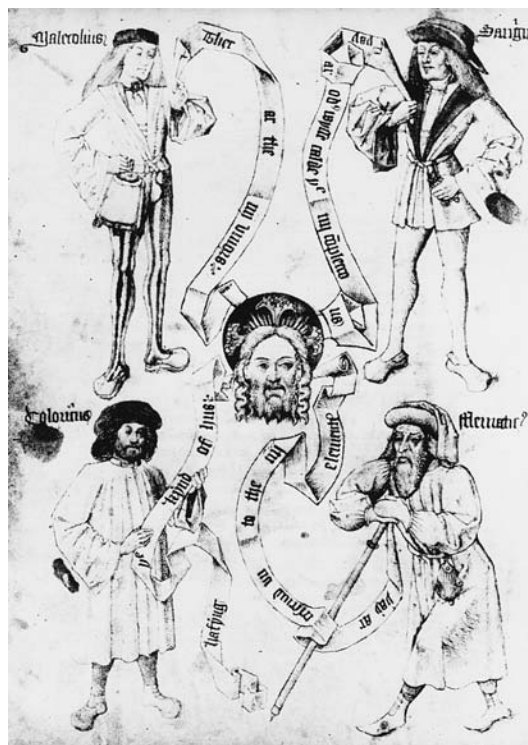
The four humors often were personified as possessing not only their "contrary" qualities but the essence of the seasons of life. These, in turn, corresponded to the seasons of the year. Sanguine youthful spring ages into phlegmatic winter of old age. From the *Guild Book of the Barber-Surgeons of York*, 15th century, English. London, British Museum.

began with an herbal cocktail, a decoction and syrup of borage, melissa, and glycerin, followed by a milk diet, an all-dairy cuisine. After surgery he could add other foods such as moist meats (boiled not roasted veal, mutton, pullets, and small birds), salad of borage and capers with sauce, and desserts of coddled apples and pears strewn with sugar. Drink was light fine vintage, free of sediments. Feasts before the knife and after the knife partly determined success or failure of surgery. Since good diet helped the body heal itself, diet prescriptions depended on the patient's personal clinical and astrological history.

Bones

A noble, valiant knight looking healthy, hale, and hearty sitting tall in his saddle might dismount stiffly when reaching his lady's castle and walk with a severe limp if during the last joust, his opponent, more eager to win than chivalric and honorable, illegally thrust his lance to knock the knight from his horse. Off-balance, and encased in 70 pounds of iron and steel armor, the knight fell, dislocated his right shoulder, bruised his knees, and tore two ligaments in his left leg.

For healing such bone ailments and orthopedic injuries and diseases physicians and surgeons used orthopedic banquets, therapeutic baths, and surgical techniques with astonishing instruments, machines, traction devices, and vertebral realignment mechanisms.

BONE-HEALING FOODS AND HERBS

Certain foods were thought to regulate humors for health's equilibrium; other foods and drinks were analgesic drugs and anesthetics. Some were muscle relaxants and mood manipulators. Some promoted wound healing. An orthopedically correct banquet menu with limb-healing

foods included meat, fish, and fowl served with copious mustard, important for healing muscles, ligaments, and bones. Mustard was known for its favorable effects in splints and casts made of plaster of paris. Mustard salves and plasters relieved pain of broken bones of arms, hands, legs, and feet and reduced swelling of edematous feet. Mustard doubled as a hot healing aphrodisiac.

Eggs were preeminent energizers of the extremities. Omelets, soufflés, custards, and quiches were fine but not as medically effective as plain soft-boiled eggs. Best were eggs from hens, pheasant, and partridges. Platina, a 15th-century physician, recommended eating eggs barely cooked. Even better, yolks separated from whites were eaten exclusively. Athletes and people striving for orthopedic fitness swallowed fresh raw yolks. Platina maintained that eggs ought never be eaten but rather sucked or sipped from the shell.

Chestnuts developed limb strength, force, and good musculature. Though difficult to digest, chestnuts were best eaten with sugar and honey, as Platina thought, after roasting under fire coals. Chestnuts also stimulated erotic desire. Southernwood (*Artemisia abrotanum*) seeds taken with water were good therapy for bone diseases. If the pharmacist or physician was sold out, one could buy southernwood from the barber. Artemisia restored hair to the balding when its ashes were mixed into a salve applied to the scalp.

For bone aches, ground ivy (*Hepatica hederacea*) was excellent in ointment. Another limb healer was fragrant sweet violet (*Viola odorata*), especially effective when combined with wild blackberry for soothing and relaxing overexerted muscles. Violet therefore was part of the resources of physicians on call at tournaments and jousts. A fragrant violet footbath promoted quiet sleep of the insomniac ill.

A proper orthopedic menu forbade eating of mushrooms because fungi exacerbated joint

afflictions. While poisonous mushrooms could cause paralysis or death for the healthy, people who had limb disabilities were at increased risk from mushroom toxins. Roast peacock also was forbidden because it caused muscle contractions. Tart or sour apples were bad for the joints. Vinegar in or on food was expressly prohibited for those suffering joint pain because it worsened debility. Vinegar externally applied, however, was great for arthritides. Rubbed onto the skin it mitigated pain. Platina advised emulating Marcus Agrippa, who relieved the worst pain from his severe gout by soaking his suffering feet in warm vinegar.

Gout remedies were numerous. Prominent was the botanical black hellebore (*Helliborus niger*). In the 16th century, Leonhart Fuchs's *Notable Commentaries on the History of Plants* (*De historia stirpium commentarii insignes*), commonly known as *New Herbal,* touted it as a fine gout cure when taken in a decoction or infusion of the plant's leaves. In this he disagreed with Dioscorides, who preferred hellebore only for arthritis and paralysis. For treating gout, Dioscorides favored houseleek or hens and chicks (*Sempervivum tectorus*). A third antigout botanical was lemon balm or *Melissa officinalis.* Melissa was used in liqueurs such as benedictine and chartreuse. Lemon balm relieved pains of gout, though it did not cure the disease. The *New Herbal* recommended melding melissa with grease for a fine ointment against orthopedic aches.

The most important antigout and antirheumatic media were colchicum and colchicine. A powerful poison in most concentrated form, *Colchicum autumnale* was used in more dilute form as an anesthetic. Most dilute, it was an analgesic. Some physicians prescribed colchicine for gout using a dosage every hour until diarrhea developed. By the 10th hour, gout pain usually was gone. Colchicine also was used effectively against skin dyscrasias, pustules, and pimples and was treatment for various forms of cancer.

ORTHOPEDIC SURGERY, MACHINES, AND PROSTHESES

Ingeniously designed machines aided orthopedic surgery and physical manipulations. Major writers on bone, muscle, ligament, and joint problems included Guy de Chauliac, the battle trauma surgeon Amboise Paré (d. 1590), Roger of Salerno, and Roland of Pavia, who derived their ideas from their own empirical practices and from venerable Arabic, Hebrew, Roman, and Greek medical sources. Transmitted by Soranus of Ephesus (mid-second century) and Apollonius of Tyana (mid-third century) were three texts of Hippocrates: *On Fractures*, *On Joints*, and *On Surgery*. In addition to this classical Greek and Roman tradition, orthopedic instruments and machines were influenced by Arabic medicine through Avicenna, and Abu l-Qasim Khalaf al-Zahrawi, the latter known in the West as Albucasis (d. 1013), and Jewish medical learning via Maimonides.

Orthopedic traction machines counteracted violent injury, industrial mishap, household accident, and congenital anomaly. Realigning displaced bones or resetting after rebreaking bones, traction instruments functioned to reduce pain and to restore function. Many screw and twisting implements used the windlass, a horizontal drum around which rope was pulled and wound tightly with a crank. The limb was splinted or trussed according to counterstress and counterbalance requirements of the simple or compound fractures. Special arm traction and bone setting machines differed from those for legs. Precise angles for ultimate position of function determined surgical operating tables' adjustable slopes for engaging the force of gravity.

While traction machines temporarily immobilized the patient, orthotics or braces promoted mobility by mechanical strutting or mechanical flexion of weak or paralyzed limbs. Resemblances between surgical orthotics and warfare's

armor allowed a leg brace to be composed of the same elements as the armorial *cuisse* protecting the thigh and the *greave* covering the lower leg, both articulated by the *poleyn* knee guard. Similarly, an orthotic arm consisted of the upper arm steel *rerebrace* plus a lower arm *vambrace* connected by the elbow cover called the *couter*. Both brace makers and armorers were designed for necessary rigidity paired with utilitarian flexibility. Armorers served in surgery as well as on the battlefield. These craftsmen also made prosthetic replacement parts.

Traction ladders realigned large bones of the extremities and repaired a dislocated hip or reestablished vertebral order from the atlas at the back's top to the sacroiliac at bottom. For reduction of upper back vertebral misalignment, a traction device (recommended enthusiastically by Albucasis) used a fulcrum at one end with concomitant hand pressure to reduce the hump or to push hard against the bones.

Manual pressure was one of five major traction pressure techniques. The second technique was a board, anchored in a slot in a wall, placed over the patient's back and pulled down on its free end, rocking and pressing to force the bones' adjustment. The third technique utilized for traction consisted of the practitioner's applying his full body weight while seated to the patient, while in the fourth measure counterpressure was achieved through the pedestrian orthopedic technique of standing on the patient's back.

The orthopedic jolting ladder resembled the notorious torture instrument called the *strappado*. Allowing controlled fall from a height, the traction ladder with the patient strapped to it was hoisted up as if on a ship's mast or tall building, then dropped, to jostle the bones into appropriate position. Scolioses were so treated, along with misalignments caused by accident.

When orthopedic machines failed, infection supervened, or a limb was gangrenous or necrotic, amputation was necessary. The *three-flap excision* in which the bone was cut higher than the subcutaneous tissue and the pendant skin arranged in three flaps for closure promoted wound healing and allowed rapid fitting with a prosthesis. Amboise Paré developed a prosthetic leg and a magnificent prosthetic hand with pulleys, ratchets, and gears for movable fingers covered with a leather facsimile of human skin. Prostheses from the metal cranium down through the arms, breastplate, legs, to pegged toes created a nearly complete armor exoskeleton.

The best replacement parts were flesh, blood, tissue, and bone. Before the advent of microsurgery and immunosuppressive drugs, some surgeons insisted that transplantation worked but only with God's blessing. Numerous 14th- and 15th-century paintings depicted Saint Cosmos and Saint Damien, the patron saints of medicine and surgery, performing a leg transplantation with a black leg from a recently dead Moor grafted onto the leg stump of a white bishop whose own limb was amputated for gangrene. Angels attended the heavenly operating room staff.

Kidney and Bladder

FOODS AND DRUGS

Two occupational hazards of knights, hunters, transporters, and other professional riders were nether anatomy problems, fore or aft. Riding a horse wearing full armor for work, travel, processions, tournaments, and battles made urination difficult or awkward and kidney stones common. It was not easy to dismount, amble behind a tree, and urinate when wearing 70 to 100 pounds of metal encasement, then remount without the aid of a squire, mechanical pulley, hoist, or crane. Hemorrhoids and anal fistulas also disturbed knights and ladies who rode horses many hours per day.

Kidney, bladder, and urethral stones routinely were removed surgically. Diet, however, could prevent stones or break up concretions, allowing their swift passage out to relieve pain. A decoction of chamomile (*Anthemis nobilis*) with wine was thought to break bladder stones. Chamomile also was useful in cases of liver disease for it destroyed jaundice, "the yellow evil."

Ivy ale was equally good for eliminating bladder stones. Ground ivy (*Nepeta hederacea*), a flavoring for frothy ale brew, caused bladder stones to disintegrate and evacuate. It also helped those suffering from an aching spleen. In his *Herbarium* (Herbs) the 10th-century author known as Pseudo-Apuleius recommended ivy against "sore of milt." While some people used hops solely to flavor ale, others favored them for their beneficent effect upon urine flow.

Dittanied figs were part salad, part dessert. Fresh, peeled white figs purified the kidneys, cleansed them of gravel, and reduced sediments. Figs briefly boiled in white wine with dittany, particularly dittany of Crete (*Origanum dictamnus*), excellent for drawing out kidney stones, benefited those who had trouble urinating. Dittany was popular as a wine, as flavoring for vermouth, and as an external compress with warm water or alcohol for extracting a stone through the penis or vulva. Dittany also extricated thorns or iron fragments from the body.

Clear white sugar regulated kidneys and bladder. Though numerous varieties of cane sugar, beet sugar, molasses sugar, and combinations of sugars with other condiments worked well, medical effects of sugar increased or diminished according to the sugar forms—granulated, rock sugar, chunk sugar, brown sugar, red sugar, and black sugar—because some mixed ingredients augmented or mitigated sugar's effect. White sugar for bladder and kidney health was a bodily purifier, helpful also against asthma and chest diseases. Excessive sugar, however, hurt teeth, caused thirst, and stimulated bile production. Rock candy was a knight's urological *vade mecum*. A popular table dessert, it was easily carried on horseback in a pouch or bag as a medical sweet to be sucked as one rode.

Leeks stimulated urine. Best were the sharp-odored *naptici*, which grow high in the mountains of Italy near Perugia and Assisi. Urinary tract stimulants and fine aphrodisiacs, leeks sautéed with sesame oil and almonds stimulated good urine flow and libido. Turnips activated urine but caused bladder sediments and flatulence. When they were prepared with black pepper and aromatic spices, their dangers were neutralized. Long, wrinkled, dark turnips, double stewed, made the body less susceptible to swellings and wind, increased urine flow, and stimulated sperm.

Cucumbers and watermelons provoked and purified urine and cooled hot fevers. Best served with honey and oil, if eaten in excessive quantity they caused pains in the side. Other melons wonderful for inciting urine and eliminating stones, though causing cramps, were *melones insipidi* and the sweet melons called *smarcandi*, imported from Samarkand. They also relieved pain of gallstones.

Travelers and parents training children to use the toilet, *garderobe*, were glad to reduce urine production. Capers were fine urine diminishers, especially the fresh, tender, low-growing, prickly, bramblelike shrub called *Capparis spinosa*. So also were seed vessels of the nasturtium (*Tropaeolum majus*) or the caper spurge (*Euphorbia lathyris*) used for pickling. Monastic cooks served pickled capers in refectories as antiaphrodisiacs. Acorn in juice or wine decoction also aided retention. Roasted acorn was especially favored when strewn with sugar. For women, acorn prevented menstruation and therefore was a contraceptive. Another field-borne urine retainer was coarse dark wheat. Wheat crumbs sprinkled on roasted, sweetened acorn or added to acorn decoction

aided retention and prevented nighttime bed wetting.

Onions, especially white, juicy varieties, were a diuretic that also facilitated coitus. Superb when cooked well with milk, a creamed onion soup was a fine aphrodisiac with the happy secondary effect of sharpening eyesight. Though excess of onion caused headache, this danger was neutralized by vinegar, making pickled onions.

Those who had kidney diseases had to relinquish the pleasures of dill, the superb nostrum against headaches, except if mixed with lemon rind. Dark wheat bread and white bread made from refined wheat (*panis de simila abbisimus*) were bad for those who had urinary problems because they caused occlusions. Aged, sharp cheeses (*casseus vitus*) rich in fats were dangerous for the kidneys because they caused stone formation. Fresh cheeses made from milk of healthy animals (*casseus recens*), though causing occlusions, were less risky for the kidneys. Eating fresh cheeses such as ricotta with almonds, walnuts, and honey neutralized their urological dangers.

JOHN ARDERNE'S SURGERY FOR ANAL FISTULA

Numerous effective surgical techniques removed stones from the bladder and urinary tract. John Arderne (1307–90) was preeminent in urological and colon and rectal surgery and wrote about the treatment of anal fistula in his treatise *Fistula in ano*. He created highly praised techniques for removing a stone impacted in the urethra and for repairing anal fistula.

Typical of his cases was a young quail hunter who had a stone as big as a bean lodged in his penis that could not escape through its eye. Nor could it be pushed back. It remained painfully in the middle of his organ. He was cured without major incision. The patient lay on his back ready for surgery. The surgeon tied his member with linen threads on each side of the stone to prevent its shifting. After making a small cut with a lancet over the stone, the surgeon squeezed it out, sutured the skin with a needle and thread over the hole, dressed it with egg white and finely ground flour, and then wrapped the penis in a piece of fine, old thin linen. He released the patient to go in peace for three days, without alarm if, as was typical, urine escaped from the wound. When the hunter returned, Arderne cut and removed the thread. In less than two weeks the patient was completely cured.

John Arderne also created a remarkable cure for anal fistula. He devised a sensible surgical closure for the fistula. Then he recommended light diet with freshwater fish, light white meats such as veal or chicken, avoiding flatulence-making peas and beans. Arderne cured a man from North Hampton who had three holes in his left buttock and three fistulas in his scrotum. Though blood escaped freely after the rectum was divided because the fistula had tracked deeply, he put a sponge into cold water and stopped the bleeding with it, and then stuffed a good size sponge into the bowel and made the man sit on a chair. Bleeding stopped immediately. The patient ate a meal, was put to bed, and slept well all night without further hemorrhage. He survived well. Cannulas and perforators used for rectal ulcers and hemorrhoids were mentioned in Maimonides' *Treatise on Hemorrhoids*.

MEDICAL FEES

John Arderne's anal fistula cures were expensive. He said that people honor best what they pay for, not what they get for free. He pared down hefty fees according to what the patient could afford. A small fee, however, trivialized the care and the cure. Every physician, he said, should be wary of "scarce-asking" for excessive scarce asking reduces to nothing both the mar-

ket and the thing. Therefore, for a wealthy man's anal fistula repair John Arderne charged about 100 marks or 40 pounds, paid at time of service plus a gift of clothing or robes, plus 100 shillings each year for the life of the patient. A less wealthy man paid 40 pounds or 40 marks as his total fee. But the surgeon never would accept less than 100 shillings for curing anal fistula. Then as now, urologists and proctologists wielded considerable power and when curing patients were assured gratitude.

LAXATIVES

Barley soup or *savich* was excellent for relaxing tight bowels, especially served with salad of cabbage and celery flavored with watercress. Watercress had the inauspicious side effect of causing migraine headache. Barley eaten alone or baked into barley bread was easily digested and superbly laxative. Squash also was a swift laxative as well as an excellent quencher of thirst, best prepared with ale, water, and mustard. Meat of any gelded animal also was laxative, prepared boiled, roasted, or baked, and basted with fruit juice. Laxative salad was composed of red cabbage, celery, rue, yellow squash, and boiled garlic. Garlic was a common, effective aphrodisiac that constipated the bowels unless that negative effect was counteracted by vinegar and oil. Boiling garlic reduced its odor and relaxed its bowel-binding effects.

Hearty, delectable boiled wheat dishes such as *frumenti* caused flatulence. Anal wind could be dissipated with rue, the piquant herb sharpening eyesight while dispelling both flatulence and libido. Rue was an important component of abstinence salad, that combination of lettuce, chicory, and rue, rendering any feaster sexually inert. Rue sprinkled on powerfully erotic ostrich eggs, also causing flatulence and vertigo, extinguished these side effects if the eggs were served with oregano and salt.

Toxicology

Toxicology, the study of poisons, identified toxic substances and prevented, treated, and cured poisons' effects. While multiple techniques identified toxins and many practitioners offered poison antidotes, most theorists agreed that the only infallible antidote was prevention. To avoid accidental or politically motivated poisoning, a noble or clerical court customarily employed in kitchen and banquet hall well-paid credence testers. These servants tested all suspicious food and drink by tasting them personally, potentially putting their own lives at risk.

Intrepid, trustworthy credence testers used mineral aids to stay alive. Credence stones changed color in the presence of particular poisons. The *bezoar* stone, a calcareous concretion from the alimentary canal of a cow or other ruminant, changed color when dipped in a solution of arsenic. Credence cups made of minerals, metals, jewels, or animal horns identified poison. These testers varied in efficacy according to powers of chemistry and luck. Shining silver tarnished to black when touched by a poison sulfide.

Poison texts listed antidotes, such as Nicholas of Salerno's *Antidotarium* (early 12th century), enumerating in one page column the toxic animal, vegetable, or mineral substance, with a parallel column of poison neutralizers. A particularly dependable book on poisons was Francis of Siena's late 14th-century volume consisting of 80 chapters. Dedicated to Philip of Alençon, patriarch of Jerusalem, it listed poisons and provided preventative, diagnostic, and prognostic advice. The *notificatio* section offered poison identifiers, *complexio* suggested their injurious effects, *prognosticatio* illuminated prospects for cure or death, and *curatio* recommended antidotes and ancillary methods for cure.

Other physicians writing treatises on poisons were the doctors Peter of Abano (late 13th

century), Gentile da Foligno (mid-13th century), William of Marra (14th century), Christopher de Honestis (14th century), John Martin of Ferrara, and Cardinal Ferdinando Ponzetti (d. 1528). They all quoted Galen and Greek sources as well as Avicenna and Arabic antecedents. Prevention and practical succor from the pharmacopoeia balanced negatives and positives, poisons and antidotes, drugs and hope.

Cancer Therapy

The great 12th-century Jewish philosopher physician Maimonides maintained that any illness curable by diet alone should not otherwise be treated. He recommended diet as the therapy of choice for asthma and other severe, chronic, systemic, wholly or partially incurable diseases. Some cancers, such as breast cancer, were thought curable by surgery. Patients who had breast tumors customarily were treated by surgical excision, with ramens placed beneath the diseased breast tissue and scalpels effecting mastectomy. For women who did not have surgery as well as for those whose cancers were extracted, diet and medication included cabbage root, mint, and the herbs henbane and Venus's hair. For all malignancies, properly selected and prepared medical food was thought psychologically potent medication for alleviating symptoms and diminishing suffering.

Ibn Butlan, the 11th-century Arab Christian physician, wrote extensively on the treatment of cancer. In his *Taqwim al-sihha* (*The Tables of Health*), translated into Latin as *Tacuinum sanitatis*, he maintained that eating appropriately leavened breads could reduce a cancer patient's swellings and occlusions. Generous yeasting was routine for cancer menus. Autumn crocus flowers were used for flavoring and coloring cancer patients' breads, puddings, pills, and potions. Crocus flowers, especially the stigmas making the golden fragrant spice saffron, had

been used against cancer since the time of the venerable Greek physician Dioscorides. Another important flower in the cancer diet, in pills, and in salves was ornamental periwinkle, *Vinca rosea*. That important healing herb was called "joy of the ground."

Cucumber, squash, and gourd had specific efficacy against gynecological tumors. Trotula of Salerno, a noted 11th-century woman physician, recommended eating these vegetables. She also created a healing salve combining boiled ground gourd with oil of roses, wax tallow, mastic, and olibanum into an intravaginal ointment. Cutaneous cancers were treated with a gourd ointment and then covered with a compress of ivy leaves boiled in wine. Yet other cancer remedies were elixirs of garlic, mistletoe, mandrake, and colchicine.

Diet regimens effective against cancers required abstaining from coarse, hard-to-digest foods and avoiding meats fried, broiled, overroasted, or burned. Rather, the patient must eat nutritious sweetened food, stewed meats, aspics, rice puddings; drink goat's milk; and eat plenty of fresh eggs, especially raw egg yolks. Cancer patients also were counseled against excessive anger and intense pensiveness.

Obstetrics and Genethlialogy

Three separate texts compose the Trotula trilogy, one of the most important and influential obstetric and gynecological texts of the Middle Ages. Each book of the trilogy was perhaps written by a different author, but the longest, most comprehensive treatise, entitled *The Conditions of Women, Liber de sinthomatibus mulierum*, was written by a woman physician named Trotula, Trota, or Trocta of Salerno (d. c. 1097). *The Conditions of Women* successfully assimilated Arabic scientific ideas on the treatment of women. Associated in early manuscripts and

generally also attributed to this honored and revered medical teacher were the *Treatments for Women, De curis mulierum*, and *Women's Cosmetics, De ornatu mulierum*. The spectacularly comprehensive text on women's medicine covered prenatal preparations, birthing, and postnatal problems and treatments. Trotula described the signs of pregnancy, vaginal itch, foods and medications helpful at birth time (decoctions of fenugreek, spurge laurel, flax, fleawort, and some *theriac*), and exercises (such as vigorous sneezing to augment contractions).

The Conditions of Women included normal births, difficult births, breech positions, dangerous happenings during birth, separations of afterbirth, excessive blood flow after birth, and vaginal prolapse. Women who because of widowhood or church vows should not have intercourse were counseled on how to avoid pain and babies. Men's anatomical disabilities and dyscrasias were also analyzed and treatments prescribed for such male maladies as swellings of the penis and testicles.

In the bedrooms of the nobility and the well-to-do, heavenly harmonies were reflected in a mirror registering the Moon and the stars of the night sky. This star rhythm would determine the exact propitious moment for sexual intercourse in order to conceive a remarkable child. This reflecting glass was called a *conception time mirror*. In a startling 15th-century birth scene depicting a medieval cesarean section, in which the child was removed headfirst from an incision made in the abdominal wall, there is depicted above the mother's head a globe, a *birth time mirror*. *Birth time mirrors* and *conception time mirrors* helped determine significant affairs of family or state. From the moment a child was conceived or born, its qualities were thought affected by *genethlialogy*, the study of the heavenly constellations governing at that moment. Stars were thought to control the baby's physical nature, humoral balance, temperament, personality, predilections, and likely
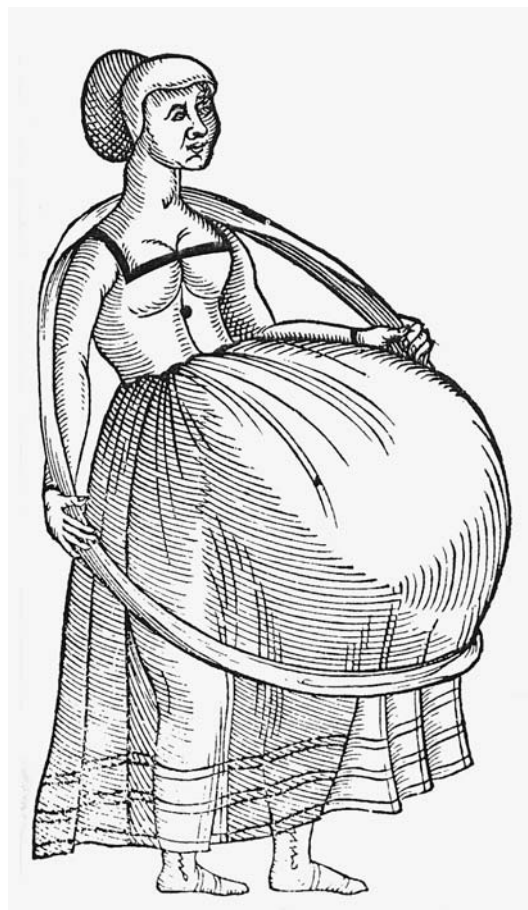
In order to relieve a woman's back burden during pregnancy, an obstetric hoop circumnavigated the base of the belly and the upper back and was supported on the shoulders. Especially for the woman gestating multiple babies, the hoop enabled her to work reasonably efficiently, protecting her protruding abdomen, and giving her a tactile and visual circle of concentration. Her so-called blessed zone of fecundity represented in one woman's body the universal ordo mundi, *the order of the world, the divine interrelatedness of all created things of the macrocosm harmoniously reduced in each human being, the world in small, the microcosm.* From Ambrose Paré, *Oeuvres*, 1575. Courtesy of the National Library of Medicine, Bethesda, Maryland.

adult profession. Making an ethical prince or a skilled metal craftsman required inculcation of specific qualities via education to refine predispositions and qualities inherited at birth.

SURGICAL INSTRUMENTS

For treatment of breast abscesses, surgeons used special scalpels and drains. For malignant tumors requiring that the breast be completely removed, flexible metal ramens were inserted beneath the soft tissue, permitting rapid and efficient mastectomy. Gynecological and obstetric devices included the birth stool, or birthing chair, for women in normal labor and enduring uncomplicated childbirth. The mother half-seated, half-squatting, participated by eye and by hand in the birth of her child. An obstetric hoop helped to ease the back burden of a woman bearing multiple embryos. Later she would give birth to her twins (one hopes, not conjoined twins, as often portrayed in 15th-century documents), triplets, quadruplets, or quintuplets.

Maimonides in his obstetric and gynecological treatise suggested examining the pregnant woman with *specula* and dilators. A 14th-century *speculum matricis* worked with a thumb screw. A winch activated a 16th-century mechanical speculum. Medieval texts suggest using a speculum for gynecological diagnosis and treatment preceding episiotomy, repair of a prolapsed uterus, or removal of a separated afterbirth. Vaginal dilaters were common in the 14th century, including some prodigious screw and rack devices. Once the vaginal canal was opened mechanically or manually, the gynecologist then could apply salves, insert medicated tampons, or, if hastening of too slow contractions in childbirth was required, the male or female obstetrician inserted by hand a preparation of coriander seed.

Obstetricians performed cesarean sections. Special obstetric scalpels and forceps aided the practitioner to extract the child from the pregnant woman who had a narrow, injured, or deformed pelvis. Cesarean sections were dramatically depicted, especially during the 15th century, the illustrations usually entailing an incision into the sidewall of the abdomen, the baby presenting its head first.

CONTRACEPTION AND ABORTION

Contraception and abortion were common in medieval Europe. A court transcript from Montaillou, France, dated 1320, quoted a lascivious renegade priest who in his church amorously propositioned a beautiful young widow named Beatrice, who reacted pragmatically, asking, "What if you make me pregnant?" He replied, "I have a special herb." Medieval physicians, midwives, churchmen and churchwomen, educated laywomen, and folk women had access to a vast pharmacopoeia of herbal contraceptives and abortifacients.

Medieval physicians quoted classical authors such as Hippocrates, Soranus, and Dioscorides on contraception and abortion and Arabic sources such as the North African writer Ibn al-Jazzar (d. 1004), who wrote on the causes of menstrual retention. Practicing physicians added their own empirical interpretations to inherited lore. Early medieval prescriptions distinguished among abortifacients that terminated pregnancy and such agents that produced abortion as ecbolics, oxytocics, and emmenagogues. An emmenagogue provoked menstruation whether or not a fertilized egg was present and whether or not implantation occurred. Abortifacients included any agent that interfered with ovum transport, before or after coitus, and that prevented or impaired implantation.

Hippocrates' oath did not prohibit abortion. He forbade particular abortion methods but not others. The first-century Roman physician Scribonius Largus misquoted the oath. Hip-

pocrates prohibited an abortion suppository or pessary, but he did not expressly forbid abortion by mechanical means, by surgery, or by abortive drugs. His proscription of an abortifacient pessary was misconstrued as a total ban on abortions. The second-century Latin church father Tertullian indirectly confirmed Hippocrates' position by forbidding only abortive pessaries, although he unjustly accused Hippocrates of using brutal surgical abortion instruments to dismember the fetus. Likewise, the second-century physician Soranus in his monumental gynecology treatise quoted recipes for drug abortifacients directly derived from Hippocratic works. Among Soranus's recipes for oral contraceptives and abortifacients was *Cyrene juice*, one of the ancient world's best contraceptives, derived from the plant *Silphium*. Grown and processed in the Greek city of Cyrene in North Africa, the plant made the city rich and famous.

Dioscorides in his pharmacy treatise *De materia medica* (*On Medicinal Matters*) enumerated herbs for birth control, distinguishing among contraceptives, menstruation provokers, and abortifacients. He further classified plants for drying out the menses, purging afterbirth, killing an embryo, and aborting the conceived. Dioscorides and Soranus agreed on the powers of such emmenagogues and abortifacients as artemisia, cardamom, fenugreek, iris, laurel, lupine, myrrh, opopanax, pepper, rocket rue, wallflower, and wormwood.

Among Dioscoridean abortifacients tested in modern laboratories, some disrupted or desynchronized preovulatory and preimplantation events; some exerted antifertility effects chemically through estrogenic sterols and isoflavones; some were uterine contractors; others contained estrogenic steroids that could act on the hypothalamus and pituitary gland; and others stimulated prostaglandin production, inhibiting sperm transport or causing the endometrium of the uterus to resist implantation. Both educated and common folk in the Middle Ages learned from empirical experience, and from their physicians' recommendations of classical Greek, Roman, and Arabic sources on how to upset the delicate hormonal balance necessary for postovulatory reproduction.

Three medical botany texts typified medieval European conception controls. In the 11th century the scholarly Bishop Macer wrote an influential, popular herbal describing medical qualities of 71 plants. His *De virtutibus herbarum* (*On the Virtues of Plants*) listed menstrual regulators, abortifacients, and contraceptives. He described the emmenagogue artemisia as curing female ailments, stimulating menstruation, and producing an abortion. Among menstrual stimulators he includes southernwood, wormwood, betony, chamomile, fennel, lily, chervil, mustard, marjoram, thyme, peony, cinnamon, and spikenard. Distinguishing between a menstrual stimulant and an abortifacient, Bishop Macer said that Italian catnip will purge menstrua but made a pregnant woman abort. When drunk with wine, nasturtium seeds caused an abortion. Savory provoked urine and menstrua, causing an abortion. Savin, from juniper, both drew out menstrua and expelled a conceptus. Spearmint juice was a good contraceptive applied directly to the womb before coitus.

The 12th-century German woman physician and poet Saint Hildegarde of Bingen enumerated in her medical treatise *De simplicis medicinae* (*The Basics of Medicine*) seven plants as emmenagogues or abortifacients. The first Western writer to recognize tansy as an abortifacient, Hildegarde also listed oleaster and nasturtium for aborting or for stimulating menstruation in a woman who has not had a menstrual period for "so long a time that it hurts."

The famous woman physician and medical writer Trotula of Salerno recommended artemisia wine as an abortifacient. If that failed, she prescribed a potent drink compounding hem-

lock, castorene, artemisia, myrrh, century plant, and sage.

General Medicine

Beyond these formidable resources for specific injury and disease of scalp down through toe, three important instruments, common to Christian, Jewish, and Islamic medical practice, were associated with diagnosis, prognosis, and treatment of all aspects of the human anatomy. First were the urine flasks, the insignia of the medieval medical profession, the simple instruments holding the fluid whose color, texture, sedimentation, odor, and taste determine treatability or hopelessness of illness. Second were the cautery irons heated for staunching bleeding and for creating therapeutic ulcers. Third, and probably most important, were the phlebotomy or bloodletting instruments, which were among the most pervasive of all medieval medical devices and were closely bound with the ideas and machines of astrology and music.

URINALYSIS

A talented physician could diagnose simply by examining stool and urine. In Christian art and illustrated hagiographies the mythical physicians Saint Cosmos and Saint Damien had as their identifying attributes in art a feces box and a urine flask. Every morning after awakening people concerned with health urinated twice. First waters were evacuated and discarded. The second urine was collected in a *jordan*. Those slender-necked glass urine flasks with triangular bottoms may have been named after the River Jordan, whose flowing water passes through the Sea of Galilee before entering the Dead Sea, or after the French *jour donne*, meaning daily gift. A jordan conveniently displayed the precious fluid that, intelligently

examined, then as now, revealed state of health, disease diagnosis, and prognosis.

For urinalysis, one held the jordan up to the light, observing the urine's clarity or cloudi-

Physicians treat a dying man as his family gathers in prayer. Female doctors, well trained in the healing arts, were licensed to practice throughout medieval Europe. A man scrutinizes the patient's urine while two women attend at his bed. A young man entering the room is the heir to the fortune he counts in the margin below, the treasure chest open. Books of hours, the personal prayerbooks for the wealthy, often depict such secular events as death with humor, cynicism, and social commentary. Here the richly robed eager young heir surveys his wealth before his benefactor dies. From the *Book of Hours of Catherine of Cleves*, Holland, 15th century. Courtesy of the Pierpont Morgan Library, New York.

ness, noting presence of sediments, smelling its odor, pouring a small amount out to test its texture to touch and to taste it. Color provided best information. To determine the true quality of urine one needed a *urine wheel.* Isaac Judeus's *De urinis* insisted that each of 28 colors of urine represented a state of health or disease. Using his color charts in his remarkable *Dome of Urines*, a good jordan-reader diagnosed and prognosed imbalances of the four humors, blood, phlegm, yellow bile, and melancholic black bile.

CAUTERIZATION

Cauterization, the burning of the flesh with a hot iron in order to stop hemorrhaging, had a variety of surgical applications from head to toe. Depending on the nature of the injury, the conscientious surgeon had to choose between the scalpel and the cautery iron, or *ferrum candens.* For groin surgery, Paolo di Egina (625–90), a Byzantine surgeon from Carthage, preferred the use of the cautery iron instead of the blunt-tipped scalpel recommended by Galen. In this he would resemble the Spanish Muslim physician Abulcasis, a pioneer in the techniques of cauterization. Abulcasis expressed a distinct preference for the cautery iron over the surgeon's knife in performing a herniotomy, as did most of his coreligionists. Rolando da Parma's (active c. 1240) chose to combine the two techniques, advocating first the *incisionem* (cutting) of the groin with a long sharp knife and then the *incensionem*, or cauterization, of the hernia defect. By the late Middle Ages, surgeons such as Berengario da Carpi (1470–1550) overwhelmingly recommended cautery in the treatment of groin problems in order to differentiate true physicians from the castrating quacks lurking at the fairgrounds.

Medical doctors also employed cautery in the treatment of extremely severe toothache and tooth decay. Guy de Chauliac dedicated a section to the topic in his comprehensive medical treatise, *Chirurgia Magna* (*The Cyrurgie of Guy de Chauliac*), which he composed circa 1363 while employed as papal physician at Avignon. De Chauliac cited the recommendations of Arab and Muslim physicians Abulcasis, Avicenna, and Ali ibn Abbas al-Majusi (d. 994, known in the West as Haly Abbas), who advocated the use of herbal remedies such as opium (*Papaver somniferum*) first to deaden the pain. If the pain still did not subside, then the dentist was advised to cauterize the affected area with hot oil or a hot iron. Extraction was to be used only as a final resort.

Treatment of breast cancer throughout the Middle Ages owed more to Alexandrian physician Leonidus (d. 180 C.E.) than to Galen, although both physicians considered amputation to be the only effective solution. Galen recommended the use of the surgeon's knife to excise the tumor yet offered less effective methods for controlling the resultant hemorrhaging. By contrast, Leonidus's technique of alternating the scalpel with the cautery iron somewhat reduced hemorrhaging. By the end of the Middle Ages, some surgeons substituted sulphuric acid for the hot cautery iron in order to excise smaller breast tumors.

Cautery was even put to use in the treatment of mental illness. Thirteenth-century English physician Gilbertus Anglicus, the author of the *Compendium medicinae*, was convinced that mental illness was caused by corrupt matter. He prescribed a holistic approach to the treatment of the disease, which included bloodletting and cautery at the occiput (located at the top of the head), combined with a relaxing regime of solitude and pampering with pleasant surroundings, wine, sleep, sex, exercise, and baths.

BLOODLETTING

Any one of three bloodletting techniques was thought to reestablish equilibrium among the

body's fluids. Balance among the four humors, blood, phlegm, choler, and black bile, was thought to determine health. To reestablish a balance among humors, physicians let blood by fleeming: A practitioner used a fleem, scalpel, or knife to make a simple incision into a blood vessel, causing the blood to flow. Leeching was common: Live blood-sucking leeches were applied to specific bodily points to drink until surfeited or removed by the physician. Cupping probably was the most frequent phlebotomy method. Ceramic, wood, or glass vacuum cups were applied to the nicked skin's surface, drawing a requisite amount of blood measured either in a calibrated bowl or by some other blood measuring device.

Phlebotomy calendars, almanacs, and medical texts depicted on anatomical figures called *vein men* or *vein women* the appropriate points on the body for drawing blood for specific medical and hygienic purposes. Even more important than the phlebotomy place is bloodletting time. A specific, propitious medical time was calculated by yet other timings: the time of onset of illness or injury, the exact zodiac constellation time of a patient's birth, and the astrological time appropriate to the ailing bodily part, the sign of Aries governing the head, Scorpio the genitalia, Sagittarius the thighs, and Pisces the feet.

For calculating these multiple medical times, important not only for phlebotomy but for all medical and surgical ministrations, the medical practitioner had splendid instruments. Medical astrolabes had concentric, movable, calibrated disks. Medical quadrants, often with plumb lines, were effective chronometers. So were the volvelles in the form of independent instruments or as inclusions in medical manuscripts and books. Astrolabes and folding almanacs with their arithmetic tables and anatomical calculations for easy portability were worn suspended from a thong at the practitioner's belt.

Medical and surgical timers joined the human body with God's body politic. The human being

This homo signorum *associates astrological signs with internal and external organs.* From *Bloodletting Calendar*, England, 15th century; from the collection of Professor Harry Bober, NYU Institute for Fine Arts, courtesy of Galeria Medievalia, Tenafly, New Jersey.

pulsing along on Earth was gloriously situated midway between angels and animals. Having potential pleasures of both, humankind shared an ethereal spirituality of angels and a body-bound appetite of beasts. Human physical and emotional illnesses could be resolved by adjusting human rhythms to the appropriate universal harmonies. Multiple timings were thought crucial to success of medical treatment, and medical instruments likely to be effective only if used rhythmically, and propitiously.

HEALING MUSIC AND PHLEBOTOMY

Instrumental music had surprising eminence in the Christian, Jewish, and Islamic medical world. Correlated to the pulse meters of a

patient's bloodletting in a health spa were truly sanguine rhythms of the viol and lute. Accompanying treatment for a scorpion's bite was the song rhythm imitating the biting beast's meters and sounds. Concluding each meal in a regimen of diet therapy were rhythmic sounds of shawms to aid digestion. For dispelling melancholy, musicians were employed to create joyful melodies with trumpets, bells, and organs ringing enthusiastic mood music.

Music accompanied health spa banquets and treatments. Melody and rhythm were selected for a particular patient's ailment or for those suffering from the same problem, such as gout or arthritis melodies. A long tradition of medical music was mediated through Boethius (d. 525) and Cassiodorus (d. c. 585), who maintained that rhythms and melodies relaxed, healed, and affected mood and body. Medical spa music also was determined by the patient's temperament and type: melancholic, choleric, phlegmatic, or sanguine. Festival music, health spa music, surgical music, and other medical instrumental and vocal melodies and rhythms were contrived to heal the patient by reestablishing bodily rhythms with heavenly harmonies of the world order and the ordered world,

A physician performs urinalysis and demonstrates his tactus eruditus *(knowing touch) while three colleagues consult.* Woodcut, Hugo of Siena, Hippocrates' *Aphorisms.* Courtesy of the Bettmann Archive.

the *ordo mundi*. Since the human body was a *microcosm*, a miniversion of the great macrocosmic universe, the body's rhythms were associated with the harmony of the spheres in the *macrocosm*. Periodic fevers, monthly menstrual cycles, and epidemic periodicities were thought synchronized with the seasons and the revolutions and rotations of the stars and planets.

Medical music's melodies and rhythms for relaxing the mind yet inciting the will to become well, the special ocular melodies, arthritis tunes, and orthopedic rhythms, all were associated with pulse music. Inspired by the second-century Greek philosopher and physician Galen, medieval medical texts celebrated the relationship between pulse and disease. Physicians cultivated an erudite touch, a *tactus eruditis*, by placing their fingers on the patient's wrist, axilla, or neck for diagnosis and prognosis. Pulse speed, intensity, rhythms, and consistency of beat were diagnostic and prognostic.

Galen identified about 27 types of human pulse to which he attributed descriptive veterinarian titles such as slow and steady ant or *formica* pulse, *pulsus formicans*, and rapid, leaping, disjunctive gazelle or antelope pulse, *pulsus gazellans.* Rapid, intense, erratic pulse signaled eye disease. Slowing the pulse by appropriate music to relax blood flow had favorable effect on ophthalmic processes, as did bloodletting to reduce volume and blood pressure. Galileo's *pulsilogium* either substituted for or confirmed the doctor's erudite touch.

The Plague

Merchants and traders moved from city to city during fair weather and foul, in sickness or health, during peace or war, and during deadly outbreaks of contagious plague. Mid-14th-century Europe suffered through the especially lethal pandemic bubonic plague. But pestilence

had decimated towns and cities for centuries before and after 1348.

Boards of health were charged during times of plague with protecting civil hygiene, guarding individual human life, and creating methods to limit contagion. London, York, Venice, Milan, and Bologna had politically powerful health boards. In Italian cities, for instance, noblemen, administrators, physicians, and merchants served on such health committees, whose duties included handling epidemics, treating patients with plague, controlling prostitution, limiting movements of merchandise, and regulating actions and travels of merchants. Usually this power extended to regulating the movements of Jews because they were major importers and exporters. Health boards also appointed the *physici epidemi*, physicians hired for treating the plague-infected. Cities paid, and health boards sometimes controlled, house searchers, quarantine personnel, corpse burial people, merchandise examiners, health passport issuers, and clerks to register mortalities.

Three types of antiplague isolations caused battles between health officials and merchants, the first of which were the strict quarantines. In fact, the word *quarantine* is from *quarantenaria* (from Italian *quarantina*, "40"), the 40-day period of sequestration of people and detention of materials deemed exposed to contagious disease, the length of time that the port of Venice was closed to commerce and travel during an outburst of plague in 1374. The second type of municipal protection against plague was the sanitary cordon that literally and figuratively roped off areas of a town or city to prevent free entry and exit. Third was the system of health passes that permitted only those who had critical requirements and official permission to travel through a cordon or quarantine.

The transmission of contagious disease by personal contact was understood in the 14th century. Distinctions were made between bubonic and pneumonic plague. Isolating infected populations placed physicians and merchants at loggerheads. Who had the responsibility to protect the commonwealth? Who had the right to impose quarantine, cordon, and health pass when isolation of the infected would lead to economic disaster? Was a person worse off when perishing from plague than when starving because of lack of work and wages? Town and city authorities responsible for maintaining public health sometimes acceded to the dictates of doctors, others to mercantile interests. People infected with plague were incarcerated in pest houses, where they were fed, clothed, and bedded at town expense, or quarantined in their own homes, the healthy with the ill. Health guardians posted the feared quarantine sign on the door. Sanitary cordons were physical barriers or legal restrictions barring movement to and from certain streets, town sections, or total cities. No people or merchandise was allowed in or out, and no passage beyond the imaginary or real barriers.

Yet cities under plague restrictions did issue health passes, sanitary passports, or health certificates, to people whose necessary work required travel between safe and quarantined locales. Messengers, medical doctors, and mail couriers obtained such passes. Merchandise was examined and certified. Produce and imports without certificates of safe passage were subject to quarantine. Pest houses for silk were called *lazzarreti della sette*.

Merchants whose professional existence depended upon unrestricted movement of commodities and persons from place to place were devastated at time of plague. They could not contact their suppliers outside the sanitary cordon, nor accept what had been shipped to them unless it passed through searches, resulting in long delay in receiving perishable merchandise and destruction by burning or dumping of merchandise under suspicion of harboring infection. Physicians or health board officers determined whether an isolated out-

break of plague ought to condemn the whole city to economic disaster.

THREE PHYSICIANS' PLAGUE TREATISES

Popular regimens of health offered practical measures for avoiding pestilence. The physicians Geoffrey of Meaux, Gentile da Foligno, and William of Marra wrote both immediately before and after the pandemic of 1347–51 exemplifying nutritional prescriptions and proscriptions. Physicians and medical books created demand for particular foods, herbs, spices, and drinks believed to have pharmaceutical properties. Foods, compound medications, and such panaceas as *theriac* caused multiple confrontations between mercantile and medical interests.

Fourteenth-century plague treatises were predicated on the epidemiological correspondences in God's divinely perfect plan, seen in the patterns of correspondences of the grandly ordered movements of the *macrocosm*'s celestial bodies, which affected earthly events, such as weather, seasons, and epidemics. Planets and stars regulated human conditions such as birth, good health, illness, and death. Food balanced bodily humors. Either by *complementarity* or by *contraries*, an ailment having "hot and dry" principles required that bodily equilibrium be reestablished through medicine, food, and drink with the qualities "cold and moist." Humoral balance determined a person's health and ability to withstand or succumb to plague.

The physician and astrologer Gentile da Foligno wrote a famous plague book called the *Consilia* explaining occult influences of stars upon health. His medical treatments, like those of Christine de Pizan's father, Thomas of Bologna, and Chaucer's Physician in the *Canterbury Tales*, included decoctions of minerals and gems and an elixir of gold salts, potable gold. Gentile da Foligno recommended in his *Dubio* the panaceas *theriac* and *mithrodates* but for best diet therapy, imported antiplague herbs with healing power were *ditany*, *aristologia*, and *latucella*. Emphasizing bathing and the effects of mind over healing, Gentile maintained that desire for health was essential for medical efficacy of any medication. He recommended an elixir for overcoming fear and melancholy, and another for rebalancing emotion after infatuation by joy.

The physician Geoffrey of Meaux categorically maintained that the Black Death was caused by a dreadful malefic conjunction of Jupiter and Saturn coinciding with an eclipse. This poisoned the air. Not everyone was similarly affected. Nativities of certain individuals made them more susceptible to the Black Death than others. Those who "caught" the contagion were exposed and susceptible. Those exposed but not susceptible remained healthy. Everyone should avoid standing or talking with those who contracted pestilential illness because it was contagious, *egritudinum pestilentilem*, poisonous, and deadly in every respect. Proper prophylaxis required eating and drinking lightly, sweating two or three times a week, drinking daily a decoction of linseed heated with camomile diluted in wine, getting plenty of warm bed rest, and drinking before sleep a stiff spiced brandy. Hygienic measures protected against "influence" of the planets detrimental to health. Planetary influence endures in our modern medical words *influenza* and *flu*.

William of Marra's 14th-century *Papal Garland Concerning Poisons* examined four methods by which certain animals and plants were poisonous to human beings. Certain mushrooms were totally noxious, while other foods were poisonous in their parts, such as safe fruits with poisonous pits. Other foods internally exerted deadly effect only after ingestion. Still others were poisonous upon their touch. The herb *tormentile* was William's favorite remedy for pestilence, also effective against snakebite or scorpion sting. He learned from his professor at Padua a

recipe for special pills superior to the panacea *theriac* for curing plague patients, and it also was effective against apoplexy, epilepsy, paralysis, and tremor. William of Marra maintained that cooking tempered potency of poisons: Mushrooms were less likely to be deadly if well cooked with pears. Foods not inherently poisonous could become so by proximity to poisons. Plague-contaminated foods were twice dangerous. They killed those who ate them. Other people who had eaten plague-tainted food and drink became carriers who transmitted contagion by their breath, blood, humors, even their clothing, to those susceptible.

MANUFACTURING THE PANACEA *THERIAC*

Fourteenth-century pharmacists imported *theriac* ready made. Other chemists fabricated it themselves or worked with physicians to create it. Pharmacists competed against physicians for control over exceedingly lucrative drug markets. In Bologna, bitter political intrigues between pharmacists and surgeons led to vituperation so intense that the surgical faculty at the university was in uproar for two years. Only the pope's intervention resolved the *Aldrovandi Theriac Controversy*, a dispute pivoting around the addition of two herbs to a 61-ingredient compound for *theriac* whose major component was vipers. If proper medication prevented a susceptible person from catching a contagious disease, or decreased severity of disease already caught, or mitigated its deadly effect, then a properly prepared panacea would work and a shoddy product would fail to protect and fail to cure. In question were safety, efficacy, and the public's belief in its protection against disease. Ullises Aldrovandi (d. 1605), botanist and professor of anatomy and surgery at Bologna University, was appointed *proto-Medici*, charged with supervising the apothecary's preparation of *theriac*. Aldrovandi insisted on adding to the usual set of ingredients two important herbs, *amono* and *costa*.

Theriac preparation was public, with demonstrations of ingredients' purity, ritual mixings of the compounds, multiday social events, and elaborate ceremony. Every spring in the courtyard of the medical school at Bologne, two great pyramids were erected, covered in rich crimson damasks, upon which were set busts of Hippocrates and Galen holding two enormous majolica vases in which the precious drug *theriac* was placed. Nearby were filters, beakers, thousands of flasks, containers, cauldrons, and apparatuses for manufacturing *theriac*. With bustling activity, doctors of the medical college examined ingredients and pharmacists demonstrated the procedure. All were dressed in elaborate clothing. Servants dressed in green ornamented with gold aided pharmacists and doctors in their work. On the upper loggia knights and ladies watched the spectacle together with doctors, scholars, and a crowd of citizens.

Interrupting this public pharmacological display, Aldrovandi insisted upon adding the two herbs. Pharmacists preparing the drug refused. They resented imposition upon their revered *theriac* tradition dating back to the second-century physician Galen. Pharmacists were furious to have the efficacy of all their *theriac* previously made without those herbs impugned, and they did not want a surgeon meddling in their drug pots. Aldrovandi, as *proto-Medici* representing the surgeons' prerogative of control over pharmacists, demanded the extra herbs and objected to the ingredient vipers, maintaining that the pharmacists had caught the snakes at the wrong astrological time and had used pregnant vipers, a sure contaminant to the drug. Because *theriac* was a major industry, both sides threatened to go to court. They did.

Aldrovandi expected that trial before a university tribunal would vindicate his theory. But

fellow professors of the university judged him guilty of medical malpractice and dismissed him from his academic post after 45 years teaching at Bologna. The chemists won, temporarily. Then the pope intervened and overturned the verdict. Aldrovandi regained his professorial chair, *theriac* gained a beneficent pair of herbs, and Bologna's citizens were reassured that their drugs were made according to the best scientific ideas of the day.

Science and Technology in Europe

In the year 1277 Roger Bacon suggested that navigation machines could be constructed without rowers, great ships for river and ocean, each guided by only one man to propel it at greater speed than if it were full of rowing men. A chariot could be constructed to move with incalculable speed without any draught animal. Flying machines would enable men sitting within the mechanism to turn an instrument to activate artificial wings beating the air, imitating a flying bird. A wonderfully small lifting machine could raise and lower weights of almost infinite amounts. Machines could enable people to go down deep into water to walk on the sea bottom or riverbed without bodily danger. Marvelous bridges would span rivers, without pillars or visible supports.

Medieval Europe produced many mechanical marvels even though Roger Bacon's 13th-century inventions did not become reality until the 19th century or the 20th. Water mills and windmills were used for grinding grain, fulling cloth, tanning leather, making paper, cutting logs, smelting iron, and fabricating steel.

Scientists and engineers created ways to harness hydraulic power, wind power, and tidal energy. They eagerly searched for alternative, renewable, perpetual sources of power. Between the 10th and 13th centuries, western Europe experienced a technological boom. The fulling mill for cloth making, for instance, was called the maker of the industrial revolution of the 13th century, producing wealth and opportunity for England's people. Stationary water mills near flowing streams and rivers, beautiful but dangerous floating mills, lake mills, and mills associated with the majestic dams built at the end of the 12th century harvested waterpower of such fast-flowing rivers as the Garonne in France, where 43 water mills were erected on its right bank.

Windmill sails pierced horizons in mid-12th-century towns of Europe. Owned by entrepreneurs, towns, and church facilities, windmills were lucrative generators of profit and taxes. Architect-engineers deploying flying buttresses pushed the vertical skyward thrust of stone Gothic cathedral vaults to 40-story height. The 14th century marked the invention in Italy of the colossal mechanical clock. Military technologists designed knights' protective armor, iron and steel swords, powerful winched crossbows, catapults, and prodigious siege devices. Engineers built spectacular bridges and roads and rechanneled and canalized rivers. For example, Rievaulx Abbey totally redirected the course of the river Rye.

Machines in western Europe reduced burdens of physical labor for most arts and crafts. The peasant used a mechanical plow and ground grain at a mill run by horsepower or windpower. Townspeople used technology for transport of water to town fountains and for plumbing and sanitation of their houses. The nobility used iron and bronze technology for mobile cannons, portable guns, and ingenious mechanical military siege engines. Population increased. Thirteenth-century Europeans left

home, founding new communities and building new towns. Free enterprise, capitalist companies, corporations, entrepreneurs, efficient divisions of labor, vast energy consumption, mercantile exploration, and transfer to machines of much work formerly done by hand converged with medieval optimism, rationalism, and exuberant delight in progress.

Keeping Time

THE MECHANICAL CLOCK OF GIOVANNI DA DONDI

The physician, astrologer, and clockmaker Giovanni da Dondi in 1348 created a great clockwork. His mechanical clock was so gorgeous, complex, and dependable that it was known in its time as a wonder of the world. The device included hours and minutes, planets in their orbits, heavenly bodies in their rota-

Temperance, mechanical clock in hand, at the end of the 15th century. From *Fleurs des Histoires*, MS. Add. 6797, British Museum, London.

tions, calendrical feast days, and dragon embellishments. It was an efficient *astrarium*, consisting of seven dials displaying motions of Sun, Moon, and the then known five planets. This accurate and beautiful 14th-century clockwork was meticulously and precisely described in Giovanni da Dondi's treatise *Tractatus astrarii*, written in approximately 1364.

Giovanni da Dondi's mechanical clockwork reproduced in a machine the regular, inexorable timing of the human pulse. That rhythm itself was in microcosmic harmony with the heavenly spheres. The clock probably was medically required by the depredations of the horrific bubonic plague, which decimated Europe in 1348, necessitating that physicians use dependable timers. The *chronophysica*, or time medicine, the indispensable instrument used by surgeons to calculate the patient's astrological birth sign, time of injury, and pulse in order to maximize effective treatment, had other applications in astronomy, astrology, and time keeping.

SU SUNG'S CLOCK

Three centuries before Giovanni da Dondi's *astrarium*, Su Sung in 1090 in Hunan Province, China, built a magnificent astronomical clock tower enclosing a waterwheel that drove clockwork that rotated an *armillary sphere*, a skeletal celestial globe consisting of metal rings or hoops representing the equator, ecliptic, Tropics, and Arctic and Antarctic Circles, and revolving on an axis. Su Sung's clock had a celestial globe at its top. Puppet figures appeared to sound the hours and quarter-hours. It was built to forecast movements of the Sun, Moon, and planets. Likewise for studying the heavenly spheres, the 12th century Brahman Hindu astronomer Bhaskara created a perpetual motion mercury wheel. Su Sung's clock measured earthly time in hours and minutes as a secondary effect of primary celestial clockwork.

The idea of waterpowered clocks existed in China and in the *clepsydrae*, the water clocks that Hippocrates of Cos in the fifth century B.C.E. and Herophilus of Alexandria created around 300 B.C.E., and later creators used though the 17th century. However, these outdoor, stationary clock mechanisms froze solid in northern winters and evaporated in southern summers. Harsh northern European winters slowed time and ice stopped it. Therefore intelligent practitioners needing dependable timers independent of weather attempted to mechanize the manual analog computer, the *astrolabe*.

THE ASTROLABE

Giovanni da Dondi's spectacular mechanical clock was far more dependable than the manual astrolabe from which it developed. The astrolabe was a reckoner of time and a calculator for observing positions of heavenly bodies; for measuring heights, distances, and latitudes; and for practicing horoscopy and medieval astrology. It was also important in medicinal time measure or *chronophysica*. Physicians needed an instrument for plotting the primacy of time over the influences of God, nature, and man's acts. Individual life was thought vulnerable and the human fate weighed in time's balance at each computation by chronometer.

Of ancient Greek origin, the astrolabe was a veritable analog computer for problems dealing with time, star positions, and length of day or night. The medieval West rediscovered the astrolabe through the agency of early ninth-century scientists residing in the Islamic world, such as Masha Allah, al-Kharizmi, and Ali ibn Isa al-Asturlabi and their translators. The astrolabe consisted of concentric disks and a pierced metal *rete*, which was a stylized star map, essentially a stereographic projection of the skies. The rete rotated upon a series of plates called *tympans*, incised with images of celestial spheres projected onto a plane parallel to the equator and drawn for specific latitudes. The astrolabe depicted the horizon, zenith, altitude, meridian, tropic of Cancer, and tropic of Capricorn. The *tympans* rested in a flattened disk called the *mater* or mother. Atop all of these pivoted the *allidade*, a pointer with a citing bar, flexibly anchored by a pin whimsically shaped as a horse or bird. The astrolabe was a fine, manual precursor to the *astrarium*.

THE *HOROLOGIUM*

At the same time as astrologers were plotting the effect of the stars upon the human body, astronomers were practicing celestial kinematics, solving intricate astromechanical problems by graphical representation of planetary motions. This was part of the science and technology of dynamics. Celestial kinematics examined laws and actions of motion in a system of material particles without reference to forces acting on that system. Astronomers such as England's Richard of Wallingford in the 14th century and John Killingworth in the 15th were prime practitioners of celestial kinematics. Abbot Richard of Wallingford (d. 1336) built a spectacular *horologium*, a clock that both his brethren monks and King Edward III (r. 1327–77) criticized because his work on that profane machine made him neglect his ecclesiastical duties. A major technological triumph, the *horologium* was an astronomical clock with trains of gears, mechanical linkages, a dial, indexes, a rotating lunar globe, a wheelwork for tracing heavenly body motions, and a bell.

Engineering

AVIATOR EILMER OF MALMSBURY (D. 1069)

In the year 1000, over 100 years before windmills harvested airpower, an adventurous aviator

monk named Eilmer of Malmsbury attempted to fly. He constructed wings that he attached to his hands and feet, imitating the flight of the Greek hero Daedalus. Eilmer climbed to the top of a tower, tested the breeze, jumped off, and flew the astonishing distance of more than 600 feet. He and his contraption flew like a modern hang glider. That distance was five times the number of feet the Wright brothers flew their airplane at Kitty Hawk in 1903. Eilmer's gliding transit lasted a few minutes when a gust of wind agitated his flight, and he plummeted to Earth, breaking both legs, laming him for life.

This early aviator was a scientist who carefully planned his glide, measured his distance, reviewed his flight pattern, and analyzed his fall. His partial conclusion was that his wings would have been more effective and he would have flown better if he had had a tail. Eilmer wrote a book on astrology and during his long life observed and recorded two sightings of Halley's comet, once in 989, again in 1066. He lived in Malmesbury Abbey in Wiltshire, where experiments in technology and learning were an honored tradition. Saint Aldhelm, the venerated early abbot of Malmesbury between 672 and 709, was a Latin scholar, architect, pipe organ builder, and poet who celebrated wind.

THE MECHANICAL DEVICES OF VILLARD DE HONNECOURT (13TH CENTURY)

Villard de Honnecourt, engineer and architect from Picardy in the north of France, worked between 1225 and 1250. His remarkable sketchbook for his colleagues and students depicted brilliant mechanical devices, weaponry, automata, cathedral facades, people, lions, insects, valid advice on the virtues of masonry and uses of carpentry, and transfer aids for drawing figures according to the lessons of geometry. Perhaps best known for his

architectural and engineering innovations that graced his country's Gothic cathedrals, Villard also designed a self-operating, water-powered saw. This was the first known industrial automatic power machine to involve two motions. It converted the wheel's rotary motion into the reciprocating motion of sawing. An automatic feed device kept the log pressed against the saw. Villard's clockwork mechanism, linked by a spindle to the statue of an angel placed on the roof of a great church, above the apse, made it rotate slowly, following the path of the Sun in the sky. Villard titled it "How to make an angel keep pointing his finger toward the Sun." The machine's vertical axis or spindle supported by a frame also carried a horizontal axis upon which there was a wheel. A cord with a weight suspended from it passed over a guide pulley, then horizontally to the vertical shaft, coiling around it twice. Then it passed to the horizontal shaft, coiling around it three times, and finally carried over to another guide pulley with its end hanging vertically down, carrying a second lighter weight. The heavier weight's descent caused the vertical spindle and the horizontal axis to revolve, activating the statue to perform one revolution every 24 hours.

Villard de Honnecourt's military catapult had a base resting on the ground, two windlasses and a double rope for hauling down the pole, a very heavy weight, counterpoised by a heavy hopper full of earth (two fathoms long, eight feet wide, and 12 feet deep). Villard probably was influenced by fourth-century Vegetius, who wrote a popular military treatise, and by Vitruvius, whose amazing treatise on Roman technology included beyond catapults such devices as hoisting machines, an engine for raising water, water wheels and water mills, a water pump, a water organ, and an odometer for measuring distance traveled by a wheeled vehicle, a clockwork mechanism recording number of the wheel's revolutions. Villard de
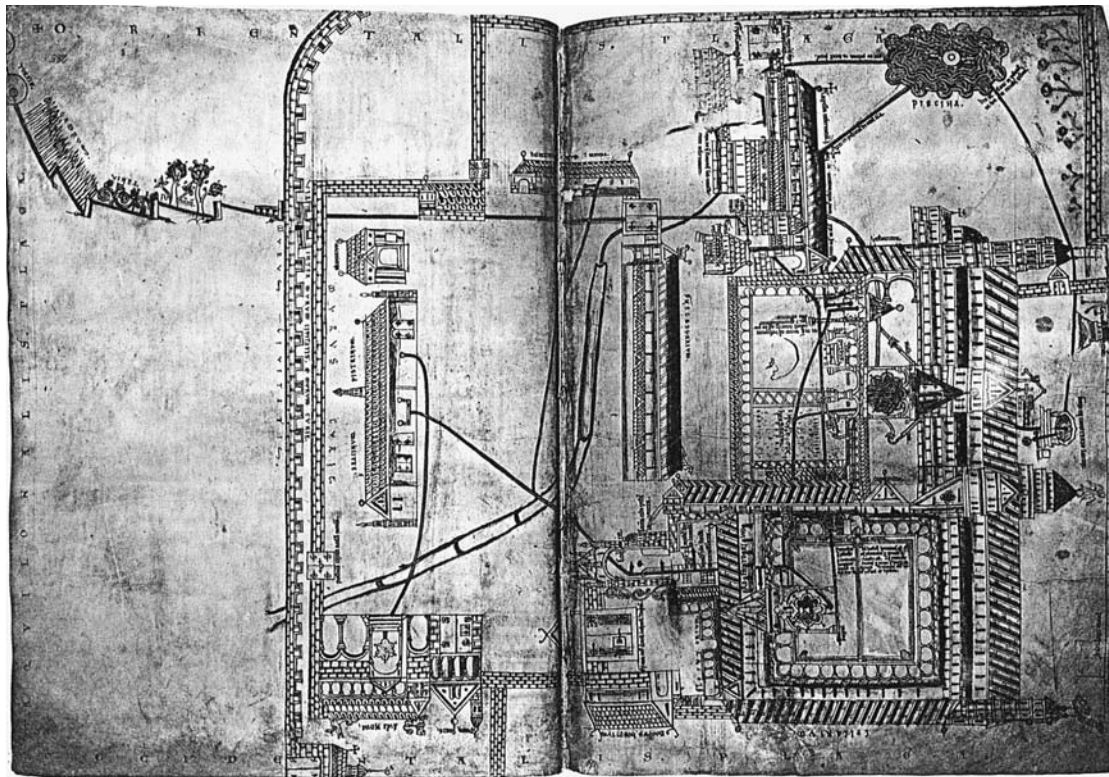
Probably drawn around 1153 for the engineer who completed the plan for the water-inflow and sewage system of Canterbury Cathedral, this remarkable scheme describes the paths of the water brought from outside the cathedral walls (after passage through a conduit house, lead pipes, and five settling tanks). For drinking, washing, irrigating gardens (the herbarium*), cooling wine in the* cellarium*, circulating in the fishpond (the* piscina*), and flushing the latrines of the* necessarium*, the elaborate system utilized piped water augmented by rainwater. Kept in octofoil reservoirs, this "artificial" system had a back-up series of natural wells (e.g., the* puteus *in the cloister).* From the *Canterbury Psalter* or *Psalter of Eadwine*, 12th century, English. Cambridge, Trinity College Library, Ms. R71.1, f.284b, 285.

Honnecourt also created a perpetual motion machine using mallets and quicksilver.

PETER OF MARICOURT (13TH CENTURY) AND PERPETUAL MOTION MACHINES

European engineers often attempted such perpetual motion wheels. In 1269 the scientist

Peter of Maricourt writing his *Epistula de magnate* (*Epistle to Sygerus of Foucacourt, concerning the Magnet*) stated that he had seen numerous men floundering exhausted after attempting to make a perpetual motion wheel. The idea of a perpetual motion device may have originated in India in the 12th century to demonstrate ideas of traditional Indian cyclical philosophy. A Brahmin Hindu astronomer and mathemati-

cian, Bhaskara described in 1159 two *perpetuum* wheels, one made of light wood with hollow rods half filled with mercury or quicksilver, and the other with the rim of the wheel scooped out and filled half with water, half with mercury. Whereas the Eastern world treasured the philosophy of perpetual motion, the Europeans cherished perpetual motion as practical, renewable, inexpensive source of energy.

Peter of Maricourt created two perpetual motion machines, one magnetic, and the second, a globular lodestone that when mounted without friction parallel to the celestial axis rotated once a day. Properly inscribed with a map of the heavens, it served as an automatic *armillary sphere* for astronomical observations and as a perfect clock, making other chronometers irrelevant.

WINDLASS

The windlass was a mechanical contrivance for hoisting and hauling, consisting of a roller or beam resting on supports, around which a rope or chain was wound. The windlass was used as a hoist in mines. In building construction, it hauled timbers and stones from the ground to high heights. In theaters players were literally flown in from the wings as *deus ex machina*, the god from the machine. Smaller windlasses functioned as fishing reels, and as devices *spinsters* used to wind yarn. It was also a winch for firing a *crossbow*.

Watermills versus Windmills

Some watermills were tidal. Usually in low-lying areas where the river was not powerful enough to drive a water mill, engineers built dams to create large, multiacre ponds. Swinging gates in the dam allowed the incoming tide to flow into the ponds. As the tide turned, the pressure of the water, greater inside, automati-

cally closed the gates. The miller waited until the level of the water below the mill had dropped sufficiently and then allowed the dammed water to escape through the millrace, thereby driving the water wheels. Tidal mills could work only when the high tide flowed, thereby making mill work hours vary according to the day. Used primarily to grind corn, tidal mills were significant but superseded by windmills.

Water mills had several disadvantages. In northern Europe, streams and rivers in winter slowed with ice or froze solid. During periods of drought, natural streams and rivers diminished, sometimes to a flow below which there was little hydraulic power worth harnessing. Wind-powered sails replaced water wheels driven by hydraulic power.

A major shortcoming of windmills was the uncertainty of the direction of wind flow. Even in areas where west winds or east winds were routine, wind perturbations affected power flow. Adjusting wings of the mill or adjusting the trajectory of the total mill itself enabled a clever millwright to utilize wind to best advantage as a sustainable, replenishable power source. To account for changes in direction of air stream, engineers created the *post mill*, which rotated on its vertical timber in order to change direction to catch the wind. This post mill appears to have been a European invention, not derived from the horizontal windmills that in Iran and Afghanistan were mounted on a vertical axis and known as early as the seventh century. While windmills originated in the Middle East and were Muslim creations, new forms of windmills were invented in northern Europe well before 1180.

WINDMILLS

When Cervantes's knight Don Quixote looked into the distance and cried with enthusiasm to his friend Sancho Panza that he saw 30 or more monstrous giants he intended to battle and kill,

he mistook for fearsome foes the typical commercial windmills thrusting their sails toward the clouds. The first documented design of a windmill is a vertical-axis structure dating from sixth- to ninth-century Persia, where it was apparently used primarily for pumping and transporting water and grinding grain. The first known western European windmill harvested airpower before the year 1137 and had a horizontal rather than vertical axis structure. Windmills generated high profits for their owners and high taxes for their governments.

A remarkable administrator whose profession was charity, William the Almoner, was appointed in 1106 to dispense royal charity of King Henry I and then King Stephen. William recognized that harnessing the free benefit of wind in a post mill (a four-bladed mill mounted on a central post) would increase grain production for a growing population and diminish hard labor of those working by hand. William the Almoner worked with entrepreneurs looking for new profit, new sources of energy, and new political control through potential wealth in creating a post mill at Wigston Parva. Around the year 1390 the Dutch refined the post mill, creating the tower mill, so called because it affixed the standard post mill atop a multistoried tower, each floor of which was dedicated to a different task: grinding grain, removing chaff, and storing grain, for instance. The bottom level would be reserved as the living quarters for the windmist and his family.

Protecting the financial value of windmills forced to the law courts many who fought over mill ownership and their profits. Legal documents and wills retained details of human generosity and financial perfidies associated with technology of mills. Entrepreneurs and business folk owned and ran mills. Powerful religious houses owned mills for income and profit to augment their budgets, obliterate their deficits, and fund charitable institutions such as hospitals.

WINDMILLS AND THE CHURCH

Wind power was wealth. Brilliant technology transformed free wind into a valuable commodity for business, a source of power, and a stimulus to prosperity. Though it benefited laymen and clergy, sometimes it placed them at odds. The eyewitness monk chronicler Jocelin of Brakelond described the fury of Samson, abbot of Saint Edward's monastery in Burns, England, between 1182 and 1211, when a local clergyman named Dean Herbert erected a post mill on his own property outside the town of Bury but less than a mile from the abbey church. Aware of the economic stakes, European ecclesiastical and royal landowners attempted to impose measures restricting or forbidding the private ownership of windmills. Nevertheless, engineers and abbots appreciated in church art and architecture the angel wings fanning the air around God and the saints and the winged wind power transporting heavenly creatures between heaven and Earth. Engineers and clerics, millers and entrepreneurs, statesmen, craftsmen, and craftswomen expanded the reach of their handwork with marvelous wind-driven machines and praised God's glory as they enriched themselves by wings of wind.

Metallurgy

FIRE TECHNOLOGY OF VANNOCCIO BIRINGUCCIO (1480–1539)

Classical writers such as Pliny well appreciated fire technology in melting sand into glass, producing copper, creating and forging iron, and purifying gold. Fire as element seemingly immeasurable and uncontrollable was both measured and controlled in medieval metallurgy. Guns and weaponry were among the many uses of metals treated in the 10 books on minerals, smelting, casting, ore reduction, and other crafts of metallurgy in the *Pirotechnia* of

Vannoccio Biringuccio. Born in 1480 in Siena, Biringuccio was a contemporary of the great Florentine artist Benvenuto Cellini. In his book published in 1540, Biringuccio described techniques used during previous centuries. Biringuccio was not afraid to dirty his hands in the laboratory, at the forge, or at the furnace. A metal maker, not a metal theorist, he described instruments and devices he used and armaments he cast, with clever means to prevent malfunctions of his useful creations.

With practical precision, Biringuccio devoted chapters to refining gold, silver, copper, lead, tin, iron, steel, and brass, and such semimineral ores as quicksilver, sulfur, antimony, marcasite, vitriol, alum, arsenic, calamine, manganese, lodestone, emery, borax, azure, rock crystal, and glass. He taught assaying and preparing of ores for smelting. He gave construction instructions and use recommendations for common types of blast furnaces, cupeling hearths for refining silver, and reverberating furnaces for melting metals. He discussed sand casting and molding, acid separation of gold from silver, and alloy making, such as alloys of gold, silver, copper, copper, lead, tin, and pewter. He also offered sensible advice on running a distillery for oils and working a money mint.

Biringuccio's fire techniques manipulated metals for practical use, productivity, and profit. A successful metal smelter, for instance, required adequate waterpower, fuel, and transportation. Lack of one of that triad would lead to failure. Mining was far safer for acquiring wealth than soldiering and far pleasanter than the commercial merchants' uncomfortable voyages to unfriendly foreign shores. Mining endangered only the miner and his hired assistants, best using short work shifts for miners underground, between six and eight hours, because new, rested men enabled the proprietor sooner to achieve profit.

Biringuccio's contempt for theorist authorities such as Aristotle, Pliny, and Albertus Magnus was equaled by his scorn for alchemists who made copper and zinc alloys but could not see past their delusion that those metals were trivial, inferior to gold, to the alloys' inherent utility and excellence. Likewise, Biringuccio disdained ill luck. Bad results in metalwork were due to ignorance or carelessness. Fortune favored the founder who paid meticulous attention to details. Biringuccio noted that intelligent men who required dependable killing powers of cannon and shot made mandatory particular armament designs and dimensions light enough for transport and heavy enough for safety. He delighted in providing them. Whatever his metallurgical subject, nothing was as important as experiments to distinguish what worked from what was thought to work from what failed. Best were large-scale, efficient operations, weighing everything, trusting nothing, and depending on no one.

THE MINING TECHNOLOGY OF GEORGIUS AGRICOLA (1494–1555)

Georgius Agricola of Germany's stupendous 12-volume book *De re metallica* (*On Metallurgy*) was published posthumously in 1556. This great treatise on alluvial mining, alchemy, silver refining, smelting, surveying, timbering, nitric acid making, mining law, technological chemistry, engineering, and geology is complemented with 289 remarkably detailed drawings of mining and metallurgical apparatuses in use. The illustrations depicted laboring people exerting their muscles propelling upright axles and eating their dinners on site during work breaks while masked workers stirred metal cauldrons nearby and dogs watched. Agricola illustrated cupellation furnaces, bellows for mine ventilation, crucibles for assay furnaces, and copper refining furnaces. He showed special hearths for bismuth, copper, lead, and tin. Details of mining life included uses of divining rods and dogs for backpacking ore. His book

depicted liquation furnaces, muffle furnaces, heap and stall roasting methods, and three designs for mine shafts: inclined, timbered, and vertical. He described sluicing tin, oblique and transverse stringers, windlasses, common shovels, wagons, and wheelbarrows. Cutaway views of machines extend high above the surface and deep underground. Legal aspects of mining such as assurance of title of ownership, forfeiture of titles, safety requirements for tunnel building, and use of protective garments were included in Agricola's history of mining from the beginnings to the 16th century. Agricola's early translators into English in 1912 were the U.S. president Herbert Clark Hoover and his wife, Lou Henry Hoover.

Agricola's work was far more scholarly, longer, and more complete than Biringuccio's. Agricola in his preface mentioned Biringuccio as a vernacular Italian writer, wise and experienced in metal melting, separating, and alloying, but on other important mining topics touching lightly or silent. Agricola was born in Saxony, Germany, in 1494 when Columbus had just discovered America and printing was only 40 years old. Agricola befriended the great humanist Desiderius Erasmus, then an editor for the publisher Froben in Basel, Switzerland, who first printed the learned miner's earlier work on Greek and Roman weights and measures, *De mensuris et ponderibus*. Agricola insisted that anything he described in *De re metallica* he himself had seen or carefully contemplated after having read or heard about it. With contempt for the confusions of antiscientific alchemists, he wrote his erudite book on metalcraft partly for the pragmatic purpose of stimulating more mining.

He dedicated *De re metallica* to the illustrious, mighty brothers Maurice and Augustus, dukes of Saxony, landgraves of Thuringia, margraves of Meissen, imperial overlords of Saxony, burgraves of Altenberg and Magdeburg, counts of Brena, and lords of Pleissnerland,

because metals were valuable to them as rich profits from mineral mines. Mining had for hundreds of years made towns in their realm, such as Freiberg, Annaberg, Marienberg, Schneeberg, Geyer, and Altenberg, eminent places of wealth. Despite the excellence of their major cities, greater wealth lay hidden beneath the ground than above it. To help extract it and preserve the mining craft for posterity, Agricola wrote his anatomy of metallic arts, each of its many distinct subjects as critical to commercial mining as knowledge of human organs necessarily was fundamental to understanding their integration in the living human body.

Chemistry

In a cylindrical stone enclosure buried in the 14th-century garden surrounding the College of Saint Thomas and Cloisters of Saint Nicholas of the Louvre, ceramic and glass technological vessels had been found stored or thrown away. Tangible exemplars of scientific culture's broken, discarded magnificence and time's waste, these vessels were distillation apparatuses including *alembics*, *cucurbits*, *pelicans*, flasks, tubes, *cupels*, and *worm condensers*. Chemical *distillation* was a process important for a gamut of purposes ranging from making liquor to con-
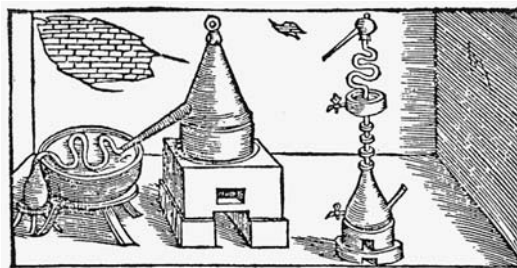
A worm condenser distillation apparatus used in chemistry and alchemy. From woodcut, Vannoccio Biringuccio, *Pirotechnia*, 1540.

verting a liquid to a gas. *Filtration* was a distillation process not usually using fire. *Cementation* was the bonding by heat of a metal or alloy to an ingredient such as sulfur or arsenic. *Cohobation*, closed-circuit distillation, reunited a distillate with its residue to allow continued "rectification." *Sublimation* was the process of heating a solid such as iodine directly to a gas with no intermediate liquid state, and rapidly cooling it again to a solid.

The process of distillation is traced back to Babylonia in the fourth millennium B.C.E., based on archaeological evidence of clay pots used to distill alcohol through natural cooling and essences. In the eighth and ninth centuries C.E. Arab and Persian alchemists, such as Jabir ibn Hayyan (d. 815) and al-Razi (d. 930), improved the process by inventing and perfecting the still with a cooled collector. Ibn Hayyan invented the alembic still, a medical, alchemical, and metallurgical distilling apparatus of glass, pottery, or metal consisting of a cucurbit, a cucumber-shaped vessel that contained the distillable substance. The head or cap of the still surmounted the cucurbit and transferred vaporous products to a receiver for cleaning.

A *pelican* was a distillation device with a long curved neck aiming down to its "chest," reminiscent of the pelican, believed to pierce its breast to feed her young with her blood. (The pelican therefore was symbol of Christ's sacrifice for mankind's salvation through his Crucifixion.) A *cupel*, used for assaying gold or silver with lead, was a small, molded, pounded, dense yet porous bone ash, saucerlike vessel with a central depression. It was used as a movable hearth called the *test* in a reverberating furnace for separating silver from lead via the process called *cupelling*. A *cupola furnace* melted metals before their casting. A worm condenser used in chemistry and alchemy was named for its convoluted serpentine shape. Related was the *kuttrolf* distillation bottle with entwined neck tubes for allowing water or fluid to flow drop by drop.

Muslim alchemists described the distillation of alcohol and its medical uses. In the 12th century this knowledge entered the Christian West, where it was put to use by alchemists keen on concocting medical "elixirs" (derived from the Arabic *al-iksir*, meaning "the Philosopher's stone") and incendiary devices. Vannoccio Biringuccio (d. 1540) described his use of all of these vessels in metallurgical processes in his *Pirotechnia* (*On Working with Fire*).

Chemists at distillation chambers with athanor furnaces prepare a chemical. From Philip Ulstadt, *De Secretis Naturae* [1544]. Courtesy of the New York Acadamy of Medicine.

The archaeological retorts, flasks, and condensers found in the grounds of the Louvre could have been instruments of an apothecary, alchemist, metallurgist, goldsmith, manufacturer of military incendiaries, or practicing physician. The alembics were consistent with distillation apparatus used by metallurgists and by goldsmiths who separated metals using nitric acid, *sal ammoniac*, saltpeter, and vitriol. Chemical warfare makers used similar apparatuses to create incendiaries such as *Greek fire*.

Distillation laboratories often were housed in separate buildings because these dangerous places were subject to explosions, production of noxious vapors and pollutants, and disagreeable sounds, smells, and sights. Perhaps the Louvre laboratory belonged to a physician who compounded medicines. In return for medical or surgical services, educational and monastic communities paid physicians an annuity, room, board, and laboratory space plus budget for compounding medicaments. A medical malpractice case preserved testimony of grateful patients in Paris in 1322 attesting to the physician's noteworthy, effective medical mixtures and potions compounded and distilled, including an *aqua clarissima* for intestinal complaints.

Instruction Books

Because few early medieval technological treatises survived, some modern critics view the paucity as a sociological phenomenon, a battle between the medieval scholars interested in theory and the craftsmen interested in product. Early craftsmen did not write instruction books for colleagues, one theory maintains, because they could not write. Illiterates with rough dirty hands could not write technical books. Alternatively, the constant manhandling of such books—assuming they ever existed—might have caused them to deteriorate. Yet it may be more correct to posit that

early technologists did not write because they *would* not write.

Letters of tradesmen and craftswomen demonstrate that 11th- and 12th-century townspeople dealing with inventories, precise market measurements, and financial books knew how to read and write for economic purposes and for expression of their ideas and emotions. Practical literacy of tradespeople and craftspeople sometimes ascended to literary art. Oral transmission of trade secrets was an honored custom. To reveal trade secrets might impede income and profit. Laws governing particular guilds forbade transmitting craft secrets to those outside its membership. An individual master craftsman guarded trade methods. Family experts passed information parent to child. Trade guilds and informal groups of practitioners of the same craft hushed up their successful recipes and formulas.

All were unwilling to write instruction books in order to prevent profligate expansion of knowledge that would increase competition, decrease political control, and threaten financial status. This was neither selfish greed nor illiteracy, but rather self-interested protection of valuable, hard-won professional information. They guarded their intellectual property. Intellectual fashions changed, for logical reasons. Technological books were written when the expansion of ideas became more lucrative than tight guarding of them. Political or financial circumstances became favorable for wide transmission of technological information when, for instance, leaders wanted to expand into foreign markets and commissioned the information, and proud practitioners desired to preserve for commercial posterity concepts that otherwise might be lost.

ROGER BACON'S SCIENTIFIC METHOD

Roger Bacon, the 13th-century Franciscan scholar of Oxford University whose ingenious designs for mechanical ships, aircraft, lifting

machines, and diving gear introduced this section, stated the importance of experimental scientific method. Experience was the principal underlying requirement of experimental science. Without experience nothing could be sufficiently known. Bacon elucidated the two principal modes of acquiring knowledge, by reasoning and by experience. While reasoning could lead to a conclusion that could be granted, reasoning could not make the conclusion certain. Reason was incapable of removing doubt unless and until the mind confirmed truth by experience. Many people knowing arguments but lacking experience then neglected the arguments, neither avoiding harm nor following good. The man who had never seen fire could prove by reason that fire burned, injured, and destroyed but could not satisfy his mind to avoid fire until placing his hand in it, thereby proving by experience what reasoning taught. Fire reasoning was not enough. Fire experience and suffering sufficed.

Experimental science distinguished reality by test and revealed the truth of nature versus magicians' art and trickery. Only experiment separated falsity from truth. Bacon described a scientist he admired who learned by observation and test to gaze at truth in the full light of day, seeing clearly what others strove to see but perceived only dimly or blindly, like bats blinking in the twilight Sun. Bacon's master of experiment gained practical knowledge of things medical, chemical, and mechanical. Ashamed not to know what soldiers, plowmen, and old medical empirics knew, he studied the people and crafts of metal smelting, goldsmithing and silversmithing, weapon making, hunting, farming, and chemical treatments of illnesses. He also studied magicians and wizards to discover conjurers' devices and deceptions and to expose impostors. For Bacon and for medieval scientists and technologists in general, seeing was not believing until the seer experimented, analyzed, replicated, and proved

the truth of sight. Reason predicted reality. Experiment and experience confirmed it.

The following sections illustrate the extent to which European advances in science and medicine are indebted to the empirical methods of Jewish and Muslim scientists and physicians.

Jewish Contributions to Medicine and Science

Many of the Christian physicians, scientists, and inventors discussed thus far, Giovanni da Dondi, Peter Juliani, Peter of Maricourt, Roger of Salerno, Trotula of Salerno, Vannoccio Biringuccio, acquired many of the basic principles of their crafts from studying translations of the medical and scientific treatises of eminent Jewish and Muslim scholars. As we have seen, the medical manuals of Jewish, Arab, and Muslim physicians including Isaac Judeus, Maimonides, Ibn Butlan, Abulcassis, Averroës, and Rhazes were the required reading of physicians wanting to gain knowledge of surgical practices, the treatment of disease, and medicinal plants. Distillation processes vital in medicine were made possible by the transmission of Jewish physicians such as Isaac Judeas or the great Moses Maimonides. From the 12th century onward, eighth- and ninth-century Arabic texts on the astrolabe were diffused in Europe, where the device was important in medical treatment.

The following section highlights the particular contributions of the Jews to medieval scientific and medical knowledge and medical practice both throughout the Jewish world and

in the Christian West. Most remarkable, perhaps, is the observation that even in the areas of Christendom where Jewish populations had been expelled or subject to severe repression, Jewish physicians were nonetheless highly prized for their scientific knowledge and surgical skills.

In 1410, England's king, Henry IV, was desperately ill. After all the physicians in England had despaired of finding a cure, the eminent doctor Elias Sabot from Bologna was called to London to treat King Henry. A modern paleopathological study on the king's corpse demonstrated that Henry had been beyond help because he was suffering from tertiary syphilis. More intriguing than the king's disease, however, was his physician. Although Jews had been under edict of expulsion from England since 1292, King Henry invited to England Elias Sabot, a practicing Jew, a leader of his Jewish community in Bologna, physician to Italian nobility, and official court doctor to two popes.

The English monarch in 1410 issued a safe conduct passport to Sabot allowing him unrestricted travel in England, the right to practice medicine publicly, and freedom from all personal interference. The king also extended travel privileges to 10 members of the physician's household. Deliberate emphasis on the number 10 suggests that Elias Sabot traveled with his own *minyan*, the ritual quorum for Jewish public prayer.

An earlier Italian document pertaining to Elias Sabot indicated the position of Jewish physicians in medieval Christian culture. People personally shunned and expelled because of their Judaism were welcomed for their professional talent. The letter granted Sabot Roman citizenship and all privileges of the holy city, even exemption from paying taxes. While denouncing the persistent unbelief of the Jews, their doctors were to be lauded for their indiscriminating care of Jewish and Christian patients. Accordingly, their granting of citizenship could be justified.

Two hundred years earlier the great physician and philosopher Maimonides (d. 1204) was official court doctor to Saladin's son, the Ayyubid prince al-Malik al-Afdal (d. 1225), in Egypt. Maimonides wrote several medical treatises at the express request of his Muslim patrons. In medicine and science, perhaps more dramatically than in other intellectual specialties such as art, literature, or music, Jewish contributions meshed with the Christian and Arabic cultural worlds in which the Jews flourished.

Jewish scientists and physicians were preeminent cultural mediators. They helped introduce Eastern science to the West in three major ways. First, Jewish linguists were commissioned by kings, caliphs, and popes to translate Arabic or Hebrew scientific treatises and medical texts otherwise inaccessible. Jewish scholars, particularly in 12th-century Spain, knew Arabic as a lingua franca, thereby opening to them works of natural science and philosophy that they then could translate to Latin or Hebrew. Second, some scientific mediators such as Maimonides were superbly original thinkers, selecting, emending, and augmenting their sources, classical or Arabic, to create new works of scientific art. Third, as pragmatic scientists, Jews transformed theory into action, translating ideas into the Hebrew language and practicing science or medicine among the people or at the court. Among these were Jewish physicians, surgeons, mathematicians, engineers, astronomers, and astrologers.

Writings of this Jewish scientific triumvirate—the translators, originators, and practitioners—demonstrated the state of medicine and science in medieval western Europe. Illustrations of Jewish scientific achievements as often appeared in non-Jewish manuscript sources as in Jewish. Some of the most elegant Hebrew medical manuscripts were translations of Arabic texts commissioned by Christian kings. Significant Jewish

scientific treatises included Maimonides' *Treatise on Asthma* composed in Arabic for his Muslim patron, and his *Treatise on Poisons*, also written in Arabic, the Latin translation commissioned by a pope and the manuscript decorated for a Christian court.

Maimonides' Medical Books

The great rationalist philosopher physician Moses Maimonides was spiritual leader of the active Jewish community in his adopted home in Cairo. A beloved scriptural scholar and humane philosopher, he was celebrated for his comprehensive *Guide for the Perplexed* as well as his many medical texts. His *Regimen of Health* is a book of hygienic counsel written circa 1198 for the Ayyubid sultan al-Malik al-Afdal, who suffered from depression, melancholia, and chronic constipation. The book is a practical and philosophical approach to the treatment of emotional states and to the effects of attitude upon healing, a subject important also in his *Treatise on Asthma*. In the *Regimen* Maimonides suggested that the morose, gloomy sultan follow this daily routine after rising early: Drink honey beverages. Ride horseback. Do gymnastics. Eat a healthy diet, with many chicken dishes and fruits as dessert. Nap, lulled to tranquil sleep by singers. After awakening, read. Indulge in pleasant conversation. Eat supper. Retire for the night, again lulled to sleep by music.

Maimonides also wrote treatises *On Veins*, *On Hemorrhoids*, and *On Coitus*. His *Aphorisms According to Galen* is a prodigious systematizing, translating, and editing of the Greek original, making of Galen's brilliant chaos an ordered, practical manual for physicians. Maimonides' *Poisons and Antidotes*, written for the grand vizier and supreme judge of Egypt al-Fadil, is a comprehensive compendium of prophylaxis and treatment for snakebite, spider bite, rabies, and other animal-induced poisons.

Treatise on Asthma

Nutritionally enlightened medieval medical practitioners and patients delighted in Maimonides' dietary passions. The *Treatise on Asthma* typifies Maimonides as writer and intimates the sophistication of his medical milieu. Maimonides was convinced that if diet alone sufficed to treat an illness, then no other treatment need be used. Food helps or hinders health. Good diet helps the body heal itself.

Maimonides' book unites classical Greek, Roman, Jewish, Arabic, and Christian medical traditions. With vigorous style, he explicated the contributions of the emotions to health and insisted upon diet for disease control. Maimonides considered disease a fundamental form of discord. Disharmony manifesting itself in disease symptoms might exist between physique and environment, between elements within the body, or between the mind or soul and the physical being.

Maimonides' 40-year-old asthmatic patient requested a reliable dietary regimen to relieve the frequent asthmatic attacks he suffered after colds, causing him shortness of breath, wheezing, and general debility. While the physician respected his patient's sexual proclivities and his Muslim requirements for nonalcoholic beverages, Maimonides simultaneously wrote for the larger audience of all humanity suffering from the same disease.

Maimonides maintained that asthma is a disease with many causes. Treatments vary according to individual causes of symptoms. He offered no magical cure but only important advice for successfully living with the disease. Asthma management requires knowledge of the disease and knowledge of the patient's physical and emotional being.

The patient's personal case history identified prodromal phases of the illness. What triggered an attack? What made it intensify? What abated it? Disease history determined selection

of proper treatment. Maimonides' noble patron the sultan knew that though a headdress was traditional indicator of high rank, he could not stand restrictions around his head. Therefore, he did not wear a turban and he shaved off all his hair, making himself perfectly bald.

DIET THERAPY FOR SEIZURE DISORDERS

Maimonides recommended diet therapy for a class of grave diseases that are completely or partially incurable. Symptoms are eased by proper diet. Asthma is only one of several such "seizure" disorders, which include migraine headache, inflammation of the joints, lumbago, and kidney stones. These episodic, chronic diseases have symptomatic seizures that particular known events precipitate. While not necessarily curative, food achieves at least three desirable effects. It lengthens intervals between attacks, shortens duration of each attack, and diminishes the intensity of any seizure. In addition, good diet improves general demeanor. Self-control over food mightily improves spiritual power.

Asthmatics must avoid fatty and coarse foods. Especially harmful are delectable though dangerous rich foods that are pathogenic to the vascular system. Moderation in food type is the key to keeping the bronchioles open and preventing the branching alveoli from filling with fluid. Maimonides began with basics, namely, breads. Asthmatics should use bread made with finely ground flour enriched with leaven and salt, the dough having been well kneaded and well baked. Next best is unsoaked, unshelled wheat, medium sifted to retain some of the bran, and half ground. This yields nutritious, wholesome, appetizing, digestible, and moderately satisfying bread.

Asthmatics must scrupulously avoid wheat dishes such as flour puddings, noodles, macaroni, spaghetti, flat cakes, and pancakes (especially with sugar and honey, for they obstruct the liver). Even more damaging than forbidden fried foods are puff pastries, for they are unleavened and only half-baked. Other foods prohibited for asthmatics are flatulent seeds such as black beans, peas, haricot beans, chickpeas, rice, and lentils. Nuts make one gassy.

People who have asthma must keep far away from garlic, onion, and leek. Also forbidden are heavy meats such as goats' or sheeps' flesh, aged cheese, milk, and waterfowl such as goose and duck, for they are thick-juiced and hard to digest. Otherwise fowl are magnificent, especially chicken. Any roasted young fowl is fine, as turtle dove, hazel hen, and capercaille. Maimonides recommends several superb recipes for chicken soup.

Of fish, the lean, tasty, easily cooked deep-sea varieties are best. River fish are all right if fished from large streams of pure water. An especially good fish (to be eaten once or twice a month) is called *muglas.* Meats, on the other hand, must be extremely lean. Maimonides recommends particular cuts in the butchering. Front parts, shoulder, and rib meat—above the heart—are proper for asthmatics. Lower cuts with the animal's intestinal fat might damage the patient's digestion. Meat must be trimmed of all fat except that necessary for tasteful preparation.

Which animals? Maimonides specified young sheep, yearlings only, and only those from open pastures, never the lazy, fat, stable-fed sheep. Roe, ram, and rabbit also are excellent but not nutritionally outstanding. Exceeding every other meat in curative value, however, are fox and hedgehog, especially their lungs. These are superb for drying up harmful lung substances.

Some vegetables are especially helpful for asthmatics. Beet, asparagus, fennel, parsley, mint, pennyroyal, watercress, and savory are very good. Radish, though of slight nutritional value, acts well against asthma. Strictly to be avoided are the cooling vegetables with much moisture, such as lettuce, mallow, and pumpkin. Also bad are the fleshy plants, such as turnips, taro, and cauliflower.

Moist fruits are as harmful as moist vegetables. Asthmatics must avoid watermelon, apricot, mulberries, cucumbers, and especially grapes. They cause flatulence. Maimonides quotes a classical physician's rule of thumb on edible plants: All blossoming plants tend to fill the head with gas and greatly hinder digestion. Avoid them.

Maimonides suggests one ideal light meal for making an asthmatic chest feel better. Chicken soup—chicken or turtle dove with vinegar and lemon juice cooked with mint— ought to be followed by pomegranate juice. After all meals, asthmatics should eat several curative fruits and nuts. First, suck quince. Then eat raisins, which are particularly fine for softening the stool and mitigating burning of the anus, stomach, or respiratory tract. Dried figs are good dipped in grated dill. A perfect asthma remedy is a combination of pistachio nuts and almonds, the bitter mixed with the sweet. These clear obstructions in the bronchi and also contribute to clear thinking.

Recipes and Preparations   Recipes for wonderful soups, most of which are chicken soup variations, Maimonides presents with enthusiasm and precise measurements: three zuzim spikenard, six zuzim coriander, two zuzim each of ginger and cloves.

For one exquisitely savory dish called *shumkaya* Maimonides detailed preparation methods. Grill the lean chicken or mutton. Next soak raisins, with their pits removed, in vinegar for two hours. Crush the raisins in a mortar with shelled almonds, and force the matter through a sieve until the raisin skins disappear. Pour over the roasted meat until perfectly done. *Shumkaya* helps digestion and dries phlegm. Raisins soothe the liver, eliminating heartburn and clearing the lungs. Vinegar clears obstructions. Though ordinarily irritating the liver, vinegar dries air channels while preventing coughing.

Food Quantities   The quantity of foods varied according to the asthmatic patient's physique, normal habits when healthy, and season of the year. The patient's norm is the amount of food eaten when healthy in springtime. In the hot summer one ought to eat less, in the winter more. *Moderation* is the watchword. Stop eating before satiety. A single well-prepared mixed stew, rather than many courses, is best for an asthmatic.

For ideal digestion, Maimonides quoted classical authorities on the necessity of exercise. Hippocrates advised avoiding both overeating and indolence. To Galen, inactivity was as great an evil to digestion as moderate exercise was a great benefit. Maimonides recommended reasonable exercise before eating but resting after meals. He forbade postprandial strenuous exercises, baths, bloodletting, and sex.

Meal Numbers and Times   Maimonides ridiculed merchants' fixed mealtimes, their special, never-changing dinner hours inappropriately making eating seem a sacred rite. One ought to eat when hungry. Some prefer three meals, some two, some one. Maimonides himself enjoyed one and recommended it. However, he warned his highness the sultan not to go to bed with an empty stomach, for intestinal juices with no food to act upon might cause pain and problems. Referring to his personal experiences in pacifying evening stomach rumbles with pleasing digestible food, Maimonides said, "Sometimes I eat chicken soup, and then sleep soundly thereafter." He also sometimes consumed almonds, raisins, and the honey wine mead.

Beverages   Maimonides recognized that although Muslims consider wine a corrupter of morality, the beverage was not at fault but rather its excessive consumption. The right wine in moderation was a fine digestive. Wine increases the body's native warmth and helps rid it of poisons by causing sweating and urina-

tion. But Maimonides did not praise wine's virtues to one who could not appreciate them. For his Muslim patron he recommended a soothing, nonalcoholic honey drink made with pure, sweet, fresh cool water (prophylactically boiled before mixing with honey).

AIR, BREATHING, AND THE PSYCHE

Controlling emotion is critical to managing asthma. Mental anguish, fear, excessive mourning, and stubborn agitation adversely affect gait, appetite, and the respiratory organs, causing accumulation of noxious gases and preventing proper inhalation. For overcoming psychic phenomena, diet and medication must be allied to philosophy. Maimonides counsels following the prophets by laughing at death, keeping the mind occupied with useful chores, and following the laws of nature and necessity.

RETENTIONS AND RELEASES

Following nature rather than using medication is Maimonides' urgent advice on retentions and releases: enemas, emetics, and laxatives. A mild laxative food that produces the desired laxative effect proves superior to a drug. Medications encourage physiological dependencies, allowing the body's natural urges to become lazy and ultimately to disappear because of lack of use. For minor gentle symptoms, the best treatment is no treatment. For mild symptoms, use foods. If symptoms persist or asthmatic attacks worsen, only then ought the patient to use simple and compound drugs, beginning with the milder and progressing if necessary to more drastic drugs.

THE NATURAL CORRELATIVE

Such conservative therapeutics often negated necessity for a physician. Yet, Maimonides praised good medical training and the ethical physician's skills as among humankind's highest intellectual and moral achievements. He reconciled the apparent contradiction between medical uselessness and medical splendor by reference to nature. The best physician must work in concord with nature, namely, with the individual patient's physiology, medical history, and emotional equilibrium, as well as with the natural history of the disease process.

However thoroughly the medical practitioner works with nature, the results nevertheless may be disastrous because the doctor cannot compel nature. Maimonides, as did the Arab sage al-Farabi (d. 950), compared medical practice with farming and seafaring. Sometimes, despite perfect medical planning, care, treatment, and absolutely no errors, the patient simply will not heal. Similarly, a farmer may plant seed perfectly, but it will not yield fruit. Or the seaman may build his vessel splendidly to the best plan and navigate flawlessly, yet still have his ship dashed to splinters. Alone, good medicine, good farming, or good seamanship offers only half the necessary combination. If nature, the other half, fails, the total exploit goes down to disaster.

Maimonides' doctrine of the natural correlative was used successfully in medieval medical malpractice cases in law courts. Three separate constituencies, the practitioners, patients, and civil authorities, all understood that a physician's commitment to medical treatment was not necessarily a promise of cure. Malpractice legislation and the verdicts in malpractice cases clearly confirmed that. A failed cure was not necessarily caused by the physician's negligence. Absence of a perfect result was not necessarily due to the surgeon's ineptitude.

Patients and practitioners intelligently differentiated between care and cure. Maimonides maintained that despite well-followed rules, pure intentions, and skillful methods, not medicine but nature sometimes disappoints. Maimonides reasserted the ethical practitioner's

proper place in the hierarchy of being: a little more than patient but a lot less than God.

MAIMONIDES' FOUR TYPES OF EVIDENCE

Maimonides faithfully created for his royal highness the requested dietary regimen, repeating the advice of Galen and other physicians while citing sources to reinforce his argument. Classical authority, contemporary medieval physicians' excellence and errors with their own patients, and Maimonides' own clinical experience with other asthmatic patients are important testimonies buttressing his suggestions to his patient.

Maimonides' final authority adduced for the efficacy of his ideas was he, as physician and as man. Just as he spoke fondly of his own delights in one single meal per day and bedtime chicken soup, he also quoted personal experience on resting after a soothing daily bath. Water did wonders both for Maimonides' digestion and for his speedy relaxation into sleep.

DIET AS LIFE PATTERN

For Maimonides, diet meant a scheme for living, a pattern for life. In fact, the original meaning of the Greek word *diet* is "life pattern." A disease not cured can be creatively endured. Healthful foods and wines stimulated asthmatics' endurance. Meats, fowl, fish, vegetables, fruits, and nuts were health restoratives. Favored medical ingredients graced a pot of chicken soup.

Maimonides wasted nothing and turned everything to moral purpose. A healthy body was necessary vessel for a healthy soul. Medicine therefore indirectly served ethics and religion. Food as medicine indirectly controlled the soul. Maimonides' medical nutritional concepts were closely allied with philosophical responsibility. Nothing comes from mere nothing, *nihil ex nihilo*. Nothing is without effect. Even the cleverest scholars might be ignorant of particular causes and specific influences. But they exist and one day will be understood. This stimulated nutritional responsibility. Every nutrient's good or bad effects and sequelae are observable or hidden, immediate or delayed. No food or drink is without physiological effect.

Since food helps or hinders health, vigilance in eating and drinking was every intelligent citizen's responsibility. The learned knew the scientific theory behind practical culinary strictures. The folk knew nutritional rhymes ("An apple a day keeps the doctor away," from the medieval hygiene poems of Salerno) and traditional kitchen wisdom. Nutritional responsibility was also related to the doctrine of natural correlative, the rational appreciation of thoughtful human intervention in maintaining health and curing disease. Hygiene and medicine must balance nature. The human body's natural defenses were as important to healing as the natural history of disease processes. Those in turn affected and were influenced by the "natural" conjunction between the individual patient's physiology and psychology. Good diet helped the sick body heal.

Alone, science was insufficient. Noble, but not divine, science required the natural correlate. Nevertheless, Platina, the wise 15th-century Venetian composer of a hygiene cookery, correctly claimed that if a hero in time of war merited commendation for saving a life, so much more so in time of peace a bold writer merited public reward for a culinary regimen that enhanced health and prevented death. While the war hero saved one, the culinary hero providing life patterns saved all people who courageously declared dominion over their own gullets, thereby saving themselves. The war hero gave a man a fish to save his life. The culinary hero taught starving men to fish to feed themselves to live well until natural death.

MAIMONIDES AS COURT PHYSICIAN

In all of his books, Maimonides discreetly synthesized his inherited Greek and Arabic medical sources with his own scrupulous observations and records of experience as a practicing physician. For Maimonides, nothing was wasted. Nothing escaped being turned to moral purpose. Since a healthy body itself was necessary context for a healthy soul, medicine served physical purposes but indirectly also served ethics and religion.

Maimonides as clinician practiced medicine actively, treating noble and common patients morning till night until bone tired. In a letter to his translator and friend, Ibn Tibbon, Maimonides poignantly described a day in the life of the physician in the year 1199:

> My duties to the Sultan are very heavy. I am obliged to visit him every day, early in the morning. When he or any of his children or any women of his harem are ill, I dare not leave Cairo but I spend the majority of the day in the palace. Often some of the royal officers get sick, and I must minister to them. Therefore I get to Cairo early in the day and even if nothing usual happens, I do not return home until late afternoon.
>
> Then I am fatigued and hungry. I find the antechambers filled with people, the Jews and gentiles, nobles and commoners, judges and bailiffs, friends and foes, who await my return.
>
> I dismount from my animal, wash my hands, and beg my patients to bear with me while I partake of some food, the only meal I eat in 24 hours. Then I tend to my patients, write prescriptions, and directions for their multiple ailments.
>
> Patients go in and out until nightfall, and sometimes, even several hours more in the night. I converse with them and prescribe for them while lying down from sheer exhaustion. And when night falls I am so fatigued that I can scarcely speak. (Rosner, 2002, p. 127)

MAIMONIDES' CASTIGATION OF ASTROLOGY

Maimonides wrote rationally and powerfully on almost every subject he elected to consider. Some themes, however, excited his fury. He maintained that three tests determine validity of data: (1) rational proof, (2) evidence of the senses, and (3) authority of the prophets or saints. One subject failing the triple criteria was astrology, the transfer of star data to effect of stars upon the human body and destiny. Rabbis who believed in astrology angered him, for they seemed to blaspheme God.

Maimonides agreed with the accepted medieval notion that the created universe consisted of four elements: earth, air, fire, and water. These in turn were thought composed of four contraries: hot, cold, moist, or dry. These elementary particles composed the macrocosm, the total created universe, having precise correspondence in the human body, the microcosm, the world in small. The four humors, blood, phlegm, black bile, and choler, created, respectively, the four basic temperaments or personalities, the sanguine, phlegmatic, melancholic, and choleric.

If the human and heavenly spheres were interrelated, surely some movements of the stars must influence earthly existence. Maimonides vigorously denied astrological ideas of his contemporaries, such as the rabbis of Marseille who wrote to him eliciting his opinions on astrological prediction and human prevention of star fates.

Maimonides insisted that reading a person's predestiny in the stars attributed power to the heavenly bodies that the orbiting bodies do not merit. Power belonged to God, and God alone. Mankind's free will ceases to exist if the stars determine all fates. No actions for man or for God have meaning if every act has been foreordained at the moment of nativity. So, though Maimonides had studied astrology seriously as one of his first disciplines, he rejected it as

Man, the microcosm of God's created universe, the macrocosm, also had an analogy to architecture: the eyes and mouth equate to the roof and windows, the stomach equals a furnace, feel equals a foundation. From *Maaseh Tuviah* (Work of Tobias), by Tobias Cohn, Venice, Italy, 1707.

ridiculous nonsense, inappropriately influencing Jews. He ascribed astrology's origins to the Chaldeans, Egyptians, and Canaanites, denying astrology any Jewish origin.

Rationalist disdain notwithstanding, astrology had been part of Jewish tradition from very early recorded times. The sixth-century Syriac temple Beth Alpha has a remarkable zodiac mosaic on its floor. The astrological signs with Hebrew names surround a delightfully pagan portrait of a chariot-driving Sun. In the great festival prayer book the *Amsterdam Mahzor*, the zodiac signs include the bow and arrow of Sagittarius complemented by the water buckets of Aquarius. A zodiac circumscribed a *megillah* scroll of Esther.

Astrology as study of stars for understanding foreordained fate was the discipline Maimonides excoriated, not astronomy. Astronomy then as now was the scientific analysis of position, distance, size, motion, rotation, revolution, brightness, and substance of heavenly bodies, a subject actively engaging medieval European Jews who wrote theoretical treatises and, as did Levi Ben Gerhson, created from their researches practical astronomical and navigational instruments.

Astronomy and Science

Jewish scientists in 12th- through 13th-century Spain studied secular science in Arabic in preparation for positions of authority in the civil service of the Muslim rulers. In Castile, Spain, King Alfonso X (r. 1252–84) supported Jewish scientists, commissioning them to write in Spanish. Jews in France had no immediate practical application of their learning. However, enough works were translated into Hebrew for interested Jewish scholars in the south of France in the 14th century to study rationalist philosophy, metaphysics, and natural science for the nobility of the subjects.

After such Jewish astronomers as Abraham Bar Hiyyah of Barcelona (d. 1136) and Levi Ben

Gershon of Provence (1344) sighted and measured distances of planets, the Sun, and the Moon, their celestial positions and orbits, physicians concluded that tempos and harmonies of the heavenly spheres were imitated on Earth and in the human body. Astronomers wrote theoretical treatises and astronomical tables that other scientists used and praised. For instance, Bar Hiyyah's *Hibbur ha-meshihah ve-ha-tishboret* (*Treatise on Geometry*) was translated into Latin in 1145 by Plato of Tivoli under the title *Liber embadorum*, making it available to the Christian West barely nine years after Bar Hiyyah's death. Levi Ben Gershon is credited with inventing the practical astronomical apparatus called the "Jacob staff" or the "cross staff," a star-sighting and positioning device successfully used for centuries by astronomers and mariners. Ben Gershon's invention no doubt influenced the "Jacob's staff" attributed to the 15th-century Austrian Christian astronomer Georg Purbach. Medicine and astronomy converged superbly in medieval Jewish astrological instruments. With these, patients and practitioners asserted their human place in God's universal order.

ABRAHAM BAR HIYYAH (d. 1136)

Certainly Jewish concern with the effects of stars would not be so dramatic if it were not for the championing of astrology by scientists of immense learning and astronomical savvy. Abraham Bar Hiyyah, a mathematician and astronomer in Barcelona, Spain, was one of the principal 12th-century transmitters of Muslim science to the Christian West. His *Sphera mundi* (*Form of the Earth*), an astronomical work on the formation of the heavens and the Earth, was a basic text for Christian theorists for centuries.

SAMUEL BEN JUDAH OF MARSEILLE (b. 1284)

Among Jewish scholars experimenting with scientific theories, writing treatises, and applying

their conclusions on astronomical investigations to practical life was Samuel ben Judah of Marseille. Born in 1284, Samuel translated works on logic, political philosophy, natural science, and astronomy and was most famous for his commentary on Ptolemy's *Almagest*. Another of his important works was his translation of the influential 11th-century Arabic *Treatise on Twilight* by Ibn Muadh, a Spanish Muslim, whose intention was to determine the precise point in the height of the atmosphere that the Sun reached when twilight ended and night began.

KALONYMOUS BEN KALONYMOUS
(d. c. 1328)

The prolific scholar and satirist Kalonymous ben Kalonymous lived and worked in Arles and was best known for his translation of Ptolemy's *Planetary Hypotheses*. Levi ben Hayyim of Languedoc (d. 1315), hounded by authorities both within and outside the Jewish community, wrote encyclopedic works on philosophy and astronomy, characterized by a Maimonidean rationalism. Immanuel ben Jacob of Tarascon, called Bonfils (d. 1365), and his student, Schelomo Davin de Rodez, also celebrated astronomy, translating texts into Hebrew from Arabic and Latin.

LEVI BEN GERSHON (d. 1344)

Among the many Jewish astronomers who studied astrology, one of the most original thinkers was the 14th-century scholar Levi Ben Gershon, who produced a successful new scientific lunar theory. He is the reputed inventor of an accurate observational instrument called the Jacob's staff. This astronomical and navigational instrument was used consistently from the 15th century through the middle of the 18th.

To use the Jacob's staff for determining geographic position at night, the crosspiece was moved along the staff until two stars could be seen. The angular distance between them was determined then from the ratio of the length of the crosspiece to its distance from the eye. For this startlingly accurate instrument, Levi Ben Gershon introduced a diagonal scale finely subdividing angles. This instrument probably influenced the astronomical devices attributed to Tycho Brahe's George Purbach 200 years later.

Levi Ben Gershon's inventions and observations rank among the outstanding contributions to medieval theoretical astronomy. His astronomical tables allow one to compute the position of celestial bodies elegantly and accurately. Though he built his theories upon a long tradition of Babylonian, Greek, and Arabic mathematical astronomy, he created several new mathematical techniques. Particularly in trigonometry, he included the derivation of a *sine* table, and the solution of triangles.

Even more significantly, Levi Ben Gershon created new models to account for the celestial motions. He invented a geometric model for lunar motion with many advantages over Ptolemy's. He discussed the order of the planets and the sizes and distances of the planets and the fixed stars.

Levi's great work of astronomy was incorporated in his monumental philosophical treatise called the *Wars of the Lord*, *Milhamot Adonai*, which contains 136 chapters and fills 250 manuscript folios. His translations into Latin of parts of his work he dedicated to Pope Clement VI (1342–52) in Avignon, where Levi apparently made some of his observations. Six major categories of content suggest its comprehensiveness: (1) trigonometry, (2) Jacob's staff construction and use, (3) alternative arrangements of heavenly body motions, (4) geometric model for lunar motion versus that of Ptolemy, (5) planetary and solar motions, (6) order of the planets in the night sky, their sizes and distances.

Levi Ben Gershon's science essentially was not derivative or tradition-bound. He was deeply concerned with problems of experimental error. He criticized classical authors when

he disagreed with their judgments. Clearly preferring his own observations, he stated: "No argument can nullify the reality perceived with the senses. True opinion must follow reality. But reality need not conform to opinion." (Ne'eman http://wise-obs.tone.ac-il)

Levi observed about 10 eclipses, six lunar and four solar. He recorded his observations of a lunar eclipse in 1335 on the first night of the harvest celebration of Sukkot when "a noble Christian watching with us wrote down our observation." Levi correctly believed that these observations constituted the ultimate verifications of his theoretical lunar and solar models.

One of Levi's strongest criticisms of Ptolemy was his failure to account for the observed variations in the sizes of the Sun, Moon, and planets. To measure the size of celestial bodies Levi used the *camera obscura*, the pinhole camera, usually thought invented 200 years later in the 16th century.

In the finest scientific tradition, both medieval and modern, Levi Ben Gershon built his models and theories almost entirely upon his own calculations after his own sightings. The astronomer Levi Ben Gershon, as did Maimonides the physician, exemplified the medieval Jewish concern for the translation of Arabo-Muslim scientific and medical heritage coupled with the transmission of their own scientific originality and practice.

MEDICINE, SCIENCE, AND TECHNOLOGY IN THE ISLAMIC WORLD

Islamic physicians, surgeons, astronomers, astrologers, alchemists, mathematicians, engineers, and technologists served their own professions, the contemporary Muslim people, and the Islamic world through their work and their writings in Arabic. They also preserved a Greek scientific heritage and an Indian tradition that they translated to the Muslim world in Arabic. Then both the Islamic and the Greek and Indian sciences and technologies were transmitted to the Christian West, sometimes in Arabic but more often in Latin manuscripts so that the well-educated European practitioner learned the world's best medicine, science, and technology through Islamic sources. Geoffrey Chaucer's ideal learned Doctor in the *Canterbury Tales* read the same medical books that Chaucer's contemporaries read in England. Muslim physicians' classic medical texts and Arabic-translated Greek physicians' medical books were mediated to the Western medical world by Islamic physicians or by Jewish physicians such as Maimonides and Ibn Tibbon, who wrote in Arabic, a medieval scientific lingua franca.

Chaucer's Doctor's reading list included Greek medical greats. Asclepius was a preeminent early Greek healer. Hippocrates (Chaucer's "Ypocras") flourished in the fifth to fourth centuries B.C.E. In the first century C.E. Rufus of Ephesus in Asia Minor composed at least 60 medical treatises in his native Greek language. Dioscorides was the pharmaceutical genius whose book on drugs written circa 77 C.E. was used as a standard text throughout the Middle Ages. Prodigious Galen in the second century wrote more influential medical books that endured the centuries than almost any other writer. All but the writings of Asclepius reached the medieval European world through Arabic translations.

Chaucer's Doctor also knew Islamic medical luminaries: "Serapion, Razis, and Avicen." He read Ibn Sarabiyun or Serapion, as Europeans called the illustrious ninth-century Syriac physician. "Razis" or "Rhazes," whose full Arabic

name was Abu Bakr ibn Muhammad ibn Zakariyya al-Razi (d. 935), lived and worked in Persia as a clinician in the early 10th century. Avicenna was the famous omnicompetent physician and philosopher Ibn Sina. His 11th-century Arabic medical encyclopedia was a required teaching text throughout Europe for centuries.

Early Greek medical lore and learning were the foundation for professional medical practice in the Muslim Near East, and Arabic medical literature in Latin translations of the ninth through 12th centuries transmitted to medieval Europe both Greek and Arabic medical traditions. The European rediscovery of Greek medicine and philosophy emerged from the mass of primary texts first introduced in Arabic by Muslims or by non-Muslim physician-writers whose works were translated into Latin from Arabic, Hebrew, Persian, Syriac, and Turkish.

Medicine

GALEN'S HUMORAL THEORY

Galen's humoral pathology was incorporated into Muslim medicine by the first generation of Muslim scientists. Galen considered man the microcosm of the heavenly universe, the macrocosm. Elements of the macrocosm had their exact correspondences in the microcosm, and perturbations in the heavenly spheres affected the body. The universe consisted of the four elements of earth, fire, air, and water, which exemplified and embodied the four contraries of cold, hot, dry, and wet. These in turn were reflected in the four humors of the human body. Physiological tendencies from birth and the digestion of food and drink by natural heat transformed them, *banat al-arkan*, into the four humors, *akhlat al-insan*. These humors were the four essential fluids: blood, phlegm, choler or yellow bile, and melancholer or black bile.

The preponderance of one humor or another was associated with bodily type, bearing, and predisposition to a particular talent, profession, personality, and temperament, for example, sanguine, phlegmatic, choleric, or melancholic. Humoral balance created health. Humoral imbalance caused disease and disability. The body in which the four humors were balanced for health was *mutadil*. Humoral mixing was called the *mizaj* (lit. "blending" or "temperament"). Medical "opposites" restored balance. For the moist disease the physician prescribed the dry treatment, and for the hot disease the cold cure.

AL-RAZI (865–935)

Al-Razi, Islamic medicine's great clinician and innovator, was born in 865 in the Persian city of Rayy, near Tehran. Apparently he spent his early career as a musician, mathematician, and alchemist before beginning to study medicine in Baghdad at the age of 40. After completing his studies, Abu Bakr al-Razi returned to Rayy to direct its hospital. He died in 935.

Al-Razi was a prolific writer of approximately 237 books, of which half are medical. Some historians consider him the father of pediatrics because of his tractate on the diseases of children. Al-Razi identified hay fever and its cause. His work on kidney stones became the classic reference on the subject. He introduced mercurial ointments to treat scabies. Al-Razi advocated medical reliance on clinical observation rather than on received scholarly authority. He encouraged medical experiments and the use of tested medicines and drugs. A fighter against quackery and charlatanry, he wrote a book condemning medical malpractice and promoting high professional standards for physicians. He also encouraged continuing education for licensed physicians. Al-Razi emphasized the value of mutual trust and third-party consultation among skilled physicians treating patients.

A hermaphrodite with gown-covered breast and hairless face, on the left, and tunic-clad body with bearded face, on the right, carries alchemical symbols and is surrounded by a continuous chemical

plume from retorts, flasks, cucurbits and alembics, cooking medicines, chemicals, and metallurgical substances. The four temperaments—phlegmatic, sanguine, choleric, and melancholic—were thought to be caused by an astrologically determined balance among the four bodily fluids, the Humors, and a preponderance, respectively, of phlegm, blood, yellow bile, and black bile. Related are the four essential qualities of physical matter, namely, hot, cold, moist, and dry, which characterize also the four elements out of which the universe is crafted: earth, air, fire, and water. Everything relates to everything and to everyone; each element in the great created order, the ordo mundi, *shares qualities, purposes, and effects. Perturbations in the heavens cause bodily fevers and infirmities. Foods and drinks possessing inherent heat and moisture balance or counteract coldness and dryness in people's physical constitutions. Rational science developed from alchemy's attempts to understand natural order and natural law in the observed, intelligently contemplated world.* From a *Book of Hours*, early 14th century, Flemish, Courtesy of Cambridge University, Trinity College Library, Cambridge Trinity Manuscript B11.22.

Al-Razi's first major work and an influential book in Europe was his *Book of Medicine for Mansur* (*Liber ad Almansoris*), dedicated to the Samanid prince Abu Salih al-Mansur ibn Ishaq, governor of Rayy. This short general medical text of 10 chapters was translated into Latin before 1187. *Al-Kitab al-Mansuri* discussed medical theories, medical definitions, diet, drugs, mother and child care, skin disease, oral hygiene, effect of climate on healing, influence of environment on health and mood, epidemics and their controls, and poisons and their antidotes.

A strikingly original thinker, al-Razi revolutionized medicine with his *Shukuk ala Jalinus* (*Doubts about Galen*), a book that challenged Galen's cosmological view of medicine as the microcosm of a divine macrocosm. Instead, he argued that medicine should be associated with philosophy since sound medical practices can only be inferred from rational thinking and empirical evidence. The fact that so many of the subsequent greatest and most original contributors to medicine were also philosophers vindicates the triumph of the alliance between rationalist thinking and medicine over that of cosmology and medical treatment. His own clinical experiments with the treatment of humors also caused him to question Galen's theory of humors, arguing instead that the ingestion of a cold or hot drink does not simply communicate its cold or warmth to a passive human body; rather, a dynamic response takes

place within the body, indicating the equal importance of the body and the external liquid.

Al-Razi wrote a pioneering book on smallpox and measles, *Kitab al-jadari wa l-hasba* (*The Book on Smallpox and Measles*). Though not the first Arabic book on these contagious diseases, it was a masterful demonstration of clinical observation to distinguish the two diseases, accurately diagnose them, and offer dependable treatments. He described the eruption of smallpox as preceded by steady fever, back pain, nasal itching, and nightmares in sleep. He emphasized the prodromal back pain with fever. Then the patient felt a pricking sensation all over his body. He felt a swelling in the face, which waxed and waned. The skin became inflamed, with vehement redness in both cheeks, and redness in both eyes. It was a shining redness and especially affected the gums.

The patient also felt heaviness of the whole body, lethargy, great uneasiness, and a tendency to stretch and yawn. Other symptoms included pain in the throat, and the chest, minor difficulty in breathing, a cough, a dryness of the breath, thick saliva, and hoarseness of the voice. Headache was associated with nausea, agitation, and anxiety, which were more frequent in measles than in smallpox. Back pain was more peculiar to smallpox than to measles. Both generated fever, and in both the patient had an inflamed colon.

Al-Razi's most celebrated book was his medical encyclopedia in 25 volumes, *Kitab al-hawi fi l-tibb* (*The Virtuous Life or Liber continens*). The popular *Kitab al-hawi* preserved detailed clinical histories of cases he had personally treated and extracts from works by earlier authors on specific diseases and their treatments. The *Kitab al-hawi* was translated into Latin in 1279 by the Jewish physician Faraj ibn Salim (known in the West as Farraguth) at the behest of King Charles of Anjou (r. 1262–85). Although al-Razi had summarized all the medical knowledge of his time in *Kitab al-hawi*, he emphasized

that the critical requirement for physicians was to listen carefully to their patients' histories and not merely consult the received tradition. In his "Illustrative Case Histories," al-Razi exemplified this by retelling the case history of a patient who lived in a malarial district and suffered from intermittent chills and fever. Though diagnosed with malaria and treated for it, the patient did not recover. When al-Razi examined him, he noted pus in the man's urine, diagnosed the patient's infected kidney, treated him successfully with diuretics, and cured the grateful patient.

Al-Razi also taught that for proper medical healing doctors and patients must establish mutual trust. Optimistic doctors encourage their patients, make them feel better, and speed their recovery. A patient who changes from doctor to doctor wastes health, wealth, time, and opportunity for cure.

ABU L-QASIM AL-ZAHRAWI (ABULCASIS) (936–1013)

Abu l-Qasim al-Zahrawi, known in the West as Abulcasis (or Abulcassis), was born in the "resplendent" palatial city of al-Zahra, just outside of Córdoba. Employed as court physician to the Umayyad caliph al-Hakim II (r. 961–76), Abu l-Qasim was praised during his lifetime as the greatest medical surgeon of all time. His staggering knowledge of the human anatomy and pioneering contributions to the field of surgical procedures and instruments have made an indelible impression on medicine in the East and the West well into the modern period, and some of his technical discoveries are still applied in medical practice today.

Little is known about al-Zahrawi's life other than the fact that he seems to have devoted an entire lifetime to the study and practice of medicine. He recorded his 50 years of knowledge and experience in a massive 30-volume medical encyclopedia, *al-Tasrif liman ajiza an*

al-talif (*The Method of Medicine*). The *Tasrif* was meant to be a physician's practical guide to general medicine and classifies diseases and their treatments from head to toe. Abu l-Qasim's treatise begins with an extraordinarily meticulous description of the human anatomy before going on to discuss physiology, the signs and causes of disease. As always, the examination of the patient's urine and pulse was fundamental in determining a diagnosis, but so, too, was the strict observation of the patient. His five decades of medical practice had taught him that even the most erudite and articulate person was incapable of accurately describing his or her pathology. Abulcasis was also a pioneer in recognizing that an accurate patient diagnosis and treatment were further augmented by what we would call a "positive bedside manner."

Chapter two of the *Tasrif* provides a general classification of diseases from head to foot. He identifies their signs and discusses their various treatments. The succeeding chapters treat individual pathologies in greater detail. In all cases al-Zahrawi emphasizes the importance of diet and its relation to health and disease. Writing as an experienced physician rather than as a devout Muslim, he rationally discussed the dangers of alcohol abuse, pointing out that addiction can provoke a wide range of illnesses, including gout, weakness in the nerves, and liver disease.

The chapter on pharmacology and therapeutics discusses emetics, laxatives, cosmetology, dietetics, cardiac drugs, *material medica*, and the substitution of drugs for other invasive techniques, among other topics. Orthopedics, ophthalmology, dentistry, nutrition, facial paralysis, convulsions, apoplexy, flaccidity, tonic spasm, comas, and diminished power of smelling are just a few of the many other topics al-Zahrawi covers. He was the first physician to describe an ectopic pregnancy, and the first to identify the hereditary nature of hemophilia (the inability to control bleeding).

Without a doubt, the *Tasrif* owes its fame in the annals of medical literature to the final chapter on surgery. Abulcasis's final chapter almost single-handedly elevated the practice of surgery to an independent science. His was the first treatise to describe in precise detail a range of surgical techniques and the first to introduce the innovation of providing meticulous illustrations of more than 200 surgical tools. Keenly aware of his reader audience, Abu l-Qasim provides not only still drawings of surgical implements but also drawings illustrating their correct usage in surgery.

His surgical innovations included advancements in the technique of cauterization, in which he advocated the use of iron implements rather than the gold preferred by earlier physicians. He also explained how to ligature arteries and blood vessels in order to avoid hemorrhaging. A major breakthrough still employed today in surgery was Abulcasis's discovery of the use of catgut for internal suturing. Contrary to what the name might suggest, catgut was derived, not from the intestines of felines, but from a sheep or a goat. Al-Zahrawi explained that the intestines first had to be cleaned thoroughly, freed from fat, and soaked in clean water. Next, the external membrane should be removed completely and the remaining material had to be soaked in an alkaline potion in order to smooth out and elongate the intestines in preparation for their surgical use. This revolutionary technique avoided the inflammation and hemorrhaging caused by artificial substances such as silk and hemp (routinely employed in the medieval West) because they could not be absorbed within the body. While the use of catgut became standard practice in surgery in the Islamic world after al-Zahrawi's discovery, its use in Western medicine became standardized in the 19th century. Similarly, his clinical observations of apoplexy (a major stroke or hemiplexy) identified three distinct types: those that are chronic

and incurable, those that are curable, and those that are rapidly fatal. This threefold distinction continues to be employed in modern medicine.

The *Tasrif* was first translated into Latin in the 12th century by Gerard of Cremona, the aforementioned scholar of the Toledo School of Translation. From then on it was widely cited by physicians in the Western world. Papal physician Guy de Chauliac, mentioned earlier, quoted extensively from Abulcasis in composing his own magnum opus on surgery, the *Chirurgia magna*. In 15th-century Italy a number of medical scholars, including Mathieu de Gradibus, the author of a treatise on food and nutrition, and Arduinis de Passaro, the author of a book on poison, discuss Abulcasis's contributions to these subjects at length. Al-Zahrawi's techniques of chemical preparations, tablet making, filtering of extracts, and related pharmaceutical techniques were also widely adopted in the West following this chapter's publication in Venice in 1471 by the Venetian printer Nicolas Jensen (d. 1480).

Some of Abulcasis's contributions have not received their due recognition, however. For instance, al-Zahrawi accurately described the procedure of external rotation for treating a dislocated shoulder. That procedure is known today as "Kocher's method," named after the German doctor Emile Kocher (d. 1917). The *Tasrif* also prescribes the so-called Walcher hanging position, in which the pregnant woman lies face up over the edge of a table with her legs hanging down, thus widening the pelvis in order to facilitate delivery in a difficult pregnancy. The term *Walcher hanging position* was coined when English visitors to Spain discovered the technique there in the 16th century. Despite these oversights, the medical world at large acknowledges the enormous debt it owes to Abulcasis, particularly in surgical matters and accurate clinical descriptions and diagnoses.

IBN SINA (AVICENNA, 980–1037)

Preeminent among Muslim physicians, Avicenna or Abu Ali al-Husayn ibn Abd Allah ibn Sina was born in Bukhara in Central Asia in the year 980 and died in 1037. He was educated in medicine, literature, law, logic, mathematics, science, and metaphysics. A prodigy, he memorized the Quran by age 10 and was an accomplished physician by age 16. He had reread Aristotle's *Metaphysics* 40 times but only understood it at last upon reading al-Farabi's *On the Objects of Metaphysics*. By age 18, he was so famous as a physician that he was summoned to treat the Samanid prince Nuh ibn Mansur (r. 976–97). His medical success won him access to the Samanid royal library, an intellectual treasure house in Bukhara. By the age of 20, Ibn Sina, now called by his contemporaries the "Prince of Physicians," was appointed court physician; he twice served as vizier, to Shams al-Dawlah, the Buyid prince of Hamadan (d. 1021) in western Persia.

When rule of the Samanid dynasty ended in 999, Avicenna began his travels, wanderings, and allegiances to different courts in eastern Islamic lands, before settling in Isfahan, where he died in 1037. He wrote copiously on diverse subjects, mostly in Arabic but also in Persian. Like al-Razi, Ibn Sina was a polymath who authored numerous books, at least 20 on medicine and another 20 on theology, metaphysics, astronomy, philology, and poetry.

Ibn Sina's magnum opus was *The Canon of Medicine, Kitab al-qanun fi l-tibb.* The *Canon* was a comprehensive Arabic encyclopedia whose five books each considered an aspect of medical practice or use of drugs for prevention, treatment of symptoms, or healing of injury or disease. Its precepts for surgeons on cancer required early surgery after discovery of disease and removal of all diseased tissue. Ibn Sina discussed oral anesthetics for surgery. He encouraged testing new drugs on animals first, then on human subjects before prescribing them for all patients.

This colossal work of over 1 million words codified all known medical knowledge, summarized the Hippocratic and Galenic traditions, described Syrian-Arab and Indian-Persian practices, and included notes on his own observations of patients. The *Canon* stressed the importance of diet, climate, and environment on health. It included discussions of rabies, hydrocele, breast cancer, tumors, labor and parturition, and poisons and their antidotes. Ibn Sina differentiated meningitis from effects of other acute diseases. He described chronic nephritis, facial paralysis, stomach ulcers, and hepatitis. He wrote on eye diseases. He explained dilation and contraction of the pupils and their diagnostic value and described the six motor muscles of the eye and the functions of the tear ducts. He noted that people who have contagious diseases leave disease "traces" in the air and others who breathe in the traces thereby catch the disease.

The *Canon* described 760 medicinal plants and the drugs derived from them. Ibn Sina's seven basic rules for clinical drug trials were similar to contemporary analytical techniques of such physicians as the aforementioned Isaac Judeus (d. 950). In medicine, Sina used terms familiar from Aristotelian philosophy and his own metaphysical and epistemological observations, such as his influential perception that "being is an accident of essence." Regarding drug effects on the human body, Ibn Sina distinguished between inherent essentials, the "essences," and superficial, transient, changeable medical effects, the "accidents." The following is a list of seven of Ibn Sina'a precepts regarding the testing and use of drugs:

1. The tested drug must be free from any unrelated accidental quality.
2. It must be tested on one disease, not several concurrent diseases, and on a simple, not a composite, disease.
3. The drug must be tested with two contrary types of diseases. Sometimes a drug cures one disease by its essential qualities and another by its accidental ones.
4. The quality of the drug must correspond to the strength of the disease. The heat of some drugs is less intense than the coldness of certain diseases. A drug whose strength is unequal to the strength of the disease would be ineffective.
5. The time of action must be observed, so that essence and accident are not confused.
6. The effect of the drug must be repeated, seen to occur constantly, and, at least, in many cases. If it does not, then the effect was accidental.
7. The experimentation must be done with the human body. Testing a drug on a lion or a horse will not prove anything about its effect on man.

The Canon quickly became a standard medical reference in the Islamic world and in Europe by the end of the 12th century. Early in the 12th century Nizami-i Arudi (d. 1174), a court poet of Samarkand, praised its comprehensiveness, for whoever could understand the first volume of *The Canon* would know everything necessary about medical theory and principles. In the Christian West, Latin translations of *The Canon* were undertaken by Gerard of Cremona (1140–87), who worked in the famous School of Translation in Toledo, and by Andrea Alpago (active in 1527), physician to the Venetian consulate in Damascus. Translations of *The Canon* were studied and consulted in medical schools at Louvain, Montpellier, Salerno, and elsewhere well into the 19th century. Sir William Osler described Avicenna's *Canon* as the longest enduring "medical bible."

Upon his death in 1037, Ibn Sina was lauded as one of the greatest philosophers in Islam and as the physician praised as the equal of the venerable Galen. Dante placed Ibn Sina in *The Inferno* of *The Divine Comedy* in an honored position flanked by Hippocrates and Galen. The English physician and philosopher Roger

Bacon (d. 1294) consulted Ibn Sina to further his own inquiries into vision and ophthalmology. Ibn Sina's portrait, along with that of al-Razi, still adorns the great hall of the Medical School at the University of Paris today.

Avicenna's medical and philosophical work *The Book of Healing*, *Kitab al-shifa*, was known to medieval Western philosophy through al-Ghazzali's summary and through translations into Latin. Avicenna's Neoplatonic version of Aristotelianism was immensely influential in 13th-century Christian Scholasticism. His ideas ultimately were superseded by the writings of his less Platonic, purer Aristotelian Western Islamic physician counterpart Averroës.

IBN RUSHD (AVERROËS, 1126–1198)

Averroës, Ibn Rushd, or Abu l-Walid Muhammad ibn Ahmad ibn Muhammad, was born in Córdoba in 1126 into a prominent family of jurists. He studied medicine, philosophy, theology, jurisprudence, and mathematics. He produced his major medical text *General Medicine*, *al-Kulliyat fi l-tibb*, between 1162 and 1169. Averroës was appointed physician to the Almohad court of Caliph Abu Yaqub Yusuf (r. 1163–84) in Marrakesh and to his son, Abu Yusuf Yaqub, in 1195. He left that service shortly before his death in 1198. In addition to practicing as a doctor, Averroës served as a chief judge or *qadi al-qudat*. He was a jurist of the Maliki school of jurisprudence.

He was more of a rationalist than any of his Muslim contemporaries. His durable fame depends less on his medical works than on his philosophical writings and his 38 commentaries on the works of Aristotle. His philosophical thought is discussed in chapter 5, Philosophy and Religion. Of relevance here is the observation that his many talents complemented each other. Careful examination of evidence, rational analysis of fact, and reasonable prediction of likely outcomes from the available reality of evidence made Averroës a cherished physician and fair judge. Within the Arab world he was known for his medical works, his *fatwas* (religious edicts), and his spirited defense of Aristotelian philosophy against al-Ghazzali's condemnation of philosophy as heresy and of philosophers as heretics.

His most important medical text is a grand compendium on the general principles of medicine, *Kitab al-kulliyyat* (*The Book of Generalities*), which was translated into Latin as the *Colliget*. He envisaged this work as half of a larger comprehensive treatise on the art of medicine, the other half being supplied by that of his friend and colleague Abu Marwan ibn Zuhr (1091–1161), who was writing a compendium on specialized medicine, *Kitab al-umur al-iyya* (The book on therapeutic particularities). It is worth noting that Ibn Zuhr wrote two treatises on diet and food that were translated into Latin and Hebrew, *Kitab al-Taysir fi l-Mudawat wa-l-tadhir* (Book of simplification concerning therapeutics and diet) and *Kitab al-aghthiya* (Book on foodstuffs).

IBN AL-NAFIS (1213–1288)

Another Muslim physician who improved upon Galenic theory was the 13th-century Syrian Arab physician Ala al-Din Abu l-Ali ibn Abi l-Haram al-Dimashqi, known as Ibn al-Nafis. Galen had proposed that blood rather than circulating through the human body was continually created, used up, and then created again. Ibn al-Nafis discovered the concept of pulmonary circulation and anticipated by nearly four centuries William Harvey's 1616 discovery that blood circulated through the body. Ibn al-Nafis had determined that in the human heart the wall between the right and left ventricles was solid and without pores. Therefore blood could not pass, as Galen insisted, directly from the right to the left side of the heart. Ibn al-Nafis

understood that blood passed from the right ventricle to the left ventricle by way of the lungs.

THE HOSPITAL

Muslims merit credit for inventing the idea of the hospital. *Bimaristan* was the Persian term in medieval Islam for a hospital. Today that name refers to a mental hospital. An original institution of classical Islamic society, the *bimaristan* provided a wide range of services, sometimes without fees. It also functioned as a medical research center and a teaching facility. Muslim rulers built hospitals in cities throughout the Islamic world. Wealthy Muslims endowed hospitals while alive and bequeathed money for hospitals after their deaths.

In the 12th century the city of Baghdad had 60 hospitals. The first *bimaristan* was established in Baghdad under Harun al-Rashid, who ruled between 786 and 809. The 12th-century Adudi hospital in Baghdad was illustrious. Other cities rich in medical institutions were Cairo, Damascus, and the Spanish cities of Granada, Seville, and Córdoba. The Mansuri hospital in Cairo, completed in 1284, had an immense administrative staff, lecture halls, a mosque, a chapel, a comprehensive library, both male and female attendants, and separate networks of wards for fevers, ophthalmology, surgery, and dysentery. It also had a pharmacy, a dispensary, and a traveling division for "outreach" to take medical practitioners and medicines from the hospital to the community to provide necessary medical and surgical care.

Islamic hospitals customarily grouped patients by diagnosis and devoted full wards to specific illnesses. Hospitals were regulated by law, routinely inspected, and required to meet specified standards. Hospitals seem to have treated all patients equally, no matter their national origin or ability to pay for care. Muslim hospitals were sites for teaching medical students and reviewing medicine for those physicians studying for the qualifying exam for the local medical license.

PROPHETIC MEDICINE

Specialized collections of *Hadiths* were instruction books for living a virtuous and healthy life. Prophetic *sunna*, the exemplary model, provided Muslims with a model of life that could be successfully integrated with Greek medical ideas. Fourteenth-century medical books on *al-Tibb al-nabawi*, or "prophetic medicine," united Hadith traditions with Greek recommendations on diet, moderation, *mesura*, and health, thereby creating books that interwove the teachings of Islam, the Prophet's sayings, and Greek medicine to form "a complete pattern."

The process required good physical hygiene, starting with cleanliness and a balanced diet. But a clean body required a clean soul for complete health. Spiritual upset accompanied and sometimes caused physical or mental disease. Spiritual tranquility created the equilibrium necessary for good physical health. Writers of *al-tibb al-nabawi* prescribe drugs, medicinal foods, therapeutic drinks, and also prayer (*salat*), fasting (*sawm*), recitation of the Quran, and the spiritual joy of patience, *sabr*.

Religious traditional medicine focused on Muhammad's own practices. Early collections based upon the Hadith discuss a wide range of subjects, from the curative power of honey to the medical properties of wolf's gall. They argue the pros and cons of fleeing from plague or staying put. Many passages from the Quran, prayer formulas, and litanies in praise of God or the Prophet were used as health charms. The curative powers attributed to these charms and amulets are closely aligned with the so-called white or licit magical practices used throughout the Islamic world.

Traditional medicine asked tough practical questions: If ritually unclean or forbidden

substances could restore health, were they permissible for that purpose? Traditional practice incorporated natural and herbal remedies with nostrums and methods based on faith and magic. The vast Islamic *materia medica* was joined to ethical and practical topics ranging from the fairness of doctor's fees to the proper times for coitus and the best methods of singing.

MEDICAL HERBS AND MEDICATIONS

Plants in the Muslim Middle East had several names in Arabic. Herbaceous plants were simply referred to as *ashab*, meaning "herbage" or "grasses"; *nabatat*, *buqul*, or *nujum*, meaning "herbs." Individual plant names varied from place to place and from culture to culture with Persian, Aramaic, Greek, Indian, and Berber names for plants and their products introduced by the people themselves or by their imported products.

The ninth-century study of plants received its impetus from the many Greek texts translated into Arabic, especially Dioscorides's *De Materia medica* (*On Medical Matters*), Galen's *De Simplicibus medicinae* (*The Basics of Medicine*), the pseudo-Galenic *De Plantis* (*Plants*), classical agricultural works, and the pseudo-Aristotelian *De plantis*, on plant physiology. The Muslim Brethren of Purity or Ikhwan al-Safa (active ninth to 10th centuries), Ibn Sina, Ibn Bajja (d. 1139), and other philosophers inquired into plant philosophy. What was the true nature of a plant? Where did it fit in the natural hierarchy? How did a plant differ from an animal? Did a plant sense emotion? Did a plant have a soul? Did a plant experience sexuality? Middle Eastern, Indian, and North African influences on Arabic authors created a rich science, philosophy, literature, and art analyzing plants, flowers, vegetables, fruits, and herbs.

Spices or aromatic herbs, *abazir*, *tawabil*, were valuable commodities in the Middle East and Europe because of their use in foods for flavoring, for preservation of easily spoiled meats or fish, and for flavoring of salted and dried meat, *qadid*, a common Near Eastern Muslim food. Spices in cookery included mint, coriander, cumin, caraway, mastic, pepper, clove, thyme, dill, and saffron. Cultivated for domestic use and export, these aromatic plants were used in sauces, relishes, and savory desserts. Many spices were used with the newly introduced eggplant.

Christians, Jews, and Muslims alike assumed that plants had a benevolent or malevolent effect on the body or mind. The popular practical medical encyclopedia called *The Tables of Health*, *Tacuinum sanitatis*, was translated into Latin in the West from the original Arabic work of al-Mukhtar Yuwanis ibn Butlan (d. 1066). A major writer on plants and health, Ibn Butlan, a Christian Arab physician and theologian, was a student and disciple of the Nestorian Christian priest and physician Abu l-Faraj Abdallah ibn al-Tayyib (d. 1043) in Baghdad. Ibn Butlan practiced medicine in the Iraqi cities of Mosul and Diyarbekir, and in Aleppo, Syria. He wrote two polemical treatises against the renowned physician Abu l-Hasan Ali ibn Ridwan of Egypt (d. c. 1061), dated between 1049 and 1050. Circa 1063 he supervised the building of a hospital in Antioch, shortly after which he became a monk and retired to a monastery in the same city, where he died in about 1068. His *Tacuinum* was derived from the Arabic word *taqwim*, meaning "rectification" or "setting upright." The title, *The Tables of Health*, refers to Ibn Butlan's arrangement of the topics covered in the form of tables, an organizational device used in contemporary works on astronomy. One of the early translations of his book from Arabic into Latin was made at the court of King Manfred of Sicily (r. 1258–66) in about 1266 at Palermo.

The *Tacuinum* was typical of such herbal health books, presenting the information as

orderly, tabular advice, reducing centuries of medical theory and long-winded argument to the six necessary requisites of human health. First was air quality, which required moving from place to place and to favorable locations within buildings. Diet regulation was preeminent. Balance between activity and rest required an understanding of the proper types of relaxation, and then the methods, drugs, and bodily positions that stimulated good sleep. Elimination and retention of the humors determined health status, so the treatise recommended herbal and philosophical attention to proper urination and defecation. Finally, a healthy body required a healthy mind, which derived from control over emotions such as anger, fear, and also joy.

Balances among these six elements maintained health, while disequilibria caused disease. Therefore he catalogued six elements for all foods, for the seasons of the year, and for many physical activities: their nature, optimal type, usefulness, dangers, neutralizations of such dangers, and total effects. The vegetable squash, for instance, was cold and humid by nature, fresh and green at its best, useful as a thirst quencher, and a swift laxative. This laxative effect could be ameliorated by serving squash with water and mustard. Effective as a moderate nourishment, squash was good for the young and the choleric, and best eaten in the summer season and in the southern climates. Similarly, human exercises were analyzed. Coitus had as its nature the union of two for the purpose of introducing sperm. Its optimum was an act that lasted until sperm was emitted. Preservation of the species was the purpose of coitus. The dangers of coitus included its harm to those with cold and dry breathing. To neutralize these dangers, the best method was to eat tasty sperm-producing foods before bedtime.

Early Islamic society welcomed agricultural innovation and adopted new plants for the pur-

poses of collecting exotica, for scientific study, for food preparation, for gourmet delights, for food presentation, for new medicines, and for economic profit for local sale and for export. A major preoccupation with herbs and plants was generated by the Muslim love of gardens. Plants were an important part of the Garden of Paradise in the Islamic conception of the afterlife. Plants were integral to artistic decoration and Muslim art on mosques and other buildings, in books, and on other forms of material culture. Examples include the gorgeous foliage depicted in the Dome of the Rock, completed in 691; the illuminated margins of holy and secular manuscripts; the designs on ceramic pots and metal vessels; and the human desire for green, growing things in a garden or courtyard in a dry, harsh environment on Earth that served as a reminder of the more glorious heavenly garden. Medieval Muslim gardens were created from the eighth century on and were built throughout the Islamic world from Spain to India. Often they were "Persian" gardens, formal four-part configurations with watercourses that irrigated the plants and delighted the people. The Court of the Lions in the Alhambra was an example.

PHARMACY AND THE *SAYDALANI*

Pharmacy was practiced widely and with great expertise in the Islamic world. Jabir ibn Hayyan (d. c. 803), the father of Muslim alchemy, wrote one of the first pharmacological treatises, *Kitab al-kimiya* (*The Book of Chemistry*), *The Composition of Alchemy* Latin translations of the *Kitab al-kimiya* were written as late as the 17th century. The Arab pharmacopoeia was extensive and described the geographical origin, physical properties, and medical uses of plants, herbs, and spices for preventing, treating, and curing disease. Arab pharmacists, the *saydalani*, introduced a large number of new drugs to clinical practice, including senna, camphor, sandal-

wood, musk, myrrh, cassia, tamarind, nutmeg, cloves, aconite, ambergris, and mercury.

The *saydalani* also developed medical syrups (the word *syrup* derives from the Arabic *sharba*, *shurba*, or *shoraba*) and medical juleps (the word originally was Persian) and pleasant-tasting solvents such as rose water and orange-blossom water to make foul-tasting drugs palatable. Pharmacists knew the anesthetic effects of Indian hemp and henbane, taken orally as a liquid or inhaled as steam.

During the Abbasid caliph al-Mamun's reign (r. 813–33), pharmacists were skilled specialists who were required to pass state examinations, obtain licenses, and submit to inspection and professional regulation. In the ninth century the first private apothecary shops opened in Baghdad. Pharmaceutical preparations were manufactured and distributed commercially, then dispensed by physicians and pharmacists in many forms: ointments, pills, elixirs, confections, tinctures, suppositories, and inhalants.

MEDICAL TRANSLATIONS FROM GREEK INTO ARABIC

The remarkable *House of Wisdom*, or *Bayt al-Hikmah*, was the translation factory that the Abbasid caliphs Harun al-Rashid (r. 786–809) and his son, al-Mamun (r. 813–33) established in Baghdad for translating Greek works into Arabic. They sent emissaries to the Byzantine Empire to collect Greek scientific works. Hunayn ibn Ishaq al-Ibadi, born in 809 and dead by 873, was such an important and talented translator that he was paid for his manuscripts by an equal weight in pure gold. By the end of the ninth century Ibn Ishaq and his colleagues had translated into Arabic all the known Greek medical texts of Galen, Oribasius, Paul of Aegin, Hippocrates, and Dioscorides's *Materia Medica*.

The 14th-century historian Ibn Khaldun in his *Introduction to History*, the *al-Muqaddina*,

described the Muslim intellectual curiosity that preserved Greek learning. Byzantine emperors conquered Syria when Greek scientific works still existed. Then God revealed Islam and empowered the Muslims to conquer the Byzantines and other nations. The first Muslims, who were simple folk who did not cultivate learning, soon flourished, creating an Islamic urban culture unsurpassed by any other nation. Having the penchant for intellectual speculation, Muslims wanted to study philosophy that they learned about from talking with Christian bishops and priests. Therefore Caliph al-Mansur sent an embassy to the Byzantine emperor requesting translations of books on mathematics, which he sent, including Euclid's *Elements* and treatises on physics that Muslim scholars studied eagerly. That whetted their desire for more. Since al-Mamun was a scientist himself, he knew as caliph that he could advance the progress of science if he could send his ambassadors and translators to the Byzantine Empire to acquire the works of the Greek sciences and translate them into Arabic. His success resulted in the amassing and preservation of the great Greek scientific heritage.

MEDICAL TRANSLATIONS FROM ARABIC TO LATIN

Arab astronomical texts were first translated in Catalonia. Medical works of Galen and Hippocrates returned to the West through Latin translations of Arab medical classics. Two major translators of classical material from Arabic into Latin were Constantinus or Leo Africanus (1020–87), originally from Granada, who worked at Salerno and in the cloister of Monte Cassino, and Gerard of Cremona (1140–87), who worked in Toledo. Both translators lived in the geographic areas where Christian culture and Arabic culture enriched each other. Salerno, Christian Europe's first great medieval medical faculty, was close to

Islamic Sicily. It is no wonder that Salerno produced so many noted Christian physicians, such as the noted woman doctor Trota of Salerno, whose father was also a physician, and Roger of Salerno and Nicholas of Salerno, both active in the 12th century. The second great medical center, at Montpellier, was founded in 1221 in the south of France near the Andalusian border.

As noted, Ibn Sina's *Canon* entered Europe at the close of the 12th century. Copied and recopied, it was obligatory reading in all European schools of medicine until the modern age. Just before the European invention of printing in the 15th century, the *Canon* was issued in 16 editions during the course of 30 years. In the next century 20 more editions were printed. From the 12th to the 17th century, its materia medica influenced the European pharmacopoeia. As late as 1537 *The Canon* was still a required textbook at the University of Vienna.

Translations of al-Razi's *Kitab al-hawi* (*Virtuous Life* or *Liber continens*) were among the first books ever published as incunabula. Al-Razi's works were extremely popular in European scientific circles. The ninth volume of al-Razi's *Al-Kitab al-Mansur* (*The Book of Medicine for Mansur*) treating the diseases from the head to the foot was still required reading in the medical curriculum at the University of Tübingen in the 15th century.

Translations of books of more than 400 Arab authors, writing on such varied topics as ophthalmology, surgery, pharmaceuticals, child care, and public health, deeply influenced the rebirth of European science. Arab physicians accurately diagnosed plague, diphtheria, leprosy, rabies, diabetes, gout, cancer, and epilepsy. Ibn Sina's theory of infection by "traces" led to quarantines to limit spread of infectious diseases. Arab doctors' principles of clinical investigation and drug trials were applied in the Middle East and in Europe. Muslim physicians investigated the science of vision. They surgically removed cataracts and created corrective lenses and eyeglasses for defective eyesight. Muslim surgeons repaired hernias. Dentists filled cavities in teeth. Physicians proposed rules of healthy diet and hygiene regimens.

Muslim medicine declined in its luster and prominence after the 13th century. The fall of Baghdad to Mongol invaders in 1258 destroyed the caliph's patronage, reduced the prestige of Baghdad's medical community, and closed successful specialized hospitals. Three other disasters contributed to the Muslim medical decline: the 14th-century cataclysmic pandemic of the Black Plague, devastating earthquakes, and the European conquest of major trade routes and commercial prominence from the Muslim world.

Science and Technology

ALCHEMY, EXOTERIC AND ESOTERIC

Muslim alchemy was both spiritual and practical. Alchemy was not only a form of early chemical and metallurgical experimentation. Although it probably began in Hellenistic Alexandria, alchemy, *al-kimia*, was transmitted to Europe through Islamic culture. Earlier Taoist alchemists had aimed principally for longevity, devoting much of their time and experimentation to creating an elixir of immortality. Western medieval alchemists' objectives tended more toward creating gold and making effective medicines. Alchemical transmutation of base metals into gold or silver, the "exoteric" purpose, required as catalyst the elixir of life, the tincture, or the philosopher's stone. The search for these items stimulated far-flung travel and experiments.

Yet alchemy also was derived from ancient arts of inquiry into man's relationship with the cosmos and the will of the creator. Alchemy for a Muslim therefore had as its goal a spiritual,

devotional philosophy for transforming sinful man into perfect being. That was the "esoteric" purpose of alchemy.

Both exoteric and esoteric alchemy could be used or abused by the common unlearned man. Therefore alchemists wrote with purposeful obfuscation and circumlocution and attempted to envelop their machines, their techniques, and their achievements in a cloak of secrecy. Since mystical lore could be misunderstood, it had to be reserved for the adepts who worked to achieve spiritual purity. Since the gold makers' skills made alchemists vulnerable to common thieves and avaricious leaders, alchemists sought security through circumspection. Public displays of alchemy may have served simply to make money for the alchemist by conjuring and prognostication, as astrologers likewise plied their trades in courts and cities.

Practical alchemy, however, influenced scientific medicine, creating metallic medications that were added to the medical array of herbal remedies. Paracelsus admired metallic medications and used them in his practice, just as Chaucer's Physician considered gold salts and gold elixirs the finest forms of treatments. Medical chemistry, iatrochemistry, was the result and ruled ideas in the medical world until the mid-17th century, when the English chemist and physicist Robert Boyle's (d. 1691) experiments essentially destroyed the theory of the four elements (earth, air, fire, and water) upon which so much of alchemy was based.

PTOLEMAIC ASTRONOMY

Ptolemaic astronomy dominated Muslim astronomical theory. Ptolemy created the dominant, Earth-centered, geocentric system of astronomy before Copernicus. Ptolemy was an astronomer, mathematician, and geographer who flourished between 127 and 148 C.E. in Alexandria. His masterpiece known by its Arabic title of the *Almagest* was a complete treatment of astronomical knowledge in 13 books. This work governed astronomical theory in Byzantium, the Islamic world, and medieval Europe. Ptolemy acknowledged his own intellectual debts to Apollonius and Hipparchus of Rhodes.

The Ptolemaic mathematical structure was magnificent and seemed confirmed by observation until the invention of more powerful telescopes in the 16th century and the discoveries of Copernicus and Galileo, who described cosmological reality as a Sun-centered, heliocentric universe. Though the Ptolemaic system was basic to medieval Islamic science, Ptolemy's astronomy was criticized in its earliest days in Islam as being unnecessarily complex and sometimes plain wrong.

ASTRONOMY AND ASTROLOGY

The science of the stars, *ilm al-nujum*, referred both to astrology and to astronomy. Abu Mashar al-Balki (d. 886), one of the great ninth-century astrologers, defined astrology as knowledge of the effects of the powers of the stars at a given time as well as at a future time. He called astrology the science of the decrees of the stars, *ilm ahkam al nujum*. Astronomy was commonly called the science of the spheres, *ilm al-falak*, or the science of the heavenly configurations, *ilm al-hayah*.

After the founding of Baghdad in 762 and the translations of major Greek scientific texts into Arabic, astronomical and astrological knowledge was propelled into the Christian Latin world from the Arabic world by means of Spain. There between the 10th and the 12th centuries the interests among the learned and laymen turned more and more toward the natural sciences. In 1138 Plato of Tivoli translated Ptolemy's *Tetrabiblos* from Arabic. Along with it were other works written in Arabic that preserved Persian and Indian scientific doctrines.

Muslim astrologers such as the Abbasid caliph al-Mansur (d. 775), Abu Mashar Ali al-

A Jewish translator published the treatise on planetary conjunctions by the Arab astronomer Abu Maasher (Albumasar) in Latin, as De Magnis coniunctionibus, *Venice, 1515.* *De Magnis coniunctionibus*, Abu Maasher, Venice, 1515.

Khayyat and Umar al-Tabari (both ninth century), and the Jewish Arab Masha Allah (d. 815) and wrote books in Arabic soon translated into Latin in the mid-12th century by the likes of Abrahim Bar Hiyya of Barcelona and Plato of Tivoli and read avidly in Europe. Muslim astronomers, as well as astrologers, had Hindu and Greek antecedents. Muhammad ibn Musa al-Khwarizmi, credited with originating the discipline of algebra, translated into Arabic a Hindu Sanskrit astronomical text known as the *Sindhind.* Islamic astronomy is said to have begun in the eighth century after an Indian astronomer arrived with that Sanskrit text when he traveled with an embassy from the province of Sind to visit the caliph al-Mansur in Baghdad.

Astronomers, along with physicians, philosophers, and mathematicians, tried to dissociate themselves from astrologers. Religious critics viciously attacked astrologers. Learned religious scholars censured astrology as a dangerous superstition that denied the omniscience of Allah. In the 10th century Abu l-Nasr Muhammad al-Farabi, the great philosopher, wrote a treatise against astrology. Ali ibn Isa al-Asturlabi, who flourished in the ninth century and whose name incorporates the astronomical instrument the astrolabe, eventually spurned astrology and astronomy and converted to orthodox Islam. The Hanbali theologian Ibn Qayyim al-Jawziyya (d. 1350) used al-Asturlabi's arguments on the eternity of the world as proof of how dangerous astrological beliefs were to orthodox Muslim thinking and to total submission in Islam. Ali b. Muhammad b. al-Abbas Abu Hayyan al-Tawhidi, a 10th-century philosopher and man of letters, wrote his *al-Muqabasat* (*Conversations*) to refute astrology as a discipline and a profession. He equated astrologers with physicians. Ptolemy defended astrology as comparable to medicine as an "empirical science." Al-Tawlidi appreciated the useful virtues of medicine but deemed it unfortunate that some medical diagnostic, treatment, and prognostic methods derived from the same thought procedures as astrology. Ibn Sina, Avicenna, also wrote a refutation of astrology and argued forcefully against the astrologer's ability to foretell the future.

Nevertheless, astrology was a potent force in the Muslim streets, shops, and courts. Arabic

administrative manuals specified the duties, training, competence, and salaries of court astrologers. A good astrologer was expected to predict accurately the future of every aspect of human life.

Astronomy developed as a separate yet interdependent intellectual discipline with sources, like those of astrology, in Indo-Persian and Hellenistic science. The more powerful Hellenistic astronomical tradition was best represented by Ptolemy's mathematical collection the *Almagest*, first translated under the patronage of Yahya ibn Khalid, the Barmakid, in the early ninth century. Important types of astronomical books derived from Ptolemy were devoted to observational astronomy, instruments for observations and calculations, timekeeping for religious purposes of determining prayer times and calendrical festivals, and studies of planetary and star motions.

Books on *falak* (celestial bodies) imitated the tripartite construction of Ptolemy's *Almagest:* statements of the general principles and configurations of the heavenly bodies, mathematical proofs of these principles and configurations, and tables for each planet that allowed the prediction of its position. Ptolemy later distinguished his *Planetary Hypotheses* from his *Handy Tables.* Jafar Muhammad ibn Musa ibn Shakir, one of the three learned, productive Banu Musa mathematician and astronomer brothers who flourished in ninth-century Baghdad, wrote a text imitating the *Planetary Hypotheses* that described the major circles on the heavenly sphere and the constellations. A more comprehensive book by the ninth-century astronomer Muhammad ibn Kathir al-Farghani dealt with elementary astronomy as well as most of the topics covered in the *Almagest. Falak* books soon encouraged criticisms of the *Almagest* and promoted new planetary theories. When Muslim observers disagreed with the movement of the solar apogee, some astronomers simply corrected Ptolemy, while others discarded the Ptolemaic value in favor of values obtained through the personal observation of the stars. Abu al-Rayhan al-Biruni (d. 1050) was the first Muslim astronomer to state explicitly that the solar apogee has precession motion, as Ptolemy described for the other planets, as well as a motion of its own, an observation unknown to Ptolemy.

Popular horoscopic astrology, called genethlialogy, as in the West dealt with the futures of individual lives by means of reading heavenly configurations at the time of birth, starting from the "horoscope," which was the point of the ecliptic ascending at the eastern horizon at the time of birth. This concept was taken from Ptolemy's *Tetrabiblos.* If the infant was born with the "Moon within the limits of Mercury," then the child was likely to have a particular physique, personality, temperament, and professional inclination, as for art, painting, engraving, and embroidering.

Another astrological prognostication technique was called *katarchai*, Greek for "interrogations." It examined the Moon to determine the propitious moment for or against an activity and the precise opportune time to begin an action. It also encompassed counting astrological signs for the purposes of prediction. For instance, if an army commander needed to know whether a forthcoming invading army was large or small, his astrologer would count the signs between the Moon and Mercury. An even number meant the army was large and preparations must accordingly be extensive, while an odd number predicted few invaders. Political events also were thought to be influenced by annual and millennial cycles, such as the conjunctions between Saturn and Jupiter every 20 years on a point on the ecliptic, covering the total ecliptic in 960 years.

Al-Biruni's treatise on astrology, *Kitab al-Haya wa l-nujum* (The Book on spheres and stars), known in the West as the Canon Almasu-

dicus because the author dedicated it to the Ghaznarid Sultan Masud (r. 1031–41) included an introduction to mathematics and to mathematical astronomy, attesting to the interdependence of the two disciplines.

THE ASTROLABE

The astrolabe, in Arabic *asturlab*, was a family of astronomical instruments of Greek origin based on the projection of the celestial sphere onto its plane. The astrolabe measured the positions and altitude of celestial bodies and was a timer and an analog computer. Muslim astrolabe makers made fundamental improvements on earlier Greek models. From the Islamic world the astrolabe reached Latin Europe. The most common form was the flat, *musattah* astrolabe. It consisted of flat disks that lay in a foundation called in the Latin West the *mater*, together with a stereographic projection

Astrolabe from Córdoba, engraved with Latin text in Italy during the 14th century. Giraudon/Art Resource.

of the skies called a *rete*, and a sighting bar, called the *alidade*. At least 300 mathematical questions and astronomical questions could be solved with this amazing manually operated machine.

Other common Islamic astrolabe forms include the linear, *khatti*, and the spherical, called *kuri* or *ukari*. Quadrants also were used for astronomical, for astrological, and for medical purposes.

PERPETUAL MOTION MACHINES

The idea of a perpetual motion machine may have originated in India in the 12th century. In 1159 the Brahmin Hindu astronomer and mathematician Bhaskara described two perpetuum wheels. Islamic uses of perpetual motion machines seemed more closely connected with Muslim philosophy and the demonstration of cyclical ideas than with mechanization. In the Western world the perpetual motion machine was considered a practical source of energy.

One of Bhaskara's two perpetuum wheels was made of light wood with hollow rods half filled with mercury or quicksilver. The other had the rim of the wheel scooped out and filled half with water and half with mercury. The Arabs adopted Bhaskara's ideas. One such treatise described six gravitational perpetuum wheels, one of which was Bhaskara's wheel with the hollow rods. Villard de Honnecourt, the 13th-century French architect and engineer, also designed a variant of the perpetual motion machine, which used wheels of pivoted hammers and of pivoted quicksilver. Islamic perpetual motion machines seemed to serve a similar purpose to the automata and mechanical marvels called *hiyal*, which engineers built to please sophisticated courts. Their purpose was to shock, amaze, and demonstrate the splendors of human ingenuity, not to serve the practical purposes of reducing human labor by harnessing an idea to a machine.

TEMPORAL HOURS, WATER CLOCKS, MECHANICAL CLOCKS

Islamic water clocks, as did those in Greece, Rome, Byzantium, and Egypt, had unequal or temporal hours. Fourteenth-century European mechanical clocks on churches, town halls, and castles measured and struck equal hours, called equinoctial hours. Islamic time measure divided the day into hours of light and hours of darkness, each period having 12 hours. Hours were counted from sunrise to sunset and from sunset to sunrise. Therefore a daytime hour differed in length from a nighttime hour. Both day and night hours varied according to the season of the year.

The length of a day in higher latitudes differed from that in lower latitudes. Therefore a northern Egyptian day on the latitude of 30 degrees north had a sunrise-to-sunset span between 10 and 14 hours. London, on a latitude of 51½ degrees north, varied in hour length from sunrise to sunset between 7¾ hours and 16½ hours. London hours varied in length from approximately 38 minutes to 82 minutes. Water clocks that preceded the equanoxiam mechanical clocks were necessarily set by an attendant who each morning would divide the day into 12 hours and then set his clock to enforce that division of time. Temporal hours were common in medieval Europe until the 14th century. In the East, temporal hours were observed well into the 19th century.

The 14th-century world traveler Ibn Battuta reported that at the exquisite Umayyad Mosque in Damascus, one of its four doors, called the eastern or Jayrun Door, also was called the Door of the Hours because it had a manual clock. A gallery shaped like a large arch surmounted the Jayrun Door. Within the arch were small open arches with doors, one for each hour of the day, and each door was painted green on the inside and yellow on the outside. As each hour passed, the green inner side of the door was turned to the outside, and vice versa, by a person responsible for turning them by hand.

HIYAL: INGENIOUS MECHANICAL DEVICES AND AUTOMATA

Ancient technological ideas flourished in medieval Islam. But Muslim books on engineering seemed to celebrate the ideas and ingenuities of mechanical devices rather than to encourage building ingenious machines to lighten the burdens of labor or to make daily existence easier, safer, and more productive. The construction of *hiyal*, the ingenious mechanical devices and automata, was intended to provoke wonder and delight. Circa 864, Qusta ibn Luqa, the eminent translator and scientist from Baalbek (Lebanon), translated into Arabic parts of Hero's *Mechanica*. Philo's *Pneumatica* appeared in Arabic translation in the 14th century. Arabic treatises on technology, as those of the Alexandrians, displayed little interest in practical applications.

Four major treatises testify to Arab mechanical engineering. An eighth-century book in Arabic on water clocks was attributed to the Greek Archimedes, apparently revered in Islam. About 850 Ahmad ibn Musa wrote a lavishly illustrated *Book of Ingenious Devices*, *Kitab al-hiyal*, on trick vessels, fountains, self-trimming oil lamps, and musical automata. Ibn Musa was one of three famous Banu Musa brothers, mentioned earlier, who were raised in the Abbasid court of Caliph al-Mamun and celebrated for their knowledge of science and mathematics. Ibn Musa wrote imitating Hero and Philo, honoring Alexandrian mechanical tradition, while adding remarkable illustrations and practical concepts. Banu Musa designs were mechanically sophisticated and recommended automatic controls, self-operating valves, timing devices, and delay systems.

In 1203 Ridwan ibn Muhammad al-Salati wrote a book on the repair of water clocks and applied its methods and instruments to the monumental water clock over the Jayrun Door in Damascus. Circa 1206 Ibn al-Razzaz al-Jazari wrote the important Arabic technological treatise called *The Book of Knowledge of Ingenious Mechanical Devices, Kitab fi marifat al-hiyal al-handasiya*. Al-Jazari had worked for 25 years as a court engineer for the Artuqid rulers of Diyarbakir in southeastern Turkey. While the Banu Musa brothers designed imaginative and curious devices, al-Jazari described many machines for practical use, including designs for water pumps and water-lifting devices. Al-Jazari distinguished himself from his contemporaries by his enumeration of phases of construction and specification of measurements, procedures, and the best materials for use. Al-Jazari's spectacular water clocks created oral and visual effects. Circles representing the zodiac rotated at constant speed. Birds discharged pellets from their beaks to sound the hours. Doors opened at regular intervals to reveal musicians playing instruments. He created these mechanical effects by the ingenious application of conical valves, tipping buckets, and segmented gears. Mechanical ideas of this elegance only later entered European machine design.

The classical and Arabic *hiyal* seem to have been designed more to exhilarate an aristocratic audience than to increase worker productivity. Yet the influence of wondrous automata and machines may not have ended there. These books on mechanical devices may have made their way to Europe, possibly via the 13th-century court of Alfonso X the Wise, who commissioned the translation of Arabic scientific treatises on astronomical instruments. If Arabic mechanical treatises such as that of al-Jazari arrived in Europe, they would have contributed to modern science and technology, as well as to the philosophical, rationalistic, mechanistic explanations of natural phenomena. Astronomical clocks of the fourth through 16th centuries influenced the philosophical idea of the cosmos as a gigantic clockwork. Makers of medieval machines and *hiyal* influenced machine design that in the modern world ultimately led to vending machines, mechanical calculators, and the computer.

ROBOTS, PAPERMAKING, PRINTING, AND WINDMILLS

Two Eastern innovations that served the East for spiritual piety but were transformed in the Christian West for practical earthly purposes were the ball-and-chain governor and the hot-air turbine. After the devastation of European cities and villages by the bubonic plague, the Black Death (1347–50), the scarcity of servants led to a revival of slavery, especially in Italy. Turkic and Mongol merchants harvested young people throughout Central Asia and sold them in the Genoese ports on the north shore of the Black Sea. Presumably "Tatar slaves" diffused to Italy the technology of their homelands. By the 1480s the famous Sienese engineer Francesco di Giorgio used ball-and-chain governors to smooth out the rotation of mills using compound cranks and connecting rods.

From the early Tibetan technology of making perpetual prayer wheels in order to aid the pious to achieve salvation, Western technologists adapted ideas for saving labor, time, and material. The renowned artist, engineer, and inventor Leonardo da Vinci (d. 1519) sketched a robot in the form of a metal turbine placed in a chimney connected by gearing to a spit on the hearth. When the fire burned hot, the roast turned rapidly. When the fire died down, the roast rotation slowed. If a robot is a machine that, without human intervention, adjusts the way it performs its task according to changes in its environment, Leonardo's was the first robot.

A medieval Islamic proverb stated, Allah made three marvels: the brain of the Greek, the hand of the Chinese, and the tongue of the Arab. This praise of Arabic rhetoric and literature and the celebration of the science and technology of others were consistent with the Arabs' eager adoption of certain Western and Eastern technologies and rejection of others. Muslims in 751 defeated a Chinese army at Samarkand and took as prisoners men who had been papermakers in China. Their skills enabled paper manufacturing to spread swiftly throughout Islam. By the early 10th century the Byzantines used paper manufactured by Muslim paper mills in Baghdad, Damascus, and Egypt and never fabricated paper for themselves because good quality and quantity were purchasable from Muslim merchants for a reasonable cost. Muslims, however, never mechanized the pulping of rags to make paper, preferring to fabricate paper in the form of bundles or reams, the latter word deriving from the Arabic, *rizma*. The city of Jativa, in Valencia, was the site of the first paper mill built on European soil sometime in the early 11th century. Some two centuries later, this technology passed into Christian Europe, following the conquest of significant areas of Muslim Spain. The first Western paper manufacturers worked at Fabriano in the Apennines. By 1276 they were using machines with a crank turning a rotary whetstone and soon undercut the pricing and the industry of Muslim papermakers for the Byzantine market.

While Muslims were preeminent papermakers, they refused to accept the technology of printing until the 19th century. The Jews who had been expelled from Spain in 1492 took to the Turkish Empire Johannes Gutenberg's invention of printing by means of movable metal type. There the Jewish printers published books in Hebrew, then in Syriac for the Maronite Christians in Syria, and in Armenian and in Greek. No printing was permissible in major Islamic languages: not Arabic, not Persian, and not Turkish. This delay in Islamic printing may be ascribed to the prestige of Muslim calligraphy and the writing of the Quran as a holy act replicating on paper the word of God.

Likewise the world's first operating windmills appeared in Persia between the sixth and ninth centuries and in Muslim southern Afghanistan in the early 10th century. Persian and Afghan mills revolved on vertical axles. This form of windmill reached China in the late 13th century and arrived in Italy in the early 15th century. Yet it never spread out of Afghanistan to other parts of the Islamic world west of Persia. The indigenous European horizontal axle windmill had been independently invented in the 1180s, on the mechanical analogy of the Vitruvian water mill. German crusaders took this wind power device with them to Syria in 1192. Nearly a century later the great crusader castle, the Krak des Chevaliers, was surrendered in 1271 to the victorious Muslim forces. A Western-style horizontal axle windmill turned its wind wings proudly on one of the castle bastions. But the Muslim victors did not use the captured technology. Most Islamic countries were arid and windy, and windmills were superbly adapted to the Islamic environment and superior to water mills. Yet windmills known in the medieval Muslim world were not adopted.

Another spurned technology was the transport wheel. Wheeled transports disappeared in the Near East after the rise of the Muslim empire. The transport wheel disappeared in favor of camel caravans that were used for long-distance shipping. (See chapter 3 on Economy and Trade.) Mule and donkey caravans carried goods for short distances. The great trade routes from Baghdad to Nishapur in northeastern Iran and from there to Central Asia and China carried enormous quantities of goods on camelback, moving in gigantic caravans. Some attributed the disappearance of carts and car-

riages to the decay of Roman roads that made wheeled transport clumsy, prone to breakdown, a target for brigands, less flexible for changes in itineraries, more costly if a wagon load rather than a camel load were lost or destroyed, more dangerous, and more expensive than animal transport. Others maintained that Arab ruling groups financially benefited from breeding, rearing, renting, and selling camels. Whatever the reason, camelback transport was deemed more economical and more efficient than transport by cart.

MATHEMATICS AND GHUBAR NUMBERS

Mathematics, called in Arabic *ilm al-hisab*, provided to the Western world several of its most significant concepts and computational devices including the basic essential Arabic numerals. Anyone who tries calculations using roman numerals soon discovers the inefficiencies and opportunities for error that make the efficient nine Arabic numerals and the 0 an improvement and inspiration to more abstract mathematical reckoning. Basing their ideas on Indian and Greek sources, Muslim mathematicians developed the place-value system of decimal numbers that we commonly call Arabic numerals; decimal fractions; irrational numbers; the use of 0, *sifr*; and other arithmetic notations and terms.

The nine Arabic numbers derived from Hindu numbers in the West were called *ghubar*, meaning "dust," because of their direct link with the dust boards, called *abacus* in Latin, which were used for reckoning, computation, erasures, and reuse. Original *ghubar* numbers were impermanent, as are our modern chalk calculations and equations on a blackboard. *Ghubar* as a title rightfully belonged only to the nine Hindu figures that were current among the western Arabs. They were developed for a specific type of calculation called *hisab al-hind*, meaning "Indian reckoning," although these

calculations were not particular to the *ghubar*. While the origin of the figures was Indian, the cultural spreading of the use of *ghubar* figures in commerce, in science, in the courts, in surveying, in banks, and in daily life of the East and the West must be attributed to the popularity and power of ninth-century al-Khwarizmi's treatise entitled *Calculation with the Hindu Numerals*, which was written about 825. *Ghubar* figures acquired their familiar definitive shapes in Muslim Spain in the ninth century.

Leonardo Fibonacci of Pisa (d. 1240) was acquainted with Abu Kamil's *Algebra*, written in the 10th century. He probably also knew *ghubar* figures from their common business uses. In Muslim Andalusian cities, from Saragossa to Huesca, commerce and learning thrived from the intermingling of Christians, Jews, Arabs, Berbers, Slavs, and Africans. These bustling commercial centers helped and were protected by the emirs and caliphs of Córdoba until the middle of the 11th century. Markets, city administration, and schools in Muslim Spain favored practical arithmetical operations that had traditionally been performed on a dust-board abacus. The nine symbols that developed from the methods of Hindu arithmetic recalled the name of the *ghubar* abacus on which they were performed, which in medieval Andalusia took a shape and orientation different from those of the rest of the Arab world. These numbers we still use today in modern science, business, commercial transactions, supermarkets, shopping malls, calculators, and computers.

Muhammad ibn Musa al-Khwarizmi (d. 850) was thought to have invented the discipline of algebra. Geometry, in Arabic *ilm al-handasa*, was especially important to medieval mathematics. Medieval Islamic geometrical works often appeared as introductions to books on astronomy. Islamic mathematicians developed the use of geometry to solve algebraic problems and used algebra to solve geometric problems. The acclaimed poet and mathematician Omar al

Khayyam (d. 1131) was the first to solve cubic equations by the geometrical method of the intersection of two conic sections.

Alhazen, Ibn al-Haytham (d. 1039), was an Iraqi Muslim mathematician and renowned physicist who made lasting contributions to the discipline of geometry. Alhazen constructed what modern mathematicians call the "strong Hilbert axiom of parallels." Muslim mathematicians first proved modern theorems of hyperbolic and elliptic non-Euclidean geometries. They also used geometry in geodesic measurements, in mapmaking and cartography, and in the construction of observatories and of astrolabes.

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Medicine, Science, and Technology in the Islamic World

MEDICINE

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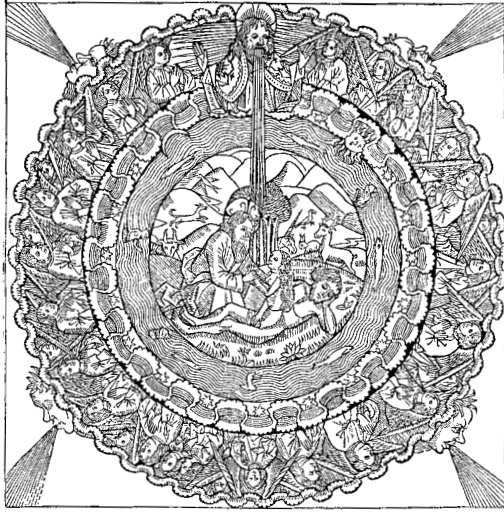
ART AND ARCHITECTURE

The art and architecture of medieval Christians, Jews, and Muslims were invariably shaped by the dogmas and exigencies of their respective religious traditions. To varying degrees, Jewish, Christian, and Muslim artists, craftsmen, and architects adopted the aesthetic, artistic, and architectural legacies they inherited from ancient Hellenistic, Roman, Persian, Egyptian, and other cultures. The expansion of Christianity into northern Europe and the British Isles and the invasion, settlement, and conversion of the Germanic, Viking, and other non-Christian peoples wrought further changes in Christian art. The same may be said of the art of the Diaspora Jews, as Sefardic Jewish art and architecture closely follow the aesthetics of the Islamic world, while Ashkenazic material culture is heavily indebted to the surrounding culture of Christendom. Islamic artistic and architectural varieties are as vast as the empire of Dar al-Islam itself, showing clear influences of the local pre-Islamic cultures.

Direct cultural contacts of Christians, Jews, and Muslims also manifested themselves in their respective material cultural productions in a number of ways. Medieval peoples readily adopted and adapted the artistic or architectonic techniques of others and made them their own. It was not at all uncommon for Christian and Muslim monarchs to have artists, craftsmen, and architects of a different religious community in their employ. All three communities used artistic religious symbols in art and architecture for polemical purposes. In times of warfare and communal persecution, the religious and civil buildings of the "enemy other" were less likely to be destroyed than to be confiscated by the dominant group and duly transformed to meet the victor's aesthetic and religious criteria.

Indeed for the most part, art was religious art and functioned to propagate religious dogma and reaffirm religious identity, and religious motifs decorated both spiritual and mundane objects and buildings. Even when "pagan" or fantastic elements are incorporated into an artistic work or structure, they cannot be divorced from the religious community that produced and reinterpreted them. The theological impulse behind Christian artistic expression accounts for its singularity vis-à-vis Jewish and Muslim art. The theological importance and function of images and iconography in Christian art in its Byzantine and Western manifestations find no parallel in Jewish and Muslim liturgical art, which condemns such visual representations. While a Christian church, Jewish synagogue, and Islamic mosque might share certain architectural affinities, a parting of the ways was immediately apparent in the sculptures and paintings of biblical figures and saints adorning the facades and interior of Christian churches, convents, monasteries, and confraternities. If Christian images served as biblical text and liturgy for the illiterate and celebrated the dogma of the Incarnation, calligraphy, the epitome of Jewish and Islamic artistic expression, commemorated Scripture as divine revelation and testified to the unparalleled importance of literacy in their respective communities.

THE PATRONAGE OF THE ARTS

A modern artist might create a magnificent work of art for himself alone. He might build a spectacular building, weave a heroic tapestry, or inlay billions of shining pieces of marble for a gigantic mosaic with no expectation of anyone's paying him or observing or appreciating his work. But the idea of "art for art's sake" is a modern concept. A medieval artist, architect, or craftsman almost always worked for a patron

as well as himself, and the one who paid, observed, and appreciated the art affected it directly or indirectly. Usually the more the patron paid the more the patron controlled. The artist was the bridge between the patron's will and the available art forms.

Uniqueness, brilliance, and magnificence of mosques, palaces, fountains, mosaic floors, rugs, embroidered silk, linen or muslin, glassware, and metalwork were determined partly by local taste, partly by the power of the patron's idea, partly by the facility and dexterity of the artist's talent, partly by the skill of the artisans and craftsmen who executed the artist's plan, partly by the availability of the adequate and varied materials, and partly by the budget. Who inspired and paid for the vast magnificence of Christian, Jewish, and Islamic art?

Such questions were easy to answer for medieval and Renaissance travelers to the exquisite city of Florence, whose elegant palaces, churches, libraries, fountains, sculptures, and arts and crafts were under the patronage of the great wealthy ruling families such as the Medicis, Pazzis, and Strozzis. Likewise municipal buildings and churches had direct connections to the patronage of ruling factions such as the Ghibellines or the Medicis and competing ecclesiastical organizations such as the Benedictines and the Cistercians, or the Franciscans, the Dominicans, and the Jesuits. Who were the Jewish and Muslim patrons of the arts and the artists who expressed the aesthetic will of those who inspired them, and who paid them? Commissioning art was significant to the patron-artist relationship. So, too, were art collecting and daily support of artists living within the patron's entourage and paid a yearly stipend. Written contracts and bills of sale were rare in the Islamic world, though common in Christian Europe, where it was possible to trace interrelationships of taste and desire of sponsoring individuals, families, or religious groups.

On the other hand, the Islamic system of *waqf* or pious endowment left a legal record of the person who established it for the purpose of building or maintaining a mosque, *madrassa* (religious college), sanctuary, fountain, fortress, or other religious or civic building. These foundation deeds may also reveal the political or religious motivation behind the building of the structure, especially if the founder was a dynastic ruler or governor of a major city. Such records would also be preserved in contemporary historical chronicles and biographical dictionaries. Nor was it uncommon from the Umayyad era onward for a Muslim artist or architect to engrave his name as well as that of his patron on the object of his creation. The Islamic patron undoubtedly commissioned a work of art or architecture in accordance with his or her own aesthetic tastes but equally intended to indicate power, social prominence, victory over enemies, and subjugation of alternative political or religious ideas. At the same time, historical records show that an artist, whether poet, craftsman, or musician, might take the initiative and create an object of art and offer it to a ruler or governor in the hopes of gaining patronage and advancing his social position.

Wealthy individuals, synagogues, and religious confraternities were the major patrons of medieval Jewish art and architecture. Ceremonial and ritual objects, such as Passover, Haggadahs, and Torah arks were among the most popular objects commissioned. In order to uphold the Talmudic prohibition against touching the Torah scroll with the naked hand (B. meg, 32a), Jews frequently commissioned the production of a pointer, such as the beautiful 15th-century silver pointer made in Ferrara, Italy, which ends in a terminal in the form of a finger. Lavishly decorated *ketuvot* (wedding contracts) were also popular items. Jewish women seem to have taken the lead in commissioning specially made objects for the house,

such as a 15th-century wedding chest painted with scenes from the Book of Esther.

It is interesting to note that many Jewish patrons contracted Christian or Muslim craftsmen to produce their art and architecture, which surely explains the parallels between certain Jewish art forms and those of the dominant Christian or Muslim culture. Nor must it be forgotten, however, that in the Middle Ages the concept of "art for art's sake" did not exist. This chapter explores the singular characteristics of medieval Christian, Jewish, and Islamic art and architecture.

Christian Art and Architecture

Architecture

The shape of a vault and the open space void it encloses usually dependably identify architectural style. Gothic architecture's vertical vaults have been imitated as "medieval" in American university and church design, and a tour of European architectural magnificence including such magisterial churches as Notre Dame and Chartres Cathedrals, as well as castles, houses, military devices, and furniture, would implicate Gothic style as typically medieval.

Gothic was only one of several important styles of medieval art and architecture, which included Romanesque, Byzantine, Insular, Hiberno-Saxon, Carolingian, Anglo-Saxon, Norman, and Hispano-Moresque elements whose qualities were expressed in building techniques, decorative arts, jewelry, painting, manuscripts, and ingenious workings of wood, metal, stone, glass, and paper. The stunning range of medieval art objects included stained glass windows; illuminated books of hours and

liturgical manuscripts; secular medical and musical manuscripts; plates and jugs made of majolica and porcelain; jewels and coffers of enameling, inlay, and *marquetry;* and practical household furnishings such as carved wood chests called *cassones* and water pitchers called *aquamaniles* crafted as practical whimsical sculptures shaped like lions, horses, or griffins.

Before discussing styles of art and architecture it is useful to consider the role of the medieval architect; take a closer look at a prominent feature of medieval architecture, the vault; as well as consider certain basic structural forms in which almost all medieval styles were expressed: castle, church, cathedral, monastery, and house. A discussion of medieval Christian manuscripts, mosaics, and paintings follows.

ARCHITECTS

Medieval architects were designers, structural engineers, mechanical engineers, and general contractors. Master builders built vertically audacious vaults and steeples. The spire of Strasbourg Cathedral rising to 466 feet was comparable to a 40-story modern skyscraper. Thanks to the invention of *flying buttresses* as revolutionary building inventions, architect engineers could solve the technical problem of attaining maximal height in the high vaults with no interior obtrusive support structures. Sometimes humbled by imperfections in their engineering, 13th-century architects suffered when the choir vault of Beauvais Cathedral crashed down in 1284 from a height of more than 156 feet, a height comparable to that of a 14-story high-rise building. But reviewing rare failures reinforced the architects' exquisite technical audacity.

Often called the master builder or master mason, the architect merited high fees and accolades when alive and dead. Epitaphs of

honored masons buried in the churches they built bestowed even fictional honorary academic titles, such as the doctorate of masonry, *doctor lathomorum*. Architects signed their works of art proudly and profligately. In Notre Dame de Paris, the base of the south *transept* has a 25-foot-long inscription in large raised letters honoring the architect engineer who built the transept, Master Jean de Chelles. In the 59-foot-diameter inlaid *labyrinth* in the stone floor of Chartres Cathedral, a maze thought to represent a pilgrimage route to the Holy Land, the center destination plaque depicted not God or Mary but the architect engineers who made the building. *Rose windows*, *transepts*, and towers of particular cathedrals were adorned with portraits or names of the honored master masons, architects, and engineers.

The 13th-century master builder of Picardy Villard de Honnecourt immortalized his contributions to architecture in the structures themselves as well as in his *Libre* or *Portfolio* of drawings. He created elevations of important Gothic cathedrals such as Rheims and Laon. He accentuated passageways and the staircases called *vices* built into the exterior walls of a church or cathedral. These ingenious, virtually prefabricated staircases installed in process of building the exterior walls took men and materials up the stairs to the level reached by the walls and later were valuable for the installation and maintenance of the extensive glazing and tracery of the windows. *Vices* reduced or eliminated the need to erect expensive scaffolding either inside or outside the building and diminished requirements for building cranes. Vices also freed the ground floor of impediments, ladders, and freestanding staircases that would have occupied floor space. Villard emphasized in his descriptions of the cathedral of Rheims that passageways and *vices* allowed circulation in case of fire, for moving fire personnel and water to sites of conflagration within the building, up to the level of the roof, including gut-

ters to allow water runoff, and passageways for safely evacuating people from a tall burning structure.

More than any other single feature, medieval Christian art in all its manifestations emphasizes and vindicates the role of the human image in shaping the faith and belief of the beholder. The Byzantine icon, which reigned supreme in eastern and western Europe until the 11th century, epitomized the idea that the real divine presence inhered in the figural representation of God, the Virgin, and the saints. This idea—blasphemous to Jews and Muslims—receded momentarily in the East during the Iconoclast Controversy but, once recovered, was pursued with new vigor. In the Christian West, the image served a different theological purpose. Increasingly from the 13th century, images of Jesus, Mary, and the saints were imbued with human emotions of suffering, pain, love, tenderness, and mystical ecstasy. Such images were mimetic, meaning that they aimed to induce in the looker the same religious sentiments, humility, and pietistic fervor being represented.

The emphasis on humanity and the artistic trend toward realism and naturalism that characterized Late Gothic and Renaissance painting were likewise reflected in the depiction of ordinary people in art. The insertion of peasants, merchants, or other lay people in the backdrop of religious scenes; the anachronistic dressing of biblical figures in contemporary 14th- or 15th-century clothing; and portraits of monarchs, nobles, and other art patrons, or even of the peasantry and the poor, all indicate the increasingly centrality of the human person in the imagination of the Christian artist.

This accentuation of the figurative image posed a defiant challenge to the Jewish and Muslim prohibition of the veneration of idols. Figural representation was the theological outcome of the Christian doctrine of the Incarnation, a belief anathema to Jews and Muslims,

for whom God revealed himself in the word. Medieval ecclesiastical art harnessed the image in the service of orthodoxy and in the fight against heretics, Jews, and Christians.

VAULTS OF WOOD, STONE, AND BRICK

A *vault* was a roof of a space with a succession of load-bearing arches. Among common types were the *barrel vault, Norman vault, early English vault, decorated vault,* and *Tudor fan vault.* A vault built with timbers, stones, or bricks customarily described a circle's arc, including such types as the *annular vault,* built over space between two concentric walls. The *conical vault* was circular and surmounted by a triangle. A *demicupola vault* was a quarter-sphere such as would cover an *apse,* which was a semicircular or polygonal extension from the east end of a church or cathedral, originally derived from *basilica* architecture, such as at England's Norwich Cathedral. Such vaults also were the roof and ceiling structures of small *apsidal chapels.* These were customarily polygons, usually one of an odd-numbered series, attached to a church's apse and often dedicated to the Virgin Mary. In England an apsidal chapel customarily was called a *lady chapel,* as at Tewksbury, Westminster, Ely, and Gloucester.

Yet other medieval vaults were *groined,* the raised edge formed by the intersection of two vaults, sometimes ornamentally covered with a strip or fillet of stone or wood. A *calotte vault* resembled the shallow cap after which it was named. A *pointed vault* was bound by pointed arches or by transverse *ribs.* Ribs were the projecting, reinforcing bands of a pointed arch or vault, often elaborately ornamented. A diagonal rib in a groined vault passed angle to angle to intersect another rib at the center. A transverse rib stretched from wall to wall. A wall rib directly adhered to the wall. *Rampant vaults* were constructed with the two springing points

Colegiata de Santa Julia, Santillana del Mar, Spain   Courtauld Institute of Art.

not in the same horizontal plane, as if stair steps with unequal piers.

A *semicircular vault* differed from a *skew vault,* in which the lateral surfaces were not right-angled to the piers, as in viaducts, which in turn were distinguished from such other vaults as the *spherical vault,* consisting of a hollow hemisphere; the *surbased* vault, the height of which was less than the radius of the curve; and the *surmounted vault,* the height of which was greater than the radius of the curve. A multiplicity of vaults preceded the inspiring *Gothic vault* with its vertical skyward thrust.

A cramp or hook joining girders in vaults and building construction was called an *agraffe* (or agrafe). Also used for securing armor pieces, an agraffe was an ornamental fastener for closing a garment's neckband or a belt in the form of a hook, clasp, buckle, or pierced openwork clasp consisting of two interlocking pieces.

THE CASTLE

A castle was a self-contained, fortified *household* in which several, hundreds, or thousands

lived and worked. Essentially a group of concentric walled enclosures, medieval Europe's earliest castles consisted of an outer wall surrounded by a moat filled with water across which a retractable drawbridge could be lifted for security and lowered for entrances and exits. Within was a *bailey*, a fortified enclosure or space inside the outermost castle walls often enclosing a *motte*, an artificial mound. The *keep*, the innermost tower or stronghold, was built on this *motte*.

The outermost wall often had a *portcullis*, the castle or town gate, customarily heavy, girded, and barbed, and raised or lowered from within the walls. Castle form followed function because of necessities for self-defense. Tops of castle walls generally were designed with *crenellation*, from the French word *crenet* for "open space." Essentially, the top of the wall was a *battlement* with alternating evenly spaced "tooth and gum design." The tooth was called a *merlon*, which was a solid upright or was pierced with *arrow slits*, narrow, cross-shaped slits on the battlement (also on a church or city wall) through which bowmen could shoot arrows at an enemy or launch projectiles at a besieging multitude. The space between the uprights on the battlement was called the *embrasure*, representing the gum of the "tooth and gum" design. Where there were no arrow slits, archers and defenders placed their weapons through the embrasure to strike the enemy. Defenders took cover behind the merlon.

Crenellation usually was synonymous with *parapet*, a defensive barrier wall of stone or earth at the edge of a rampart, balcony, roof, or platform to prevent outsiders or enemies from seeing in or gaining entrance, and for preventing those from walking on a high roof or dangerous balcony from falling off. The parapet was bordered by a *balustrade*, which was a series of upright columns or posts supporting a handrail atop a wall or stairway. On castle parapets the floor in overhanging sentry walks often had *machicolation*, floor openings with removable covers to prevent people from tripping or falling. Uncovered, the apertures were used for dropping flaming or heavy missiles, boiling oil, or corrosive liquid onto an encroaching enemy below.

Inside the fortified *keep*, the main room was the *great hall*, serving as a meeting place and dining hall. Castles, manor houses, and town houses had similar types of furnishings with wealth and ostentation determining size, ornament, and decoration. Great halls or great rooms in wealthier castles had a *musicians' gallery* or *musicians' balcony* from which fanfares would announce the service of courses and musicians provide entertainment during the meal and its festivities.

Customarily castles were furnished with portable furniture set up for mealtimes or sleeping quarters and taken down and stored between times. Banquet tables, for instance, generally were of two types, either a *stable table*, also called a *dormant table*, a sturdy piece of furniture created for the purposes of displaying or conveying foods and drinks, or the *horse and saddle table*, consisting of trestles or sawhorses upon which a banquet board was set, then covered by cloth or carpet, but removed and stored on a sidewall when not in use. Chaucer's generous gourmet Franklin had a stable table or table dormant in his home's great hall. The castle owners or most noble guests customarily would sit at a *high table* elevated on a dais, placed perpendicular to other tables arranged along the side walls of the great hall, called *sideboards*. There all household members, servants, and retainers would sit to be served according to their social rank.

Because it signified the most important person in a group, a significant object in the great hall of a castle or house was a *baldaquin*, also called a *baldaccino* and *baldachin*. A richly embroidered, tapestry, or velvet fabric awning was used as backing to the high table or to the

main chair or throne of the owner of the castle or seat of the most noble guest. A baldaquin also backed a bed or an Episcopal seat, marking the place of honor. Sometimes the canopy was mobile with four or more columns, which then could be carried in a religious procession, such as to provide cover for a bishop or for the sacrament. The baldaquin served as visual indicator of importance.

A *cassapanca* was a wood-crafted seat with a high wooden back, seating three or four. A *settle* could seat one or several. Often the seat served simultaneously as the hinged cover for a storage chest below. Another great hall furnishing was the *aumbry*, a multitiered cabinet for display of banquet service objects as well as site for final preparation of elaborate foods before their service.

A *cassone* was a large, rectangular low storage chest for household goods, particularly linens and clothing. For a woman before marriage it was used as a "hope chest," the wood molded, bordered, decorated, gilded, painted, or ornamented with courtly love scenes. A spectacular 15th-century Gothic *cassone* owned by a Habsburg princess had painted on a front panel a wedding scene in an enclosed garden, with a small postern gate left open. Latin *hortus conclusus* meant both a literal "walled garden" and "intact virginity," a whimsical, charming notice that the princess was a divorcée or widow, not a virgin.

Bedchambers usually were fitted with either portable beds ingeniously and efficiently utilizing trunks or handled storage coffers in which bedding as well as valuables were stored and removed at nighttime and laid atop the surfaces as mattresses and covers. Beds usually were curtained to provide privacy and defense against drafts. The castle kitchen sometimes was a separate building in order to prevent a kitchen fire from destroying the rest of the castle. Whether separate from or integrated to the keep, the kitchen had a large hearth. Grates over wood or coals propped up cauldrons and pots. *Blandreths* were three-footed pots or round bottom pots fitted to tripod stands to be raised above the coals or wood of the kitchen fire. Alchemists also used blandreths. Ovens for baking bread usually were constructed of stone or brick, wood-fired; before baking raw loaves were conveyed to the hot oven and the finished products removed on long-handled paddles called *peles*, resembling modern pizza paddles. In large kitchens a kitchen worker called a *quistron* was charged with the rough culinary work of stirring contents of the gigantic pots, moving heavy blandreths, winching weighty cauldrons, and turning the windlasslike devices for rotary spits for roasting large animal carcasses.

Some castles, such as monasteries and ecclesiastical houses, had piped water or reservoir-stored water for cooking, washing, bathing, and toilet flushing. Called the *garderobe*, the room with the toilets also was called a *privy* or *necessarium*. It was as neat, fragrant, and hygienic as circumstances allowed before the invention of indoor flush toilets in the 16th century. Sometimes the *necessarium* was equipped with niches for candles, a small fireplace for heating, and a window for good light and aeration. In some castles the *necessarium* was multistoried with catchment channels for urine and feces conveying the detritus down an internal shaft into a septic system flushed by water from the castle moat or a stream diverted for such express purpose.

Towns and cities created their own water conduit systems. London in the 14th century had the Great Conduit, which carried water into the center of London so that all might obtain water for drinking, food preparation, washing, and safety from fire. The conduit system had main fountains and pipes and also subsidiary branches within the public markets of East Cheap and West Cheap as well as conduit extensions serving large sections of the city, specific neighborhoods, and private house-

holds. The piped water system had its own keepers, keys, and paying customers, and special problems of waste, neglect, cupidity, and pollution. The conduit's abuses of public water property were balanced by responsible citizenship both protecting and purifying the valuable water.

Gargoyles splendidly united form with function as rainwater spouts, projecting from a roof gutter to direct water away from the building's wall. Gargoyles were depicted as animal, human, fantastical, or grotesque figures usually with an open mouth from which the water descended. The grotesque appearance of gargoyles served a symbolic function as well that may be a survival of its use in ancient Greece. The Greeks used gargoyles as protection against evil demons. Similarly, in Christendom, gargoyles warded off evil spirits and acted as a deterrent to would-be intruders and thieves. On castles, churches, monasteries, and houses, gargoyles were practical, sculptural adornments.

CHURCH AND CATHEDRAL

Technically, a *church* differed from a *cathedral*. A church (from Greek *doma Kyriakon*, "house of God") was the Lord's house, the building to house the *Eucharist* and the sacraments, and the place where the liturgy for the community and congregation was performed. However a cathedral was a particularly significant church housing the bishop's *cathedra* or throne, the chair of honor, authority, and office. Customarily the major, architecturally magnificent edifice of a diocese, a cathedral usually was a cross-shaped building. Its longest part was the *nave* (from Latin *navis*, "ship"). The short arms of the *transepts* were the spaces lying perpendicular to the nave and crossing it.

The square space at the intersection of nave and transepts was called the *crossing*. The *steeple tower* generally was built in the airspace above the crossing. Continuing the nave after the

crossing was the *chancel*, the location of the main altar in the eastern end of the *apse* of a church or cathedral. The *choir* was the part of the church east of the nave in which the service was actually celebrated. Usually extending from the crossing to the apse, it also was called in England the *west chancel*. A *pilgrimage choir* contained an apse, chapels, and an *ambulatory* (Latin *ambulare*, "to walk"), a processional aisle behind and around the high alter of a cathedral allowing pilgrims to see and touch saints' relics. The *chevet* was a church's east end, including choir, apse, ambulatory, and radiating side chapels.

Engineers created for Canterbury Cathedral in about the year 1153 a remarkable plumbing scheme for water inflow and sewage. Pipes for water were taken from outside the cathedral walls after passage through a conduit house, lead pipes, and five settling tanks to encourage water purity. For drinking, washing, irrigating gardens in the *herbarium*; for cooling wine in the *cellarium*; for circulating water in the fish pond, the *piscina*; and for flushing the latrines of the *necessarium*, the elaborate system utilized piped water augmented by rainwater. Kept in *octofoil* reservoirs, this artificial system had a backup series of natural wells, such as the *puteus* in the cloister.

Stained glass windows were perfected as magnificent art serving purposes of transmitting light, color, and message. Flat pieces of glass colored by metallic oxides were juxtaposed to form figures or patterns. The pieces were fitted together by leaded, grooved *calms*. Colors such as Canterbury blue were exquisitely radiant. Details, decorations, and facial features were painted on clear or colored glass either before or after its firing. *Grisaille* was a mixture of crushed glass with iron or copper oxides, cobalt, and other mineral pigments, to create a delicate gray-green or brown-black shading and detail for modeling of figures, features, and draperies. Sometimes stained glass

had scratched or abraded lines called *sgraffito*, whose purpose was to intensify design.

Cathedral *rose windows* were circular stained glass windows typically found over the main entrance of a Gothic church or cathedral. In 12th-century France, where the rose window originated, the rose window was created with *tracery* to resemble a rose, the ornamental interlacing designs usually of stone in *quatrefoil* (four-leaf) or *trefoil* (three-leaf) shape. Tracery also was used in the space between the vertical *mullion* bars and the horizontal *transom* bars in Gothic stained glass windows and was the ornamental interlace design found on walls, panels, arches, and carvings, and in embroidery.

The large rose windows decorating the Gothic cathedrals of France, England, Spain, Italy, and Germany reflected both the new mystical spirituality that imagined God as light and an intensified devotion to the Virgin. The central rosette of the rose window on the main facade of a cathedral usually bore an image of an enthroned Virgin Mary seated with the infant Jesus in majesty. Surrounding this image might be the apostles, allegories of the vices and virtues, or the four seasons. Other rose windows might depict biblical scenes, for instance, the representation of the last judgment on the rose window at Sainte-Chapelle and the images of the Old Testament kings and prophets gracing the north lateral window of Notre Dame in Paris. Scenes depicting the life and passion of local saints were also common themes, such as scenes of the passion of Saint Vincent of Zaragoza (d. 304 C.E.) that adorn the Church of Saint-Germain-des-Prés in Paris.

The immediate predecessor of the rose window was another round window said to be the building's eye to the sky, the *oculus*, decoratively admitting light at the top of a pediment or surmounting a main door in a Gothic church, cathedral, or guildhall. In English Gothic architecture, *lancet* windows were sharply pointed narrow windows recalling the small lance or double-bladed pointed surgical scalpel called a lancet. *Clerestory* windows were situated near the ceiling of a Gothic room, hall, or church, receiving light from above the roofs of neighboring buildings, thereby providing extra lighting within the hall.

Frescoes frequently decorated the inner walls of Romanesque and later churches, municipal buildings, and fine houses. These indoor mural or wall paintings were rendered nearly indestructible by utilizing chemically inert pigments on a freshly laid plaster surface. The colors absorbed by capillary action were integrated into the wall's matte surface. Frescoes often depicted monumental ecclesiastical or civic subjects that inspired veneration. Other wall or ceiling paintings were integrated into the architectural setting and executed with some permanent or imperishable material such as stone, glass, or ceramic mosaic; colored cement; or porcelain enamel. Customarily outdoor wall decorations are known as
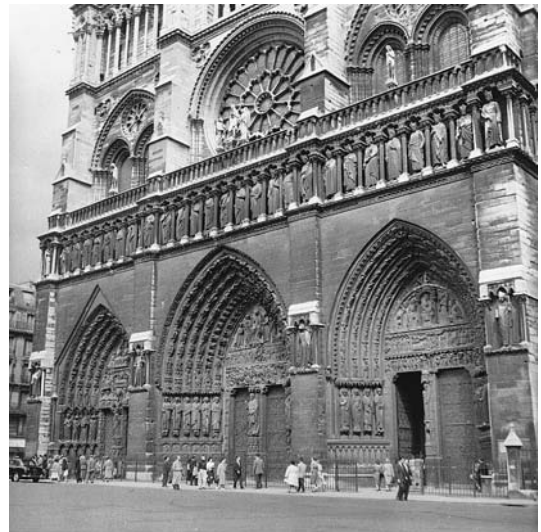
Notre-Dame Cathedral, Paris   Courtauld Institute of Art.

murals, whereas interior wall painting is referred to as fresco.

MONASTERY

From the Greek word *monasterion*, a place to live alone, a monastery was the house for a religious community of monks or nuns or a coeducational house for both monks and nuns. Monastic buildings were shaped in part by the Benedictine rule. These regulations for the religious life were written down by Saint Benedict (d. 543), who did not himself create a major order. But numerous monasteries, particularly after the Carolingians, lived according to the Benedictine rule, which made an art of liturgical prayer. The work of God, the *opus Dei*, or divine office, was that set of prayers exclusive of the *mass* that provided a major activity for those essentially cloistered, contemplative, yet actively engaged monks and nuns. Benedictine monks and Benedictine nuns, established, respectively, by Saint Benedict and his sister, Saint Scholastica, shared an identical rule emphasizing individual pious humanity and monastic administrative order.

For celebrating the *opus Dei*, as well as the Christian *mass*, a monastery required its associated church or cathedral. Customarily the church was connected to the *chapter house*, an assembly house or meeting room in a monastery or cathedral, by means of a *cloister* (Latin *claustrum*, "enclosed place"), a covered walk for work, recreation, and conversation. Monks or nuns slept in the *dormitory*, individual small rooms, cells, houses, or communal sleeping rooms. For care and isolation in their illnesses, monks had an *infirmary*. Some monasteries ran clinics and hospices for their own ill as well as for the local lay community. Houses where strict rules were enforced often had a *mercy room* or *misericord* (also the name of the carved underside shelf of a church choir stall), a chamber in which rules temporarily were relaxed.

Outside the monastery walls of the Grande Chartreuse, three monks (or lay brothers, donates) fish with net and line on an upper pond; another rows his boat in the lower. Waters are divided by a watergate with a mechanism for raising and lowering water levels, like canal locks. Since the Cistercian order forbade eating flesh except for occasional fish, the fishermen probably are preparing for the feast day. From the *Belles Heures* of Jean, duke of Berry, f.97v; 15th century, French. New York, the Metropolitan Museum of Art, The Cloisters Collection.

The communal dining hall of a monastery was the *refectory*, resembling the great hall of a castle, containing a dais for the high table, for the abbot or abbess and important visitors, and the sideboards, the long rectangular refectory tables at which all the religious sat on *banquettes* or benches. A *musicians' gallery* was the place for musicians or a reader to entertain and instruct the multitude as they ate. A *trencher table* was used for cutting the fragrant breads

used as edible platters. An *aumbry*, a tall, stepped credenza, displayed the monastery's ceremonial plates and liturgical vessels.

Wealthier monasteries had their own excellent libraries. Some monasteries ran *scriptoria*, writing factories for producing books and manuscripts. A *scriptorium* carefully divided labor among copyists, *rubricators*, who made red letters for calling attention to important points in the text; *illuminators*, who decorated manuscripts with paintings called *miniatures;* and binders. Some scriptorium workers were secular while others were attached to the ecclesiastical abbey or monastery. Nuns as scribes were famous for their exquisite writing techniques, producing prodigious numbers of pages and works. Monasteries and convents such as Saint Catherine's at Saint Gall's were particularly famous for their manuscripts. Nun calligraphers such as the indefatigable Diemude of the monastery of Wessobrunn, Germany, in the 11th century produced thousands of pages of missals, bibles, epistles, histories, saints' lives, gospels, and philosophical works.

THE HOUSE

Depending upon wealth, location, and century, the medieval house was practical, reasonably civilized, and comfortable. Houses in medieval Europe were constructed primarily of stone or wood using the two major techniques that today we call "stick-built" architecture, with weight-bearing interior walls, and "post, beam, and truss" architecture, with weight-bearing outer walls, the span-straddling interior having large open spaces flexibly divided. The construction technique *wattle and daub* utilized interlaced sticks roughly plastered with clay mixed with straw and reinforced with horsehair. Not necessarily crude or primitive, some were strong, durable, comfortable homes comparable to modern adobe or straw bale houses covered inside and out with stucco, yielding earthquake-resistant, energy-efficient, attractive domiciles. Townhouses had city water either piped to central fountains from which water could be drawn for household use or piped directly to an individual house.

Common flooring was rolled or pounded earth, wood, tile, or *mosaic*, variously colored marble, stone, glass, or pottery cubes set in cement or glue then the total surface smoothed, polished, and lustered. *Tessellated pavement* was a mosaic floor consisting of small blocks of marble, stone, tile, wood, glass, or ivory. *Encaustic tiles* were decorative floor tiles made of red clay with stamped print cuts in relief. The hollows were filled with white clay and the surface glazed, decorated with foliage, geometric patterns, heraldic devices, or human and fantastical figures. Fired tiles made durable, permanently decorated floor surfaces. Encaustic tiles sometimes were used on walls.

Walls customarily were whitewashed with a form of plaster of paris. Wood paneling often covered the lower part of the wall, called *wainscot* or *dado* (Italian, "dice" or "cubes"), the lower section of wall decorated with square glazed tiles or wood blocks crafted for the illusion of continuous wall-to-wall pedestal. Sometimes the wainscot was painted, papered, or laid with stone, differentiating lower decoration from upper. The upper wall either was kept open; clear, white, or painted a pleasing color; or covered in part or in whole by painted fabric panels, embroideries, carpets, or woven *tapestries*.

A *tapestry* was a hand-woven textile whose design was literally woven into the material during its manufacture and therefore integral to the fabric. An *embroidery*, in contrast, embellished fabric by stitching onto it ornamental figures, designs, and inscriptions. Tapestry *warp* threads, usually made of hemp or flax, were stretched taunt, lengthwise, on a frame or loom. *Weft* threads, made of variously colored wool or silk, or gold and silver thread, were

worked in with *bobbins* at right angles to the warp and pressed close by a *tapestry comb*, following a laid-out pattern called a *cartoon*. Types of tapestry produced in Flanders and France included Arras, Millefleurs, Aubusson, and such masterful individual works and series as the Cluny *Lady with the Unicorn* and *The Unicorn Hunt* now at the Cloisters of the Metropolitan Museum of Art in New York.

Tapestries as valuable works of art also were practical retainers of heat when covering stone walls and deflectors of drafts when used as bed curtains and drapes. Tapestries were so costly they often were used as ransoms for kidnapped warriors and for noble people taken prisoner by pirates on the high seas or by highwaymen on dangerous country roads.

Indoor lighting was via candle or oil lamp, usually backed by mirrors to amplify and replicate the firelight. Torches set in wall sconces lighted larger halls, and lanterns enclosed by glass or rock crystal permitted portable lights for specific tasks and on the road.

Household furniture such as tables, chairs, beds, and storage chests imitated the basic furnishings of a castle, though, of course, smaller, less embellished, and less expensive. Today gracing museum collections are durable, attractive metal kitchen and dining hall serving vessels such as platters and pitchers fabricated from the metal alloy called *dinanderie*, that were mass produced, sold in town markets, and used in ordinary houses of craftspeople.

Architectural and Artistic Styles

ROMANESQUE ARCHITECTURE, ART, AND CRAFTS

An architectural and artistic style imitative of classical Roman works, Romanesque integrated into its exquisite buildings and works of art both Byzantine and Eastern influences. Flourishing throughout 11th- and 12th-century western Europe, Romanesque buildings were distinguished by the innovative use of stone vaults rather than the wooden roofs that covered basilicas from previous periods. Other distinctive features include round or slightly pointed arches, elegant severity of line, simplicity of ornament, monumental sculpture, copious *fresco* paintings, and an emotional delight in depicting the macabre. Romanesque churches, cathedrals, and monasteries customarily had massive tower-crowned *westworks* that were multistoried walls creating the facade and tower at the western end of the building. The interiors alternated columns with *piers*, the pillars for supporting an arch, gate, or door. Sometimes galleries with half-barrel vaults were installed above the aisles. Extravagant masonry vaults also characterized Romanesque ecclesiastical and domestic buildings.

The nave in Romanesque churches was higher and narrower than its predecessors, allowing for the insertion of *clerestory* windows in the side walls below a vault. Rounded or slightly pointed arches framed doors and windows, which would also be decorated with moldings, sculptures, and carvings. These general Romanesque characteristics blended with local architectural features, resulting in certain regional variations. Tuscan and Roman churches, for instance, favored the Corinthian capitals, acanthus borders, and open arcades and galleries. In southern Italy the lavish interlaced pointed arch arcades and mosaic decorations recalled its Arab, Roman, Norman, and Byzantine legacies. French Romanesque architecture developed a plethora of vaulted styles, such as groin vaults and barrel vaults, as well as pointed domes, and the decoration of walls with multitiered arcades filled with sculptures.

Early Romanesque sculptures of the holy family and the saints tended to be stiff, straight, elongated, and hieratic, emphasizing the sanc-
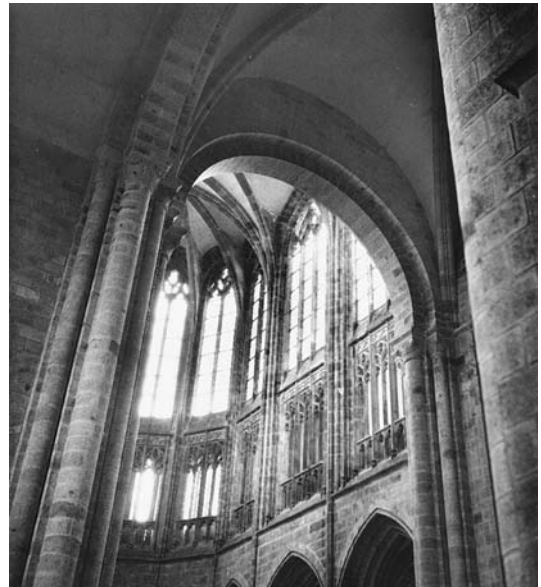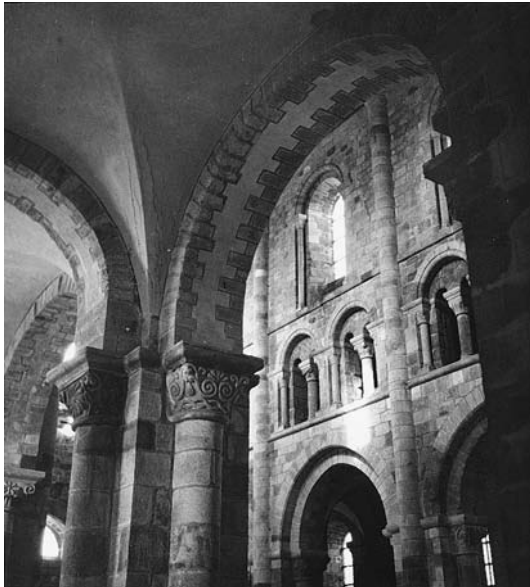
Two views of Mont-Saint-Michel   Courtauld Institute of Art.

tity of the persons represented. Toward the end of the 11th century, one detects a move toward greater realism and the attempt to represent emotion, such as the tender expressions of love between the Virgin Mary and the infant Jesus. Immense and intricate relief carvings decorated church portals, while cloisters feature capitals exquisitely carved with vegetal, zoomorphic, abstract, as well as human motifs mainly inspired by the Bible. Typically the tympanums of Romanesque churches featured a representation of Christ in majesty and/or scenes of the last judgment. In the latter Christ would appear as an awesome judge, and the fates of those admitted to heaven and damned to hell were graphically depicted.

Fine examples of Romanesque style include the Cluniac monasteries and churches at Saint Martin's in Tours and Santiago de Compostela in Spain, France's Abbey Church of Saint Madeleine Vezeley, Germany's Cathedral at Speyer and Saint Mary's in Cologne, Italy's Baptistery at Pisa, and Monreale in Sicily. Important frescoes, bold in scale and color, are at Saint-Savin in France and Sant 'Angelo in Formis, Italy.

Romanesque *manuscripts* and *psalters* were particularly richly illuminated and often written on chamois-surfaced vellum. The most notable feature of Romanesque illumination is the introduction of the enlarged and highly ornate initial letter on a page. Multivolume illustrated Bibles such as the stunning *Winchester Bible* were created in Romanesque manuscript factories, the *scriptoria*.

Romanesque artists created majestic ecclesiastical vessels and secular objects in metalwork and enamel of *Mosan* and *Limoges* through the techniques of *champleve* and *cloisonné*. Magnificent Mosan enamels were created in the 12th century in the Meuse Valley by such artists as Nicolas of Verdun and Godefroid of Huy, inspired by wealthy clerical patrons such as the abbot Suger (d. 1151) of the Monastery Saint Denis and abbot Wibald (d. 1158) of Stavelot

near Liège. Mosan enamels influenced Limoges enamels, the masterly 12th- through 14th-century French champlevé art that adorned crucifixes, chasses, reliquaries, ecclesiastical jewels, and secular objects. Later 15th- and 16th-century Limoges enamelers such as Jean de Court, Suzanne de Court, Pierre Raymond, and Pierre Courtois created secular decorative art based on the Mosan inspiration.

The exquisite "Roman-like" style of Romanesque art and architecture was regarded during the early Renaissance with nostalgia as the aesthetic ideal. Conversely, its architectural heir was disparaged for its seemingly crude, barbarian, Germanic, or "Gothic" style.

GOTHIC

Gothic architecture was an international style characterized by a vertical skyward thrust of the vaults of the buildings, pointed arches, and lavish use of *stained glass* windows. A dominant architectural style in Europe from the 12th through the 15th century, exemplary Gothic style was visible in the extravagant vaults and slender, elegant, pointed bell towers or turrets called *spires* on churches, cathedrals, and civic buildings.

A special glory of the Gothic cathedral was the unfettered interior space free of most interior structural supports. Exterior buttresses, especially flying buttresses (from French *bouter*, "to thrust"), were vertical masonry or brickwork masses projecting from a wall to stiffen it and to resist an outward thrust of a vault or roof truss. Flying buttresses were composed of a propping arch, its upper end against the high main wall of the cathedral, its lower end against a pier. The pier had a stabilizing pinnacle, often shaped like an animal or grotesque, to accept the transmitted thrust. Flying buttresses became more massive the higher the vertical skyward thrust of the cathedral building. These external structural reinforcements of unimpeded interior space by means of a stone exoskeleton prefigured modern steel exoskeletons in high-rise commercial buildings and city skyscrapers. The purpose of the flying buttress was to prevent *spalling*, the splintering and splitting of pier masonry caused by pressure and thrust, an engineering problem of early Gothic cathedrals brilliantly solved.

Stained glass windows reached sublimely lustrous color and design in Gothic cathedrals such as Chartres in France and Leon in Spain. Important Gothic stained glass windows styles included the rose window, oculus, lancet, and clerestory. Gothic sculpture and especially Gothic manuscript art of the late 14th and early 15th century were characterized by the so-called international style noteworthy for linear elegance, fashionable, contemporary costume, graceful swaying figures, scintillating color, and exquisite exoticism paired with punctilious realism. Spectacularly exemplified in the works of the Flemish Limbourg brothers (fl. 1380–1416), Lorenzo Ghiberti (d. 1455), the Flemish painter Melchior Broederlam (d. c. 1409), and Lorenzo Monaco of Italy (d. 1425), the style pervaded panel painting, sculpture, carving, metalwork, and sumptuous illuminated manuscripts.

The trend toward realism and naturalism that began to emerge at the end of the Romanesque period reaches its apogee in Gothic sculpture from the 12th and 13th centuries. The figures decorating the exteriors of Gothic churches, cathedrals, and other religious buildings and sepulchres acquire more relaxed and naturalized features, gestures, and postures. The drapery of the clothing recovers something of the poise, finesse, and realism of ancient Roman sculpture. In the 14th century Gothic sculpture becomes even more refined and elegant, assuming an almost affected daintiness in the opinion of some art historians. Royal and ecclesiastical sepulcher sculpture adheres to certain canons: The deceased bishop, king, or queen reposes with arms folded in

prayer, the face peaceful yet impassive, with the bishop's mitre or royal insignia, such as a lion lying beneath the feet of the king (but not the queen), alluding to status. A singular exception to the canonical depiction of the deceased figure shown resting in peace is the sculpture known as the *Doncel of Siguenza* (Spain). The doncel, a knight of the Order of Santiago, is portrayed reclining on his side reading a book.

Gothic *ogee arches* were constructed of a continuous double curve, convex above, concave below, shaped like the letter S lying on its side. Two ogees juxtaposed created an ogee arch, pointed with a double curvature. Popular in England from the 13th century onward for both secular and ecclesiastical buildings, ogee arches were used in doorways, window frames, and furniture decoration.

Christian churchmen and women cherished *relics*. A holy, esteemed, or revered object, such as a bone, strand of hair, article of clothing, or particle of a possession thought to belong to a dead saint or holy figure, a relic was a source of miraculous healing and an object for pious pilgrims to see or touch. Its display required making it visible to the faithful yet preserving it safely for posterity. Therefore it was housed in a *reliquary*, a box, casket, vessel, or shrine with a transparent window or door through which it could be seen, the container decorated with precious jewels, engraving, enamelry, and other types of jewelry embellishment. Reliquary shape was related to the relic. A saint's fingernail was displayed in a reliquary shaped like a finger or hand, a hair relic was kept in a head-shaped vessel, a leg bone housed in a leg-shaped reliquary. Other reliquaries were cross-shaped.

A monstrance was a partially transparent devotional vessel customarily carried in procession and for certain devotions before the altar. A monstrance might carry a relic or the *host* (Latin *hostia*, meaning "sacrifice"), the consecrated bread or wafer of the Christian mass. Later eaten by the celebrant and penitent wor-shipers who had confessed and had been absolved of sin, the host represented Christ's sacrificing of his body and was, in turn, offered to God as a sacrifice during the celebration of the Eucharist. The monstrance made it visible behind glass or *rock crystal*, a glasslike transparent, colorless, pure silica or quartz. Romanesque and Gothic reliquaries were especially magnificent.

INSULAR STYLE AND HIBERNO-SAXON ART

Hiberno-Saxon art gracefully intertwined pre-Christian Celtic elements into Christian artistic forms. The church, particularly in the person of Gregory the Great, actively promoted such merging of traditions as a means of encouraging potential converts to "abandon their error" and "flock more readily" to embrace Christianity. As a migratory people the Celts largely eschewed monumental architecture and sculpture in favor of more mobile art that combined beauty with utility. Prime examples of pre-Christian art include jewel-encrusted metalwork in the form of weapons, belts, jewelry, and tools. The decorative motifs on these artistic products would find their way into Hiberno-Saxon Christian manuscripts and other artistic products.

In the seventh, eighth, and ninth centuries Ireland, Scotland, and England produced a distinctive "insular" style of art. Hiberno-Saxon artists *interlaced* the letters on a parchment or vellum page with traditional Celtic animal, vegetal, and geometric designs, as seen in masterpieces such as the *Books of Kells*, *Durrow*, and *Armagh* and the *Lindisfarne Gospels*, and in certain *pocket books* and *books of hours* such as the particularly lovely *Book of Mulling* and *Book of Armagh*.

Celtic metalwork motifs framed the pages of many Hiberno-Saxon manuscripts and covered the textless carpet pages in their entirety. These

decorative ornaments were both rectilinear and curvilinear, the latter blending curves, circles, and ovals. This art style also experimented with labyrinthine undulations.

Hiberno-Saxon art especially emphasized the *Incarnation*, initial letters describing the holiness of Christ's assuming human nature as second person of the Trinity, the word made flesh (John 1:14), the perfect unity of divine and human nature. One purpose of the art was to inspire understanding of that mystery uniting invisible, perfect, timeless God with visible, sinless, temporal man.

ANGLO-SAXON STYLE

Some of the most spectacular examples of Anglo-Saxon art with its superb animal interlacing, intricate geometric braiding, and undulating animal and geometric forms derive from the unlikely source of a royal ship burial in an English heath land barrow at Sutton Hoo in East Anglia. In that remarkable treasure trove, archaeologists discovered the remains of the ship, gold jewelry, silver bowls, enameled escutcheons, cauldrons, and weaponry. The excavated horde was given as a gift to the British Museum and can be appreciated there today. Among the treasures is the great gold belt buckle from the *Sutton Hoo Ship Burial* dated approximately ninth century.

The great gold buckle from the Sutton Hoo burial treasure   From c. ninth century, London, courtesy of the British Museum.

The Irish *high cross* introduces Celtic metalwork motifs into the large standing crosses that Irish monks placed inside the grounds of a monastery. Distinguished by the characteristic circle around the head and arms of the cross, the earliest examples were made of wood, which was replaced by stone from the seventh century onward. The circle and cross were initially decorated with distinctive Celtic geometric designs; in the ninth century and beyond biblical scenes and representations of bishops and saints became more common. A spectacle example of the high cross is the ninth-century Cross of the Scriptures, located near the Clomacnoise monastery in Ireland. It measures some four meters tall and its stone surface is divided into panels depicting the scenes of the crucifixion, the last judgment, and Christ in the tomb. High crosses are found throughout the Celtic regions of the British Isles as well as in northern Spain.

Anglo-Saxon *barrows* were earth-built mounds used in burials. If constructed of stone rubble they were called *cairns.* Barrows were created in many forms. The *long barrow* was a family tomb with interior chambers of stone, timber, or turf. A *round barrow* was convex, an inverted bowl structure surrounded by a ditch. A *bell barrow* had a flared bell shape with a surrounding ditch and a "lip" mound. A small mound enclosed in a larger flat area surrounded by a ditch, also with an external lip mound, was called a *disc barrow*. Like the disk, a *saucer barrow* was a mound flattened into a shallow inverted saucerlike shape extending to a ditch. The *pond barrow*, technically without a mound, was a hollow shallow shape edged by a lip mound, whose bottom contained pits for human bones.

BYZANTINE ART

The art, architecture, and cultural style of the city of Byzantium predominated in eastern and much of western Europe for nearly 1,000 years.

In 340 emperor Constantine I rebuilt the city of Byzantium and called it Constantinople, making it capital of the Roman Empire. Subsequently Byzantine influence on the cultures of Venice and Ravenna, Italy, and of Syria, Greece, Russia, and other countries endured until Constantinople fell to the Turks in 1453. The style is notable for masterly mosaics on ceiling domes and half-domes. A *mosaic* was a floor, wall, or ceiling decoration in which variously colored marble, stone, glass, or pottery cubes called *tesserae* were set in a cement or glue matrix. Then the total surface was smoothed, polished, and magnificently lustered. The designs might be secular, whimsical, or ecclesiastic and were particularly important in the *Byzantine dome*, a hemispherical roof formed by a series of converging arches springing from a circular or polygonal base.

Perhaps the most unique architectural feature of the Byzantine church is the development of a partition to separate the laity in the nave from the priests performing the sacraments at the altar. The earliest specimen appeared in the fifth and sixth centuries and is known as a *templon*. The templon consisted of wood or marble colonnettes supporting a beam called an *architrave*. Three doors, the largest in the center, symbolized the Trinity and provided access to the sanctuary where the holy of holies was kept. Icons decorated the beams and curtains hung over the spaces between the colonnettes to heighten the mystery (*mysterium tremendum*) of the transformation of the host and wine into the body and blood of Christ.

Between the 11th and 14th centuries the entire structure, including the spaces between the colonnettes, became filled with icons. This evolved into the *iconostatis*, templon carved entirely of wood and decorated with icons that followed a strict canon and order of representation, pride of place always being accorded to the *Deesis*, or image of the enthroned Christ.

A superb example of a Byzantine church is Hagia Sophia, Greek for "Holy Wisdom." This majestic *basilica* was built in Constantinople in a mere five years begun in the year 532 during the reign of Justinian. An exquisite, monumental, unified space, it is surmounted by a central dome and ornamented by mosaics. As a *basilica* it is related to ancient Greek royal-judicial palaces or assembly halls, an early longitudinal church. The seven churches in Rome founded by Constantine were basilicas: Saint John in Lateran, Saint Peter, and Saint Paul's outside the Walls, Santa Maria Maggiore, Saint Lawrence outside the Walls, Holy Cross Church, and the Church of the Catacombs of Saint Sebastian.

Byzantine manuscripts were illuminated with striking icons of Christ in his manifestation as the *Deesis*. Icons of the Virgin Mary as the Theotokos ("God bearer") seated on a throne with the infant Jesus on her lap, as well as images of the saints and patriarchs, were also widespread.

Byzantine enamels, ivory carvings, and luxurious silks were used in ecclesiastical and secular life. Exquisite icons, devotional panels painted portraying Christ, the Virgin, and saints, were venerated in Eastern Orthodox churches. Icons also were incorporated into an iconostasis, a partitioning screen with many tiers of icons separating the sanctuary from the main section of an Eastern Orthodox church.

Byzantine *enamels* were particularly glorious. Enamelry was a vitreous porcelain or ceramic glaze applied to a metal or pottery surface for decoration, then fused in a furnace or kiln. Cloisonné and champlevé enamelry techniques yielded a smooth, lustrous, durable jewellike finish.

CAROLINGIAN

The eighth- through ninth-century art, architecture, and culture of the court of Charlemagne

was characterized by a renaissance of classical learning inspired by Alcuin of York and Theodulf the Goth and pursued by Walafard Strabo and Einhard. Carolingian churches were mostly Byzantine and Romanesque in influence yet had new importance lavished on the vast, multistoried westworks, as the octagonal-domed Palatine Chapel at Aachen, and the churches at Saint Denis, Corbie, and Reichenau illustrate.

Monastic centers created spectacular liturgical manuscripts, written in the novel Carolingian minuscule style, such as the *Gospel Book* by the eighth-century Godescalc. At Tours, Metz, Saint Denis, and Rheims, monks labored at making not only exquisite books but magnificently carved ivory book covers. Superb examples of Carolingian excellence are the lively *Utrecht Psalter* and the portable *Altar of Arnulf*.

NORMAN

Norsemen who invaded Normandy in the 10th century adopted Christianity and thereafter substituted adventure and commerce for their earlier pleasures in piracy and created powerful Norman art and architecture. The Normans conquered England in the year 1066, transforming William the Conqueror, duke of Normandy, into William I, king of England. His court customs, churches, and Anglo-Norman language would supersede the Anglo-Saxon. While Norman architecture was Romanesque in influence, the Normans in England introduced massive proportions, the rounded arch, sparsely adorned stonework, and cruciform churches with monumental square towers at the crossing between naves and transepts.

The interiors of Norman churches had blind arcades, which were arches supporting a wall or roof or the covered passageway between a row or two rows of arches and a wall. The Normans delighted in *grotesquerie* in sculptural adornment such as the Cathedrals of Winchester and Peterborough; the ruined French Abbey of Jumièges; Rouen; and numerous buildings in Apulia and Sicily.

The Normans employed art to preserve for posterity the memory of their extraordinary victories. The crucial Battle of Hastings was portrayed in the novel format of the embroidered Bayeux Tapestry. This long linen-and-wool embroidery, approximately 231 feet long by 20 inches high, was made in the 11th century by noblewomen. The tapestry was probably commissioned on the orders of Bishop Odo of Bayeux (d. 1097), who was the half brother of William of Normandy. It depicts William's conquest of England in amazingly detailed, poignant pictures. Depictions of the techniques of warfare, armor, feasting, ceremonies of triumph, and agony of defeat have survived the centuries thanks to the needlework of the nuns of Saint Augustine's monastery in Canterbury who embroidered this magnificent work of art.

HISPANO-MORESQUE

Hispano-Moresque designates the art and architecture of Islamic Spain especially during the 12th century, brilliantly uniting Christian, Arabic, and Jewish influences. These same cultures melded also in literature, music, astronomy, medicine, weaponry, winery, architecture, and commercial crafts, a constant give and take among the dominant three monotheistic religious traditional styles.

From silk making and weaving centers such as Almería, Málaga, Seville, Granada, and Zaragoza, lustrous fabrics were exported worldwide decorated with *arabesques*, gracefully flowing line decorations elaborately, fancifully entwining leaves, flowers, and geometric shapes. Fabrics, architectural ornaments, decorations on metalware, vellum, and parchment had inscriptions with either genuine Arabic texts and quotations from the Quran or the Hadith, the sayings of the prophet Mohammed, or Kufic border inscriptions that imitated true Arabic writing.

Magnificent Hispano-Moresque pottery platters, display plaques, and bowls were painted and glazed with iridescent jewellike colors, utilizing a thin metallic glaze called luster. Lusterware probably originated in Persia but achieved special glory in Spain. Málaga, Paterna, and Valencia were major centers for lusterware *albarellos* (from Arabic *al-barani*, "bamboo"), cylindrical drug jars used for compound medications, elixirs, and herbal medicaments. The concave-waisted jar with a sloped shoulder and narrow-lipped mouth was covered with parchment tied with string or sealed with wax and a label was affixed to the parchment or baked under the jar's glaze.

Chargers also were manufactured in profusion. These large serving platters for actual food service also were important as items of ostentatious display. Chargers also were fabricated out of gold, silver, copper, pewter, ceramics, and *dinanderie*, the sturdy metal alloy from Dinant in Belgium.

Acrobats and grotesques intertwine in a historiated initial W. From the *Illuminated Alphabet*, ed. Theodore Menten, Dover Publications, Inc., New York.

Manuscripts

Manuscripts were hand-written books on *parchment*, *vellum*, or paper. Parchment was sheepskin or goatskin specifically prepared for writing and painting. Good-quality parchment originated at Pergamum in Asia Minor. A superior more elegant variety was vellum prepared from the skins of young animals, calves, lambs, or kid, and the hides specially soaked, scraped, stretched, cut, and cured for manuscript writing. Vellum sometimes was the term used to describe any parchment for creation of a manuscript. Some manuscripts were written on chamois-surfaced vellum, an especially fine grade of parchment cured from skins of very young animals. A single copy of a midsized Bible of 500 leaves required the skins of 250 animals.

Illumination was the art of decorating manuscripts with *miniatures*, elaborate initial letters, and capital letters called *historiated initials*, serving a narrative or pedagogic purpose rather than merely an attractive ornament. Historiated initials often began important paragraphs or sentences in major liturgical manuscripts such as *antiphonals*, *psalters*, and *books of hours*.

The term *miniature* does not refer to painting size; an artist who painted miniatures (Latin *miniare*, "to color with *minium*," red lead) used liquid red lead plus *cinnabar* (a red crystalline form of mercuric oxide) pigments and other colors for paint for decorating both liturgical and secular manuscripts. Lustrous colors were laid on *gesso*, which was a white thick chalk, gypsum, or plaster bound with glue or gelatin. It was a nonporous undercoating for painting. *Gesso* also was used on wood panels. Bound with *glair*, frothed beaten egg white binding paint or reactive pigments for coloring manuscripts, it also was used for applying gold leaf.

To prevent putrefaction and obnoxious odor, inevitable problems of old eggs, red sulfide of arsenic called *realgar* was added to the glair container, sometimes just half an eggshell covered with the other half eggshell. Miniatures also were painted on ivory, metal, and wood.

Some manuscripts were painted in watercolor but most, especially Gothic manuscripts, were decorated in brilliant *tempera* colors along with burnished gold and silver. Tempera was the painting technique created by emulsifying finely ground pigment in egg white and water making glair, or in fig sap or in thin glue, called *distemper*. Oil painting became popular in the 15th century, but before its invention tempera was the favored panel and manuscript medium because of its clear pure colors and its water-resistant, durable, polished surface. When used on the wood panels of an altarpiece, tempera was applied atop gesso underpainting. When used for painting murals, it was known as dry fresco, *fresco secco*, to distinguish it from true fresco, *buon fresco*, applied on damp walls.

Marginalia were decorations surrounding the text on pages of manuscripts and early printed books. These elegant borders often consisted of depictions of plants, animals, grotesques, and arabesques painted in watercolor, brilliant tempera colors, and burnished gold and silver. Embellished margins could be colored or monochrome, painted or line-drawn, secular or religious, fantastic or realistic, very moral or very obscene. Originally anything marked in margins, such as comments, corrections, glosses, or subheadings, was classed marginalia. Gothic manuscript marginalia had copious grotesqueries, decorative painting representing unnatural, fantastic, and extravagant combinations of human and animal forms, ludicrous, comic, scatological, absurd, ingenious, or charming. Arabesques were the graceful, flowing line decorations inspired by Moorish, Muslim, or Arabic art forms, elaborately and fancifully entwining leaves, flowers, and geometric shapes, and excluding human and animal figures in earlier works, but extravagantly using them later on.

INSULAR STYLE AND HIBERNO-SAXON

In the seventh, eighth, and ninth centuries in Ireland, Scotland, and England, a distinctive artistic style of manuscript illumination united animals, geometry, and brilliant whimsy. Insular style was characterized by *interlacing*, the Celtic artistic technique of gracefully intertwining animal shapes, alphabet letters, leaves, and fanciful figures in elegant geometric designs, important in Celtic and other insular manuscripts such as the *Books of Kells, Durrow*, and *Armagh*, and the *Lindisfarne Gospels*. Written ordinarily in a distinctive Irish script, the insular calligraphy used both *majuscule*, the large letters suitable for group reading, and *minuscule* letters, particularly important in very

Animal grotesquerie forms an initial letter S. From Jean Fevrier, Paris, 15th century. Courtesy of Galeria Medievalia, Tenafly, New Jersey.
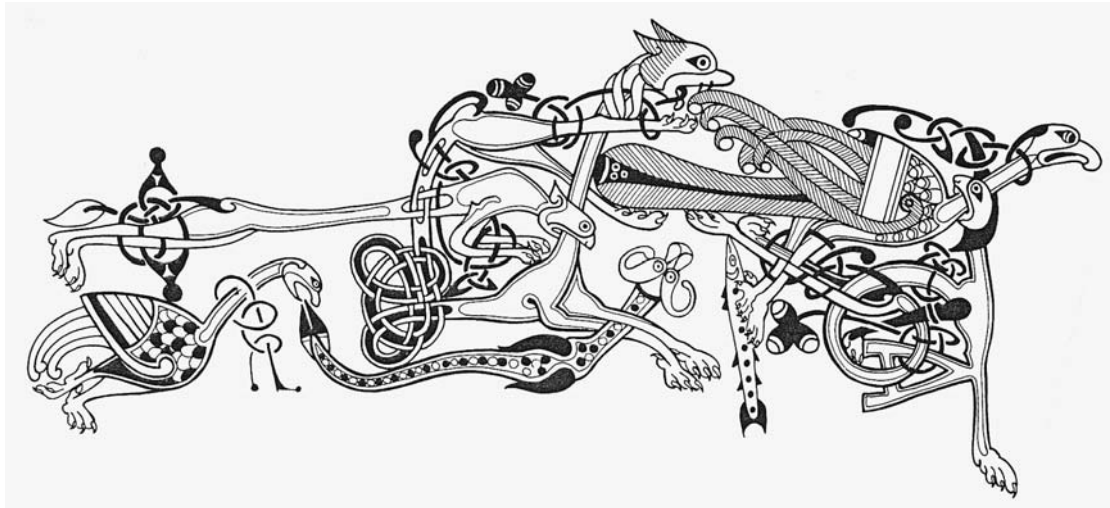
An interlaced ITA *is formed of mammals, birds, fish, and flowers.* From the manuscript *Book of Kells*, Trinity College, Dublin, Ireland, c. 9th century.

small manuscripts such as *pocket books* and certain *books of hours* as the particularly lovely *Book of Mulling* and *Book of Armagh*.

Since the purpose of most manuscript books was to transmit information, it is surprising to find pages without text. *Carpet pages* were spectacularly decorated textless manuscript pages completely covered with intricate Celtic designs, usually symmetrical, including animal interlace. Full-length symbols of the four evangelists, Matthew, iconographically represented as a man; Mark, either a man or a lion; Luke, a man or an ox; John, a man or an eagle, were another distinctive feature of Hiberno-Saxon manuscripts. In Hiberno-Saxon art, customarily the evangelists were represented as men; in later art, usually by their beast symbols.

BYZANTINE

Byzantine manuscript illumination emphasized Jesus Christ as *Pantocrator*, from the Greek meaning "all mighty." Christ was portrayed as the creator of the universe, dignified, solemn,

his right hand raised in blessing, his left hand holding the gospels or an orb representing the created universe. Particularly important Byzantine manuscripts were the *Homilies of Gregory Nazianzus*, the *Paris Psalter*, and the *Joshua Rotulus*. A *rotulus* was a long roll book on parchment or vellum, a scroll around one wooden cylinder or between two with attached handles. In Jewish tradition such a scroll was the form of the *Torah* and the *megillah*. The staves for rolling from section to section of the scroll usually were surmounted by *rimmonim*, the decorative pomegranate-like jeweled and belled pinnacles. In Christian art the rotulus was associated with Old Testament prophets and scholars.

CALLIGRAPHY STYLES

Calligraphy was the art of writing. Styles of letters, connectors, use of capital letters, punctuation, and abbreviations varied according to country and century. In the Middle Ages calligraphy was promoted and practiced by monks concerned mainly with the task of copying the

Bible and other religious texts. In the third to eighth centuries, the *uncial majuscule script* predominated among scribes writing in Latin and Greek. It was characterized by capital (majuscule) letters formed in broad single strokes, which were more suited for the parchment or vellum surface upon which scribes wrote. In the later period from the sixth century onward the uncial style became more ornate with flourishes added to "ascender" and "descender" letters. Scribes used the *half-uncial* or *semiuncial* script to copy non-Christian and secular legal texts. Its characteristic features included the completely vertical (as opposed to curved) stems of the letters *b* and *d*, the flat top and backward curved descender of the letter *g*, and the curved shaft of the letter *t*.

Uncial calligraphy exhibited a number of regional variations. The Insular uncial style of the British Isles differs from other styles in its use of accent marks to indicate syllabic stress. Italian uncial round letters (*e, c, o*) are easily distinguished by their flattened tops. Merovingian French uncial descenders (*p, g, y,* etc.) are particularly thin and often surrounded by bird, fish, or tree decorative motifs.

During the reign of Charlemagne (eighth and ninth centuries) calligraphy was largely standardized by the development of the *Carolingian minuscule* script, which combined elements of the half-uncial and Insular uncial styles. Most obviously the Carolingian minuscule was noted for the use of minuscule as opposed to solely majuscule letters, as well as for their clarity and roundness. Another important innovation was the introduction of spaces between words, and punctuation, including the question mark, which increased legibility. By the 10th century manuscripts using the Carolingian minuscule were produced throughout western Europe except in Spain, where the *Visigothic hand* prevailed.

The *Visigothic script*, also known as the *littera toletana* or *littera mozarabica*, flourished between the seventh and 13th centuries in the Iberian Peninsula and parts of southern France. Some of its main features were an open top *a* that resembled a *u* and two forms of the letter *d*, one with a straight ascender and the other curved. The *Visigothic cursive* form was used for charters and nonreligious texts.

Beginning in the 12th century the Carolingian minuscule gave way to the *Gothic*, or *black-letter*, *script*, which remained the standard throughout western Europe until 1500. The Gothic script evolved with the rise of European university culture and the explosive demand for books on philosophy, the sciences, and other secular topics. The Carolingian minuscule script was laborious to produce and its large wide letters occupied precious parchment space. In its most common form, called *Gothic textualis*, the letters were generally much taller and narrower than the Carolingian script, allowing for maximal use of space but limiting legibility. The complete verticality of ascenders (*b, d, h,* etc.) ending in a sharp stroke ("finial"), the use of the "half *r*" (the right half of a Roman capital *R*) when preceded by a *o*, and the lack of connectors between *minims* (letters formed from a short vertical stroke, i.e., *i, n, m,* and *u*) were other defining features. Generally the Gothic script that was used in Germany, France, and other regions of western Europe was angular in appearance, with the notable exception of that in Italy, where the letters acquired a rounder "rotunda" form.

An *antiphonal* was a book, often with illuminations, containing musical *antiphons*, which were short scriptural texts sung during religious services in which an alternating pair of choruses sang each word in a simple syllabic style, presenting successive verses of a *psalm* or *canticle*. These were performed outside the customary *mass*. The complex musical and textual glories of the *mass* are discussed in chapter 10, Music and Dance. On or near a church *altar* was an *altar book*, a manuscript for group litur-

A racking crook lifts a heavy cauldron for preparation of ceremonial meats. From a 12th-century manuscript of the Old Testament. Courtesy of the Pierpont Morgan Library, New York.

gical reading as well as sumptuous display. The altar book was usually written in the large letters of majuscule script, as were *hymnals or antiphonals*, also called *antiphonaries*.

A *psalter* was a psalm book. A psalm was a sacred song or hymn sung in private devotion during the eight *canonical hours*, or in public prayer, usually taken from one of the Old Testament Psalms of David. An adaptation of Jewish liturgical practice, the Christian psalter employed typological interpretation and paired the Old Testament prayer verses with their New Testament counterpart. Customarily it also had a *computus calendar*, which reconciled lunar and solar cycles to list fixed holidays such as Christmas and movable feasts such as Easter. Depictions of the *Twelve Labors of the Months* were common, as were illustrations of Old Testament stories, especially those that prefigured New Testament episodes. Used as a practical prayer book, not a library reference work, a *psalter* was less comprehensive than a *breviary*, a daily devotional book containing psalms, hymns, and prayers, often with illuminations and ornaments, essentially for use by the clergy. Corresponding to the cleric's *breviary* was the layman's book of hours.

A book of hours was a popular prayer book containing specific prayers for the eight *horae*, or canonical hours, the prayer periods into which the 24-hour day was separated. Appearing in the 13th century, the book of hours reflected the heightened spirituality of ordinary lay people, who sought to imitate the devotional practices of monks. Some books of hours were tiny volumes called *pocket books*, written for personal study and easy transport. Others, such as the 15th-century Gothic *Les Très Riches Heures du Duc de Berry* (The very rich hours of [Jean] the duke of Berry), were sumptuous collections of paintings whose magnificence augmented the psalms, prayers, hymns, and readings of the divine office with which they were bound. Because of their inspirational and inspired

painting, books of hours have been called painted prayers. Books of hours generally followed a singular structure beginning with a calendar of all the feast days and extracts from each of the four Gospels, which would be followed by special groups of prayers classified as the hours of the Virgin, the hours of the cross, the hours of the Holy Spirit, the office of the dead, the seven penitential psalms, and litanies and prayers to Mary and special saints. Ornamented with holy and secular illuminations, often including paintings of the *Twelve Labors of the Months*, astrological, and astronomical decorations, the book of hours for noble patrons provided the manuscript illuminators opportunity for personal compliments and practical jokes in the miniatures as well as in the bottoms of the pages, called the *bas de pages*.

PAPER, VELLUM, AND PARCHMENT TECHNIQUES AND WORKS

The earliest medieval books were manuscripts written on parchment or vellum. *Paper* replaced parchment and vellum as the primary material for European manuscripts in the late 14th century, and then for printing in the 15th century. The Chinese invented the paper craft earlier than the Han dynasty in the second century. Paper of China's great Ts'ai Lun was made of tree bark, hemp, rocks, and fishnet. The Arabs monopolized the process from the eighth through the 12th century. A popular Arabic paper called *charta bombycina* was manufactured from rags and important in the cities of Baghdad and Damascus.

Printing was invented in the 15th century. Gutenberg created movable type in Germany, and William Caxton (d. 1481), the first English printer, journeyed to Cologne to learn the printing business, which he then established in Bruges before moving to London, where he operated a printing press with his colleague Colard Mansion in a shop in the close of Westminster Abbey.

Caxton and other early printers determined taste and indirectly affected morality by choice of what to publish and when. By the power of Caxton's free, discursive, idiosyncratic translations, he determined how individual works were to be understood. In a mere 15 years, Caxton translated, printed, and disseminated more than 100 separate editions of books, an awesome output considering the laborious hand-set types and the single-folio press pulls.

One of Caxton's workers, assistants, or apprentices, Wynkyn de Worde of Alsace, operated the press after Caxton's death in 1491. Caxton printed the Bible and immediately thereafter the works of the prolific Italian "feminist" writer Christine de Pizan (d. 1430). The earliest printed books are referred to as *incunabula* or *incunables* (Latin, "cradle" or "swaddling"), meaning "made in the infancy of printing." The earliest form of the printed books and pamphlets were printed with movable type using the Gothic script, before the year 1501. In this incunabula period, between 10 million and 20 million volumes were printed on paper, vellum, and parchment. Manuscript illumination techniques often were added to the printed page, especially hand painting within printed black outlines, resembling sophisticated modern coloring books.

Arts and Crafts

WOODWORK

Medieval saws, lathes, files, augers, awls, and other devices for cutting, shaping, laminating, and refining wood were impressive tools of master carpenters and wood craftsmen and craftswomen who produced works of durable, practical elegance. A simple, stylish method for presenting wood in floors, on walls, in furniture, and on various works of art was *diapering*. A two-dimensional pattern consisted of square, rectangular, or lozenge shapes in a regular alternating configuration, often used for flooring or depictions of floors and for backgrounds. Fabric diapering was created by a weave of threads whose various reflections of light from the surface caused lines to cross, diamondwise, the spaces filled by leaves or dots.

Gadrooning was the creation of a decorative edge or border consisting of a row of multiple convex curves. Often used to embellish rounded moldings, gadrooning also was worked in metal from the back of the object by the process of *repoussé*. Virtually the opposite of gadrooning was *fluting*, the channeling, furrowing, grooving, and *chamfering* in decorative semicircular grooves or cuts in wood (or stone) that imitated the appearance of fabric folds. Fluting was especially important in the 15th-century *linen fold* carvings on furniture and interior and exterior doors. The wood was carved, raised, and ornamented to resemble the folds in linen. Fluting designs were particularly popular on wall paneling, chests, doors, and furniture in 15th-century Flanders, England, and France.

Among bravura woodworking was *inlay*, the design created on a surface by precisely inserting into shallow depressions thin pieces of wood, metal, tile, stone, shell, or ivory. The whole piece then was sanded and polished flat. Spectacular inlay methods were *marquetry*, *mosaic*, and *intarsia*. Marquetry utilized pieces of colored wood or ivory fitted and glued into a veneer, a larger thin sheet of background wood. The new marquetry panel then was applied to the surface awaiting decoration, such as a piece of furniture, coffer, or paneled wall or door surface. Marquetry differed from *inlay* in that wood pieces were inserted into a veneer, rather than the bed medium. Likewise, marquetry differed from intarsia, which was the decorative technique of inlaying small pieces of wood veneer, usually in contrasting color, grains, and textures, into a wood surface. Intarsia depicted deep perspective in elaborate town scenes,

depictions of musical instruments, and streets and roads that appeared to be "in the distance" on wall paneling, furniture, coffers, and chests.

Certosine was a type of inlay in which bone or ivory was placed on a dark wood background, usually in the shapes of small stars, triangles, crescents, or geometric patterns.

Perspective was the important medieval discovery of a technique for representing three-dimensional scenes on two-dimensional surfaces so that the structures and the figures intimated depth and a natural spatial order. By geometric plan and manipulation of light and shadow, pieces of wood were placed in order for the figures and objects depicted to appear to a spectator from a fixed point above, below, in front, or behind to achieve the illusion of distance, shape, proportion, and position.

Experiments in *anamorphosis* attempted variations in perspective critically important not only in woodworking but in all art, such as aerial perspective, isometrical, linear, parallel, and visual perspective. Anamorphosis was the art game derived from scientific experiments in perspective, perception, and illusion by 15th-century artists and architects concerned with optics, the science of light and vision. Particularly in Renaissance Florence, such artists as Leon Batista (Leonbatista) Alberti (d. 1472), Leonardo da Vinci (d. 1519), and Hans Holbein of Germany (d. 1543) created anamorphic distortions that would appear grotesque or incomprehensible from one point of view. Yet from another, they were perfect in both perspective and proportion. The viewer's position, above, below, obliquely left or right, or by means of special viewing devices such as cylinders, cones, or *perspective cabinets*, determined appreciation of the intarsia wood panel or the miniature, mural, or woodcut.

Certain creations were designed simply for recreation, surprise, and delight. Others were primarily for symbolism. One perspective's bauble, a fool's amusing attribute, was another perspective's death head. Decorum permitted anamorphic disguise of sexual scenes behind bland contexts.

A *woodcut* was a graphic printing technique wherein a design, inscription, or scene was carved into a block of seasoned hardwood. Then the block was inked and pressed to transfer the design onto paper, producing playing cards, book decorations, or individual prints. A *xyloglyph* was a letter engraving on wood either to ornament the wood itself or to transfer as a woodcut. A *chamfer* was a type of ornamental decoration utilizing channeling, fluting, furrowing, and grooving.

From pocket-size devotional objects to monumental church altarpieces, a common style was the *triptych* made of painted wood, carved ivory, or embossed metal. Three panels hinged together were arranged and attached so that the two outer wing panels, each the same height as but half the width of the central panel, could fold toward each other to cover the central panel. Usually they depicted Christian holy scenes on all six sides of the three panels. Often the inner sides of the wing panels included *donor portraits* or *votive paintings*. The donor portrait was a depiction of the patron paying the artist, or the patron and his family portrayed on one side piously praying or enthusiastically adoring the religious personages depicted on the other panel or panels.

METALWORK

The incising procedures of *intaglio* included *engraving* and *etching*. Engraving was the graphic art incising the design onto a metal plate with a graver or burin for surface ornamentation or for transfer of the design to a print on paper. Etching was the graphic process as well as armor ornamentation technique utilizing chemical corroding of a surface design on a metal plate. The corrosive *mordant* bit through a thin coating of acid-resistant etching

ground upon which the drawing was made with a steel *etching needle*. *Embossing* was the decorative raising of a design into *bas reliefs* by thrusting it forward or hammering it from behind as in *repoussé*. When working from the back of a metal surface with either hand tools or a pair of matched dies, the relief dye would strike from beneath onto the intaglio dye on the obverse.

Metal sculpture designs were created in bas relief (French, "low relief"), a type of carving, embossing, or sculpture slightly raised from a flat or curved surface as its base. It yielded three dimensions but not "in the round," as in *high relief*, where the carved or molded sculpture was raised or carved to create three genuine dimensions visible at least half "in the round." The technique embellished architectural elements such as a frieze, battlement, or finial and adorned useful objects such as *coffers*. Coffers were small boxes or caskets used for home storage of jewels, precious documents, and papers or employed as a traveling case or security box for the business day's profits. Secular boxes were often elaborately decorated with painting, impressing, tooling, or appliqué and depicted scenes of courtly love and literary romance. Love treasure boxes, called in German *Minnekastchen*, were used either to convey or to preserve love gifts.

Full sculptures totally 360 degrees "in the round" that either could be held in the hand or carried around were created in bronze by the *cire perdue*, or "lost wax" process. This procedure for metal casting started with a wax sculpture covered with clay to form a negative mold. Another structurally supportive material such as plaster of paris or a matrix mix comparable to concrete then surrounded the negative mold. Molten metal such as bronze or a less expensive alloy was poured into the mold to melt away the wax, yielding in a final positive metal cast. Thereafter it was chiseled, polished, and chased, and the imperfections and seams left by the casting molds were removed. *Chasing* was

the finishing procedure that refined the form and in part established the surface texture and color. Such a metal *patina* was the medium's decorative and protective surface film, color, or texture, such as oxidized copper's weathered green copper carbonate. Other ways of achieving a patina on sculpture were to apply lacquer, polish, or varnish to the surface to retard corrosion, protect the surface, or create a particular artistic effect. Chasing also was a decorative technique for metal designs by incising them on the metal surface by punches, not by the removal of metal.

A small, preliminary sculptural sketch from which a larger metal, marble, or other sculpture was created was called a *maquette*, customarily created in some impermanent material such as wax or clay, also called a *bozetto*.

Embossing and repoussé combined hammering part of the design from the back of the surface with punching the other part in from the front. Repoussé was common in Gothic reliquaries and other elegant metalworking, embellishing metal by embossing, hammering, or pushing a design into relief from the reverse of the sheet or object, thereby making it appear as a raised surface design. *Beading* was a type of embellishment similar to *granulation* in which small spheroid, beadlike protuberances covered or edged the surface, making it resemble a flat plane uniformly covered with bubbles. Granulation used small grains or balls of silver, gold, or other metal in rows or at particular points within *filigree*, or open work design. Filigree was delicate, finely interlaced threads of silver, gold, or precious metal wire. Granulation's tiny metal balls or grains provided reinforcement and strength as well as adornment.

Mosan enamels were vigorous, expressive *champ-levé* (French, "elevated field" [champlevé]). In this enameling technique a design hollowed out of the background metal was filled in with colored glass pastes, then smoothed, fired, and polished to create a surface flush with

the metal. Exquisite jewels, boxes, and coffers called *chasses*, from the Maas region during the 12th and 13th centuries, used the champlevé technique or, alternatively, cloisonné, the enamelry technique in which thin wires were twisted and soldered onto the metal surface to create small cells later filled with a colored vitreous paste. The jewel was then fired, smoothed, and polished, yielding an exquisite luminous work for either secular love coffers and jewel boxes or liturgical items such as the *chasse, ciborium*, and *pyx* (described later).

Niello was an ornamental jewelry technique in which a black compound of sulfur or alloy of silver, copper, or lead was brushed into a design that had been incised on metal, then fired and polished to a beautiful luster. *Ormolu* (French *d'or moulu*, "ground gold") was gilding for brass, bronze, or base metal objects or ornaments, prepared from ground gold or from gold leaf, beaten gold obtained by a process called *cutching*, then applied in thin sheets to jewelry, reliquaries, as well as indoor architectural ornaments, ceilings, doors, furniture, and wooden coffers and chests.

Dinanderie was the extremely popular metal alloy, sturdy and durable, bronze in color, worked in Dinant, Belgium, for making kitchen and banquet utensils as well as ceremonial vessels and occasional sculpture. Dinanderie items were exported throughout the trade routes. Many an ordinary plate, pitcher, or pot from a court, castle, or cottage kitchen now proudly represents the type on the display shelves of the world's museums.

CERAMICS

Clay objects hardened by fire included earthenware, stoneware, and porcelain, whose sturdiness and texture were dependent upon the degree of firing heat. In England and Holland the name of the Netherlandish town of Delft was famous for its tin-glazed earthenware. In Spain and Italy it was called *majolica* because its *lusterware*, particularly from Valencia, Spain, usually was transported by ships registered in Mallorca. Tin glazing in France customarily was called *faience*, originally manufactured in Faenza, Italy, important for table and banquet gear and decorative ostentatious objects both secular and liturgical.

In the Rhineland from the 14th through the 16th century earthenware was manufactured in profusion at Cologne, Raeren nearby Aachen, and Siegburg. Particularly popular were the *bellarmines*, which were large glazed jugs with a fat belly and narrow neck, usually in a stippled brown or drab green color and ornamented with a small barrow leaf or incised face. Originally it was an unfriendly burlesque on Cardinal Bellarmine (d. 1621), an opponent of the Dutch Protestant party. Another Rhenish pottery was *tigerware*, a 16th-century salt-glazed stoneware speckled with brown and yellow spots resembling tiger skin, used for both pitchers and tableware. *Schnelles*, from the German meaning "quickly," was a tall beer, ale, or wine tankard designed for speedy quaffing. A *schnabelkannen* was a long spouted jug for pouring wine and ales also manufactured by Rhenish potteries.

Talavera was one of the numerous regional variations of tin-glazed earthenware exported from Castilian Spain in the 15th and 16th centuries, although the ceramic techniques had been introduced centuries before by the Arabs. Castilian earthenware was particularly important for ewers, plates, jars, basins, and tiles, usually decorated with acanthus leaf motifs and *strapwork*, an ornament of narrow bands folded, crossed, or interlaced in a repeated pattern. Grotesquerie was the additional decorative painting of fantastical, extravagant unities of human and animal forms, hilariously funny, lewdly sexual, customarily ingenious and charming. Primary colors for Talavera pottery were yellow, blue, orange, and olive green on a white ground.

Magnificent *Limoges* enamel usually was applied for dinnerware onto a copper base totally surrounded front and back by the masterly 12th- through 14th-century French champlevé art. Following the inspiration of the Mosan enamel painters, later 15th- and 16th-century enamel- ers created spectacular dinner table art. Typical was the service made in 1568 for Monsieur Mesmes, head of the Parliament of Paris, in which scenes from the legend of Jason and the Golden Fleece were depicted in series on des- sert plate rondeles. After the guests ate the delectable food, each then participated in the evening's entertainment by singing, chanting, declaiming, or otherwise telling that part of the tale represented on his plate. A sure culinary culture test for social authenticity and ferreting out of spies, the feaster not appropriately edu- cated or misrepresenting his background was easily caught by this dessert-time amusement.

Persian *lusterware* was decorated with a thin metallic glaze producing an especially rich and unusually iridescent pottery surface. Likewise the Hispano-Moresque lusterware was widely exported and imitated.

Wriggle work was the amusing title for mean- dering, sinuous decorative designs executed on pottery glazes as well for architectural orna- mentation on wood or stone or in fabric by stitching, embroidering, braiding, or cutting fabric as in the procedure called *dagging*, the ornamental edgings of cuffs on garments in which the borders were shaped as leafs, tongues, or scallops. An *imbricated pattern* was a decora- tive ornament in which leaves or scales over- lapped, creating the illusion of depth.

A gold decoration or painting sandwiched between two pieces of glass was the technique called *Zwischengoldglas*. Sometimes a glass ves- sel whose exterior was decorated with gold then was encased in a sheath of glass. Comparable was the *verre églomisé* technique for decorating glass in which the back of a piece of a glass was painted, gilded, or engraved, and then another sheet of glass, a sturdy coat of varnish, or a layer of metal foil was added to sandwich and protect the painting. The multiple layers sug- gested depth and the illusion of the viewer able to enter the depicted scene.

PAINTING IN THE CHRISTIAN WEST

The 12th-century introduction of stained glass windows stimulated the evolution of a distinc- tive style of painting in the Christian West, which was essentially symbolic and allegorical in spirit. Allegorical painting was nurtured fore- most by the traditional idea that the persons and events of the New Testament were prefig- ured in the Old Testament. In the Gothic period painting, as well as sculpture, exhibited a more naturalistic aesthetic. The larger wooden surfaces of the 14th-century retables (the orna- mental panel behind the altar) allowed painters to embellish the familiar themes of Christ's Passion and the Virgin Mary with background scenes of nature, hunting, and chivalric scenes. Motifs from bestiaries with their fantastical ani- mals also appeared in late Gothic paintings.

In late 13th- and 14th-century Italy the "sweet new style" (*dolce stil novo*), which revolutionized Italian poetry, showed a parallel development in Italian painting. The dogmatic purpose that infused the Byzantine frescoes gave way to a new impulse to represent as vividly and realistically as possible every aspect of the life and suffering of Christ, the Virgin, and the saints. The work of Giotto da Bondone (d. 1337) exemplifies this new trend and is considered a precursor of Ital- ian Renaissance painting. He was one of the first painters to experiment with introducing alge- braic perspective in his work. His paintings of the Passion of Christ, the Virgin, and Saint Fran- cis bear some of the hallmarks of Byzantine fres- coes and Gothic painting, combined with an extraordinary gift for depicting human emotion that would characterize Renaissance art. Francis- can and Dominican spirituality, which empha-

sized Christ's humanity and Marian devotion and encouraged affective responses to their suffering, probably inspired the painting of Giotti and his successors.

Mention must also be made of Tommaso Masaccio (d. 1428), the early Renaissance fresco painter. Although indebted to Giotto, whose art he studied, Masaccio goes further than Giotto in breaking away from the Gothic style and succeeded in applying scientific perspective in his painting, imbuing his work with an even greater realism. His human figures and clothing display the realism of ancient Greek and Roman sculpture, from which he drew inspiration.

The name of Jan van Eyck (d. 1441) stands out among late Gothic–early Renaissance Flemish painting, noted for taking naturalism to new heights not only in the development of oil painting—with which the name Van Eyck is associated—but also in graphically realistic depiction of "vulgar" lower-class and middle-class people. His painting exhibits an amazing attention to detail and a pronounced symbolism produced through the strategic use of light. His perfection of the techniques of oil painting enabled him to reproduce natural light and to create a translucence, brilliance, and intensity of light impossible to achieve with the tempura paint used in frescoes. In the illuminated objects in his paintings light symbolizes the divine. His oeuvre includes paintings of religious themes, such as the last judgment or Saint Francis receiving the stigmata, as well as portraits.

Italian artists also depicted moralistic themes, such as frescoes of *Good and Evil Government* at Siena by the Lorenzetti (c. 1340), and the allegories of the Franciscan virtues in the Lower Church of Saint Francis Assisi. The preponderance of paintings of death and the Last Judgment bears the marked influence of mendicant preaching; for the mendicants faith had to be visualized in order to be felt. To the existing pathos of the depictions of Christ was added the incorporation of more human gestures and the representation of emotion and tenderness in the faces of those depicted. Allegorical symbolism and didacticism of the teachings of Christ, the parables, and the sacrament give way to the drama of Calvary and the suffering and agony of its protagonists. The onus was on celebrating Christ's suffering. Regal, hieratic images of the enthroned Virgin receded in favor of paintings illustrating Mary's sweetness, beauty, and tenderness.

CENNINO CENNINI'S ART TECHNOLOGY

Craftsmen taught craftsmen techniques for using metals and chemicals for creating marvelous, lustrous colors and exquisite, durable designs on paintings and frescoes. One craftsman's handbook was the splendid 15th-century Florentine *Il Libro dell'arte* by the Florentine painter Cennino d'Andrea Cennini (c. 1370–1440). Cennini, who was deeply influenced by Giotto, described how to gild stone, create mosaics with crushed eggshell, paint luminous saints' halos, create velvetlike drapery, paint beards of elderly men on frescoes, and make goat glue. He gave precise instructions on how to paint a dead man, wounds, water, smiles, fabrics, brocades, jewels, and shadows of light realistically. He also taught how to create lifelike metal sculptures by making a plaster of paris life cast of a human being, starting with the head, providing two brass or silver breathing tubes so the live model would not smother while temporarily encased in plaster.

Cennino Cennini encouraged artists to enter the art world inspired with a loftiness of spirit, not mere desire for profit. Those starting in poverty and domestic need but without passion for the profession surely would fail, whereas the best, most successful artists and craftsmen worked with enthusiasm and exaltation.

RELIGIOUS ART

Spectacular medieval works of art were connected directly or indirectly to the requirements of Christian *liturgy*, the public religious service of a church or cathedral. Even before one reached the glorious objects themselves, those used on the altar or within the church or public procession, the color scheme of the church was vivid. Though the correct colors for liturgical items varied according to the season, the century, and the nation, usually altar frontals, vestments worn by priests and clerics, banners, and other fabric decorations in the church were white for Christmas, Easter, and the feasts of Corpus Christi, Maundy Thursday, Ascension, and of virgins and saints who had not been martyred. Red was the primary color for celebrations of Pentecost, Holy Cross Day, the Precious Blood celebration, and martyred saints' days. Everything was decked out in green for the days after Trinity and Epiphany. Purple was the color for Advent and Lent. Blue graced the feasts of Mary. Black was reserved for funerals and requiem masses.

The *altar* was the raised structure for the consecrated table upon which sacrificial offerings were placed and the Christian *Eucharist* celebrated. Generally the bread or wafer representing the body of Christ was held in an elaborate *pyx* or *ciborium*. A pyx was an ornamented container and, like the ciborium, was as magnificent as the wealth of the church, cathedral, or monastery allowed. It was in the form of a lidded chalice surmounted by a cross finial, but oftentimes it was shaped like a box; a crenellated, battlemented tabernacle; or a fortified castle. Sometimes a ciborium took the shape of a wall tabernacle with a lockable door for housing the consecrated *host*. The altar was illuminated usually with an oil lamp or a pricket candlestick that impaled a wax candle on a long upright point surmounting an elaborate metal or wood-carved base.

Just as the wafer or host represented Christ's body, so his blood was drunk from a *chalice* that was a footed drinking cup or goblet with or without a lid. Sometimes it was in the shape of a double cup called a *hanap*. For celebrating the Eucharist, the chalice was almost always used in conjunction with the ciborium.

For sprinkling holy water held in a *situla*, or water jar, the celebrant sprinkling the altar, clergy, and people at the beginning of High Mass used a brushed sprinkler called an *asperge* or *aspergill*. The handles were made of precious metal and jeweled, incised, embossed, and otherwise ornamented. The stopper in the wine flagon or water pitcher was called a *cruet*.

On altar liturgical vessels, oil lamps, even on sarcophagi of the dead, was Jesus Christ's monogram called the *chi-rho* monogram, representing the first two Greek letters *chi* and *rho* in the name *Christ*, or *Christos*. Comparable to the *IHS* and the *alpha and omega*, which were the first and last letters of the Greek alphabet, commonly symbolizing God as life's beginning and life's end, a sign representing the *chi-rho* monogram allegedly appeared in a vision to Emperor Constantine before the Battle of Milvian Bridge on October 28, 312. Legend has it that this vision promising him victory over his enemies was the catalyst of his conversion to Christianity.

Particular oils were important in liturgical acts and in memory of the oil and ointment anointing Christ's body after his crucifixion. *Chrism*, olive oil mixed with balsam, consecrated by a bishop at the blessing of oils on the holiday Maundy Thursday, signified diffusion of divine grace. Chrism was preserved and dispensed in a sacramental vessel called a *chrismatory*. Various consecrated oils for anointing people during *confirmation*, *baptism*, anointing of the sick, *extreme unction* for the dying, or any other significant sacramental events required use of the chrismatory. Usually made of precious metal, some were glass enclosed within an incised, embossed, and jeweled metal setting.

A fascinating object with a carrying handle was the *pax* (Latin, "peace"). Made of silver,

gold, bronze, ivory, or glass, it was a tablet or plaque, round, square, or rectangular, on the front of which was a sacred scene such as the Crucifixion or the taking down of Christ from the cross after the Crucifixion, the *Pietà*. The priest celebrating Mass kissed the *pax* or carried it in a procession and then passed it to other clergy and the congregation for kissing and respectful obeisance. Another word for pax was *osculatory*.

An *ostensory* or *ostensoir* was a transparent holy vessel displaying the host or relics for the worshiper's veneration. Comparable to a pyx or *monstrance*, the partially transparent carrying device was used in processions as well as in certain devotions before the altar. Sometimes in cruciform or crosslike shape, it often was towered and turreted with gold or silver crenellations and elaborately embellished with jewels, enamel, and niello.

Incense in the church enabled the odors of holiness to inspire spiritual thought. A *censer* was the pierced vessel for dispensing the odors of burned incense, often swung from a handheld chain. The aromatic gums and spices produced sweet, hypnotically pleasing odors for religious ceremony. Though ecclesiastical censers were gorgeously decorated, similarly shaped containers without embellishments were used for medical fumigation, the inhalation of narcotic or anesthetic burned substances to dull perception of pain during surgery.

Yet another type of box, case, or shrine for saints' relics was called a *chasse*, some of the most lovely of which were made during the 12th century in France by the techniques of cloisonné or champlevé.

The increased importance attached to preaching to the laity that followed from the Fourth Lateran Council in 1215 and the rise of the mendicant orders in the same century was also manifested in the production of the *pulpit*, the elevated platform where the priest or preacher delivered his sermon. Popular preachers such as Saint Francis attracted enormous crowds that could not be easily accommodated within a church. Simple portable wooden pulpits could also be transported into the public square. In the Gothic period the pulpit became a fixed and conspicuous element of the church, strategically located in the central nave. Usually made of wood, the pulpit usually rested atop a pillar or column. Gothic and Renaissance pulpits were elaborately decorated with didactic and moralistic carvings. Typically images of Jesus, the prophets, or the kings of Israel were located at the upper portion, while at the bottom demons defeated by the church emphasized the message of the church triumphant. The base of the pulpit column and the balustrade staircase by which the preacher ascended the platform were also richly carved with scenes from the Gospels, the church fathers, or the saints' lives.

Numerous decorations within the church commemorated saints and their attributes. In stained glass windows, in frescoes, on murals, and on individual liturgical and ceremonial vessels, various saints were depicted with or without their attributes. The image of a wheel immediately recalled the martyrdom of Saint Katherine of Alexandria. The depiction of a beehive represented Saint Ambrosia; a sea shell, Saint Alexis; a flaming torch, Saint Dorothy; a pair of eyes, Saint Lucia; a pair of breasts, Saint Agatha.

With saints' lives customarily derived from the *Golden Legend* as well as pictorial representations of the life of Christ, various decorations on church and cathedral walls created what were called the poor people's books, the *biblia pauperum*. In paintings, mosaics, frescoes, murals, bas relief sculptures, and other pictorial representations, walls of churches and cathedrals were decorated, edifying and pleasing those who could read and those who could not.

Near the altar was a *lavabo* (Latin *lavare*, "to wash"). The lavabo was a washbasin for cleaning hands or objects and was used especially for

washing the celebrant's hands at the *offertory* portion of the Mass. Likewise a *laver* was used for liturgical hand washing, just as it was in houses for cleanliness and hygiene. An *aquamanile*, used in both sacred and secular context, was a spouted vessel customarily made of bronze, gold, silver, or dinanderie and used as a water pitcher. Often an aquamanile was shaped in the form of an animal, either for allegory or for personal delight. In the church, one finds aquamanile in the form of Mark's winged lion, Luke's winged ox, or John's eagle. In the banquet hall, aquamanile were shaped as a lion, griffin, horse and rider, or woman riding the back of a man, a depiction of Phyllis riding on the back of the humbled philosopher Aristotle.

Wood-carved choir stalls even had art beneath the seats in the *misericords* (from Latin, *misericordia*, "mercy, compassion, pity"). These underside shelves of a movable choir stall seat were humorously or grotesquely carved. The shelf propped up the standing, weary officiant at sacred service. As noted, misericord was also the architectural term naming the room in a monastery where certain rules were relaxed. A dagger used for a merciful *coup de grace* also was called a misericord.

For altar and vestment magnificence, a cloth made with gold thread and wire in 14th-century Lucca was *marramas*, Oriental in origin, European in fabrication. *Cloth of gold* was the technical title for a lustrous fabric woven with gold thread or wire with fine silk or wool. The Field of the Cloth of Gold near Calais was the splendid meeting of the courts of King Francis I and King Henry VIII in 1520. There, 5,804 people were opulently accommodated in hundreds of tents and regaled with feasting, musical and dramatic entertainments, and extravagant golden tapestries.

MEDIEVAL CROSS AND CRUCIFIX

The most striking and characteristic symbol of Christianity was the *cross*, representing the instrument of torture upon which Jesus was crucified at Calvary. A *crucifix* was a cross with a representation of Christ crucified. Portraits of Adam and Eve eating from the tree of life in the Garden of Eden often appeared on or near the cross, or crucifix, patently recalling the redemptive role of Christ's sacrifice. The cross did not bear on it a figure, as did a crucifix, but occasionally had a sacred cipher or the monogram *IHS*, representing the Greek initials for "Jesus Christ, the Savoir." These were also the first three letters of the name *Jesus* in Greek. Furthermore, the initials represent the Greek word for "fish," *ichthus*, a symbol of Christ's sacrifice and his role as fisher of men requiring salvation. Other interpretations are that *IHS* represents *iesus hominum salvator*, "Jesus, the savior of men." *In hoc salus* meant "in this cross is salvation." *In hoc signo* meant "in this sign you will conquer." Another cross inscription was *INRI*, the acronym for "Jesus of Nazareth, king of the Jews." That was the mocking inscription that Pilate fastened to the cross *iesus nazarenus rex iudaeorum* (Jn. 19:19).

Representations of the cross and crucifix changed over the ages. Some differences represented exegetical or sectarian discrepancies, while other modifications responded to theological and spiritual trends. A major distinction lies between the Greek cross, called the *crux commissa*, and the Latin cross, called the *crux immissa*, both of which appeared in the third and fourth centuries. Fifth- and sixth-century crosses were decorated with flowers, palms, or foliage, recalling the biblical motifs of the "tree of life" and the "root of Jesse." The Greek cross, also adopted in the Russian Church, is equilateral, meaning that the traverse beam is set halfway up the vertical beam. In the Latin cross the traverse beam is place two-thirds of the way up the vertical.

Up until the sixth century Christians maintained the tradition of the allegorical representation of the Crucifixion—a holdover from the

earlier era of the Roman persecution of Christianity. Among the most common allegorical representations figured the *agnus Dei*, in which the paschal lamb symbolizes Christ: a lamb lying at the foot of an anchor, a fish, or a dolphin twined around a trident. Symbolical and allegorical representations of the crucifixion began to recede in the sixth century, but a formal end was decreed in 692 at the Quinisext Council of Constantinople, which ordered the end of this practice. Thereafter images of the human Christ appear on the cross, now properly known as the crucifix.

Initial representations of Christ show a clear reluctance to depict the horrors of the crucifixion: Christ's arms are not extended in a gesture of crucifixion, but instead in a position of prayer (*orante*). He appears to be alive, not dead or suffering; is often depicted wearing a long robe or tunic (*colobium*); and wears a royal crown as a sign of his majesty. His head is erect and surrounded by a nimbus, and he is affixed to the cross with four nails, meaning that his legs are not crossed. Theologically this image emphasizes Christ's triumphing over death and presiding in glory.

In the ninth and especially the 10th century, representations of the crucifixion become more realistic. The lengthier colobium was replaced with the shorter garment extending from the waist to the knees (the *perizoma*) and the arms are extended in a crucified posture. Eleventh-century Byzantine and Western Gothic crucifixes introduce elements of pathos, portraying Christ with the head drooping to the chest and bearing the crown of thorns, his face clearly showing signs of agony, and his arms and body bent. In the 13th century two nails for the feet were replaced with one with the legs crossed. These changes from the image of Christ triumphant to Christ suffering reflect the spiritual trend toward inducing an emotional response to the Passion of Christ as a means of heightening faith and devotion. In these later centuries full depictions of the crucifixion also emphasize the gestured suffering of Jesus' mother, Mary, and Mary Magdalene, as compared to the more composed representations of earlier centuries. The profusion of blood flowing from Christ's wounds typified Catholic Counter-Reformation crucifixes in Spain, the Netherlands, and Italy.

CHRISTIAN MOSAICS AND PAINTING

Primitive church art replicates Roman mosaic and fresco techniques, albeit with Christian themes rather than motifs from Roman mythology. Between the fourth and 10th centuries, the interiors of basilicas and churches from Constantinople to Ravenna were decorated with gorgeous mosaics and frescoes depicting Christ's Passion, the Christ Pantocrater seated in glory or in benediction, the miracles of Christ, the apostles, the Virgin, or the martyrdom of saints.

Christian dogma was boldly portrayed in the mosaics and frescoes that paired Old Testament scenes with episodes from the Gospels. The fifth-century mosaics of Santa Maria Maggiore in Ravenna typify this trend, showing scenes of the lives of the patriarchs Abraham, Isaac, Jacob, Moses, and Joshua.

BYZANTINE ICONS: AN EASTERN AND WESTERN HERITAGE

Apocryphal legend holds that Saint Luke the Evangelist painted the first icon (Greek, "likeness") of Mary and showed it to her. She approved of the images, saying, "May the grace of him Who was born of me, through me, be imparted to these icons." Iconography represents the first truly original Christian form of sacred art and was as popular and representative in western European lands of the Iberian Peninsula, France, Burgundy, and Italy as in Byzantium. The originality of the genre lay in its rejection of naturalized images of Roman art

in favor of a deliberate stylization that strictly adhered to theological principles.

Icons are anagogic representations of the deity, meaning that they aim to raise the eye, soul, and mind of the beholder from the material to the spiritual, from the mundane to the divine. This otherworldliness or "re-presentation" of the divine is achieved through a series of artistic devices that follow a strict canon so as to be easily recognized. The faces of Jesus, Mary, and the saints are depicted not with humanistic realism, but surrounded by halos to signify human nature transformed into the divine, a central tenet of Greek Orthodoxy. Hands are elongated and drawn in a gesture of blessing. The choice of colors is also standardized: Christ's outer mantle is always blue while his inner garment is always deep blood red, as is Mary's outer garment. Halos are always gold, the color of the sacred. Saints will have stereotyped emblems that readily identify them, such as the keys of Saint Peter or a cross for martyred saints. The icon is an object of veneration and its painting is a form of prayer.

Beginning in the fourth century the Byzantine iconographic tradition flourished throughout the long reign of Justinian (483–565). Justinian's recovery of Spain, north Africa, and Italy internationalized icon painting, introducing it into those regions. During the Iconoclast Controversy (730–37, 814–42) the church, embroiled in intermittent wars with the Islamic caliphate and sensitive to Muslim (and Jewish) prohibitions of figurative representations, banned icons as idolatrous and blasphemous. Consequently many icons and frescoes were destroyed.

When the controversy ended, the second phase of Byzantine iconography placed more emphasis on liturgy, didacticism, and the symbolic value of each element. The icons covering an *iconostatis* followed a strict order. Images were grouped in three levels: the local, the *Deesis*, and festival tiers. The local tier, located at the bottom, always has an icon of Christ Pantocrater on the right of the doors leading to the sanctuary and an image of the Virgin on the left. On this level are also represented icons of the saint or event to which the church is dedicated, and images of Saint John the Baptist and Saint Nicholas. On the Deesis tier, the central and largest image is that of Christ enthroned, flanked by smaller images of John the Baptist, Mary, the archangels Michael and Gabriel, and the apostles. The festival tier contains images pertaining to the canonical festivals. Generally scenes from the Old Testament tend to recede in importance. The Byzantine style of painting consolidated its internationalism and dominated in Western ecclesiastical art until the 12th century.

A Byzantine icon from the 14th century of Madonna and Child   Erich Lessing/Art Resource, NY.

POLEMIC IN CHRISTIAN ART

Christian paintings and sculpture fulfilled a deliberately polemical function in the church militant's stance against heresy, Judaism, and Islam. At the height of the crusades in the 12th and 13th centuries allegorical personifications of church and synagogue (*Ecclesia* and *Synagoga*) became common in manuscript illumination, painting, and sculpture. A tympanum painting of the crucifixion in the Romanesque church of Saint Giles depicts Synagoga as a woman who has lost her crown, which takes the form of the Temple of Jerusalem. Typically Synagoga is portrayed as blind, signifying the Jews' blind refusal to accept Christ.

Often the triumph of the Church as the "new dispensation" over Synagoga, the "Old Dispensation," was represented in the use of two different architectural styles in painting. Robert Campin's painting the *Betrothal of the Virgin* (c. 1420) is executed in two panels and depicts two biblical events, Moses' miracle of the rod and the eponymous betrothal of Mary to Joseph, both of which took place in the Jerusalem Temple. Whereas Campin's *Miracle of the Rod* is set in an Oriental building with a domed rotunda, his *Betrothal* takes place in a recognizably Gothic structure. And whereas the rotunda is decorated with scenes of "Jewish sin"—the fall of Adam and Eve, Lot's entry into Sodom, and others— the scenes of the Gothic portal display the triumph of Ecclesia through a typological interpretation of Old Testament events. For instance, Samson's taming of the lion represented the church's defeat of the devil and the Jews. Increasingly, late Gothic and Renaissance artists modeled their paintings of biblical scenes of the Temple of Jerusalem on the Muslim Dome of the Rock, thereby reflecting the contemporary realities of the Crusades and conflating the Jewish and Muslim enemies.

The sculptures on the portals of medieval Romanesque and Gothic churches were veritable sermons in stone. Among the sculptured images portrayed in the portal of the Cathedral at Amiens is the Second Coming of Christ. In this cycle the dead are shown rising from their graves to be weighed on the scales upheld by the archangel Michael. The scale on the right side is weighed down by the *Agnus Dei*, or Lamb of God, the symbol of Christ, while the left scale is decorated with a devil's head. A personified blind Synagoga slumps beneath the devil, exposing her defeat and condemnation to hell, while under the *Agnus Dei* Ecclesia is seated upright.

The anti-Islamic fervor fueling the Spanish Reconquista and the pilgrimage to Santiago de Compostela was visualized in the numerous statues, sculptures, and paintings of the apostle Saint James transformed into Santiago Matamoros (Saint James the Moor Slayer). The Matamoros is shown dressed as a knight, brandishing a sword, astride a white horse whose forelegs are raised and whose hind legs trample one or more decapitated Moors underfoot. Sculptures of the Matamoros are found in the Cathedral of Santiago and in numerous churches along the Compostela pilgrimage route extending as far as Germany. In Spain of the High Middle Ages, even saints known for their erudition, such as Saint Isidore of Seville, were rendered in stone in the Moor-slaying motif.

The ancient rivalry between Judaism and Christianity, anti-Islamic crusader fervor, the anti-Jewish impulse behind the Christian accusations of host desecration, and the Dominican and Franciscan project of converting Jews and Muslims to Christianity were all portrayed in Christian art. The fresco of Andrea da Firenze (fl. 1337–77) entitled the *Triumph of the Church* (1369) portrayed Saint Thomas Aquinas teaching the true faith to Jews and Muslims. In one of the cycles of frescoes Piero della Francesca (d. c. 1492) painted in the Church of San Francesco in Arezzo, the portrait of the charismatic Franciscan preacher Bernardino da Siena, whose

anti-Semitic preaching was well known, was placed alongside a fresco of the torture of a Jew who is being lowered into a well. Bernardino is shown gesturing toward the victim in an attitude of supervision or satisfaction.

Throughout Italy, Spain, France, and Germany artists painted lurid scenes of Jewish host desecration that decorated church altarpieces, walls, stained glass windows, and religious manuscripts. Typical examples include the altarpiece of the Holy Blood Chapel in Pulkau, Austria, painted by Nicholas Breu circa 1520, in which the large centerpiece of the scene of Calvary is flanked by two paintings showing Jews stabbing a host and then attempting to hide it. Paolo Uccello's (d. 1475) monumental altarpiece of the Communion of the Apostles Church in the Ducal Palace of Urbino depicts the notorious *Case of Paris* in which an avaricious and vain Christian woman approaches a Jewish merchant to trade a host for a sumptuous garment. Successive panels show the Jew's failed attempt to desecrate the host, its discovery and retrieval, a solemn procession of thanksgiving, the execution of the Christian woman, the burning alive of the would-be host desecrator and his wife and children, and finally, a debate between an angel and a devil over the destiny of the Christian woman's soul.

JEWISH ART AND ARCHITECTURE

Many intelligent observers see with the external eye only what the mind's eye already has seen. They see what they expect, remembering more what they thought to see or were trained to see than what they truly saw. Memory classifies data. Predisposition determines sensory recall.

That partly explains the unwillingness of otherwise reasonable critics to appreciate medieval Jewish art. Superb 10th- through 16th-century Jewish creations in paper, vellum, parchment, silver, gold, bronze, brass, tin, clay, glass, enamelry, wood, stone, silk, and wool share similar techniques with Christian and Muslim art of their day. Ceremonial objects, architecture, and manuscripts have distinctive Jewish themes paralleled by special Judaic art characteristics. In manuscript calligraphy, for example, ingenious minuscule Hebrew letters forming whimsical shapes embellish serious texts with both decoration and commentary, called *micrographic masorah*.

A 12th-century German bishop admired three major themes in Jewish art: light, word, and sign. The bishop tested his hypothesis for identifying a faithful Jew when the king sent a wealthy Jewish diplomat to his church on a secret mission with a gold signet ring to identify him. On the road the Jewish diplomat was robbed of his baggage and his ring. How could the bishop be sure this man was not an impostor? Cautiously the churchman welcomed him saying that because the Jew had suffered because of him, he would give him the key to the bishop's treasure room and allow him to enter alone and choose any three gifts he wished among the furs, jewels, and other valuables.

Soon the Jewish diplomat emerged carrying a gold candelabrum, an illuminated Bible, and a good luck amulet. He explained that the light would help him keep the Sabbath, the Bible would help him keep God's word, and the amulet would give him the good luck needed to keep them both.

Reverence for light, reverence for word, and reverence for sign dominate the medieval Jewish art that survived vagaries of the centuries. Exquisite ceremonial objects were created for synagogue and home. Implements were crafted for daily life of Jewish courtiers and townspeople. Art even decorated medieval Jewish kitch-

ens and laundries. Academies and synagogues had distinctive architecture. Among the most important extant medieval Jewish art objects are spectacular illustrated manuscripts glorifying God's word and human ceremonies.

Anti-Iconic Tradition versus *Hiddur Mitzvah*

The context for these magnificent art objects is the surprisingly powerful Jewish anti-iconic tradition. Major art prohibitions derive from the Bible's book of Exodus, rabbinic commentaries, Philo of Alexandria, Josephus, and, for good measure, the angry prophets Amos and Hosea. Reasoning by opposites reveals in medieval Jewish tradition a positive encouragement of art. No 5,000-year-old people has obeyed faithfully all its laws at all times in all places. Though the second commandment's forbidding of graven images causes critics to claim that Jews did not produce art, other commandments forbidding adultery and murder do not lead to the conclusion that there never was a Jewish adulterer or murderer. In reasoning by opposites, the negative adumbrates its hidden positive. In the very same biblical source book of Exodus that seemingly foments an art-forbidding tradition, another chapter depicts God's dictating artistic instructions to the artist Bezalel, thereby establishing an art-favoring tradition.

Just as the ancient Greeks found holiness in beauty, so Jews exulted in the beauty of holiness. That powerful idea of the beauty of holiness encouraged Jewish art. To make and use great art were acts cherished and required, a blessing and obligation called *hiddur mitzvah*. The good deed of embellishing ceremonial objects was thought to place both the art maker and the art observer closer to right thoughts about God. Exquisite art directs the imagination to contemplate beauty's ultimate maker.

Medieval Jews thought it important to celebrate God both correctly and beautifully. Making and using decorated ritual elements were themselves blessings. *Hiddur mitzvah* was both the gift of creating art well in praise of God and the obligation of whoever had the capacity to create.

The biblical statement "This is my God and I will glorify Him" implied for rabbinic commentators the requirement for stimulating through *hiddur mitzvah* an aesthetic pleasure in contemplating the divine. Since the word *glorifying* also can mean "beautifying," the Talmud interprets glorifying as making a beautiful building in his honor, a beautiful musical instrument, a beautiful book. All these beautiful material objects please God indirectly. Primarily they ennoble human acts of piety by creating a Jewish aesthetic of prayer.

Context is the most important argument against the supposed aniconism of Jewish art. The references to art's dangers and terrors must be placed in historical context. A study into the background of biblical exegesis of God's commandments, the vituperation of the iconoclast prophets Amos and Hosea, and such Jewish art denouncers as Josephus and Philo of Alexandria reveals that holy writ is often the bedfellow of politics.

Few moral injunctions are completely free of political intent. The second commandment enunciated in Exodus (20:4) reads, "You shall not make for yourself a graven image and shall not bow down and worship it." This two-part injunction consists of (a) no images and (b) no image worship. These were restrictions for a wandering, seminomadic people who might be tempted to the idol worship of their contemporaries and neighbors. The commandment reinforced belief in Yahweh, the invisible one God of the Jews in the wilderness.

During the First Temple period (1006–586 B.C.E.), however, the Jews had their home and pride of place to make a regal sanctuary for

their God. They built a temple grandly filled with art. Solomon's Temple was graced with sculptured cherubim, a fanciful molten sea, 12 oxen, images of lions, bronze candelabras, and a lamp stand of pure gold. The artist Bezalel made these images, working with his art commission directly from God.

God's art order for his Temple was so complicated that even Moses, to whom he explained it several times, could not remember the details. So God spoke directly to Bezalel, filling him with divine spirit, intelligence, and knowledge for devising artistic designs in gold, silver, and bronze; cutting stones for setting; carving wood; and working in every fine art and craft. The biblical book of Exodus, the source for ostensible Jewish art hatred because of God's prohibition against graven images, also contains God's direct patronage of the best Jewish sculptor, the artist Bezalel.

This sumptuously art-loving Temple was the historical context for the prophets Amos and Hosea, furiously railing against art and idolatry. In their view the wealthy, luxurious, elaborately mannered, centralized Temple ignored the poor ignorant masses. Amos and Hosea championed the oppressed people for whom the long-vanished seminomadic way of life had become a democratic ideal. These prophets were less concerned with fidelity to the Second Commandment than with political reform. They yearned to revert to the simpler, purer religious life and spurned the lavish trappings of the synagogue.

Two later icon haters also were prompted by the terrors of their times. The great historiographer Josephus (d. c. 100 C.E.) tried to outdo Thucydides in rational objectivity. Josephus, as the Jewish army commander who had conducted an unsuccessful revolt against the Romans in Galilee, surrendered. Taken captive to the court of Flavius, he was given as prisoner the privilege of writing his several histories, as *The Jewish War*, *Against Apion*, and *The Antiquities of the Jews*. Excusing himself to his Jewish brethren for surrendering, his writings simultaneously pleased his Roman captors by complimenting them and their philosophy.

In describing King Solomon's great Temple, Josephus reconciled the inconsistency between the commandment against images and the glorious decorations by accusing the old king of building that icon-filled extravaganza when doddering into senility and sin. When Josephus described a Jewish revolt against Roman tyranny symbolized by the Jews' tearing down and destroying the sculptured Roman eagle installed on the Temple gates, he rationalized the act as fidelity to the Second Commandment rather than aggression against the oppressor's symbol. Josephus rewrote history to keep his pen flowing and his head anchored.

Likewise, Philo of Alexandria (d. c. 50 C.E.) tried to out-Plato Plato. Philo insisted that Moses banished painting and sculpture from his commonwealth, just as Plato banished artists from his republic, because art betrays truth. Art works deception and illusion through the eyes to souls ready to be seduced. While this sounds biblical, actually it was Philo's attempt to reconcile Judaic ideas with the Platonic philosophical system. Plato banished only amusement-provoking arts, imitative or deceiving, because they arouse passions uncontrollable by reason. But Philo the Jew outdid Plato, or misread him, by banishing altogether all forms of art.

Biblical strictures against idol worship were prohibitions against art only when political conditions required that they be. The second commandment requires Jews to be iconoclasts. But great Jewish artists and Jewish fine arts have existed as long as the second commandment has. Both it and Bezalel the artist are important figures of Exodus, an event and a book revering God's word.

Major Themes in Jewish Art

ART IN LIGHT

Jewish ceremonial lights and lamps splendidly transferred God's command at the creation "Let there be light" to the rituals of home and synagogue. While some 13th-century rabbis recommended candles, conventional medieval lights were oil lamps, taking numerous clever shapes dependent upon the practical necessity of an absorbent ignitable wick floating in or above an oil reservoir. Often with many channels and wicks, some lamps had an oil drip pan integrated into the design.

Since Sabbath observance was one of the most significant rituals distinguishing Jew from Gentile, Sabbath lights were among the most important Judaic lamps. Most of the medieval Sephardic or Spanish lamps were decorated bowl-shaped chandeliers, suspended by chains from an ornamental ring. Or the Jewish lights imitated the Muslim glass hanging light, jocularly called the pregnant hourglass.

The most popular Sabbath lamp in central and eastern Europe had graceful, multiple light spouts radiating from a central fuel well forming a star. This Ashkenazic or German star lamp called the Jewish star, the *Judenstern*, sometimes was crafted for table placement. Most often it was a ceiling fixture, raised during the week, lowered on Friday night, Sabbath eve. Therefore the popular German-Jewish saying *Lamp herunter, Sorge hinauf*: "Lamp down, gone frown" (*Lamp, down, lit*: "sorrows up flit").

Remembering the Sabbath to keep it holy was said in the Talmud to equal all other commandments combined. Lamp lighting particularly has been the Jewish woman's responsibility: to remember and observe—the biblical *Zakor* and *Shamor*. Jewish battle commanders such as Samuel ibn Nagrela (d. 1056) in Spain scrupulously ceased hostilities on the Sabbath. Jews employing Christian goldsmiths forbade them to work for them on the Sabbath.

The medieval Sabbath lamp often was outshone in embellishment by the Hanukkah menorah, the candelabrum signifying the Festival of Lights, commemorating the miracle of eight consecutive days that the lights burned after the Maccabees' rededication of the Temple. Presenting eight symbolic lights plus a ninth servant light, or *shamos*, the menorah usually followed a form fashionable in the country of its origin. Elaborate, delicate, pierced tracery of stylized trees filled with birds typified Jewish menorahs created in Islamic countries. Medieval European menorah fantasies depicted nude mermaids, cherubs, sea monsters, and fabulous beasts.

Jewish reverence for light was expressed in a third lamp, the "eternal light," *ner tamid*, burning before the synagogue's holy ark containing the Torahs, the sacred books. Synagogue lamps and reverence for the word were associated in manuscript depictions of ceremonial implements. Manuscript lamps were more than mere elaborate page decorations, and the lamps depicted were more than elegant vessels for human ceremony. To paraphrase the Talmud, at the destruction of the Second Temple, the tabernacle became the book. Stylized portraits of the seven-branched menorah, the oil cruses, wick lighter, and trimmer, plus the holy bread platter and spice box, represented the Great Temple's furnishing. These symbolized the future coming of the Messiah and the divinely promised rebuilding of a Third Temple of Solomon.

Lamp depictions therefore often are mystical ciphers for the apocalypse. Awaiting that blessed end of mundane time, medieval Jewish writers claimed that God or King Josiah hid the Temple implements to preserve them. Of these elaborate objects from the holy sanctuary, the

Talmud reminds: "Blessed is the one who then beheld the Temple's glory and splendor. Happy is the one who now awaits seeing it. May we rejoice soon in its speedy rebuilding!"

In fact, a Jewish light celebrant prepared for that future day by decorating objects of daily religious ritual. The person holding, touching, seeing, making, and using beautiful ceremonial objects was symbolically reaffirmed in time. Creating and enjoying ceremonial art unified the sacred past with both the mundane present and the messianic future. Enjoying ceremonial art was an obligation. The more intense the temporal aesthetic pleasure now, the better fixed the person might be on the wheel of Jewish time between its past and its future. Jewish art, then, not only was permitted, but required.

ART OF THE WORD

Aesthetic necessity and Jewish reverence for the word converged superbly in adornment of the Torah. Each handwritten Torah scroll contains the Old Testament books of Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. The Torah as book scroll itself never is illustrated. But its exterior is magnificently decorated. In Eastern countries, the Torah was enclosed in a casing called a *Tik* or *Nartik*. The Western medieval Torah was covered by richly embroidered fabrics and jeweled bindings. The two staves the parchment is rolled upon, called the trees of life, *Etz chayim*, usually were carved, gilded, or inlaid. Customarily the staves were topped by removable adornments that the great 12th-century rationalist philosopher Maimonides called *rimmonim*, pomegranates, the symbolic fruit of fertility and regeneration. Ashkenazic torah finials often took the shape of silver, gold, or bronze Gothic architectural vaults or spires, soaring miniature castle towers, further embellished by tiny bells.

Consistently with reverence for the word, the Torah customarily was crowned, emulating royal coronets. Exuberant flourishes embellished the crowns such as jewels, sculptured fruit and flowers, animals, and astrological signs. As with the *rimmonim*, architecture was imitated in the Torah crown, called *atarah* or *keter Torah*. In 1439 a Christian goldsmith was contracted to produce for the Jewish community of Arles an elaborate Torah crown shaped like a turreted walled city, with towers at all four corners. A breastplate or shield, the *tas*, also adorned the torah, its shape reminiscent of a chest garment Aaron the high priest wore, its jewels, sculptures, and enamelry as extravagant as wealth, symbolism, and whimsy allowed.

ART IN SIGN AND SYMBOL

Judaic veneration of light and word was manifested in reverence for sign and symbol. Though some exquisite flowers and fruits were merely vegetal decoration, others signified an important idea. Torah pomegranates symbolized seeds of righteousness and the regenerative excellence of truth. Zodiac signs integrated earthly with heavenly harmonies. The lion signified power and Judah. Jewish lamps, books, and scrolls, themselves symbols of a Jewish covenant, were embellished with signs.

Art pervaded most aspects of Jewish domestic life for the wealthy, and evidence is strong that even for the poor, cheaper forms of the same domestic art existed. Similar ritual requirements for hand washing before eating, for example, were as important for practical hygiene as for ceremony. The poorer medieval Jew washed with a shaped brass or earthenware pitcher. The wealthier person used a silver or precious metal vessel called an *aquamanile*, an object found in Jewish as well as Christian homes. A common household object was a lion-shaped *aquamanile*, representing the lion of Judah, a ewer or pitcher made of bronze for ceremonial hand washing. Customarily inscribed on its flank was

the Hebrew blessing for washing hands before eating.

The Passover seder meal of the paschal lamb, matzoh bread, and *maror* (bitter herbs) was served on a special plate. In Spain and Portugal seder plates were fashioned out of earthenware in the style of Muslim ceramics. A rare surviving specimen from pre-Expulsion Valencia, Spain, dated 1480, is richly ornamented with concentric circles of varying vegetal and geometric designs. In the center the Hebrew inscription refers to the three edible components of the ritual, *pesah*, *matzoh*, and *maror*. The spelling errors in the words indicate that the craftsman may not have been Jewish, but Muslim.

Two examples of women's art intimate the range of household art forms extending even into the kitchen and laundry. A *cholent* pot graced the most humble and the richest hearth. Usually a three-legged cauldron of bronze or base metal, it stewed the Sabbath casserole dish called *cholent*, a savory blend of meats, fruits, and vegetables cooked together on Friday to preclude the need for kitchen labor on Saturday. Customarily a hearth pot had just below its rim an inscription.

A delightful, nielloed-silver 15th-century Italian bridal casket now in Jerusalem at the Israel Museum has an amusing trio of portraits of a woman's three major domestic ceremonial responsibilities: (1) baking *challah*, the Sabbath twist bread; (2) taking a ritual bath after menstruation in a *mikvah*; and (3) kindling Sabbath lights. The cover of this small coffer has a perplexing series of small movable clock dials with numbers and the words *sheets*, *tablecloths*, *towels*, *men's shirts*, *women's blouses*, *handkerchiefs*, *underwear*, and *aprons*. For years scholars debated what purpose this charming little box served.

The numbers provided precise inventory of each linen category in a wealthy Jewish woman's storage closets. The dials once set could not easily be moved and were meant to discour-

age thievery by servants or verification of what was missing from closets or storage chests. The Italian box is a key coffer for enclosing keys to each household storage closet. According to the 12th-century rabbi Baruch bar Yitzchak, a rich woman at synagogue often was apprehensive that her servants would steal her keys. On the Sabbath she put all keys in a single key box before leaving the house. She then wore the decorative silver or gold key to that box pinned to her collar or pendant on a chain of silver or gold. Art historians believe that the box may have been a gift from a Jewish bridegroom to his bride.

Art in and on Buildings

Medieval Jewish synagogue architecture varied from place to place, absorbing the architectural aesthetics of the Christian or Muslim countries in which Jews resided. Unlike the Christian church, whose basic cruciform design symbolized Christ's crucifixion, the synagogue did not have an architectural design that was symbolically determined. Synagogues could be oblong or square, and a tall structure was generally preferred to a shorter one if finances and the political situation of the host country allowed. Indeed, the Babylonian Talmud stipulated that the synagogue should be the tallest building in a town, although not in the lands of Edom or Esau. The ambiguous position of Jews in many medieval Christian societies prompted them to opt for structures that were simple and discreet on the outside.

Inside the synagogue certain obligatory architectural elements served liturgical purposes. Located in the center of the synagogue was a raised platform on which the Torah scroll was read, called *bimah* among Ashkenazic Jews and *tebah* by the Sephardim. The architectonic centrality of the *bimah* mirrored the centrality of Torah in Jewish ritual. The

Torah scrolls were kept in the holy ark representing the Ark of the Covenant, known as the *aron ha-kodesh* among Askenazis and *hekhal* among Sephardic Jews. The ark is positioned such that those facing it to pray face toward Jerusalem. Prior to the sixth century the ark was kept out of sight in a side room, which was separated from the rest of the space by a curtain. In the Middle Ages the holy ark was affixed to the center of the eastern wall of the synagogue facing Jerusalem. The scrolls were arranged in a standing position so that the congregation could behold them when the ark was opened. The ark, in turn, was richly ornamented with lions, the symbol of Judah (or perhaps a symbolic replacement of the cherubim that protected the tabernacle), and the tablets of the ten commandments. As noted, a curtain, called the *parokhet*, covered the holy ark in accordance with Scripture: "Moses put up the curtain . . . and screened off the Ark" (Ex. 40:21). In so doing, the *aron ha-kodesh* symbolizes the tabernacle the Jews built while wandering in the desert. The eastern wall should also have a semicircular apse, and the entrance door should be through the western wall opposite the apse.

The ancient priestly duty of keeping a candle lit to burn eternally before the Lord (cf. Lev. 24:4) was also transferred to the *eternal light*, which hung before the ark and was kept alight perpetually. Eternal light candelabras were made of gold, silver, or brass, depending on the wealth of the community, and symbolized the spiritual enlightenment of the Torah. Another desirable feature of the synagogue was a window, in keeping with the tradition of Daniel 6:11 that the prophet had a window in his place of prayer.

Recent excavations of sixth-century synagogues in Syria and Israel conclusively show that Christians were not the only people to decorate the walls and floors of their places of prayer with mosaics and frescoes. Jewish synagogues also followed this Byzantine tradition, adapting the motifs as needed to the exigencies of their religious tradition. Such findings prove that historians have exaggerated the "radically aniconic" nature of Judaism and its supposed "lack of a visual culture," at least for the early Talmudic period. The beautiful mosaics decorating the floor of the Bet Alpha synagogue in northern Israel have bird, animal, and human motifs.

The third-century synagogue of Dura-Europos in Syria has startlingly beautiful mosaics and frescoes of biblical scenes, the sign of the zodiac, and vegetal and geometric designs. Humans appear in biblical scenes such as the three youths in the fiery furnace from the Book of Daniel. As the frescoes are the earliest surviving examples of large-scale biblical representation, some scholars have plausibly suggested that they served as a prototype for Christian fresco painting. The Cairo *geniza* documents confirm that certain rabbis permitted images and mosaics on walls and did nothing to prohibit them.

These surprising discoveries do not negate the incontrovertible fact that medieval Jewish authorities banned human figural representation from the synagogue, citing the Second Commandment as the proof text. This prohibition did not necessarily include the adornment of animal forms, judging from the proliferation of images of lions and eagles. The ban did result, however, in the increasing prominence of Hebrew calligraphy as an instrument of architectural adornment.

The Synagogue of Samuel Abulafia, one of two surviving synagogues in the city of Toledo, was built in 1366 by Samuel Halevi, the financial minister to Pedro I of Castile. The structure followed the canons of a mosque, being built in the shape of a rectangle. The central platform (*tebah*) was encircled with rugs and cushions. The synagogue has a stunning intricately carved larchwood ceiling and the borders

of the four walls are inscribed in filigree with passages from the Hebrew Psalms. As in mosques, the walls are richly decorated with carvings of vegetation, animals, rosettes, horseshoe bows, and abstract designs. The women's gallery was located on the upper level and had its own separate entrance.

Archaeological investigations of the remains of a Jewish academy (*yeshiva*) of Rouen, France, that were discovered beneath the courtyard of the Palace of Justice in the late 1970s indicate that the 12th-century edifice was built in the Romanesque style.

Manuscripts and Micrographic Masorah

Judaic reverence for light, word, and sign converged in medieval manuscripts, the most thrilling demonstrations of word in art and art of the word. If God's Second Commandment truly condemned art and the image, then Jewish artists, rabbis, and people sinned magnificently. These bare ruined manuscript fragments suggest the glorious magnitude of the art that was.

Jewish manuscript decoration is as grandly diverse as the world wanderings of the Jews. By century and geography the manuscripts vary according to current fashions. No matter what the subject, a biblical or exegetical text, laws or customs, medicine or magic, the volume was decorated according to the prevailing art mode in the country the artists left or where he or she worked. A 15th-century Yemenite Pentateuch is embellished with a total-page geometric design, a carpet page, utilizing the same techniques and creating the same aesthetic effects as contemporary Arabic books and Qurans.

A Jewish courtly scene in a manuscript from Persia looks remarkably like a leaf from the popular *Shah Nameh* epic. It nearly is, but with a Jewish biblical twist. The Persian king Ahasuerus, having repudiated his disobedient wife, Vashti, took a Jewish bride, Queen Esther, savior of her people from depredations of the evil counselor Haman, whose 10 sons paid for their father's perfidy with their necks. In a 13th-century depiction of David and Goliath from a French manuscript the giant dons the garb, armor, and shield of a contemporary medieval knight.

Drolleries and grotesqueries featuring half-human, half-animal fantastical beings surround Jewish manuscripts from Spain, France, and Flanders, with typical florid border designs. Sensitive faces, refined poses, and luminous colors of the international style embellished a Hebrew portrait of David. In times and places celebrating architecture and book illumination, such as the frameworks resembling cathedral naves and spires, Jewish manuscripts portray that same vertical skyward thrust typical of the best Gothic cathedral naves and spires. When and where gold adorns the most sumptuous books, the rich glitter of precious metal gilding dignifies Jewish manuscripts, such as the exquisite Spanish ceremonial book for Passover well deserving its modern title, *The Golden Haggadah*.

Portuguese and Italian patterns and early Renaissance experiments in perspective embellished Old Testament books. Some depict naked cherubic *putti*, a monkey on a marble-floored pavilion, and allegorical caryatids supporting a title word on a page. Animals, masks, vases, white vine scrolls, and tendrils created Jewish versions of the contrived visual pleasures of the Italian *bianchi girari* technique. A superb example is Joseph Albo's philosophical *Book of Principles*.

While these glorious books typify their times and places, certain qualities are distinctly Hebrew. First, from the Western point of view, medieval Jewish books read backward. The first page starts at the "back," progressing forward

to a conclusion at the modern Western "front," the natural order for the Hebrew language, which reads from right to left. Order of illustrations also is right to left. Some modern viewers misinterpret this as *whiddershins*, an unnatural or perverse order. Normal Hebrew order for a four-scene page would be, upper right no. 1; upper left, no. 2; lower right, no. 3; and lower left, no. 4.

Jewish manuscripts also form elegant designs from minuscule letters. From afar one sees only the complete design; upon careful close inspection, each line is seen to consist of

Thirteenth-century scribe Eliezer Ben Samuel signs his name in Hebrew letters consisting of micrographic masorah, while a hunter, a knight, a trumpeter, and peacocks frolic below. From the Library of the Jewish Theological Seminary of America.

minuscule letters. A rampant lion is composed of letters from a commentary on the Bible. An elaborate floral design actually is made of tiny Hebrew letters forming each leaf, the design itself a commentary on the prophets. This microwriting or *micrography* serves in certain manuscripts as separations to the three major sections of the Bible: the Pentateuch (the five books of Moses), the Prophets, and the Hagiographa (Ruth, Psalms, Job, Proverbs, Canticles, Lamentations, Ecclesiastes, Daniel, Esther, and Chronicles).

Micrography commentaries called *masorah* are introductory or interpretive guides to the texts that follow. Some *masoretic* designs are allegorical poems contrasting two Talmudic approaches to the same idea. Or they may be short or long grammatical treatises. Or *micrographic masorah* preserves interpretations of important rabbinic ideas or biblical quotations.

Micrographic masorah almost always is more than meets the eye. Words dictate shape. An apparently simple design of a menorah derives its micrography from several psalms. First is Psalm 121:1–6, the famous "I lift up my eyes to the hills whence comes my help from the Lord who made heaven and Earth, neither slumbering nor sleeping, protecting us against the Sun's smiting us by day or the Moon by night." The total design consists of stylized artistic conventions familiar from Islamic manuscripts and metalwork. Two triangles filled with scallops represent mountains, the hills "I lift my eyes up to"; a six-rayed central medallion is the Sun; set in a simple orb is the Moon; the Lord's heaven is above the Earth, encompassing the waters, symbolized by fish.

God's ever-vigilant eye is the association with the second psalm, Psalm 119, which emphasizes the faithful's open eyes and sleeplessness. "Dear God, open my eyes that I may behold wondrous things of your law" (Psalm 119:18); "turn my eyes from looking at vanities" (Psalm 119:37);

"my eyes are awake before the watches of the night" (Psalm 119:148).

Such assiduous piety pierces darkness with light. The Psalm says: "Your words, God, give light" (Psalm 119:130); "Your word is a lamp before my feet" (Psalm 119:105). That is exactly the micrography shape, a typical Eastern synagogue or Sabbath lamp shaped like a "pregnant hourglass." A cantor or *hazzan* chants a synagogue service illumined by seven such lamps shedding light on ritual word.

Masoretic texts often have charmingly inventive associations with their forms. Perhaps the 12th-century rabbi Judah the Pious feared the reader would be distracted from the meaning of the text by pleasure in its form. He urged against hiring scribes who shape the masoretic notes in the forms of birds or beasts or in similar fantastical designs.

MANUSCRIPT HUMOR

Other delights of Judaic manuscripts are verbal and visual puns. Word and picture games explain the otherwise absurd presence in ritual texts of apparently superfluous scenes, such as hunters and dogs chasing rabbits. While the hare rarely is a favorite kosher meat animal, a hare hunt routinely is present in Passover Haggadahs following the Ashkenazic or Germanic tradition. Why? The German phrase for rabbit hunt is *Hasenjagd* or *Jagenhas*, which is similar in sound to *Jakenhas*, the formula for arranging traditional blessings of the *kiddush*. This Germanic pun uses the rabbits for mnemonic purposes, simultaneously marking the place in the text where the ritual is to be performed and visually reminding the reader of what is next.

Jewish manuscripts also are enlivened with exuberant humor. Intentional comic literalness graces the Haggadah, the family Passover ceremonial book. In the Passover service a young boy is described as so foolish that he not only does not know answers to traditional questions but does not know which questions to ask. So someone must "open up" the truth to him. He holds his jaws before a man who literally will pry open his mouth to pour in good words. In another, the one who must go forth to acquire knowledge literally leaves home with a case for carrying it back. Neither naive nor simple-minded, this gentle humor and literality pervade much Passover ritual, as when the symbolic bitter herb, reminder of bondage before Exodus, is depicted with the words *moror zeh*, meaning "This bitter herb," and a man points not to the herb but to his wife!

Playfulness with language comes quickly to those who cherish words. Hebrew words are
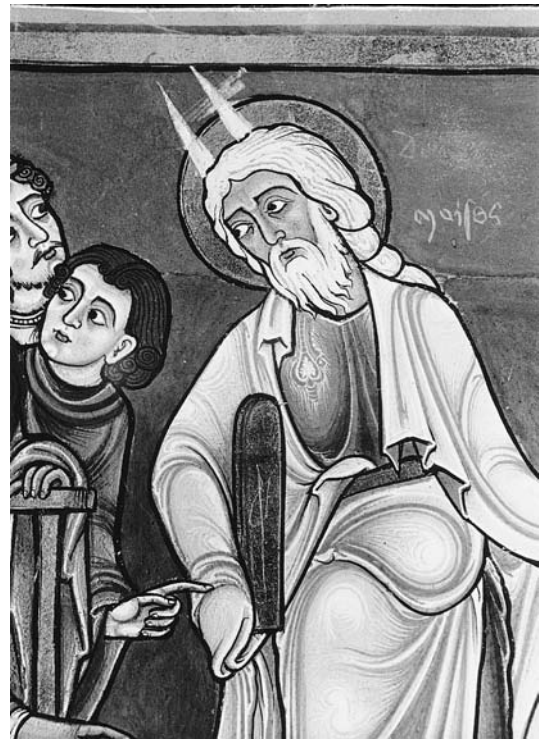
Moses is depicted with a horn because of a linguistic confusion between "radient light" and "horns." Institute for Medieval and Renaissance Studies, The City College.

important: literally, figuratively, allegorically, mystically. An illustrator graphically depicts the Jews' miraculous multiplication and wondrous fertility after Exodus by portraying sextuplets. Since the biblical text has six main verbs and six modifiers, each Israelite woman gives birth to six babies! So too the law is literally "handed down" to Moses. Heavenly fingers push the tablets of the Ten Commandments through the clouds to Moses, who in turn passes them by hand down the mountain to the people's hands below.

Three more qualities of medieval Jewish manuscripts surprise modern viewers. Where one expects only dour decorousness, one finds nudity and sexuality. Where one expects depictions of adults only there are abundant children. Where one expects women portrayed in domestic scenes, there are women scholars illustrated in the throes of teaching, learning, and vigorous intellectual disputation.

Grotesques and hilariously vulgar scenes sometimes surround sacred serious texts, just as they do in Christian Gothic manuscripts. These scenes dramatically juxtapose the sacred and the profane. Grotesqueries and drolleries depict inversions of expectation, such as a cow milking a woman's breasts. Amazing perversions of human form exist as hybrid creatures, part-human, part-beast. A man bares his bottom as target for an arrow. Men and women fart, fight with weapons of genitalia, and sexually philander with animals. Not irreverent, these are artistically calculated surprises and manipulations of mood. They may have served the practical purpose of forcing wakefulness to the nodding eyes of a drowsy reader. Even ingenious vulgarity, however, could contribute to *hiddur mitzvah*, the beautiful embellishing of ritual objects, if the work was excellent and the result praised God for his manifold creations.

Some Judaic manuscripts are resplendent with nudity. Medical texts depict the diseases afflicting the anatomy and proper treatments for each bodily ill. As in Christian and Arabic manuscripts, many Jewish medical texts have at their beginning a wound man, depicting a naked figure with physical entry points for injuries by arrows, lances, swords, knives, and bludgeons. Others sport a sign man, a *homo signorum*, whose astrological symbols enliven each bodily part of the naked figure. Zodiacal signs guide and guard the diseased or injury-afflicted anatomical part: Aries the head, Sagitarius the thighs, Pisces the feet.

Other examples of medieval nudity are found in biblical and secular depictions of swimming, as in pharoah's daughter and her servants swimming naked before finding the child Moses. Yet other manuscripts depict nude women, as a woman immersing herself in a personal ceremonial bath, a mikvah, before joining her husband for intercourse in bed.

Children participate in momentous events of adulthood. A baby is among the Israelites Moses leads out of Egyptian bondage. With the immigrants of Exodus, an infant is cradled on the mother's head while two other children walk beside. Children's faces of wonder with eyes wide with awe view the handing down of Mosaic law. And children with parents ritually reenact that Exodus in biblical readings in synagogue at Passover. A young scholar studying Hillel's dictum "Do not do onto others as you would not have them do onto you" sits before a teacher threatening discipline with a whip.

Jewish women portrayed in late medieval manuscripts are not only mothers and housekeepers but scholars and students. Certainly not mere house-bound uneducated followers of custom, women in some manuscripts such as the 15th-century Darmstadt Haggadah are depicted vigorously arguing points of doctrine, learning, and teaching along with men. Gesturing with argumentative vigor, they indulge with men in the ecstasy of intellectual discovery. Each person depicted is framed by the

characteristic pointed archway of Gothic architecture. Other scholarly women, still learnedly disputing, end their manuscript pages with a ceremonial seder meal.

FEASTS FOR PRAYER

Seder banqueting introduces another pair of important Jewish manuscript themes. I do not entirely understand them. I know of no one who does. First is the prevalence in Jewish manuscripts of the consuming passion for foods and feasting. Second is the predominance of animals that almost always are not what they seem. Animals substitute for holy figures and common people. Animals have bodies that are part human. Otherwise unremarkable people have heads fitted not with hair and human facial features but with the feathers, eyes, and beaks of birds.

Just as the Talmud says that after the destruction of the Second Temple the tabernacle became the book, so the table became the tabernacle. The table as tabernacle assigned awesome responsibility to the table preparer and those sitting around it celebrating ritual. The table as tabernacle may explain the huge number of food and feasting scenes in Hebrew manuscripts.

Weekly Sabbath feasts and calendar festivals, such as the harvest rite of Sukkot, or the ritual seder at Passover, or the Feast of Lights at Hanukkah, reaffirmed the individual Jew's responsibility at the family table for preserving millennia of heritage. The table as tabernacle sanctified the commonplace. On certain days at particular hours that most banal routine household furnishing, the table, was transformed to a site of holiness. The table became place for practicing piety. The table was locus for using sanctified objects. The table was location for the sacred rites that the priest performed in earlier times. From symbolic hand washing and wine drinking to eating of ritual foods in a strict ordering of service, such as in a Passover seder feast, the table in medieval Jewish tradition became both altar and ark of the covenant.

Social uncertainties transferred responsibility from the communal grand synagogues and sanctuaries—which were too easily pillaged and burned, the ceremonial objects stolen and melted down for coin—to less obviously liturgical and thus less vulnerable sites, the tables of the Jewish observant. Coincidentally, this transmission of power over place increased the importance in Judaism of women as preparers, performers, preservers, and protectors of customs, *minhagim*.

The table sanctuary also may be the major reason for the preservation of one special type of Jewish manuscript, the haggadah. That Passover service book contains important Judaic table rituals, the spiritual reenactment of Exodus according to formulaic order, the seder. Jews have exulted most in the Passover deliverance from slavery when times were best, as during Spain's Golden Age, celebrating freedom from an oppression hoped never to happen again, or when times were worst, as during medieval German Jewry's most horrific persecutions, in optimistic belief divine help would come again. Most medieval haggadahs date from Spain's best and Germany's worst periods.

The preparation of *seder* table foods is significant in manuscript decorations, preeminently the *matzoh* and the meat. *Matzoh* is the unleavened bread symbolizing the Jews' hasty Exodus from Egypt and the hardships of the journey. Medieval *matzoh* usually was flat and round, but often jestingly designed and shaped as animals or birds. Prepared according to strict rules, raw *matzoh* was conveyed on long-handled paddles called *peles* for baking in stone or metal ovens.

Meats were cooked according to local or ancient custom after the ritual animal slaughter rulings of the *shechitah*. The triple purpose of

the *shechitah* was assurance of the cleanliness of animals for human eating, adherence to inherited ideas of *Kashrut* or *Kosher* preparation, and expression of sympathy for brute creation. Kosher slaughtering was contrived to prevent animal pain.

Animals destined for fabulous feast fare, however, were the least interesting in the Jewish ark. Fanciful animals appear in unexpected contexts. An artist's or scribe's signature to his manuscript: The signature *Joseph the Frenchman, Yosef ha Zarefati*, has letters composed of mammals, fish, and fanciful creatures never seen on land or sea. More fantastical animals decorate marginalia. Still other fabulous beasts are the insignia of heraldry, the identifying devices representing noble families or institutions, cities, or tribes of Israel. The most startling animals in medieval Jewish culture are the beasts of prayer.

BEASTS OF PRAYER

Beasts of prayer are depictions of people as animals and animals as human beings in Jewish prayer books. Remarkably, the extant manuscripts depicting the beasts of prayer were created at the same time in the same geographic place. In a series of books all made in approximately the year 1300 in southern Germany, actors in biblical dramas are beast-headed.

In a festival prayer book, the cantor wearing a fringed *tallit* chanting his service is bird beaked, as are his two assistants shown wearing their *Jew's hats*, their *Judenhuts*. From the biblical book of Esther, the wicked Haman and his 10 sons hanging dead on the gallows tree are beaked beneath their blindfolds, as is Haman's suicidal daughter. Also bird-headed is Mordecai the Jew, Queen Esther's uncle, who masterminded her marriage to King Ahasuerus of Persia and her consequent saving of the Jews from annihilation in his kingdom.

In another manuscript depicting Abraham summoned before King Nimrod after he smashed the idols belonging to his sculptor father, Terah, all the Jews and all the pagans are avian-headed. Another bird scene portrays an anonymous bird-beaked Jew preparing to celebrate *Sukkot*, the harvest festival following the holiest days in the Jewish calendar, *Rosh Hashonah*, the New Year's Day, and *Yom Kippur*, the Day of Atonement. The bird-headed celebrant holds a *lulav* branch and *etrog* fruit and stands above two important symbolic animals: the apocalyptic beasts Leviathan the whale and Behemoth the ox or bull. These beasts signify the final Feast of the Blessed in paradise, where they will be the food God promised the righteous.

Startling and mystifying, the beasts of prayer represent holy figures, common folk, Jews, Christians, and pagans identifiable from text or legend, and unnamed and unnamable common observers, both bird men and bird women. Even heavenly creatures are depicted as animal-headed, such as a figure holding the scale with shekels for the weighing of souls at the time of final judgment.

Almost every creature from one haggadah is beaked. That manuscript is called the Bird's Head Haggadah. It was created circa 1300 in southern Germany and is now housed in the Israel Museum of Jerusalem. Moses and the Israelites appear as bird-beaked at the Red Sea. Bird-headed father Abraham and son Isaac with an angel, plus two kneeling Jewish observers, are beasts of prayer. Four bird-headed people adore the city of Jerusalem depicted in contemporary Gothic architecture. Even the three righteous people led by an angel to the castle gates of paradise stand radiant in their animality observing the four angels dwelling beneath the Sun and Moon. In this manuscript only the angels are not bird-beaked.

A common medieval Hebrew manuscript illumination theme is God's revelation to

Moses of the Ten Commandments on Mount Sinai. Four typical revelation scenes from German manuscripts from about the year 1300 depict bird characters performing sacred rites. In one book bird men gather miraculous manna and quail dropped from heaven for their sustenance while a Moses bird of prayer is handed the heavenly word and passes two commandments down to three bird-headed Israelites. While this amazing event occurs, an oblivious bird servant roasts a ram.

Another contemporary illustration of revelation varies the holy event by displaying three animal-headed Jews with *Judenhuts* receiving the tables of the law directly from heaven without Moses as intermediary. But a bird-beaked Moses sprinkles sacramental blood on a human-faced crowd. A blank-faced angel observes these rites while a bird-beaked baker below prepares *matzoh*.

A third revelation scene is perplexing in its sexual distinctions. Beneath trumpets and rams' horns, *shofars*, sounding heavenly music, Moses, in a Jew's hat, and Aaron, in a bishop's miter, transfer God's word to the men and women of Israel. Seven *Judenhuted* human men without animal features receive God's law. Simultaneously five women receive the word, but they are radiantly animal headed. Finally, in a contemporary German Pentateuch the holy commandment tablet literally is handed down beneath Moses's fulsome curved nasal beak to the hands of the men.

In depictions of the Old Testament Book of Ruth, the heroine, Ruth, appears in two parallel panels as cat-headed, facing her husband, Boas, drawn with an ass's head. In another scene the still feline Ruth talks to two gleaners in the field. In some depictions, certain figures are human featured, the others bestial.

In a depiction of the judgment of Solomon, the great king is seated on a throne whose steps and levels are composed of animal adornments and animal forms. The two contestant mothers arguing over the child are animal headed, standing with magical dragons and acrobatic phantasmagoric beasts.

And there is more. In a southern German Bible, the prevalent Judaic feast scene and animal lore conjoin. Five feasters, gold crowned and animal headed, are regaled by two cat-headed musicians. The feasters are the righteous in paradise. Surmounting their table are three animals. The feasters eat three beasts God apocalyptically promised the holy as their food after the last days of judgment. Their final earthly food is also their first heavenly food—the precious victuals of the end. The meat the righteous eat is the holiest of all that swims and walks and flies. The great "fish" is the whale, *Leviathan*. Medieval bestiaries and natural history books both Jewish and Christian classified whales not as mammals but as fish along with other nautical creatures. The second holy food is the wild red ox, the *Aurochs* or *Behemoth*. Finally, feasters enjoy the king of all birds, the dragon-winged *Ziz*.

What do these beasts mean? Who are these animal ancestors? What purposes do these animals serve in the manuscripts? Why do these beasts appear solely in that time and place? What is the intellectual, artistic, liturgical, and symbolic value of these Jewish beasts? Beasts of prayer in German Jewish manuscripts probably are associated with the long tradition in Christian, Islamic, and Egyptian art of animal-headed figures of gods, evangelists, saints, and righteous men.

Nevertheless, most Jewish animal characters are none of these exalted beings. Commonplace Jewish observers of holy rites as bakers and cooks breathe the odor of sanctity through their bird beaks, while angels see the light above human nostrils. Even if beasts of prayer represented only the holy ones, and they do not, why do all these depictions appear in 14th-century

Germany? Why then? Why there? Not before, nor after, nor elsewhere?

No one studying this manuscript bird and beast phenomenon has provided satisfactory answers. As discussed in chapter 6 on Mysticism and Magic, the beasts of prayer could derive from the Jewish mystical apocalyptic tradition. That informed guess awaits further confirmation or refutation. One glory of medieval Jewish art are its tantalizing fragments requiring restrained archaeological reconstruction. Beasts of prayer might reflect the fanciful imagination of a group of isolated, related artists who influenced one another's enigmatic portraiture. Some scholars have suggested that the beasts of prayer might have been a method for these Ashkenazic artists to avoid representing the whole human body by depicting figures with animal heads. Another school of thought points to the striking resemblance between contemporary Christian and Jewish German manuscripts in terms of the style and color of clothing and floral motifs.

Beasts of prayer might have been intentional depictions of arcane mysteries to please the unknowing intelligent observer on the literal level. But to the knowing adept who had studied esoteric mystical lore of the *Kabbalah* and the later heritage of 12th-century German mystical piety called Hasidism, the beasts of prayer may have been inspirational creatures whose contemplation advanced profound personal understanding of God's being and the beauty of holiness.

Medieval Jewish art and architecture display a love for visual beauty that belies the stereotype of a rigid art-forbidding aniconic culture. The rabbis interpreted the Second Commandment differently in differing historical times and across geographical space. Yet there was absolutely no question that throughout medieval Jewish history the central doctrinal tenet was scrupulously respected, whereby the deity, whose holy name could not be articulated, likewise could never be visually represented. None of the frescoes or mosaics in the third- to sixth-century synagogues contains images of God; only human protagonists from the Bible decorate the inner temple walls and floors. There are no Jewish equivalents to the Byzantine iconographic tradition, that venerates the *image* of God (Deesis) or to the Western Christian veneration of the crucifix. It is also apparent that while no human figures are found in post-sixth-century synagogue design, the ban on depicting the human figure did not extend to the illumination of manuscripts and the decoration of ceremonial and domestic objects. Medieval Jewish artists followed the artistic canons of the dominant Christian or Muslim culture. This is most striking in the illumination of haggadah texts in which even biblical figures, such as the giant Goliath, don contemporary medieval fashion and the architectural motifs follow the Gothic Christian aesthetic of the surrounding culture.

Jewish liturgical art fulfilled an entirely different function from its Christian counterparts. The Byzantine icon was an object of veneration, a conduit through which the human met the divine. Western Christian images of the crucifixion, like the images of Mary and the saints, were deliberately didactic, used to instruct in matters of orthodox faith, as well as decidedly affective, deployed to induce in the beholder heightened pious fervor. By contrast, Jewish art was essentially aesthetic, meant to illustrate the beauty of holiness. Embellishing a synagogue, manuscript, ceremonial, or even household object was considered a mitzvah, a blessed deed. Contemplating the beauty of a fresco of a biblical scene, a manuscript illumination, or a ceramic seder plate moved the believing Jewish man or woman to contemplate the ultimate beauty of the ultimate creator—a worldview shared by medieval Jews and Muslims.

ISLAMIC ART AND ARCHITECTURE

Islamic Perspectives on Art and Patronage of the Arts

BEAUTY AND AESTHETICS IN ISLAMIC ART

According to a hadith, the prophet Muhammad said that "God is beautiful and loves all beauty." The identification of the divine as beautiful is a Platonic philosophical concept, but the Quran also associates visual beauty with God and depicts him more as the artist than as the architect of the universe. The natural beauty of the universe is a kind of theophany, one of the "signs" of God's existence. The unparalleled beauty of the Quran itself is cited as proof of its divine provenance. Quranic terms such as *husn* and *jamal* convey the ideas of both physical beauty and moral goodness. The verb *zayyana* appears frequently in the Quran to describe the way God makes things beautiful, embellishes, adorns, and ornaments his creation. Verses such as "We have decked the heavens with constellations and made them lovely to behold" (Q 15:17–18) make it clear that God invites humanity to contemplate the beauty of his creation and to derive enjoyment from it. But other verses enjoin humanity to surround themselves with beauty, with clothes that not only serve to "cover your nakedness" but are "pleasing to the eye," and to "adorn your persons" with "ornaments" from the depths of the ocean. While concepts of artistic beauty may differ from one end of the Islamic world to another, the quranic idea of visual beauty as embellishment or ornamentation appears throughout.

Another common thread in Islamic aesthetics is the notion that harmony, proportion, and equilibrium are fundamental components of physical beauty, an idea borrowed from ancient Greece. In all artistic genres—poetry, calligraphy, music, sculpture, painting, architecture, carpet weaving, textile design, or decorative motifs of religious and secular buildings—mathematical proportionality and harmony determined perfect beauty. Muslims often commented that beholding beautiful things was not only a delight to the eye or the ear, but also psychologically and spiritually uplifting. Al-Ghazzali wrote that "beauty dissipates sorrows" (Behrens-Abouseif, 44).

The beautifying of objects—religious and civic buildings, luxury goods, domestic items, clothing and textiles, and sacred and secular texts—is an established practice across the medieval Islamic world in Africa, the Iberian Peninsula, Sicily, the Arab Middle East, Iran, and Central and inner Asia as far as China. In each of these regions certain identifiably Islamic architectural and artistic forms blend with local motifs, materials, and artistic methods. Many of the earliest Islamic mosques and administrative buildings were often transformed into such from preexisting structures (Roman temples or Byzantine or Catholic churches, for example).

Despite the quranic and Hadith references that exalt the ornamentation of objects and sanction the beautification of one's surroundings, artistic expression per se in the medieval Islamic world was not necessarily religious or theological. The decoration of household and luxury items, palaces, houses, public structures, textiles, and the like might or might not have religious motifs, depending on the context and use for which the item was created. Furthermore, in the case of religious edifices or items, it is also important to consider that underlying notions of art as theological statement often influenced and determined aesthetic canons of beauty.

As is well known, both Judaism and Islam are diametrically opposed to Christianity

regarding the visual depiction of God. Christian iconographic representations of the Trinity and especially of Jesus and the Virgin are in fact theological affirmations of the word made flesh, of the doctrine of the incarnation. This doctrine, which was officially decreed at the Sixth Ecumenical Council of Trullanum in 692, proclaimed that since the redemption of humanity came about through the deity's assumption of human form in Christ, then it was theologically *necessary* to represent Jesus's image directly in human form rather than indirectly through symbols such as the fish or paschal lamb (Ouspensky, 387). By contrast, medieval Judaism and Islam are radically aniconic regarding the prostration before "graven images." For Jews and Muslims, the Christian veneration of icons, crucifixes, and other images constitutes a patent violation of the proscription against creating human-made images and statues of the deity and treating such deistic representations not merely as symbols but as actual gods to be worshipped. Quranic chapters such as Q 113 further emphasize the absolute otherness of God, man's inability to imitate God's creation, and the ontological distance separating humanity and Allah, a distance that Christianity dissipates in the person of Christ.

Moreover, the views of Islamic orthodoxy and philosophy coincide in the belief that any artist—whether painter, sculptor, architect, poet, calligrapher, or artisan—excels in his field through years of training and practice, rather than as a result of divine inspiration or metaphysical powers (Behrens-Abouseif, 107). For these theological reasons, medieval Islamic artistic canons repudiate the depiction of images of God as well as of Muhammad and the other prophets and sacred heroes in religious sanctuaries in favor of abstract and geometrical designs, highly stylized motifs, and especially quranic calligraphic inscriptions, which for Muslims are the revelation of God.

During the seventh- and eighth-century confrontations with the Byzantine Empire, Umayyad caliphs, including Abd al-Malik (r. 685–705) and Yazid II (r. 720–24), enforced these theological tenets by ordering the destruction of Christian figural art in churches and even in private homes in the regions under Islamic rule (Herrin, 322–323).

As with Jewish aniconism, it would be likewise erroneous to equate the Islamic theological prohibition of idolatry with the censure of all figural representation in art. Where secular art—the decoration of palaces, the illumination of manuscripts, or ceramic or mural paintings, for instance—was concerned Muslim artists and artisans adopted certain aesthetic canons of pre-Islamic Mesopotamia, Persia, Byzantium, Coptic Egypt, Iberia, Central Asia, India, and China in their representation of human and animal figures, which could include the representation of religious motifs such as episodes of the life of the prophet Muhammad or the caliphs.

In addition to these geopolitical influences, artistic expression in the Islamic world depended to a large extent upon the ideological intent of the dynasty or individual who patronized works of art and architecture to foment political or sectarian ideals; manifest legitimacy, power, or piety; or commemorate important events or people. More often than not art and architecture were produced in the service of statecraft (*siyasa*) rather than religion, and this holds true even for the commissioning of religious institutions (Behrens-Abouseif, 126), in which lavish ornamentations were simultaneously statements of piety and political power. Yet these individual or dynastic patrons in turn were not entirely immune to the pressure of the ulema and other influential religious personalities who sought to impose their often contested legal and theological opinions regarding the propriety of art and ornamentation in general or the legitimacy of certain artistic canons.

THEOLOGY, PHILOSOPHY, AND THE ARTS

Underlying the problem concerning who in Islam inspired and paid for art was a pair of diametrically opposed traditions in Islamic art that were justified on the basis of the Quran and the hadiths of the Prophet but were articulated mostly from the Umayyad period onward. On the one side, some scholars claimed that art ennobled piety; on the other side, legal scholars disdained art as a seductive distraction from piety and as an abominable stimulus to idolatry. One of the most heated debates concerned the propriety of decorating mosques. A sound (uncontested) hadith of the Prophet states that he described building decorous mosques as "the most unprofitable thing that eats up the wealth of a believer" (Behrens-Abouseif, 126). There is no doubt that the Prophet's mosque in Medina and the earliest mosques built by his companions were all simple, unadorned structures. Yet the discussion of mosques that follows will show that the opinion that mosque decoration "diverts the heart and seduces the believer to neglect prayer" (Behrens-Abouseif, 127) did not prevail. Nevertheless, even as late as the 12th century, some theologians, such as al-Ghazzali, continued to abhor the decoration of mosques and the illumination of quranic fascicles, arguing that God only cares for the devotion of the believer's heart and not for the embellishment of mosques with silver and gold. Al-Ghazzali and chroniclers such as the Almoravid Moroccan Ibn Abi Zar (d. c. 1320) condemned the lavish decoration of mosques to display a patron's piety or penitence for sins committed as acts of hypocrisy.

Those who welcomed art in Islam maintained that Muhammad himself apparently preserved an image inside the Kaaba, the major shrine for Muslim pilgrims at Mecca. He also approved textiles his young wife, Aisha, owned. If the Prophet tolerated art, then the making

and possessing of beautiful things inherently could not be wrong. Indeed, many Islamic scholars and thinkers, such as Ibn al-Haytham (d. 1039) and Hazim al-Qartajanni (d. 1285); philosophers, such as Ibn Sina (d. 1037), al-Farabi (d. 950), and the Brethren of Purity (Ikhwan al-Safa); and Sufis such as Ibn Arabi (d. 1240) commented upon the positive psychological and pietistic impact of beauty and ornamentation on the soul of the beholder. Ibn al-Haytham, Ibn Sina, and al-Qartajanni concurred that an image is more powerful than the reality that it represents because it stirs the imagination and provokes powerful emotions. Ibn Haytham was especially influential in observing that the perception of beauty is not only a visual but also a cognitive process that depends upon a variety of factors—light, color, form, distribution, and others—that positively affect the soul. Ibn Arabi wrote that the contemplation of all forms of beauty, whether physical, spiritual, or intellectual, moves one toward the love of God, who is the source of all beauty and whose beauty is the most perfect and eternal (Behrens-Abouseif, 29).

Ibn Arabi's positive attitude toward artistic beauty contrasts with that of many other representatives of the ascetic and Sufi traditions. Many Sufis and ascetics sustained that the mundane world should be shunned for its ephemerality, guile, and deception, a worldview best expressed in the famous statement of the female mystic Rabia al-Adawiyya (d. 801): "The contemplation of the Maker preoccupies me, so that I do not care to look upon what He has made." Ibn Qayyim al-Jawziyya (d. 1350), one of Ibn Arabi's most strident opponents, argued that because the eye is the "mirror" of the heart, the contemplation of physical beauty is tantamount to erotic seduction (*idman al-nazar*, literally "addiction of the gaze"), which leads to error and sin. Most medieval Sufis were more preoccupied with attaining the divine vision of God, the quintessence of beauty and

goodness, hence their preference for those artistic forms that could induce states of spiritual ecstasy, namely, quranic recitation and listening to mystical music (*sama*) and love poetry, each of which in its own way is also ornamented and beautifully adorned.

The diversity of opinions discussed thus far lends credence to Behrens-Abouseif's thesis that, with the exception of calligraphy, poetry, and music, Muslims did not articulate a canon of Islamic artistic and aesthetic norms. Perhaps it is more correct to emphasize certain key differences in the conceptualization of what is art in an Islamic context. Architecture, for example, was not considered an art but rather a "functional craft" (*sinaa*) that fulfilled administrative, political, commemorative, or religious functions and was understood to be the product of the founder rather than the creation of the architect (Behrens-Abouseif, 166–167). One looks in vain for treatises on the visual arts that articulate the canons of painting or sculpture; instead one has to cull the imagery of poetry and belles letters to find the *topoi* of human, animal, and floral beauty. For instance, a woman must have a face as round and fair as the full Moon, a long neck, full breasts, a slender waist, large black eyes, and long flowing black hair. A she camel or gazelle might be praised for its long neck, the smoothness of its cheeks, the swiftness and strength of its legs. Surviving specimens of mural paintings of palaces and sculpture do seem to concur with these poetic images. There was also a general consensus scattered in literature, biographies, historical chronicles, poetry and belles letters, and theological treatises that equated beauty with goodness and blessings and acknowledged the powerful psychological impact of images on a person.

Art in the medieval Islamic world was not a form of religious worship, a means of communicating with the divine, or an articulation of theological doctrine, as it was in medieval Christendom. Consequently, it is misguided to look for an absolute authority, legislation, regulation, or set of rules in Islamic tradition that dictated, restricted, or imposed a canon on the arts, crafts, and architecture. Rather, the pertinent interrogatives are the role of patronage, the "expressive intent" (Humphreys, 1972) of the patron, and the identity and provenance of the patron and the artist.

IBN KHALDUN'S THREE CLASSES OF PATRONS

In 1377 Ibn Khaldun in his *Introduction to History*, the *Muqaddima*, ventured an excellent hypothesis on the workings of the medieval Muslim patronage system. This Tunisian historian, sociologist, and philosopher investigated the relationships between the mosque, textiles, rugs, and manuscripts and their makers. Who ordered the artist to create his work of art? Who paid for the building of the great mosque? Ibn Khaldun suggested three types of patronage.

First among Ibn Khaldun's patrons were the caliphs who succeeded to the rule of the Prophet in Medina. In the period of the expansion of Islamic rule, it was the duty of the caliph to order the building of mosques, the administrative headquarters (*dar al-imara*), fortresses, palaces and other residences, fountains, libraries, and other public works necessary for the common good. They also minted coins and commissioned the writing, copying, illumination, and binding of scientific and religious books; the fabrication of extravagant textiles; and the creation of official documents. These were the signs of the Muslim caliph's legitimacy, power, and presence, but their exquisite execution renders them art forms as well.

From the late seventh century, coin inscriptions were chosen to proclaim the principles of the Muslim faith and its mission to all humankind. Clothing was a prominent item of gift

exchange between rulers as well as a means of welcoming those received at court. Special honor robes called *khila* and elaborate embroidered and inscribed fabrics called *tiraz* were created in royal textile factories (discussed later in this chapter). Books and documents transferred knowledge and beliefs but also guaranteed agreements and disseminated orders. Writing was the formal seal of quality. Arabic script gave consistent expression to requirements of the faith and needs of the state in a vast empire of diverse languages and peoples. The Umayyad and Abbasid caliphates maintained these traditions, as did their Shiite foes who established the rival Fatimid caliphate in Egypt and Tunisia in the 10th century. The governors of major cities and provinces of the caliphate were also enjoined to dedicate or amplify public buildings and to protect the congregational mosques as places of prayer and community gathering.

Ibn Khaldun longed for the restoration of a united caliphate and insisted that only a single, stable dynasty could ensure the political and economic stability necessary for the continued patronage of Islamic forms of art and architecture. History has shown, however, that some of the most spectacular examples of Islamic artistic and architectural achievements took place in the postcaliphal period and during times of political conflict. After the fall of the Umayyad caliphate in Spain in 1031 and the defeat and execution of the last Abbasid caliph by the Mongols in 1258, the caliphate as an institution lost much of its practical authority. Even before the definitive collapse of the Abbasid caliphate, dynasties such as the Shiite Buyids (945–1060) and the Turkish Seljuks (1038–1327) ruled in the northern Persian and Central Asian regions of the flagging Abbasid territories. In Spain one could mention the Party Kingdoms (*Muluk al-tawaif*) (1001–86), the Berber Almoravid and Almohad dynasties (1062–1150, 1145–1269,

respectively), and the Nasrids who ruled Granada, the last region of Islamic territory in Spain until its surrender in 1492. Nor can one forget the reigns of the Kurdish Ayyubids (1171–1250) or the Mamluks (1250–1517) in Egypt and Syria. All of these competing regimes, governors, and strongmen vied with each other in the foundation of magnificent palaces, exquisite mosques and sanctuaries, the mintage of gold and silver coins, and the patronage of acclaimed court poets, musicians, and artisans to proclaim their superior power and piety. Moreover, in all times and places, wealthy women were prominent patrons of art. The mothers, sisters, and wives of caliphs, governors, and religious leaders established religious endowments (*awqaf*) for the building and maintenance of mosques, madrassas, tombs, and religious sanctuaries. These wealthy and powerful women also commissioned beautiful glassware, metalwork, ceramics, illuminated qurans, and other objects of art for their own private use and as official gifts.

The city was the second form of patronage Ibn Khaldun identified. The great caliphal capitals such as Baghdad and Cairo; the Iberian cities of Córdoba, Seville, and Granada; the North African strongholds of Fez, Marrakesh, Meknes, Rabat; the ruined Fatimid cities of Algeria; Syria's Aleppo and Damascus all contained important Islamic architecture and artistic products. The arts were identified with a city's urbanity and civilization, which distinguished it from rural "primitive culture," and their loss was a sure sign of a city's decline. Ibn Khaldun specifies that an essential part of a city's development is the construction of "elegant public works, private residences, and luxurious articles," which, in turn, generate increased income, higher wages, and increased prices, and encourage the artist to specialize his skills even further in order to become more competitive (Mahdi, 202–203). The city's continued growth and the political and economic

well-being of its inhabitants ensured the continuance of the demand for these artistic products. Yet the city's patronage cannot be separated from that of the ruler, for as we saw, Ibn Khaldun deemed it imperative that a stable dynasty exist to guarantee the political and economic stability required to sustain and finance the signals of the city's progress and civilization and ensure the common good of all its inhabitants (Mahdi, 213, 276).

The faith engendered from religious solidarity was Ibn Khaldun's third source of patronage. According to his science of culture, the primitive solidarity of kinship ties could only result in the creation of primitive societies in which the simplest of art forms arose solely to meet the most basic necessities of the people. The most advanced form of solidarity was religious faith, which transcended kinship and geopolitical boundaries, curbed human hedonistic impulses to focus solely on the trappings of mundane wealth and power, and stimulated people to turn their attention instead to a life of virtue and a concern for the world to come. Throughout the Islamic world from Africa to China, the production of beautiful religious buildings, manuscripts, and objects was required to inspire and please the faithful and to remind them constantly of the precepts of the law and the reality of the last judgment. Despite the minor architectural, inscriptional, and ornamental features distinguishing a mosque in Mali from one in al-Andalus or Iran, or differentiating a Fatimid Shiite mosque from a Mamluk Sunni one, each mosque remained the central site and symbol of the prayerful Muslim community. Magnificent Quran manuscript pages written in the Iranian cursive script called *Nastaliq* differed markedly from holy books written in the angular *Kufic* script, but these typically Islamic creations were all intended to advance the faith.

WILD INDIVIDUALIST ARTISTS

Wild legends depicted the power of individual artists to transcend limitations of law and imposed orders of a patron. The significance of the artist in fictional literature attested also to his importance in contemporary Muslim intellectual life. An architect designing for the royal patron Timur (Tamerlane) who reigned from 1370 to 1405 in Samarkand, Uzbekistan, was ordered to finish the Great Mosque of Samarkand while his patron conqueror was away on a military expedition. Timur's wife, Bibi Khanum, supervised the construction. The architect fell in love with her and refused to complete the mosque until he had kissed her. She agreed, as Timur was returning home, but placed a pillow on her cheek to soften the mark of his passion. The architect's kiss was so hot that it penetrated the pillow and burned the queen's delicate cheek.

The architect completed his mosque. Timur returned and though delighted with the building was perplexed and angered by his wife's scar. Who disfigured her? After she revealed the truth, the emperor's guards tried to imprison the architect, who climbed to the top of one of his beautiful new minarets and before the guards could snatch him, jumped. His excellent architecture caused angels to catch him. They flew him to Mashad in Iran to continue building magnificent buildings.

Another artist created magnificence but nevertheless inspired evil. A Persian sculptor and engineer named Farhad fell in love with the princess Shirin. That love affair was featured in the 12th-century epic *Khamseh* of Nizami Ganjawi (d. 1209) in the romantic story of Khosrow and Shirin. As did Nizami, another poet, Amar Khosraw Dihlavi, whose long life extended from 1253 to 1325, portrayed Farhad as symbolizing the highest Islamic art forms while nevertheless being a troublesome intellectual rebel.

An earlier architect imprisoned in the Egyptian city of Fustat had heard that Ahmad ibn Tulun (d. 884), the powerful governor of Egypt, wanted to commission a fancy minaret for his new mosque. The architect therefore invented the spiral that would intrigue the ruler and guarantee his liberation from prison.

Religious Art and Architecture

MOSQUES

The word *mosque* is from the Arabic *masjid*, meaning "a place where one prostrates to pray," and the term entered the English language via the French *mosquée* and the Spanish *mezquita*. In its origins the term did not signify any particular type of building and appears generically in the Quran and Hadith sources to refer to Christian churches and tomb sanctuaries as well as to Jewish temples. The Kaaba or cubic shrine that Abraham built according to God's instructions, and the *Maqam Ibrahim*, the rock bearing the footprints of the patriarch that miraculously were embedded as he built Kaaba, could also be referred to as mosques in the generic sense of a place of worship. The first purpose-built mosques include the one founded by the prophet Muhammad in Medina, others constructed either at his behest or during his lifetime, and those built by the first caliphs. The traditions agree that they were all simple, quadrangular courtyard structures, surrounded by a wall made of baked brick. Hypostyle columns built of the trunks of palm trees and covered over with the palm leaves and clay formed entries leading to the *qibla*, or location indicating the direction of Mecca toward which Muslims must pray. The roof coverings (*sufaf*) provided shade and shelter to wayfarers. The Prophet would preach leaning against a palm tree. These simple mosques were multifunctional since they served not only as places of prayer, but as centers of administration where civic ordinances were announced and disputes were adjudicated, as well as business forums and communal gathering places.

Gradually the austerity and simplicity of these primitive mosques gave way to more artistically complex structures. The first caliphs and successive governors of Islam augmented the size of the first mosques of Medina and Mecca and incorporated the more sophisticated architectural techniques and materials of the newly conquered lands in the construction of new mosques. In Iran and Iraq the columns were built of brick and therefore heavier in appearance and more substantial. The columns of the Great Mosque of Córdoba are of marble and taken from a Roman temple. Baghdad's numerous spectacular mosques were widely imitated and affected the style in the Arabic capital of Spain, Córdoba.

Mosques followed a basic configuration that complied with the liturgy of Islamic worship, and not surprisingly, these liturgical elements also became the most richly decorated elements of the mosque. In contrast to early Christian churches that were built in the form of a cross and led the worshiper down a long nave to reach the altar, the mosque design was formulated to enable large masses of people to gather together for ritual prayer facing the *qibla* wall, which indicated the direction of Mecca. As noted, worshipers accessed this sacred space shaped in the form of a wide nave via an open courtyard. As early as the late seventh century, decorated fountains were installed in the center of the courtyard so that Muslims could perform the required ritual ablutions before entering the mosque to pray. Eventually multiple rows of hypostyle columns flanked the main central nave where the faithful gathered for prayer behind the prayer leader, or *imam*, who chanted the prayers. Mosques throughout the medieval Islamic world from Mecca to Baghdad, Medina,

Arches of the Great Mosque of Córdoba   Institute for Medieval and Renaissance Studies, The City College.

Jerusalem, Damascus, Aleppo, Qayrawan, Córdoba, Nishapur, Khurasan, Samarkand, and beyond all followed this basic design.

All the faithful faced a wall with a symbolic niche called a *mihrab*, which indicated the direction toward which Muslims must pray facing Mecca. The *mihrab*, introduced in the Umayyad period, consists of three basic elements: an arch, supporting columns and capitols, and the space between them, which taken together give the impression of a doorway (Fehervari, *EI2*, VII, 7a). Though small, the *mihrab* came to be spectacularly decorated with sculptural modeling; painted stucco; carved stone; encrustations with marble, tile, or mosaic

tesserae; and beautiful quranic inscriptions. These ornate structures were a far cry from the simple strip of paint or stone placed on the wall of the mosque facing the direction of Mecca. The *mihrab* that was added to the Prophet's mosque in Medina commemorated the spot where Muhammad while leading prayers had planted his lance to indicate the proper space for prayer. The *mihrab* was used throughout the lands of Islam to define the place where the leader of communal prayer should stand. In major city mosques, the placement of the *mihrab* was marked by a small dome over the square in front of it.

Next to the *mihrab* stood a raised pulpit, the *minbar*, from which the preacher delivered the Friday noon sermon. The *minbar* dates to the time of the prophet Muhammad, although, as noted, he originally preached leaning against a palm tree at his Medina mosque. The traditions also record that he sometimes preached from atop a camel. The first *minbar* that the Prophet reportedly used was a small raised platform made of tamarisk wood, which responded to the need to facilitate the hearing of his sermons and speeches before increasingly larger crowds of people. The earliest notices indicate that he sat on it not only to preach but also to make important pronouncements and judgments, leading the scholars Becker and Pedersen to conclude that the *minbar* functioned as a throne and represented the authority of the Prophet "in his capacity as a ruler" (Pedersen, *EI2*, VII, 73a).

Until the end of the Umayyad period the *minbar* continued to serve the double function of sermon pulpit and seat of the ruler or governor, after which it was mainly used for religious preaching. Even still, the *minbar* remained a symbol of both sacred and secular authority and as such was duly ornamented with magnificent and imposing decorations. Some were made of brick or stone, although the preference seems to have been for wood, perhaps in

keeping with the example of the first *minbar* built for the Prophet and with the need for a lightweight structure that could easily be transported from one place to another. And whereas the Prophet's *minbar* reportedly consisted of three simple steps, the *minbars* from later periods measured over three meters in height and were elaborately carved out of expensive, exotic woods such as teak and sandalwood. The basic elements include a flight of steps, the entrance of which might be flanked by two tall columns or a portal with or without a door. At the top of the stairs is a platform upon which a chair is placed and that is also supported by four posts and possibly crowned with a dome or canopy. Each side of the stairs would be covered with panels that might be intricately carved with floral, abstract, or geometrical designs. Some *minbars* were covered with a richly embroidered cloth cover called a *kiswa* (the same name for the cloth covering the sacred Kaaba) in order to protect them when not in use or while being transported.

The crier (*muezzin*) called the faithful to worship at the appropriate hours five times per day from the tall tower or *minaret* adjacent or attached to the mosque. The word *minaret* derives from the Arabic *manara*, meaning "a place of fire or light," but which by extension also connotes a "signpost" or "boundary marker." Other less common terms are *midhan*, which means "the place of the muezzin," and *sawmaa*, a North African term that originally designated a hermit's cell with a slender pointed apex, which was usually located at the top of the rectangular tower of Byzantine churches (Hillenbrand, *EI2*, VI, 361b). The minaret is an innovation that was introduced to the mosque structure after the time of the Prophet. The first *muezzin*, an Abyssinian slave named Bilal, delivered the call to prayer from the rooftop of the Prophet's mosque.

During the first century of Islam specially built staircases enabled the muezzin to climb up to the roof and enter a kiosklike structure (*dakka*) from which he would call the faithful to prayer. The characteristically towerlike structures, which could be square, cylindrical, polygonal, spiral, or a combination of these, emerged in the mid-sixth century in Syria, Egypt, and Iraq.

Since the ritual function of the minaret was fulfilled from the beginning by simply performing the call to prayer from the rooftop of the mosque, scholars have plausibly argued that the minaret's primary function was ideological rather than ritual: to endow the mosque with an audacious visible symbol that would clearly distinguish it from Christian churches and proclaim the presence and triumph of Islam in lands once ruled by Christians or Zoroastrians (Hillenbrand, *EI2*, VI, 361b). Indeed, Hillenbrand posits that the minaret in the form of a tall tower was an architectural form borrowed from other religious traditions, especially the Christian church tower and the Mesopotamian ziggurat, but "imbued with a new Muslim meaning" (Hillenbrand, *EI2*, VI, 361b) in order to glorify Islam.

The simple square-towered minaret with an internal staircase originated in Syria. In the Maghrib and al-Andalus minarets were built with thicker walls and were much taller and wider on the inside, permitting the incorporation of chambers. Cylindrical and helicoidal minarets with winding internal staircases or external ramps snaking around the structure emerged in Iran during the Abbasid period and may be beholden to Zoroastrian influence. As the most visible and imposing symbol of Islam, minarets were increasingly richly decorated with latticework designs, exquisite calligraphy, and geometric motifs. Some minarets were decorated with entire suras from the Quran and historical inscriptions designating their commemorative function. Central Asian minarets are known for their magnificently glazed tilework and gilded decorations. The aesthetic

and decorative functions of the minaret are seen in the fact that many mosques contained more than one; in some cases two minarets might flank the principal entrance or there might be four, one for each corner of the mosque. Ottoman mosques were famous for their slender elegance and their construction in pairs, quartets, and sextets, making them symbols of royal power since only the sultan's mosque was permitted to have more than one minaret (Hillenbrand, *EI2*, VI, 361b).

In the 12th century a new mosque pattern emerged. The centers of the interior sides of the courtyard were emphasized by incorporating in them an *iwan*, a high, vaulted hall open to the courtyard. One such *iwan* hall formed the entrance of the building. The *iwan* opposite the entrance led to the square sanctuary chamber, covered by a dome, placed before the *mihrab*. A common form of decoration with small half-niches depended down from the ceiling, as stalactite decoration, called the *muqarnas*. The mosques of India and Turkey had multiple *iwans*, which were flanked by minarets.

An example of an Umayyad congregational mosque was the mosque built by Abd al-Malik al-Walid, who reigned between 705 and 715 in his capital city of Damascus. The mosque began its life as a Roman temple upon which the Byzantines had constructed a church. The Muslim community grew so large that a new structure was needed. Therefore the Islamic leaders destroyed the Roman temple and the Byzantine church that had stood in an enormous enclosure with massive walls and retained the enclosure walls as the structural walls of the mosque. The building's broad courtyard surrounded by arcades and a huge prayer hall was constructed against the southern wall, the *qibla*. The major facade of the building faced inward. That was an identifying characteristic of Islamic architecture. The prayer hall at Damascus had three parallel covered spaces separated by massive stone columns, probably salvaged from the earlier Byzantine church, which supported a wooden roof.

The space leading from the center of the court to the *qibla* wall had a gabled roof originally covered with wooden domes. The gable end facing the court had one or more wooden domes that made this a place of honor where ceremonies took place inside a screened area called a *maqsura*, beneath the dome. As noted, this space also would have included the preacher's *minbar* strategically located adjacent to the *mihrab*, the semicircular recessed niche in the center of the *qibla* wall to indicate the direction of Mecca. In the early days of Umayyad rule the caliph himself led the prayers and delivered the sermon, conscious of his role as the Prophet's successor.

The Umayyad mosque was lavishly decorated. Its lower walls were covered with marble plaques and its upper walls with glass mosaics. Inscriptions from the Quran and landscapes in mosaics included one large panel with an idyllic landscape of a river flowing beneath fantastical houses and pavilions separated by stylized trees all depicted in blue, green, and gold tiles. This may have represented paradise as described in the Quran, the home of true believers after death. While the mosaic technique of the Umayyad mosque derives from Roman and Byzantine traditions, the mosaics themselves exhibit a trend toward stylization and abstraction that would be enduring features of Islamic art. For example, the plants and trees are not depicted in a naturalistic manner, but stylized with jewels for flowers and fruit.

The great Samarran mosque of the Abbasid caliph al-Mutawakkil ala Allah (r. 847–861) was over twice the size of the Umayyad mosque in Damascus. Now only a magnificent ruin, for centuries the Samarran mosque was the largest mosque in the world. It stood within a huge enclosure of approximately 1,200 by 1,500 feet.

Latrines and washing facilities were placed at the periphery and separated the mosque from the surrounding city. Inside the brick walls strengthened and decorated with buttresses, columns supported a flat wooden roof. Covered halls were deepest on the *qibla* side and surrounded the court on all four sides. The *mihrab* had doors on each side, one allowing the *imam* or prayer leader to enter the mosque, the other a closet where the *minbar* was kept when not required for the Friday sermon. This mosque was lavishly decorated with glass mosaic and marble panels.

Its novel feature was the immense spiral tower standing opposite the *mihrab* outside the mosque but once linked to it by a bridge. More than 165 feet tall, the tower was called the spiral or *malwiya* and around its exterior a ramp of increasing slope wound up from the base to the summit. A pavilion once graced the pinnacle. Some scholars suggest that the Mesopotamian ziggurats, such as the Tower of Babel, inspired the *malwiya* tower. Others maintain that this spiral was an Abbasid innovation allowing for an immense structure towering over the surrounding plain. The spiral minaret tower that served for calling the faithful to prayer also must have signaled to observers near and far that a vast political power built it.

Turkish mosques popular in the 14th and 15th century reached their apogee in the 16th century. Turkish dome designs distinguished these mosques from all others: a single dome or multiple domes massed together or one dome combined with two or four supporting half-domes. Often this huge Turkish earth-hugging cupola with its dependent range of coordinated secondary domes was juxtaposed against slender minarets pointing like rockets aimed at heaven.

Patrons of architecture included references in their buildings to things past or things distant. Two 13th-century Mamluk rulers, al-Zahir Baybars (r. 1260–77) and al-Nasir Muhammad Qalaun (r. 1280–90), sought in early buildings in Cairo and Jerusalem models for their own local constructions. They intended ideological, political, and emotional references that their audience would understand. Mosques, like mausoleums, were designed to elicit in observers reminiscences of distant lands, times, and triumphs.

THE DOME OF THE ROCK

One of the first great buildings of Islam technically was not a mosque but a sanctuary or *haram*, the rock where Allah demanded that Abraham sacrifice his son, Ishmael. Muslims built the Dome of the Rock in 690 on the site of the Great Jewish Temple in Jerusalem. Caliph Umar ibn al-Khattab had visited Jerusalem, the holy city of Jews and Christians, after his warriors captured it in 638 and Caliph Muawiya (661–680) was proclaimed caliph in Jerusalem. Jews and Christians well appreciated the symbolism of the Dome of the Rock as an unequivocally Islamic shrine. Muslims asserted their primacy over the Abrahamic tradition by literally superimposing the Islamic building upon the Jewish and Christian foundations. Within the Dome of the Rock verses from the Quran proclaimed God "the mighty, the wise," whose angels blessed the Prophet and called Christians to see Jesus as God's apostle, God's word, and God's spirit, but *not* God's son.

MADRASAS

The Iraqi style of mosque with its many vaulted *iwans* became the basic design of another type of Islamic building, the theological school or religious seminary called the *madrasa*. In the madrasas, the *iwans* served as lecture halls. The space along the side walls was subdivided into student study rooms. Iranian mosque design also was used for Muslim hospitals in Syria and

Anatolia as well as for the commercial caravan hotels called caravanseries throughout the Islamic empire.

QURAN MANUSCRIPTS

Early manuscripts of the Quran were written in one of two formats. In vertical-format the book was taller than wide. It was customary for pages to have approximately 25 lines of a distinctive script in which the vertical strokes slanted to the right. This type of script was called either *hijazi* (from the Hijaz, the region of western Arabia including Mecca and Medina) or *mail*, meaning "sloping." The absence of vowels, chapter headings, and verse markings make these early manuscripts difficult to read but venerated.

The second, more common format was horizontal with the pages wider than high. Thousands of fragments and full manuscripts in the horizontal format ranged in size; some could fit into one's pocket, while others were large manuscripts for public display and reading in the mosque. The distinctive horizontal format may have been adopted to distinguish manuscripts of the Islamic Quran from the Christian Bible, generally written as a vertical-format book, and the Jewish Torah, written as a scroll. Marginal medallions in certain manuscripts marked repeated divisions within the text. Titles often were written in smaller script with a different color of ink to show that they were not a part of the received text. Horizontal bands ending in fantastic leaflike forms called palmettes spilled over into the center margins. Marginal decorations often gave rise to more elaborate decorative schemes spread over facing pages. Geometric vegetal motifs were painted in colors and lavish gold.

Parchment manuscripts of the Quran often were kept either loose in sheets in boxes or bound as volumes with leather covers. Because Arabic was read from right to left, the spine of the book was on the right and the title often written along the spine. Islamic bindings customarily had an envelope flap on the front as a fore edge to protect and contain the text. The earliest Muslim book bindings appear to have been made of leather glued to pasteboard with flaps at the top and bottom. Blind-tooled decoration was stamped or worked into damp leather with burnishers. Often books were decorated with a twisted band of ornament or an inscription surrounded by a wide border.

Under Sultan Timur's patronage (r. 1370–1405) the manuscript maker named Umar Aqta created a startling Quran so minuscule that it could fit in the bezel of a ring on the leader's hand. Timur rejected this brilliantly tiny gift as inconsequential. Undaunted, the intrepid calligrapher now created a Quran so gigantic that it could not be lifted by a single man and had to be tied to a wheelbarrow for presentation to the emperor. Timur's whole entourage enjoyed this magnificently huge work of art and richly rewarded the calligrapher.

ARABIC CALLIGRAPHY: *KUFIC, NASKH, THULUTH, TALIQ*

Calligraphy, the form of writing, was itself considered an important art primarily because it allowed the writing of God's word in the Quran and therefore its reading throughout the world. Of the three types of basic Arabic script, *kufic* was thought to have been invented in eighth-century Kufa, a city in Iraq that was a capital of an early Islamic caliphate. The kufic script is characterized by its dramatic angularity, especially in its elongated horizontal lines. Words tend to be wider than their height. It was the preferred script for ornamental inscriptions on oblong and angular surfaces because its horizontal lines could be easily adapted to any space and material, from embroidery (*tiraz*) on silk robes, to mosque inscriptions carved in stone or wood.

The second Arabic script, called *naskh*, was rounded and cursive. Naskh letters are distinguished by their short horizontal stems, the fullness and depth of their curves, and the equivalent vertical depth of letters reaching above and below the medial line. Though older than the kufic script, naskh only gained prominence in the 10th century. A later elegant derivative was *thuluth*, whose defining characteristic is the curved letter with the barbed head. Letters are usually linked and intersected in ways that give the impression of a complex yet elegant, continuous flow of words. As such, *thuluth* was less favored in writing the Quran and preferred as an ornamental script.

From the ninth century Persians adopted the *taliq* script, characterized by the distinctive "hanging" and elegant simplicity of its letters. (The word *taliq* is derived from the Arabic verb *allaqa*, "to hang.") A lighter and more elegant version is called the *nastaliq*, which combines the *naskh* and *taliq* styles. The *taliq* and *nastaliq* calligraphy styles were favored by Turkish and Indian Muslims as well as Iranians as an appropriate script for monumental inscription and manuscript writing, but not for the Quran.

1592 Calligraphic pages from the al-Kawakib al-durriyya *(The pearly stars), also called* Qasidat al-burda *(Ode to the cloak, a poem in praise of Muhammad)*   Art Resource, NY.

The significance of writing and penmanship in Islamic lore becomes evident when one examines the first words that God revealed to his prophet, Muhammad: "Recite in the name of your Lord who taught by the pen, taught man what he knew not" (Q 96:1–5). The phrase "by the pen and what they write" suggests that pen from the Arabic *qalam*, meaning "reed pen" or "shaft of light," was the first thing God created so that he could write down events to come. Man's every deed is recorded in the book of reckoning for the final accounting on judgment day (Q 69:18–19).

Arabic script, like Hebrew and Syriac script, was written right to left. It has an alphabet of 28 distinct sounds that linguists call phonemes but only 18 letter forms. Therefore some letters have five different sounds. For instance, *ba*, *ta*, *tha*, *nun*, and *ya* are represented by the same letter shape. Most Arabic phonemes also are found in English and other European languages. Arabs sometimes refer to their language as the "language of the dod," a heavy *d* sound unique to that language. Many languages have two or more distinct forms of writing, including a monumental or printed form in which letters are written separately, as in modern English capital letters, and a cursive or handwritten form, in which they are linked. Arabic, however, has only one cursive form although with many styles of script.

Individual letters change shape depending upon their position in a word. The same letter can have one form when it stands alone, another at the beginning of the word as an initial, another in the middle of the word as a medial, and yet another at the end of the word as a final. Particular words and phrases indicate the beginning of a declarative sentence, a new thought, or a question. As all other Semitic languages are, Arabic is based on a system of roots with three or four consonants called radicals.

A vocabulary generated by these roots has grammatical transformation according to regular patterns. For instance, the combination *ktb* is a root conveying the idea of writing. From it are generated words such as *writer* or *scribe*, *katib*; *book*, *kitab*; *bookseller*, *kutubi*; *school*, *kuttab*; and *office* or *writing place*, *maktab*. Therefore context determined how *ktb* is read, as, "he wrote," *kataba*; "it was written," *kutiba*, and context determined which. To provide more certainty and less variations in the preservation of God's revelations, Caliph Abd al Malik introduced marks to distinguish different sounds sharing the same letter form.

For instance, *ba* was expressed by adding a short stroke under the basic letter form, *ta*, by adding two strokes above the basic form, *tha* by adding three strokes above the basic form, *nun* by adding one stroke over the basic form, and *ya* by adding two strokes under the basic form. Later these strokes were replaced by dots. Short vowels were indicated by marks resembling accent stress above or below the appropriate letters. These marks also distinguished long vowels from consonants since the long *i* and the long *u* are written with the same phonemes as the consonants *y* and *w*, respectively. The Dome of the Rock in Jerusalem, which Caliph Abd al-Malik built, shows this new inscription system. The single statement running counterclockwise from the southwest corner contains the invocation to God, "In the name of God, the merciful, the compassionate, there is no God but God, Muhammad is the messenger of God." Because of the venerated position of writing God's revealed word, arts of the book were preeminent. Writing, however, was not reserved for books alone. Writing and calligraphy were significant decorations of buildings, like the Dome of the Rock, and especially for coins.

Coins preserved early Islamic writing. Apparently during the first 60 years of Islamic rule no coins were minted in Syria. Minting essentially began during Abd al-Malik's reign. A gold dinar from the year 692 showed three standing figures on the front and imitated Byz-

antine coins depicting Emperor Heraclius. But coins imitating Christian and other symbols disappeared with the introduction of a gold dinar struck in approximately the year 696. The weight standard changed from the Byzantine solidus to 20 Arab carats. A written profession of faith filled the center of the coin and part of the coin edge; the rest of the space was taken up by quranic sura 9:33, describing the prophetic mission. On the reverse is Quran 112, a statement of God's oneness and a refutation of the Trinity. All this writing appeared on a small coin the size of an American quarter. The Islamic inscribed coin was characteristic throughout the medieval Islamic world.

The Secular Arts

ARTISTIC AND
ARCHITECTURAL STYLES

Iranian Art   In Iran, color was used in art for specific effects. Iranian artists did not hold up a mirror to the real world and reflect it in their paintings. They transformed the world's true appearance into a spectacular hieratic, formal two-dimensional scheme where colors were applied flat and by selection and organization of color to establish mood. Dynamic primary colors implied the clash of battle. Deep reds and blues suggested sensual passion of lovers. Combinations of red, orange, violet, and sulfur yellow might convey otherworldly awesome quality.

Color in costume demonstrated social rank. A green banner or robe meant its owner was a descendant of the family of the Prophet, called a *Sayyid*. Green clothes also signified a person had made the pilgrimage to Mecca. The Safavid turban was wound around a red upright baton that denoted the political affiliation of the wearer. Literary heroes customarily wore identifying livery. Rustam, the great hero of the Persian epic *Book of Kings*, *Shah Nameh*, almost always was depicted wearing a tiger skin. His horse, Rakhsh, had a dappled pinkish orange hide.

Iranian line drawing was closely related to fine calligraphy. Elegantly written words and inscriptions, especially pious quotes from the Quran, decorated books, stones, tiles, ewers, swords, pots, jewels, textiles, and costumes for both people and animals, such as the caparison of a horse.

Arabesques and *Muqarnas*   Tenth-century Iraq witnessed the development of two novel forms of architectural ornamentation, the arabesque and the *muqarnas* ("stalactite" vault). The arabesque and *muqarnas* quickly gained popularity throughout the Islamic world and have become the features that most readily identity the religious and secular architecture of Islamic culture. Arabesques were important Islamic abstract ornaments that consisted of flowers and foliage with reciprocal lines in elaborate networks of curves, countercurves, mellifluous lines, and geometric interlace. Arabesque geometric design magnificently combines art, nature, and mathematics in its aesthetic emphasis on order, harmony, and unity. The arabesque represents a penchant for stylized and abstract, rather than realistic, representation of nature.

On any given architectural surface calligraphic inscriptions, arabesques, geometrical designs, and stylized figural motifs coalesce in a way that Western art historians describe as "intricate" (read, chaotic) and an expression of *horror vacui*. In fact, the deliberate intent of the artist is to dazzle the eye of the beholder in a visual equivalent of the wordplays so beloved in traditional Arabic poetry. Nor do these forms appear arbitrarily on a surface: Calligraphic inscriptions tend to be placed on horizontal but not vertical bands running around the facade of a building or an inner wall. Functionally they mark off and highlight junctions between two

distinctive sections, the insides of which will be decorated with distinct geometrical patterns or arabesques.

The three-dimensional honeycomb-shaped *muqarnas* cells that decorate the domes of mosques, palaces, and other buildings display an appreciation of light as an aesthetic element of beauty in Islamic cultures. Geometrically the *muqarnas* forms intricate six- or eight-pointed stars, such as the beautiful examples in the Alhambra Palace Hall of the Twin Sisters or the perfect circle of the mihrab of the Masjid al-Shaykh mosque in Isfahan. The *muqarnas* cells reflect and refract light, causing a dazzling visual impact. This impact is further enhanced by the use of decorated and colorful ceramic or glass tiles in the dome structure of the *muqarnas*.

PALACES

The first Umayyad caliphs' residences in Damascus were built of brick and were located beside the mosque. The caliph's palace, called Khirbat al-Mafjar, was a two-story building that included a mosque with an outer courtyard, an audience hall throne room, and a bath, all of which were enclosed by a wall. The extramural part of the complex had a large forecourt with a fountain in the center. The main gate was flanked by two buttress towers. The palace had a magnificent dome reminiscent of the domes marking palaces of rulers in antiquity. The caliph easily could traverse the space from palace to the *maqsura* of the mosque.

The Muslim bath was a most lavishly decorated princely building, inspired no doubt by Roman baths. Excavations in the 1930s and 1940s in Damascus revealed a royal Islamic bathhouse. Its doorway was decorated with stucco sculptures of a prince and voluptuous dancers. A passage led to a grand hall once covered with vaults and domes. Outer walls were lined with alcoves and a pool. The floor was decorated with mosaic pavements, mostly geometric but one including a depiction of fruit and a knife. Hanging from the vault above was a chain carved like a Chinese puzzle from a single block of stone. A 33-seat latrine in one corner of the building suggested the number of people who must have been entertained at any one time in the bath hall.

A small four-room bath and a private audience room were for the most intimate of the prince's pleasures. The small audience room, the *diwan*, was lavishly decorated with carved stucco painted in bright colors with winged horses supporting birds that in turn upheld the dome from the top of which peered heads of handsome young men and women emerging from luscious acanthus leaves. The floor had a mosaic pavement imitating a fringed rug that depicted two gazelles grazing peacefully by a pomegranate tree while a fierce lion devoured a gazelle.

Although Khirbat al-Mafjar Palace was built during the reign of the virtuous Umayyad caliph Hisham who ruled between 724 and 743, its patron was his successor, al-Walid ibn Yazid II (r. 743–44). The monument's decoration was consistent with the more libertine al-Walid, whom contemporary sources refer to as a *khali* ("playboy") and extol for his dedication to athletic sport, hunting, and his patronage of poetry, music, and dance.

Art experienced a lengthy golden era of splendor during the reign of the Abbasids, who ruled from 750 to 1258. These rulers were related to the Prophet through his uncle Abbas and were welcomed by disaffected minorities in eastern Islamic lands, particularly Shiites who believed the Umayyads had usurped power from the Prophet's son-in-law, Ali, and his descendants. The Abbasids selected Iraq for the capital province for its beauty and for its geography. Iraq and the city of Baghdad were connected by land with Arabia and the Iranian plateau and by water with the Gulf and the Mediterranean Sea.

Iraqi Abbasid buildings were primarily made of baked brick or mud brick obtained from local clay from the Tigris and Euphrates Rivers. Though covered with plaster, which made a superb surface for decoration by carving, molding, or painting, major Abbasid buildings were not constructed of strong material aimed at long-term survival. Nevertheless, Baghdad became Islam's Rome. Greek science was revived and Greek and Roman works were translated into Arabic. Legal traditions of the earliest years of Islam were codified by doctors of religious law and four schools of law honored the most important religious scholars. Caliph Harun Al-Rashid pursued diplomatic relations with Emperor Charlemagne.

Iraq was the hub of a worldwide economy. Islamic silver coins were found in Scandinavia, where they were traded for furs, slaves, and amber that the Abbasid court prized. Chinese ceramics were carried by camel caravan across Central Asia or by boat around the peninsula and India to the Gulf. The Abbasids proudly proclaimed their artistic and scientific achievements and wrote geographies and histories to extol them.

Abbasid Palaces Early Abbasid rulers built large palaces. Caliph Abu Jafar al-Mansur (r. 754–755) founded the City of Peace, Madinat al-Salam, near the former Sassanian capital of Ctesiphon at the juncture of the Tigris and Euphrates Rivers. The site had commercial advantage as well as symbolic associations of succession to the ancient capital of Iraq and Iran. Abbasid culture owed much to Persian culture and ceremony. Baghdad, the new round Abbasid capital, imitated the early round Persian cities. Two sets of mud brick walls and four gates protected Baghdad. Inside was a ring of residences and government bureaus all centered on the caliph's palace and the congregational mosque.

The population passed the palace to reach the mosque for Friday prayer, thereby disrupt-

ing the caliph's privacy. Markets, mosques, and new palaces erected outside the walls enabled the caliph's large hoards of Turkish slaves from the steppes of Central Asia to serve as soldiers. In the mid-ninth century the caliphs moved with their Turkish guard to Samarra about 60 miles upriver with ample space for huge palaces and mosques.

Palaces of al-Muqtadir, al-Mansur, and al-Mutawakkil Two extraordinary palaces in Baghdad and one in Samarra suggested the variety of Islamic palace architecture and opulence of decoration. While the reports of visitors and ambassadors might have exaggerated details—were there precisely 23 palaces, 7,000 eunuchs, 4,000 African servants, four elephants, and 100 lions?—it was undeniable that Islamic palaces demonstrated wealth, extravagance, and power.

One historian recorded an embassy from the Byzantine emperor visiting the Abbasid caliph Abu l-Fadl al-Muqtadir (r. 908–932) in his Baghdad palace in 917. The caliph impressed the ambassador by leading him through a huge succession of palaces, courtyards, corridors, and rooms. The ambassador lived for two months in one palace. Then he was conducted to another after passing 160,000 cavalry and infantrymen before reaching a vaulted underground passage through which he was guided by 7,000 eunuchs, 700 chamberlains, and 4,000 African pages stationed along rooftops and upper chambers. Later he visited a third palace and a zoological garden. In the first court were four elephants and in a second court 100 lions. Then they visited a tree room and the Paradise Palace. Then after passing through a long passageway and touring 23 palaces they visited the large court called the Court of the Ninety. The ambassador's entourage sat down and rested. They were served water with elaborate ceremony.

Al-Mansur's palace was not as dramatic as al-Muqtadir's, but nevertheless it was impressive. It had a long reception hall leading to a domed audience chamber. A second hall was raised above the first and also had a domed ceiling. At the summit of the upper dome about 130 feet above ground level was a weather vein shaped like a horseman. Contemporaries referred to the horseman as "The Crown." In Baghdad it was an important landmark. According to legend, the sultan watched the horseman to learn where he pointed his lance, for that was the direction from which trouble would arrive. The Crown of Baghdad was a metaphor for the caliph's power and authority. Soon after the horseman was destroyed in a storm, enemies overran the city.

The palace of al-Mutawakkil at Samarra covered an immense area enclosed by blank walls. The residence of the caliph was a complex of courts and gardens reminiscent of the palaces where the Byzantine ambassador was received. It covered 400 acres and measured nearly one mile from the riverbank to the viewing stand overlooking an enormous cloverleaf racetrack. A vast flight of broad steps, the only grand staircase in medieval Islamic architecture, ascended from the Tigris River via the Bab al-Amma (Commoners' Gate), a great brick gate with three large arches. Interiors of the complex palaces comprised row upon row of courtyards and chambers leading to special halls such as a cross-shaped unit made up of a central domed hall surrounded by vaulted courts and halls open on one end. Sunken apartments arranged around pools allowed cool retreat from the torrid climate.

Palaces at Samarra were constructed of mud brick protected and embellished with a covering of carved or painted plaster, baked brick, and rammed earth, forced into molds until it hardened, and gypsum brick. Fragments of paintings depicted human figures. Apparently such portraiture was acceptable for interior decoration in private life, even though rare in the public marketplace. Geometric vegetal decoration common in the Umayyad period was joined to a second form of artistic depiction using cross-hatching for details. A third type of decoration called *beveled* style was a molding technique excellent for covering large wall surfaces. A distinctive slanted cut allowed the plaster to be released easily from the mold. Decoration in this beveled style had rhythmic and symmetrical repetitions of curved lines ending in spirals that formed abstract patterns in which the traditional distinction between the subject and the background was dissolved. This style was common in Iraq for stucco, wood, and rock crystal and imitated throughout the Islamic world.

ARTS OF FIRE: METALWORK, GLASS, CERAMICS

Ceramics, glass, and metalwork were called arts of fire because their manufacture required minerals extracted from the earth to be transformed by fire. Carved rock crystals and ivory were worked with similar techniques and decorated with comparable motifs to those that adorned ceramics, glass, and metal.

Most of these artistic products were conceived as practical items rather than beautiful works of art. Form most likely followed function. Artists in Islamic metalwork, glass, and ceramics worked to please their patrons, who may have determined the sizes, styles, decorations, and functions of the works of craftsmanship. Textiles and carpets likewise demonstrate a practical relationship between maker and user. Remarkably consistent styles were traceable to Fatimid Cairo, Ottoman Istanbul, and Mughal Delhi. In such capital cities as well as in Baghdad, Córdoba, Herat, Isfahan, and Samarkand, rulers collected and gathered objects from the past and supplied patronage for their creation in the present.

Glassmaking Islamic glassmaking, with Islamic ceramics, achieved a surprising cohesiveness in style, techniques, and decoration across the huge Islamic empire while nevertheless still retaining certain local, distinctive excellence, such as specifically Egyptian or Iranian traditions. Glassmaking was important to the economies of Syria, Egypt, Iraq, and Iran. Glassmaking and the selling of glass were important to both Islamic rulers and their subjects. By the beginning of Islam, free glassblowing, glassblowing into a mold, glass casting, and wheel cutting of glass were common techniques with multiple applications of design, coloration, and ornamentation.

Glassware figured among Islam's few cultic decorative objects: the lamps used to illuminate mosques. The mosque of the Umayyad caliph al-Walid was decorated with Byzantine glass mosaics and beautiful mosque lamps made from glass. Glass mosque lamps, according to the 10th-century geographer Muhammad ibn Ahmad al-Muqaddasi, were manufactured in his native Jerusalem. In the same century, glass weights were produced in Egypt using many colors, especially dark green, light green, turquoise, and purple.

Lusterware Expert Egyptian glassmakers decorated glasses with luster, a copper or silver oxide painted on the object then fired at extremely high temperature. The effect was lustrous and iridescent. Luster also decorated earthenware in Egypt, Iraq, and Iran. The Abbasid caliph al-Mansur attracted glassmakers, decorators, artisans, and artists to his court in Baghdad and thereby made the caliphal capital as well as Samarra and Basra noteworthy worldwide for glassmaking.

Wheelcut Glass, Millefiore, Beveled, Hedwig Glass The Abbasids revived the old Sassanian wheel-cutting techniques and created some of the most spectacular Islamic glassware.

Also common in Samarra were glassblowing, glass engraving, and the manufacture of *millefiori* or mosaic glass. Elaborate Abbasid glassmaking required decoration in the so-called beveled style, in which outlines were cut on a slant and, as with rock crystal, stucco, and wood, created a distinctive and important artistic industry.

Relief cutting of glass was a form of sculpture that included the so-called Hedwig glasses, colorless glass beakers with a smoky topaz tinge, decorated with lions, griffins, or eagles, thought to have originated in 12th-century Egypt. Cameo making also was an Islamic glass industry in which the artisan applied a glass coating of a different color from the base glass and then ground or cut the outer layer, creating a relief ornament. Cameos customarily were green or blue on a colorless background.

In Syria and Egypt glass was ornamented with gold and colored enamels. Bottles, tumblers, lamps, ewers, bowls, inkwells, and other items were decorated by this enamelry method, applied cold and then fired at low temperature. Decorative elements customarily were outlined in red and then filled with white, yellow, green, blue, purple, and pink.

Travelers attributed superior glassmaking and glass decoration to various cities. The 13th-century Syrian biographer and geographer Yaqut ibn Abdallah al-Hamawi (d. 1229) wrote of the excellent glass of Aleppo, which was decorated with human figures, including falconers and polo players. Syrian cities such as Aleppo, Rakka, and Damascus were so well known for particular glassmaking techniques that their artistic and commercial excellence made them targets of those who would steal from them or destroy them: The Mongols devastated the cities of Rakka and Aleppo in 1259 and 1260. The Moroccan traveler Abu Abdallah ibn Battuta (d. 1377) remembered Damascus as a glassmaking capital. With a canny eye

toward expanding his economic power, Tamerlane, when he captured Damascus in 1400, carried off the artisans and craftsmen to Samarkand in Central Asia.

In the 15th century the direction of import and export reversed. Rather than Islamic craftsmen's exporting their magnificent wares to Europe, Muslim consumers began to import exquisite glass from Venice and other European glass-fabricating centers. A visitor to Jerusalem in the year 1480 described the Venetian captain of his ship as carrying glass for a prominent Islamic court bureaucrat in Damascus. The glass vessels were from Murano, the glass-making island off Venice.

Glory and Prosperity Metalwork "Glory and prosperity" was the first phrase most often found in inscriptions on Islamic metalwork, naming the benefits that might accrue to the owners, possessors, or users of the objects, which included metal instruments for daily use such as pots and bowls, sophisticated scientific and technological instruments such as astrolabes, and arms and armor, customarily made of steel. Much metalwork used alloys of copper because of religious disapproval of metalcraft in precious metals, except for the use of gold and silver in intricate decoration by inlay. Intricate brasses dating from the 12th through 15th centuries used inlaid gold, silver, and copper for inscriptions, elaborate figural compositions, and geometric and floral decoration.

Art forms that in the Western world were considered the minor or decorative arts, such as glass and metalwork, were major artistic expressions in the Muslim world. Textiles, particularly rich cloth and rugs, were significant artistic products that were the pivot points for Muslim economies. Textiles are discussed in this book's chapter 12 on clothing and textiles, which examines "the draped universe of Islam."

PAINTING, MANUSCRIPT ILLUMINATION, AND MINIATURES

Paintings and miniatures throughout the medieval Islamic world delighted in vegetal, animal, and human figural images. Illuminated religious, scientific, and literary manuscripts beautifully and naturalistically represented the human subjects under discussion, be it a scene from the life of Muhammad, a picture of Socrates or Aristotle adorning a philosophical text, an image of an astronomer using an astrolabe in a treatise on astrology, an image of hunters in a manual on hunting, or a scene of a king receiving his subjects gracing a palace wall or miniature. It should be apparent from the wide range of artistic examples just mentioned that the alleged "radical aniconism" of Islam is just as exaggerated as that associated with medieval Jewish art. As with Judaism, so too with Islam: Context and intent are essential to understanding Islamic pictorial art. The Muslim artists creating images of Muhammad, and the public who beheld them, understood that the images were not objects of worship. Nor were the objects so decorated used as part of religious worship. Since "God loves beauty," it was deemed appropriate to embellish one's work through art.

Recently an unfortunate scandal arose in a northern European country after the publication in a local newspaper of derogatory caricatures of the prophet Muhammad associating him with modern-day terrorism. Representatives of the infuriated Muslim immigrant community complained that it was "forbidden" to depict the Prophet. While such xenophobic manifestations must certainly be condemned, the Muslim immigrants might have done well to revisit their own history and contemplate the exquisite depictions of Muhammad, other prophets, and Islamic heroes gracing numerous and varied genres of Islamic material culture.

A splendid 15th-century Timurid manuscript of the historical chronicle *Majma al-tawarikh* (*Compendium of Histories*) from Herat, Afghanistan, depicts the scene of Muhammad's first revelation. The composition of the scene is similar to contemporary depictions of the annunciation: Medieval Christian artists invariably portrayed the angel Gabriel in the left side of their paintings and the Virgin to the right. So, too, in the Herat manuscript is the archangel depicted to the left of Muhammad, the former being enshrouded in a gilded cloud, the latter in a blue cloud. A 14th-century Persian copy of the *Majma al-tawarikh* has a tender scene of the birth of Muhammad that again bears an uncanny compositional resemblance to contemporary Christian nativity scenes.

Some theologians deemed it improper to show the face of Muhammad. A common artistic strategy to comply with this tradition was the depiction of the Prophet Muammad with his face in blank or with his head surrounded in flames. A typical example is the beautifully illustrated 16th-century Ottoman manuscript of the *Siyer-i Nebi* (*The Life of the Prophet*). The scene of Muhammad's first revelation exhibits the annunciation-like composition and the Prophet's face is left blank, while the archangel is fully depicted. Numerous renderings of Muhammad's ascension into heaven, *the miraj*, portray the face of Muhammad obscured in this way, even though the faces of the other characters, the angel Gabriel and the other prophets he encounters on his journey, are clearly shown.

Islamic medical and scientific manuscripts were beautifully illustrated. The illustrations in a 13th-century copy of Yusuf al-Mawsili's *De materia medica de Dioscorides* ("The *Materia medica* of Dioscorides") include precise depictions of plants and herbs as well as numerous human figurative paintings. One such miniature shows Dioscordes instructing a pupil. The teacher is dressed in full Muslim garb, including a turban, and seated on a chair, while his pupil is seated on a cushion on the floor before him. The image faithfully represents contemporary Islamic learning culture. A 13th-century copy of al-Mubashshir's philosophical and moral treatise *Mukhtar al-hikam wa mahasin al-kalim* (*Choice Maxims and Finest Sayings*) contains several illustrations of Socrates with his studies. Again, both philosopher and students are shown anachronistically donning full Islamic dress.

Literary and historical chronicle manuscripts were also beautifully illuminated. A copy of the *Kalila wa Dimna* romance from 13th-century Baghdad reveals that all the stories in the romance were accompanied by illustrations. So, too, were manuscripts of the immensely popular *Maqamat al-Hariri* (*The Assemblies of al-Hariri*). The hilarious vignettes of the protagonist Abu Zayd are vividly and naturalistically painted in a 13th-century Syrian manuscript. Persian epics and romances such as Firdawsi's *Shah Nameh*, were richly decorated, as a copy from Shiraz beautifully manifests. Copies of Rashid al-Din's *Universal History* (*Jami al-tawarikh*) dating from 14th-century Iran have beautiful miniatures of significant events, such as the Battle of Badr and the enthronement of a Mongol ruler and his consort.

The Mongol invasion of Mesopotamia in 1258 introduced a new Far East Asian aesthetic into Middle Eastern Islamic miniature paintings. Thereon the people depicted bear decidedly Asian facial features and hairstyles, although they continue to be dressed in traditional Arab and Persian style clothing. Chinese influence is clearly appreciated in the use of light featherlike brushstrokes and more delicate tones of color, in contrast to the strong and bold colors favored by Arab, Persian, and Turkish artists. A 14th-century Persian illustrated manuscript of the *Shah Nameh* clearly

shows the influence of the new Chinese-Mongol aesthetic.

One hall in the magnificent Alhambra Palace of Granada in Spain bears striking evidence of cultural exchange and of Christian influence on Islamic art. The entire structure is decorated with glorious arabesque stuccos, geometric designs, and calligraphic inscriptions of poems and quranic verses except one room: The King's Hall has three alcoves, each of which is covered by a dome. The domes are painted with beautiful courtly scenes. The central painting represents a meeting of 10 Muslim dignitaries shown seated on cushion in a circle. Wearing traditional Muslim clothing and turban indicating their rank, each man casually holds his gilded sword on his lap and gestures expressively with the other hand. Art scholars believed that Christian painters from Avignon were commissioned to execute the paintings. The employment of Christian artists need not imply that the royal decision to commission these frescoes responds solely to borrowing from Christian art. After all, there was a fairly continuous tradition of painting of princely cycles featuring courtly and hunting scenes in the palatial art stretching from Spain to Afghanistan.

A stunning case of European influence on Muslim art is seen in the 15th-century Ottoman portraits of Sultan Mehmed II, virtually unknown in Islam and clearly modeled after contemporary European Renaissance portraiture. Mehmet's aspirations to portray himself as the heir to Caesar and Alexander the Great are apparent in the miniature scenes of his battlefield triumphs consciously patterned upon the mosaic art of ancient Greece and Rome. Miniatures in Ottoman hunting manuals portray the sultan in various scenes of the hunt as well as glorious battles such as the siege of Vienna. Similarly, Islamic Moghul painting and miniatures vividly depict scenes of court life. The composition and color of these works are indebted to Hindu figural painting.

Ottoman religious miniatures follow the canons established by 12th- to 14th-century Iraqi and Syrian artists, where the emphasis is on clarity, realism, and a preference for strong, bold colors. A 16th-century Turkish manuscript of the *Zubdat al-tawarikh* (The quintessence of history) is illuminated with numerous miniatures of beloved episodes from the stories of the prophets, such as Adam and Eve and their children, Noah's ark and the deluge, Abraham's sacrifice of his son, Abraham cast into the fire by Nimrod, and Joseph with his father, Jacob, and his brothers in the wilderness. Miniatures of religious themes adhere to an iconographic code: Prophets are shown with a golden halo around the head to distinguish them from ordinary people. Often they are also differentiated by their larger size. Posture is also a key differentiator: Prophets sit with their legs crossed or in a kneeling position; if they are praying, their hands are raised in a gesture of prayer; and when they are preaching or giving advice, the left hand is raised.

Medieval Islamic art and architecture span a vast geographical area and successfully incorporated pre-Christian elements, such as Roman mosaics and techniques and artistic forms from contemporary non-Muslim cultures, with brilliantly executed indigenous art, such as calligraphy, arabesques, and *muqarnas*. Art was not put into the direct service of religious worship, as it was in Christianity and to a lesser extent in Judaism. But Islamic art did indirectly respond to and reflect a worldview that longed to transcend the natural world and to dazzle in its deliberate use of stylization and abstraction, and to comply with the idea that God loves the beautiful.

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9

LITERATURE

Most modern people know the European Middle Ages through medieval literature, rather than medieval art, philosophy, religion, or science. Modern ideas about courtly manners, courtly love, and chivalry customarily are based on literary depictions rather than historical treatises or visual icons. This continuing interest in the Middle Ages makes it especially fascinating to review the multiple types of medieval fiction and nonfiction that depicted medieval reality and transmitted medieval worldviews to subsequent centuries.

The first task at hand is to recognize the difficulties of classifying medieval literary production. To begin with, to the modern reader, one person, who reads a written text in silence, the term *literature* refers to original written compositions. In reality, much of medieval "literature" began as oral productions of lyrical poetry, verse, prose, and sermons that were recited or, in the case of lyric and verse, even sung in public before an audience. Neat modern divisions between fiction and nonfiction or religious and secular literature also break down upon closer inspection. Medieval romance blends historical figures and events concerning Alexander the Great, King Arthur, or Charlemagne with myths and legends. Royally commissioned historical chronicles interpolate biblical events and Greek or "pagan" mythical motifs with the feats of medieval kings. Religious literature, such as the lives of the saints genre, fused the facts of the saint's life with those of Greco-Roman or pagan heroes. The preservation of dozens or hundreds of distinct versions of the same cycle of epics or poems sometimes challenges the concept of individual authorship.

The second and perhaps more challenging task is to recognize the cultural plurality of the producers of medieval literature. Contemporary popular Western conceptions of the Middle Ages are overwhelmingly Christian. Western general audiences are undoubtedly familiar with the images of Muslims as the enemies of Christendom in the crusades or of Jews as the victims of Christian repression. Less well known are the Jewish and Muslim contributions to much of what composes medieval Christian "fiction and nonfiction," the literary production of Jews and Muslims themselves, and the often surprising instances of intertextuality whereby authors of one cultural tradition appropriate and reinvent the literary tropes of another for their own purposes.

Jewish Haggadic literature, which includes beast fables, frame tales, and exempla, found its way directly or indirectly into the literature of Christendom. By the same token, Jewish authors rewrote Christian *chansons de geste* and chivalric literature to respond to the needs and worldview of their readers. Similarly, Arabic court poetry, mirrors for princes and other instruction manuals, dream interpretation literature, and fiction such as the famous *The Thousand and One Nights* heavily influenced the literature produced in Christendom and the Jewish world. Such cultural borrowings were made possible because of several dynamic factors. In the first place, Jews, Christians, and Muslims alike inherited the legacy of classical Greek literature. Second, the translation of ancient Greek literature and of Arabic, Hebrew, Persian, Sanskrit, or Latin works into vernacular languages facilitated their appropriation by other cultural-linguistic groups. Finally, it must be remembered that the literary output of medieval Christians, Jews, and Muslims was also influenced by contacts among the three communities, whether through conversion from one religion to another, military conquests, diplomatic relations, courtly patronage, or the mere coexistence of bilingual Christians, Jews, and Muslims in the same geographical space, which allowed the purchase or commissioning of books by the "Other." Medieval literature is thus Christian, Jewish, and Muslim, and this chapter discusses the major contributions of

each community, taking care to note what is unique or particular to each, but also to highlight instances of cultural borrowing or parallel developments.

CHRISTIAN LITERATURE

Literary creation during the Christian European Middle Ages displays a fascinating fusion of the religious and the secular, fact and fiction, and morality and the burlesque. The earliest surviving texts written in medieval Latin and the vernacular languages are sermons and hagiography (from the Greek: *hagio*, "holy," and *graphe*, "writing"), which include the "Lives of the Saints," collections of miracle tales, and accounts of the discovery of holy relics. Priests and monks incorporated these texts into the Christian liturgy of the mass and the celebration of saints' feast days to instill Christian doctrine and concepts of morality in their lay and religious audiences. The *chansons de geste* or epic songs of heroic exploits depicted the feats and adventures of Emperor Charlemagne and his Twelve Peers. This genre fused the feudal values of loyalty to the monarch with the religious values of fidelity to and defense of the Christian Church. Romances, the most famous of which pertain to King Arthur and his Knights of the Round Table, celebrated the ideals of chivalry and courtly love. Related to the romance were the *lais*, or short metrical romance poems, often set to music, such as those composed by Marie de France (c. 1160), and the Breton *Lais*, which included elements of Celtic mythology. The *fabliaux* (little fables) were comical rude, lewd stories written in verse that represented the antithesis of the chivalric romance. They graced the great halls of the nobility, taverns of townspeople, and fairgrounds for everyone from peasants to ladies, knights, and squires.

Lyric poetry, recited or sung by troubadours and minnesingers, described love as powerful suffering that either ennobled or destroyed the lover. Their depictions of love poetry affected our modern ideas of polite etiquette and the inspirational effects of love. Geoffrey Chaucer's *Canterbury Tales* and Boccaccio's *The Decameron* exemplify the brilliantly crafted, popular frame tales that employed the pilgrimage and banquet, respectively, as a literary pretext to unite diverse characters whose opposed interests, styles, language, and morals otherwise would make them absurdly incompatible.

Drama is another significant literary genre. Religious dramas such as the Passion Play, mystery play, miracle play, and morality play find their origins in the inherently theatrical short Latin dialogues within the Easter Mass, called *tropes*, as well as in the vast production of hagiography, especially the "Lives of the Saints." As noted, the sermons written for major feasts, such as Christmas, Easter Holy Week, and saints' festivals, contained many theatrical elements and often provided the script for religious drama. Mimes, minstrels, traveling jugglers, and *joculatores*—all survivals of ancient Greek and Roman performing arts—together with the folk rites and rituals of *mummings*, *masques*, and *morris dances* provided popular marketplace entertainment.

Devotional and moralistic literature served as important medieval tutors for Christian doctrine, morals, and norms of behavior aimed at different categories of people: rulers, laypersons, religious men and women. It comprises a number of disparate genres, including bestiaries, which featured endearing animal characters with human foibles and virtues in the tradition of the classical Aesop, and beast epics, such as the tales of Reynard the Fox and Ysengrimus the Wolf. Exempla were collections of tales

demonstrating exemplary behavior that preachers incorporated in their sermons to instruct, edify, and entertain their audiences.

Instruction manuals comprise a wide array of secular and religious literature. A popular literary type, instruction books taught readers how to fight, rule, and love, and to live and die as good Christian men and women. To learn chivalry, one could consult *Le Livre des fais d'armes et de chevalerie* (*The Book of the Deeds of Arms and Chivalry*), written circa 1410 by Christine de Pizan. Rulers and administrators read "mirrors of princes," *miroirs des princes*, to learn the art of good government. Secular and ecclesiastical figures wrote manuals for the art of love, *ars amandi*. Women avidly read manuals of conduct to learn to lead devout, exemplary Christian lives. For the art of dying a good Christian death, a medieval man or woman could consult an *ars moriendi* book. The genre of dream visions, whose aims were also moralistic and exemplary, ranges from the imaginings in the poem *Pearl* written in alliterative Middle English to Dante's magisterial vision of the *Divine Comedy*, written in bravura Italian triple rhyme, *terza rima*. Riddles were another popular literary genre.

Last but not least, the secular and ecclesiastical authorities wrote or commissioned the writing of historical chronicles to document for posterity the history of their institutions and of key events such as the Crusades. The Venerable Bede's (d. 735) *Ecclesiastical History of the English People*, the 12th-century *Cronica Adefonsi Imperatoris* (*The Chronicle of Alfonso the Emperor of Spain*), and the Anonymous *Gesta Francorum et aliorum Hierosolymitanorum* (*The Deeds of the Franks and the Other Pilgrims to Jerusalem*) are just three examples of this prolific chronicler activity.

The chapter concludes with a brief glimpse of the multiple literary languages in a given medieval country. In England, for instance, Anglo-Saxon was the language for the epic *Beowulf* and such magnificent elegies as the *Wanderer*, *Seafarer*, and *Battle of Maldon*. Other authors after the 11th century selected Anglo-Norman and any one of four major Middle English dialects plus incursions of Danish in the area called the Danelaw. The Occitan language of Provençal left an indelible mark on the lyrical poetic production of southern France, the Iberian Peninsula, and Italy. Galaico-Portuguese and Arabic were the favored languages of poetic expression in Christian and Muslim Iberia, respectively, while Castilian reigned supreme in epic romances such as the 11th-century *Poema del Mío Cid*. Itinerant German minnesingers played a pivotal role in standardizing the Middle High German dialects prevalent in the high Middle Ages.

Hagiography and Devotional Literature

The church continued the late antiquity tradition of writing the *vita*, or "life," of a saint, which would be recited as part of the sermon for the saint's feast day. The earliest hagiographies were modeled after the canonical gospel and apocryphal versions of the life of Jesus, which in turn were derived from Greco-Roman biographies. The hagiographies of late antiquity celebrated the lives of Christian martyrs and hermits, such as the Greek patriarch Athanasius of Athena's (d. 373) *Life of Saint Anthony of Egypt* (d. 356). In the high and late Middle Ages hagiographies were composed for a variety of motives, including to harness lay piety and devotion away from heretical currents, to popularize a pilgrimage to a new saint's shrine, or even to help resolve political disputes. Examples of such works include *The Book of Saint Foy* (the anonymous Anglo-Norman *Vie de Sainte-Foi*), *La Vida de Santo Domingo de Silos* (Life of Saint Dominic), written by the Spanish poet and priest Gonzalo de Berceo (1190–

1264), the *First Life of Saint Francis of Assisi* (*Vita Prima*), by the Franciscan friar Thomas of Celano (c. 1200–c. 1260), and the *Life of Saint Thomas of Canterbury*, included in de Voragine's *Golden Legend*.

The *Legenda Aurea*, or *Golden Legend*, by the Dominican preacher and archbishop of Genoa Jacobus de Voragine (1230–98) was the most popular and widely diffused collection of saints' lives in the Middle Ages. Compiled circa 1260, the author's biographies combine the official version of the saint's life drawn from church liturgy with legends of the miracles produced by the saint's relics and other supernatural feats. Each biographical entry begins with an etymology of the meaning of the saint's name that allegorizes the hero's qualities. The immensely popular hagiographic romance *Barlaam and Josaphat* recounts the conversion of a fourth-century Indian prince, Josaphat, to Christianity after his encounter with the hermit Barlaam. The prince defies his father and renounces the throne in order to live a life of ascetic retreat beside his master Barlaam. Scholars agree that the story is a Christianized version of the Sanskrit story of the Buddha. The Byzantines translated an Arabic version of the story into Greek, which, in turn, was translated into Latin in the 11th century.

SPIRITUAL AUTOBIOGRAPHY

Following the late antiquity tradition of Saint Augustine's and Saint Patrick's *Confessions*, medieval Christian writers wrote spiritual autobiographies of their conversion to a more intensely lived Christian life of piety and devotion. The Benedictine monk, abbot, and historian Guibert of Nogent (France) (1053–1124) modeled his *De Vita sua* (*Memoirs*) on the *Confessions* of Saint Augustine, devoting great attention to his childhood, education, and renunciation of worldly vanities in order to devote himself fully to God. He and his contemporary the Scholastic philosopher Peter Abelard (1079–1142), author of the autobiographical *Historia calamitatum* (*The Story of Calamities*), intended their life experiences to serve as an example for others. *The Book of Margery Kempe* is a remarkable autobiography written by an English laywoman, which narrates her spiritual conversion from housewife and mother to bride of Christ. A vision of Christ spurs her to renounce the "vanities" of the world and to lead a life of celibacy and pious devotion. Margery of Kempe (1373–1478) recounts her pilgrimages to Rome, Jerusalem, and Santiago de Compostela and her visionary, mystical conversations with Christ.

MYSTICAL AND VISIONARY LITERATURE

In the 14th and 15th centuries a number of women mystics wrote mystical treatises detailing the soul's journey to God. Notable examples of this visionary literature include Saint Catherine of Siena's (d. 1380) "Dialogue," or "Treatise on Divine Providence," and the anchoress Saint Julian of Norwich's "Sixteen Revelations of Divine Love," written circa 1393, when the author experienced intense visions of God while suffering from a severe illness. Julian's most famous saying, "All shall be well, and all shall be well, and all manner of things shall be well," reflects her mystical insight that suffering with joy and acceptance is a means of drawing nearer to God. The Swedish mystic Saint Birgitta (1303–73) recorded her visions of God, which were translated into Latin under the title *Revelationes coelestes* (*Celestial Visions*) and widely diffused in Europe.

DEVOTIONAL POETRY

Devotional poems composed in Latin and vernacular languages accompanied the celebration of religious feasts and were intended to

strengthen Christian faith and instill feelings of contrition and piety. The 13th-century poetic hymn *Stabat Mater Dolorosa* (The sorrowful mother is standing) depicts the sorrow of the Virgin Mary as she stood by the cross witnessing Christ's crucifixion. The poem is attributed to Jacopone da Todi and was usually set to music for the observance of Easter. Legend has it that Saint Francis of Assisi (d. 1226) composed his *Cantico del Sole* (*Canticle to Brother Sun*) in his native Umbrian tongue while enraptured in mystical ecstasy. The *Dies Irae* (Days of wrath) was composed by the Franciscan friar Thomas of Celano (d. 1270), who was a disciple of Saint Francis, the founder of the Franciscan Order, and the author of the hagiographic *Life of Saint Francis* and the *Life of Saint Clare of Assisi*. The *Dies Irae* is an apocalyptic poem that describes the fate of souls on the day of judgment. As the *Stabat Mater*, it was set to music to accompany the liturgy of All Souls' Day (November 2). The increasing popular devotion to the Virgin Mary from the 13th century onward is reflected in the numerous vernacular litanies, songs, and poems of praise dedicated to her, of which the Spanish poet Gonzalo de Berceo's *Milagros de Nuestra Señora* (The miracles of Our Lady) and *Loores de la Virgen* (The praises of the Virgin) are prime representatives.

Chanson de Geste

Written in Old French, the *chanson de geste* (song of heroic deeds) was an epic poetic narrative of heroic exploits. It emerged in the late 11th-century Frankish kingdoms and lasted until the end of the 15th century, gaining in popularity throughout western Europe. The genre was based on fact but elaborated by legend and art and developed into three thematic cycles: the cycle of the king, or *Cicle du Roi*, referring principally to Charlemagne, but also

his heirs and their wars against the Saracens; the cycle of Doön de Mayence, which focuses on the exploits of the rebel barons of Narbonne who opposed the Carolingian dynasty; and the cycle of Garin de Montglane, which featured the exploits of knights who were younger royal sons. Barred from inheriting the throne, they sought glory and land fighting the "pagans." The most popular examples of the *chanson de geste* were *Le Chanson de Roland* (*The Song of Roland*), which belongs to the Charlemagne cycle, and *La Chançun de Guillelme* (*The Song of William*), which belongs to the cycle of Garin de Montglane. The *chansons de geste* were composed in decasyllabic monorhyme stanzas and typically were recited to music by minstrel poets called *trouvères* who played the fiddle (*vielle*) or violin (*viol*) as they performed. In addition to the Saracen foe, the *chansons de geste* featured mythical characters such as monsters and giants, and the use of magic.

Chanson de geste warriors at King Charlemagne's court, the Twelve Equals (*Douze Pers*), fought heroically for king and God rather than for love or prestige, and thus epitomized feudal and Christian ideals. These heroes brazenly tested body, weaponry, and martial strategy, rather than intellectual virtue or social finesse. The *Song of Roland*'s eponymous hero Roland was rash (*preux*) and physically and martially powerful, while his friend and artistic foil, Oliver, was learned and wise (*sage*). Paired opposites in literature, as in life, were depicted in separate characters, though ideally, as in Arthurian romance, they were united in a single, heroic human being, the rhetorical *topos* called wisdom and strength (s*apientia et fortitudo*).

The *Chanson de Roland*, composed or perhaps inscribed by a writer named Turoldus, between 1098 and 1100, and possibly connected to Roland exploits sung by the minstrel Taillefer in 1066 at the Battle of Hastings, was a powerful Christian epic commemorating

King Charlemagne's initial victory in war against the Muslims in Spain. The epic is based on the Battle of Roncesvaux in the Pyrenees Mountains in 778, during which Basque forces attacked the rear guard of Charlemagne's troops to ravenge the sacking of Pamplona. In the *Song of Roland* the Basques are transformed into Saracens, demons, and giants. The epic sets the city of Zaragoza as the last stronghold of the Muslim king Marsile. In a brilliant ruse, he pretends to submit to Charlemagne, swears to convert to Christianity, and pledges himself as vassal. When Charlemagne leaves the field, Marsile attacks the rear guard commanded by the impetuous knight Roland as the army crosses the Pyrenees Mountains.

Crying the battle cry *Montjoie*, Roland and the Christians kill hundreds or thousands of Muslims but lose many of their own warriors. Too late to call for reinforcements, Roland nevertheless blows his horn, Olifant, for help, but he and his forces are massacred. Baligant, the emir of Babylon, goes to the aid of Marsile and fights fierce hand-to-hand combat against King Charlemagne, who, though receiving a severe head wound, nevertheless strikes down the pagan foe. The fallen Roland rises to heaven and the angel Gabriel reassures King Charlemagne that his triumph was just. The *chanson de geste* appealed to the exclusively masculine world of heroic men who returned to their homeland with honor and glory even in defeat, with the promise of heavenly reward.

In the Iberian Peninsula the *Cantar del mío Cid* represents the most renowned example of the Castilian *cantar de gesta* (*chanson de geste*) genre of poetic verse. The literary tradition was more broadly known as the *Mester de juglaría* ("Ministry of jongleury") because the stories were recited or sung by *juglares* (joungleurs). The *Cantar del mío Cid* narrates the true story of the Castilian warrior Rodrigo Díaz de Vivar (d. 1099), whose military exploits among the Christians and Muslims earned him the nick-name *El Cid Campeador*. The name *El Cid* derives from the Arabic *al-sayyid*, an honorific title meaning "lord," and *Campeador* is an epithet bestowed upon the conqueror of a rival warrior leader. El Cid was a military general in the service of the king of Castile and Léon, Alfonso VI (r. 1065–1109). Spurned and dishonored because the king exiled him from the court in 1079, the Cid became a mercenary fighter in the service of Christian and Muslim monarchs, yet longed to regain his honor and place in Alfonso's court. He captured Valencia from the Almoravid emir al-Qadir in 1084 and established a small kingdom, although he officially ruled it on behalf of Alfonso VI.

The *Cantar del mío Cid* is traditionally divided into three plots: the *Cantar del destierro*, or "Song of Exile," describes his exile from Castile and his adventures fighting the Muslim emir of Zaragoza. The *Cantar de las Bodas* ("Wedding Song") narrates El Cid's capture of Valencia, his receipt of King Alfonso's forgiveness, and the marriage of his two daughters to the infantes of Carrión. The *Cantar de la Afrenta de Corpes* (The song of the affront to the daughters) relates that when the infantes abandon the daughters of the Cid, he restores the family honor and marries his daughters to the Infantes of Aragon and Navarre. The *Cantar del mío Cid* is an anonymous work that was transmitted orally and performed by *juglares* in palaces and public squares. It was transcribed for the first time in 1207 by Per Abad.

The Anglo-Saxons also produced epic poetry. *Beowulf* is the oldest and longest epic poem composed in Old English. Scholars continue to dispute the date of composition, placing it sometime between the late eighth and 10th centuries. The epic narrates the heroic exploits of Beowulf, a Germanic warrior from Sweden, who travels to Denmark at the behest of King Hrothgar to defeat the monster Grendel and avenge the killing of the king's warriors. As does *The Song of Roland*, *Beowulf* alludes

to historical characters and events but blends them with fanciful legend. Though the characters featured lived in the sixth century, that is, prior to the conversion to Christianity of these Germanic tribes, they are all depicted as models or antitheses of Christian behavior. Even the villains, the monster Grendel and his mother, are portrayed as descendants of the biblical Cain.

The anonymous epic poem *Nibelungenlied* belongs to the Germanic poetic tradition. It celebrates the feats of the Burgundian kings, an East Germanic tribe from the area of Scandinavia. Composed sometime between 1190 and 1200, *Nibelungenlied* combines pre-Christian Teutonic and Nordic mythology with ancient Greek and Christian motifs, as well as the themes of courtly love (discussed later). *Nibelungenlied* probably influenced the composition of *Kudrun*, an anonymous epic poem written in Middle High German that appeared in the mid-13th century. This epic saga recounts the intrigues and romance adventures that intertwine the lives of three rival kings and their children. The epic centers upon Gudrun, the daughter of one of the kings, who is taken prisoner in a distant Norman castle and forced into servitude, and the 13-year Odyssey-like pursuit by her father and brother to rescue her.

Romance

The term *romance* derives from the French *roman* and refers to vernacular as opposed to Latin texts. As a literary genre it originated in the 12th century and designates a form of courtly narrative poetry composed in octosyllabic rhymed couplets or prose that depicted courtly love, tests of virtue, and triumphs over impossibilities, including magical and marvelous figures such as fiery dragons. Courtly love was understood as intense suffering derived from the sight or the contemplation of the

dearly beloved. It aroused in the lover confusion, forgetfulness, and life-threatening loss of appetite for food and for living, yet it also inspired his intellectual vigor and martial prowess. The court of Eleanor of Aquitaine (1122–1204), queen of France and England, patronized and promoted the ideals of courtly love. Her courtier Andreas Capellanus (Andrew the Chaplain) wrote the *Art of Courtly Love*, an instruction book for courtly adulterers. (*See* the section on instruction books, pages 646–651).

Romance subjects mirrored the customs and ethics of the audience. Inspiring people by moralizing and entertaining them with marvels, magic, and mysticism, romance subjects generally followed two *matters*, as the 13th-century writer Jean Bodel classed them. The matter of Britain concerned King Arthur and his Knights of the Round Table. The Matter of Greece and Rome encompassed tales of the Trojan War and the adventures of King Alexander the Great. Bodel's third literary subject is the matter of France, which solemnized the heritage of King Charlemagne and his Twelve Peers in the French *chansons de geste*.

KING ARTHUR AND HIS KNIGHTS OF THE ROUND TABLE

Arthurian romance written in prose or poetry almost always concerned King Arthur; his queen, Guinevere; and such knights of his Round Table as Sir Lancelot, Sir Gawain, Sir Perceval, and Sir Galahad. Lancelot was Guinevere's lover, and a vertiginous courtly love circle pivoted around their adulterous joy. The historical Arthur was a sixth-century fighter referred to as a *dux bellorum* whose exploits were recorded in works by the historians Gildus, Nennius, Geraldus Cambrensis, and Geoffrey of Monmouth. Arthur's exploits were embellished by writers of courtly romances in Old French, Middle High German, Middle English, Icelandic, Italian, and Welsh, most of

which were written between the 12th and 15th centuries.

One of the best romancers was Chrétien de Troyes, a 12th-century poet writing in France under the patronage of Countess Marie de Champagne, the daughter of Queen Eleanor of Aquitaine. His romances *Cliges*, *Lancelot*, and *Perceval* were popular in their time and widely imitated. Though Chrétien's romances probably derived their magic, mysticism, and marvels from Celtic heritage, the intellectual discussions of love and its effects catered to contemporary life's elegance and interests in the brilliant courts of the art patrons Queen Eleanor of Aquitaine and her daughter, Marie of Champagne. Literature mirrored life and life mirrored art in such ideas as the service of love, love from afar, courtly love, human perfectibility, and virtue defined by trial. Love's suffering was a virtue best comprehended by testing it. Just as God required proof of Job's obedience and fidelity in the biblical Book of Job, so romance heroines required proof of faithful deference and submission from their knights.

Sir Gawain, Sir Perceval, and Sir Lancelot were subjects of separate romances in various languages. One of the most famous medieval knights and lovers was Sir Tristan, not technically an Arthurian since his beloved was Isolt, wife of King Mark of Cornwall. These knights as romance heroes shared patterns of adventures customarily beginning with a marvelous childhood. This *enfance* was a formulaic series of childhood exploits beginning with birth that prefigured and explained the knight's later feats. A medieval romancer justified his hero's extraordinary prowess by defining his early extraordinary promise.

Almost every important Arthurian hero first was a prodigious youth, notably precocious, like Tristan, or exceptionally naïve and foolish, like Perceval. Youthful portraits and childhood adventures occupied a prominent place in the total work of art. Between the hero's birth and

Arthur pulling the sword from the stone HIP/Art Resource, NY.

the ceremony of his knighting, recurrent motifs, probably originating in Celtic or classical tradition, included the hero's incestuous, secret, or tragic birth; his upbringing with a foster parent; his temporary exile and eventual return to his patrimony; his namelessness or his belated discovery of his name; his mission to avenge iniquity or insult to his father; and his quest for advice. The childhood education of the hero was another theme that romances emphasized. Little bound by traditional proscription, the hero's learning provided the romance writer with an opportunity to dramatize ideals pleasing to his patrons or to his own imagination. Education predicted the hero's rescuing damsels in distress, relieving iniquities in towns, fighting inequities in castles, vanquishing fiery dragons, and dying magnificently.

Some romance knights were portrayed as learned and intellectual. Tristan's education suggested that knowledge of music and manners made the man. Thomas of Britain and

Gottfried von Strassburg depicted the development of the learned knight whose artistic and intellectual exploits were as important as his chivalric adventures. Likewise, learning was important in other versions of the Tristan romance, such as Eilhart von Oberg's *Tristrant*, the English *Sir Tristrem*, the French *prose Tristan*, and Malory's book of *Sir Tristriam of Lyones*.

Conversely, Perceval as hero began life as a naïve fool, guileless and ingenuous, possessing no knowledge or restraint. When he arrived at court, the people marveled at Perceval's stupidity, laughed at his ignorance, and derided him for his simplicity. In the great Perceval poems by Chretien de Troyes and Wolfram von Eschenbach, Sir Perceval was a brave man who only slowly gained wisdom. Yet Perceval's adventures in chivalry, in love, and in his quest for the Holy Grail demonstrated the power of inherent goodness and noble birth to respond to spiritual progress and chivalric development. Whereas Sir Tristan was a learned gentleman, artistic musician, and sensitive lover, his artistic cultivation served only one queen and the knight himself. In contrast, Perceval served the ideals of chivalry and all of Christianity through winning the Holy Grail. The Perceval tales placed knighthood in service to morality, as in five other popular versions of Perceval's adventures, *Peredur, Sir Perceval, Carduino, Bliocadran's Prologue*, and *The Lai of Tyolet*.

Passionate Sir Lancelot was best known through Chretien de Troyes's *Lancelot or the Knight of the Cart* (*Chevalier de la Charette*), Ulrich von Zatzikhoven's *Lanzelet*, and the *Prose Lancelot* by an anonymous French writer. Minor romances also depicted the hero's preparation for carrying out future feats of rescuing damsels, killing dragons, jousting, or fighing for justice, honor and love, as in the romances of *Galeran, Wigalois, Wigamur*, and *Sone de Nausai*.

GREECE AND ROME

The second subject matter of romance concerned Greece and Rome, which inspired romances of Achilles, Odysseus, Aeneas, Hector, and Alexander. In the 12th century Joseph of Exeter wrote a long Troy tale in Latin hexameters, and an even longer romance consisting of 30,000 octosyllabic lines was written by Benoît de Sainte-Maure. Boccaccio in his *Filostrato* and Chaucer in his *Troilius and Chryseide* were especially inventive in their versions of these classical themes.

The Alexander romances added to his life history much Eastern and Greek folklore and Byzantine exotica. The 10th-century *Historia de Preliis* by Archpresbyter Leo and the fragmentary romances by Albéric de Pisançon and Pfaffe Lamprecht do not equal the literary sophistication of the best Arthurian romances. But Alexander cycles written around the year 1200 provided elements the literary world has cherished. Alexander romances written in a 12-syllable line so influenced poets that the technique was called the *alexandrine*.

Another heritage of the Alexander romance was a codification of chivalric parallelisms exemplified in the *Nine Worthies*, a term coined by the 14th-century French author Jacques de Longuyon to exemplify the nine personages who best represented the ideals of chivalry. Jacques de Longuyon in his *Voeux du Paon* (*Vows of the Peacock*) celebrated the Three Jewish Worthies, King David, Joshua, and Judas Maccabaeus, who paralleled in character and acts the Three Classical Worthies, Hector of Troy, Alexander the Great, and Julius Caesar, who in turn synchronized exploits with the Three Christian Worthies, Charlemagne, King Arthur, and Godfrey of Bouillon, one of the crusader kings. This literary conceit affected art as well as literature, as in the tapestry cycles of the *Nine Worthies* still visible in New York City at the Cloisters

Museum and in the allusions made to them in later literary works such as Shakespeare's play *Love's Labour's Lost*.

A romance tale that rivaled the matters of Britain and Rome in popularity in the 13th and 14th centuries was the story of *Fleur et Blanchefleur*. The earliest surviving version is a late 12th-century French text, although Castilian, Italian, German, English, Dutch, and Norwegian versions attest to the story's immense popularity. Fleur ("belonging to the flower") and Blanchefleur ("white flower") are star-crossed lovers divided by religion. Fleur is the son of Fenix, Muslim king of Spain, and Blanchefleur is the granddaughter of a Christian knight. King Fenix attacks a group of pilgrims in Galicia on their way to the shrine of Santiago de Compostela. During the attack the Christian knight is killed and his widowed pregnant daughter is captured and taken prisoner to Naples, where she is made lady-in-waiting to Fenix's wife. There she and the king's Muslim pregnant wife give birth on the same day to Blanchefleur and Fleur, respectively. The two children grow up in the court together, and the Muslim king, fearing his son will fall in love with the Christian Fleur, sells her to merchants, who take her to the court of the emir of Cairo. The remainder of the story narrates Fleur's exploits to retrieve his love, rescuing her from the watch tower of the emir's castle. Moved by their love, the emir releases her, she and Fleur are married, Fleur converts to Christianity, and they return to Spain, where they inherit his father's kingdom and convert the population to Christianity.

The *Lai*

The *lai* was a Celtic British and Old French poetic genre closely related to the romance. Generally *lais* are much shorter than romances, 600 to 1,000 lines, as opposed to the 3,000 or more lines characteristic of medieval romance, but they treat the same themes of chivalry and courtly love and its vicissitudes. The rhymed verses of the *lai* are filled with magic, marvels, mystery, and fantastical transformations, such as shape shifting from human being to werewolf or from straw to gold, and similar motifs typical of Celtic fairy lore. Such transformations could be punishment for the violation of a taboo or a reward for virtue. The original Breton *lais* are no longer extant. They were composed in a Celtic language related to Welsh and Cornish, which was spoken by fifth- and sixth-century immigrants to northern France who were fleeing the Anglo-Saxons. Breton literature popularized the Celtic-British hero King Arthur, profoundly influencing subsequent Arthurian romance.

The Breton *lais* inspired the famous *Lais* of Marie de France, composed in Anglo-Norman in the 1170s, and Geoffrey Chaucer adopted the style in his exquisite "Franklin's Tale." Usually sung by a minstrel, troubadour, or jongleur, the *lai* was associated with the Old Irish *loid* and the Middle High German courtly love lyric, the *Lied*.

Lyric Poetry

Not all medieval lyrics were love poems, but love as a theme had multiple powerful forms: courtly love, cerebral love, sensual love, sexual love, platonic love, distant love (*amor de longh*), epistolary love declared only in letters, love of woman, love of man, and love of God. The vast corpus of love poetry includes a preponderance of poems meant to be sung. Among the poets of the 10th through 14th centuries, the most prolific professional and semiprofessional love poets were the troubadours, the *trouvères*, the *minnesingers*, and the Italian writers of the *dolce stil nuovo*.

TROUBADOURS

Troubadours were poets, composers, and singers who flourished in the 12th and 13th centuries in the south of France. They wrote in the Provençal language, also called the *Langue d'oc* (from the Provençal word for "yes," in contrast to the northern French language, *Langue d'oïl*). Languedoc was the geographic area south of the Loire River. Troubadour love songs depicted courtly love in an ingenious, mannered, mathematically and metrically complex poetic form. Their repertoire consisted of several subgenres, notably the *alba*, *canzo*, *pastorella*, *sirventes*, and *tenson*.

alba   The *alba* was an especially popular song type. A morning song or dawn song, an *alba* (Provençal, "dawn") signaled the coming of daylight or of a jealous husband, thereby ending illicit lovers' amorous night. Sung by the man or woman, it lamented the arrival of dawn and loss of passion, and sung by a faithful lookout, it warned of danger. The customary *alba* refrain was, Dawn comes! *Et ades sera l'alba.*

canzo   The Provençal troubadour *canzo* was a musical poetic song with six or seven line stanzas in a tripartite metrical scheme. An initial section called the *frons* consisted of two *pedes* (Latin, "feet") followed by a *cauda*. The French trouvere *ballade* and German Minnesinger *bar song* were essentially identical.

pastorella   Another mannered love poem was the *pastorella*, detailing a sexual dalliance between a knight or nobleman and a shepherdess and celebrating country pleasures and erotic delights. If the woman was a willing partner, both exulted in natural sensuality; if she was seduced, she humiliatingly outwitted the man.

sirventes   The *sirventes* were satiric songs lambasting love rivals, enemies, and political events.

tenson   The *tenson* was a poetic debate or a quarrel poem, often an invective full of crude, yet incisively witty personal, social, and literary criticism.

Troubadours flourished in the courts of Queen Eleanor of Aquitane and her daughter Marie of Champagne. Notable poet composers included Count William IX, Bernart de Ventadorn, Marcabru, Jaufre Rudel, Arnaut Daniel, Bertrand de Born, and Peire Vidal.

Female troubadours, called *trobaritz*, included more than 20 intelligent, literate, artistically productive women writers who were active in Occitania, in the south of France. Among them were the countess of Dia, Castelloza, Isabella, Aralais, Garsenda, and many anonymous women who followed and amended the poetic conventions of courtly love. They wrote complicated rhythm schemes, formulaic phrases, strict rhythmic patterns and wonderful wordplays and exquisitely utilized stylistic trappings of the art of mannered passion.

Though stunningly popular in their time and influencing the trouvères in north France, the minnesingers in Germany, and practitioners of the "sweet new style," *dolce stil nuovo*, in Italy, the troubadours and their culture of courtly love were destroyed during the Albigensian Crusade. Heretical Albigensians were attacked between 1208 and 1229, devastating much of southern France and the major Provençal courts. These dualist Christians upheld ideas that profoundly threatened established church dogma. They rejected the material world as an evil creation of the devil, believed the New Testament was an allegory, spurned the sacraments, repudiated the resurrection, denied papal authority, and considered the cross a symbol of Satan's triumph over Christ. (*See* chapter 5, Philosophy and Religion). Pope Innocent III ordered the crusade and Simon of Montfort conducted it with exemplary ferocity.

TROUVÈRES AND THE *DOLCE STIL NUOVO*

The trouvères were northern French poets, composers, and singers who wrote in Langue d'oïl and created not only courtly love lyrics but also heroic *chansons de geste*. In Tuscany, imitators of the Provençal troubadour courtly love poems wrote in the *dolce stil nuovo*. Dante in his own lyric cycle the *Vita nuova* dubbed the Provençal-influenced poems the "sweet new style," referring to the works of Guido Guinizelli of Bologna (c. 1230–76) and Guido Cavalcanti of Florence (1255–1300). These poems treated women and courtly, courteous conduct, although Cavalcanti's poems are markedly more pessimistic in tone. Francesco Petrarca (Petrarch) (d. 1374) introduced the dimension of the soul's exploration and the psychological effects of unrequited love in his two lyrical poems "I Trionfi" (Triumphs) and "Il Canzioniere" (The Songbook).

The "sweet new style" was new with respect to the traditional Italian lyric tradition that flourished in the Sicilian school from the 1230s under the impulse of Emperor Frederick II of Sicily. While the Sicilian school was also indebted to the Provençal lyric tradition, important innovations were also made especially by its schoolmaster (*caposcuole*) Giacomo da Lentini (13th century). Da Lentini invented the sonnet, the Sicilian version of the Provençal *canzo.* The sonnet is divided into two parts, each of which has a distinct rhyme: The first are octave rhymes ABABABAB and the second are sextet rhymes CDCDCD. In the same century a northern version of the Sicilian school was founded in Tuscany by Guittone d'Arezzo.

MINNESINGERS

Minnesingers flourished in Germany during the 12th through 14th centuries writing courtly love and practical songs called *Minnelieder*.

The Manessische Liederhandschrift (Manesse Codex), *probably compiled at the request of the Manesse family of Zürich, Switzerland, about 1300, contains 140 collections of love poems organized by the social status of the poets, beginning with Holy Roman Emperor Henry VI. The page shown here portraits Duke Heinrich IV of Schlesien-Breslau. The lozenges of the horse's caparison enclose the letters* AMOR *for this joust of love.* From the *Manessische Liederhandschrift*, German, 14th century, Cod. Pal. Germ. 848, fol. 11. Courtesy of the Bibliothek of the University of Heidelberg, Heidelberg, Germany.

Composers and poets were of noble descent or from the social class called *ministeriales*, knights bound to the service of an overlord or ruler. Their nobility was not based on land holdings and loyalty but rather on administrative skill, as they often served as managers of villages or manors and intellectual administrators at major

courts. The *Minnelied*, written in Middle High German, emphasized a knight's adoration of a lady and a woman's passionate yearnings for her lover.

These love songs adhered to the traditional tripartite structure of the *bar form* and troubadour *canzo*. Minnesingers wrote crusading songs, hymns to the Virgin, and political and moralistic songs. Wolfram von Eschenbach wrote brilliant examples of the *Tagelied*, a dawn song comparable to the Provençal *alba*. The *Lied* was a typical courtly love lyric emulating the Provençal *canzo*. One of the greatest minnesingers was Walther von der Vogelweide, who excelled in all lieder forms but was especially accomplished in the satiric *Spruch*, similar to the Provençal *sirventes*.

Neidhart von Ruenthal's courtly love songs of "high love" (*Hohe Minne*) depicted love for a highborn lady, similar to the *domna* of the troubadours. His splendid "low love" (*Niedere Minne*) songs celebrated a lesser, earthier, common love in which the unspoiled, pastoral beautiful woman exuberantly sharing her lips and body welcomed the man to country pleasures. Another song type was a debate between a man and a woman, the *Wechsel*, a subgenre of which was a love message, a declaration of love transmitted through an intermediary, the *Botenlied*.

Other important minnesingers were Hartmann von Aue, Reinmar von Hagenau, Dietmar von Eist, Reinmar del Alta, and Heinrich von Morungen. The most famous Jewish minnesinger was Susskind von Trimburg.

ENGLISH LOVE LYRICS

English love and country life connected in one of the earliest Middle English songs, the delightful welcome to summer, "Sumer is ycumenn in," a charming invitation to seduction, also called "The Cuckoo Song." The refrain celebrating the cuckoo's loud singing confirms the message of cuckolding: Just as the summer birds mate, seeds grow, meadows blow, and buck and bullock couple with their mates, so ought lovers. Still other Middle English love lyrics were derived from Latin hymns to the Virgin Mary. The preeminent chief poet, the archipoeta, of the goliards or wandering poets writing primarily in Latin composed erotic, irreverent poems as well as contemplative, pious, bravura praises of the Virgin Mary. The Goliards' songs were later collected and preserved at the monastery of Benediktbeuern under the title *carmina burana*.

The Frame Tale

The frame tale, sometimes called framed tale, was a narrative structural device in which one overarching or frame story incorporated many smaller otherwise unrelated stories, characters, techniques, and styles. Its roots go back to India and to the Persian fables *Hazar Afsana* (*The Thousand Tales*), which were translated into Arabic in the eighth century and partly inspired the compilation of *The Thousand and One Nights*. Chaucer's *Canterbury Tales* was a splendid example of a frame tale, as were Boccaccio's *Decameron*, Sercambi's *Novella*, and *The Thousand and One Nights*.

In *The Decameron*, a group escaping from the plague assembles in a country house and whiles away the time telling tales to entertain one another. Chaucer's fictional pilgrimage to Canterbury, the shrine of Saint Thomas à Becket, united sundry folk and themes, remarkably diverse language styles and moralities. The ploy of framing disparity allowed writers to violate classical canons of decorum requiring the three unities, of time, place, and style, as well as permitting authors to dramatize the same subject from divergent viewpoints. A frame tale juxtaposed elegant courtly romance with hilarious beast epic with moral sermon with raunchy, exuberant fabliau.

Chaucer's *Canterbury Tales* exemplified frame tale ingenuities. Pilgrims gathered at the Tabard Inn one April when lively fellowship beckoned them to Canterbury. The group included a Knight; a Squire; a regal Nun with her chaplain, three priests, and spoiled little dogs; a rotund Monk, a hunter who adored fine, fatty foods; a Friar; a Merchant; a Shipman; a young Clerk from Oxford University; a Sergeant of the Law, who sat at table with a wealthy landowner; a Franklin; elaborately costumed Guildsmen (a haberdasher, carpenter, weaver, dyer, and tapestry maker), who ostentatiously had their own Cook; and a Physician, who astrologically determined propitious times to administer gold cordials to his patients. A lusty, deaf cloth weaver, the Wife of Bath, who had married at least five husbands, sat beside a poor town Parson traveling with his brother, a Plowman, who spoke with a Reeve, a grain Miller, an ecclesiastical Summoner, a Pardoner, a Manciple from a law temple, and Chaucer himself. This stunningly diverse fictional social group allowed Chaucer to tell tales consistent with his characters' profession or personality. Splendid humor, language variations, philosophical antitheses, and artistic disjunctures merited John Dryden's description of Chaucer's frame tale as representing "God's plenty" (Dryden 531).

Recurring themes within Chaucer's *Canterbury Tales* provided structural unity within diversity. Husbands and wives, for instance, debated mastery in marriage. Three pilgrims told tales disparate in style but related in subject. "The Wife of Bath's Tale" dramatized the thesis that woman must have mastery over man while the "Clerk's Tale" depicted the antithesis that man should have absolute sovereignty over woman. Synthesis governed the "Franklin's Tale," in which gender relations are balanced, investing power in man and woman equally.

Similarly, *gentilesse*, an inherent nobility of spirit expressed in action, likewise pervaded many tales within Chaucer's frame. Not always associated with noble birth, gentility connoted a generosity of spirit that subjugated one's personal desires to a larger good or a common profit. This intrinsic graciousness also was called *freedom*. Dante in his *Convivio* discussed *gentilezza*, inherent, ethical courtesy displayed in all acts of life.

A related recurring concept was the *troth*, a pledge, promise, and verbal contract necessarily honored, no matter the cost, illogic, or violation of other imperatives, if one subscribed to *gentilesse.* In "The Franklin's Tale," for instance, beautiful Dorigen, importuned by an unwanted, unwelcome student suitor while her beloved merchant husband was away, in annoyed anguish rashly pledged to sleep with the suitor if he made the rocks and boulders disappear from the coastline of Brittany. The lovelorn scholar lavished his tuition money on employing a mighty magician from Italy to create an illusion of a clear coast and triumphantly demanded the pledged love. Who had the most generosity and graciousness of spirit, freedom, and *gentilesse*? Dorigen's husband adored his wife, respected her word, and mournfully assented. She so honored *troth* that even though magic tricked her, she was ready to fulfill word by her body. The young lover, observing such integrity, released Dorigen from her pledge, and the magician, seeing his illusion fail its intended goal, took only half his fee.

Drama and Theater

The pageantry and ceremony of the medieval Christian mass led directly to the development of modern drama as we celebrate it today. From simple tropes, the short dramatic scenes interpolated into Christian liturgy from secular sources, the pomp and ritual of the ecclesiasti-

cal mass became increasingly theatrical, instructing the pious in religious dogma and morality and stirring religious fervor. Drama that successfully united the paired opposites of *docere et delectare*, "to instruct and to delight," resulted in the best art. As Chaucer paraphrased Plato in the *Timaeus*, words must be perfect cousins to deeds. Elegant epic characters were expected to speak refined language, but rude, crude boors spouted lascivious obscenity. When too many bawdy, raucous elements were interpolated into the Easter mass liturgy, the church hierarchy expelled these protodramas from the church back to the marketplace where many of the cruder elements originated.

The *Quem quaeritis trope* is the earliest surviving example of medieval drama, a ninth-century manuscript from the monastery at Saint Gall. Its few powerful sentences, chanted or sung antiphonally, dramatize the story of the three Marys, the holy women who first discovered Christ's Resurrection from the sepulchre. The Virgin Mary, Mary Magdalene, and another Mary, Mary Cleophas or Mary Salome, went to Christ's tomb to anoint his body. They see the tombstone rolled back and angels ask them, "Servants of Christ, whom do you seek in the sepulchre?" (Latin, *Quem quaeritis in sepulchro o christicolae?*). The three Marys answer, "Servants of Heaven, we look for Jesus of Nazareth crucified!" (Latin, *Jesum Nazarenus, crucificum, O coelicolae!*).

This dramatic interchange was augmented theatrically with amusing, popular marketplace entertainers called *joculatores*, the heirs of the late Roman itinerant theater, players and entertainers who performed at markets, fairs, and church festivals. Their formulaic characterizations and predictable, amusing actions offered the pleasure of the familiar and a reestablishment of the idea of order in the world, *ordo mundi*. Stock characters included the ointment seller (the *unguentarius*) and the boasting soldier (the *miles gloriosus*). Another stock character, the

superannuated lover (the *senex amans*), with his young, sexually exuberant wife also was inserted into sacred drama, as was the *unguentarius*'s shrewish, talkative wife, called the *gossip*. Combining the sacred and profane, the short Latin *Quem queritis trope* influenced the development of the Passion Play and miracle, mystery, and morality plays.

PASSION PLAY

A Passion Play was a drama about Christ's suffering, or Passion; his crucifixion; and his resurrection. The German Oberammergau Passion Play still is popular in the 21st century. The medieval Passion Plays dealt with some, many, or all of Christ's sufferings culminating in his crucifixion, through which Christians were redeemed. Usually complete with lugubrious detail, most Passion Plays included the instruments of Christ's Passion, such as nails, crown of thorns, lance, sponge, scourge, pillar, hammer, rope, and dice. Other customary props in the play were a portrait of Judas, who betrayed Jesus; a depiction of the hands that struck Christ; a representation of the rooster that crowed after Peter denied Christ; and a facsimile of Saint Veronica's veil, or *vernicle*, the holy relic that retained a likeness of Christ's face after Veronica wiped the blood and sweat from it on the road to Calvary.

The Passion Play symbolically recreated Christ's march to crucifixion on the path or road of anguish, the Via Dolorosa. Fourteen Stations of the Cross identified significant events along this perilous road. The Franciscans particularly popularized this road to Golgotha along which Jesus carried his cross. Customarily, the passion play enacted some or all of the 14 Stations of the Cross: (1) Christ's condemnation to death; (2) Christ's receiving the cross to carry; (3) Christ's first fall, of the three times he staggers under the cross's weight; (4) Christ's meeting his mother, the

Virgin Mary; (5) Simon of Cyrene's carrying the cross; (6) Saint Veronica's offering her veil, which becomes her *vernicle*; (7) Christ's second fall; (8) Jesus' meeting the woman of Jerusalem; (9) Christ's third stagger; (10) the stripping naked of Jesus; (11) the nailing to the cross; (12) the Crucifixion and Christ's dying; (13) the descent from the cross, the Pietà; (14) Christ's burial and entombment. Some Passion Plays also included moments from the childhood and early life history of Jesus Christ that foreshadowed his crucifixion.

MYSTERY PLAYS

Mystery plays were dramas on biblical subjects. The term *mystery* was initially thought to refer to God or Christ's intercession in the human world such as at the Creation, the Fall of mankind, the Flood, the Crucifixion, and the Redemption of humanity. Scholars now agree that the genre takes its name from the Latin *mysterium*, meaning "occupation or craft, art, or trade." Members of the same *mysterie* were guildsmen practicing the same craft, such as weavers, dyers, and bakers. Many mystery plays were organized into dramatic cycles, ranging from the Creation in the Old Testament to the Day of Judgment depicted in the Apocalypse of the New Testament. The English Wakefield, York, and Chester plays were written and performed by craft guildsmen who staged the dramas on movable pageant wagons. Their productions were portable and moved from town to town, allowing the theater to go to the audience rather than the pious to the proscenium. The anonymous 12th-century *Jeu d'Adam* was the most popular of the French mysteries.

MIRACLE PLAYS

Miracle plays were dramas about religious subjects drawn from Scripture and hagiographical sources that narrated the life and death of the saints. Miracle plays dramatized wondrous deeds, spectacular devotion, lugubriously detailed martyrdoms, and the meticulously described virtues of those who had imitated and suffered for Christ. The *Jeu de Saint-Nicholas* (*The Play of Saint Nicholas*) was written in the 13th century by the French poet Jean Bodel. Bodel's participation in Saint Louis's crusade to Egypt inspired this crusader drama, which ends with the conversion of the Muslims to Christianity after the miraculous intervention of Saint Nicholas. In the same century the Parisian Rutebeuf wrote the "Miracle of Theophilus," dramatizing the popular legend of an officer of the church of Adana in Cilicia who was relieved of his duties and bartered his soul to the devil in order to regain his post. A miraculous intervention of the Virgin Mary releases his soul from the devil's grasp. The Miracles of Our Lady, plays depicting the miraculous intervention of Mary, dominated religious theater in the 14th and 15th centuries. The tale of Saint Nicholas and His Three Balls, persisting in the modern golden globes arranged in the modified triangle of the pawnbroker's sign, described Saint Nicholas of Myra's bags of gold as dowry for each of three deserving poor girls.

MORALITY PLAYS

Contemporaneous with the mystery, passion, and miracle plays were the popular morality plays consisting of allegorical dramas in which personified virtues and vices competed for the hero's soul and played out their battle on the field of the mind. In the dramatic 15th-century morality play *Everyman*, the eponymous hero is summoned by Death. Of all his companions, Beauty, Kindred, Worldly Goods, and Good Deeds, only the latter fulfils his promise to go with the hero and be his guide, standing at his side, even on the very last steps of his final voy-

age to death and judgment. Other moralities included the *Castle of Perseverance*, *Mundus et Infans*, and early Faust plays in which an intelligent, studious hero sold his soul to the devil for short-lived youth and love.

OTHER DRAMATIC ENTERTAINMENT

Other dramatic and dance entertainments included the *Moresca*, *morris dances*, *maypoles*, *mumming plays*, *mattachins*, *masquerades*, and *masques*. (*See* chapter 10 on music and dance.)

Also crossing the boundaries between drama and music were the *Singspiele*, German for "song play." A dramatic music text was partly prose, partly verse, partly spoken, and partly sung. The French dramatist Adam de la Halle (c. 1240–87) wrote his charming *Robin and Marion* (*Le Jeu de Robin et Marion*), one of the earliest song plays. Called *chant fable* in French, this dramatic genre also included the delightful 13th-century play *Aucassin et Nicolette* (author unknown), which also combined prose, verse, declamation, and song.

Instruction Books

Our modern bookstores' impressive array of "how to" books finds its parallel in the medieval instruction manuals that taught people how to live and how to act according to an ideal type, often a religious or secular hero. Instruction books were startlingly diverse texts composed to educate people in ethics and morality, in working in crafts and professions, in personal behavior, and in refining the mind and the soul.

MIRROR OF PRINCES

Mirrors of princes were instruction books for responsible, courtly, humane rulers. Not only dedicated to those who literally were princes, the mirrors taught leadership to the nobility and etiquette to all who wished to imitate the noble. Originally derived from the classic treatise of Isocrates called *Ad Nicoclem* written in 374 B.C.E., this common literary genre exercised the minds and pens of Neoplatonist thinkers such as John of Salisbury, who wrote *Policraticus*, and William Perrault, Hugh of Fleury, and Aegidius Romanus. Mirrors of princes were popular in various versions and translations, serving people born to the court and nobility, and townsmen and dreamers imitating habits of the courtly.

THE ART OF LOVE

Seduction manuals, treatises on the art of love, and analyses of the art of courtly love pleased large numbers of readers both secular and clerical. Many of these medieval manuals were entitled *The Art of Love*, based on Ovid's Latin *Ars amatoria*. In the 12th century Andreas Capellanus wrote *De Amore libri tres* (*The Art of Courtly Love*), a book of three volumes that explained the nature and definition of courtly love, the rules of behavior in a courtly love affair, and the "rejection of love," or why courtly love should never be practiced. *The Art of Courtly Love* included wonderful descriptions of amorous etiquette, sexual politics, practical love lore, and techniques of psychological manipulation. Courtly love was always adulterous and initiated by the male lover. The married beloved or *domna* almost invariably was of a higher social rank than her lover and demanded from him the self-sacrificing "service of love," called *service d'amour* in French and *Minnedienst* in German. The courtly lover owed a double allegiance to his beloved and to God, or to the god of love.

Capellanus discussed in detail the stratagems of secrecy needed to present the public scandal of adultery. He suggested the use of code names and employment of a trusted servant to serve as

the lovers' go-between. Alternatively, messages could be entrusted to a canine companion to carrying between lovers or console the grief of lovers separated. The literary motif of the romance dog companion derived from the friendly beast guides to the otherworld found in Greek mythology. In the Tristan legend, for instance, the canine companions were named Petit Cru and Husdan. Other sex manuals included recipes for aphrodisiacs and advice on precoital play.

Depictions of courtly love appear in Chaucer's "Wife of Bath's Tale." In that lusty story, a noble knight of King Arthur's court, Gawain, raped a maiden. Queen Guinevere as judge of the Court of Love imposed upon him the challenge of getting the correct answer to the question on mastery: "What do women most desire?" Incorrectly answering that question would cause Gawain to suffer decapitation. His answer that women desire mastery over men satisfied the court and saved his head.

HUNTING MANUALS

Hunting manuals were instruction books for both the ceremony and sport of hunting, including the methods of tracking, chasing, killing, and carving prey. Beyond their didactic purpose, these treatises provided the medieval aristocracy with the practical means to imitate the heroes of chivalric romance, who were often depicted engaging in hunting. Renowned hunting treatises were written by Gaston Phebus (1331–91) and King Frederick II of Sicily (1194–1250).

Many such hunt manuals included sections on falconry, the elaborate ceremonial technique of hunting game with birds of prey such as falcons and hawks. Well versed in Arabic, Frederick II wrote a famous book on falconry or hawking, *The Art of Hunting with Birds* (*Tractatus de arte venandi cum avibus*), which was based on an Arabic treatise on the topic.

Birds were trained to sit on the wrists, hoodwinked and held by gesses, and took flight at the sound of ceremonial musical calls. Falconry was as much a courtly exercise and entertainment as a practical acquisition technique for kitchen fowl. In addition to falconry, some hunting manuals included long sections on animal husbandry and veterinary science. Others depicted the medical uses of animals in the treatment and cure of human disease and injury. A prime example of this type of book is the *Historia Animalium* (*History of Animals*) by the Swiss naturalist Conrad Gessner (1516–65), which summarized all classical and contemporary knowledge about four-legged animals, amphibians, fowl and other birds, and fish and marine life. Magnificently illustrated, it was one of the earliest printed books. Abbreviated versions of the work were subsequently published by Gessner and other authors, including Rudolph Huësslin's *Vogel-Buch*, relating to medical uses of birds; the *Animal Book* (*Tier-Buch*) of Conrad Forer, which was a general study of mammals; and the *Fisch-Buch*, which treated marine life.

Gaston Phebus, count of Foix between 1387 and 1391, wrote a wonderful hunting guide, *Les Déduits de la chasse* (*The Hunting Book*), which included excellent advice on caring for hunting dogs. Maintaining that inactivity was deadly to the dogs, he recommended that the grooms take them out of their kennels each morning and night and run them around the enclosures. With curry combs, brushes, and straw, a good groom would prepare his hounds for presentation, walking them on leashes and picking the best laxative herbs to keep the animals' intestinal systems well regulated. If any dog suddenly became mute, debilitated, or sleepy; or lost its appetite, slavered, was weak on his legs; or if his bark was hoarse, then he might be suffering from rabies, which would be fatal. That dog's bite would endanger people. Therefore Gaston Phebus advised isolating the

hound and using particular herbs and medications to cure him.

Long, tiring hunts subjected dogs to injuries of eye, ear, throat, and paws. If a dog had swollen paws, Gaston Phebus recommended soaking the paws in a vessel of warm water with leaves of lavender, rosemary, and chamomile. But special care was always to be lavished on dislocated shoulders, best handled by orthopedists and bonesetters, on broken limbs, best put in harnesses, and on protecting the dog's sexual organs.

Yet other hunting manuals were dedicated specially to the music that accompanied hunting. Because some medieval horns played only a single pitch, the talent of the hunting horn player depended upon rhythm, the length of the note, and the intensity of sound. Special names for particular hunting calls included the *mote*, blown at the uncoupling of the hounds. The *rechete* was blown to recall dogs or to urge them to the kill. The *mane* and *pryse* rhythmically suggested the animal's calm when prepared in the banquet hall. Harmonious hunting preceded healthful eating.

Hunting music inspired particular forms of song in which the music of the ceremonial pursuit of the animal was transformed into the pursuit of a desired lover. Therefore hunting music inspired such important poetic and musical forms as the *chasse*, *caccia*, and *catch*, early forms of polyphony (*see* chapter 10 on music and dance). Love allegories with variations upon the title "The Hunt of Love" used the language of the chase for depicting the art of courtly love. Poetry and song expressed passion for the beautiful woman or magnificent man by means of hunting rhetoric and hunting horn music. Fabliaux writers and the lusty devotees of *amor de con* (Provençal, "love of sexual intercourse") particularly delighted in exploiting the connections between sexual pursuit and consummation and the art of hunting. The noble Provençal troubadour William IX, duke of

Aquitaine and count of Poitiers (1071–1126), suggested in his poetry that love of sexual dalliance, *amor de con*, explained his own and other men's inexorable, insatiable, and intemperate love proclivities.

DANCE MANUALS

The *dance of love*, or *love's old dance*, was a euphemism for sexual dalliance. However, most dance manuals seriously taught the fine art of moving gracefully through space. Dance masters at major courts, such as Domenico da Piacenza (1390–1470), Antonio Cornazano (c. 1430–85), and Guglielmo Ebreo (1425–80) wrote important treatises on the art of the dance emphasizing the ways in which dance integrated physique, emotional control, and the art of living beautifully. Da Piacenza wrote the *De arte saltandi et choreas ducendi* (*The Book on the Art of Dancing*) circa 1455 while serving in the court of Milan and is the declared master of Guglielmo and Cornazano. The *Trattato dell'arte del ballo di Guglielmo Ebreo Pesarese* (*The Book on the Art of Dancing* by Guglielmo Ebreo) meticulously describes the dance steps of 17 *bassadanza*, a slow stately dance in one tempo featuring low as opposed to high steps, and 17 *ballo* dances. The *ballo* (pl. *balli*) is a lively, dramatic dance of multiple tempos for a prescribed number of male and female dancers. Cornazano devotes nearly half of his *Libro dell' arte del danzare* (*The Book on the Art of Dance*) to discussing the qualities needed to dance, including memory, measure, spirit, variety, and an adequate use of space. The remainder provides description of various dance forms, including *bassedanza* and *balli*.

INSTRUCTION BOOKS FOR WOMEN

Instruction books for secular women taught the proper decorum of behavior according to social status and religious condition. Male and female

One of the Seven Virtues, Temperance, along with Faith, Hope, Charity, Prudence, Fortitude, and Justice, was depicted as an elegant, learned woman. Like most allegorical figures, she personified an abstract idea and possessed an identifying attribute. Temperance, representing moderation, equilibrium, timing, and balance, had as her symbolic identifying device a mechanical clock. Just as Justice was portrayed wielding her scales, Temperance was associated with the time-measuring technological marvel of gears and escapement mechanisms, which in turn exemplified perfect, active heavenly order. Fiovanni da Dondi, a physician, astronomer, and clockmaker, created a magnificent clockwork in 1348 to measure hours, minutes, and planetary movements, representing the harmonies of the microcosm, the human body, with the macrocosm, the heavenly spheres in their orbits and rotations. Here Christine de Pizan teaches the power of temperance to four listening women. Her geared clock with an hour hand and a minute hand is surmounted by a bell for ringing the hours for prayer, for markets, and for life's ceremonial feasts. From Christine de Pizan's Othea, 15th century. Courtesy of the Bodleian Library, Oxford University, Oxford.

religious hermits attempting a life in imitation of Christ withdrew from the world. Some wrote instruction manuals for others to emulate them, such as the late 12th-century instruction book for female hermits called *Ancrene Wisse or Ancrene Riwle, The Anchoress's Rule.* The prolific 15th-century writer Christine de Pizan wrote several instruction books for women that touched upon all areas of public and private life, including *Le Livre de Trois Virtues* (*Book of the Three Virtues*) or (*The Treasury of the City of Ladies*), and her most acclaimed treatise, *Le Livre de la Cité des Dames* (*The Book of the City of Ladies*). De Pizan's writings responded to the misogynist representations of women as schemers of dubious morality that pervaded some courtly love literature, most notoriously the allegorical *Roman de la Rose* by the French author Jean de Meun (discussed later). The same countermisogynist impulse to reassert the nobility and Christian morality of women inspired the Spanish Augustinian monk and preacher Fray Martin of Córdoba (d. c. 1476) to write his *Jardín de Nobles Donzellas* (*The Garden of Noble Ladies*) and the Spanish Franciscan friar and preacher Francesc Eiximenis (1327–1409) to write his *Llibre de les Dones* (*The Book of Women*). The latter work spelled out the norms of living a Christian life according to the four social categories of women—religious, maiden, married, and widow.

ARS MORIENDI

Whereas the mission of the modern institution of the hospice is to allow the terminally ill to die with dignity, the medieval instruction book on *ars moriendi* ("the art of dying") taught the pious Christian how to prepare his or her soul for death. A devotional text and instruction book, the *ars moriendi* prepared a person for a model Christian death and a blissful passing to the next life. Teaching virtues as useful for living as for dying, such as patience in adversity,

the *ars moriendi* were illustrated with depictions of vices to warn the reader of what the guilty soul would endure. An impatient patient in a Dutch *ars moriendi* dated 1465 extended his bony leg from under his bed cover and violently kicked his medical attendants, knocked over his medication table, and behaved fiendishly, egged on by a small devil hiding beneath his bed, ready to snatch his soul and carry it to hell the instant he released it at death.

Pictorial didactics included sculptured funerary books, the *transi*, or transitory, *tombs.* A *transi tomb* was a sarcophagus topped by a carved portrait of a corpse in a state ranging from peaceful repose to repulsive skeletal decay. The tomb was meant to be a *memento mori* (Latin, "reminder of death"). Early *transi tombs* appealed to the living to pray for the souls of the dead. Later medieval *transi tombs* became dramatic symbols for the wealthy and powerful for depicting death as resolving all conflict between pride and humility, earthly wealth and holy poverty.

Memento mori graced literature, art, and even personal jewelry, as in a bracelet's pendant charm in the form of an exquisitely carved ivory or boxwood skull. Thought neither morbid nor lugubrious, it was a reminder in the midst of frivolity that life's higher purposes or time's shortness must temper joy in earthly delights. Therefore in depictions of the dance of death, as in Jacob Meydenbach's 15th-century *Der Toten Tantz*, from Mainz, a skeleton viol player snatched a young lover, while another skeleton playing a cornet with a grave worm extruded from it regaled unwilling listeners. Once Death was ready to dance with someone, neither social status, moral virtue, age, wealth, nor political position could overpower or prevent it.

OTHER INSTRUCTION BOOKS

Medieval writers believing in the perfectibility of humankind taught by means of instruction books how best to live and die. A medieval reader could learn how to play chess. Performing magic required a *clavicula*, a small key or short treatise such as the *Clavicle of Moses* or *Clavicula Salomonis Regis* (*The Key of Solomon the King*). The means for stimulating and preserving good health could be learned from medical manuals of Salerno and the other hygiene and dietary texts. (*See* chapter 7, Medicine, Science, and Technology.) Preachers learned the finer points of composing and delivering a successful sermon from the *ars praedicandi*, while pious religious and lay persons learned the best way to pray to God by consulting the *ars orandi* ("art of praying") manuals.

Warfare treatises and military instruction books taught martial ideals as well as practical advice on weaponry ranging from swords to siege engines (*see* chapter 4, Warfare and Weapons). Ingenious mechanical military devices designed by the 14th-century physician and technologist Guido da Vigevano included catapults with prefabricated, portable, and multipurpose parts; paddle wheel boats; towers utilizing structural iron; and armored fighting wagons powered by crankshafts or windmills.

Epitoma de rei militaris (*A Summary of Military Matters*) by the Roman writer Flavius Vegetius inspired important military instrument design and strategy in the Middle Ages and influenced the 14th-century military engineer Konrad Keyser in writing his remarkable instruction manual *Bellifortis* on how to make weapons with multiple cannons. The prolific French woman author Christine de Pizan also drew extensively from the writings of Vegetius in composing her medieval "best-seller" on chivalry, *Livre de fais d' armes et de chivalries*, the *Book of Deeds of Arms and Chivalry.*

EXEMPLA

The *exemplum* is a brief didactic and moralizing tale that commonly was incorporated in reli-

gious and secular medieval literature in order to instruct the audience in proper conduct in an entertaining way. *Exempla* stem from diverse sources, notably *Aesop's Fables* and similar literature by other classical writers, Jewish exempla and haggadic literature, and Arabic folktales. The Spanish Jewish rabbi formerly known as Moses Sefardi who converted to Christianity in 1106, taking the name of Petrus Alfonsus, is recognized as a key figure responsible for the transmission of the Jewish and Arabic sources into Christian Europe. His *Disciplina clericalis* (*Ecclesiastical Discipline*), a collection of moralizing tales to guide the clergy, drew extensively on Jewish and Arabic sources and became a standard text for clerical instruction throughout Western Europe. Another Spanish author, Don Manuel of Castile (1283–1349), wrote the immensely popular *Libro de los exemplos del Conde Lucanor et de Patronio*. The *exempla* are recounted in the form of a conversation between the protagonist, Conde Lucanor, and his spiritual and moral adviser, Patronio, who provides him advice on how to act wisely.

An important number of exempla compilations were assembled in a clerical milieu to be used by preachers throughout the Latin West. Significant Spanish contributions include the *Libro de los Exenplos por A. B. C.* (*The Book of Exempla by A. B. C.*), compiled in 1435 by the archdeacon of Valderas in northern Spain, the 15th-century *Libro de los gatos* (*The Book of Cats*) and the 13th-century *Liber Exemplorum ad usum praedicantium saecula XIII compositus a quodam Fratre Minore Anglico de Provincia Hiberniae* ("The Book of Exempla for the Use of Preaching in the 13th Century, Compiled by the Friars Minor of the Iberian Peninsula"), the latter two anonymous. The *Exempla* from the "*Sermones vulgares*" of the Dominican preacher and inquisitor Jacques de Vitry (d. 1260) and the *Tractatus de diversis materiis praedicabilibus* (Treatise of diverse materials to be used for preaching) by the Dominican inquisitor

Étienne de Bourbon (d. 1256) were especially designed for preaching against heresy. The *Noveletti, esempi morali e apologhi* ("Novelettes, Moral Exempla and Apologia"), by the charismatic 15th-century Italian preacher Bernadino of Siena (d. 1444), and the *Dialogus Miraculorum* (*Dialogue of Miracles*) by the monk Caesar of Heisterbach of Germany (1180 to before 1250) were also widely used by preachers across western Europe.

Beast Literature

Medieval affections for animals are evident in the copious hunting manuals and treatises on animal husbandry. The bestiary, the beast fable, and the beast epic were popular literary forms among all social classes at all levels of literacy. Beast literature pressed animal lore and natural history into the service of morality.

Domestic animals included such exotic breeds as monkeys. Gracing the shoulders of acrobats and entertainers in town squares and the laps of court ladies, monkeys were so commonplace that even toll collectors on bridges who solicited money from each person and for all merchandise allowed monkeys to pass free. On the toll bridges of Paris, a 14th-century merchant crossing a bridge with monkeys to sell paid four coins. But if the monkeys were pets for amusement, no toll was charged. In fact, monkeys performing before the toll guard enabled their keeper and everything that he carried to pass free.

BESTIARY

The *bestiary* was an unnatural natural history derived in part from an anonymous second-century work called the *Physiologus*, a didactic text describing characteristics of beasts while imparting moral or religious teachings. For instance, the fox is fraudulent and ingenious,

duping others to feed him. Likewise the devil craftily deceives the unwary. Another tale unites bears and Jesus Christ. The mother bear licks into shape her bear cubs born blind and requiring her necessary to finish them. She transforms the inchoate bear into an actual animal, her caressing, creative tongue completing the bear shaping. Likewise, Christianity cares for Christians, truly refining and completing humankind.

Wildly extravagant beasts were created by conflation of travelers' reports about exotic local animals, such as the *camelelephantoleopard*. The elephant was thought the most pious of beasts because it kneeled. The salamander in those bestiaries following Pliny and Aristotle depicted a lizardlike amphibian that both withstood fire and fought it. Its dramatic poisonous properties enabled it to kill at once. If a salamander climbed a fruit tree, all fruits would instantly become infected with its venom, killing anyone who ate them. A salamander falling into a well poisoned it with its powerful toxin, slaying any who drank from the well. The salamander was common in the iconography of evil.

The caladrius bird was often depicted in bestiaries and in medical manuscripts. It also appeared in romances of Alexander the Great, who found these exquisite white birds at the court of Xerxes. Considered a prognosticator of death, the caladrius bird was taken to the hospital bed of patients. If the bird turned its face away, it predicted death. If the bird gazed at the ill person, the patient would recover. Its gaze also was said to cure jaundice. In the *Physiologus* the caladrius typified Jesus Christ. Another important inspiration of medieval bestiaries was the *Etymologiae* (Etymologies) of the Spanish archbishop Isidore of Seville (560–636), whose vast encyclopedic compendium of all knowledge was the standard reference throughout medieval Latin Europe. Many bestiaries were anonymous; however, some of the

most significant surviving examples by known authors include two French works, *Bestiare* of Pierre de Beauvais (d. 1475) and *Le Bestiare divin* of Guillaume le Clerc of Normandy (13th century); a Latin text of English origin, the *Bestiarius*, which was composed sometime between 1400 and 1425 and is attributed to a woman named Ann Walshe; and the 12th-century *Bestiare* of Philippe de Thaon, a Norman writer who composed the text in Anglo-Norman verse. Guillaume le Clerc and Ann Walshe consciously followed the classification scheme of information devised by Isidore of Seville, while Philippe de Thaon drew mostly from the *Physiologus*.

BEAST FABLES

Beast fables were meticulously crafted short stories or poems in which human foibles and vices were examined through the antics and actions of animals. At the end of the tale, a moral conveyed the wise message in a short pithy sentence. Beast fables were meant to teach by entertaining. Sometimes lavishly illustrated, fables were traceable to the great Greek collection of Aesop, collected in Latin in the first century by Phaedrus, and written by numerous known and unknown writers including the great French aristocrat Marie de France.

Consider Marie de France's rooster in her fable "The Fox and the Rooster," taken from her collection of *Fabliaux* (discussed later). A rooster was up on a dunghill singing. A fox came up to him and flattered him saying he had "never seen such a fine bird" except for his father who sang better because he closed his eyes. To which the rooster replied, "I can do the same." The fox then seized the rooster and carried him away to the forest. As the fox crossed the field all the shepherds and their dogs ran after him. Seizing his opportunity, the rooster said, "Go on, tell them that I'm yours and you'll never let me go!" But when the fox

tried to speak, the rooster leapt out of his mouth, the fox then cursed his mouth for speaking when he should have been silent. The rooster replied, "I should do the same and curse the eyes that closed when they should have watched and been alert." Moral: Fools all speak when they should be quiet and hold their tongues when they should speak. (*The Fables of Marie de France*, trans. M. L. Martin, 1994. Available online. "Marie de France. Fable 60." URL: http://home.earthlink.net/~dianska/fable60.htm.)

BEAST EPIC

The beast epic was a popular satiric story utilizing language, episodes, and action suitable to classical epic but voiced and performed by animals. Beast epics achieved double mockery of the epic's high-flown subjects and precious style and of human foibles, follies, and vices. Traceable also to the traditions of Aesop, Phaedrus, the Eastern fables of *Bidpai*, and the 12th-century *Disciplina clericalis* (*Ecclesiastical Discipline*) by the Spanish theologian Petrus Alfonsus (d. 1110), beast epics included the 12th-century *Le Roman de Renart* (*The Romance of Reynard the Fox*), Heinrich de Glichezare's *Reinhart Fuchs*, and the many stories of Ysengrimus, the Wolf. Chaucer included a beast epic in the *Canterbury Tales*, the "Nun's Priest's Tale." The *Disciplina clericalis* was especially influential, having been translated into several languages and diffused throughout Europe. As noted, the author, a Jewish rabbi originally named Moses Sefardi who converted to Christianity in 1106, drew extensively on Arabic didactic sources and is responsible for introducing Christian Europe to fables of Eastern origin, such as *Bidpai*. The moralizing intent of these works made them especially popular among preachers, who incorporated them into their sermons.

Riddle

A popular, ancient literary game, a riddle gave a metaphoric clue to an object's or idea's identity without naming it. A riddle's intellectual delight was in its personification and paradox, its startling symmetry of word applicable in two opposing realms, reality and language. In the remarkable eighth-century Anglo-Saxon *Exeter Book*, 95 riddles include such commonplace subjects as a sword, shield, badger, cuckoo, storm, Moon, onion, and key. Riddle 45 is typical: "A moth ate songs—wolfed words! That seemed a weird dish—that a worm should swallow dumb thief in the dark, the songs of a man, his chants of glory, their place of strength. That thief-guest was no wiser for having swallowed words." (The Riddles from the *Exeter Book*. Available online. URL: http://www.kenyon.edu/AngloSaxonRiddles/texts.htm.)

Usually ingenious and containing *gnomic*, sententious proverbial sayings, riddles both taught and pleased.

Kenning

The kenning, the Anglo-Saxon and Old Germanic poetic technique of describing something without naming it, was related to the riddle. Two or more major qualities conjoined in a kenning described the unknown element. The ocean was the whale's road. A high-prowed sailing ship was the foamy-necked floater. The kenning for a well-wrought sword was hammer-leavings.

Fabliaux

Rude, crude, lewd tales, *fabliaux* depicted the adventures of ebullient philanderers, voluptuous women, and clever, bold, and bawdy wives of sexually senescent men. Witty and

wily fabliaux women often cuckolded their elderly husbands, stock characters called the *senex amans.* The fabliaux wife sported with a sexually athletic young lover, sometimes a student. Lascivious clerics also were important fabliaux lovers of willing women congregants.

The fabliaux woman was the opposite of courtly love's *domna,* highborn, imperious, capricious inspiration for troubadour love from afar and service of love. The fabliaux woman not only willingly indulged in sex but initiated the wildest dances of love and celebrated her own sensuality.

Customarily the fabliaux were anonymous; however, the *Fabliaux* of Marie de France is one notable exception. Most likely their writers were learned, courtly men and women who delighted in the gossip and gusto of the marketplace and country bedroom.

Allegorical Writings

The animals in the beast literature that allegorize human vices and virtues represent one facet of the medieval penchant for allegorical writing. Medieval allegory finds its origins in the tradition of biblical interpretation that aimed to reconcile the Old Testament and New Testament texts. There were four types of allegorical interpretation: literal, typological, tropological, and anagogical. A literal interpretation understands the text at face value; there is no underlying or hidden meaning. The typological interpretation explains the persons and events of the Old Testament as figures or "types" that prefigure the events surrounding Christ as told in the New Testament. The tropological or moral interpretation reveals the moral lesson that should guide present conduct. Finally, the anagogical interpretation serves as a warning of the end of time and the last judgment. Second only to the Bible was the remarkable fifth-century allegory by the Roman poet Prudentius (d. c. 1413) called *Psychomachia,* which personified the Seven Deadly Sins and other abstract ideas later important to medieval literature and art. In this work allegory was "mind battle," a *psychomachia,* a war within the mind in which conflicting ideas struggled for the individual's personal choice.

DREAM VISION

Among the most significant genres of allegorical literature is the dream vision. The *Roman de la Rose,* Dante Alighieri's *Divine Comedy,* and the wonderful alliterative revival poems called *Pearl* and *Piers Plowman* are prime examples. Most of the characters in these works are allegorical or allegories, personifications of abstract ideas, vivifying, intensifying, and augmenting meaning. Almost every medieval dream vision one way or another was traceable to the startlingly influential fifth-century Roman author Macrobius, who wrote a commentary on Cicero's *Dream of Scipio* describing a theory of dreams, their causes, and effects. In the typical dream vision, a person fell asleep and dreamed a vision of past, present, or future love; religion; or politics. Usually a fictional persona dreamed the dream in which the author spoke as himself, using the familiar first-person singular tense in order to create verisimilitude.

The *Roman de la Rose,* a 13th-century poem written by Guillaume de Lorris circa 1230 and later amplified by Jean de Meun, relates the dream of a courtier who wants to win the affection of his ladylove, the Rose. He dreams that he is led into the garden of Pleasure by the Lusty Lady. He dances the dance of Time and is guided by Happiness, Love, Wealth, and Generosity. To win the Rose he must seek the help of Hope, Pleasant Thoughts, Charming Looks, and Sweet Words. The allegorical characters personify the ideals of courtly love. The second part of the poem challenges the lofty

picture of courtly love and introduces elements of danger: Danger, Shame, Fear, and Death. In the end, the forces of Love overcome these dangers and the courtier wins the love of the Rose. This was one of the most popular allegorical poems in the Middle Ages; however, some of the female allegories were deemed misogynist by the aforementioned Christine de Pizan, who wrote her manuals of instructions for ladies as a reaction to the work.

In Dante's sublime *Divine Comedy*, Dante depicted himself voyaging under the guidance of Virgil to hell and to purgatory, and under the direction of his ladylove, Beatrice to heaven, respectively, in the three books of *Inferno*, *Purgatorio*, and *Paradiso*. Dante's guides Virgil and Beatrice are themselves allegories, the first representing human reason, and the second representing human race enlightened by revelation. This allegorical dream of the afterlife takes place during Easter Week,

beginning on Holy Thursday, the eve of Christ's death and impending Resurrection. Virgil first guides Dante through the nine circles of hell, imagined in concentric circles with the innermost reserved for Satan. Each circle is inhabited by a category of persons and Dante is shown their fate. For instance, the first circle, limbo, is inhabited by the unbaptized and virtuous pagans who do not know Christ. They are condemned to exclusion from heaven. The sixth circle is inhabited by heretics, who are trapped eternally in blazing tombs, while the seventh circle is inhabited by those who did all manner of violence against their fellows or God. Among them are the blasphemers and sodomites, who are condemned to burn in a flaming desert. The ninth circle is reserved for the malicious sinners, such as the sowers of discord, the prophet Muhammad among them, who are condemned to be eternally ripped apart.

Fourteenth-century image of Dante and Virgil at the top of Purgatory, from Dante's Divine Comedy
Giraudon/Art Resource.

LITERATURE

Dante and Virgil escape from the abode of hell before dawn on Easter Sunday and enter purgatory, an imposing mountain with seven terraces. Similarly to hell, each level represents one of the seven deadly sins and the means of expiating them is revealed. Thus, the first terrace, the sin of pride, must be purged by carrying heavy weights on the back. The second terrace, envy, must be expurgated by having the eyes sewn shut and wearing sackcloth. The third terrace, wrath, is purged by walking through fetid smoke. Sloth, the fourth terrace, must be expiated by continually running, while avarice, the fifth terrace, is overcome by prostrating on the ground. The sixth terrace, gluttony, is expurgated by fasting from food and drink, while the seventh terrace, lust, is purged by burning in flames.

The summit of the mountain of purgatory leads to the Garden of Paradise. Here Dante takes leave of his guide, Virgil, who as a pagan is barred from entering heaven. Dante's beloved Beatrice accompanies him through the heavenly bodies—the Moon, planets, and stars—until he reaches heaven. There Beatrice becomes almost like another Mary, interceding on his behalf so that he can obtain the vision of Christ and Mary and the realm of Empyrean Heaven, where he is face to face with the Almighty. This dazzling allegorical poem, composed in three-line rhyming iambic stanzas called *terza rima*, intricately linked stanza to stanza (ABA, BCB, CDC, DED) and though widely imitated was unequaled.

The *Piers Plowman*, an apocalyptic allegorical narrative composed in the late 14th century by the English author William Langland (d. c. 1385), stands second only to Chaucer's *The Canterbury Tales* in popularity. It relates the vision of a humble layman, a plowman called Will, and his search for Christ and the way to live a proper Christian life. The narrator has a series of eight visions in which he seeks out allegorical characters, such as the "Quest for Saint Truth" and "the Quest for Righteous Living" (Dowel), and is guided by the allegorized Reason, Conscience, and Alma, among others. Charity, the highest virtue, is planted like a tree in Man by God, and the Piers Plowman is its caretaker. Some of the visions reflect contemporary criticism of the clergy, such as in the Fifth Vision, when Anima (Soul) shows him that the friars who beg are not imitating Christ—they are merely lazy—and the corrupt clergy are likened to debased coinage. Also, in the eighth and final vision of the coming of the Antichrist the clergy are shown following the Antichrist and scorning Conscience and the Cardinal Virtues in exchange for wealth. Other visions reveal the anti-Semitism of 14th-century England, as when the Jews send a blind man to stab the crucified Christ with a spear. At the end of the vision Piers Plowman defeats Pride with the help of Grace.

Chronicles

The two great institutions of the Christian Middle Ages, the church and the monarchy, devoted special effort to recording the key events and persons of history, with special emphasis on the history of ruling dynasties, ecclesiastical rulers and religious orders, and the documentation of the Crusades. A sense of religious mission pervaded even the secular historical chronicles. Court historians located the reigning dynasty in a timeline stemming from the genesis of the world, with the kings portrayed as the heirs of biblical heroes. Similarly, crusader historians depicted events as happening at the hand of God. Chronicle writing was practiced among the Irish, the Anglo-Normans, the English, the French, the Iberians, the Danish, the Germans.

In his *Chronique* the French chronicler Enguerrand de Monstrelet (d. 1453) documented the Hundred Years' War and Joan of

Arc's interview with Philip the Good, duke of Burgundy (r. 1419–67), after her capture by the Burgundians (*see* chapter 1, History).

The acknowledged "father of English history" is the Venerable Bede (d. 735), a monk at the monastery of Saint Peter in Wearmouth, Northumbria. His *Historia ecclesiastica gentis Anglorum* (*The Ecclesiastical History of the English People*) covers the ecclesiastical and political history of English from the time of Caesar until the year 731. William of Malmesbury (d. 1143), English historian and monk of Malmesbury Abbey, wrote a series of English histories modeled after the Venerable Bede's *Historia*: *The Gesta regum anglorum* (*Deeds of the English kings*), which covers the years 449–1127, and the *Gesta pontificum anglorum* (*Deeds of the English bishops*) are his most significant works. Matthew Paris (d. 1259), abbot of Saint Albans Monastery and its official recorder of events, is considered the most comprehensive of the English historians. His *Chronica majorca* covered the major happenings from creation to 1066, the year of the Norman Conquest. The text known as the Warkworth's *Chronicle*, attributed to the master of Peterhouse in Cambridge, describes the events of the Wars of the Roses (1461–73), and the anonymous *Davies Chronicle* documents the reigns of the English monarchs Richard II, Henry IV, Henry V, and Henry VI, from 1377 to 1461.

The *Gesta Danorum* (*The Deeds of the Danes*), by the 12th-century writer Saxo the Grammarian, is the most ambitious account of Danish history, covering the events from the time of Christ until the reign of the Danish king Canute VI (r. 1182–1202). Among the Germanic chroniclers Otto von Freising (1115–58), a Cistercian abbot and bishop of Freising (Bavaria, Germany), wrote the *Gesta Friderici imperatoris* (*The Deeds of Emperor Frederick*) at the behest of the Hohenstaufen king Frederick I, the Holy Roman Emperor (r. 1152–90). Important events covered in the chronicle include the feud between the rival dynasties of the Guelfs and the Hohenstaufen.

Notable Christian chroniclers of the Iberian Peninsula include Saint Isidore of Seville (d. 636), author of the two works on the Christian history of the Peninsula, the *Chronicum maius* (*The Great Chronicle*) and the *Historia de regibus Gothurum, Vandalorum et Suevorum* (*A History of the Visigoths, Vandals, and Suebians*). Two anonymous eighth-century Latin chronicles, *The Arabic-Byzantine Chronicle of 741* and the *Mozarabic Chronicle of 754*, document the Muslim occupation of Spain in 711, the attendant establishment of the caliphate, and the emerging Christian kingdoms. The history of the Kingdoms of León and Castile, would-be heirs of the Visigothic kingdom, is told in the anonymous 12th-century *Chronica Adefonsi Imperatoris* (*The Chronicle of Alfonso the Emperor*), which documents the reign of Alfonso VII (1126–57), his self-proclamation as the Emperor of All of Spain, and his wars against the Almoravid Muslims. The *De rebus Hispanie* (*History of Hispania*) by the archbishop of Toledo and historian Rodrigo Jiménez de Rada (d. 1247) continued where Isidore of Seville left off, covering the history of the peninsula until the year in 1243. Alfonso X the Wise, king of Castile and León (1221–84), patronized and participated in the composition of two historical chronicles, the *Primera cronica general* and the *General estoria*. Both works were composed in Spanish rather than Latin and drew heavily upon a variety of sources, including biblical, classical, and Arabic works. Four important chronicles detail the history of the Crown of Aragon, the earliest of which is the *Llibre del rei en Pere d'Aragó e dels seus antecessors* ("The Book of King Peter of Aragon and His Predecessors"), written by the 13th-century Catalan chronicler Bernat Desclot. James I of Aragon "the Conqueror" (1208–76) is distinguished as the first monarch to write his own chronicle-autobiography, the *Llibre dels Feits* (*Book of*

Deeds). His descendant Peter IV of Aragon (1319–87) followed his example, writing his own *Cronica* a century later. Most unusual is the *Cronica* of Ramon Muntaner (1270–1336), a largely autobiographical account of the life of the author and his exploits as an *Almogavar*, a Catalan mercenary soldier who participated in the wars against the Turks in Constantinople.

The Italian monk and bishop Rogerius of Apulia (1205–66) devoted his *Carmen miserabile super destructione, Regni Hungariae per Tartaros* (*The Sad Song for the Destruction of the Kingdom of Hungary by the Tartars*) to describing the horrors of the Mongol-Tatar invasions of Germany and other European territories from 1223 onward. The Icelandic sagas, written in Old Norse in the 12th to 15th centuries, detail the major events of Scandinavian history beginning with the time of the settlement of Iceland in the ninth and 10th centuries. An important example is the *Njal's Saga*, which covers the events of 930 to 1020, including the conversion to Christianity in the year 1000.

CRUSADER CHRONICLES

Fulcher of Chartres stands out among crusader historians. He wrote his *Historia* of the First Crusade (1096–99) documenting his journey to the Holy Land in the company of Baldwin of Boulogne (d. 1112) and the establishment of the Kingdom of Jerusalem. Baldwin would become the first titled king of Jerusalem in 1101. Fulcher consulted the anonymous *Gesta Francorum et aliorum Hierosolimitanorum* (*The Deeds of the Franks and All the Pilgrims to Jerusalem*), a remarkable account of the First Crusade told from the point of view of a knight who fought in it. In turn, William, the archbishop of Tyre, drew upon Chartres's *Historia* to compile his all-important *Historia rerum in partibus transmarinis gestarum* (*History of Deeds beyond the Sea*), a history of the Latin Crusader Kingdom of Jerusalem. Anna Comnena (1083–1153)

was the daughter of the Byzantine emperor Alexius I (r. 1081–1118) and the first female historical chronicler. Her 15-volume family history, the *Alexiad*, preserves an eyewitness account of the First Crusade from the Byzantine perspective. Ambrose the Poet, a Norman poet who accompanied Richard I the Lionhearted on the Third Crusade to Jerusalem (1189–92), wrote *L'Estoire de la guerre sainte* (*The History of the Holy War*) in French rhymed verse as a biographical account of the king's deeds.

The Dominican inquisitor and preacher Jacques de Vitry, mentioned previously, is the author of *L'Historia Hierosolimitana abbreviata* (*The Abridged History of Jerusalem*), a two-volume history that treats the "Oriental history" of the rise of Islam and the causes of the Crusades, the history of the first three Crusades, and a description of Jerusalem. The second part, the "Occidental History," treats the Latin Church. An important Byzantine chronicle of the disastrous Fourth Crusade (1202–04) in which the Latin armies captured Constantinople is *The Sack of Constantinople* by the historian Nicetas Chroniates (1155–1216), a Constantinoplan eyewitness to the events. The Latin perspective is chronicled in the *De la conquête du Constantinople* (*On the Conquest of Constantinople*) by Geoffrey I Villehardouin (1160–1212), a French knight and historian who participated in the crusade.

Literary Languages

ENGLAND

Anglo-Saxon was the earliest English language spoken and written in England, from about 700 through 1100. Also called Old English, Anglo-Saxon had four major dialects. Northumbrian, an Anglian dialect, was spoken north of the Humber River. Mercian, also an

Anglian dialect, was spoken in that geographical area between the Thames River and the Humber. West Saxon, a Saxon dialect, was spoken south of the Thames. Kentish, in Kent and part of Surrey, was the dialect spoken by the Jute people.

The great epic *Beowulf*, the finest long poem in Anglo-Saxon, depicted adventures of the hero Beowulf against supernatural enemies of King Hrothgar and the warriors of his mead-hall, the monsters Grendal and his fierce mother. Exquisite Anglo-Saxon elegies called the *Wanderer* and the *Seafarer* also demonstrated the artistic vigor of that language, which repudiated rhyme in favor of strenuous rhythm and alliteration, the repeated initial consonants in sequential words (*fierce, foul, ferocious, fire-fuming dragon*). Important in Germanic and Anglo-Saxon literature, alliteration also served the writings of the alliterative revival in 14th-century England in the northwest Midlands dialect, a reestablishment of Anglo-Saxon poetic techniques that hitherto had been considered unfashionable because of their functional form. Authors wrote alliterative romances as well as such bravura poems as *Sir Gawain and the Green Knight, Pearl, Piers Plowman*, and the *Alliterative Morte Arthur*.

Old French and Anglo-Norman   Old French and Anglo-Norman creations at the English court were written in a Norman French dialect in England in the period between the Norman Conquest of 1066 and the 15th century. These refined, fashionable, courtly competitors of native Anglo-Saxon attitudes and literature included the imaginative *lais* and poetic tales of Marie de France, the pseudo-historical, self-congratulatory chronicles of Gaimar in his *L'estorie des Engleis* (*History of the English*), and Wace's story of Brutus, *Roman de Brut*, an Arthurian legend. Thomas of Britain wrote his romance of *Tristan* in Anglo-Norman. Although Chaucer's Middle English virtually was standard English in the 14th century, his contemporary John Gower proudly wrote his *Mirour de l'omne* (*The Mirror of Man*) in Anglo-Norman.

Middle English   Derived from Anglo-Saxon dialects, Middle English was the language favored in England during the years 1100 through 1500. Four major dialects of Middle English were Northern, Midland, Southern, and Kentish. But regional subdialects were popular, such as the Northwest Midlands.

Among Geoffrey Chaucer's remarkable poetic and political achievements was the regularization of both pronunciation and spelling of English at the royal court and among the citizenry. Formidable regional dialects and speech variations made Middle English not one but many languages. For instance, alliterative revival works written in Northwest Midlands dialect were not easily understood by those who spoke Kentish and read *Ancrene Wisse*, who could not easily understand the eastern Midland or London dialect of Chaucer's *Canterbury Tales*, whose speakers in turn found it difficult to comprehend Scandinavian language vestiges in the so-called Danelaw. Chaucer's exquisite style justifiably earned him the reputation as the father of the Middle English language.

Danelaw   In north, east, and central England, those parts of the island settled or controlled by the Danish invaders from the ninth century on, Danish custom and modified Saxon law were the law of the land. That Scandinavian heritage remains alive today in England's more than 1,400 placenames with such suffixes as *by*, meaning "farm," as in *Whitby, Rugby*, and *Grimsby*. Similarly, any placename ending with *thorpe*, meaning "village," as in *Bishopsthorpe, Lynnthorpe*, and *Althorpe*, or with the suffix *toft*, meaning "ground" or "earth mound," as in *Grimtoft, Easttoft*, and *Langtoft*, reflects the Danelaw tradition.

FRANCE

Various Celtic languages were spoken in the territory constituting France at the time of the Roman invasion of Gaul by Julius Caesar in 58–52 B.C. Vulgar Latin, the language spoken by Roman soldiers, settlers, and slaves, soon became the lingua franca of the region. All the Romance languages (meaning the language of the Romans) derive from Vulgar Latin, and all are characterized by the loss of the complicated declension system of Classical Latin, a resulting preference for a subject-verb-object sentence structure, and varying degrees of changes in vowel pronunciation. In the third and the fourth centuries Germanic tribes invaded Gaul and settled throughout the region, adopting the Gallo-Romance language but adapting it to their indigenous syntax and pronunciation patterns. These Germanic tribes included the Franks, who settled in northern Gaul; the Burgundians, who settled in the Rhone Valley; the Allemani, who settled on the Gallo-Germanic border; and the Visigoths, who settled in the Aquitaine and the Iberian Peninsula.

Langues d'Oïl   An important consequence of the Germanic invasions was the division of the Gallo Romance language into two major linguistic variants, the Langues d'Oc and the Langues d'Oïl, so named for the manner in which each linguistic group said the word meaning "yes." The Langues d'Oc, or Occitan language, was spoken in the regions south of the Loire River and in parts of northern Spain, while the Langues d'Oïl, also referred to as Old French, was spoken in the northern region of France, Belgium, Switzerland, and Norman-controlled England. Burgundian, Anglo-Norman, Norman, Belgian (Walloon), and Parisian (Francien) are important variants of the Langues d'Oïl. Under the influence of the court of Charlemagne and particularly the succeeding Capetian dynasty, the Langues

d'Oïl gained ground as the official language of the court and the language of national unity. Official documents, of the royal chancellery were composed in Old French. A papal decree issued in the year authorized priests to preach in the Vulgate languages to the masses. This gave rise to the composition of the hagiographies, such as the *La Cantilène de Sainte Eulalie* (11th c.) and the *Vie de Saint Alexis*, (11th c.) and to a vibrant Old French literary tradition that included such works as the chanson the geste, the "matter of Britain" and matter of Rome romances, and the Breton lais.

Langue d'Oc   The Langue d'Oc, or Occitan, dialects were spoken in the regions south of the Loire River: Languedoc, Rousillon, Aquitaine, Provence, the Midi Pyrenees, Limousin, Poiteau, Gascony, and northeast Spain. The Occitan language was significantly influenced by the migration of Vascon tribes from northern Spain into southern France during the sixth and seventh centuries. Provençal, the Occitan dialect spoken in southwestern France is the language of the pontifical court at Avignon. It is also the language of the famed troubadour poets and jongleurs. The tradition of Provençal lyrical poetry began with William IX of Aquitaine (d. 1127) and flourished in the courts of Eleanor of Aquitaine and Richard the Lionhearted. Troubadour poets fled into neighboring Spain and Italy from the destabilization provoked by the Albigensian Crusade (1209–29) and the ensuing Inquisition. The 12th-century epic *Girart de Roussillon*, based on the real-life exploits of the ninth-century Burgundian count, is considered a masterpiece of Provençal *chanson de geste*.

IBERIAN PENINSULA

When the Roman legions completed their conquest of the Iberian Peninsula in 19 B.C.E., they encountered a medley of peoples—Iberi-

ans, Celts, Asturs, Carthagenians, Greeks, Basques, and others—and their distinctive languages. Latin became the lingua franca of all the territories of Hispania with the exception of the northern Basque territory. In the fourth and fifth centuries waves of Visigothic tribes invaded the peninsula, eventually seizing power after the sacking of Rome in 410, yet adopting Latin as the official language and retaining many Roman institutions. In the wake of the Arab occupation of the peninsula in the eighth century Arabic replaced Latin as the lingua franca in the territories under Muslim control. The demise of *The Latin language* vis-à-vis Arabic in the usage and prestige of favored the development of Romance languages throughout the Iberian Peninsula. Within less than a century of the Arab occupation Arabized Christians living under Muslim rule in al-Andalus, known pejoratively as Mozarabs, had adopted the Arabic language and developed their own hybrid Romance dialect known as Mozarabic. As the northern Christian kingdoms became consolidated in the ninth century onward, three major and distinct Romance languages evolved from the Vulgar Latin, Galaico-Portuguese, Castilian, and Catalan, which to varying degrees were influenced by the Arabic and Mozarabic languages. The Christian Reconquest of territories that would be absorbed into the Kingdoms of Castile and Aragon from the 13th century onward precipitated a "brain drain" as the wealthier and more cultivated elements of the Muslim population chose to emigrate to the southern regions still under Islamic rule. Over time, the Mudejar populations who remained in Christian Castile, Navarre, and Aragon became speakers of Aljamia, Castilian, and Aragonese Romance dialects heavily impregnated with Arabic vocabulary and written in the Arabic alphabet. Jewish populations living in the Iberian Peninsula adopted the dominant language used in the territories where they resided, preserving Hebrew primarily for religious literature.

Castilian   The Castilian language was born in the Burgos area of southern Cantabria in northern Spain. The earliest known writings in the Castilian language are the *Glosas Emilianenses* or "Glosses of [the Monastery of] San Millán de Cogolla," annotations made in the margins of a Latin liturgical text dated 964. The Castilian language spread laterally into the areas of Asturias and Leon and southward under the impetus of the conquest and repopulation of Muslim territories. During the reign of King Alfonso the Wise (1252–84) the Castilian language was standardized and catapulted into prominence as the language of official documentation and culture. Castilian literature composed prior to this period, such as the *Poema del Mío Cid* was written in one of the Castilian dialects. The Jewish scholars and translators working in Alfonso's court and the schools of translation, both based in Toledo, were particularly influential in promoting the use of vernacular Castilian in their translations. The Catholic monarchs Isabel of Castile and Ferdinand of Aragon made Castilian the official language of the entire kingdom.

Aragonese-Catalan   Variants of the Provençal language called Catalan, Aragonese, and Valencian, were spoken in the territories composing the Crown of Aragon, which included the Kingdoms of Aragon and Valencia and the Balearic Islands. The oldest surviving text written in a mixture of this language and Provençal is the group of sermons known as the *Homilies d'Organyà*, ("Homilies of Organyà") named after the northern town of Alt Urgell where they were found. The acknowledged master of Catalan literature is Ramon Llull (1235–1315) of Mallorca, a prolific writer, philosopher, and Franciscan lay preacher. Llull was fluent in Arabic, Latin, and Catalan, and his philosophical

and fiction works display a clear Arabic influence. His main contribution to Catalan literature is *Blanquerna*, considered to be a precursor of the romantic novel. The distinction of writing the first truly modern novel in a European language belongs to Joanot Martorell (1413–68), a Valencian author of the novel *Tirant lo Blanc*, which relates the crusading and romantic adventures of a Catalan knight in the employ of the Byzantine army.

Galaico-Portugues Galaico-Portugues, or Galician Portuguese, was the Hispano-Romance language that evolved in the area of Galicia and northern Portugal in the ninth century. The oldest surviving Galician text is a devotional poem entitled "Ora faz ost'o Senhor de Navarre" by João Soares de Paiva, composed circa 1200. Galaico-Portugues as the language of culture, poetry, and religious expression par excellence, used even in the Kingdom of Castile. Alfonso the Wise, mentioned earlier as the promoter of the standardization of the Castilian language, composed his *Las Cantigas de Santa Maria* (*Songs to the Virgin Mary*) in Galician Portuguese. It was not until the year 1290 that the Portuguese king Dinis (r. 1261–1325) proclaimed Portuguese the official language of the realm.

ITALY

Italian is considered to be the closest to Latin of all the Romance languages. Medieval "Italian" is in fact not one standardized language but rather many regional dialects that developed in the Italian Peninsula, Sicily, Corsica, Sardinia, and the area the Italians call Ticino, nowadays in southern Switzerland. Each of the city-states had its own dialect. The northern and northwest dialects, which include Lombardo, Piemontese, Ligure, and Milanese, receive the name of *Gallo-Italian*, owing to the strong influence the Occitan language. Variants of the Venetian dialect predominated in

Venice and the northeast. Tuscan, Umbrian, Abbruzzian, Molisano, and Campano are the major dialects that evolved in the central peninsula. In the southern part of peninsular Italy Pugliese, Lucano, Maruggese, Salentino, and Calabrese form another cluster of dialects that differ substantially from the northern ones, as do the island dialects of Sicilian, Corsican, and Sardinian. Sicilian is heavily influenced by the Greek-Byzantine and Phoenician peoples who once ruled the island; it also absorbed many Arabic words as a result of Muslim domination from the eighth to 11th century.

After the fall of the Roman Empire in the fifth century and until the beginning of the 12th century, Classical and Vulgar Latin continued to be the principal official and literary languages used in the Italian Peninsula. During the end of this period Italian writers were strongly influenced by French Provençal writers, producing a number of court poets who composed *chanson de geste* and lyrical poetry in that language or using vocabulary combining hybrid elements of Latin, Italian vernaculars, and Provençal. The earliest text written in a recognizably Italian language are legal documents dating from the 10th century. The first true Italian literary movement emerged in 13th-century Sicily under the patronage of Emperor Frederick II and is known as "the Sicilian school." It was heavily indebted to Provençal courtly love poetry, and its major representatives are Giacomo da Lentini, Guido delle Colonne, and Pier della Vigna. Da Lentini is acknowledged as the inventor of the sonnet. This poetic trend quickly spread north and was developed further in Tuscany, where Tuscan poets such as Chiaro Davanzati and Compiuta Donzella expanded the thematic repertoire to include moral and political topics. In the 14th century Dante's *Commedia* firmly established his native Tuscan—albeit influenced by the Sicilian of the Sicilian school—as the standard literary language of Italy.

GERMANY

As is Italian, German is divided into clearly distinguished dialects, the principal ones West Germanic, East Germanic, and North Germanic. The North Germanic languages are spoken in the Scandinavian countries and include Icelandic, Norwegian, Danish, Swedish, and Faeroese. The West Germanic is the largest language group, originally spoken in the areas of the Rhine, the Alps, Elbe, and the North Sea. East Germanic is the language spoken by the eastern Germanic tribes who migrated from Scandinavia into eastern Germany between the sixth and third centuries B.C.E., who include the Lombards, Vandals, Goths, Burgundians, and Crimeans. The Western and Eastern Germanic languages are known jointly as the Southern Germanic languages.

Old High German and Middle High German   The waves of migrations of Germanic peoples into France and the Italian and Iberian Peninsulas that took place between the third and fifth centuries provoked important linguistic transformations in their spoken languages. Scholars commonly refer to the *High German consonant shift* or *second sound shift* to designate the sound changes in the central and southern parts of Germany that affected the southern Germanic dialects, giving rise to the development of Old High German. (The Germanic dialect spoken in the North German Lowlands not affected by this linguistic shift is called Low German.) The sound change affected the pronunciation of many consonants, for example, *p > f, pp > pf, t > ss, tt > ts, k > ch, kk > kch*. These differences can be appreciated by comparing certain modern English and German words, for example, *pound > Pfund, pipe > Pfeife, hope > hoffen, apple > Apfel, tide > Zeit, cat > Katze*, and *make > machen*. Old High German flourished from approximately the year 500 to the middle of the 11th century, although the earliest written texts date to the eighth century, and is characterized by a fully fledged noun declension and verb conjugations with distinctive endings. Old High German is not a single language but consisted of many dialects. In the areas of Speyer, Worms, Mainz, and Frankfurt Rhine Franconian was spoken, while Middle Franconian was spoken in Cologne and Trier. Alemannic was spoken in the regions of Strausbourg and Reichenau. Bavarian predominated in Freising, Passau, Regensburg, Ausburg, and Salzburg.

The surviving examples of Old High German literature are primarily Christian religious texts, such as the Bavarian ninth-century epic poem entitled *Muspilli*, about the Last Judgment, the meaning of which is unknown. Two notable exceptions to the ecclesiastical literature are the *Das Hildebrandslied* (*The Lay of Hildebrand*), a poetic dialogue between the hero Hildebrand and his estranged son Hadubrand, whom he tragically kills in a combat, and the *Die Merseburger Zaubersprüche* (The Merseburger Incantations), a rare ninth- or 10th-century manuscript of pre-Christian magic spells. A Latin–High Old German dictionary called the *Codex Abrogans* dates from the eighth century. The linguistic changes of all unstressed vowels to the vowel *e* and the simplification of the inflectional system that occurred in this period led to the emergence of Middle High German, the language of the minstrel poets.

It was the minstrel poets who first promoted the standardization of Middle High German in order to make their songs understood by the widest possible audience. To this end, they avoided using dialectical regionalisms and rhymes in their *Minnesangs*, which only make sense in particular dialects. Courtly romance authors and epic poets such as Hartmann von Aue of Swabia (d. 1230) and the minnesinger and lyrical poet von Eschenbach also composed their works in Middle High German. Johannes Gutenberg's invention of the printing press and Martin Luther's translation of the Bible

into German fomented the diffusion of the German variant spoken in the central region of Wittenberg.

Yiddish Yiddish is a variety of Middle High German spoken by the Ashkenazic Jews and written in the Hebrew alphabet. It emerged in the 13th and 14th centuries with the rise of urban culture, most notably in Speyer, Maintz, and Worms. Its most important literary work is the 14th-century epic poem *Dukus Horant.*

Major Christian Writers

Alfonso X el Sabio (the Wise), king of Castile and León (r. 1221–1284; 1252–1284). Acclaimed patron of the famous schools of translation and a renowned poet and writer, best known for his poetic hymns to the Virgin Mary, *Cantigas de Santa Maria*, and two major historical chronicles, *Primera Crónica general* and the *Gran estoria*.

Giovanni Boccaccio (1313–1375). Scholar, diplomat, and one of the greatest Italian poets, whose *Decameron* helped elevate Italian vernacular poetry to the level of Classical Latin literature.

Geoffrey Chaucer (c. 1340–1400). The quintessential Middle English poet, best known as the author of the *Canterbury Tales.* Inspired by the Italian poets Dante, Petrarch, and Boccaccio, his other major works include *Parlement of Foules*, *Troilus and Criseyde*, and the *Legend of Good Women*.

Chrétien de Troyes (alive between 1160 and 1181). Court poet to Countess Marie de Champagne, author of the epic poems *Perceval*, *Lancelot, the King of the Cart*, and *Yvain, the King of the Lion*, which are considered the finest of the genre.

Dante Alighieri (1265–1321). Italian philosopher and political thinker, considered the single greatest poet of the Middle Ages, immortalized by his allegorical masterpiece *La Divina Commedia.*

Hildegarde of Bingen (1098–1179). Benedictine abbess, visionary mystic, poet, and musical composer, best known for her musical composition *Order of the Virtues* and her mystical writings, the *Illuminations* and *The Book of the Rewards of Life.*

Julian of Norwich (1342–c. 1416). Major English anchoress and mystical writer, best known for her account of her spiritual visions, the *Shewings* and *A Revelation of Love.*

Ramon Llull (1235–1315). Majorcan Franciscan lay preacher, mystic, philosopher, and author of the most important literary works written in Catalan, including the mystical novel *Blanquerna* and the mystical texts *The Book of the Lover and the Beloved* and *The Book of Marvels.*

Matthew Paris (1200–1259). English Benedictine monk and author of England's greatest medieval historical chronicles, the *Chronica majora*, *Historia Anglorum*, and the *Gesta abbatum monasterii Sancti Albani.*

Francesco Petrarca (Petrarch) (1304–1374). Influential Italian poet, writer, scholar, and cleric who is considered to be the founder of Renaissance humanism. His literary works include *The Ascent of Mount Ventoux* and the *Tale of Griselda.*

Christine de Pizan (1364–1430). One of the greatest and most prolific women prose writers, whose works, *The Book of the City of Ladies, The Book of the Three Virtues*, and *The Letter to the God of Love*, defended women's virtue against the misogynistic trends of courtly love literature.

century. Her Latin writings imitated those of Terence, Virgil, and Horace. She dramatically praised women's power, chastity, and fortitude. Greatly celebrated in her own time, her poems and theater were well known throughout Germany and Europe. Among her three most popular works were *Dulcitius*, *Sapientia*, and *Paphnutius*.

Juan Ruiz (1283–1350). Archpriest of Hita (Toledo) and acclaimed author, often compared to Geoffrey Chaucer; his ribald epic poem *The Book of Good Love* is a masterpiece of Castilian literature.

The writers of the European Christian Middle Ages did not compose their works in an environment hermetically sealed off from any influences of their Jewish and Muslim neighbors and rivals. The preceding discussion of frame tale, *exempla*, and mirror for princes literature indicates just some of the many examples of cultural exchange among the three religious communities. In the following section we shall see that Jewish writers produced a wealth of religious and devotional literature bearing witness to the particularities of the religious faith in a way parallel to that of Christian writers. On the other hand, religion is not entirely synonymous with culture and where the latter is concerned, it will become clear that the Jewish contribution to the narrative literary output of the dominant Christian or Muslim culture was significant.

Jewish Literature

Universal, Insular, and Particularist Literature

Resembling *Aesop's Fables*, the *Mishler Shualim* (The Fox Fables) was written in 12th-century

With her pet dog observing, Christine de Pizan, the prolific 15th-century professional author, writes in her study, seated on a high-backed chair and working at a sloping desk. Natural light streams in through her window. Her hat is on, and her pen is in hand. A box with pen nibs and ink is open beside her book. Christine was said to be an excellent calligrapher and may have been her own scribe for some manuscripts among her 20 published books. From Christine de Pizan, *Collected Works*, 15th century. Courtesy of the British Library, London, Harley Manuscript 4431.

Hrsovitha von Gandersheim (d. 1200). This important Benedictine nun was mother superior of her house in Gandersheim in Saxony in the 10th century, poet, scholar, playwright, and physician. Her exquisite work was rediscovered and widely performed in the 20th

France in Hebrew by the Jewish Aesop, Berechiah ben Natronai Ha Nakdan. The author's techniques were typical of the best fable writers. Dramatic and amusing animal actions imitated human follies and vices in order to teach morality. Although the fables were written in Hebrew, their subject was universal and their audience, potentially, was all humanity, not simply Jews. Such universal qualities in medieval Jewish literature contrasted markedly with a second tendency of medieval Jewish authors in relation to their subjects and audiences: the insular.

One Jewish version of the Arthurian cycle focuses on the exploits of the faithful knight Sir Bove. As in the original versions, here, too, Sir Bove jousted valiantly in tournaments, fought bravely on the battlefield, rescued damsels in distress, and defeated fire-eating dragons. And yet, the characters greet one another saying "Shalom aleichem," (Heb.: Peace be with you), and they celebrate their victories in battle using the Hebrew expression, *"Mazel tov"* (Good luck, "May your planetary influences be favorable"). His faithful wife, Lady Druzane, follows him everywhere, but "lamented that in her wandering life she has not had the opportunity to circumcise her [sons] according to Jewish law, and her father consoles her by saying, 'Do not worry, dear. Tomorrow I will arrange a great circumcision feast.'" (Shandler, Jeffrey. "On the Frontiers of Ashkenaz: Translating into Yiddish, Then and Now." *Judaism: A Quarterly Journal of Jewish Life and Thought.* January 1, 2005. Available online. URL: http://www.encyclopedia.com/doc/1G1-138949894.html.)

The 16th-century Jewish author of that hilarious Arthurian romance adapted his source the Italian version of the Anglo-Roman romance *Sir Bevis of Hamilton* for a specifically Jewish audience: Elijah Levita wrote his *Bove Bukh* in Yiddish, a combination of Hebrew with German, decorating the Arthurian characters and actions with qualities of Jewish culture, *Yiddishkeit.* Author, subject, and audience were unmistakably, unabashedly insular. The Arthurian world and the Round Table itself pivoted around a secular Jewish point. (*See* the discussion below on Heroic Romance).

Such artistic insularity differed not only from the universal type of medieval Jewish literature but also from the particularist. Jewish writers identified and particularized the Jewish experience, while integrating Jewishness with worldliness. Israel is to other peoples, says the Spanish philosopher and poet Judah Halevi (1080–1141), as the heart is to other parts of the body: It suffers for the whole and is more acutely pierced by grief than any other physical member.

Particularist Jewish writers explained centuries of suffering in the Diaspora, communal persecution, and private grief as the natural result of divine selection. Not for nothing did God speak to Israel, saying, "for you are a people holy to the Lord your God. Out of all the peoples on the face of the earth, the Lord has chosen you to be his treasured possession" (Deut. 14:2). Jewish particularist literature depicted the Jews as the special, chosen, people, particularly enjoying their elect status but particularly suffering the piercing pain of the Diaspora experience.

The universal, the insular, and the particularist artistic qualities conveniently classify the multiplicities of medieval secular Jewish literature. This tripartite classification gives an order to an otherwise unwieldy diversity of literary types, themes, and languages in Jewish literature of the 10th through 16th centuries written primarily in Hebrew but also in Arabic, Latin, Persian, Castilian, Ladino, Occitan, English, German, Yiddish, Italian, and such other vernaculars as Polish and Serbo-Croatian. Jewish literary texts are as diverse as the responsibilities of the Jews in the Christian and Islamic communities in which they thrived or perished. In addition to their own imaginative litera-

ture—a product of their world traveling as merchant adventurers, students, and rabbis—Jewish writers were commissioned by kings and caliphs to translate Latin and Arabic texts. Jews thus helped transmit Eastern science, philosophy, and literature to the European West. At the same time, they recorded for their own internal consumption the experiences of exile (Diaspora) and persecution in liturgical poetry and in their own crusader chronicles. And while the earliest Jewish literature is clearly religious in theme, the line between the religious and profane and the divisions between fiction and nonfiction writing were sometimes blurred, just as we saw in the discussion of Christian literature.

Haggadah and Halachah

Halachah is the collective corpus of the Jewish law, custom, or practice and comprises biblical strictures, binding legal tenets, and rabbinic commentaries that are believed to have the power of law inaugurated by God and enforced by his minions on Earth for correct regulation of human life. (*See* the discussion in chapter 5 on philosophy and religion.) The halachic legal corpus is complemented by nonlegalistic Haggadah literature, a vast corpus of rabbinic moral exhortations, biblical commentaries, legends, short stories, moral examples, humorous folktales, and mystical and erotic writings that enliven, explicate, and otherwise teach the word of law. Haggadic literature, though secular in subject, is ultimately moralistic, even pedagogical in intent. Certainly writers of Haggadah exulted in the humor, magic, or splendor of their materials. However, the essential purposes of their art were religious instruction and moral edification. As were the successful Christian dramatists of the era, the finest Jewish writers were able to combine Plato's otherwise antithetical ideas of teaching

and entertainment, *docere et delectare*: The best instruction was pleasing and the keenest delight informing.

Genres of Haggadic Literature

Unifying typical medieval opposites of teaching and pleasing were eight classes of Haggadic literature: beast fables, frame tales, heroic romances, chansons de geste, satires, poetry of love and war, instruction books, and exempla. All eight genres offer surprises to the modern audience expecting decorous pieties.

Particularly intriguing in medieval Jewish literature is a mannered battle between the sexes inextricably associated with vibrant eroticism. More astonishing is the prevalence of animals: animal heroes and heroines, beast companions, magical transformations between beasts and beings, and animal analogies, metaphors, and symbols. This literary ark of animals suggests a medieval Judaic belief in an interdependence between animalkind and humanity.

Even the most intellectual and sophisticated medieval Jews, as their contemporary Christian and Muslim neighbors, understood the life cycles of farm animals and were familiar with animal hunting and slaughtering. Such practical knowledge augmented the vast set of animal prescriptions, prohibitions, and hygienic, culinary, and koshering regulations derived from the biblical books of Leviticus and Deuteronomy and biblical commentaries.

Preoccupations with animals and with their association with sanctity or sin explain the prevalence of animals in Haggadic literature. Moreover, referring to the animal world to teach virtue and avoidance of vice in the human world was a classical teaching device, doubtlessly useful for its benevolent indirection. But medieval Jewish animal lore had even deeper roots, as we shall see, in Jewish apocalyptical mysticism.

Beast Fable

TOPICS

Beast fables were short poetic or prose works depicting exploits of clever or foolish, good or evil animals, followed by an explicit moral. Many were borrowed directly from Aesop's Fables, such as the tale of the "Lion and the Crane" and the "Fox in the Vineyard." One of the finest Jewish fabulists was the aforementioned 12th- to 13th-century exegete and grammarian Berechiah ben Natronai Ha Nakdan, whose collection of Hebrew fables entitled *Mishlei shualim* (*Fox Fables*) is as we have seen, a Jewish adaptation of tales from the acclaimed Aesop Fables and from Arabic sources. His tale of the fox, crow, and cheese reminds us of the universality of greed and the folly of pride. Others of Berechiah's more than 100 Hebrew fables taught similar personal lessons, counseling good behavior and reforming an individual's dangerous tendencies such as talking too much or trusting too uncritically.

Some fables taught turning apparent adversity to creative opportunity. Consider the tale of the thirsty bird of prey, the osprey, and the slender-necked pot. The parched bird underwent three days without drink until at last he spied cool water at the bottom of a long-necked flask. No matter how he turned the flask or contorted himself, he could not reach his eager beak down to the cool fluid. So he gathered pebbles and threw them carefully down the shaft until he caused the water level to rise to the top. Then he drank his fill.

The moral: Good sense, knowledge, and shrewd cunning are better than strength. Even without a strong neck and stalwart body, one obtains power by wisdom.

Beyond personal instruction, Berechiah's fables taught painful political lessons necessary for group protection. While forgiveness was a virtue and some transgressors might be per-fectible, beware! The man teaching a wolf the alphabet may get him to learn the *aleph*, *bet*, and *gimmel*, the first three Hebrew letters, but no matter how the wolf arranges those letters into a word they will always spell his primary desire: sheep.

Moral: Evil creatures seemingly susceptible to reform truly are not reformable. The eye and heart bent on wickedness ultimately declare it with the mouth. Alert your ear to listen for evil, and open your eye to see it.

Utilitarian political advice and personal moral instruction were the purposes of most medieval and Renaissance Jewish fables, luring the audience into passive tranquility with an entertaining story before shooting the barb of truth.

ANCIENT ROOTS

Well meriting the title of the Jewish Aesop, Berechiah wrote in the ancient traditions of Eastern and Western animal tales. His relationships with French Christian writers apparently were mutually respectful. In the writings of both Berechiah and the great noblewoman fabulist Marie de France there are 37 fables that are so close in matter and manner that Berechiah is likely to have read Marie's work and copied it, or she might have seen and imitated his. While for some popular tales both writers independently might have emended a third writer's original, 13 fables exist only in the writings of Berechiah and Marie, not in Latin, Greek, or contemporary medieval collections. These are so close in subject and style as to make intentional imitation inevitable.

Jewish fable writing is traceable at least to Rabbi Meir, a venerable second-century scholar in Asia Minor who adapted 300 animal fables combining beast action with specifically Jewish ethical tutelage. The 300 fables find their origins in the work of a first-century Greek rhetor, Nicostratus, who compiled

Aesop's Fables with the Fables of Kybises, the latter a Libyan writer who transmitted a collection of Indian fables into the Greek-speaking world circa the year 50. Closer to the more insular as opposed to universal fabulist heritage was the delightful collection of beast and bird stories by the 13th-century Spanish physician Isaac ibn Sahula. Ibn Sahula, who lived in Castile during the end of the reign of Alfonso X the Wise, composed his *Meshal Haqadmoni* ("The Tale of the Ancient One") in Hebrew in rhymed prose in the style of the Arabic *maqamat* (sessions) poets. (*See* the section on Islamic Literature.) The *Meshal haqadmoni* features a series of satirical debates between animal cynics and moralists, in which the moralists always triumph. His animals did not wear foreign garments but were robed in words of Torah. Their wise riddles and illusions were Talmudic.

Ibn Sahula's deer expounded Halachah and scriptural law. His self-righteous rooster cockadoodled biblical verse. As Chaucer's Chaunticleer did in the *Canterbury Tales*, this rooster discoursed delicately with his harem of hens. The rabidly rabbinic rabbit preached ethics. The long-legged stork, an astrologer-fatalist, debated a Jewish rationalist frog who paraphrased Maimonides. The hawk's masterly learned discourse split hairs on the Jewish law of damages, indulging the rabbinic technique analyzing opposing sides of an argument called *pilpulism*.

Isaac ibn Sahula's beast fables contained a treasury of winged and four-pawed expositions not only on human ethics but also on cosmography, philosophy, geography, climate, language development, and anatomy of the human eye. Loquacious and insularly Judaic, containing important medical and scientific information, Ibn Sahula's work was a self-consciously encyclopedic instruction book for anyone desiring to learn: man, woman, or child. So that children especially would love his book

and eagerly read it, he adorned it with beautiful illustrations.

KALILAH AND DIMNAH

The fabulists Berechiah Ha Nakdan and Isaac Ibn Sahula were indebted to the renowned *Kalilah and Dimnah*, also known as the *Fables of Bidpai*, an etiquette book of good counsel featuring both beast fable and frame tale. This art of statecraft expressed ideas of leadership and morality via the adventures of beasts, two of which were jackals named Kalilah and Dimnah. The book's arrival in the Western world itself was a source of wonderment and cross-cultural fertilization. The fables originated in Buddhist India sometime in the first millennium B.C.E. as a didactic manual of instruction for young Hindu princes called the *Panchatantra*. In the sixth century C.E., the Sassanian Persian king Khosroe (r. 531–79) acquired a Sanskrit copy of the tales and had it translated into Pahlavi. At this stage Persian fables that feature King Khosroe were added to the collection and the work was also translated into Old Syriac. In the eighth century the Iranian Muslim scholar Ibn al-Muqaffaa translated *Kalilah and Dimnah* into Arabic, adding an introduction and several more tales, which would become especially popular, such "The Ascetic and His Guest" and "Heron and the Duck." The subsequent versions that Ibn Sahula and Berechia Ha Nakdan had access to were Hebrew translations of this Indian-Persian-Arabic collection.

Kalilah and Dimnah has been translated into numerous languages, including Chinese, Tibetan, and Syriac. Translations of the work into Western languages were undertaken by Jewish authors on three different occasions, demonstrating a remarkable Jewish contribution to medieval world literature via the art and craft of translation. First was a Greek version by an 11th-century Jewish physician, Simeon son of Seth. In 12th-century Italy a certain Rabbi

Joel translated Ibn al-Muqaffaa version into Hebrew. This version was translated by John of Capua, a Jewish convert to Christianity, into Latin under the title *Directorum Vitae Humanae* (*Guide for Human Life*). A 13th-century grammarian from Toledo, Jacob ben Eleazar, produced a Hebrew version.The majority of other versions translated into vernacular Spanish, German, Italian, Dutch, and English derive from John of Capua's translation; however, in the 13th century King Alfonso X the Wise commissioned its translation into Castilian.

Why were Jews translating tales of beasts, birds, and fishes? Jacob ben Eleazar remarked that he translated *Kalilah and Dimnah* into rhymed Hebrew because the "law book" of the Indians, "their Torah and guiding star," first concealed and then revealed profoundest wisdom and mystery. The old and wise understood its hidden meanings. Children laughed at its lovely stories. Maturing youngsters would better appreciate its fundamental ethical teachings by indirection, charm, and grace.

The Frame Tale

MISHLE SENDEBAR

Mishle Sendebar (known as *The Book of Sindbad* in its Eastern version and *The Seven Sages of Rome* in the Christian West) were celebrated frame tales of remote Indian origin. *Mishle Sendebar* crossed seas and continents undergoing a prodigious number of translations similarly to of *Kalilah and Dimnah*. Abraham ibn Hasdai (d. 1240) of Barcelona was a learned writer, poet, and translator of many Arabic philosophical and medical texts into Hebrew. He translated the Arabic version of the *Book of Sindbad* (*Kitab Sindebar*) into Hebrew with the title *Mishle Sendebar*. Those clever short stories pertained directly or indirectly to power struggles between women and men.

The frame tale unfolds as a "mirror for princes," with the sage tutor Sendebar educating a young learned prince. At Sendebar's advice, the prince swears an oath not to speak for a week. But the prince attracts the eye of his aged father's new young wife, who speaks sweet words, bares her firm young breasts, and, as does Potiphar's wife, tries to cajole the prince to bed with her.

When he refuses, the young queen tousles her hair, tears her dress, and dashes to the king shouting that the prince tried to rape her. Since the prince dared not speak even to defend himself, his silence infuriated his father, who thought him guilty and was ready to put him to death. But seven sages saved the prince for seven days by telling stories about women's perfidy.

In "The Crafty Old Crone and Her Weeping Bitch" one sage told of an ugly old woman who was so crafty she could make an unwilling married woman accept a young lover while her husband was away. The old crone took her fat old bitch of a dog to the young woman's house and fed the animal bread soaked in garlic. The dog appeared to weep bitter tears.

The young woman asked why the dog was crying. The old crone replied that the dog was in fact her beautiful daughter who had been transformed into a weeping bitch for refusing the hand of a worthy man in marriage.

To prevent a similar dire fate, the once hesitant young wife now eagerly met her lover.

In "The Greedy Bathhouse Keeper's Sexually Hired Wife" a gigantically fat prince went daily to the bathhouse, where he disported himself naked in the warm heat. The bathhouse keeper thought the prince had no genitals since they were entirely covered by folds of fat. One day the bath man remarked that the kingdom was endangered if the prince could not create an heir to the throne. The prince replied that he would pay 1,000 gold coins to any woman who would spend the day and night with him in

the bathhouse. He invited the worried bathhouse keeper to watch the sport.

Believing the prince a eunuch who could not harm a woman, the bathhouse keeper, greedy for the gold, recommended his own young, beautiful wife for the test.

He was horrified, but she was jubilant when the potent prince lay with her again and again. The husband, aghast, shouted, "Come out; come out!" But the young wife laughingly refused. She had pledged her honor to remain with the prince till the test was finished.

A third Sendebar tale, "The Everywhere Desiring Man," demonstrated how easily women deceive men. A man was given three precious wishes. He asked his wife's advice. She thought that since nothing pleased him as much as sexual intercourse, he ought to request wondrous potency and feeling. He so wished. Suddenly his whole body was covered with penises.

Now everywhere desiring, but not anywhere desirable, he wished to God to remove the penises. They all disappeared, including his own, and he became a eunuch.

With a final wish, he requested his own precious member be returned.

Although these stories seem to castigate women, the apparent misogynism of the *Mishle Sendebar* is now being reconsidered as not truly antifeminist. The women are cleverer and craftier than the men, often dominating them through their sexuality as well as their wit. They almost always cuckold their husbands, too foolish, jealous, old, or greedy to merit better. Compared to the earlier Eastern versions and to the later Western Sendebar tales, the Hebrew stories portrayed women as less governed by malice or evil, more celebrating their own female ingenuity and eroticism.

Though the *Mishle Sendebar* was common to many cultures and demonstrated a universality of subject, in the Hebrew version the language the characters spoke was not simply Hebrew but biblical paraphrase. Abraham ben Hasdai cleverly interpolated references to biblical books (especially the Old Testament *Book of Esther*), to the Talmud, and to medieval commentators in every tale as puns or ingenious paraphrases.

Representing simultaneously the universal and the insular strains of Jewish literature, the *Sendebar* tales also asserted the critical importance of Jews as mediators between the folklore of the East and the literature of Western Europe.

SEFER SHAASHUIM

Another important frame tale that also integrated beast fables is the *Sefer shaashuim* (*Book of Delight*) written in the 12th century by Joseph ben Meir ibn Zabara, a physician, satirist, and poet in Barcelona. In the rhymed prose of the Arabic *maqamat* narrative genre (discussed later), this Spanish physician's imaginary voyage with a demon companion named Enan Hanatash led from Barcelona through the world of women, animals, magical beings, and brute good sense, then back again to Spain.

Before setting out, Joseph admitted to his unnatural guest: "I fear your face has more than a trace of evil and unworthiness. Therefore I guess I had best decline your fine invitation to travel through the world lest an arrow of fate be hurled, just as felled the leopard with the fox." (Abrahams, http://www.authorama.com/delight-2/) This statement cleverly introduced the first beast parable, followed by a leopard's wife's version of a fox and lion story, in turn linked to a fox's tale. When tired after a day of journeying, the doctor-narrator Joseph ibn Zabara and the demon Enan rested at an inn. There they engaged in medical disputes that became important repositories of Judaic science and medicine. Ibn Zabara created a treasury of popular attitudes toward health and hygiene, physicians and cures, psychology and physics, physiology and physiognomy.

As noted, this long chain of hilarious stories composed in rhymed prose was directly borrowed from the Arabic *maqamat* tradition. However, *Sefer shaashuim* digressed from the genre's origins, insofar as the author, Ibn Zabara, assumes the role of author, narrator, and protagonist, whereas in the Arabic works these three roles are assumed by different personages. Moreover, whereas the episodes of the Arabic *maqamat* occur in a cyclical fashion, in the *Book of Delights*, the episodes are arranged according to a linear structure. Charming, learned, fanciful, whimsical, and satiric, *Sefer shaashuim* castigated folly and counseled vigilance against exaggerated seriousness. For Ibn Zabara, as for most writers of *maqamat*, beast fables, and frame tales, humor was the net to snare the spirit.

MAQAMA

Ibn Sahul's *Meshel haqadamoni* and Ibn Zubara's *Sefer shaashuim* represent just two examples of the extensive corpus of Hispano-Judaic literature written in rhymed prose. Medieval Spanish Jews enthusiastically adopted the uniquely Arabic genre of rhymed prose narrative, the *maqama* (pl. *maqamat*-sessions) which emerged in 10th-century Iraq and quickly spread to Spain. A full discussion of the Arabic literary genre is contained in the section on Muslim literature. Here it suffices to note that the popularity of the Arabic prose narrative encouraged Jewish writers to extend the use of Hebrew to the composition of secular literature rather than to preserve it almost exclusively for religious and liturgical purposes as earlier. Circa the year 1218 the accomplished Spanish poet Judah al-Harizi (1165–1235) translated into Hebrew the *Maqamat* of Abu Muhammad al-Qasim al-Hariri of Basra (d. 1052), considered the most exquisite example of the new Arabic prose genre, before undertaking the challenge of writing his own *maqamat* in Hebrew, entitled *Sefer tahkemoni* (*The Book of Wisdom or the Heroic*).

Sefer tahkemoni bears all the hallmarks of a classic *maqama* genre: a narrator who relates the comical adventures of the wily roguish protagonist Hever the Kenite, who always manages to escape unscathed from a difficult situation thanks to his eloquent tongue, brilliant satire, and clever ingenuity. Hever the Kenite appears in 50 unlinked episodes or "gates" in the most varied situations, for example, in a dispute between a rabbi and a Karaite, on the battlefield in "Of Battle Lords and Dripping Swords," as a preacher in "Brimstone and Wrath against the Worldly Path," or as a beggar working the crowd in "Beggars' Hearts versus Frozen Hearts." Wearing a variety of guises and disguises—whether preacher, erudite teacher, knight, philosopher, or magician—the hero always manages to win over his audience with his verbal acrobatics.

Heroic Romance

German Jews spoke vernacular German and were well acquainted with the romance epics such as the King Arthur cycle that circulated throughout Western Europe. The 14th and 15th centuries witnessed the composition of hybrid (macaronic) songs and poems combining German and Hebrew vocabulary, which would give rise to the development of the Yiddish language. In tandem with this linguistic innovation was the emergence of Jewish troubadours who performed versions of Christian epic romances, which they adapted to their Jewish audiences. Such adaptations were achieved by making the heroes Jewish and introducing elements of Jewish religious culture and Hebrew vocabulary. The first Yiddish heroic romance, entitled *Dukus Horunt*, is an adaptation of *Kudrun*, the mid-13th-century German epic saga of three rival kings and the quest to rescue the princess Gudrun.

The most popular of the Yiddish heroic romances was undoubtedly the aforementioned *Bovo-Bukh*, composed by Elijah Bahur (1469–1549). *Bovo-Bukh* finds its origins in the 13th-century Anglo-Norman romance *Sir Bevis of Hampton*, which had been translated into Italian as *Buovo d'Antona*. *Bovo Bukh* is the story is a young prince who yearns to ravenge the death of his father at the hands of his mother and her lover. Forced to flee to Flanders, Bovo falls in love with Druzane, the daughter of the king, who is captured by the king of Babylonia. The romance tells of Bovo's exploits in rescuing Druzane, smiting the Babylonian king and his son "Lucifer," and avenging his father's death. Also extant is a long and complete 14th-century Yiddish romance, *King Arthur*. The prolific writer Abraham ibn Hasdai, mentioned earlier as the translator of *Mishlei Sendebar*, translated into Hebrew the *Alexander Romance*. The authors of these Jewish romances introduce decidedly Jewish motifs: In the Arthurian romance the delightful Yiddish Sir Bove was not the only knight of King Arthur's court who *shalomed* (Hebrew, "peace be with you") and *dovened* (Hebrew, "daily ritual prayer") his way from battles to enchanted castles in Jewish heroic romances, and traditional banquet scenes are filled with references to bar mitzvahs, kosher feasts, and wedding rings inscribed with *Mazel Tov*.

Chanson de Geste

Just as Sephardic Jews of Spain adopted and adapted Arabic literary genres such as the *maqama* to produce original and veritable masterpieces in the Hebrew language, so, too, Ashkenazic Jews residing in northern France, England, Germany, and Italy appropriated Christian European genres such as the French *chansons de geste*, lending their works a distinctively Jewish flavor. William in the Jewish *Song of William* was fashioned after the historic Count William of Toulouse, a warrior of the Jewish al-Makhir dynasty descended from the line of the Davidian kings and allegedly granted control of the principality in Narbonne, France, as a reward for helping Charles Martel in his wars against the Muslims. The Jewish principality is said to have survived from 768 to 900.

This Count William epitomizes the multiple and contested versions of European epic poetry. According to the Jewish *chanson de geste*, he was a loyal knight who fought for Charlemagne in the East, led Frankish forces to capture Barcelona, and was earlier sent from France to the caliph of Baghdad to obtain for King Charlemagne the proofs of his stewardship of the holy city of Jerusalem so that at his coronation in 800 he could rightly claim to be emperor of the Holy Roman lands. Amusing episodes describe him following Jewish customs and law both before and after battle. Before eating, William always carefully and ceremonially washed his hands, silently saying a Hebrew blessing for hand washing. Since the Talmud required a man to feed his beast before himself, in the *Song of William* the hero's wife, Guiburc, first feeds and covers her husband's worn and weary horse before she places food before her famished husband. Needless to say, in the Christian versions of the epic, the family's name is changed from *al-Makhir* to *Aimeri*, and Count William is transformed into an exemplary Christian knight, descendant of the royal house of Merovingian kings, who goes on to found a monastery where he retires to live out his last days as a monk and is later canonized as a saint.

The historical Solomon, marquis of the Spanish march and descendant of the Makhiri princes in feudal France, apparently was the inspiration for the hero of French heroic poems called Bueve Cornebut, in English Bovo Horn Buster and in Hebrew *Gad a-Keren*. The

Middle English romance *Sir Bevis of Hampton*, composed circa 1324, derives from the same tradition.

Satire

KALONYMOUS BEN KALONYMOUS

Kalonymous ben Kalonymous, the 13th-century satirist of Provence, gained fame as a scholar and prolific translator of philosophical, medical, and mathematical books from Arabic or Latin into Hebrew. From a prominent, learned family and bearing his father's title of honor, Ha Nasi (the prince), Kalonymous was commissioned by King Robert of Naples to go to Rome to translate Hebrew scientific books into Latin. His translations were monumental in intellectual range and elegance of style. Their voluminousness is astounding.

Kalonymous's satires endeared him to the Hebrew-reading public that shared his annoyance with sanctimoniousness, ignorance, and self-destructive vice. Kalonymous aimed his caustic, ironic barrage against anyone deserving it, such as rabbis not as sacred as they seem, young scholars reveling in secret debauchery, and wealthy evil people buying protection for their souls.

His most popular satire was *Eben Bochan* (*The Touchstone*). Humor and right reason aimed to restore sanity to those simultaneously flaunting their piety, complaining against Judaism's restrictive responsibilities, and envying women while condemning them. If being a man subject to the 613 Talmudic obligations for holiness was so painful, then Kalonymous recommended becoming transsexual: After all, it was far more pleasant to be able to spend the day sitting, knitting, laughing, and talking about dresses than pouring over Mosaic law, rabbinic lore, philosophy, and ethics.

Kalonymous intruded his specifically Jewish satire in unexpected places. Into his translation of an Arabic encyclopedia he slipped his own description of a verbal battle between men and birds, a debate judged by the king of the birds. Questions to be resolved were, Ought man dominate beasts? Does man have the right to control the created world? Addressing the king, a Hebrew scholar from the East defended Jewish humankind as surely superior to the birds. Jews possess prophets and sages giving wise laws to conduct life according to God's design. They have synagogues and temples to pray in, praising the creator. Jews celebrate holidays and feasts to re-create the body and soul and have fast days, as Yom Kippur, to atone for sins. Since birds have none of these, surely the chosen people ought to rule over the ignorant, deprived feathered creatures. Quite the contrary, argued the bird king. The fact of fast days and penitential prayer simply displays Jews' sinfulness, never equal to the bird's winged innocence. The bird temple is the immense universe, without walls or ceiling, needing no rabbis to counsel or chastise the flock. Finding food and shelter in fields and gardens, mountains and valleys, they sing God's praises daily through the year, needing no fixed festivals for their cheerful exultation of his name. Only mankind's wickedness in hunting birds and abusing their habitat interferes with avian devotions. Clearly man is inferior in God's praise and does not have the right to dominate beasts.

Not surprisingly, this learned argument is adjudicated in favor of the birds. It represents yet another aspect of Judaic reverence for animals as displayed in beast fable and frame tale. Here, as in Chaucer's *Parliament of Foules*, Kalonymous dramatizes the political implications of irrationality. He carries to ultimate logical conclusions unquestioned illogical attitudes. As with most fine satire, the listener's unwilling mind, enticed by humor, is readily convinced.

IMMANUEL OF ROME

Kalonymous ben Kalonymous was highly respected in Rome along with other 13th- and 14th-century writers in that wealthy, aristocratic, and politically significant Jewish community. Immanuel of Rome was one such fine satirist. He was superbly educated, medically trained, a friend of Dante, and a disciple of Maimonides. Immanuel was a masterly writer of lewdly erotic sonnets and wielder of a poetic "rod of anger" scourging stupidity. So impudent, independent, and infuriatingly exultant was Immanuel's satire that the Portuguese rabbi Joseph Karo (1488–1575) specifically mentions in his code of Jewish law, *Shulkhan Arukh* (*The Set Table*), that all of Immanuel's poetry should be forbidden definitively, effectively depriving pious Jews of reading the works of Immanuel of Rome for nearly 500 years.

Immanuel of Rome's *Mahberot* (*The Compositions of Immanuel*), the Hebrew name for the *maqama* genre of rhymed prose narrative) was deemed sinful reading because of the prohibition against sitting in "the seat of scorners," a reference to Psalms 1:1, which meant, among other things, avoiding associating with sinners who add insult to injury by scoffing, mocking, and "scorning" their sinfulness. Imitating Dante's *Divine Comedy* as a voyage to the otherworld, Immanuel peopled his heaven with skinny withered old women with warts on their noses who were pretentiously pure and sexually dry. Hell had the luscious honest whores, who revel in their active beauty, using breasts and vulvas for sharing pleasures and celebrating life.

But hell also contained pagan classical thinkers such as Plato, Aristotle, and Galen. In the deepest abyss walked a "band of blind people," leaders of the Jewish people who had physical eyes yet refused to see, who ridiculed knowledge and science, and who thus defrauded their people. Immanuel always vivified condemnation by his extraordinary wit. Dante's friend Busone da Gubbio called Immanuel's genius his "happily laughing soul." Even in Dante's literary heaven, prophets and patriarchs joyfully welcomed him from afar: "Immanuel is coming. We shall enjoy much laughter."

PURIM PARODIES

During the 12th to 14th centuries Jewish writers began to incorporate satirical parodies of the Purim liturgy into their celebration of that joyful and carnivelesque holiday. The rowdy German satirical Purim plays (*Purimspiel*) were possibly influenced by Christian carnival celebrations exulted in abundant wine drinking and merriment. In the 12th century Menachem ben Aaron composed the *Hymn for the Night of Purim*, a parody of a real hymn, the *Hymn for the First Night of Passover*, written by Meir ben Isaac, which is preserved in the *Mazhor Vitry*, a collection of juridical *responsa*, laws, and prayers compiled in the same century by Simhah ben Samuel in Vitry, France. Menachem ben Aaron's hymn is an ode to the joys of intoxication.

In the 14th century parody came into its own as a separate literary genre, and no religious feast or pietistic movement was deemed taboo. The anonymous *Megillat Setarim*, or *Scroll of Secrecy*, parodies the Talmudic *Megillat Esther*, or Scroll of Esther, which is read during the Purim liturgy. Kalonymous ben Kalonymous penned his *Masekhet Purim* (Purim Tractate), which also paradies the Scroll of Esther. The anonymous *Sefer Habakhuk ha Navi* (*Book of Habakhuk the Prophet*) also appeared in this century. An anonymous 15th-century satire from Provence also entitled *Masekhet* (*Purim Tractate*), features the fictitious election of a Purim king who will reign over Jewish towns for the month preceding the Purim festival.

The Purim parodies typically portray biblical and rabbinic characters in hilarious situations. Mordechai, one of the heroes of the Book of Esther, may be redrawn as a buffoon, while

the villain of the story, Hamam, might reappear as a tragic figure. The real prophets Noah and Lot are shown as drunkards alongside fictitious characters such as "Prophet Habakbuk" (the Bottle) and Rabbi Shakhra (the Drunkard).

Poems of Love and War

IMMANUEL OF ROME

Proudly calling himself prince of poets, Immanuel of Rome wrote structurally dazzling and linguistically graceful poems. His poetry is also important in the sixth classification of Jewish literature: poems of love and war. Never hypocritically humble, Immanuel considered himself master of love and passion, meriting the royal crown for erotica.

His Italian sonnets voice lusty delight in physical pleasure. Elegantly insolent and nobly vulgar, his poetry, unfortunately, cannot be translated into English. Let one example suggest the richness of the original. Immanuel spent a jovial weekend at a villa enjoying both the hospitality and the secret bed of the noble lady. He said in farewell to her and her husband, "I could live forever in your quaint house." *Quaint* has five meanings: "charming," "beautifully used," "sensible and alive with experience," "valuable," and "vagina."

JUDAH HALEVI

Two earlier lyric poets of the golden age of Spanish Jewry (10th through 12th centuries) command attention for their versatility, learning, and rhapsodic magnificence. They are Judah Halevi and Samuel ibn Nagrela. Judah Halevi of Toledo (1075–1144) was an eminent court physician, a philosopher, and the author of more than 800 poems in Hebrew and Arabic expressing his profound yearning for the Jewish return to the Holy Land and his fervent love of God. Judah Halevi's ecstatic celebrations of Zion appear in modern Jewish prayer books. Devout scholars cherish his liturgical odes and nationalistic epistles. Yet this poet, philosopher, and physician also wrote secular love songs, wedding odes, satires, epigrams, riddles, and seafaring poems, although even these secular works were steeped in religious feeling. The German poet Heinrich Heine said of Judah Halevi that his poems were "God-kissed."

The most sensual love is inherently spiritual. Judah Halevi's "fire and dew" love poems depicted human love as beautiful earthly shadows of divine substance. Judah Halevi's language of love longing was the same whether his beloved was a beautiful woman, the city of Jerusalem, or God himself. His most famous poem "My Heart Is in the East," begins thus: "My heart is in the East and I in the uttermost West. How can I find savor in food? How shall it be sweet?" (Cited in http://www.myjewishlearning.com/ideas_belief/LandIsrael). After Judah Halevi laments, he sets out from Spain to the holy city. Is this true geography or metaphoric discovery of the intricacies of female anatomy? As John Donne centuries later praised his beloved in bed as his "America," his "new found land," so Judah Halevi depicts the ecstasy of divine love understood on Earth through the medium of sensual splendor.

No matter how universal the theme of desire, anguish, or unrequited love, Judah Halevi wrote with the particular passion of the Jew among the Others. Judah Halevi saw himself as a Spanish Jew fighting against the Christian Europeans, the Western Jew against the Eastern Muslims occupying the holy places. Although he was a privileged court physician in Córdoba, he was not immune to the suffering of his Jewish coreligionists under the Almoravid regime and at the hands of Christian crusaders in the East. Neither universalist nor insular, his poetry represents the medieval Judaic particu-

larist trend. Unlike Maimonides, who demanded understanding God, Judah Halevi inspired loving God. Human kissing and acts of love merely transmitted the soul's language out from its inexpressible smoldering center. Bodily pleasures were the second concentric circle yearningly radiating out to the third of divine love.

SAMUEL IBN NAGRELA

One hundred years earlier in Andalusia, another Jewish poet combined the demands of public service with private art. With masterly control over languages, Samuel wrote poems in Hebrew, Arabic, and Castilian, displaying poetic virtuosity in at least 57 separate verse meters. Samuel ibn Nagrela (993–1056) was a "prince" or ruler of the Sephardic Jews in Muslim Spain. Not only leader of the Jewish community, Samuel Ha Nagid (Samuel the Prince), as he was called, was also appointed vizier in 1038 to the court of Granada and commander to the Zirid ruler Badis al-Muzaffar's armies. A skilled and canny statesman he was able to survive the intrigues of the Zirid court. (The same would not be true for his son, Yusuf, who succeeded him in the vizierate, who was assassinated in 1066 after rumors of corruption, along with other members of the Jewish community.) Samuel Ha Naguid was mystically inspired enough by his own talents to act with "God's assurance" as chosen protector to his people, and devoted and affectionate enough to write to his son from the battlefield tent poems of advice, fear, or triumph.

Samuel ibn Nagrela's war poems depicted the exhilaration of battle, the brave stuggles of strong horsemen. The poetry also chronicled the terrors and loneliness of the war fields, the battle camps at night, and the ruined citadels whose once proud warriors buried beneath the rubble reminded the author of his own mortality. The long battle poems are heroic in their description of daring deeds. But the Jewish prince always particularizes the events and his reactions as Jewish. He shines the light of his experience through a Jewish prism, bending every ray from the color of the universal to that of the particular.

Amid the cries of battle joy and the clashings of chain-mailed warriors with glistening shields, Samuel entreated the Jewish patriarchs and God for mercy prayed for salvation. Each battle day was another personal day of judgment and each assault or siege he survived demonstrated God's protective attention to his warrior minions.

Samuel strictly observed the Sabbath in the field. When work was forbidden he commanded his armies to rest from their toil. Seductive though it is, war always destroys: "War at first a beautiful maid / with whom every man flirts. At the end, she is a despised hag. All who meet her she grieves and hurts" (Weinberger 118).

When not acting as general, Samuel was a courtier and politician, prime minister of an Islamic realm. As the Toledan philosopher, astronomer, and historian Abraham ibn Daud Halevi (1110–80) described him, he merited all four crowns: the crown of Torah, the crown of power, the crown of Levite, and the crown of a good name. When Samuel died, his contemporary the great medieval Arab historian Ibn Hayyan of Córdoba (d. 1076), grudgingly admired him for his many qualities of moral perfection and probity.

Some of Samuel ibn Nagrela's love poems are almost never found in anthologies because of their blatantly sexual and homoerotic images. As passionate as they are mannered, these poems exhibit traditional Arabic structural formulas and wordplays. In the Taifa (Petty Kingdom) courts of 11th-century Islamic Spain, for example, it was customary to have as cup bearers young men usually addressed by animal names of endearment, such as Fawn, Hind, Doe, or Gazelle. These erotic entertainers

often cultivated a lisp or stutter and spoke with sexually suggestive wordplay.

Religious Poetry

PIYYUT

Liturgical poetry, known as *piyyut* (pl. *piyyutim*), has been composed since Mishnaic times (from 200 C.E. onward) in Hebrew or Aramaic to be sung, chanted, or recited during religious services. Solomon ibn Gabriol (d. 1058), the renowned Jewish poet and philosopher of Spain, composed the "Adon Olam" (Lord of the World) in a rhyming iambic tetrameter, and remains one of the best loved poems often sung daily at the end of synagogue services or at the close of the Sabbath even today.

The *piyyut Maoz tzur*, "Rock of Ages," is a powerful liturgical poem recited or sung at Hanukkah. The origins and authorship are debated; however, the most likely theories date the poem to the martyrdom of Jews in Mainz, Germany, during the First Crusade in 1096 or during the Second Crusade (1145–48) and the author's first name is thought to be Mordecai. The first five stanzas of the poem are written in the past tense and recall the occasions in the Bible when God spared the Jews from the persecution of their enemies, such as the Exodus from Egypt, the end of the Babylonian captivity, and the miraculous delivery of the Persian Jews from the evil vizier Hamam (the Festival of Purim). The final stanzas are situated in the present time and the poet switches to the present tense to express his hopes that the Temple will be rebuilt in Jerusalem and that the enemies of the Jews will be defeated.

Despite the ban on reading Immanuel of Rome, his poetic version of the *Yigdal* (meaning "may God be hallowed"), an allusion to Maimonides' "Thirteen Articles of the Creed" written in the form of a sonnet, was allowed to be sung in the synagogues at the opening of the morning prayer and the close of evening services. An even more popular *Yigdal* was the *piyyut* composed by the liturgical poet Daniel ben Judah Dayyan of Rome in the early 15th century.

MARTYROLOGICAL POEMS

The 11th to 13th centuries saw the flourishing of a new genre of religious poetry among the Ashkenazic Jews in northern France and the
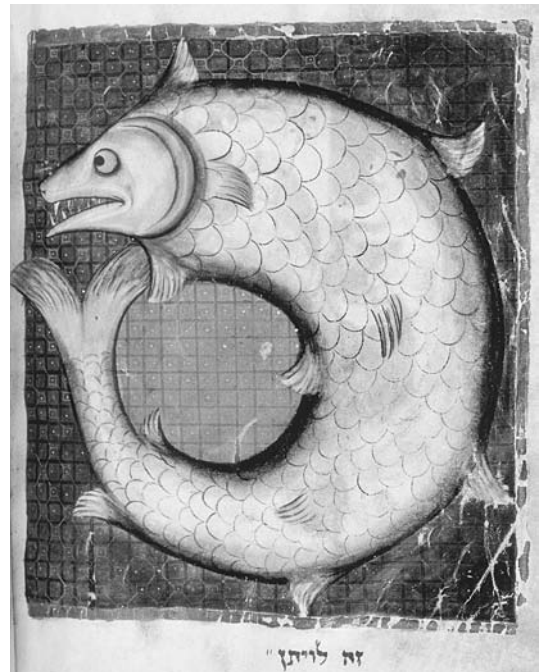
Leviathan, c. 1280. Fish curving to form a circle. The Leviathan was, according to Talmudic sources, one of the mythical creatures that would be consumed at the messianic banquet awaiting the virtuous in the world to come. From the North French Miscellany, *a Hebrew manuscript written by Benjamin the Scribe.*   HIP/Art Resource, NY.

Rhineland in Germany, the poetry of martyrdom. Written in Hebrew or in the European vernacular languages, the poetry finds its precedents in biblical descriptions of martyrdoms, such as the story of the Maccabees, and in rabbinical discussions of these biblical texts. Yet the martyrological laments were composed in response to real historical events: the mass pogroms and murders visited upon Jewish community in the wake of crusader fervor, the fanaticism aroused by the celebration of Easter, or the fury unleashed by unfounded rumors of Jews' desecrating the Christian host. Rabbi Meir of Rothenburg composed a moving lament to the Talmud after the burning of the Jewish Talmud in Paris in 1242. No fewer than seven martyrdom laments were composed to commemorate the terrible events surrounding the burning of 31 Jews in the French city of Blois in 1171, as revenge for the alleged murder of a Christian child.

Instruction Books

The seventh classification of Jewish secular literature are the ethical instruction books, the *musar*. While some were uninventive lists of exhortation to piety, the most popular instruction books combined the familiar medieval techniques of pleasing while teaching, instructing while delighting. Not surprisingly, animal tales and beast references were important literary devices and moral instructors.

SEFER HASIDIM

The most influential of all Jewish instruction books was the *Sefer hasidim* (*Book of the Pious*), which preserved both medieval ideas of Jewish piety and good conduct and ingenious methods for teaching it.

Though the *Book of the Pious* generally is ascribed to Judah the Pious Kalonymous

(d. 1217), it was probably written over the course of several generations by three men of the same Kalonymous family. Judah's father, Rabbi Samuel b. Kalonymous, also known as "the Pious," wrote much of the introduction, and a disciple and probable nephew, Eleazar the Pious of Worms, also participated in the composition. Their instruction manual represented the most radically particularist form of literature, since its aim was to draw a sharp dividing line between "the pious" and "the adversaries," the latter being "other Jews" rather than the Gentiles, as one might expect (Schafer 31).

Between the years 1150 and 1250 these men were leading figures in the new movement of pious asceticism that emerged among the so-called *Shum* communities, a Hebrew acronym for the German Jewish populations of Speyer, Worms, and Mainz. The movement was known as the "Pious of Ashkenaz" (*Hasidei Ashkenaz*), and it blended the old Palestinian-Babylonian *Merkavah* mysticism, which envisaged the mystical ascent as a journey upward toward the seven heavens to the divine throne, with a new radically moral asceticism aimed at the common folk. It should be noted that the term *Hasid* (pl. *Hasidim*) simply means "pious" and this 12th-century movement bears no direct relation to the later Hasidic movement that would emerge in modern Poland. This German *Book of the Pious* insisted that none of the world's people other than the Jews were commanded to sacrifice themselves for the sanctification of God's name. The reason for this redefinition of the phrase "chosen people" was to vindicate the superiority of Jewish piety in the face of the horrific treatment of the Jews after the Second Crusade and to counter contemporary Christian exaltation of their own martyrs. If each Jew was required to become a martyr for God's word, then he had better learn to love God better than he loved life, and the *Book of the Pious* provides clear instructions on how the pious Jew should conduct him- or herself when facing martyrdom. It

also addresses the question of disguising oneself as a means of avoiding persecution, allowing, for example, beardless youths to dress as women or women to dress as males and carry a sword in order to avoid detection, but prohibiting disguising onself as a monk or priest or wearing a cross.

Furthermore, a pious Jew dying for God's word had better understand it. Thus the *Book of the Pious* counseled prayer not in Hebrew but in the vernacular languages people spoke and understood, for if prayer were the heart's petition, how could it be successful if the heart did not understand what the lips spoke?

The *Sefer hasidim* preached ascetic freedom from the bonds of worldly goods. It counseled self-sacrificial concern for others' material necessities. What is mine is yours, and what is yours is yours. Such sensitivity pertained to emotion as well: Do not kiss your children in the synagogue, for a person having no children might be accidentally hurt and grieved by your joy.

The pious person did not deny himself sexuality. Hasidism was at once ascetic and sexually erotic. Human love was earthly intimation of heavenly passion for God. The body sometimes required abnegation but usually required celebration. Through its ecstasies one ascended to heavenly ideas. Through it, by descending to brute sense, one reaffirmed affinities to others of God's creatures, the animals.

Likewise, by humbling human pride the Hasid penitentially made restitution for human use and exploitation of animals. Furthermore, Hasidism preached a type of Jewish pantheism, describing God's presence in all creatures. For this reason, time and again, the *Book of the Pious* exhorted the pious to refrain from harming any living creature.

The *Sefer hasidim* also gave Jews clear advice about how to maintain the boundaries between them and their Christian neighbors. We find, for instance, that no window of a Jewish house or synagogue should look out upon a church, nor should a Jewish family reside in a part of town where it would have to share water with Christians. Other passages were unabashedly polemical: A Christian shows some Jews a garment that he claims was once worn by Jesus. He then tosses it into a fire and seeing that it does not burn, tries to convince the Jews to convert to Christianity. A Jewish sage has the garment taken to him, washes it with vinegar, then tosses it again into a fire, whereupon it is immediately consumed by the flames (Schafer 38). Yet many passages in the *Book of the Pious* reflect positive relations between Jews and Christians, giving guidance on how to pray together for rainfall in times of drought.

Exempla

Exempla were were short popular tales rabbis inserted in their homilies and lessons in order to explain the rudiments of Jewish law, generally arranged in manuscripts according to subject or a calendrical order of ritual prayer. A rabbi needing to expound upon a biblical point or Talmudic idea simply turned to the requisite section in his trusty book. For example, to explain the biblical concept "Cast your bread upon the waters" (Eccles. 11:1) a good exempla collection provided several explanatory tales taken from Haggadah beast fables, frame tales, or similar sources.

It was not at all unusual to find a beast fable amid the learned discourse of medieval rabbis. This type of exemplum was at once universal, insular, and particular. As were other examples of Haggadic medieval literature, exempla were characterized by whimsy, charm, virtuosic wordplay, and a plethora of intelligent animals. Beast adventures taught virtue. Beast advice prevented folly and vice. Medieval Jewish secular literature reaffirmed man's and woman's middle place in God's great chain of being, mediating gracefully between beasts and angels.

Works of Wisdom

The works of wisdom are numerous spiritual and moral writings that could be considered instruction manuals for the soul. The 11th-century Spanish moralist Bahya ibn Pakuda of Zaragoza is renowned for his *Hovot ha-levavot* (*Duties of the Heart*), which he wrote originally in Arabic in 1080 and later was translated into Hebrew. The eponymous "duties of the heart" that are meant to guide the moral life of Jews include a series of obligations to God and one's fellows, especially the belief in the existence and unity of God, trust in God, love and fear of God, and repentance, followed by a set of prohibitions, such as against bearing grudges or taking revenge. The work is clearly modeled upon contemporary Muslim spiritual and mystical works in which the reader must ascend through a series of 10 gates in the interior journey toward spiritual perfection.

Judah Halevi's philosophical novel *Ha Kuzari* expresses these yearnings for the land of Israel and his profound belief in the Jews as the chosen people and the Hebrew language as the chosen language of divine revelation. The novel, written in the form of a dialogue between the king and a Muslim, a Christian, and a Jewish philosopher, is based upon the true events surrounding the conversion of the Turkish tribe known as the Khazars to the Jewish religion. The dialogues that lead the king ultimately to choose the Jewish religion are simultaneously a manifestation of philosophical logic, a vindication of Judaism against its Muslim and Christian detractors, and a guide for spiritual perfection.

Jewish Crusader Chronicles

Jewish populations throughout Western Europe became the unwitting victims of Christian crusader fervor. In many cases even the protection of a Christian monarch himself was insufficient to spare the lives of entire communities. Jewish historians and eyewitnesses to these events left heart-wrenching chronicles of the heroic act of *qiddush ha-Shem*, or the "sanctifying of the holy name," the Jewish idiomatic expression for martyrdom. Solomon bar Samson, a German Jewish writer of whom little or nothing is known, wrote a chronicle in the year 1140 describing the horrors of the slaughter of Jews in Mainz who had taken refuge in the archepiscopal palace. The events described took place on May 27, 1096, during the First Crusade as Christian Knights and laypeople made their way to Jerusalem. Samson highlights the extraordinary courage of the women:

> The children of the holy covenant who were there, martyrs who feared the Most High, although they saw the great multitude, an army numerous as the sand on the shore of the sea, still clung to their Creator. Then young and old donned to their armor and girded on their weapons and at their head was Rabbi Kalonymus ben Meshullam, the chief of the community. Yet because of the many troubles and the fasts which they had observed they had no strength to stand up against the enemy. [They had fasted to avert the impending evils.] Then came gangs and bands, sweeping through like a flood until Mayence [Mainz] was filled from end to end. . . . The women there girded their loins with strength and slew their sons and their daughters and then themselves. Many men, too, plucked coverage and killed their wives, their sons, their infants. The tender and delicate mother slaughtered the babe she had played with, all of them, men and women arose and slaughtered one another. The maidens and the young brides and grooms looked out of the windows and in a loud voice cried: "Look and see, O our God, what we do for the sanctification of Thy great name in order not to exchange you for a hanged and crucified one." (J. Marcus, 1938, pp. 115–120)

Jewish historians also recorded the devastating impact of the bizarre Christian accusations of ritual murder that surfaced in the 12th century, claiming that the Jews murdered a Christian child in order to obtain its blood to be used in the celebration of the Passover. As the scholar Miri Rubin argues, such accusations were probably a reflection of Christian doubts and anxieties about the Christian doctrine of the transubstantiation and a tragic expression of extreme religious piety. A German Jewish talmudist, Ephraim ben Jacob (1132–1200), preserves an account of the burning of more than 30 Jewish men and women in the city of Blois that took place in May 1171. He writes in his *A Book of Historical Records*, "The Christian servants hastened back to his master and said, 'Here, my lord, what a certain Jew did. As I rode behind him toward the river in order to give your horses at drink, I saw him throw a little Christian child, whom the Jews have killed, into the water. When I saw this, I was horrified and hastened back quickly for fear he might kill me too'. . . . The next morning the master rode to the ruler of the city, to the cruel Theobald. . . . He was our ruler that listened to falsehood, for his servants were wicked. . . . When he heard this he became enraged and had all the Jews seized and thrown into prison." (J. Marcus, 1938, pp. 127–130)

In describing the murder by burning, the author records: "It was also reported in a letter that as the flames mounted high, the martyrs began to sing in unison a melody that began softly but ended up with a full voice. The Christian people came and asked us, 'What kind of a song is this for we have never heard such a sweet melody?' The author exclaims, 'O daughters of Israel, weep for the thirty-one souls that were burned for the sanctification of the Name, and let your brothers, the entire house of Israel, bewail the burning.'" (J. Marcus, 1938, pp. 127–130)

Major Jewish Writers

Judah Halevi (c. 1075–1141).   Spanish rabbi, poet, and philosopher, best known for his remarkable philosophical novel *Sefer ha Kuzari*, which was inspired by the real conversion of a Turkic tribe to Judaism centuries earlier.

Berechiah Ha Nakdan (alive 12th–13th centuries).   English Jewish exegete, moralist, grammarian, and translator, best known for his Hebrew work *Mishlei shualim*, or *Fox Fables*.

Judah al-Harizi (1165–1234).   Spanish rabbi, translator of Maimonides' Arabic works into Hebrew, and acclaimed poet, best known for introducing the Arabic *maqamat* genre of rhymed prose fiction into Hebrew literature and author of the first Hebrew *maqama*, the *Book of Tahkemoni*.

Abraham ben Meir ibn Ezra (c. 1049–1164).   Famous Spanish grammarian, biblical commentator, poet, philosopher, and astronomer; author of a massive *Diwan* (anthology of religious and secular poems). He is responsible for introducing Ashkenazic Jews to the scholarly and literary output of Arabic writing by Jews and Muslims.

Solomon ibn Gabriol (Avicebron) (c. 1021–1058).   Major poet and philosopher in Malaga, Spain; author of numerous secular poems on love and nature, religious mystical poetry, he is best known for his magnum opus, the *Fons vitae* (*The Well of Life*), and his poetic anthology *The Improvement of the Moral Qualities*.

Samuel ibn Nagrela (993–1056).   Vizier to the Zirid court of Granada, leader "prince" of the Sephardic community of Muslim Spain, and renowned poet whose *Diwan* (anthology) includes poems on platonic and erotic love, religion, and warfare.

Isaac ibn Sahula (alive 13th century). Castilian prose writer and court poet to Alfonso X, best known for his masterpiece of rhymed prose (*maqama*) *Meshel haqadmoni* (*The Tale of the Ancient One*).

Immanuel the Roman (c. 1265–1330). Renowned scholar and poet and infamous satirist, noted for having introduced the sonnet into Hebrew literature. His *Mahberot Immanuel* (*Compositions of Immanuel*) scandalized the pious Jewish community with their erotic and satirical content.

Numerous references in this chapter indicate the close literary ties connecting Jewish and Muslim writers. Spanish Jews played a leading role in translating Arabic scientific and literary works into Hebrew and European languages, making them known to Ashkenazic Jews and Christians throughout Europe. At the same time, Jewish writers were particularly inspired by Arabic poetry and prose writing, especially the *maqama* genre, and demonstrated time and again that they were as capable as their Muslim neighbors and rivals of producing masterful literary works in Arabic and especially in Hebrew. The following section discusses the Arabo-Muslim literature and its contribution to a universal medieval literature.

ISLAMIC LITERATURE

Medieval Arab-Islamic literature is an amalgam of the contributions of the literary genres and traditions of the peoples who inhabited the medieval Islamic world. Pride of place must be accorded to the Arabs, whose Classical Arabic language became the lingua franca of the Islamic world: the language of political administration and religion, as well as the language of cultural expression. The pure Arabic of the pre-Islamic Bedouins—preserved in poetry, proverbs, oratory, epic narratives, song, the Quran, and the sayings and speeches of Muhammad—served as the literary model for future generations of Arabs and non-Arabs. Persians, Egyptians, Indians, Berbers, and others adopted the language and literary customs of the Arabs, infusing them with their own indigenous genres. In turn, a variety of literary genres, including stories, fables, "mirrors for princes," and philosophical literature, were translated from Greek, Persian, Hindi, or Sanskrit into Arabic and subsequently into European languages.

Pre-Islamic Arabic Literary Genres: Poetry and Song

In their origins, pre-Islamic poetry and song are oral-literary genres, composed to be performed in public either by the poet himself (*shair*) or a professional reciter or bard, known as a *rawi*. Many poems were composed to be sung rather than recited, and these, together with conventional songs, were sung by a professional singer, called a *mughanni*. Desert warriors and nomads sang songs of their own noble heritage, their tribal virtues, and their heroic adventures. Some wrote panegyrics recording the feats of their patrons. Women poets sang mourning songs for dead relatives or friends. Female mourners were called *naihat* and performed the lamentation for the dead known as *nawh*.

Traditionally poetry has been called the *diwan al-Arab*, or "register of the Arabs," in reference to the singular social role and historical significance of poetry in Arabic societies, among the pre-Islamic Bedouins as well as the urbane medieval Arabs of Baghdad, Damascus, Córdova, and similar cultural centers. Poetry was the medium through which momentous

events and the feats of important persons of a tribe or other social units were recorded and transmitted to future generations. In the medieval period, poetry inserted in historical chronicles, biographical dictionaries, and other genres of prose writing continued to serve this memorial function, testifying as well to the impact and perception of events on the persons involved.

QASIDA

Perhaps the most significant pre-Islamic poetic form is the *qasida*, or ode. The *qasida* was a poem consisting of between 60 and 100 lines with the same rhyme running throughout, and whose main theme was boasting or panegyric. It was composed in two hemstitches and the rhyme was maintained at first in both lines, and subsequently only in the second hemstitch. In addition to these aesthetic limitations in poetic form, the *qasida* was characterized by three parts or movements: (1) The *nasib*, or amatory prelude, evoked the painful separation of lovers from neighboring tribes that have settled briefly in the same camp in the desert but must go their separate ways. The hero tries to forget his beloved but lingers tearfully over all the details of her departure, tears streaming down his face. (2) On the dangerous journey, typically on camelback, the poet extols the strength of his camel, in the hope that it will be able to catch up with his lover. The poem may also extol the surrounding landscape, hunting, and other desert *topoi*. (3) In the self-praise or boasting (*mufakhara*) the poet would speak of his own heroism, generosity, courage, and fortitude, called in Arabic *sabr*, or a "panegyric" (*madih* or *madh*), in which he praises the virtues of his tribe. As an alternative to these panegyric themes, the final part might be an elegy of love (*ghazal*) or a satire (*hija*) of the enemies of the poet, his patron, or the tribe. The first two sections of the poem are considered a prelude to the final, most important part. These poems were not written in the pre-Islamic period, giving rise to the existence of several versions of a single *qasida*, since the *rawi*, or poet, was free to improvise. A particular group of poems, which were called the *Muallaqat*, or "Suspended Poems," gained the fame of representing the best examples of Arabic poetry.

A *qasida* of the sixth-century Yemeni poet-prince and reputed inventor of the genre Imrul al-Qays begins as follows:

> Stop, oh my friends, let us pause to weep
> over the remembrance of my beloved.
> The traces of her encampment are not
> wholly obliterated even now.
> For when the South wind blows the sand
> over them the North wind sweeps it
> away. . .
> On the morning of our separation it was
> as if I stood in the gardens of our tribe,
> Amid the acacia-shrubs where my eyes
> were blinded with tears by the smart
> from the bursting pods of colocynth.
>
> ("The Poem of Imru-ul-Qais."
> Available online.URL: http://www.
> sacredtexts.com/isl/hanged.

In emblematic scenes, male pre-Islamic poets praised the landscape, beasts, women, and men (whether as lovers or friends). Women poets tended to excel in the subgenre of elegy, as the poetry of al-Khansa (600–670) illustrates. Al-Khansa, a noble Bedouin woman was a contemporary of the prophet Muhammad. Having lost brothers and sons in battle, her poetic lamentations beautifully express her sorrow. Her most famous poem is "Lament for Her Brother":

> In the evening remembrance keeps me
> awake, and in the morning I am worn
> out by the overwhelming disaster in
> the case of Sakhr, and what youth is

there like Sakhr to deal with a day of
warring and skilful spear-thrust?

And to deal with tenacious opponents
when they transgress so that he can
assert the right of someone on whom
oppression has fallen?

I have not seen his like in the extent of
the disaster caused by his death, either
among *djinn* or among men. Truly
strong against the vicissitudes of
fortune and decisive in affairs, showing
no confusion. . . .

Ah, O Sakhr, I shall never forget you
until I part from my soul and my grave
is cut.

The rising of the sun reminds [me] of
Sakhr, and I remember him every time
the sun sets.

(Al Khansas's Lament for Her Brother.
Available online. URL: http://www.
westsa.edu/~mhamil/Khansa.html.)

Since the language of these pre-Islamic
poems and songs was useful for understanding
the difficult language of the Quran, in the eighth
century Muslim scholars began to edit and com-
pile them into written anthologies and to cate-
gorize them according to periods of development.
The Abbasid prince and poet Ibn al-Mutazz (d.
908) was one of the first philologists to distin-
guish four periods of Arabic poetry, the pre-
Islamic poetry of *al-qudama*, "ancients"; the
period of the *mukhadram*, referring to poets of
the period straddling the Jahiliyya (pre-Islamic)
and early Islamic eras; the *awail al-islamiyyin*, lit-
erally, "first Islamic poets," referring to the
Umayyad composers; and the *muhdathun*, or
"modern poets," referring to those of the medi-
eval period under the Abbasids.

Great ninth-century writers utilized the
Arabic past as well as the great renaissance of
classical philosophy and science in the many
Greek texts that in translation augmented the
magnificent Islamic libraries.

UMAYYAD AND ABBASID POETRY

Poetry under the Umayyads and the Abbasids
retained many of the features from the pre-
Islamic period: Most of the famous poets, Ghi-
yath ibn Ghawth ibn al-Salt, also known as
al-Akhtal ("the loquacious") (d. c. 710); Tam-
mam ibn Ghalib, also known as al-Farazdaq
("the lump of dough") (d. c. 739), and Jarir ibn
Atiyya ibn al-Khatafa (d. 729), for example,
were all of Bedouin origin. They remained
faithful to the pre-Islamic conventions of the
qasida, although the court culture of Umayyad
Damascus and later Abbasid Baghdad favored
the prominence of the panegyric of the ruler
and other wealthy patrons over the ancient
themes of the desert journey or the praise of
one's tribe. Some important changes took
place, however, which particularly reflect the
influence of Islam, among them the heroic
ethos and the poetry expressing it. Pre-Islamic
poetry celebrated great deeds and triumphs
over adversaries both human and natural.
Death was the logical conclusion of heroic
honor. By contrast, the philosophically and
religiously puritanical Kharijites, for example,
wrote heroic poems, rejecting the ostentation
and secularity of the Islamic enterprise and
extolling the glories of martyrdom.

GOLDEN AGE OF ARABIC POETRY

The golden age of Arabic poetry generally
refers to the period spanning the final decades
of Umayyad rule (c. 720s–49) and the height of
the Abbasid period, from 750 to the end of the
11th century. Its literary center was the Abbasid
court at Baghdad, which attracted the best and
brightest luminaries of traditional Arabic poetry
as well as the vanguards of poetic and prose
innovations. Poetic output began to decline in
the Arab East when the Seljuk Turks overran
Baghdad in 1055 and then the Mongols sacked
the magnificent city in 1258, delivering the

coup de grace to its literary genius. Literary Baghdad was not easily equaled, except perhaps by the poets and prose writers of al-Andalus, whose golden age of the ninth and 10th centuries coincided with the zenith of the Umayyad dynasty. Though conventional rhythms, imagery, phrasing, and syntax guided and guarded much Arabic poetry, some descriptions were startlingly original.

Umayyad and Abbasid court poets marshalled their poetic skills to praise royal patrons and revile royal enemies, often providing valuable historical narratives of the events of their times. Abbasid poet al-Buhturi (d. 897) epitomizes the role of the poet-hero who extolled the religious and moral virtues of the Abbasid rulers vis-à-vis their Alid rivals. The murder of Caliph al-Mutawakkil in 867 prompted al-Buhturi to write:

> Will Time ever retrieve for me my days in white palaces and countyards?
> There's no union with them momentarily, nor do they have a minute for a visit.
> A moment of merriment is not renewed in memory without renewing my ardor for them.
> A yearning, among many, left me awake at night, as if it were one malady among many.
>
> (Samer Mahdy Ali 2005–06. Formerly available online. URL: http://www.uib.no/jais/v006ht/06-001-023Ali1PP.htm#_ftn27)

Poetic Genres

GHAZAL

Love poetry changed in a number of ways during the Islamic period. The initial amatory prelude to the pre-Islamic *qasida* (*nasib*), in which the hero mourned a past love that he strove to forget, was transformed into an erotic poem dedicated to the present object of his affections, often in the form of independent love poems called *ghazal*. Under the influence of Umayyad and especially Abbasid court culture, the *nasib* tended to give way to the panegyrics (*madih*) dedicated to the caliph or other patrons, while the raunchier erotic poems were sometimes known by the subgeneric name of *mujuniyyat*.

UDHRI POETRY

A major innovation of the Umayyad poets was the adaptation of love poetry to an independent love lyric that celebrated chaste, or *udhri*, love. This poetry took its name from the tribe of Udhra, nicknamed "those who die when they love." In *udhri* poetry the hero lover is intensely ardent, chaste, and so hopelessly enamored of his beloved—who may not even know of his existence or who cruelly rejects him—that he slowly wastes away and dies. While in the traditional qasida the pre-Islamic warrior hero rushes headlong into battle for honor and generosity of spirit, the *udhri* lover, such as depicted by the seventh-century poet Jamil ibn Abdallah ibn Mamar al-Udhri (d. 701), conceives of his love as a form of jihad, and the lover as a martyr who dies for love. Some scholars have suggested that Arabic *udhri* poetry may have influenced the courtly love lyric of the West, transmitted through the introduction of Muslim female court poets and singers into European courts.

Abbasid love poetry has many similarities to the Western 12th-century troubadour songs and courtly love songs in which fully requited love was socially impossible. The troubadour praised a high-born, imperious, exquisite, learned woman who was inaccessible because she was his social superior and another man's wife. Abu Nuwas, Abu l-Atahiya, and the other Abbasid poets praised intelligent, beautiful professional singers who as slaves were social inferiors yet socially inaccessible as another man's

Scene from the only known illustrated manuscript of the poem the Romance of Varqa and Gulshah, *by Urwa b. Huzam al-Udhri, paintings by Abd al Mumin al-Khuwayyi. Varqa pays a farewell visit to his lover Gulshah before his departure for Yemen. The couple stand amongst trees and birds.* Werner Forman/Art Resource.

property. In these poems it is the poet-lover who is the slave, for he invariably subjugates himself to his beloved and complies with her every whim. He is completely powerless against the overwhelming passion for his beloved and this passion consumes him unto death. The beloved's fickleness and her apparent pleasure in the lover's degradation only inflame the hero's ardor. Abu Nuwas claimed that even if his beloved Janan decided to walk on his face and tread on his cheek, he would have welcomed that degradation. Disparagement was better than silent contempt. He was glad everytime her lips uttered his name, even in abuse! The more fervent the poet's language and the more complex in meter, mode, and rhythm, the more valuable became his poetic output.

Khamriyyat The Abbasid poets excelled in the composition of "Bacchic" poetry devoted

to the pleasures of drinking wine, in Arabic *khamr*, from which the name of this subgenre of poetry is derived. Given Islam's prohibition of wine drinking, it is no surprise that the first poets who developed the genre and its most illustrious authors are almost invariably associated with libertinism and antireligious sentiment or skepticism. This is true of the so-called libertines of Kufa, a veritable counterculture of poets who flourished in the eighth century, whose representatives include Muti ibn Iyas (d. 785) and Abu Dulama (d. c. 787), an African slave and court jester. An important transformation occurs in the poetic tropes under the influence of a certain eighth-century poet, Ahmad ibn Ishaq, who expanded the traditional theme of the pleasures of drinking wine to writing about his own public bouts of drunken debauchery and sexual libertinism. The poets following him imitated his example of recording their own drunken escapades in verse. The genre reached its epogee with the Iraqi court poet Abu Nuwas (d. c. 813) (discussed later), acclaimed for the eloquence and originality of his odes to wine and homosexual love.

Madih The panegyric poem (*madih* or *madh*) best exemplifies the social reality of poetic composition both in the pre-Islamic period and during the golden age: that the vast majority of poetry was commissioned or under the patronage of a court. It was noted in the discussion of the pre-Islamic *qasida* that the third and most important part of the poem often consisted of a panegyric. In the Abbasid Golden Age the *madih* is transformed into an independent poetic genre. A beautifully written *madih* was usually the best way for an ambitious poet to gain entry into the prestigious Abbasid court in Baghdad or the Umayyad court in Spain. Abu Tayyib Ahmad ibn al-Husayn al-Jufi, al-Mutanabbi (915–955), perhaps the greatest of all the panegyrists, spent his career not attached to one particular court, but rather as a troubadour under the patronage of wealthy and influential men in Iraq, Syria, Perisa, and Antioch.

The death of the sovereign or other patron would be the occasion to compose a mournful panegyric singing the praises of the deceased and lamenting his or her loss. Mournful laments (*marthiya*) expressing pain over the death of a loved one who died suddenly or violently are an important subgenre of *madih*. Panegyric extols the moral qualities of the patron: his intelligence, courage, justice, and modesty, and the nobility of his ancestry. Additionally a panegyrist might compose a *madih* to commemorate an important event, such as the birth of the sovereign's heir or a victory in battle. Poets also composed panegyrics to extol the virtues of one's tribe, land, or city.

Zuhdiyyat *Zuhdiyyat*, or "ascetic poems," emerge as an autonomous poetic genre in the eighth century as an offshoot of the mournful lament (*marthiya*). The sudden death of a loved one, news of the heroic death on the battlefield of a boon companion, or the loss of an eminent poet or scholar provided the occasion for the poet to reflect upon the ephemerality of life, the inevitability of death, and one's fate in the afterlife. Abu Nuwas composed numerous ascetic poems; however, the true master of the genre is his contemporary Ismail ibn Qasim ibn Qaysan Abu l-Atahiyya of Kufa (748–826), whose *zuhdiyyat* are veritable sermons in verse describing in vivid detail the horrors of death, the true leveler of all, respecting neither social class nor wealth.

Poets of the Abbasid Court

The Abbasid court attracted numerous important poets such as Jarir ibn Atiyya ibn al-Khatafa (d. 729), Tammam ibn Ghalib al-Farazdaq (d. c. 739), Abu Nuwas, al-Buhturi, and Abu

l-Atahiyya and paid them generously to write magnificent poems praising the court and caliphate with panegyric grandeur. They were also employed to write love poetry; panegyrics celebrating a patron's heroism, courage, and generosity; tributes to hunting; Bacchic poems in praise of wine (*khamriyyat*); and erotic poems (*mujuniyyat*) praising women, young boys, and singing girls. Many Muslim moralists defended these beautiful poems extolling forbidden excesses in wine, revelry, and a lascivious life by stating that the Quran allowed poets to say that which they do not do. Poetry was poetry, religion was religion, and therefore pagan sensual and sexual excesses could be acceptable in literary art.

Bashshar ibn Burd Bashshar ibn Burd (c. 714–737) wrote panegyrics, elegy, and satirical *qasidas* as well as fine amorous poems, dedicated mostly to a Basran woman named Abda. Though of humble origins, blind from birth, and infamous for his physical ugliness and caustic temper, Bashshar ibn Burd attracted the attention of the women of his day and first was admitted into the Umayyad court as official poet and subsequently gained the favor of the second Abbasid caliph, Abu Jafar Abdallah al-Mansur (r. 754–775). The pithiness of his epigrams, parodies, and amorous elegies and his inventive language gained him the reputation as one of the "great poets of Basra," and he influenced future generations of acclaimed Abbasid poets, including Abu l-Atahiya and Abu Nuwas.

Abu l-Atahiya Abu l-Atahiya, a pen name meaning "the father of craziness," was among the most celebrated of the Abbasid poets. His real name was Abu Ishaq Ismail ibn Qasim ibn Qaysan, and he was born in 748 in Kufa, south of Baghdad, Iraq, into a poor working-class family and died in 826. Abu l-Atahiya started life as a jar maker, son of a physician who

earned his money by cupping. He learned the art of poetry from a prominent circle of poets in the city of Kufa that included the *ghazal* poet Waliba ibn al-Hubab (d. 786), with whom he frequented the mosques until he became a master of Arabic. With his companion, the Iraqi musician Ibrahim al-Mawsili (d. 804), Abu l-Atahiya traveled to Baghdad to join the rich court of the caliph. A panegyric poem in praise of Caliph Muhammad ibn Mansur al-Mahdi (r. 775–785) earned him a place in the Abbasid court. There he encountered the slave woman named Utbah who became the literary love of his life for 20 years.

Utbah initially was the slave to Rasta, the daughter of a certain Abu l-Abbas and wife of Caliph al-Mahdi. Abu l-Atahiya fell in love with Utbah at first sight. One version of the love story placed the poet as seeing Utbah on horseback in the court of Caliph al-Mahdi, where she was surrounded by a retinue of servants. He approached her and from that moment forward pursued her and composed poetry for her, skillfully using the poetic tropes and techniques of the day. His efforts, however, would be in vain.

Utbah treated Abu l-Atahiya with contempt and did not want to be driven from the prince's household. When it appeared that the caliph was willing to give her in marriage to the poet, she conceived a stratagem to make it appear that the poet was not after her but only after money. She contrived to have al-Mahdi's finance minister offer a bribe to the poet to induce him to leave her alone. The official offered Abu l-Atahiya 100,000 coins without specifying whether they were to be in dirhams or dinars, the former a silver unit of currency, the latter a gold unit of currency worth at least 10 times the dirham. The ruse worked because the caliph concluded that the poet had been seduced more by money than Utbah's charms.

Abu l-Atahiya blamed the caliph for Utbah's rejection and took his revenge by composing

elegiac verses that could be interpreted negatively. Enraged, the caliph ordered him flogged and imprisoned. After al-Mahdi's death, Abu l-Atahiya's reputation was restored and he was summoned back to the court of al-Mahdi's successor, Harun al-Rashid (785–809) to compose *ghazals*. By this time, however, the poet had undergone a spiritual conversion and turned his talents to composing ascetic poetry, *zuhdiyyat*. These poems were essentially sermons in verse and spoke of the terrors of death from which no one, wealthy or poor, even the caliph, would escape.

Abu Nuwas   Abu Nuwas (d. 817), whose full name was al-Hasan ibn Hani al-Hakami, rivals Bashshar ibn Burd in being considered the finest of the Arabic "modern" poets, the *muhdathun*. Born in Iran of an Arab father and Persian mother, Abu Nuwas went to school in Basra, then moved to Kufa, where he studied poetry with Waliba ibn al-Hubab, just as Abu l-Atahiya had. Abu Nuwas moved to Baghdad to join the court, where the musician Ishaq al-Mawsili (767–850), the son of the aforementioned Ibrahim al-Mawsili, introduced the young poet to Caliph Harun al-Rashid. There Abu Nuwas worked and thrived during the caliphate of al-Rashid's heir, Caliph Muhammad ibn Harun al-Amin (r. 809–813). Abu Nuwas's erotic poetry celebrated the love of young boys and of slave women; while his *khamriyyat* praised wild drinking in taverns, revelry, and the delights of pleasure gardens. Abu Nuwas's *qasidas* do not begin with the traditional mourning over the abandonment of the hero's dwelling place, but rather with the abandonment of the wine tavern! Abu Nuwas was most innovative, however, in the poems he dedicated to hunting, describing in vivid language falcons, hounds, horses, and game. Although images of hunting are found in pre-Islamic Bedouin poetry, which he studied, Abu Nuwas was the first poet to convert the hunting poem into an independent genre.

His poetry, mostly sung by him and set to music, was widely praised. It is possible that he was a Murjiite Muslim who believed that in the afterlife a Muslim might suffer painful punishment but ultimately would be forgiven and live in glory with God and the prophet Muhammad. Abu Nuwas died soon after al-Amin was murdered in 813. Reports of the poet's death attributed it to poison by victims of his venomous tongue, to overdrinking in a tavern, or to the harsh vicissitudes of prison life when he was jailed.

The vast majority of Abu Nuwas's erotic poetry praises the beauty and sensuality of young boys. Yet in the court of Harun al-Rashid, Abu Nuwas met the beautiful, witty, educated slave woman Janan, who in keeping with the thematic conventions of Abbasid erotic poetry, rejected the attentions of her admirer and intentionally humiliated him. Janan complained, showered him with imprecations because of his unwanted attentions, but ultimately softened because of his extraordinary perseverance in love despite her disdain.

Umayyad Spain

POETIC GENRES

Muwashshaha   In Umayyad Córdoba a new Arabic poetic genre, known as *muwashshaha*, was said to have been invented by Muhammad ibn Mahmud al-Qabri (d. 911). The *muwashshaha* differs from the *qasida* in that it is a strophic poem, meaning that every line did not end in the same rhyme, but rather each series of lines (strophe) would follow a pattern of rhymes that was repeated throughout. Each strophe, in turn, was ended by an envoi (*kharja*). The language of the poem was Classical Arabic; however, the language of the *kharja* was often colloquial Arabic and, a very few cases a Romance language, giving rise to

scholarly speculation that the poetic genre may be Romance in origin. This is unlikely, however, given that the language of the poems is predominantly classical Arabic and the themes treated are the same as those of the medieval classical Arabic tradition: love poetry (*ghazal*) and panegyric (*madih*). Moreover, the *muwashshaha*, shares many characteristics with another early Islamic poetic genre, the *musammat* or *qasida simtiyya*, which was also stanzaic, having a fixed number of lines that rhymed with each other, followed by stanza closing lines that rhyme with each other. (The earliest surviving examples of this genre belong to the Abbasid poet Abu Nuwas.) As was much poetry of the Abbasid period, the *muwashshaha* was composed to be set to music. Composers of *muwashshaha*, called *washshah*, also wrote wine poetry (*khamriyyat*) and ascetic, mystical, and religious poetry (*zuhdiyyat*).

Zajal Another strophic form, the *zajal*, emerged in the 11th century and became popular in Spain; as the *muwashshaha* did, it quickly spread and was imitated elsewhere. The most famous poet of *zajal* was Abu Bakr Muhammad ibn Quzman (d. 1160) of Córdoba. The *zajal* usually was composed in the Andalusi Arabic dialect and later in Aljamiado, a hybrid Hispano-Arabic dialect written in an adapted Arabic script. Ibn Quzman flourished at a time when the conservative Berber Almoravids had consolidated their power in al-Andalus, and thus he composed panegyrics for the wealthy Arab religious and political aristocracy, in addition to writing love and wine poetry.

Poets of Umayyad Spain

Ibn Khafaja of Valencia The Valencian-born Abu Ishaq ibn Ibrahim ibn Abi l-Fath ibn Khafaja (d. 1139) was regarded as one of the greatest poets of his time, not only in al-Andalus, but in the Islamic East as well. Born into a wealthy family, he was an independent spirit who spurned invitations to become a court poet and dedicated himself to writing poetry about nature. His poetic passion for trees, lakes, ponds, and flowers earned him the nickname "the Gardener" (*al-Jannan*).

Ibn Zaydun of Córdoba Abu l-Walid Ahmad ibn Abdallah ibn Zaydun of Córdoba (d. 1070) lived through a period of political turmoil and transition in al-Andalus as the Umayyad caliphate weakened and splintered into the Petty Kingdoms. His embroilment in political intrigues of Córdoba was such that he was nicknamed "the leader of the Córdoban *fitna*" (political strife). In his career he served as a preacher in the Umayyad court and later served many of the so-called petty kings of Spain. He earned his living as a panegyrist to his successive patrons, but he achieved fame for his amorous and literary relationship with the poet Princess Wallada, daughter of the Abbasid caliph al-Mustakfi (r. 902–908). Their poetic exchanges reflect a stormy and torrid relationship, which ends when she leaves him for his archenemy the Umayyad vizier Ibn Abdus.

Mystical Poetry

Many Sufi mystics articulated their yearnings for God, spiritual progression along the mystical path, and mystical visions in poetic verse. The Andalusian mystic Ibn al-Arabi (d. 1240) is regarded among the greatest and most original mystics. His collection of mystical odes, *Tarjuman al-ashwaq*, may likewise be interpreted as love poetry dedicated to his beloved, Nizam. The allegorical odes of the Persian Sufi Ibn al-Farid (d. 1235) depicted a deep yearning for a personal relationship with the divine. This desire for God was described as

intoxication. Many pious poems were short and pithy. For instance, the blind Syrian poet Abu al Ala al-Maarri (d. 1057) wrote, "Make not, when you work a deed of shame, the scoundrel's plea, 'My forbears did the same.'" (al-Maarri. Available online. URL: www. humanistictexts.org/al_ma%27arri.htm.) Other poets, such as al-Mutanabbi (d. 965), wrote beautiful elegies. Panegyrics that praised the patron, the caliph's adventures, the caliph's heritage, and the caliphate often compared the earthly court to the heavenly paradise. The most talented poets united lofty subject with poetic grandeur.

Heroic Romance

Heroic romance is a narrative genre nearly as old and respected as poetry. Pre-Islamic bards would sing or recite the heroic exploits of their tribes. These epic romances, as did poetry, often recorded the exploits and adventures of real historical personalities, epic battles, tragic romances, and other monumental events, yet they embellished fact with elements of legend. The most singular works are the chivalric epics *Sirat Antar* (*The Romance of Antar*), a work comparable in stature to the *Song of Roland*; *Sirat al-amira Dhat al-Himma* (*The Romance of Princess Dhu al-Himma*); *Sirat Baybars* (*The Romance of Baybars*); and *Sirat Bani Hilal* (*The Romance of the Banu Hilal*); and the love story *Layla wa l-Majnun* (*Layla and the Madman*), a tragedy that would remind Western readers of Shakespeare's *Romeo and Juliet*.

SIRAT ANTAR

Portions of this anonymous chivalric epic romance date to the late eighth century; however, in its 12th-century version, the *Sirat Antar* it consisted of more than 10,000 lines of rhymed verse. The hero of the *Romance of Antar*

is the bastard son of a prominent member of the Arab tribe, the Banu Abs, and an enslaved African princess. The child is endowed from birth with superhuman physical strength and singlehandedly rescues the entire tribe during a raid by enemies. As a reward for his extraordinary bravery he is acknowledged by his father and made an honored member of the tribe, epitomizing the best of Arab masculine virtue. He falls in love with his cousin, the beautiful Arab princess Abla, and wants to marry her, but her father, Antar's uncle, demands that the hero successfully overcome a series of obstacles. The ensuing chivalric exploits take him to the battlefields of Syria, Iraq, Persia, the land of the Franks, and India, where we find the hero defeating Arab, Persian, and Indian kings and Byzantine and crusader knights.

DHU AL-HIMMA

In the prologue of the work *Dhu al-Himma* the author describes it as "the greatest history of the Arabs, and the Umayyad and Abbasid caliphs, comprising the history of the Arabs and their wars and their amazing conquests," thereby giving an idea of the scope of a chivalric saga that pits the forces of Islam against the Byzantine army. The epic centers upon the rivalry between two Arab tribes, the Banu Kilab and the Banu Sulaym, and their attempts to gain the favor of the Umayyad and subsequently Abbasid caliphs through their chivalric exploits in battles with the Byzantine Christians. The heroine of the romance, Dhu al-Himma, whose name means "the woman of noble purpose," is a princess of the Banu Kilab who is captured in a raid and raised by another tribe. While in captivity she develops Amazon-like powers, escapes and returns to her tribe, and persuades them to support the new Abbasid rulers. Although Dhu al-Himma marries her Arab cousin al-Harith, their child, Abd al-Wahhab, has African features as hero of the

Sirat Antar romance has. Abd al-Wahhab and his mother, Dhu al-Himma, are depicted as heroes playing crucial roles in the defeat of the Byzantine enemy.

SIRAT BANU HILAL

The composition of the epic romance, *Sirat Banu Hilal*, also known as *Taghribat Bani Hilal* (*The Western Migration of the Banu Hilal*) or *Sirat Abu Zayd al-Hilali* (*The Romance of Abu Zayd al-Hilali*), began sometime in the 11th century. It is based on the true events of the migration of the Banu Hilal (a tribe of Yemeni origin) from Egypt to Tunisia. When a famine ravished Fatimid Egypt during the 10th century, the leader of the Berber Zanata tribe in Tunisia seized the opportunity to rebel against the Fatimid caliph, al-Mustansir bi-Llah Abu Tamim ibn Ali al-Zahir (r. 1036–94). To regain control of the situation al-Mustansir dispatched the Banu Hilal tribe to Tunisia. The epic relates the story of their migration and heroic exploits of the tribal chief, Abu Zayd, who leads the Banu Hilal in victory against the rebel Berber Zanata.

SIRAT AL-SULTAN BAYBARS

Sirat al-Sultan Baybars, the Romance of Sultan Baybars, narrates the spectacular rise to power and exploits of the Mamluk sultan of Egypt and Syria al-Malik al-Zahir Rukun al-Din Baybars al-Bunduqdari (1223–77). Baybars's real life was indeed worthy of epic narration: Born a Kipchak Turk in Crimea, he was captured by Mongols at an early age and sold as a slave in Mamluk Syria. Sold again because his owner could not bear his ugly and imposing appearance, Baybars is bought by a Mamluk officer in Egypt, where he was stationed as a bodyguard of the Ayyubid ruler al-Salih al-Ayyub (1240–49). He fought heroically under the command of the Ayyub sultan Qutuz (d. 1260) against the crusaders and the Mongols. After the decisive defeat of the Mongols in the battle at the Palestinian town of Ayn Jalut in 1260, Baybars killed Sultan Qutuz and seized power, going on to win numerous battles against the crusaders. *The Romance of Sultan Baybars* remains tremendously popular today in Syria and Egypt, where it is performed by bards in cafes throughout those countries.

LAYLA AND MAJNUN

The precise origins of the Arabic romance *Layla and the Majnun* are unknown; however, references to real historical figures such as a governor of Medina who served in the late seventh to early eighth centuries situate the text in northern Arabia during the Umayyad period. The romance exists in various versions; each tells the tragic story of two star-crossed lovers, Qays ibn al-Mulawwa and his cousin, Layla. Separated by fate, Qays becomes crazed with love (*Majnun* means "madman") as he searches high and low to recover his true love.

In the most popular version of the romance Qays was a tribal prince, son of the great chieftain of the Banu Amir. Layla and Qays Majnun instantly fell in love as children sent to school under the tutelage of a learned master. Qays was intellectually so swift that he held a book in hand and could read it at once, speak words sweeter than the music of the lute, and demonstrate wit sharper than an arrow and wisdom more lustrous than a pearl. He was enraptured by the exquisite black-haired Layla and composed poems to her beauty and wit. He assumed the title of "madman" because he could not marry Layla, whose father had promised her in marriage to another man. After much wandering in the wilds and composing of exquisite poems that eventually reached Layla's hands, and after periods of lucidity in which the prince regained his sanity and acted with intelligence and magnificence with his friend Ibn Salam, the two lovers died side by side.

The tragedy and madness of Majnun's unfulfilled love portrayed in this heroic romance may be compared to the theme of the *udhri* poets of southern Arabia. *Layla and Majnun* was unrivaled as a heroic romance and was translated into many languages of the Islamic world, most notably Persian and Urdu.

Arabic Prose Literature

Arabic prose literature developed along with Islam's requirements in the eighth century for rulers to understand the events surrounding the beginnings of Islamic history and for scholars to preserve in meticulous fashion Muhammad's recitation of the Quran and his sayings or Hadith. Two major genres of historical writing, the *sira* (biography) and *tarikh* (historical chronicle), achieved prominence as Muslims sought to preserve the faithful memory of the beginning of Islam and its Prophet as part of universal history as well as the history of the peoples who were to form the Islamic world. Along with the establishment of the vast Islamic empire and the caliphate occurred the development of an extensive bureaucratic machine. The bureaucratic secretaries who had inheritated Sassanian protocol and business ethics wrote epistles (*risalas*) and instruction books combining practical and moral guidelines of government. Subsequently the *risala* was applied to writing treatises on a variety of subjects, covering literature, politics, society, and religion.

The writing of individual biographies or the biographies (*sira*) of a notable tribe evolved into the composition of biographical dictionaries preserving the biographical notices of peoples sharing the same profession or hailing from the same region. At the same time, the *sira* inspired autobiographical writing, some autonomous works, others in the form of lengthy prologues or appendices to other works. The Arabs also invented the genre of *adab*, referring to the "manners" or the sum knowledge of a topic, a profession, a social class, and so forth. Another literary genre, the *maqamat*, meaning "sessions," was spectacularly popular for the originality of its form and content, composed entirely in rhymed prose. Rhymed prose became the favored form in which authors composed two other popular genres: the beast fable and the frame tale.

RISALA

In its pre-Islamic origins a *risala* was a message, invariably delivered orally. However, toward the end of the Umayyad period and most especially under the impetus of the Abbasid caliphate, the *risala* was transformed from an oral message into a formal written genre, increasingly composed in ornate rhymed prose (*saj*) and sometimes containing poetic verse. Employing a letter framework in which the person addressed has requested the author to elucidate his thoughts upon a particular subject, the *risala* became a principal vehicle for the transmission of knowledge. The Umayyad caliph Abd al-Malik ibn Marwan (r. 685–705) wrote to a jurist of Medina, Urwa ibn al-Zubayr (d. c. 714), seeking information about the rise of Islam. The resulting epistles preserve precious information about the political institutions and worldview of the Umayyads.

Under the Abbasids the *risala* developed into a tool for the analysis of political, military, and social institutions and events and the exposition of one's personal thoughts and opinions on a given topic, as well as new and sometimes unconventional ideas. In these *risalas*, the person addressed is most often invented by the author, and thus the prologue explaining the motive for writing the text is a literary device that lends legitimacy to the author's opinions.

The *risala* was used to discuss all the major issues affecting Islamic society: philosophy,

theology, politics, law, society and social institutions, grammar, and literature. The famous Abbasid poet and prose writer Abu l-Ala al-Maarri addressed his *Risalat al-sahil wa l-shahij* (Epistle of the horse and the mule) to the governor of Aleppo. The lowly and unfortunate mule, blindfolded and forced constantly to draw water to fill a cistern while never being allowed to drink, suddenly begins to speak and seeks the intervention of more noble animals—the horse, the camel, and others—to call his plight to the attention of the governor of Syria. Some of the most eminent philosophers, such as Abu Yusuf Yaqub ibn Ishaq al-Kindi (d. 866) and Muhammad Abu Bakr ibn Zakariyya al-Razi (d. 935), used the epistle form to explain their philosophical systems of thought. In the 10th century, the Ismaili Brethren of Purity (Ikwan al-Safa) composed their *Rasail*, which comprised 52 epistles on "all the profound realities of the universe" and the "hidden meanings of Revelation and the Law" to guide their Shiite-Neoplatonist adepts.

Many *risalas* were indeed personal letters, some of a confessional, even autobiographical, nature. The 10th-century man of letters and philosopher Abu Hayyan al-Tawhidi revealed his most intimate thoughts, state of mind, and motivations in his *Risalat al-ulum* (*Epistle on the Sciences*). In a series of letters written to his son, a certain Abu Hilal al-Sabi discloses that premonitions of his impending death had prompted him to render a balance of his life, loves, and personal and professional temptations and foibles, which might help advise his son.

INSTRUCTION BOOKS

One of the earliest and best instruction books is attributed to a Persian writer who was executed in 757, Ibn al-Muqaffaa. Employed first in the service of the Umayyads and later of the Abbasids, he is credited as being the first to translate works from the Iranian and Indian literary heritage into Arabic prose. One example of a genre that Ibn al-Muqaffaa introduced from the Iranian literary heritage is the "mirror of princes," a manual of practical ethics addressed to princes and courtiers. His *al-Adab al-kabir* (The Great book of manners) was a book of maxims and wisdom sayings offering advice and instruction on the art of combining ethics with political survival. How could an ethical man thrive in a suspicious despot's court? How could one remain tranquil and keep a cool head when one's best friend suddenly started consorting with the enemy? The *al-Adab al-kabir* and another work, the *Kitab maarif* (*The Book of Knowledge*), preserve excerpts from the Persian *Khudaynama*, which relates the epic tales from the military, political, and social history of ancient, pre-Islamic Iran. An even more important mirror of princes, the *Risala fi l-Sahaba* (*Epistle on the Companions*), addresses itself to an unnamed caliph, thought to be al-Mansur, and reflects upon the political and social problems associated with his caliphate, such as the treatment of the military elite and the choice of high officers.

HISTORICAL CHRONICLES: *SIRA* AND *TARIKH*

The *sira* is an Islamic genre of literature that narrates the momentous historical events in the life of a person, community, or political dynasty. Precedents for this genre are found in the pre-Islamic histories of the battles of the Arabs (*ayyam al-Arab*) and the Persian tradition of dynastic chronicles, such as that translated from the Persian into Arabic by Ibn al-Muqaffaa. The *sira* of the prophet Muhammad, originally composed by Ibn Ishaq in the eighth century and redacted by Ibn Hisham nearly a century later, served as a model for later chronicles of kings and dynasties.

Tarikh, which literally means "history," is closely related to the *sira;* however, emphasis is placed on world history, the history of a particular region or empire, the history of events, and the great men, usually prophets and kings, who participated in them. Historical writing in the Islamic world was initially inseparable from religious studies, as authors strove to justify Islam's place in world history, best exemplified by Muhammad ibn Jarir al-Tabari's (d. 923) monumental *History of the Prophets and Kings* (*Tarikh al-anbiya wa l-muluk*) and Ahmad ibn Yahya al-Baladhuri's (d. 892) *Futuh al-Buldan* (*The History of the [Islamic] Conquests*). A 10th-century history of the world starting from creation, entitled *The Golden Meadows* (*Muruj al-Dhahab*), by the historian and traveler Abu l-Hasan Ali al-Masudi (d. 956), had an exceptionally delightful literary quality. From the 10th century onward, however, historical writing became more scientific and dissociated from religious lore, as is seen in the production of numerous local histories and histories of major cities from al-Andalus and the Maghrib in the far west to the Central Asian lands of Dar al-Islam. Among the most significant contributions are those of al-Miskawayh (d. 1030) of Iraq and Ibn Hayyan (d. 1076) of Córdoba and *The History of India* (*Tarikh al-Hind*) by the acclaimed Iranian scholar Abu Rayhan al-Biruni (d. 1050).

Muslim authors related the crusades from their point of view. The earliest historical account was written by Abu Yala ibn Asad al-Tamimi, known as Ibn al-Qalanisi (d. 1166) of Damascus. His *Dhayl al-Tarikh* (*Appendix to the History of Damascus*) preserves his firsthand experience of the First and Second Crusades. Izz al-Din ibn al-Athir (d. 1233) of Iraq includes eyewitness accounts of the Third and Fourth Crusades in his historical magnum opus, *Kamil al-tawarikh* (*The Complete History*), a global history of the Muslim peoples from pre-Islamic times until his own day. Jamal al-Din ibn al-

Wasil (d. 1298) was an officer in the Ayyubid and Mamluk armies, who wrote his *Mufarrij al-Kurub fi akhbar Bani Ayyub* ("The dissipator of anxieties concerning the history of the Ayyubids") to extol the feats of Saladin and his successors and is considered the most reliable source for the Fifth Crusade.

Special mention must be made of Abu l-Faraj al-Isfahani's (d. 967) magnum opus on the history of Arabic music from pre-Islamic times to the 10th century, *Kitab al-aghani* (*The Book of Songs*). At the behest of the Abbasid caliph Harun al-Rashid, Abu l-Faraj compiled and classified the select music of famous singers and the poets for whom they composed music. Contributions included those of Ibrahim al-Mawsili, Ismail ibn Jami, Fulayh ibn al-Awra, among others. *The Book of Songs* was expanded under the patronage of subsequent Abbasid caliphs. Abu l-Faraj provides precious biographical accounts of poets and songwriters, details about the life and times of ancient Arab tribes from which the poets hailed, and vivid accounts of court life and the musicians and singers in the Umayyad and Abbasid courts.

BIOGRAPHICAL DICTIONARIES

The chain of learning (*isnad*) characteristic of the study of the Hadith of the prophet Muhammad and the traditions of his companions required that each link be firm, reliable, verifiable, and connected in unbroken integrity to the one before and the one after. This need to verify the chain of transmission led to a unique type of Islamic literary genre called the biographical dictionary. In the collection of the Hadiths it was imperative to know who had transmitted each story or saying and from whom he had learned it, in order to verify its authenticity. Transmission was required to be continuous and each item transmitted both true and reliable. Legal scholars, physicians, Sufi masters, and local luminaries, both men

and women, were listed in biographical dictionaries, making them a "Who's Who" for a particular city or region.

In the 11th century al-Khatib al-Baghdadi wrote an important biographical dictionary for the city of Baghdad. Others wrote for Damascus, Cairo, al-Andalus, and the Maghrib. Especially ambitious authors attempted biographical dictionaries of all Islamic history. Ahmad ibn Khallikan (d. 1282) recorded the biographies of rulers, ministers, poets, and religious scholars in his famous *Wafayat al-Ayan* (*Obituaries of Eminent Men*).

Modern readers in search of intimate details about a person's life may be somewhat disappointed, since most biographical dictionary entries are characteristically terse, as their aim is to provide the information most relevant to their intended scholarly audience. Medieval readers wanted to know the person's full name, dates of birth and death, professions exercised; the subjects, books, or Hadiths he or she studied and under which scholars; which *ijazas* (diplomas) he received, the persons to whom she or he in turn transmitted this knowledge; and the books or poetry that she or he composed. Excerpts of the latter might be included in the text, especially if the person was a famous poet. The main objective of the entries about scholars was to determine their intellectual genealogy. The biographical entry on a ruler, politician, or person caught up in important political or social events might detail some of the pertinent descriptions of these events.

Often an exception to this rule of brevity could be found in the biographical dictionaries dedicated to Sufi mystics or "saints," a subgenre known as *manaqib*. In these hagiographies the compiler provided fascinating anecdotes about the individual's personal life and inner thoughts, vivid accounts of the events leading up to his or her spiritual conversion, and the miracles or other prodigies performed by these persons.

AUTOBIOGRAPHICAL WRITING

Autobiography constitutes one of the most significant and enduring forms of the Arabic literary production. The unbroken 1,000-year history of Arabic autobiographical writing, beginning in the ninth century, proves the fallacy of Western origins of the genre. Arabic autobiography, often called *al-sira al-dhatyya* (personal history) or *tarjama nafsiyya* (interpretation of the self) by its authors, is related to historical and biographical writing. Indeed, many biographers drew upon circulating autobiographies in the compilation of their dictionaries.

Authors had many motivations for writing the story of their lives: The defense of one's reputation from calumny prompted Hunayn ibn Ishaq (d. 873), court physician to Caliph al-Mutawakkil Ala Allah Jafar ibn al-Mutasim (r. 821–861) and eminent translator of many important Greek scientific works (including those of Hippocrates and Galen), to write about his "trials and tribulations," which appear as a notice in the biographical dictionary of Ibn Abi Usaybia (d. 1270) entitled *Uyun al-anba fi tabaqat al-atibba* ("Sources of News on the Biographies of Doctors"). Abdallah ibn Buluggin, the last Zirid Berber prince of Granada, whom the Almoravids exiled to Morocco in 1090, composed his autobiography, *Kitab al-Tibyan* (*The Book of Memoirs*), as part of a larger history of his family's political dynasty. An overwhelming majority of these autobiographies were personal accounts of spiritual or mystical progress, such as the ninth-century Iraqi al-Muhasibi's *Kitab al-Nasiih* (*The Book of Advice*), which served as a model for later authors. Many prominent historians, such as Imad al-Din al-Isfahani (d. 1201), personal secretary to the Ayyubid sultan of Egypt, Saladin (Salah al-Din al-Ayyub) (d. 1193); the historian and court vizier Ibn al-Adim of Aleppo (d. 1262); and the great historian, protosociologist and philosopher Ibn Khaldun of Tunis (d. 1406),

wrote their autobiographies, as did famous philosophers and physicians, including al-Razi (Rhazes) (d. 935) and Ibn Sina (Avicenna) (d. 1037).

Philosophy and travel literature combined with autobiography in Usama Ibn Munqidh's (d. 1188) *Kitab al-Itibar* (The contemplation of experience). Daily life is depicted though the eyes of this Syrian fighter and nobleman working with Saladin against the crusaders. Philosophy also united with autobiography in al-Ghazali's (d. 1111) *al-Munqidh min al-dalal* (*The Deliverer from Error*). This dramatic account, which may be compared with Augustine's *Confessions*, describes the theologian's intellectual crises that propelled him toward mysticism. The Jewish scholar Samawal al-Maghribi (d. 1174) and the 15th-century Christian author Fray Anselmo Turmeda (also known as Abdallah Turjuman) wrote autobiographies of their conversion to Islam, which they appended to polemical treatises denouncing their former religions.

ADAB LITERATURE

Adab, from the Arabic word meaning "habit, behavioral norms, or manners" and usually translated as "belles-lettres," was a novel medieval literary form that served as the humanistic complement to the religious control of conduct, similar to the *sunna*, in which one's behavior is the external manifestation of the believer's heart. Therefore, the same ethical standards governed the selection of a police chief or court secretary and the resignation of one's personal urges to the will of God. By extension, *adab* came to be synonymous with urbanity, good manners, civility, and etiquette in all human activities, ranging from personal habits such as eating, drinking, and dressing, to ethical and social matters such as friendship, politics, war, and study. A further nuance to the meaning of *adab* was the idea of the sum of knowledge or the art of a profession, such the *adab* of the secretary (*katib*), orator (*khatib*), or judge (*qadi*). Up until the Umayyad period, the practitioner of *adab*, the *adib*, was a person who had acquired the sum of knowledge as defined by the Arabic tradition. In this sense, the *adib* could be thought of as a precursor to the "Renaissance man": His expertise consisted in the mastery of the pre-Islamic and early Muslim poets, the epic histories and battles of the Arabs (*ayyam al-Arab*), and the maxims and proverbs that encoded Bedouin ethics. Developments in the Abbasid period reflect Arab contact with Hellenistic practical philosophy and ethics, Iranian epic, Indian fable, and the traditions of other foreign cultures, seen mainly in the contributions of non-Arabs who had adopted the Arab and Islamic cultures, such al-Jahiz and Ibn al-Muqaffaa.

Adab Authors

Al-Jahiz (d. 869)   Al-Jahiz stands out as one of the earliest, best, and most prolific authors of *adab* literature. Of African origin, he was brought up in Basra, Iraq, then the center of Arabic culture, and enjoyed the patronage of the Abbadid caliph Abu Jafar ibn Harun al-Mamun (r. 813–833). He is the author of more than 30 books, in which he displays his mastery of both the Arabic literary heritage of poetry, maxims, proverbs, and epics and the literary traditions of the Iranian epic, Indian fable, and Greek philosophy. He excelled in the art of combining instruction with entertainment and moral commentary, covering themes such as love and friendship, envy and pride, hypocrisy and sincerity. In a particularly popular section of one of his numerous masterpieces, *Kitab al-bayan wa l-tabyin* (*The Book of Clarity and Clarification*), he describes the eloquence of ascetics and the equally memorable eloquence of the insane.

Another of his great works was his bestiary, *Kitab al-hayawan* (*The Book of Animals*). The bestiary consists of magnificently incompatible

subjects all mixed together in superb prose. Al-Jahiz moved effortlessly from hard observational science to legend, from zoology to mythology. Why is man the microcosm of the macrocosm? Why do babies cry? Why is fire hot? What is the psychology of the castrated eunuch? What unites the prostitute, lover, and pimp? That last question he answers in a disquisition called "On Singing Girls."

Kitab al-bukhala (*The Book of Misers*) presented a delightful set of characters to discuss the different categories of miserliness. Al-Jahiz belonged to the rationalist Mutazilite school. Though he maintained that God did not send anyone to hell, the sinner's inherent attraction to fire would ultimately make the sinner and fire unite in a single substance. Therefore the sinner would not suffer endless pain but rather *become* fire. This was either an idiosyncratic rational idea or irony.

Ibn Qutayba (d. 889) Ibn Qutayba was another luminary in the field of *adab*. He was born in Kufa into an Arabized family of Iranian origin. He was a renowned Sunni theologian, being a disciple of Ahmad ibn Hanbal (d. 855), the founder of the Hanbali school of law, as well as an Arabic philologist. The author of several *adab* compendia, he is perhaps best known for his encyclopedic collection entitled *Uyun al-akhbar* (*The Sources of History*). The *Uyun al-akhbar* is divided into 10 sections devoted to distinct topics such as government, war, friendship, food, and women. As did al-Jahiz, Ibn Qutayba believed that instruction was best served and most efficacious when simultaneously pleasing. Accordingly, he favored the use of lists, maxims, and pithy sayings designed to make his orthodox Sunni-inspired morals memorable to his audience. In this Ibu al-Qutayba differs from his two great literary predecessors Ibu al-Muqaffaa and al-Jahiz, whose style was characteristically ornate and bombastic.

Ibn Qutayba best represents the transition in the meaning of *adab* from the summation of general knowledge (cf. the humanities) to the specialized knowledge necessary for given offices and social functions. His *Adab al-katib* (*The Book of the Secretary*) exemplifies this trend, which later authors would imitate, in for instance, the *Adab al-wazir* (*The Book of the Vizier*), and the *Adab al-qadi* (*The Book of the Judge*). Ibn al-Qutayba also wrote several *adab* treatises on literary topics, including his famous poetic anthology *Kitab al-shir wa l-shuara* (*The Book of Poetry and Poets*), as well as on astronomy and religion. Regarding the latter, Ibn Qutayba departed from al-Jahiz in style as well as substance. For whereas al-Jahiz followed the Mutazili school, Ibu Qutayba's religious writings exemplify the return to orthodox Sunnism in accordance with the Abbasid ruler's growing disdain for Mutazilism as official state doctrine.

Ibn Abd Rabbihi (d. 940) The Spanish Muslim writer Ibn Abd Rabbihi, a noted poet in his own right, wrote *al-Iqd al-farid* (*The Unique Necklace*), a magnificent *adab* encyclopedia that drew upon materials from al-Jahiz and Ibn Qutayba. *Al-Iqd* is organized into 25 chapters, each named for a precious jewel and treating a different subject. The author covers an amazing variety of topics, for example, "How Kings Should Be Addressed," "Government," "War," "Religious Knowledge and the Principles of Good Conduct," "Music and Song," and "Women."

Ibn Hazm of Córdoba (d. 1064) The art and etiquette of love are powerfully explored in *Tawq al-hammama* (*The Ringed Dove*) by Ibn Hazm of Córdoba. Ibn Hazm, a poet, jurist, historian, theologian, and philosopher, is one of the most significant figures of medieval Islamic history. Ibn Hazm grew up in a harem, a background that may explain his interest in the psychology of women and his penchant for

erotic poetry. Ibn Hazm witnessed the downfall of the Cordovan caliphate and was a victim of the political turmoil leading up to it. A fervent defender of the Umayyad caliphate, he was imprisoned on several occasions. Disillusioned with politics, he retreated to Jativa and devoted himself to writing of poetry and intellectual activities. *The Ringed Dove* explained, among other things, that lovers who humbly submitted to the beloved were not unmanly but rather fashionable and elegant.

Types of *Adab* Literature

Beast Fables   Here it is appropriate to mention the singular contribution of the Persian author Ibn al-Muqaffaa to the genre of *adab*. He wrote an Arabic version of a Middle Persian translation of an Indian set of fables of Bidpai called *Kalila wa Dimna*. This set of beast fables transmitted virtue and morality to the audience through the beautiful conceit of talking animals.

Books of Etiquette and Books of Anecdotes   Other important subgenres of *adab* were the books of etiquette and books of anecdotes, which described types of people or events. Books devoted to different types of people treated madmen, fools, gullible people, clever people, and lovers. One of the most famous event books was al-Tanukhi's (d. 994) *Deliverance after Distress* (*al-Faraj bad al-shidda*).

Partisans on both sides of sectarian disputes also resorted to *adab* literature, which they filled with religious anecdotes. The zealous Hanbali jurisconsult, teacher, and preacher of Baghdad, Ibn al-Jawzi, wrote an anti-Sufi book of anecdotes called *Talbis iblis* (*The Devil's Deceit*). Al-Yafii (d. 1367) wrote the pro-Sufi (*Garden of Fragrant Plants*).

Philosophy   *Adab* sometimes combined philosophy and theology. In *Kitab al-imta wa l-muanasa* (*The Book of Enjoyment and Conviviality*), the 10th-century author Abu Hayyan al-Tawhidi discusses free will, nature of the soul, and predestination in the course of 40 "nights" or gatherings devoted to the discussion of literary, philosophical, religious, grammatical, and other subjects. The Syrian poet al-Maarri (d.1057) wrote a set of conversations in heaven and hell with Arab poets. He called his erudite book *Risalat al-ghufran* (*The Epistle of Forgiveness*). The 10th-century philosophical encyclopedia written by the Brethren of Purity had a long discussion on the hierarchy of the created creatures, *"The Case of the Animals versus Man before the King of the Jinn."*

Maqama   An important medieval Arabic fictional genre, called the *maqama* (pl. *maqamat*) ("assembly"), was characterized by a hero who expresses himself eloquently in rhymed prose (*saj*) in the hope of personal gain. According to Ibn Qutayba, the hero was usually a Bedouin or a shabbily dressed person who would deliver his speeches before an aristocratic audience. Alternatively, if the audience was of the popular classes, the hero would be a popular storytelling preacher (*qass*). As the genre developed, the hero evolved into both a *qass* and a wandering rogue, who would travel from place to place attracting audiences that would pay him generously for the eloquent tales he told.

The Iraqi philologist Badi al-Zaman al-Hamadhani (d. 1008) is credited with fully developing the genre's structure and content. The narrative form of the *Maqamat al-Hamadhani* (*Assemblies of al-Hamadhani*) is exclusively rhymed prose, and there are in fact two heroes: the narrator, or *rawi*, who narrates to the author the adventures and eloquent speeches of the protagonist, a wandering confidence man and cheerful vagabond who sleeps, eats, and cleverly talks his way through life with hilarious, erudite verse, and rhymed prose. It should be noted that al-Hamadhani's epithet, *Badi al-Zaman*, the "Innovator of His Time," was conferred upon him in recogni-

Farewells of Abou Zayd and al-Harith before the return to Mecca. From al-Hariri's Maqamat *(Assemblies, or Entertaining dialogues)* Art Resource, NY.

tion of the innovations that he made in rhetorical style in Arabic literature. This new style, itself called *badi* ("innovative"), differed from earlier periods in its deliberate use of elaborate ornamental features and difficult and obscure vocabulary.

This new genre of literature and its ornate rhetorical style were imitated and transformed by numerous successors, the most important of whom was Abu Muhammad al-Qasim al-Hariri of Basra (d. 1052), whose *Maqamat* al-Hariri closely imitated the style and structure of his predecessor, but was infused with even more ornate language and verbal acrobatics. The audience for the *maqama* genre had to be intelligent and learned in order to appreciate the elaborate style and difficult language used to relate hilarious and ludicrous events. The juxtaposition made for humor and popularity of the style. The hero of al-Hariri's *Maqamat*, the wily Abou Zayd, is one of the most endearing characters of Arabic literature. Time and again we encounter him in disguise, employing his cunning and wit to gain a monetary prize from his unsuspecting victims. The plot always climaxes when Abou Zayd reveals his ruse—after pocketing the money—with rhymed prose such as as the following:

> O Thou who, deceived
> By a tale, hast believed
> A mirage to be truly a lake,
> > Though I ne'er had expected
> > my fraud undetected,
> Or doubtful my meaning to make!
> I confess that I lied
> When I said that my bride
> And my first-born were Barrah and Zeid;
> But guile is my part;
> And deception my art,
> And by these are my gains ever made.

> (Maqamat al-Hariri. Available online. URL: http://www.ebooksread.com/ authors-eng/warner/The-worlds-best-literature-ancient-and-modern-vol-2.887.shtml.)

The *maqama* was diffused to other Arabic-speaking areas of the Islamic world, such as al-Andalus and the Maghrib, where they were studied, commented upon, and imitated. So popular was the *maqama*, particularly of al-Hariri, that authors composed them in other languages as well, including Persian, of which the assemblies of Hamid al-Din al-Balki (d. 1156) is a prime example. As we have seen above, Sephardic Jews of Spain, such as Judah ben Shlomo ab Harizi (d. 1225) and Jacobo ben Eleazar (d. 13th century), translated the Arabic *maqama* literature into Hebrew and composed numerous *maqamat* in that language.

BEAST LITERATURE

Animal lore in Islam was well represented by such remarkable books as the Persian *Uses of Animals* (*Manafi al-hayawan*) by the

11th-century Syrian physician Ibn Bakhtisheu. A 13th-century example of the *Manafi* preserved in New York City's Pierpont Morgan Library described methods for creating medications compounded from the organs and bodily parts of many animals and included observations on their lives, habitats, and behavior. The elephant was said to be afraid of piglets, cocks, rams, mosquitoes, and mice. It so hated snakes that it would trample them to death. This way the elephant guarded its young from snakes. Deer also hated snakes and had carried mouthfuls of water to the snake holes to drive them out. Hunters cleverly outsmarted elephants by determining which tree the elephant leaned against in sleep at night by noting the great amount of dung found at the foot of the tree. The hunters then sawed that tree through to the middle so that when the elephant leaned against it at night for sleep, the tree would break, the elephant would fall, and the hunters could kill it.

There are notable similarities in the beliefs expressed by Arab, Persian, and European writers of bestiaries. In *The Uses of Animals* the mountain goat or ibex was said to drop itself from a huge height on a precipice, fall on its horns, restore its footing, and run off, unharmed. Likewise in English bestiaries the ibex or mountain goat could hurl itself from a mountain peak, leap huge distances, and preserve itself unhurt. Other remarkable beliefs that Eastern writers shared with European writers included that bears eat ants to cure illness, camels detest horses, dogs are faithful to their masters, and deer adore music and hear it when their ears are raised but are deaf to music when their ears are laid back. They also believed that the porcupine could throw its quills wherever it wished. Mice brilliantly stole eggs by teamwork: One mouse on its back would hold the egg in its paws while another would sled the egg holder away by pulling its tail. Teamwork in egg theft demonstrated rodent intelligence.

FRAME TALE

As we have seen from the discussions of Jewish and Christian literature, the frame tale, a literary device in which one overarching story incorporates many shorter, otherwise unrelated stories, is Indian in origin, as are many of the tales featuring animals. Its beginnings lie also in the Persian fables *Hazar afsana* (*The Thousand Tales*), which were translated into Arabic in the eighth century. Other Mesopotamian, Egyptian, Persian, and Arabic tales, including the Arabic cycle entitled *Kitab Sindibad* (*The Book of Sindbad*) were incorporated along with the *Hazar Afsana* into what would become *The Thousand and One Nights.* Far Eastern tales originating among the Turkic Mongols and Islamic countercrusade stories of Muslim heroism were appended to the stories in later centuries.

The Thousand and One Nights One of the best known Arabic literary compilations is the spectacular frame tale *The Thousand and One Nights.* The work cannot be attributed to a single author and is believed to be a compilation of stories stemming from several sources, including ancient Persian, Indian, and Arabian, and written in different periods and places. The thread that links the stories tells the story of Queen Scheherazade, who was condemned to death. She prevented her husband, the king of Samarkand, from killing her by telling 1,001 stories over 1,001 nights. Ultimately, the king was so entranced by her rhetoric and brilliance in tale telling that he relented, rescinded his death decree, and welcomed her back to life.

The power of Scheherazade's stories, as diffused through the translation into European languages since the 18th century, enabled them to endure through the centuries so that even today American children have heard of "Ali Baba and the Forty Thieves," "Sinbad the Sailor," and "Aladdin and His Magic Lamp."

Persian Literature in the Islamic World

Persian literature became world renowned after the Arab-Islamic invasions in 641. Persian culture influenced the court life of Abbasid and subsequent Persian rulers and many Persian government administrators perfected language and terminology in the cities in which they worked. Persian political power was restricted under the Seljuk Turks, who conquered the area in the 11th century, but Persian culture achieved new heights of excellence. Persian poetry, like Persian art, was decorative, ornamental, graceful, exquisite, intellectual, and passionate.

OMAR KHAYYAM (c. 1048–1131)

One of the greatest Persian poets was Omar Khayyam. Born in 11th-century Nishapur, this mathematician produced considerable scientific achievements that have been eclipsed by the popularity of his *Rubayyat*, a collection of epigrammatic verse quatrains. The *rubai* is a form of Persian poetry whose origins are in pre-Islamic times. It is readily identified by three basic elements: brevity, the use of a particular meter, and the use of a rhyme appropriate to its structure. Typically the rhyme scheme is AABA; however, in more elaborate versions the scheme may be extended to AABA, BBCB, CCDC, and so on. Omar Khayyam composed his famous quatrains during the Seljuk hegemony, which encouraged exquisite architecture, elegant textiles and pottery, new schools and universities, and poets, and poetry and exalted the position of the court poet. Yet his quatrains are somber and ascetic, even mystical in tone, reflecting upon the fickleness of life, and the ephemerality of its pleasures and expressing a regretful nostalgia and deep sorrow.

Three examples from the acclaimed translation of poet Edward Fitzgerald (d. 1888) follow:

Oh, threats of Hell and Hopes of Paradise!
To talk, one thing is certain, that life flies:
One thing is certain, and the rest is lies:
The flower that once has bloomed forever
    dies. (no. LXIII)

Then to this earthen bowl did I adjourn
My lip the secret well of life to learn;
And lip to lip it murmured "While you
    live, drink!
For once dead you never shall return."
    (no. XXXV)

The moving finger writes:
And having writ, moves on;
Nor all thy piety nor wit shall lure it back
    to cancel half a line
Nor all thy tears wash out a word of it.
    (no. LXXI)

(The Rubaiyat: http://etext.library.
    adelaide.edu.au/)

NIZAMI GANJAWI (B.C.E. 1140)

One of the most significant Persian authors whose literature was translated into Arabic and enriched Arabic literature was Nizami Ganjawi (b. c. 1140). Nizami lived in a culturally sophisticated Caucasian outpost town called Ganjeh, now in Azerbaijan. Later given the honorific title of "learned doctor," *hakim*, Nizami refused the position of court poet. Unlike the panegyrics of his time, Nizami's poetry celebrated the artists and engineers associated with his country. He emphasized the engineering feats of Farhad, for example, rather than the courage or chivalry of the traditional hero. Nizami's epics celebrated the military and amorous exploits of men, but they are outstanding in their depiction of heroines as strong, dependable, subtle, intelligent, beautiful, and passionate. In Nizami's work the women are as capable as the men in power. Although faithful, when appropriate, they are treacherous, deceitful,
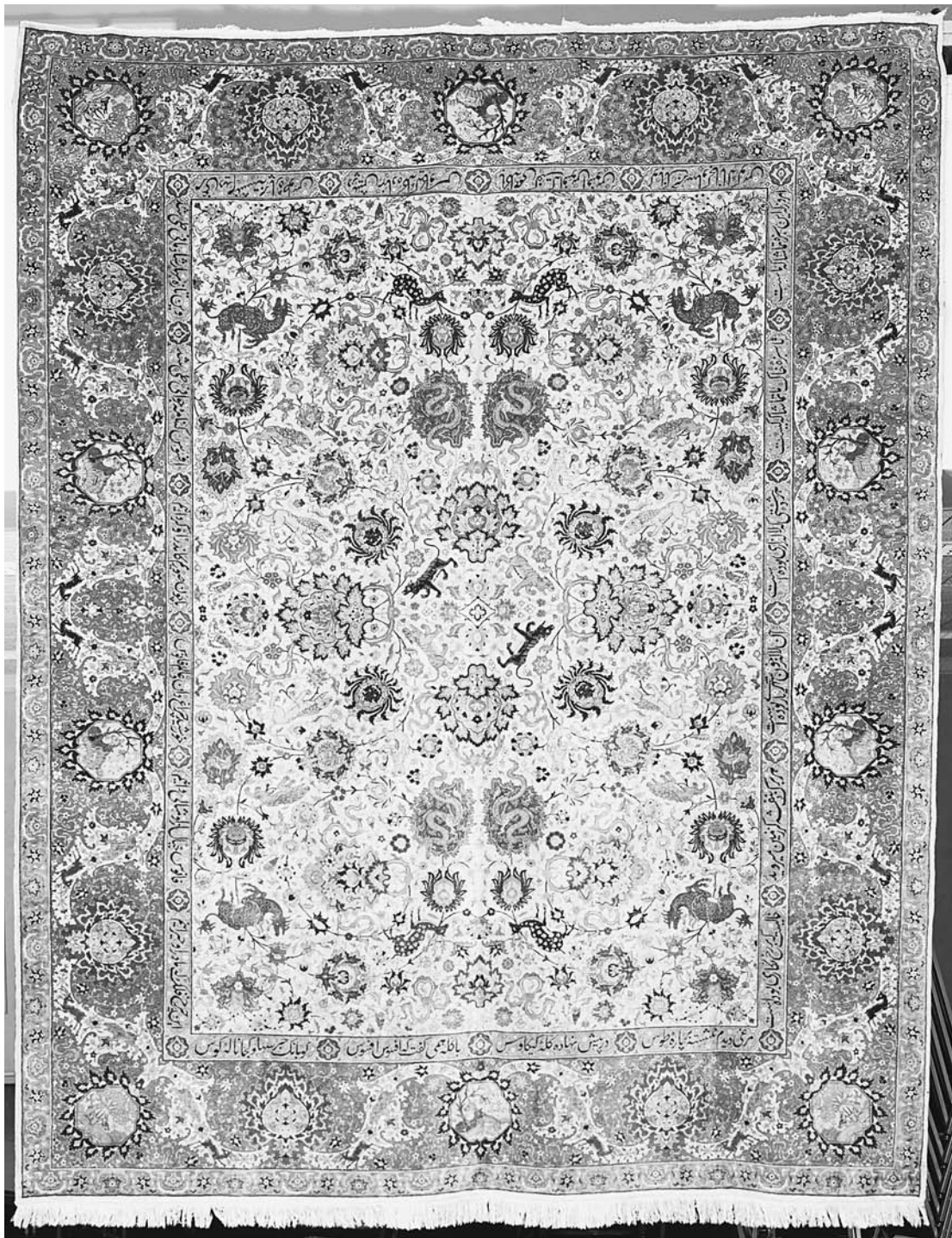
Tabriz hunt carpet. Border has excerpts from Omar Khayyam.   Art Resource, NY.

cantankerous, and ready to murder. Nizami is also unusual in his vivid portraits of ordinary people, artists and musicians as well as princes and kings.

Nizami gloried in extravagant splendor of princely gardens and courts and described with enthusiasm the jewels, perfumes, silks, and flamboyant colors of material life in this world just as he celebrated the natural world, history, mathematics, astronomy, medicine, and philosophy. The poet used elements of all of these disciplines in his romances. Five epic romances, collectively entitled *Khamseh* ("five"), in particular demonstrated Nizami's brilliance.

Khamseh One of the best literary understandings of the human mind and emotions, *Khamseh* consisted of five epic poems called *masnavis*. The five poems are *The Treasury of Mysteries*, *Khosrow and Shirin*, *Layla and Majnun*, *The Seven Princesses*, and *Alexander the Great*.

The Treasury of Mysteries *Treasury of Mysteries* is a philosophical-didactic poem with mystical overtones. The moral message is that of universal justice, as the verses urge the protection of the poor and the weak against the injustices of the wealthy and powerful. The transitory nature of life is the poet's warning to all.

Khosrow and Shirin Long ago in the land of Persia lived King Hormuzd the Great, called "the Light of the World's Justice," who had as his heir and son a magnificent young man named Khosrow called Parvis, "the victorious one." The crown prince excelled in all he did and was schooled in all learned disciplines: a wizard with sword, spear, and arrow, and a master of the art of war. He learned the mysteries of the stars and the subtle ways of man and beast from the counselor Bozorg Omid and learned that "the rights of the ruled must always rule." He also had a dear close friend, the painter Shapur, who not only was a spec-

tacular draftsman and colorist but could make a head appear to move and a bird's wing appear to fly. He had traveled widely and told Khosrow of many marvels, including a woman of wealth and property, the Armenian queen Mihin Banu. Queen Banu had an enchanting niece named Shirin, who would make a fine wife for the prince, and a magical black horse named Shabdiz. After many extraordinary adventures in which Shirin became queen of Armenia and Khosrow king of Persia, the two lovers joined in ecstatic passion and ultimately death. When Khosrow was assassinated in a dungeon, Shirin covered his bloody body with kisses and stabbed herself as he had been stabbed and the two united in death for eternity.

Layla and Majnun Ghanjawi's *Layla and Majnun* is a Persian translation of the Arabic romance about the Arab prince Qays who falls madly in love with his cousin, Layla, and becomes insane (*majnun*) when she is betrothed to another man. He wanders aimlessly, without eating or sleeping, subsisting only to compose love poetry to Layla. Starved and overcome with fever, he dies. Layla rushes to him, prostrates herself beside him, and dies of love at his side. Ghanjawi's version of the story ends on a note of hope: He introduces a dream sequence in which the two lovers are reunited in paradise, where they sit on sumptuous carpets embracing and drinking wine.

The Seven Princesses *The Seven Princesses* (*Haft Paykar*) is an allegory of the seven pleasures of love, the seven stages in human life, the seven stages of the mystical journey of the soul. The hero of the story is Bahram Gur, the object of the affection of seven princesses, each of whom attempts to win his love by casting a spell upon him. The story unfolds over seven days as he visits each one of them in their respective pavilions. The mystical and the erotic are tastefully blended as the hero enters

each dome-roofed pavilion, the dome representing celestial bodies and planets.

Alexander the Great   The magnificent story of Alexander the Great, *Iskandar-Nama*, told in two parts, portrays the Greek conqueror as a national hero of the Persian people. The first part, entitled *Sharaf-nama* (The Book of Honor), covers the story of Alexander from his birth through his unparalleled conquest of the world. The second part, *Iqbal-Nama* (*The Book of Wisdom*), transforms him into a philosopher and a prophet. Nizami depicts Alexander's quest for knowledge and his splendid collection of books as the epitome of the wise prophet and sage ruler.

FIRDAWSI (940–1020)

The 10th- to 11th-century poet and epic composer Mansur ibn Hasan Firdawsi wrote what has become Iran's national epic, *Shah-nameh* (*The Book of Kings*). At the beginning of his epic book, Firdawsi explained his philosophy and religious beliefs, which were steeped in Shii lore. He described a parable of doomed passengers aboard 70 ships carrying the 70 religions of mankind. He included devotees of African, Chinese, and European religions among the passengers. The largest, most beautiful ship carried the holy family of the Shia and, of course, on this ship, Firdawsi sailed. He was aware that all ships ultimately would founder in the stormy sea of eternity. Nevertheless, he gladly clutched the helping hands of the Prophet; his son-in-law and successor, Ali; and Ali's sons, Hassan and Huseyn.

Firdawsi described his inauspicious welcome to the court where he would create his masterpiece. Recently having arrived in Ghazna, he intruded on the three famous court poets of Sultan Mahmud (r. 998–1030). These venerable learned ones were disturbed by the young uninvited boorish stranger and refused to welcome Firdawsi until he passed the test of supplying the fourth line of a quatrain, a four-line poem that they had artfully devised with a terribly difficult rhyme. Firdawsi so brilliantly provided the necessary words that the poets were compelled to accept him and introduce him to the sultan, who commissioned him to write the *Shah-Nameh*. (Unfortunately for Firdawsi, his patron did not appreciate nor pay for the magnificent book until Firdawsi had died.)

The *Shah-Nameh* described the adventures and misadventures of historical figures and magical beings. From the introduction of evil into the world by demons to the patricidal villain named Zahhak who had two hungry snakes growing from his shoulders, the fabulous stories inspired some of Persia's most magnificent painting and exquisite books. A summary of four of these stories follows:

"Gayumarth, Shah of Iran"   Gayumarth, the legendary first shah of Iran, ruled an idyllic kingdom that was innocent and pure until a demon named Ahriman introduced evil into the world by plot and vicious intent. The angel Surush warned Gayumarth of impending trouble. In a huge battle against the Black Div (devil), son of Ahriman, the shah's own beloved son, Siyamak, was slain. In turn, Siyamak's son, Hushang, avenged his father's death by killing the Black Div. Hushang was assisted in his war against evil by an army of angels and animals. Leopards, lions, wolves, and deer had long been loyal retainers and fighters since the days of Gayumarth's kingdom atop Iran's loftiest mountain.

Meanwhile Zahhak murdered his father and became king in his place. Zahhak's hungry snakes required a daily diet of two young men's brains. Ultimately Zahhak's people revolted, led by the warrior Faridun, who chained the tyrant to the summit of Mount Damavand in order to prolong his agony.

At the court of Gayumarth the basic arts of life were discovered. Cultivation of food and the making of clothing from animal skins led to mutual reverence between animals and man. Hushang, who succeeded his father's 30-year reign, developed new arts such as mining, smithery, and animal husbandry. One day, wise and just Hushang threw a rock at a ferocious monster, which vanished. But the rock struck a boulder and sparks flared up. Hushang had discovered the divine gift of fire. He gathered his courtiers and animals to learn the potentialities of this divine gift, which all henceforth were to worship and celebrate in a feast called *sadeh*, a Zoroastrian festival still celebrated today.

Hushang's son, Tahmuras, improved upon the arts of his father and added weaving and many new arts that he learned not only from good spirits but from the *divs* (Farsi, "demons"). Tahmuras defeated Ahriman and the *divs* but spared the life of any demon who could teach him a new, valuable art. Tahmuras therefore learned the alphabet and the scripts for Greek, Arabic, Persian, Pahlavi, Sogdian, and Chinese.

"Zal, Son of Sam"   A shah of Iran named Zal was the father of the most renowned hero of the *Shah-Nameh*, Rustam. Zal was the son of Sam and born with hair as white as snow. This was considered a bad omen and Sam exposed the infant to die on a distant mountain. But Zal did not die. He was adopted by a gigantic, monstrous bird called the Simurgh, a phoenix, who raised Zal in her nest with her own feathered youngsters. Years later a caravan of merchants noticed the precocious naked boy with his snowy mane in the bird's nest. Ultimately Sam heard about the boy and rescued his son. The white-haired prince and his powerful Simurgh mother tearfully parted but she gave Zal magic feathers to use to summon her if he needed her help upon his return to the human kingdom.

"Rustam, Son of Zal"   The magi, Zoroastrian shamanic priests who presided over religious ceremonies and performed rituals and magic, are prominent characters in Ganjawi's saga. One of the magi told Zal about a remarkable descendant of the Persian king Faridun named Kay Qubad, who was endowed with grace, modesty, and excellence and had legal claim to the throne. Zal's son, Rustam, went to find this future king, who later became the founder of the Kayanian dynasty. Within one mile of Mount Alburz, Rustam came upon a magnificent garden with flowers, trees, and streams. A young man with his court of noblemen invited Rustam to drink a toast with them. Raising glasses in a toast "To the free," the young nobleman proved to be Kay Qubad and both rode off in order for him to take the throne of Iran, which he ruled well for 100 years.

One of the many adventures Rustam went through required him to fight a disguised *div* named Akvan who in the shape of an onager or wild ass had ravished the countryside, killing horses. Shah Kay Qubad understood that only a lionlike champion could overcome this ferocious enemy and invited Rustam to spur his horse, Rakhsh, to capture the onager and prevent it from further devastating the kingdom. Rustam slew the animal with his sword and carried the head to the shah.

"Adventures of Gushtasp and Sarkad" Shah Luhrasp disliked his son, Gushtasp, who left home for Rum in Turkey to seek his fortune. Gushtasp became a mighty warrior and huntsman. When the emperor of Rum set a series of trials for all who wished the hand of his magnificent daughter, Gushtasp, earned her love. Later he slew the horrid dragon of Mount Saqila so that his good friend could join the family by marrying yet another daughter of the emperor.

Persiflage and perfidy intruded upon the most harmonious royal courts. A court musician named Sarkad jealously guarded his position as

chief singer by assuring that the shah would hear no professional singer's voice but his own. Shah Khusraw Parviz adored fine singing and rewarded it generously. An excellent musician named Barbad bribed a royal gardener to allow him to perch in a tree under which the shah was accustomed to picnic with his court. After a delectable meal was set, the concealed musician Barbad began to sing so rapturously that the shah offered to reward the man regaling his senses by stuffing his mouth with precious jewels and pearls. Barbad with his stringed instrument gracefully slid down from the tree and ultimately was appointed court musician in place of his jealous rival.

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10

MUSIC AND DANCE

Music and literature were closely related in the sacred and secular songs of medieval Christians, Jews, and Muslims. Christian *troubadours*, *trouveres*, and *minnesingers* had their Jewish counterparts. Rhythms and instruments of the Muslim troubadour singers and court musicians found their way into the courtly music of the Christian realms of Spain and across the Pyrenees. Music in the theater was important in the earliest plays derived from the church liturgy and the antiphonal singing within the church. Likewise, music was an important element in Jewish liturgical and pious festival celebrations, and it was indispensable in fomenting religious ecstasy among Muslim Sufi mystics. Muslim and Christian military music had its marching songs, its rhythmic battle cries, and its songs to stimulate courage and victory. Hunting music was played on hunting horns from the moment the first hounds were uncoupled, to the horns urging both dogs and hunters to the kill, to the rhythmic presentation of meat in the banquet hall. All three communities lauded the therapeutic and medicinal properties of music: Banquet music was specifically created to stimulate good digestion while aesthetically pleasing musical tastes of the banqueters. Music in health spas was contrived to counteract the negative effects of disease or injury by utilizing rhythms associated with the patient's bodily type, determined by the *four temperaments* of humankind, the sanguine, the phlegmatic, the choleric, and the melancholic.

Dance was associated with music as an extension of musical rhythm by bodily movement for physical exercise, for refining ability to elegantly move through space, for pleasure and entertainment, for integrating exquisite movements of the human body with animal choreography, as in horse ballets, and for demonstrating education and social grace. Whoever did not know the current courtly dances was assumed to be ill with lumbago or gout or thought to be an imposter or spy. This chapter explores the exhilarating history of music and dance among medieval Christians, Jews, and Muslims.

CHRISTIAN MUSIC AND DANCE

Church Music

A seventh-century man who never could sing suddenly sang the sweetest, most inspirational, elegant songs. If this song-making brilliance of the earlier mute, unlettered herdsman named Caedmon (d. c. 679) truly was a miracle, then he who always had exited in shame from the beer halls whenever the harp was passed to him for singing would generate intellectual excellence, ecclesiastical renown, and cold cash to the monastery of Whitby. Abbess Hilda (d. 680), leader of the seventh-century coeducational monastery, carefully reviewed the evidence of transformation of the once ignorant man to the most spectacular poet in the English language. Abbess Hilda invited Caedmon to leave his worldly life to join the Whitby spiritual community as a monk. Thereafter the monastery joyously resounded with his songs and poems for the multitudes.

This story of the first Anglo-Saxon poet was transmitted by the Venerable Bede, himself a monk of the monastery at Jarrow, near Whitby, in his book the *Ecclesiastical History of the English People*, written in Latin, *Historia Ecclesiastica Gentis Anglorum*. Completed in the year 731, this tale reminds us of the all-pervasive power of medieval music. Not knowing how to make music was a serious social disability. Music was one of the mathematical arts of the seven liberal arts. Grammar, rhetoric, and logic composed

the literary *trivium* while the mathematical and scientific studies of arithmetic, geometry, astronomy, and music were the *quadrivium* of the customary university curriculum. But even the unlearned could sing inspirationally to praise God. Song expressed sanctity.

Church music pervaded all aspects of ecclesiastical life. Though some of the greatest medieval ecclesiastical musical monuments were *masses*, these exquisite, formulaic praises of God were not as common as the stunning range of musical consecrations caused by the requirements to pray every three hours. Most secular people did not have the leisure to pray eight times daily. But professional churchmen and churchwomen who consecrated their lives to prayer such as the monks, nuns, friars, priests, and ecclesiastical figures supported by the Christian Church literally performed their work as prayer, and for many, prayer was their work. They performed the work of God, the *opus dei*, celebrating *the divine office*. The eight canonical hours into which the 24-hour day was separated for the Christian divine office were *matins*, *lauds*, *prime*, *terce*, *sext*, *nones*, *vespers*, and *compline*. Each hour's devotions consisted of several specific *psalms*, *canticles*, hymns, readings, *antiphons* (short scriptural texts sung by alternating pairs of choruses in a church or monastic chapel), and a short prayer called a *collect*, consisting of an invocation to God, a petition, and a concluding celebration of divine glory.

Gregorian chant was one of the four musical dialects of the church; the others were the *Ambrosian*, *Gallican*, and *Mozarabic chants*, *Gregorian chant*, or *plainsong*, contained formulaic configurations of musical tones called *church modes*, or scales, with repetitive, rhythmic musical patterns.

MUSIC THEORY AND WORLD ORDER

Such comprehensive celebration of music had its origins in theories of the world enunciated by such great sixth-century philosophers as Boethius of Rome, the Roman senator Cassiodorus, and Theodoricus de Campo (14th century). The order of the world (Latin, *ordo mundi*) was God's creation of a blessed interrelatedness of all created things. God's divine plan for perfect order in the universe was expressed in the *macrocosm*, the totality of creation consisting of four essential elements, earth, air, fire, and water, and their four essential contraries, hot, cold, moist, and dry. These qualities were reflected proportionally in the human being, the creation in small, the *microcosm*, whose disease fevers, menstrual cycles, and pulse music illustrated and imitated celestial harmonies in the healthy physique. Boethius, drawing on the works of earlier Greek musical theorists, explicated the ideas of the *ordo mundi* in his famous treatise *On Musical Theory* (*De Institutione musica*) in which he distinguished among the three classes of music.

Demonstrating perfect musical and mathematical order as well as the interconnectedness of creation, Boethius's first music was *musica mundana* (Latin, "world music"), the music of the celestial spheres. Planetary patterns were connected with the rhythms of the zodiac. This music of the spheres was intimately connected with the harmonies of the body in Boethius's second classification, *musica humana*. Periodic fevers, rhythms of the human pulse, male and female hormonal rhythms, and the many identifiable patterns of breathing and heartbeat were the constituents of human music. The only class of music actually heard by human ears was the last, *musica instrumentis*, music played on instruments or sung by the mortal voice.

Boethius, counselor to the Roman emperor Theoderic the Great (d. 526), was jailed for a false accusation of treachery and executed in 524. He was known for his musical studies and his influential book called the *Consolation of Philosophy* (*Consolatio Philosophiae*), which celebrated

the unreliability and inscrutability of earthly fortune, and the human fall from prosperity to misery in tragedy. It was translated several times including by King Alfred of Wessex (d. 899), Geoffrey Chaucer, and Jean de Meun (d. 1305), author of the romance *Roman de la Rose*.

In the 14th century Theodoricos de Campo created another class of music based upon the Boethian *three classes*. Theodoricos's *four classes of music* included *musica mundana*, the harmony of the universe, and *musica humana*, the human bodily harmonies and soul rhythms. *Musica vocalis* pertained to animal and natural voices such as rushing water, clapping thunder, creaking trees in wind, and the sounds of the four winds (the rough north wind Boreas, the south wind Notus, the east wind called Euros or Argestes, and the mild west wind called Zephyr or Zephyrus, whose sweet breath inspired Chaucer's men and women to go on pilgrimages). The fourth class of music was *musica artificialis*, human vocal and instrumental sound.

The distinct musical forms also were thought associated with the *four seasons*, spring, summer, fall, and winter; with the *four stages of life*, infancy, youth, prime, and old age; along with the *four temperaments*, sanguine, choleric, phlegmatic, and melancholic, produced by the *four humors*, blood; yellow bile, or choler; phlegm; and black bile, or melancholia. These harmonies were represented in *cosmological diagrams*, circular designs demonstrating the world's harmonious unities.

Music theory. A woodcut from Theorica musicae *(1492), by Franchino Gaffurio, showing experiments to establish the mathematical relationships between musical intervals.*   [Ency Renaissance p 331. No credit listed.]

THE CHURCH MASS

The *mass* was the liturgical celebration of Christ's Last Supper, or *Eucharist*, and the Crucifixion. The Last Supper was Christ's celebration in Jerusalem of the Jewish Passover, or Pesach meal, the seder, with his Twelve Apostles, foreshadowing his betrayal. During that festive meal, Jesus Christ consecrated the bread and wine, thereby initiating the first communion and the first *Eucharist*. The Eucharist in the Middle Ages was the major act of Christian thanksgiving in which the bread or wafer represented the body of Jesus Christ and the wine his blood by the process of *transubstantiation*, the theological doctrine that during the consecration in celebrating the Eucharist, the bread and wine actually were converted to Christ's body and blood. Transubstantiation in music was thought to be a *stimulus amorus*, Latin for "stimulation to love and veneration," as were the musical portraits of Jesus Christ's execution on the cross at Calvary, his crucifixion.

The word *mass* derived from the concluding benediction meaning, "Go; the congregation is dismissed," *ite missa est congregation*. Structurally, the mass consisted of the *proper*, the varying elements, and the *ordinary*, the constant elements. The mass sections, followed by the code letter *P* for "proper" and the constant elements *O* for "ordinary," are as follows: *introit* (P), *kyrie* (O), *gloria* (P), *gradual* (P), *alleluia* (P) or *tract* (P), *credo* (O), *offertory* (P), *sanctus* (O), *agnus dei* (O), *communion* (O), *ite missa est* or *benedictus* (O).

The *introit* was part of the proper, the ornate antiphonal first chant of the mass. *Kyrie*, from the Greek meaning "O Lord!" was a triple supplication to God sung three times as the first element of the ordinary of the mass, at the end of canonical hours, and elsewhere in the liturgy. The common chant phrase *Kyrie eleison*, *Christe eleison*, *Kyrie eleison* meant "Lord have mercy; Christ have mercy; Lord have mercy."

After the *kyrie* of the mass on certain feast days, *hymns* celebrating God were sung, such as the sublime *gloria in excelsis deo* (Latin, "glory to God on high"). This hymn, called the *angelic hymn*, was part of the *greater doxology*: the formulaic spoken or sung praise of God's glory dedicated to the *Holy Trinity*, God as Father, Son, and Holy Ghost. The *greater doxology* was in contrast to the *lesser doxology* with the formula *gloria patri* (Latin, "glory to the Father"), the beginning of the praises of the three members of the Trinity, *gloria patri et filio et spiritu sancto*, often ending hymns during the divine office. The *gloria* is part of the mass proper.

The *gradual*, also part of the *proper*, has its title derived from the Latin *gradus*, "step." This melodically florid responsorial chant originally was sung from the steps of the *ambo*, the pulpit in the center aisle of a church or cathedral from which the gospel lesson was read. The text taken mostly from the *psalms*, it was called the *responsorium gradual*.

The next part of the proper was the *alleluia* or the *tract*. Exultant music, it often contained *melismas*, musically fancy, emotionally expressive vocal elaborations of the single-syllable text in Gregorian chant and 13th-century polyphony. *Melismas* contrasted to the so-called syllabic style. The *jubilus* was a long exuberant *melisma* sung to the final *a* of an *alleluia*.

The liturgical *tract* was the *chant* sung or recited at mass on certain penitential days in place of the *alleluia*. Originally it was the psalm chanted after the second lesson, later superseded by the *alleluia*, though preserved on days of penitence and mourning. Differing from the *gradual*, the *tract* was chanted without a response. Some say the origin of the word was the Latin *tractim*, meaning "straight through," while others maintain it derived from the Greek word for "train" or "series," denoting a typical tune joining several parts of a hymn. The *tract* was sung on the first Sunday in Lent and on Palm Sunday and was usually said on Sundays between *Septuagesima* (Latin, "70th"), the 70 days beginning with the third Sunday before Lent and ending with the Saturday before Easter.

Next in order was the *credo* (Latin, "I believe"). A short, concise, formal statement of the fundamental dogmas of Christianity, the *credo* often was followed by the *offertory*. The credo would include the *Apostles' Creed*, the short statement of basic Christian beliefs thought originally formulated by the Twelve Apostles. Liturgically important in *baptism*, the creed also was said before *matins* and *prime* and after *compline*. The *offertory*, part of a proper of the mass, consisted of the priest's offering gifts of bread and wine as part of the Christian *Eucharist* ceremony. Or it was a donation of money provided by parishioners at mass for use by the clergy for themselves and for the poor and the sick.

The *sanctus* was the fourth element or the ordinary of the mass. The words in Latin *sanctus*, *sanctus*, *sanctus*, . . . *pleni sunt caeli et terra*,

meaning "Holy Holy Holy, heaven and Earth are filled," were followed by *benedictus qui venit*, meaning "He is blessed who comes in God's name." *Agnes Dei* (Latin, "Lamb of God") was a section of the ordinary of the mass usually sung three times after the *consecration* and before *communion*. The Lamb of God was the graphic representation of the eschatological triumph of Christ according to the vision of the Apocalypse in the Book of Revelation 5:6 and John 1:29. *Communion*, also part of the ordinary, was the culminating rite of the mass, which realized spiritual union between a Christian and Christ in the celebration of the *Eucharist*. The eating of the spiritual food of souls—"He that eats me, the same also shall live by me"—(cf.: John 6:55–57) represents one of the seven sacraments of the Christian church. These seven sacraments were acts conferring Christian grace: *baptism, communion, confirmation, penitence (confession), extreme unction, holy orders* and *matrimony*.

The final element of the mass was the *ite missa est*, or the *benedictus*, also part of the ordinary, from the Latin *Benedictus qui venit*, "He is blessed who comes in the name of the Lord."

GREGORIAN CHANT

Of the four musical dialects of Western church music, one of the most familiar to modern ears is *Gregorian chant*, though the other three are equally fascinating, *Ambrosian chant*, *Gallican chant*, and *Mozarabic or Visigothic chant*. *Gregorian chant* was Roman liturgical *plainsong* or *chant*, traditionally thought arranged and codified in the seventh century under Pope Gregory I. *Plainsong*, from Latin *planus cantus*, "flat or level song," was the 13th-century name for monophonic, vocal, rhythmical free melodies. A short phrase or melody for singing psalms and canticles in public worship, *plainsong* had a long *reciting note* to which an indefinite number of syllables were sung, followed by a rhythmi-

cal *cadence*. Musical intoning was *single chant* when sung to one verse of a psalm, consisting of two strains of three and four bars, each beginning with a *reciting note*. *Double chant* was twice the length of a *single chant* and sung to two verses.

Plainsong was important for Christian *psalmody*. In the liturgy, songs were sung in one of three ways. Straight choral singing of the song was called *direct psalmody*. Alternation between chorus and soloist was called *responsorial singing*. Alternating between two choirs was *antiphonal singing*. *Psalmody* was descended from Hebrew *cantillation*, which was a solo chanting, musical recitation intoned in synagogues for prayers and Bible readings.

A *psalm* was a sacred song or hymn sung in private devotion during one of the eight *canonical hours* or in public prayer. Psalms also referred to the Old Testament *Psalms of David*. A *psalter* was a psalm book used both in church and in private prayer. A practical prayer book used during the *canonical hours*, it was a less comprehensive prayer text than a *breviary*, customarily used by the clergy, but for some patrons was as richly illuminated as the most sumptuous *books of hours*.

NOTRE DAME SCHOOL AND *ARS ANTIQUA*

The Notre Dame school was the spectacular 12th- and 13th-century center for church music at the Cathedral of Paris, Notre Dame. The school was important for its experiments in *counterpoint*, instrumental and vocal *polyphony* in which several separate instrumental or human voices sang at the same time in several distinct voices or parts, usually each with its own text, all simultaneously performed. The music was arranged to emphasize the importance of each part's melodic line. The conjunction of all intertwining musical voices produced dazzling sound. Composers created extravagant embel-

lishments upon a single fixed melody, the *cantus firmus*, the base of the polyphonic composition to which voices were added in counterpoint.

The French great masters Leonin (d. c. 1201) and Perotin (c. 1160–1240) experimented with rhythm and created exquisite examples of *organum* and *motet*. The *organum* was an early type of polyphonic music that had been described in a famous ninth-century music book called *Musica enchiriadis*. Four types of *organum* evolved. The *parallel organum* during the ninth and 10th centuries developed into the *free organum* during the 11th and 12th centuries, then the *melismatic organum*, in the 12th century, culminating in the 13th-century *measured organum*. The best sources for the Notre Dame school compositions were the manuscripts of Montpellier, Bamberg, and Huelgas. Successors to Leonin, Perotin, and their contemporaries contemptuously referred to them as practitioners of the old art, the *ars antiqua*.

ARS NOVA

The new musical art of the 14th century, calling itself *ars nova* (Latin, "new art"), was a reaction against the old *ars antiqua*. The French musical theorist Philipe de Vitry (d. 1361) in 1325 wrote of the bold innovations of his contemporaries in his important musical theory text, *Ars nova*. In it he described the *ars nova* as characterized by brilliant polyphonic musical compositions, bravura performance, and precise notation, particularly in Italy and France. Poet composers also were mathematical experimenters. The luminary Guillaume de Machaut (c. 1300–77) created his spectacular *Mass of Notre Dame* and exquisite, complex, sometimes bawdy, secular songs. Giovanni da Cascia (active in the first half of the 14th century) and Jacobo da Bologna (d. after 1378), as did Machaut, wrote music incorporating harmonically interesting, bold dissonances, rhythmic com-

plexities, audacious syncopation and beat displacement, and intellectually adventurous, rhapsodic melodies. They wrote ballads, *rondeaux*, beginning and ending with a bipartite refrain, and *virelais*, a popular song and dance form with a recurring refrain.

Musical Modes and Notations

MUSICAL MODES

Musical modes pertained to rhythm or tone. Repetitive rhythmic musical patterns were named after classical literary verse patterns. The *trochaic mode* consisted of a phrase of two syllables, the first stressed and the following unstressed. An example is the rhythm of the magnificent hymn called *Pange lingua* (Latin, "Sing, tongue"). One famous Latin hymn by that name was composed by Venantius Fortunatus in the sixth century. Another version was composed by the great theologian Saint Thomas Aquinas in the 13th century using the first line and trochaic meter of the Venantius hymn and embellishing them magnificently. The *iambic* meter consisted of a short followed by a long beat. The *dactylic* was the poetic meter consisting of a long beat followed by two short beats. Its opposite was the *anapestic*, two short beats followed by a long. The *spondaic* consisted of two adjacent long beats often used for elegies, funeral poems, and to signify conclusion, literally, the end. The *tribrachic* was a metrical mode consisting of phrases with three short syllables. All of these were typical of early mensural music developed in the 13th century in which every note had a strictly determined rhythmic value. Circa 1260 the German composer Franco of Cologne codified this system of musical time using written mensural notations in his treatise *Ars cantus mensurabilis* (*The Art of Measurable Song*).

Formulaic configurations of musical tones existed in Gregorian chant, specifically octave segments of the C-major scale. The range of tones, the *ambitus*, was an interval ranging from a fourth, as in a simple *antiphon*, to an octave or more, as in *graduals* and *alleluias*. The center tone was called the *finalis*; it was the tone upon which the melody ended. There were six *finalis* notes: D, E, F, G, A, and C.

Two subgroups of six modes were called the *authentic* and the *plagal*. In the *authentic* mode called *Dorian* the finalis was the note D. *Phrygian* had the *finalis* E; *Lydian*, G; *Aeolian* had the *finalis* A; *Ionian*, the *finalis* C. The *plagal* subgroups added the prefix *hypo-* to each of the six modes, as in *Hypo-Dorian*, *Hypo-Phrygian*, and *Hypo-Lydian*. In the *plagal* mode, the ambitus or range began with the fourth below and extended to the fifth above. *Ambrosian chant*, that elegantly florid liturgical chant established in the fourth century by Saint Ambrose, bishop of Milan, omitted *plagal modes* of *Gregorian chant*, as did *Mozarabic* chant in the Spanish Visigothic liturgical tradition, so named for the Christian populations who resided in Muslim Spain, known as the Mozarabs, from the Arabic *Mustarab*.

The 11th-century Italian Benedictine monk Guido d'Arezzo created a clever mnemonic for remembering musical pitch of the hexacord, the six-note scale, the important musical structure of six diatonic tones separated by a semitone interval, namely, C, D, E, G, and A. Guido recommended using the five digits of the hand, therefore pictorially and by reference, *Guido's hand*. The hand of the singer became a modulator with each tip and joint of each finger having an allocated note. The singer then could practice music and exercise singing at any time. Guido emended the earlier *tetrachord* theory and anticipated the modern *heptachord* system and the octave. The tetrachord was an ascending group of four tones with a specific interval structure.

Guido's brilliant technique of *solmization* is still taught today. In *The Sound of Music*, Maria's song "Do Re Mi" states a form of the monk Guido's 11th-century ideas. In the medieval original, pitch on the musical scale was represented by Guido's syllables, not letters, and his names for the tones C through A, *ut*, *re*, *mi*, *fa*, *so*, *la*, actually derived from the first two letters of successive words in a hymn to Saint John. Originally it looked like this: **Ut** *queante laxis.* **Re**sonare *fibris.* **Mi**ra *gestorum.* **Fa**muli *tuorum.* **Sol**ve *polluti.* **La**bii *reatum. Sancte Joannes.* The medieval student therefore could count on and sing on his fingers.

GOTHIC NEUMES AND HORSESHOE NAILS

Gothic neumes were the notation for Gregorian chant and plainsong as well as other 14th- and 15th-century music. A *neume* was a square or diamond-shaped musical notation sign for writing plainsong. Neumes gave pitch but not timing. Important from the eighth through the 14th century, this musical marking was also called *Nagelschrift* or *Hufnagelschrift* (*huf*, "hoof"; *nagel*, "nail"; *schrift*, "writing"), because the notation resembled horseshoe nails.

MENSURAL NOTATION

In opposition to the free rhythms of Gregorian chant or plainsong was *mensural music*, the 13th- through 16th-century polyphonic compositions with every note having a strictly determined rhythmic value. Therefore notation had to represent the appropriate timing. The system of musical notation called *mensural notation* was codified by Franco of Cologne in the 13th century. He asserted fixed time relationships among note values, as in *mimina*, *maxima*, *longa*, and *brevis*. Now a note indicated not only pitch but duration.

Secular Music

Secular music in medieval Europe included love songs, political satire, dances, and drama. During the 10th century jongleurs and minstrels, traveling vocal and instrumental performers, relied on oral tradition to entertain the crowd. Among the professional and semi-professional love poets of the 10th through 14th centuries were the troubadours, the *trouvères*, the *minnesingers*, and the Italian writers of the *dolce stil nuovo*, most of whose poems were meant to be sung (*see* chapter 9 on literature for more information on love poetry). During the 11th to 13th centuries the *Goliards*, wandering scholar poets, sang in Latin of life, love, chastity, drink, whores, sex, and obscenity.

Music was also an important form of entertainment for the nobility. A banqueter listening to music of lute, vielle, and cornet accompanying a fine dinner of roast beef, asparagus, and turnips beautifully cooked with chestnuts and cream would not be surprised if suddenly stimulated to amorous ideas. Attentive to the music, she or he would have eaten those foods known to be aphrodisiacs expecting either to indulge the effects of erotic music and titillating menu or to shift quickly to musical rhythm and melody correct for an ardor-cooling salad. In banquet hall and health spa, sensual stirrings of the lute might accompany erotic feasters from bath to bed.

MEDICAL MUSIC

Music of the hunt and banquet was allied to medicine because food was thought to stimulate the four major bodily fluids, the four humors, determining health or illness. Wedding feast melodies were the erotic stimulating sound of the *shivaree*, which in musical procession led the happy pair to the nuptial bedroom where musical echoes would later sound in the medical obstetric chamber. Such practical medical music expressed the harmonies of the medieval world order.

Medieval physicians would not perform elective surgery without the patient's prior preparation by diet and music therapy. If the patient's bodily type was choleric, the surgeon would attempt to regulate the patient's excitable, irascible constitution and calm the rhythm of pulse by tranquil music accompanying a diet including mild wine, boiled rice, barley cream, boiled veil and chicken, and, in season, baked pears and apples. Conversely, a melancholic patient before surgery would listen to sensual, joyous melody to accompany light cheese, eggs, custard, and diary products.

Medical theorists in their texts and practitioners with their patients utilized both musical idea and performance in diagnosis of disease, prognosis of cure or death, and treatment by medicine or surgery. Hospitals, clinics, and health spas sounded with rhythm and melody. Music was mood changer and antidote to poison. It promoted wound healing, and the elaborate mathematical theories of human pulse music required the medieval physician to cultivate a learned touch, a *tactus eruditus*, an ability to feel pulse music through fingers, perceiving rhythm, tempo, proportion, and meter.

The 12th-century chronicler Geraldus Cambrensis said that the sweet harmony of music not only affords pleasures but renders important services. It greatly cheers the drooping spirit, smoothes the wrinkled brow, and promotes hilarity. Nothing so enlivens the human heart, refreshes and delights the mind. Music draws forth the genius and by means of insensible things quickens the senses with sensible effect. Music soothes disease and pain. The sounds that strike the ear, operating within, either heal our maladies or enable us to bear them with greater patience. A comfort to all and an effectual remedy to many, music mitigates all sufferings and some it cures.

Mood music had a venerable tradition in Greek, Roman, and Arab thought. Musical mood changers were mediated to the Middle Ages by Isidore of Seville, fourth century; Cassiodorus, fifth century; and most importantly Boethius, born in 480. Boethius's treatise *On Music* was read in the medieval universities and medical schools. He quoted the method by which Pythagorus used spondaic melody to calm and restore to self-mastery a young man who was so agitated by the sound of the Phrygian mode that he nearly became insane. One night when the youth's mistress went to his rival's house and locked the door, the young man went into a frenzy, having been stimulated by his music, and was ready to set fire to the house. Resisting all restraint, he responded to reason only when his friends changed the mode of music and thus by rhythm and melody reduced his fury to perfect calm.

In medieval health handbooks such as Ibn Butlan's (11th century) *Taqwim al-sihha*, translated into Latin as *Tacuinum sanitatis* (*Tables of Health*), music could incite anger, useful for treating cases of hysterical paralysis. (*See* chapter 7 for more information on Ibn Butlan's treatise.) Music was thought effective antidote to poisonous bites and stings of reptiles and insects. A patient bitten by a scorpion was thought helped if the physician imitated in music the offending beast's rhythms. Physician and patient might therefore counteract the harmful affects of the arachnid's poison. The Italian *tarantela* dance was thought derived from a medical musical treatment for the bite of a tarantula. Scorning such ideas as ignorant superstition, William of Amara, in his 14th-century *Treatise on Poisons*, nevertheless recommended music as treatment for tarantula bite because the effect of its poison was severe melancholy, cured by joy, stimulated by stirring melody.

For phlebotomy and bloodletting, music directly and indirectly determined efficacy.

Depending upon the patient's ailment or astrological temperament, the music pulsed and throbbed in benevolent correlation. One of the most important medieval medical music forms was the music of the pulse. Physicians took patients' pulse either at the brachial artery or at the wrist. The physician calculated rhythm, tested pulse strength or irregularity, and compared this information to numerous pulse music treatises written by such venerable physicians as Galen, whose 16 books on pulse distinguished among 27 separate varieties of human pulse.

The physician, astrologer, and philosopher Peter of Abano (d. 1316), professor at Paris and Padua, required that medical practitioners know music theory and feel it in pulse. His widely published treatise called *The Conciliator* (*Concilator*) gave elegant music depictions of concordance, dissonance, mathematical musical proportions, semitones, the scale, the monochord, and the Greek diatonic, chromatic, and enharmonic tetrachords. Peter of Abano suggested that infants customarily have a *trochaic* pulse beat, whereas the aged have *iambotrochaic*. Special pulses were caused by climate, pregnancy, and disease. A sluggish pulse, *pulsus formicans*, crawled slowly as an ant. Leaping pounding pulse, *pulsus gazellans*, flew fleetingly fast as the gazelle. Just as music consisted of high and low notes arranged in proportion, so the pulse consisted of strokes of greater and lesser speed and intensity. Both music and pulse were characterized by rhythmic patterns of time intervals.

Medieval medicine justly has been called time medicine, *chronophysica*. Prior to surgical intervention the medieval physician and surgeon would use devices such as the *astrolabe* and *volvelle* to calculate the zodiacal configurations at the time of the patient's injury or onset of illness, along with the patient's time of birth, in order to determine the prognosis and the probabilities of survival. The *planespheric astrolabe*

was not only a reckoner of time but a universal instrument and calculator for measuring heights, distances, and latitudes and reckoning positions of heavenly bodies. It was also used for horoscopy. In 1348 the physician, astronomer, and clock maker named Giovanni da Dondi invented an instrument that replicated the automatic rhythms of the human pulse and calculated the cyclic rhythms of the stars.

The year 1348 marked the height of the *Black Plague*, although epidemics had terrorized Europe earlier. In 1340, for example, the city of Florence buried one-sixth of its citizens, who had succumbed to the plague. Such death quotas extraordinarily affected the art, economics, philosophy, religion, and technology of the living. Chronometers were instruments of prediction, diagnosis, prognosis, and treatment of disease. Perfecting the accuracy of the machine might extend the life of the human being. Medieval physicians and scientists turned medical adversity into technological virtue. Prodigious clock makers such as the physician astrologers Jacob and his son Giovanni da Dondi and (d. 1359, 1389, respectively) and the physicians Simon Bredon (d. 1372) and Nicholas of Lynn (mid-14th century) made timing machines so that physicians might accurately time for healing. Hypocrites said that healing was a matter of timing. Clock makers used plague as an opportunity to harness time mechanically for healing. Physicians became great healers to the extent they allowed time as healer to heal and so long as they as healers accurately timed.

FEAST MUSIC

In the banquet hall feast music was important for ceremony and digestion. Fanfares and trumpets sounded to signal service of each dish and course of food. Since the food served was determined by the temperaments of the feasters, most dishes had appropriate musical

A 15th-century woodcut depicting a musical feast. The Metropolitan Museum of Art, New York. Harris Brisbane Dick Fund, 1931.

accompaniments. Trumpets, pipes, bells, lutes, horns, shawms, and rolling drums provided aural splendor, stirring sound, and digestives. Discordant sound was thought to cause incomplete food metabolism. Feast music also was an antidote to banquet poisons. Peter de Marra said in his treatise dedicated to Pope Urban V (d. 1370) *Papal Garland Concerning Poisons* that joy derived from music might prevent poison from penetrating to the vitals.

For culinary music at the D'Este court of Ferrara, the chief cook, Christoforo da Messisbugo (d. 1548), author of *Banchetti, compositioni de vivande et apparecchio generale* ("*Banquets, the Composition of Victuals and General Appearance*"), listed for each fish course, meat, and wine its

complement by viols, voice, and choir. While the noble guests washed hands with perfumed water, a musical performance by six singers, six viols, a lyre, a lute, a zither, a trombone, a recorder, a flute, and numerous keyboard instruments accompanied the 17th course.

HUNTING MUSIC

The animals on the medieval banquet tables had been hunted with special horns and melodic calls for particular animals, for specific types of hunt with dogs or birds, and for particular rituals within the hunt. It was believed that the more rhythmic the animal's catch and kill, the more healthful the quality of the meat. Since most 14th-century hunting horns played one pitch, hunting calls depended upon rhythm and intensity of sound. One call, the *mote*, was blown at the uncoupling of the hounds. The *rechete* re-called hounds or urged them to the kill. The *mane* and the *pryse* rhythmically portended the animals' calm in the banquet hall, since harmonious hunting prefigured healthful eating.

Hunting music inspired song forms with such names as *chasse*, *caccia*, and *catch*, early forms of *polyphony*, in which the music of the ceremonial pursuit of the animal was transferred to the pursuit of the desired lover. Hunt music indirectly affected sophisticated love allegories and love songs.

SEXUAL MUSIC

Sounding the spectacle of a newly married couple's march to the bedroom was the *shivaree*, erotic, stimulating music to assure their consummate coupling. The word *shivaree* probably derives from the French *charivari*, referring to the noisy mock-serenade music accompanying newlyweds to their bedroom. In the bedroom heavenly harmonies reflected in a mirror registering the Moon and the stars of the night sky would determine the exact propitious moment for sexual intercourse in order to conceive a remarkable child. This star rhythm reflecting glass was called a *conception time mirror*. Obstetric chambers had a *birth time mirror*. The moment a child was conceived and the time noted by a *conception time mirror* and the instant of birth reflected in the *birth time mirrors* enabled practitioners of *genethlialogy*, the study of the governing constellations, to predict the baby's physical nature, humoral balance, temperament, personality, predilections, even likely adult profession.

Song Collections

For both sacred and secular songs, more lyrics have survived the centuries as poems than as musical settings. Yet remarkable musical manuscripts still exist. The *Carmina burana* manuscript in the Munich Staatsbibliothek was the collection of songs of the Goliards. The text plus some musical notation also were preserved in the 12th- through 13th-century manuscript at Benedictbeuren in Bavaria. Satiric, anticlerical, erotic, often lewd Latin and vernacular verses were written and performed by the itinerant Goliards, who, as educated students, were intimately familiar with church ritual and prayer. Wittily sophisticated, ingeniously punning, musically dazzling songs of such writermusicians as the 12th-century *Archipoeta* of Germany, one of the principal Goliardic singers, whose true name is unknown, celebrated learning, wine, women, and intense sexual pleasure.

The *Dodecachordon* (*Twelve Chords*) was a significant book of musical theory by the Swiss poet and musical theorist Henricus Glareanus (d. 1547), which expanded the traditional eight church modes to 12. The *Old Hall Manuscript* was a superb collection of 148 polyphonic musical compositions performed in the royal

household chapel in 15th-century England, a precedent probably initiated by King Henry IV (r. 1413–22). The compositions included settings of the *ordinary* of the mass, *isorhythmic motets*, and *antiphons*. Isorhythmic motets were unaccompanied choral compositions with three groups of vocalists singing simultaneously one or more sacred texts intended for performance in church liturgy, especially at vespers.

Motets were a popular polyphonic musical pattern from the 13th century onward, with numerous secular and solo subtypes. The *isorhythmic motet* used repeated, identical musical rhythmic patterns called *taleae*, as in a liturgical *cantus firmus*, a fixed melody that served as the base of the *polyphonic* composition and to which other voices were added in *counterpoint*. This motet technique became particularly popular in 14th-century motets.

Other important medieval music texts were the anonymous ninth-century musical treatise describing polyphony entitled *Musica enchiriadis* (*Music Manual*), which emphasized the newly introduced portative organ. The *Lucidarium* was the title of a late 13th-century musical treatise on plain or unmeasured music by Marchettus of Padua. The *Trent Codices* were seven significant musical manuscripts containing 15th-century polyphonic compositions by John Dunstable (d. 1453), Guillaume Dufay (d. 1474), and Gilles Binchois (d. 1460). The *Colmar Songbook* from the early 15th century contains many types of songs including those of *minnesingers*.

Tropers were books of liturgical tropes and short distinctive *cadences* for use at the end of a melody. These phrases sung by the choir added embellishment to the text of a mass. From the 10th through the 12th century, the *Saint Martial School* at the abbey at Saint Martial in Limoges, France, created exquisite tropes, as well as many examples of the polyphonic *organum*, and *sequences*. A *sequence* was one of the most significant types of liturgical *Gregorian chant* tropes. Attached to the *alleluia*, the *sequence* was probably invented and certainly popularized by Notker Balbulus, a 10th-century monk of Saint Gall.

Love poems either secular or sacred musically set in counterpoint for several voices, usually five or six, singing polyphonically were called *madrigals*. Early versions were presented in the *Squarcialupi Codex*, the important 14th-century music collection now in Florence, including works of Francesco Landini. Landini was famous for his *Landini Cadence*, a musical feature in the *Ars nova*, particularly in the works of Guillaume de Machaut (d. 1377) and Burgundian composers. In this musical form, the sixth degree (A) was inserted between the leading tone (B) and octave (C), and the altered fourth (F sharp) served as a leading tone to the dominant (G).

Litanies (Greek, "supplication") were prayers of petition for peace, unity, good harvest, or protection from plague, usually followed by a response such as "Lord, have mercy!" Often chanted during processions, they were common before the celebration of Ascension. *Litanies to the Virgin* were popular responsorial supplications celebrating the virtues of the Virgin, invoking her as "Star of the Morning," "Star of the Sea," and "Queen of Angels." The customary response was "Pray for us!" A particularly popular *antiphon* to the Virgin was *Ave regina coelorum* (Latin, "Hail, Queen of Heaven"), an antiphon sung usually after the canonical hour of compline or as a vespers hymn. Dufay composed a mass around this chant melody. Yet another popular hailing of Mary was the *Ave Maris Stella* (Latin, "Hail, Star of the Sea"), a popular *Gregorian chant hymn* celebrating Mary and frequently used in *motets*.

Songs of the *troubadours*, *trouveres*, and *minnesingers*, and other secular songs often appeared simple and ecstatic yet were meticulous intellectual, often mathematical creations. Typical

were songs of the minnesinger Neidhart von Reuental (d. c. 1245). Following Donates's terminology for the sections of the tripartite courtly song, Neidhart's splendid songs generally were composed of a *frons*, the poetic stanza consisting of two *pedes*, followed by a *cauda*, the musical tail or cadence to the song and instrumental composition. In German the name for the frons was the *Aufgesang*, consisting of two *Stollen* plus the *Abgesang*.

Neidhart's songs were of two types. Neidhart's vigorous, vivacious summer songs called *Reien* imitated rustic dance rhythms and celebrated simple, natural, pastoral gratifications, both aesthetic and sexual. Neidhart's winter songs were called *Tanze* and were stately metered melodies similar to the music of courtly indoor dancing. Neidhart would select a number that factored well, and then with dazzling ingenuity create a mathematically perfect version of the number either in the syllables within the complex stylistic form or in the rhythmic meter for singing. This early mannered music was melodically eccentric, rhythmically complex, though seemingly simple at first hearing, and by the time of the 14th century expressed exquisitely and idiosyncratically by Guillaume de Machaut.

Musical Instruments

Medieval musical instruments are fascinating in and of themselves as makers of sounds strident and exotic to modern ears and, to the modern eye, for their occasionally bizarre shapes. Some instruments were in families, such as the *recorder*, a beaked whistle flute, fashioned in six ranges also called *consorts*. The deepest sound was made by the double bass recorder, the next higher sound by the bass, followed by tenor, alto, soprano, and marvelously high-pitched sopranino. Likewise *viols* also had in families and particular variations. The *viola da braccio* (Italian,

"arm viol") was a small stringed instrument with steeply sloping shoulders and crescent-shaped sound holes played with a convex bow. The *viola da gamba* (Italian, "knee viol") was a large slender-necked stringed instrument held between the knees and bowed, the prototype of the cello. An alphabetical catalog of medieval musical instruments begins with the *arch lute* and arigot and ends with the *zampogna*.

arch lute The *arch lute* was a long, large *lute* with its base strings lengthened. The lute, derived from the Arabic *al-ud*, a plucked stringed musical instrument, had a body shaped like a pear half, its neck long and flat, having multiple frets, a pegboard perpendicular to the neck, and strings running parallel to the body. The arch lute had strings lengthened as in a *theorbo*. Possibly named after its inventor, the *theorbo* was a double-necked lute with two sets of tuning pegs, the lower holding the melody strings, and the upper the base strings. It became extremely popular by the 17th century.

Lute melodies were written in *tablature*, an early notational system for music in which tones were indicated by letters, figures, and symbols, rather than by *neumes*, the method for Gregorian chant melodies, also called the *Nagelschrift*. Tablature also differed from *mensural notation*, in that the tablature staff represented each lute string to be stopped for a particular pitch. For flute notation, a similar tablature indicated the holes on the flute.

arigot and other pipes The *pipe and tabor* were common in historical portraits of marketplaces, processions, and theatrical events in noble halls. The same musician played both musical instruments simultaneously. A particularly popular pipe was the *arigot*, a Provençal musical pipe related to the *flageolet*, a recorder-like wind instrument with four finger holes in front and two on the back. Its full range could be manipulated by one hand. The *tabor*, a drum,

usually a light, small percussion instrument, was played while buckled onto the player's chest or left arm. One hand manipulated the pipe while the other beat the drum with a drumstick.

Panpipe was another name for the *syrinx*, a row of graduated pipes bound together, each with a different pitch. This pipe, usually played simultaneously with a *tabor* drum, was an early wind instrument. Associated with the pagan fertility god Pan, it was often portrayed in medieval bucolic scenes, associated also with Erato, Polyphemus, various elegant dancing fauns, as well as Poesia, the personification of poetry, and satyrs and with shepherds.

Bagpipes were especially popular among the Celtic populations of Scotland, Ireland, Wales, French Brittany, and northern Spain. Whereas in modern times the bagpipe is associated with funerals and solemn commemorations, in medieval times it was an orgiastic instrument connoting passion, vigorous sex, and inebriation. It was thought to be the medieval phonetic equivalent of the ancient Greek *aulos* and the Roman *tibia*. Nevertheless angels also frequently played bagpipes in musical scenes in painting, sculpture, graphic arts, and stained glass, not only as soloists but in angel concerts, particularly in sacred paintings. A bagpipe was a composite instrument attached to a windbag providing air power, with one or more reed pipes called *chanters*, which were the melody pipes, single or double reed, with finger holes. The other pipes produced a *drone*, a continuous single base *burdon*, consisting of a note of long duration sounded continuously against the melody played by the higher pipes.

Other drone instruments were the *hurdy-gurdy* and the bass-course *vielle*. The *hurdy-gurdy* is believed to have its origins in Spain, where it was called *zanfona* (from the Vulgar Latin, *symponia*). It was not a wind but rather a stringed instrument, also a composite. An unbowed, mechanical, stringed instrument with a keyboard, the hurdy-gurdy consisted of a revolving wheel cranked by a handle that touched internal strings and a set of stopping rods to sound several bass strings as a *drone*, or *burden*. Meanwhile other strings were activated by keys struck for the melody. The *hurdy-gurdy* also was called a *wheel fiddle* or a *vielle a roue*.

bassoon The *bassoon*, a slightly conical, double-reeded musical instrument, the bass oboe, was constructed with its tube bent back on itself, and a crook containing the reed at right angles from its upper end. This early bassoon was derived from the earlier *curtal* and popular *dulcian*.

buccine A *buccine* was a straight trumpet or trombone, a wind instrument for accompanying dances such as the extremely popular *canary*, a dance in three-four or six-four time, also accompanied by *castanets*, the small shell-shaped, hinged percussion instruments played with the thumb and first finger, to which they were secured by a thong.

cithera A *cithera* was a triangular musical instrument having between seven and eleven strings. Derived from an ancient Greek instrument comparable to the *lyre* or *phorminx*, it was also called the *zither* and sometimes was played with a plectrum. The traditional zither, rather than triangular was customarily trapezoidal.

cittern A *cittern* was a pear-shaped musical instrument with a particularly characteristic neck. The basse side was thinner than the treble, allowing the player's thumb easily to reach around the nine strings of the instrument clustered in four groups. There were similar configurations depending upon the country and century in which the cittern was played.

clarion A *clarion* call sometimes referred to a stirring, thrilling, shrill trumpet call, or an early single-note trumpet.

clavichord The *clavichord* was a 15th-century stringed instrument consisting of a rectangular case with a keyboard whose hammers struck the strings to maintain pressure until they were released. It produced an exquisitely soft muted tone. Some clavichords were fretted. The composer Praetorius called for grouping instruments in consorts and *stimmwerke*. In medieval Christian iconography the *clavichord* was the instrument of choice for portraying Saint Cecilia (although sometimes she was portrayed with an organ or harp), just as King David was shown playing a harp or such other instruments as *lyre*, *rotta*, *kinnor*, and *lira da braccio*. The *kinnor* was probably not a harp but rather a *lyre*, a stringed instrument, either plucked or bowed, taken to western Europe from Byzantium, with a trapezoidal frame and five, seven, or nine strings, King David's signal instrument.

Wonderful depictions of medieval and Renaissance instruments appeared in the *intarsias* and other wood inlay extravagances in the Ducal Palace of Urbino, the principal residence of Federigo da Montefeltro (d. 1482), especially in his little study or *studiolo*. A masterpiece of the newly invented techniques of linear perspective, the *intarsia* (Latin, "inlay") portrayed a large *clavichord* with 47 keys, 29 long and 18 short, the long keys decorated with Gothic patterns. Like early clavichords, it was fretted, and the curvature of keys and their tangents drawn in precise perspective. The Metropolitan Museum of Art has a spectacular early clavichord created in 1537 by Alexander Trasontinus with the inscription "Just as the rose is the flower of flowers, this is the clavichord of clavichords" (*Ut rosa flos florum ita hoc clavile clavilium*). It possesses 36 keys, 21 long and 15 short.

The *studiolo* also had a nine-string lute side by side with a *lira da braccio*, with five strings, four stopped, one free basse string, with a round simple peg box, a flat belly, and side walls curving in between the belly and the back, because the side walls were much thicker than those of the later violin.

Related to the *clavichord* was the *harpsichord*, a keyboard stringed instrument in which the musician played black and white keys connected to levers in turn connected to jacks in turn having quills or leather points that plucked the strings and set them in vibration. The *double harpsichord* had an extra string to each key, sounding an octave higher than the others, and a second keyboard to control the extra strings. It was called a *double manual harpsichord*. The modern piano developed from both the clavichord and the harpsichord. Likewise the *virginal* had its strings excited by a jack or quill *plectrum*. Interestingly enough, the harpsichord, as the organ, imitated the drone of a *bagpipe* or *hurdy-gurdy* when it was important in the music to create a pastoral or sylvan mood.

cornetto The *cornetto* was a wooden, ivory, or leather musical wind instrument, a curved horn topped by a trumpetlike mouthpiece. It was fingered in the same way as a recorder. It also was called a *zink*. In the so-called *Dance of Death*, a popular 15th-century graphic depiction of life's uncertainties and death's inexorable arrival, a fearsome figure would compel the unwilling to dance. In a pair of woodcuts from *Der Toten Dantz* by Jacob Meydenbach (c. 1491), a dancing skeleton played a cornetto to regale unwilling listeners, and a vile worm descended from its bell. This *Dance of Death* was related to the *Dance macabre* and was a form of *memento mori*, a reminder of the certainty of death.

cracelle The *cracelle* was a rattle or ratchet noisemaker twirled on ceremonial occasions and churches in place of bells during Holy Week. It was comparable to the *gregor* sounded by Jews celebrating Purim, desiring to drown in cacophony the hated name of the villain Haman. Lepers walking in the streets used the

cracelle to sound their malady music, warning others of their approach.

cromorne   In artistic representation as well as in musical references, the *cromorne* or *Krumm-horn* (German, "bent horn") was an especially popular instrument, notably at feasts, played along with *shawms*. The *Krummhorn* was a slender, oboelike instrument, curved at its end to create a J-shaped horn. In French it was called *cormorne*, meaning "mournful horn," because of its nasal, strident, lamenting tone. It was sounded by a double reed in a capped mouthpiece.

curtal   The *curtal* was an early form of bassoon, related to the *dulcian*.

dulcimer   The *dulcimer* was a trapezoidal stringed musical instrument struck with hammers held in the player's hands, unlike the *psaltery*, which it resembled, which was plucked. The *psaltery* as plucked *zither* was commonly played not only in town and court; the art history record places the instrument in heaven with the players including angels, saints, King David, and the Nine Muses, the classical goddesses of the arts, daughters of Zeus and Mnemosyne, or Memory. The muses were all depicted with psalteries and were identified as follows: Dedicated to history was Cleo; to music and lyric poetry, Euterpe; to comedy and pastoral poetry, Thalia; to tragedy, Melpomene; to dance and song, Terpsichore; to lyric and love poetry, Erato; to astronomy, Urania; to epic poetry, Calliope; and to heroic hymns, Polyhymnia.

flute   The *flute* in the Middle Ages was similar to its modern form. This musical wind instrument as the *transverse flute* was held horizontally, the air blown across a hole. Pitch was determined by covering and unstopping holes. The flute is one of the oldest musical instruments known to mankind. In 12th-century Europe it was more used for military than artistic music, as was the end blown flute, the *recorder*.

gigue   The *gigue* (French *gigot*, "ham") was a ham-shaped or pear-shaped stringed instrument, usually bowed, and similar to the *rebec*, a slender-necked stringed instrument held at the chest or between the knees and bowed. The stunning *intarsia* study of Federigo da Montefeltro preserves a pear-shaped *rebec*, leaning beside its bow in a cupboard. It is notable for its distinctive sickle-shaped peg box rather than the more usual cucumber or boat shape. It has a long, thin fingerboard tapering gradually to a broad sound box with a rounded profile.

gregor   The *gregor*, like the *cracelle*, was a cacophonous instrument, a ratchet-rattle noisemaker, that Jews twirled on the holiday of Purim, while reciting the Book of Esther, to obliterate the sound of the name of hated Haman.

haut boy   A *haut boy* was an early name for the oboe.

idiophone   The *idiophone* was a self-sounder, a practical rather than an artistic musical instrument, such as a clapper, bones, bell chime, gong, gregor, cracelle, or noisemaker. Its purpose was to alert people to danger, to announce an entrance, or to stimulate animals to run or to fight.

monochord   Useful for music as well as a scientific instrument for investigation and demonstration of acoustical laws, the *monochord* was a single-string musical instrument consisting of a long wooden resonater along which a movable attached ridge varied the vibrating lengths of the string.

organistrum   An *organistrum* was similar to a *hurdy-gurdy*, probably originally meant to

be played as an accompaniment for an *organum*, the early form of polyphonic music first described in the remarkable musical collection the *Musica enchiriadis*.

organ portative   A particularly exquisite *portative organ* or *organ portative* was depicted in the *intarsia* in the Gubbio study. The portative organ could be a small organ worn about the player's neck, the keyboard played with the right hand, the left hand working a triangular feeder bellows. Or the organ could be set on a stand with one person playing, another working the bellows from behind. Organ scales were not regularly diatonic or chromatic but selective, omitting notes unusual in particular types of music. The organ had as many keys as it had pipes and contained no stops.

piva   A *piva* was an Italian bagpipe. *Piva* also was the name for the fastest dance step, embellished by leaps and quick turns in the *basse dance*, and for a very energetic early Renaissance dance.

racket   A short, thick, reed-sounding wind instrument called the *racket* had wooden or ivory cylinders that were pierced lengthwise by cylindrical channels arranged in a circle. The central cylinder had a blowing cup called the *pirouette*, of one of five sizes. The treble created the highest tones, then alto, tenor, bass, and double bass.

Rauschpfeif   The *Rauschpfeif* was a small, reeded wind instrument consisting of one finger hole in the back and seven in the front that developed into the modern oboe.

regal   A *regal* was a small reed organ, the pipes of which were shaped like cylindrical clarinet beaks. The Bavarian Bible regal could be folded and packed into its book-shaped bellows. When closed, it resembled a large book of Scripture.

sackbut   A *sackbut* (from French *sacque boute*, "pull push") was an early trombone made in three distinct pitches, the alto, tenor, and bass.

shawm   A *shawm* was a double-reeded wind instrument with a slightly conical, narrow bore that produced a nasal and strident sound. The shawm was played at ceremonial events and particularly as signal of the conclusion of a fabulous feast. It, too, was often associated with the classical *aulos* and was an orgiastic instrument frequently in the pictorial representations of the Marsyas myth, a musical contest between Marsyas and Apollo.

Maximilian is surrounded by musicians practicing cornetto (top), clavichord (right), organ (left), and harp (foreground). On a table at the lower right lie a flute, a cromorne, a small shawm, and soprano and alto cylindrical recorders. A trumba marina, sackbut, and kettle drums lie scattered on the floor. "Maximilian with His Musicians," woodcut, from *Der Weisskunig* (1505–1516), Hans Burgmair (c. 1473–c. 1531). Vienna: Die Österreichische Nationalbibliothek, MS coll. no. 3032.

tambourine   The medieval *tambourine*, from the Middle Persian *tambur*, retained its simple shape during the course of centuries as a musical instrument consisting of a membrane or skin stretched over one side of a stiff, round frame circled by metal disks that jingled when the tambourine was shaken or struck with the fingers. Of Middle Eastern origin, the *tambourine*, Arabic variants of which were the *riqq* and *daff*, was another instrument that became popular in Europe as a result of contacts between Christians and Muslims.

trumba marina   The *trumba marina*, also called by its German name *Trumscheit*, meaning "drum log," was at least six feet long, triangular, a stringed instrument over which a single string was stretched. Inside the long sound box at least 20 sympathetic strings were tuned in unison to the outside playing string. A player used one hand to bow the string and the other to touch it lightly, thus producing harmonic notes. Additionally the inverted U-shaped bridge, with its left foot shorter than the right, freely vibrated against the soundboard, thereby creating a drumming noise.

trumpet   The *trumpet* was an important military and ceremonial brass horn. Early trumpets did not have side holes, crooks, slide, and valves, which were added to later versions. Trumpets were used for fanfares, hunting calls, and the announcements and advertisements blown by waits, the civic singers hired by a town to announce important events musically, entertain at public celebrations, and chant the hours. The customary [time telling] of the waits also indicated state of peace or its violation as in "Nine of the clock and all is well!"

zampogna   The *zampogna*, also called the *zamparella*, was an Italian bagpipe. Pictorially it was associated with sexual orgies.

With armorial banners pendant from their trumpets, heralds announce the emperor in procession with a royal retinue.   From Ulrich von Richtenthal, *Beschreibung des Constanzer Conziliums*, German, 1450–1470. Courtesy of the New York Public Library.

BELLS

Bells were pervasive sounds in the medieval world. Large market bells tolled commercial hours. Municipal bells and church bells rang the time. For the eight canonical hours of the day, churches, cathedrals, and monasteries tolled the times for prayer. Bells announced political events such as a royal progress, a declaration of war, a signature of peace. Rites of passage, such as marriage or death, were announced by bells. Bells signaled alarm and alarmed alert.

Tollings often were determined by *change ringing*. Ringing of bells according to numerical,

not musical schemes, *change ringing*, sounded all possible sequences of all bells. A church bell tower containing six bells, for example, could have 720 strikes to ring all possible changes. Such ringing announced the canonical hours, holidays, danger, celebration, martial success, inauguration, investiture, birth, death, marriage, and excommunication. Rhythm, pitch, timbre, and numbers of strikes were arranged by complicated sequential, sometimes symbolic numberings.

Courtly men and women wore bells. Small tinkling silver bells jingled from men's and women's jeweled girdles, neck strings, cape edges, cloak closures, soft shoe laces, bracelets, rings, and points of hats. Bells were ornaments for decoration and for the delightful pleasure of whimsical sight and sound, a form of synesthesia. Jesters wore bells on their caps. Clerics wore bells on certain vestments of their ecclesiastical garments. Horses jingled bells on their bridles, saddles, and *caparisons*, the ornamental and ceremonial blankets and costume worn with the armored *peytral*, covering the horse's breasts; *crupper*, the armor for the horse's haunches; and *chamfron*, the horse's head armor. Ornamental bells were created with particular pitches to represent a family, a noble house, or a significant monastery, just as people wore distinctive *livery*, the identifying costume and clothing gift of a feudal overlord to all household retainers. Bells' ringing sometimes distinguished subtle levels of rank among those wearing professional uniform.

Dance

Though splendidly entertaining, most medieval dance was not mere frivolous entertainment. *Morris dances*, for example, might be classed today as folk dances partly because everyone performed them, rich and poor, learned and untutored, while ringing, stamp-

ing, and winding their way through marketplaces and noble halls. Their masks and formulaic movements demonstrate their earlier heritage in pagan fertility rites and rituals. Yet other dances such as the *galliard* and *pavan* would now be considered formal dancing or ballroom dancing. These also crossed social boundaries but were particularly cultivated among the wealthy and noble, who were taught dancing from childhood to reflect social prestige.

Dance was excellent exercise. It prepared the body for martial arts. It helped in general poise and demeanor. It demonstrated social rank as well as knowledge of social graces. The 15th-century dance masters Antonio Cornezano and Guglielmo Ebreo (Guglielmo "the Hebrew") listed the six requisites for a good dancer in their treaties on art of dance. The first basic requirement was remembering steps and their sequence correctly, called *memoria*. Dance as a form of music, a significant mathematical and liberal art, required understanding of timing and keeping of good rhythm, called in technic terms *misura*. A proper dancer should be able to express pleasing grace of movement, *aiere*. Moreover a fine dancer needed not only to understand taught steps but to intuit varieties of steps upon basic dance patterns, technically called *diversita di cosa*. The final two requisites connected with gesture, bearing, and a combination of literal and figural social position. A good dancer for purposes of leaps, twirls, pirouettes, and simple avoidance of bumping into neighbors and stepping upon partners' feet needed to know how correctly to estimate the body in space. Technically that was called *compartinmento di terreno*, closely related to the good manners, poise, and posture of *maneria*.

Dance masters were important courtiers responsible for choreography and for cultural ceremony of court. Antonio Cornezano, Domenico da Ferrara (d. 1462), and the Jewish

dance master Guglielmo Ebreo taught courtly dancing as well as aesthetic, physical, and political exercises.

DANCE FORMS

morris dance   *Morris dances* were popular country sword and stamping dances especially significant in England. Participants usually wore ankle bells and flowing scarves or head wreaths. Ultimately derived from pagan fertility rites and ritual renewals of spring, the morris dance was closely associated with the *maypole*, a tall ceremonial wooden idol decked with leaves, mayflowers, and long streamers that the dancers held and then interwove in circular patterns meant to imitate the course of the Sun. Derived from pre-Christian summer solstice rites celebrating the god of vegetation in a tree, the festivities usually included *rogation processions* and *mumming plays*.

rogation   A *rogation* was a Christian ceremonial procession that circumnavigated a bonfire or church grounds or a parish to pray for good crops. The ritual was a survival of pre-Christian fertility rites and Sun charms as well as other maypole rites. The procession followed the direction of the Sun and moved against the Sun, *contra solis*, in reverse, only in times of sadness and mourning.

mumming play   *Mumming plays* were masked, mimed, richly choreographed plays performed by "mummers," who preserved ancient agricultural fertility rites of beheading and resurrection. The *mumming* play was popular in England, Ireland, and late in Newfoundland, where it was practiced in two modalities, as a version of the liturgical *mystery play* and as a more popular street theater.

mattachin   Associated with *mumming* was a dance called the *mattachin*, a mimed battle dance, often containing a stylized symbolic beheading and resurrection. The related *matassin* was an elaborately costumed dance in which participants were disguised as armored knights or allegorical figures dancing in mock combat. The *buffon* or *buffen* was a well-costumed, sophisticated sword dance related to folk dances and taught with precise instructions as well as musical and dance notation to the noble.

In his remarkable book *Orchesography*, the composer and choreographer Thoinot Arbeau in 1589 described the *buffen* as synonymous with the *mattachin*, a dance precisely choreographed as a fencing contest accompanied by clash of swords and shields, danced to a special tune played in double time. Arbeau's *buffen* steps and arm movements included the *feinte*, with a dancer leaping upon both feet, sword in hand, but without striking, and the *estocade*, in which the dancer drew back his arm and thrust his sword forward to strike his companion's sword. The gesture *taille haute* had the dancer strike at his companion cutting downward from the right hand holding the sword, to the left; contrariwise in *reverse haute* the dancer cut downward from left to right. In *taille basse* the dancer brandished his sword cutting upward from right to left, and in *reverse bas*, from left to right. Arbeau accompanied these instructions on foot positions and arm gestures with delightful illustrative drawings.

moresca   A *moresca* (Italian, "Moorish") was a dramatic dance entertainment utilizing miming and costumed sword dances on allegorical and humanistic subjects. The dance form undoubtedly originates in the popular Christian Iberian festival celebrations of *moros y cristianos* (Moors and Christians) first celebrated in the 14th century in remembrance of the defeat of the Muslims in battle. As all the participants were Christians, those representing the Moors would blacken their faces and wear bells attached to their tights to distinguish

themselves. The *moresca* emerged as a dance form in 15th-century Italy and was closely related to the *masquerade*, a masked entertainment in which the participants, disguised in fantastical or imaginative costumes, danced, declaimed, and disported for pleasure and political purpose. *Masquerades* were performed outdoors on movable pageant wagons or indoors in a great hall. As did the *morescas*, *masquerades* usually had dance battles between Christians and Saracens and included lascivious skits imitating the manners and dialects of the Moors, such Orlando di Lasso's *Moresche* (1555).

Acrobatic wild man dances or savage dances were common entertainments. The wild man (Latin, *homo sylvestris*, "man of the forest") was depicted as an unkempt, hirsute creature, often brandishing a club and generally symbolizing lust, aggression, and the animality of the human condition. Conversely, he represented simple sylvan life uncorrupted by courtly civilization. *Homo silvestris* was associated with the Christian concept of the wild man as one of *Nebuchadnezzar's children*, crazed people suffering from "congenital madness," melancholy love sickness called *hereos*, other mental disease, or head injuries. These wild people either were rejected as pariahs or celebrated as noble fools by those who observed them. King Nebuchadnezzar of Babylonia (r. 605–561 B.C.E.) was portrayed in medieval Christian literature, art, and dance as the prototypical wild man in one of three conventional ways: as a mad sinner, as an unholy wild man, or as a holy wild man, representing God's triple uses of madness, to punish the damned, to purge sinners, and to prove virtues of saints.

masque   A *masque* was a noble entertainment with a mythological, allegorical, or political subject, combining dancing with music, poetry, mime, acting, costumery, and sets for court participation and performance. These brilliantly, authentically costumed events could be deadly.

John Froissart (d. 1453) in his *Chronicles* depicts France's King Charles VI (r. 1380–1422), surnamed "the Mad," at an incendiary masquerade ball, the *bal des ardents*, the "dance of the flaming ones." Courtiers disguised as wild men, madmen, and madwomen were wearing masks and costumes of grass, straw, and sisal and were accidentally ignited and nearly burned alive by torch sparks from an inquisitive guest's lantern swung near King Charles. He survived thanks to a quick-witted woman who quenched his flames with her skirts.

equestrian dance   The *equestrian dance* or *horse ballet*, known in Italian as *balletto a cavallo* and in French as *danse equestres*, was a mounted extravaganza in which elegantly carisoned horses and exquisitely dressed riders performed intricate geometric, graceful designs, for purposes of spectacle and politics.

ballet de cour   The *ballet de cour*, an early 16th-century dance spectacular, usually with political intent, melded elements of *masquerade*, *triumph*, and *horse ballet* in which dancing, declamation, music, song, and sets were helped by theatrical machines, derricks and cranes carrying on stage mythological and divine creatures as if "from heaven," literally, the "god from the machine," *deus ex machina*.

triumph   A *triumph* imitated Roman warriors' triumphal processions and victorious armies' return to Rome to be feted by the grateful populace. Medieval allegorical figures graced triumphal pageants in life, literature, and art, such as Francesco Petrarch's (d. 1374) popular *Triomfi* and Dante's *Divine Comedy*'s *Purgatorio*, canto 29. In painting, sculpture, tapestry, and graphic arts, a spectacular allegorical triumph might portray, for instance, Love riding proudly in her triumphal car then overrun by Chastity, soon to be overtaken by Fame, Time, Death, and Eternity.

ballet comique de la reine   Precious dance presentations were common for special holidays and dynastic celebrations. The *ballet comique de la reine* was an early *ballet de cour*; a five-hour spectacle in the two-week celebration of the marriage of Princess Marguerite of Lorraine (b. 1462), one of the first ballets with extent music, which was constantly imitated in the early Renaissance.

DANCE BOOKS

Written collections of dances were valuable instruction books. One such *danserye*, compiled by Tielman Susato in the 16th century, included the popular *pavans*, *galliards*, *basse dances*, and *bransles*. A *pavan* was an elegant, stately processional dance performed by couples progressing in a circle or processing down a long hall or outdoor pathway. Popular in Italy, Spain, France, and England, it probably derived from the six basic steps of the *basse dance*. The low dance, the *basse dance*, was a popular 15th-century ceremonial French dance especially important in Burgundian courts. It consisted of elegant "low" gliding and mannered walking movements. These contrasted dramatically with "high" leaps and jumps of the *galliard* with which the pavan routinely alternated. A *galliard* was a leaping dance in moderately fast triple time.

Pierre Attaingnant's (d. 1551) dance book called *Fourteen Galliards*, *Quatorze Gailliardes*, preserved some of the earliest specimens of the genre, including such steps as the *cinqpas*, five steps executed during six musical beats, also called the *sink-apace*. Another *galliard* step was the *capriolz*, or *capriole*, a rapid, scissorslike step during a leap. Attaignant introduced the tradition of printing music in France. Caprioles also was mentioned as the name of the young ingenuous man who desired to learn dancing in Arbeau's *Orchesography*. Another galliard step was the *saut majeur*, the important leap, a spectacular high jump or elegant leap executed with bravura.

A *bransle* (French *branler*, "to sway") was a popular 15th-century courtly dance in double or triple meter of the "follow the leader" design, a type of *basse dance*. The *Orchesography* lists about two dozen with such descriptive names as *Burgundian*, *Cassandra*, *Hay*, *Official*, *Scottish*, *Washerwoman*, *Maltese*, *Clog*, and *Horse*.

THE *ORCHESOGRAPHY*

Precious, mannered dances needed to be well taught and well learned. *Thoinot Arbeau* was the pseudonym for Jehan Tabourot, a 69-year-old cleric who adored the art of dance and in 1589 wrote his splendid manual preserving *pavans*, *basse danses*, *galliards*, and *bransles* in the delightful format of a dialogue or debate. His instruction book was dedicated to townsmen and -women desiring advice on dance performance, etiquette, and comportment.

To dance was to jump, hop, skip, sway, stamp, tiptoe, and employ the feet, hands, and body in rhythmic movements consisting of leaping, bending, straddling, limping, flexing, rising, twitching, and twirling. Dancing, also called saltation, was pleasant, profitable, and healthful. Proper to the young, it was agreeable to the old, suitable to all. Tragedies, comedies, and pastorals danced in ancient theater were performed on a stage called the orchestra; thus Arbeau entitled his book *Orchesography*, in which he alternated his own narrative voice with the naive, amusing comments of young Capiriol. Arbeau presented dance theory, music, and a brilliant form of notation that dance historians (such as Julia Sutton and Mireille Backer) have translated to modern Labanotation in order to reproduce Arbeau's dances.

Ceremonial movements performed with precision were routine for those willing to train to the level of dance performance required by

good breeding, courtesy, and honor. Dancing also helped one find a mate. Better for attracting a spouse than either fencing or tennis, dancing was beautiful; revealed the state of health, and soundness of limb; and, by allowing ritual kissing and touching, ascertained bodily shapeliness and odors. These practical virtues made knowing dancing essential.

DANCE OF LOVE AND DANCE OF DEATH

Metaphorically the *dance of love* united the choreographies of sex, love, and death. *Dance of Love*, referred to as the "Old Dance," was sexual play or foreplay climaxing in intercourse. In Chaucer's *Troilus and Criseyde* the character Pandarus well knew every step in the old dance, making him a good go-between for the lovers. That old dance was erotic, precoital, manipulative exercise, both psychological and physical, that the sex manuals described and the lusty creatures such as Chaucer's Wife of Bath and women of the *fabliaux* exultantly performed.

The 15th-century *Dance of Death* graphically illustrated life's uncertainties and death's inexorable arrival. Old man Death was shown iconographically as a fearsome allegorical figure compelling the unwilling to dance. His sickle or scythe cut down the living. Sometimes as Father Time he held an hourglass whose sands of life ran out. The skeleton Death dragged
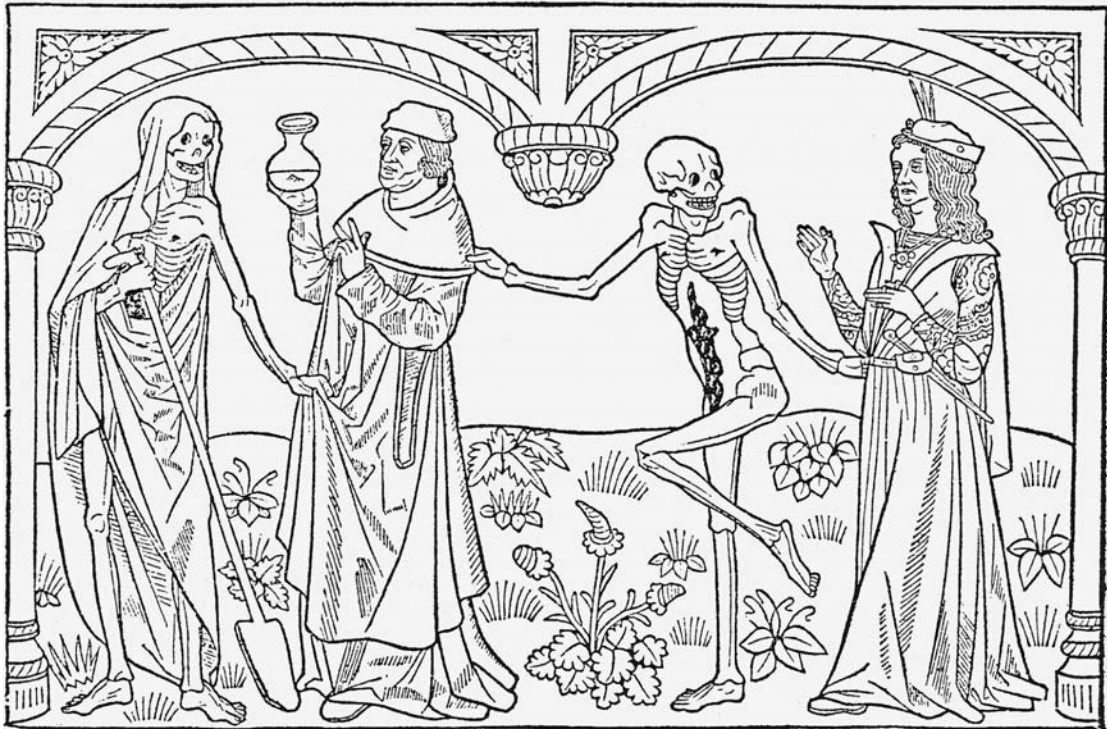
In a danse macabre, Death's minions lead a physician with a urine flask and a nobleman. From *La danse macabre des hommes*, Antoine Verard, Paris, 1486.

printers from their presses, physicians from their clinics, revelers from their carousing, and lovers from their dances of love.

The *dance macabre*, also dating to the 15th century, was a vivid depiction of social equality in death. People in strict political hierarchy, from greatest to least, held hands in a circle dance. As *memento mori* (Latin, "remember that you must die"), a remembrance of mortality, the *dance macabre* and the *dance of death* graced literature, art, and personal jewelry. For instance, a bracelet with a meticulously carved ivory or boxwood skull was thought neither morbid nor lugubrious but a reminder in midst of frivolity that life had higher purpose and time's shortness tempered earthly delights.

DANCING MANIA

Dancing mania was the name for an epidemic of mass hysteria that may have been *Saint Vitus' dance*, otherwise known as chorea, a severe central nervous system disorder caused by rheumatic fever. Possibly it was ergotism, a disease caused by fungus in rye bread seeds, producing frenzied bodily movements. There were virulent outbreaks of the epidemic in the Rhine and Mosel regions in Germany, and in 1374 near Liège in Belgium.

According to chronicles, sufferers resorted to graves and deserted places, lying down as if dead, throwing themselves into wells, rolling about in filth, demanding to be beaten, screaming, and foaming at the mouth. Thought demonically possessed, some gathered to celebrate a church festival such as Midsummer Eve and then danced in frenzy until overcome by exhaustion, injury, violence, or death.

As did the *flagellants*, the lay fraternities of self-punishing Christians who flourished in Italy, France, and Germany especially during the *Black Death* (14th to 15th centuries), the sufferers of emotional or psychophysiological diseases whipped and scarified their own bod-

ies as well as those of their fellow believers. They instigated pogroms against the Jews, exhorted pious self-abnegation for salvation, and terrorized towns. The Saint Vitus' dancers attributed their disease to God's wrath at human perfidy.

Aside from the liturgical music accompanying the celebration of the church mass and the divine office and the religious-inspired dance of death and danse macabre, the majority of the music and dance traditions discussed thus far have been secular cultural traditions. Because the dances were profane customs with no obvert Christological signification, the Jews living within Christian Europe had no qualms about participating in and emulating these art forms. Indeed, the example of the dance master Guglielmo Ebreo is but one indication of a shared cultural tradition of music making that cannot adequately be described as "Christian" or "Jewish." The following section explores in greater detail the pious and profane musical and dance traditions of medieval Jews.

JEWISH MUSIC AND DANCE

Medieval Jewish music and dance introduce an intellectual itinerary ranging from early synagogue song, whose ancient melodies and rhythms called *cantillations* Jewish children still learn today in advance of *bar mitzvah* and *bat mitzvah*, to secular music of Sabbaths and weddings. Jewish music shared certain commonalities with Christian and Muslim music. Sometimes Jewish music was imitated and influential; other times Jewish musicians imitated, borrowed, and emended other forms in their own way.

Was music in the Middle Ages thought to be a desecration of Sabbath sanctity? Or was it

intrinsic in pious celebration? Who were the professional musicians in the Jewish community? What were their relationships with the rabbis? Were Jewish professional musicians significant in a larger non-Jewish world of medieval court and city? Answers to such questions about medieval Jewish music vary according to country and century. Yet certain patterns of opposition simplify analysis of this vast, disparate, and interesting musical heritage, namely, synagogue versus secular music, Jewish art song versus folk song, and professional entertainers versus amateur music enthusiasts.

A vigorous medieval secular Jewish music tradition existed, with learned rabbis themselves often participating as musicians and dancers. Professional synagogue singers of liturgy, the *chazzanim*, also performed publicly, sometimes as itinerant musicians singing the news from town to city. Jewish musical jesters and jokesters, the *badchonim* and *marshalliks*, and instrumental musicians, the *klezmorim*, as well as ballad singers and romance chanters, the *Spielmänner*, mediated between Jewish and Christian audiences, and sometimes between Jewish and Islamic patrons.

Each culture's qualities intertwined with those of the other. There were Jewish *troubadours* in southern France, Jewish *minnesingers* in Germany, and Jewish *dolce stil novistis* in Italy. Occasionally Jewish performers directed a Christian court's cultural entertainments, such as the aforementioned 15th-century Italian dance master Guglielmo Ebreo, William the Hebrew. For all these medieval musicians, music was a profession honored both within and outside the Jewish community. Music also was a personal expression of piety, even on the Sabbath.

Music in the synagogue is an ancient expression of prayer. Jews as "the people of the book," however, usually are portrayed as reading not singing, closely following text not music. But the Talmud is unequivocally adamant on this

musical score. The Bible must be read in public and made understandable to hearers in a musical sweet tune. One who reads the Pentateuch, the five books of Moses, without tune shows disregard for it and the vital value of its laws. In fact, a deep understanding can be achieved only by singing the Torah, and that singing must be in the traditional tunes. Whoever intones the Holy Scriptures in the manner of secular songs abuses the Torah.

Synagogue Music

The traditional cantillation is the musical chanting technique still performed by observant Jews in modern synagogues. But other melodies, sometimes borrowed from secular life, served important mnemonic and inspirational purposes, aesthetically reinforcing the understanding of word. For this singing so significant to sanctity, three separate musical officers existed: the *precentor*; the *chazzan*, or cantor; and the *paytan*.

PRECENTOR

The precentor was the honored amateur, "one of the people" selected as leader of formal communal prayer, biblical singing, and improvisational devotion. The Hebrew title was *mithpallel*, a fascinating use of grammar to define social function. The word contains a reflexive verb meaning "the leading of oneself to pray." The precentor was the leader of the listening self back to the self in the approach to God. Such a man or a woman intercessor had to possess stellar qualities but preeminently a fine, clear, inspirational singing voice.

Rabbi Judah bar Illai of Galilee (second century) enumerated the desiderata for a successful precentor: good pronunciation; knowledge of Jewish law, the *Halakhah;* understanding of folk tradition, the *Haggadah;* memory by heart

of all ritual prayer; and respectable reputation. But no quality was so significant as a beautiful voice: a heavenly gift through which people are inspired to devotion.

The precentor's place in the early medieval synagogue was a special platform set slightly *below* the level of the sanctuary floor. Symbolic of this amateur musician's humility with a divine gift of song and reverence for the job to be performed, the precentor sang from below the parishioners, abasing the self while uplifting the spirit of others.

CHAZZAN

In due musical time the job became professional, and so did pride of place. Instead of using the precentor's depressed song box, the cantor, or *chazzan*, sang musical recitation from the raised central stage called the *bimah*. The earlier precentor usually was aided by two assistants as a prompter chorus. The chazzan had the advantage of superior learning. Many of the best were poet-singers and sometimes rabbi-singers. Some used dazzling musical effects and responsorial devices eliciting enthusiastic song from the congregants.

For each special holiday and each day's ritual prayer, the chazzan would sing a special *leitmotif*, a leading musical melody or dominating mode to inspire the parishioners' appropriate mood. These were the *scarbove*, or sacred tunes, joyous and jubilant for festivals, penitential in sound and inciting to atonement for the high holy days. These venerable melodies were called *Mi-sinai* in honor of their supposed origin: Ostensibly God handed down these tunes to Moses at Mount Sinai. The great 14th- to 15th-century German rabbi Yaacov Moelin, known as Maharil (d. 1427), probably created them.

Some Jewish melodies wandered from secular to religious context, from religion to religion, from country to country. Such traveling melodies appearing simultaneously in, say, a Spanish Jewish praise of Zion, a German Catholic hymn to the Virgin, and a Czechoslovakian Bohemian erotic folk song clearly suggest that one borrowed from another.

No one knows for sure which was lender, which was taker. Christians admiringly attended Jewish synagogue services, causing Christian churchmen to rail against Jewish "corruptions" of Christian music. Rabbis warned Jews encountering Christian melodies in marketplaces and concerts to be wary. Even Jewish babies, counsels the aforementioned 13th-century instruction book *Sefer Hasidim* (*The Book of the Pious*, attributed to Judah the Pious Kalonymous [d. 1217]), must not hear Christian lullabies sung by their gentile nursemaids. It would corrupt their thinking.

No matter what the secular source of many Jewish religious melodies, some *chazzanim* insisted upon their right to select effective music for their own important purposes. The *chazzan*'s charge was to intrigue the congregation musically to lead its thoughts to Jewish law. However, some musical techniques were so florid and resounding that they out-shouted the words of God. When, for example, the brilliant 13th-century Spanish poet Judah al-Harizi (d. 1235) visited Mosul in Iraq, he found the *chazzan* there worked up into a frenzied sweat, his parishoners no less boisterously ecstatic, singing a splendid soaring song but with a text full of ridiculous, ignorant errors. When al-Harizi suggested textual corrections, the *chazzan* put the visitor in his place by insisting that intuitive poetry and music of the *chazzan* were far more important than formal prayer.

PAYTAN

In addition to the *precentor* and *chazzan* as music masters of the synagogue, a third artist was the *paytan*. The paytan wrote the *piyyut*, the reli-

gious musical poems usually elaborating upon a biblical motif. The *piyyut* was characterized by markedly mannered passion with extravagant puns and such structural virtuosities as alphabetical *acrostics*, ingenious puzzle poems in which the initial letters of horizontal lines make words when read vertically.

Some learned, scholarly poets wrote the *piyyut*, such as the Spaniards Abraham ibn Ezra (d. 1093) and Judah Halevi (d. 1141), men otherwise employed as physicians and translators who volunteered public service with their poetry. Yet the professional *paytan* as a song writer was a moral instructor the Jewish community hired to lure hearers by words and music to the love of God, repentance, or acts of human kindness. While the *paytan* generally was more concerned with facility with word, and the *chazzan* more a celebrant with melody, many a *paytan* was also a *chazzan*, and many a *chazzan* a *paytan*.

Of the three liturgical musical guardians, *precentor*, *chazzan*, and *paytan*, the one most responsible for popular vigor of Jewish melody was the *chazzan*. He not only served a single congregation, but when social and vocal circumstances were best—or worst—traveled. Superior singers were in demand, invited as guest performers in distant Jewish communities during times of relative peace. Conversely, when persecutions and cataclysm made it impossible for a congregation to support a *chazzan*, he would travel among several synagogues singing for his living. This wandering scholar's life had a major compensation in the traveling melodies, the chance hearing of regional, secular, or non-Jewish songs for transmission or for transformation.

Basic holiday melodies demonstrate such medieval musical interdependencies. The rousing Channukah hymn "Rock of Ages" or "Maoz Tzur" would have been equally familiar to a pious sixth-century German Lutheran and a secular soldier, for the melody consists of one theme Martin Luther also used in one of his chorales plus another motif common to the popular battle song "Benzenauer."

Secular Music

FOLK SONG

Such traditional Jewish holiday songs were sung as often in the home or marketplace as in the sanctuary. Their power derived in part from their insistent rhythm, repetitive melodic motifs, easily remembered structure, and apparently inevitable movement from phrase to phrase: the qualities of the best folk songs.

Jewish folk song, as those of all cultures, was the popular oral tradition of rhythmic stanzaic song, authorship unknown and undiscoverable, transmitted person to person by ear, by enthusiasm, and by affection. Of course someone composed the original version of every folk song, but subsequent singing subtly changed and developed that first rhythmic or melodic essay on a perennial subject such as love's perils or work's labors. Particularly fascinating Jewish folk songs are work songs, representing musically a rhythmic physical exertion, the melody usually an aid to the rigors of labor. Jewish sailors' sea chanteys, plowmen's songs, and spinners' songs appear in vernacular languages in both the Ashkenazic or Germanic Jewish world and the Sephardic or Spanish.

Ladino folk songs were a particularly splendid repertory. The texts in the Judeo-Spanish language called Ladino were set to music typical not only of Castile but also of the Eastern countries to which the Spanish Jews were forced in exile after 1492: Egypt, Yemen, Turkey, North Africa, and the Balkans. Love and labor are their most common themes, most particularly love's labors. Some of the most splendid Ladino songs were women's music,

such as lovers' laments sung at the spinning wheel in springtime.

Surprisingly many Jewish folk songs (not only in Ladino) also were composed by women and performed by them. Some celebrated homely joys such as clothes, vegetables, hearth, and cradle. Lullabies, such as the medieval German "Raisins and Almonds," "Rosenkes mit Mandeln" are poignant, exquisite, and durable. However, other women's folk songs or "Volklieder" are bitter laments on war, mothers-in-law, widowhood, women's housework, professional trade, and heretical husbands. By turn witty, sarcastic, acerbic, and satiric, these songs are intelligent commentaries on the perils of life and its numerous pretenses.

Women's songs saw behind the world's mask, philosophically exulting in imperfection as well as excellence. The songs merit the keenest study for their subject, which reintroduces to the modern world certain lost details of medieval and Renaissance Jewish culture. Few other sources exist for describing competition between women trades workers, young women's disappointed sexual expectations, the art of handling flirts, and the most effective curses for punishing an unfaithful husband. Women's folk songs also deserve admiring analyses never yet lavished on their astounding rhythms, complex rhyme schemes, and alphabetical acrostics.

ART SONG

Such sophisticated themes and elaborate techniques force us toward another important song form, the art song or court song, which German critics called *Hoflied*. One unequivocal distinction between art song and the anonymous folk song is authorship. Usually we know the art songwriter's name. Second, unlike the amateur folk song creator, the professional art song crafter often self-consciously created a new style or imitated a musical fashion of the wider Christian or Islamic culture. Third, a wealthy or noble patron usually employed the art songwriter to serve the court by directing music to politics, as in writing political satires or in composing songs for formal feasts and court entertainments.

Jewish troubadours such as Joseph Ezobi, Abraham Bedersi, and Isaac Ben Abraham Gorni flourished in 11th- and 12th-century southern France. Not great but decent, these Jewish poet-musicians wrote about the same subjects that captivated Christian Provençal troubadours. They celebrated courtly love's inborn suffering, which exalted or devastated the noble lover. As did their Christian colleagues, the Jewish troubadours engaged in poetic tournaments and competitions.

Jewish minnesingers such as Susskind von Trimberg, as did his 12th- and 13th-century German Christian contemporaries, sang about love's introspective philosophical pleasures and love's ennobling consequences for lovers. In Italy among the writers of the joyous science of love expressed in the sweet new style, the *dolce stil novo*, Immanuel of Rome (d. 1330), the "master of love and passion," elicited the praise of the circle around Dante for his lusty, loud, laughing songs.

These Jewish musicians practiced magnificently the fashionable techniques their patrons and their times demanded. Though their best work was indistinguishable from the best of their Christian or Muslim colleagues, the Jewish poet-musicians added to their art a chauvinistic vigor. Maintaining that the true origin, in fact, the cultural discovery, of music was traceable to Old Testament Hebrews, the Jewish *troubadours*, minnesingers, and *stil novistis* insisted that they perfected a sweet new courtly style in order to reassert their own ancient heritage. This might have been a deeply principled justification for art. Or it might have been public rationalization to counteract rabbinic com-

plaints that the stylish, secular, sometimes scurrilous songs were inappropriate use of Jewish musical talent.

Art songsters also served as propagandists and political-performers. To the modern eye and ear medieval musical politicization is astonishing. Before printing and the speed media, musicians effectively transmitted political information. A poet-singer employed by an emperor might sing a biting sarcastic song letter to a pope about a land quarrel. The pope's musician would compose a vitriolic counterattack, contemptuous in both verse and melody.

Important political commitments might be announced to the assembled court by song. Disputes would be musically mediated. Messages were transmitted via music. So also were flattery, scorn, complaints, laments, eulogies, and elegies. A powerful poet-propagandist could influence his noble patron's reputation as dramatically as could his battle-winning general.

For good reason the best diplomat-musicians earned high salary. Some poet-singers ruefully complained in begging songs about ungrateful, stingy patrons who paid more with praise than with purse. Susskind von Trimberg, singing in a rich ermin-trimmed robe, bemoaned in a begging poem, a *Bitte Spruch*, his insufficient reward for services rendered, threatening to retire and live "like an old Jew," growing a long gray beard, wearing a long coat, his head under a long pointed hat. That headgear, of course, was the infamous *Judenhut* required of Jews as identifying garment in addition to the Jewish badge, the *rouelle*.

TOWN SONG

Midway between qualities of the court's art song and the people's folk song was the town song. Seemingly artless, though carefully constructed, rhythmically commanding, and melodically inventive, town songs were middle-class levelers of the excesses of each. Neither descending too far to low vulgarity nor soaring too high in preciosity, this middling music, often of notable beauty, was often referred to in the early Renaissance as *Gesellschaftslieder*, the merchantmen's and townspeople's art form.

The town song was commissioned for entertainment, and, as so much bourgeois art, edification. Lyrics wrought with wit and humor, the town song's muse neither flitted nor soared but stood proudly, firmly, buxomly on the ground. That town muse was a lively woman, not the high-born, self-concerned, unattainable, slim beauty celebrated by the troubadours and minnesingers, but an accessible, warm, responsive woman whose physical attentions to the poet-musician would inspire his creativity. She usually was also a good wife. Fifteenth-century Wolflin von Lecham wrote 36 songs, whose words and polyphonic music are dedicated to his beloved wife, Barbara.

How was this great variety of Jewish secular music performed? Where? When? By whom? What did the rabbis say? Good clues to answers are the awesomely vast records of two major Jewish celebrations: the Sabbath and the wedding. Sabbath sanctity in the Middle Ages was stimulated by music. Music was specifically encouraged for reasons of celebration and entertainment. Importance of celebratory music is suggested even in its negative, in Talmudic and rabbinic complaints *against* music on the Sabbath. But almost every prohibition placed in historical context becomes understandable not as hatred of music itself but as response to political or philosophical crisis. Virtually every ban on Sabbath music follows a specific period of persecution or pogrom making rejoicing unseemly, mourning more appropriate. Or a Sabbath music ban follows an event reminiscent of the destruction of the Second Temple, making communal lamentation rather than musical enthusiasm the dominant mode.

Each prohibition had its positive that initiated the negative. There would be no reason to

ban frivolous music unless there had been frivolous music to ban. Professional musicians called *Klezmorim* played in 12th-century Eastern synagogues, for example, to accompany hymns, to dedicate a tabernacle, or to consecrate a torah. In many western European cities *Klezmer* ensembles and bands played in homes and public places on the Sabbath, though not in a synagogue. Often their concerts were restricted to special holidays or weddings. Some cities had their own Jewish musician's guilds, and in several of these women musicians were prominent.

Some *Klezmorim* members played for *Christian* celebrations, as public processions, parties, and fairs. An indication of the popularity of such Jewish bands are the heavy taxes local authorities levied on their incomes. Numerous *Klezmorim* graced the courts of kings, caliphs, and popes. Some medieval communities that themselves forbade Jewish *Klezmer* music from Sabbath playing nevertheless invited Christian musicians to do the musical Sabbath honors. In many parts of Europe, Sabbaths sounded gloriously.

The week's only workless day, seventh day required entertainment to complement contemplation. One of the most important music makers catching the popular fancy was the *Spielmann*, the singer of marvelous tales. Performing for pay as well as for food and drink in private homes or social gathering places, the Spielmann would sing long, fashionable stories transforming their original Christian or Islamic character and situation to suit the Jewish audience. For Sabbath entertainments, Judaized Arthurian romances were in vogue for several centuries in western Europe.

Far and away the most beloved knightly romance was Elijah Levita's Bahur's (d.1549) Yiddish poem of courtly adventures, the *Bove Bukh*. First written in Judeo-German in 1507, it was performed orally and then printed and reprinted frequently through the centuries. Its

fantastical exaggerations in later versions, then called the *Bove-Masse*, became the pun and exemplar of *Buba-Meise*, old wives' tales, outlandishly delightful and unbelievable.

Elijah Levita's Bahur's *Bove* is an astonishing Yiddish redaction of the Italian version of the English *Sir Bevis of Hampton* tale. In the Italian poetic form *ottava rima*, called in Yiddish *raym in akht-gezets*, Elijah masterfully coerced the Yiddish language to fit the Italian style, in a literary tour de force with a difficult rhyme scheme.

Content is even more improbable than manner. In his bizarre courtly adventures, the noble young knight Sir Bove was joined by his beautiful noble wife, Druzane. These adventurous lovers glow with Yiddish expressions: Saying *shalom* at castle gates, and *mazel tov* after battle victories, they publicly celebrate their twin sons' ritual circumcisions with a *brit* feast. A superb example of the *insular* literary tradition, discussed in chapter 9 on literature, this hilarious romance was commissioned by women. The minstrel (*Spielmann*) Elijah said in his preface, "I, as a servant of all good women of honor and good breeding, publish this book for women at their request so they might pleasantly pass the time on Sabbaths and festivals."

Spielmanner Sabbath entertainments begin and end with formulaic piety. The *Bove Bukh* starts off with "Let God be eternally praised and let him strengthen me to translate this book." The work concludes with a hope for the Messiah's rebuilding the Temple in Jerusalem. But between these Judaic formulae are secular oftentimes scandalous adventures, as in *Bove*, the tangles of intrigue, mistaken identities, rich pomp and ceremony, magical swords, enchanted horses, and even a dog-man named *Plekun*.

The Arthurian Round Table spins quickly on the Jewish pivot point supporting it. Rhythm of action was determined by the music. The narrator employs song to cue the

audience to two simultaneous actions, for instance, when the hero Sir Bove rides off on one of his heroic adventures, the narrator will sing a song. The episodes were of length convenient to chanting or singing, interrupted by pauses for refreshment.

If in some Spielmanners' songs the morals for Sabbath's edification were subordinate to the entertainment, the stories neither always pure nor simple, in others there predominated a refined, contemplative, literary sobriety. Sung story was the medium, ethics the message.

WEDDING MUSIC

Certainly music was significant in Sabbath celebration and entertainment but it was *essential* to the Jewish wedding. Singers, dancers, and instrumentalists were amateur or professional, depending on the wealth of the betrothed pair. The great rabbi Maharil counseled those contemplating marriage, "If you live in an area where restrictions are placed on wedding music, then move!"

A local wedding might be traditional but a musical wedding was necessary. Musical harmonies of a marriage celebration would portend the future harmony of married life. To banish music was to invite death. The very stern, antimusical Babylonian rabbi Huna found to his dismay that when he angrily banished musical frivolity and gaiety, he banned all music from his community. Thereafter all commerce and all transport stopped. With no music to sound the hours, rhythmically lighten the labors, advertise the produce, lullabye the children, or whistle away fear, all joy was banished and life effectively stopped. When Rabbi Huna rescinded his prohibition, human harmonies were reintegrated with the music of the celestial spheres.

Such acoustical reflection, such concern with heavenly overtones and earthly undertones, was not idle analogy. A philosophical belief based on medieval scientific ideas caused even the most staid and pious to celebrate rhythmically at weddings. Any Jewish marriage theoretically promised survival of Judaism. Traditions of the past would be transmitted to the future by the consecrated pair's fertility.

Music in many ways accompanied this rite of passage. Wedding music was thought to awaken favorable guardian spirits and to ward off evil ones. Jaunty, beautiful rhythms might please the beneficent spirits. Loud sounds might scare away the baneful. Suddenly in the midst of a wedding reception's joyous hilarity, a Klezmer would sound a startling discordant note or sing a wailing lament to assure listening mischief makers that the bride and groom were not too happy. To shock the wedding guests, cymbals would clang to stimulate mindfulness that for Jews tragedy was perpetual companion to joy. For the same spiritual purposes another common intrusion in wedding music was the shattering of a glass or a dashing to the ground of a metal or porcelain platter as ringing reminder of the potency of the other world.

A second important purpose of marriage music was the earthly imitation of the perfect heavenly harmonies of star music. Thereby the couple could be integrated into God's total harmonious universe. Jewish astronomers, mathematicians, and scientific translators, as their Arabic and Christian colleagues, emphasized similarities among three musical spheres: (1) the rhythmic periodicities of planets, (2) the mathematics of music theory and the physics of acoustics, and (3) human bodily rhythms, such as pulse.

Rabbi Saadya Gaon (d. 942) wrote a book on the eight rhythmic musical modes and their influence on the human soul. Levi ben Gerson in the 14th century wrote an influential treatise, "Musical Harmonic Numbers" (*De numeris harmonicis*), demonstrating the interrelationships among rhythms in the heavens, in human bodies, and in musical instruments. Judah ben

Isaac's Hebrew translation of a Latin music theory text even included the famous *Guido's hand*, the device utilizing human fingers and joints for teaching music students the order of notes in the hexachord. For these theorists, human instrumental or vocal music was the least perfect echo of the splendid melodies of universe and Earth. But humankind's paltry, earthly music nevertheless allied the person with the creator and with God's will.

At weddings, practical application of such theory required music for stimulating a mood of rejoicing and exuberant expression of that happiness. Other nuptial music stimulated the bride and groom's erotic impulses, to assure their consummate coupling. Horns, lutes, cymbals, and bells would sound sexually arousing music of the *shivaree*. Still played at Jewish weddings today as so-called wedding marches, the earlier shivaree accompanied the couple to their bed chamber. Wagner's wedding march from his opera *Lohengrin* is a shivaree, likewise Mendelssohn's wedding march.

Directing dancing at weddings were professional dance masters who worked not only in their own Jewish communities but sometimes for noble Christian courts. Guglielmo Ebreo was one of those who bridged the two cultures. Numerous sober, circumspect medieval rabbis and Talmud students would dance, sing, and cavort at weddings. Pious men would sing special songs praising the bride. A popular song began: "Hail precious one! Beautiful without powders, rouge, or hair dye!" A rabbi such as Judah bar Ilai would vigorously dance in front of a bride, rhythmically waving before her a palm or myrtle branch, an ancient fertility symbol. The venerable sage Rabbi Acha would sway and dance, lifting the bride to his shoulders. When his dismayed disciples asked whether this was entirely decorous behavior for them to imitate, he said, "Certainly. So long as you can withhold yourself from base thoughts."

While some rabbis were paid, others volunteered to rejoice at weddings, having recompense in their participation in a Jewish sacrament. However, a special class of professional musical merrymakers called the *Badchanim* performed at weddings. The *Badchan* was a singing jester, story chanter, comedian, sometimes juggler or mime. But he was usually reasonably learned. His jokes customarily were sprinkled with biblical and Talmudic puns, allowing particular pleasure in humor for the more educated wedding guests. A successful *Badchan* composed extemporaneously, creating on the spot new songs for the particular interests of bride and groom or the qualities of the guests. A common people's diplomat, the *Badchan* was a peacemaker, reconciling at a wedding those guests otherwise in enmity. In Germany the *Badchan* was called the *Marshallik*, a secular master of ceremonies, intelligent jokester, and trained musician. Another wedding entertainer was the *Leitzim*, perhaps identical to the *Bodchan* and *Marshallik*, a comedian–folk song performer, specializing less in word than in movement, juggling, and dancing.

Medieval and Renaissance Jewish weddings, then, as the medieval Sabbaths, resounded with joyous music. Melody and rhythm entertained and instructed. Amateur revelers and professional *Badchanim* alike transmitted in practice certain traditional ideas appreciated by Jewish theorists. Human rhythms were related to the divine. Wedding guests drunk with rhythm and wine achieved a salutary recreation. But the more thoughtful heard with the inner ear a series of heavenly harmonics: the overtones of God's love and the undertones of mankind's hope.

Such exalted purposes of secular music of course were also the synagogue's expectations of music. Amazingly similar ideas pervaded the marketplace and the Jewish home, was music and musicians graced the Sabbath and family festivals. A common concern for educational pleasure and delight in instruction animated medieval Jewish musicians, the precentor,

chazzan, troubadour, Minnesinger, Spielmann; writers of folk song, court song, town song; and mathematical-astronomical music theorists.

In the surrounding Christian and Islamic cultures Jewish musicians were both givers and borrowers of melody, subject, and performance techniques. Jewish musicians achieved such reputation for excellence that they became symbols of sophisticated art. The nobleman wanting to demonstrate his court as the finest hired as arbiter of court culture a Jewish master of court ceremonies. Certain Jewish musicians complemented political importance with cultural power.

The Jewish Dance Master

One of the most significant 15th-century political-musical positions was that of the court dancing master. Guglielmo Ebreo, William the Hebrew, the revered 15th-century Italian dance master, wrote a treatise entitled *Trattato dell'arte del ball di Guglielmo Ebreo* (*Treatise of the Art of Dance by Guglielmo Ebreo*), whose richly decorated, beautifully bound manuscripts exist today in Florence, Siena, Modina, Rome, Paris, and New York City. Their number and quality suggest an international concern for dance as well as an appreciation of Guglielmo Ebreo's eminence, a fame corroborated by panegyric poems praising him.

Medieval and Renaissance dance was not a craft for professional performers as much as an art cultivated from early childhood for well-born amateur practitioners trained to be graceful participants and discerning spectators. Dance served three cultural necessities: social entertainment, physical exercise, and cultivation of moral control.

As a daily courtly banquet art form, dance was political entertainment. Carefully choreographed processions, group dances, and solo performances all reasserted the primacy of the

Miriam and her maidens sing and dance in preparation for Passover. Manuscript page from the *Golden Haggadah*, 1320, Add. 27210, f.15 recto.

most honored, the "lead couple," and the venerable "presence" of the leader or the lord or lady before whom all ceremonially bowed. Dance was a ritual ostentatious display of costume, jewels, and physique plus fashionable foreign manners and steps acquired by the well tutored and well traveled.

This courtly entertainment was nearly infallible test of nobility. Since very young children were taught dancing many hours per week, the difficulty of steps and requirements for grace incrementally increasing with age, an adult's dancing poorly or clumsily called into question his upbringing and social class. While an imposter might slip through security with forged papers, or a nouveau riche poser might affect a speech as if to the manor born, nevertheless, bad dancing would shout them out as frauds.

Dancing as liberal art and virtuous science, as Guglielmo Ebreo called it, required a physical exercise harmonizing intellect with body. Guglielmo stated his famous six requisites for a good dancer. First was measure, *misura*: the musical ability in timing, rhythm, and proportion, particularly to the accompaniment of musical instruments. One of Guglielmo's tests for a fine dancer was the ability to keep time when several separate instruments each played in a different rhythm.

Second requirement was memory, *memoria*, the ability to remember the correct sequence of steps and movement accurately. In very complex court dances this required prodigious concentration. Third was *partire del terreno*, the ability to estimate and apportion appropriate space for revolutions, leaps, and twirls.

Guglielmo's fourth and fifth qualities cultivated in daily exercise were *aiere*, general physical facility and lightness of movement, and *maniere*, a perfect integration between motions of the torso and the feet. These culminated in the sixth requisite, *movimento corporeo*, the total balance, posture, poise, and pose that constituted grace.

Dance was a control cultivator, training for the medieval and Renaissance ideal of virtue. The hardest exploits must seem effortless, natural, organic, always having been and forever more to be. Dancing, as Guglielmo Ebreo defined it, was an art for "generous hearts that loved it and for gentle spirits that had a Heaven-sent inclination for it . . . totally superior to those vicious and artless common people" whose "corrupt spirits and depraved minds" debased dance and disparaged its "liberal art" and virtue as "science" (The Letter of Dance. Available online. URL: http://www.pbm.com/~lindahl/lod/vol3/Italian-balli.html).

This 15th-century Jewish dancing master presented a proud theory of the dance along with the music and choreography for the dancers he taught, the noblest, most refined, politi-cally powerful courtiers of his day. Teaching children, coaching adults, arranging choreography of banquet politics, the dance master was a ruler of court ceremony.

Alongside Guglielmo's own dances in one manuscript are two dances composed by the Medici prince Lorenzo the Magnificent (d. 1492). Juxtaposition of work of that noble amateur and the Jewish craft master suggests the triumph of talent over social prejudice. Guglielmo the Jewish dance master, as did the *chazzan*, *troubadour*, *Spielmann*, and *badchan*, enriched both Jewish and Western cultures with music of dazzling variety, intellectual excellence, and audible splendor.

In prayer and at home, medieval Jews had music to obey joyously the command of the Psalms: *Ivdu et Hashem v simcha bo-u lfanav birnana*: "Worship the Lord with gladness. Come before God with song." This religious rationale also informed certain genres of Islamic music, most notably the *sama* tradition of the Sufi mystics. But whereas music formed an integral part of orthodox Christian and Jewish liturgical celebrations, the Islamic tradition was mixed, forever debating the licitness of music and its censure. Independently of these religio-legal discussions, the Islamic world contributed to the global medieval musical tradition via the composition of treatises on musical theory and the transmission of its musical instruments and genres.

ISLAMIC MUSIC AND DANCE

Music in the Islamic world between the eighth and the 16th centuries was a rich blend of Arabic, Syrian, Iraqi, and Persian musical achievements with influences from Byzantine, Christian,

and Jewish music. Music theory, musical instruments, composition techniques, performance methods, tonalities, and tastes varied from place to place in the huge geographic space ranging from the Atlas Mountains, the Sahara in Africa, the Arabian Gulf, the Tigris and Euphrates River valleys, the Mediterranean, and the Iberian Peninsula. Islamic music assimilated music of local cultures. Music of Islam's Arabs, Persians, and Turks, however, had distinctive characteristics while sharing an Islamic central core of opposing ideas.

Islamic music is rooted in the music of the tribes of the Arab peninsula. Bedouins sang caravan songs called *huda*, which developed in the Hijaz into a more elegant, secular song called *nasb*, which was sung on joyful occasions such as weddings. In the Umayyad and Abbasid periods, nomadic Arabic music was transformed by contact with the music of Syria, Mesopotamia, Byzantium, and Persia. Poem lyrics still were sung in Arabic, and the Quran was chanted according to traditional rhythmic norms called *tajwid*. But the caliphs, as patrons of wealthy sophisticated courts, encouraged foreign entertainments, learning, and the splendors of the countries and cultures they conquered.

Music as *Halal* or *Haram*

Music was discussed and debated in legal, theological, and mystic writings. One Islamic school of thought, based in Medina, was dominated by thinkers who cultivated music as an art and encouraged music as a science that was permitted, *halal*. Scholars of the rival Islamic tradition censured the theory and performance of music as forbidden, *haram*. Central to both groups was the concept of how music was heard, *sama* as blessed inspiration or as a lure to commit sin. Sufi mystics, for instance, made music integral to prayer, and Sufi music and dance were methods for attaining religious ecstasy. The Iranian

mystic and religious scholars Abu l-Qasim al-Qushayri (d. 1074) and Abu Hamid al-Ghazali (d. 1111), among others, defended music in Islam as a mystical necessity for religious ecstasy. Other religious theorists, such as the Abbasid religious scholar and ascetic Abdallah ibn Abi Dunya (d. 894) and Hanbali theologian Ahmad ibn Taymiyya (d. 1328), censured music as a frivolous distraction from piety and seductive deflection from concentrating on Allah's perfection. Ibn Taymiyya in particular was concerned that music and dance in Islam were barely disguised survivals of pre-Islamic paganism. In the face of such accusations, al-Ghazali and others established norms of propriety and conditions of listening, distinguishing, for instance, between those who listen to music for purely personal pleasure (*sama al-nafs*) and those who listen "according to their heart or spirit." Still other scholars such as Abu Nasr al-Farabi (870–950) wrote treatises on the physics of sound and the emotional effects of sound and rhythm on the human mind. Ibn Khaldun (1332–1406), philosopher and historian, used music as the test for a civilization's health.

Music Theory

Musical theorists from the eighth through the 11th century wrote influential books on performance practice. Al-Khalil ibn Ahmad (d. 791) in his book on musical techniques, *Kitab al-nagham* (*The Book of Melody*), analyzed music and textual meter, rhythm, and prosody, uniting Indian, Arabic, and Persian concepts. Al-Hasan ibn Ahmad and Ibn al-Tahhan of the late 10th and early 11th centuries, respectively, wrote treatises on vocal technique.

Ibrahim al-Mawsili (742–804) and Ishaq Ibn Ibrahim Al-Mawsili (767–850) Ibrahim al-Mawsili and his son, Ishaq ibn Ibrahim al-Mawsili, founded the classical Arabic

language school for singing. Ibrahim was said to have composed 900 melodies of his own. Abu l-Farj al-Isfahani mentions in his *Kitab al-aghani* that the son, Ishaq, was the most skilled and accomplished musician in the art of singing of his time. He was also a master of music composition and is credited with having finalized a codification system of eight melodic modes and eight rhythmic cycles and with having developed a definition of lute fretting independently of the ancient Greek theorists.

Ishaq's performance art was superb, his tunes exotic, his rhythms harmonious, and his manner unequaled by any predecessor or successor. Ishaq also was a great composer and writer. He wrote the *Great Book of Songs* (*Kitab al-aghani al-kabir*) and treatises on melody and rhythm. He also wrote about dancing and gait, and about the women singers of the Hijaz, Basta, and Kufa.

Tunes were considered proprietary. A slave woman named Dumon, who belonged to Ishaq, reported that she was the one slave woman successful in striking an intimate sexual relationship with Ishaq and one night tricked him and stole one of his tunes. Poems, songs, and melodies had monetary value. The elite of Baghdad exchanged tunes of songs much as they exchanged other types of gifts such as precious antiques. Song gifts suggest that melodies were written down and recorded during the Abbasid period.

Bayt al-Hikmah   The ninth-century Abbasid caliph al-Mamun, founded a cultural center, library, and translation institute called the House of Wisdom, Bayt al-Hikmah, in Baghdad. There scholars such as translated into Arabic important classical Greek musical works that introduced into Islamic culture the philosophical, mathematical, and musical ideas of Pythagorus and his followers, of Plato, of Aristotle, and of Plotinus. Greek musical treatises were translated into Arabic sometimes directly from the Greek but more often through Syriac translations of the Greek originals made by Nestorian Christians. Among the important Greek treatises in Arabic were Aristotle's *De Anima* (*On the Soul*) and the *Problemata* (*Problems*), Aristides' *De Musica* (*On Music*), Aristoxenus's *Harmonica*, Ptolemy's *Harmonica*, Euclid's *Canon*, Nichomachus's *Enchiridion* (*Manual*), and Cleonides' *Introductio Harmonico* (*Introduction to Harmony*).

These texts dealt only in part with musical performance and emphasized music as intellectual discipline and as mathematical science. Likewise, in the Latin West music was one of the four disciplines of the university *quadrivium*, along with geometry, arithmetic, and astronomy. From the Greeks a comprehensive, rich musical nomenclature was translated into Arabic.

Abu Yusuf Yaqub al-Kindi (d. c. 866)   The philosopher Abu Yusuf Yaqub al-Kindi studied the Greek musical past and the contemporary Islamic present and combined information about both in his treatises. Al-Kindi wrote a book about the lute, *al-ud*, the stringed instrument known as the "prince of enchantment," *amir al-tarab*, from which the modern guitar is derived. The lute was a favorite instrument of composers, professional instrumentalists, and amateur performers. Al-Kindi discussed the science of sound. He described musical intervals. He analyzed musical composition. He elaborated on the diatonic *ud* fretting popular in the ninth century and added a fifth string to the four-stringed *ud* to expand the pitch range to two octaves. He also theorized about the psychology of music, commenting upon its effect upon the soul and the emotions and its therapeutic value.

Al-Kindi lauded the *ud* as part of God's great macrocosmological plan in which the four strings of the earthly *ud* represented the four seasons, the four elements of which the universe

is made, the four humors of the human body, and the four points on the compass. Musical effects of the *ud* were consonant with heavenly harmonies of planets and constellations.

Among those influenced by al-Kindi were the 10th-century Brethren of Purity, Ikhwan al-Safa, to whom are attributed a musical text that follows al-Kindi in emphasizing cosmology and numerology. The text is found in their compendium of *Epistles* (*Rasail*) in the section dealing with mathematics.

Abu l Faraj al-Isfahani (897–967) Abu l Faraj al-Isfahani was mentioned earlier as the author of the prodigious 24-volume *Book of Songs*, *Kitab al-aghani al-kabir*. Isfahani listed musical virtuosi and the music they performed. He described classical modes with song lyrics to express moods and passions. Each mode was indicated by the names of the fingers and the frets used when playing the *ud*. His songs expressed praise, complaint, lament, and love and were used in work, ritual, healing, wedding ceremonies, and funerals. Al-Isfahani also described music's importance to preserving history and story, since it was composed and performed in the service of panegyric, politics, art, and entertainment. He noted programmatic music's mimetic power to represent the natural world in galloping hoofbeats, singing birds, and babbling brooks, and the world of men in clashing of weapons.

In his songbook *Kitab al-Aghani*, al-Isfahani related stories of singers who by vocal power could induce fits of ecstasy and other somatic experiences in their audience members. A particular singer stood on a bridge and sang so magnificently that soon people of all ages and social classes gathered around to hear him. People feared that the bridge might collapse under the weight of those enraptured by his exquisite sounds. Some music fans would throw themselves into the river Euphrates in a frenzy of elation and ecstasy.

Even the dignified chief judge (*qadi*) of Baghdad, Ahmed ibn Abi Daud (d. 854), who had disdained singing and singers, was transformed from skeptic to passionate admirer after listening to a particular singer. The judge had traveled with the caliph al-Mamun in the mounted entourage of Prince al-Mutasim to Syria and while riding heard such a magnificent voice of a musician that the judge was transfixed and unconsciously dropped the whip from his hand. The caliph offered the judge an encore of that very moving song if the judge would retract his condemnatory comments against singing. The judge was so grateful to be emotionally moved by song he never again ridiculed singing.

Abu Nasr al-Farabi (870–950) Abu Nasr al-Farabi wrote an astonishingly comprehensive book that he called *The Grand Treatise on Music*, *Kitab al-musiqa al-kabir*, that united music theory with practice. He discussed sound as science, consonance, dissonance, harmony, rhythm, intervals, tetrachords, octave species, melodic structure, vocal style, and musical instruments. Al-Farabi also considered music composition and music's effects on listeners. His own *ud* playing was so rapturous and sensual that he was said to hypnotize his audience. Likewise in the West, the best Celtic bards, troubadours, and trouveres were described as casting spells with their music. Al-Farabi's music could induce his audience to laugh, to cry, or to sleep. The musician created the effects of the "prince of enchantment," *amir al-tarab*, by elaborate lute fretting and two newly introduced intervals. Al-Farabi also described two distinct long-necked fretted lutes called the *tunbur*, each with a different fret system, one Arabian lute with frets that produced quarter-tone intervals, the other lute from Khorasan with intervals based on divisions of the Pythagorean whole tone.

Abd al-Mumin Safi al-Din al-Urmawi (d. 1294) Abd al-Mumin Safi al-Din al-Urmawi is the author of the *Kitab al-adwar* (*The Book of Modes*) by far the most widely diffused and influential musical treatise for centuries and the most translated into Western and Oriental languages. It is here that we find for the first time the division of octaves into 17 steps, and the complete nomenclature and definition of the 12-*maqam* scale system, and use of letters and numbers for the notation of melodies. He was further credited with inventing the arch lute, *mughari*, and the psaltery, the *nuzha*. His work on musical cycles discussed rhythm, pitch, and note divisions of the octave. His discussion of musical meter, melodic modes, and modal intervals included a theoretical scale similar to that of the Khorasani *tunbur* that al-Farabi described. Safi al-Din's seven-tone scale later became influential in Iran and Turkey. As did al-Kindi, Safi al-Din preserved song fragments, which he recorded in a notation system based on the alphabet. Safi al-Din's remarkable talent as a musician and particularly as a lute player was called to the attention of the caliph, al-Mutasim, who invited him into his exclusive circle of boon companions. He composed more than 130 songs in the popular musical genre known as *nawba*, and his disciples extended his music into Egypt, Syria, Iraq, and Persia. Abd al-Qadir al-Maraghi (d. 1432), one of the greatest Persian-langauge writers on music, wrote an extensive commentary on the *Kitab al-adwar* He also authored several treatises about musical form and distinguished Persian from Arabic composition and performance techniques.

Other Theorists Other authors of musical treatises include Abu l-Wafa Muhammad al-Buzjani (d. 998), a mathematician, who wrote about the theory of rhythm. In his *Risalat fil-musiqa wa kashf rumuz kitab al-aghani* (*Epistle on Music and the Melodic Ciphers of the Book of Songs*) Ali ibn Yahya ibn al-Munajjim (d. 912) described a system of eight melodic modes, each with its own diatonic scale, the octave span of Pythagorean half- and whole steps, commonly used in the eighth and ninth centuries. Ahmad ibn Muhammad al-Sarakhsi (d. 1286) developed ideas similar to al-Kindi's and wrote treatises on melodic composition. The philosopher-physician Ibn Sina or Avicenna (d. 1037) included a chapter on music in his encyclopedic *Kitab al-shifa* (*The Book of Remedy*), placing music alongside astronomy and geometry as a mathematical science. He wrote about the phenomena of sound, dissonance, consonance, lute fretting, rhythm, and melodic modes.

Islamic Song and Vocal Artists

Instruments commonly were subordinate to the voice, as instrumental music served as prelude, interlude, and postlude to songs. Virtuosic singers sang solo, a cappella, with no instrumental accompaniment. Or they accompanied themselves with one of a half-dozen common instruments: the short-necked lute, *ud*; the long-necked lute, *tunbur* (tambourine); the psaltery, *mi zafa*; and the *duff*, variant of the tambourine; the percussion stick, *qadib*; and the drum, *tabl*.

Other common musical instruments were the Persian trumpet, Byzantine organ, and a new type of flute called the *shafut* that replaced the old Persian flute. The renowned eighth-century musician Zalzal apparently introduced the new flute to the Abbasid court.

When a singer was accompanied by an instrumentalist, voice was primary, instrument secondary, whether it was the woodwind *nay* or stringed *ud* or *tunbur* or a combination of several *ud* or *nay* and *ud*. However, a good singer was expected to be able to accompany himself or herself with a stringed instrument and be

able to play with harmonic, melodic, and rhythmic ornaments.

Singing was a complex intellectual enterprise that required knowledge of pitch, melody, rhyme, rhythm, and Classical Arabic poetic forms. In performance a singer sat, stood, walked, or danced. The excellent singer was assumed to have a broad repertoire of memorized songs—thousands of songs for particular purposes: entertainments, holidays, weddings, births, greetings, deaths, change of seasons, and particular moods of the patron. A great performer also had the ability to improvise and to change the familiar songs melodically and rhythmically.

Both women and men were among the earliest Arabic musicians. Two renowned seventh-century women singers, Azza al-Mayla and the woman known only as Jamila, were appreciated also for their aesthetic sophistication. The learned singer Ubaydallah ibn Surayj (c. 637–726) wrote a treatise on musical theory that listed the qualities of a fine singer. He stated that a singer required accuracy of diction, fine grammar, vocal control, ability to embellish rhythm and melody, proper selection of poetic lyric, and capacity to conjoin melody and text skillfully.

Though Muslims who sang made music indoors and outdoors such as in parks, gardens, and palace courtyards, only a formal indoor concert was called a *majlis*, or music "assembly." At court musicians were required to appear on command or at the prescheduled performance day for a specific musician, the *nawba*.

QIYAN

The *qiyan* (s. *qayna*), educated, musically trained slave women, played a vital role in developing the art of singing and composition, and both the names and the works of many of these singers have survived the centuries, their memory and feats having been preserved in al-Isfahani's *Kitab al-aghani* and in treatises written espe-cially about them. Many introduced foreign musical forms from the lands from which they were taken. Byzantine tunes were used for chanting Arabic verse thanks to talented slave singers. Slave women transferred the art of melody from the Hijaz to Iraq and led Islamic music to an apogee in the Abbasid court. Diplomatic ties and marital links between Muslims and Christians in Spain and across the Pyrenees introduced the *qiyan* to the courts of Europe, establishing a possible vehicle of influence of the Arabic music and poetic traditions on European courtly love poetry and lyric.

Slave women exquisitely sang love songs in taverns to entertain paying patrons, or they performed at court to please the caliph. They were highly prized by the well-to-do to entertain visiting dignitaries. Whether the slave songstresses simply sang for their supper or also provided sexual favors is a subject that modern critics have debated. The *qayna* was a virtuoso singer who had in her repertoire two types of songs, the slow, ornate *sinad* and the fast, exuberant *hazaj*. Her repertoire of songs—some of which were her own lyrical compositions—included love songs, elegies, eulogies, and lamentations expressing nostalgia and loss.

The caliphs purchased the most expensive *qiyan*, who learned Arabic song repertoires and introduced foreign musical styles from their homelands. Caliph al-Amin (r. 809–813) purchased the distinguished slave Bazl (because the singers were slaves, the literary texts only preserve their first name) for the astronomical amount of 20 million dirhams.

Slave owners trained their slave women in the arts of singing in their own courts or gave them over to the singing celebrities of the time. Ibrahim al-Mawsili taught his slave women—who were for sale—all the rules of singing in order to boost their price to more than double their original worth.

Muhammad ibn Abu Uyayna, the Abbasid governor of Rayy, Iran (r. 754–775), said that

he had fallen in love with a slave woman called Aman but her master kept raising her price. Then he entrusted her to Ibrahim al-Mawsili and his son, Ishaq al-Mawsili, to train her in singing, and the more she perfected melody and song, the more her master raised her price. Abu Uyayna recognized that al-Mawsili had elevated his "diabolical art" to increase the slave's value. His singing and now hers captivated both the heart and the ear with ecstasy.

The bond maiden Sharya first was purchased for 300 dinars but after she was trained in singing for one year, Ishaq al-Mawsili bought her back for 3,000 dinars. He declared that she was worth much more.

Renowned eighth-century slave women singers of the Abbasids included Bazl, Muttayam, and Dananir. All had exquisite voices, talent as poets, and skill with musical instruments. The ninth-century Iraqi polyglot al-Jahiz devoted an entire treatise to the subject of Arabic female singers, *Risalat al-qiyan* (*The Epistle on Singing-girls*).

Bazl   Bazl whose name means "gift," was originally from Medina and, according to Abu al-Faraj, was attractive in appearance, clever, and accomplished in instrumental music. Jafar ibn Musa al-Hadi originally had bought her then later sold her to Caliph al-Amin for the astronomical price of 20 million dihrams. Bazl was remarkably competent in "each and every amiable thing" and was the greatest singer of her time both in the quality of her work and in the number of songs she could perform. She composed a book on singing that included 12,000 tunes that she taught to her master, Ali ibn Hisham (Farmer 134). She was said to have been able to sing 30,000 different tunes.

Muttayam al-Hashimiyya   Bazl taught other slave women the art of singing. Muttayam ("Enslaving") was one of her disciples. Mut-

tayam excelled both in singing and in composing. The author of the *Kitab al-aghani* related that the illustrious Ishaq al-Mawsili stole one of Muttayam's songs and attributed it to himself. He offered this tune to Ali ibn Hisham for a high price, which he refused to pay since the tune was composed by his own slave. Ishaq admitted his ruse but retorted saying that people would more likely believe him. Muttayam's artistic talent was ranked third after Ishaq and Ulaya and before the great Abd Allah al-Rabeey.

Dananir   Dananir ("Wealth") was said to be one of the most beautiful and witty women of her time, a singer and revered poetry reciter. Bazl was her teacher. Dananir was said to have composed a book (*Kitab mujarrid al-aghani*, *Book of Choice Songs*) on singing and songs. Both women performers were influenced by the great singing masters such as Fulayh ibn Abi l-Awra al-Makki (eighth century), Ibrahim al-Mawsili, Ishaq ibn Ibrahim al-Mawsili, Abul-Qasim Ismail ibn Jami, a rival and friend of Ibrahim al-Mawsili, and other luminaries.

A man from Medina owned the singer Dananir. He gave her a superb education and musical training. When the minister of Caliph Harun al-Rashid (r. 786–809) first saw her, he was deeply impressed by her charm and purchased her. The caliph heard Dananir sing and became infatuated with her melody and beauty. He showered her with precious gifts and money and soon everyone in Baghdad was discussing al-Rashid's attraction to the magnificent slave woman. Al-Rashid's wife, Zubayda, was not pleased. As the story from the *Thousand and One Nights*, "The Tale of Harun al-Rashid and the slave-girl and the Imam Abu Yasuf" reveals, the caliph had been willing to divorce his own wife in exchange for this slave girl. But after all had heard Dananir sing, no one blamed al-Rashid for his admiration (*The Thousand and One Nights* [Burton transl.] Available online. URL: http://www.wollamshram.ca/1001/vol_4).

Qalam Not all of the *qiyan* were Arab women. Qalam, a 10th-century songstress in the Umayyad court of Spain, was a young Christian woman of Basque or Navarese origin. She was captured by Muslim troops during military campaign and sold into slavery. Qalam, whose name in Arabic means "pen," was taken by ship from Spain to Medina, where she was trained in the time-honored traditions of Arabic language, poetry, music, song, and dance. She rose to fame as a songstress and lute player. Qalam returned to the Iberian Peninsula, where she became one of the most popular attractions at the Umayyad court of Córdoba.

Patronage and Court Music

Abbasid Caliph al-Mahdi (r. 775–785) and Caliph al-Amin were knowledgeable music patrons. They had in their courts the best instrumentalists and singers that money could buy. They often had their children educated by the best musical masters. The Abbasid prince Ibrahim ibn al Mahdi (d. 839), son of the caliph al-Mahdi became a fierce rival of Ishaq al-Mawsili. The young prince was acknowledged in his day as having "a voice of tremendous power" and "the most proficient of mankind in the art of notes" (Farmer, 120–121).

Caliphs patronized erudite performers who wrote treatises about music as well as taught music and performed it, such Ibrahim al-Mahdi and Ishaq al-Mawsili. Theirs and several other texts preserve the names and reputations of Abbasid court musicians, such as the renowned *ud* (lute) virtuoso named Zalzal, who died in 791.

COURT MUSICIANS

Arabic musical history and the history of court music in particular would be impossible without the encyclopedic *Kitab al-aghani* written by Abu l-Faraj al-Isfahani at the personal behest of Caliph Harun al-Rashid. Thanks to al-Isfahani we know that at sophisticated Islamic courts professional musicians entertained and taught music. According to evidence in his *Book of Songs*, the court musician was required to be the close companion of the ruler, earning high honor and generous pay. The musician was expected to be educated in all arts and crafts, and as the perfect companion or *nadim*, he should know literature, poetry, prosody, grammar, history, stories, the Quran, Hadith, law, astrology, medicine, cooking, horse breeding, backgammon, chess, clowning, and magic. Musicians also were to have the refined qualities, but not necessarily the birth pedigree, of a gentleman, correct in behavior and elegant in manners. Ibrahim al-Mawsili as court musician received the munificent regular monthly salary of 10,000 silver dirhams, plus monetary bonuses for excellence. Singing for the caliphs was highly lucrative. Ibrahim's annual income was 24 million dirhams, counting bonuses routinely added to his salary for singing.

The caliph who enjoyed a singer's song invited the singer to name his or her price in money or amnesty or appointment of a friend to a high-ranking post. One tale relates that Caliph Musa ibn al-Mahdi al-Hadi (r. 785–786) asked Ibrahim al-Mawsili to chant light erotic poetry, and this so delighted the caliph that he asked Ibrahim to name his price. The poet requested that the caliph appoint a friend named Marwan as governor of Medina. The stunned caliph instructed his treasurer to provide as alternative whatever Ibrahim cared to take from the private treasury, namely, 50,000 dinars.

COMPETITIONS

A fine performance generated repetitions of the same song, and sometimes singers competed for the audience's appreciation of musical excellence. Approval went beyond praise to

money. For one especially wonderful courtly performance, Ibrahim al-Mawsili was rewarded with 150,000 dinars, an extraordinarily generous gift.

Musical competitions and debates were common. Musical battles pitted musical rivals against one another. A professional male court singer and teacher, for instance, might battle against the professional female singer who was an esteemed slave musician. One day when Bazl was singing at the court of Caliph al-Mamun, Ishaq al-Mawsili found fault with one of her tunes. She was silent for an hour. Then she sang three other tunes, one after another. When she finished she demanded that Ishaq identify the three tunes. He could not. Therefore she addressed herself directly to Caliph al-Mamun and said: "Allah is my witness. The three tunes were the compositions of his father [Ibrahim al-Mawsili]. I learned them directly from his mouth. If Ishaq does not recognize his own father's melodies, however could he identify the tunes of others?" Ishaq was taken aback and could not say a single word. Bazl won that singing debate (*The Thousand and One Nights* [Burton transl.]. Available online. URL: http://www.wollamshram.ca/1001/vol_4).

DANCE

The *Kitab al-aghani* provides delicious anecdotes about singing, dancing, and ceremony. Abu l-Muhanna Makhariq (d.c. 845) was the slave of a famous songstress, Atika bint Shuhda who gave him lessons in music. His talent earned him the attention of the Abbasid court where Ibrahim al-Mawsili took him on as a pupil. One day, Makhariq and al-Mawsili were invited to the mansion of Caliph al-Amin. There the rooms were magnificently decorated with candles. Large numbers of beautifully costumed slave women were chanting in rhythm to the sound of trumpets. Everyone in the room was dressed in elaborate horse costume. Al-Amin himself galloped in the midst of his bevy of galloping horses. The wild equestrian party went on through the night until early morning.

Singing accompanied by dancing had specific rules and standards. Ishaq al-Mawsili wrote his *Great Book of Songs* on singing and dancing. The prolific writer, traveler, and historian Abu l-Hasan Ali al-Masudi (d. 956) also wrote about dancing compatible with specific melodies as well as depicting the qualities of a good dancer.

Music by Region

PERSIAN MUSIC

The fifth-century historian Herodotus remarked that the Persians excelled in the adoption and adaptation of foreign cultural forms. Persian culture triumphed by adoption and adaptation by the Arabs, Turks, and Mongols who militarily conquered Persia's soldiers and overran their cities. Ancient Persia's musical vestiges persevered into the Middle Ages by references of the historians Herodotus, Xenophon, and Athenaeus, who described music in the Achaemenid empire that flourished between the sixth and fourth centuries, the Parthian dynasty that ruled between the fourth and second centuries, and then the Sassanian empire that ruled from the third to the seventh century. Arabs conquered the Persian empire in 642 and directly ruled the region between the seventh and 10th centuries. Writing in Arabic, the Persians al-Kindi, al-Farabi, Ibn Sina, and Safi al-Din described the music of Iran. Persian history and music then were influenced by Turkish and Mongolian conquests between the 11th and 15th centuries and subsequently by the Safavids, who ruled during the 16th century.

Important Persian music texts derive from the Sassanian court, which accorded high honor

to music and musicians. The emperor Chosroes II, called Xosro Parviz (r. 590–628), invited many musicians to his court. Famous among these was Barbod, the performer, composer, and music theorist who was said to have invented the original form of the *dastgah* system, which contained seven modal structures; the royal modes named after Chosroes, the *Xosrovani*; plus 30 derivative modes, called *lahn*; and 360 melodies called *dastan*. These have wonderfully evocative names, even though the music has not survived the centuries: the vengeance of Iraj, *kin-e Iraj*; the throne of Ardesir, *taxt-e Ardesir*; the sovereign's garden, *baq-e Sahryar*; the seven treasures, *haft ganj*; the green spring, *sabz bahar*; and Moon over the mountains, *mah abar kuhan*.

Instruments in Persian Music   The classical Persian musical ensemble included five instruments that played melodies, and a pair or trio of rhythm instruments. Melody makers were the *sehtar*, *ney*, *kamanche*, and *santur*. Rhythm keepers were percussion instruments called *tombak*, *zarb*, and *douf*.

The *sehtar* had four strings (though its Persian name means "three strings," probably referring to a prior form of the instrument). It was a pear-shaped wooden stringed instrument with small holes that allowed sound projection. Because of its delicate, intimate sound, it was the preferred melodic instrument of the Sufi mystics.

The *ney* was a cross between a flute and a recorder. It was played as a recorder pointing downward, with six finger holes and one thumbhole. But, as with a flute, the player blew across the open end. The *ney* was used also in Arabic music and Balkan folk music.

The *kamanche* was a form of spiked fiddle and probably is the ancestor of most European and Asian stringed instruments. It is comparable to the Arabic *rebab*, or in the West, the *rebek*. The *kamanche* was related to the hackbrett in northern Europe, the cymbalum in eastern Europe, the *santouri* in Greece, the *yang chin* in China, and the dulcimer in Britain. The classical Persian *kamanche* had a round wooden soundbox, with a spike on the bottom to support the instrument. It was held vertically and bowed horizontally.

The *santur* was a trapezoid-shaped hammered zither. It is a wooden box with strings stretched across bridges arranged in courses and is played by striking the strings with two light wooden hammers. A *santur* often had four strings per note, and the instrument could play three octaves: bass, middle, and treble.

The *tombak* was a goblet-shaped drum with the narrow end open and the wide end covered by a skin glued to the wooden frame. To play it the musician struck the skin surface with his fingers and achieved different sounds by careful placement of the strike. The fingers hitting the center of the drum produced a deep booming sound (*tom*), while hitting the rim made a high pitched sound (*bak*). The *zarb* was the larger version of the *tombak*.

The *douf* (or *daff*) was a framed drum with metal rings inside, which added a jingling effect to the percussive sound. The *douf* was thus capable of producing intricate rhythmic effects. It is depicted in many Persian miniatures.

OTTOMAN TURKISH MUSIC

Islamic music also assimilated changes introduced by Ottoman Turks who conquered Syria, Palestine, Iraq, the coasts of Arabia, and much of North Africa after 1517. Turkish music itself had already absorbed musical styles and content from Central Asia, Anatolia, Persia, Syria, and Iraq. While these multiple musical influences were heard in major cities such as Aleppo, Damascus, and Cairo, older-style Arab music persisted in the small towns and desert communities of the Syrian Bedouins and North African Berbers.

Ottoman musicians belonged to professional guilds called *tawaif*. In Egypt male instrumentalists were called *alatiyyah* and may have played primarily for male audiences. Women musicians, called "learned women," *awalim*, may have performed primarily for other women. If so, the 16th-century sexual separation contrasted with the earlier medieval musical power of the learned slave songstresses, the *qiyan*, who performed for men and women.

Common Arabic and Turkish instruments that professional musicians played in the cities included the lute or *ud*; the zither, the *qanun*; and the flute, the *nay*. Early forms of the *samai*, known in Turkish as the *saz semai*, and the *bashraf*, also called *pesrev*, were used in the Turkish courts and in Sufi music.

SUFI DANCE AND MUSIC

Music, poetry, and dance intertwined to play an intrinsic part in Sufi spirituality. Sufi *dhikr* consisted of special rhythmic chants, repetitions, and breathing techniques that created a heightened state of spiritual excitement and enlightenment. Often the *dhikr* ritual was accompanied by listening to music (*sama*), and special genres of music were performed, such as the *ghazal* and the *qawwali*, which developed in India.

Mevlevi Whirling Dervishes in Turkey Known in the Western world as Whirling Dervishes, the 13th-century Mevlevis were a mystical Islamic order established in Konya, Turkey. The Mevlevis cultivated instrumental, vocal, and dance forms. Their music spread into parts of Syria, Iraq, and North Africa, although it should be noted that the religious orthodoxy considered dance to be an especially deviant form of behavior. The Hanbali theologian Ibn Taymiyya devoted an entire treatise to the evils of dance. He and likeminded others accused the Sufi ecstatic dancers of demonic
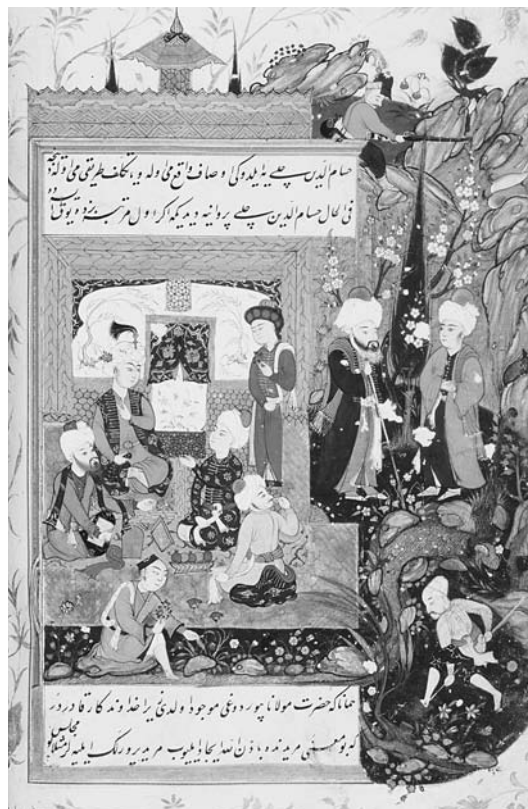
Mevlana Jalaluddin Rumi, founder of the Order of the Dancing Dervishes, expressing his love for the young disciple Husam al-Din Chelebi. From Tardjome-i-Thevakib (*A translation of the stars of the legends*), *by the Mevlevi Derwish Aflaki.* The Pierpont Morgan Library/Art Resource, NY.

or pagan shamanist influences (introduced by the Mongols who had conquered Baghdad in 1258) and charged that the ecstatic experience induced by such dancing was becoming an end in itself, and thus a distraction from God and the *Sharia*.

Ibn Arabi (d. 1240) The revered Sufi thinker and poet Muhy al-Din Ibn Arabi, who was born in southeastern Islamic Spain in 1165, left

al-Andalus as a young man and traveled in the Mediterranean. He used musical modes that evoked particular emotional states and integrated them with texts to heighten their emotional effect. Ibn Arabi's *Interpreter of Desires*, *Taryuman al-Ashwaq*, translated into Castilian as *El interprete de los deseos*, was an ecstatic composition that was said to be particularly inspirational in a Sufi musical session, *sama*.

Rumi (d. 1273) The Sufi poet Mawlana Jalaluddin Rumi was born in Balkh, Afghanistan; traveled through eastern Iran; made the pilgrimage to Mecca; studied in Syria; and then established himself in Konya, a center of Islamic mysticism. Fluent in Arabic, Persian, and Turkish, Rumi created poetry that influenced Persian and Turkish literature and music that inspired Sufi music in India. Rumi's greatest work, the *Maznavi-ye-manavi* (*Spiritual Couplets*), was so praised that some called it the [Persian Quran]. The 14th-century Persian poet Muhammad Shamsuddin Hafiz (1325–90) followed the musical tradition of Rumi.

Sufi poetry, which often was recited with music, celebrated the mystic's overwhelming yearning for God and the divine. This Persian poetry of rapture described the passion of the mystic toward God as if it were an erotic-spiritual love affair between a man and a woman. Rumi's Ode "You've Become a Lover, O Heart" was an imaginary dialogue expressing the mystic's yearning for union with the beloved:

> This heart-seeing eye was a teardrop and
> became an ocean; its ocean is saying
> "May there be blessings for your ocean!"

> O hidden lover, may that Beloved become
> your companion! O seeker of loftiness,
> may there be blessings for your
> exaltedness!

> (Dar-al-Masnavi. Available online. URL:
> http://www.dar-al-masnavi.org.)

MUSLIM SPAIN

For the more than 700 years between 713 and 1492, Muslims in the Iberian Peninsula heard and performed the music of Islam while also influencing and being influenced by music of Christian western Europe and music of Judaism. The wealth and splendor of the courts of Seville, Granada, and Córdoba inspired new musical forms in al-Andalus. All three musical idioms affected one other in mathematical musical theory, in technical nomenclature, in rhythm, in song forms, in performance techniques, and in musical instruments.

Likewise during the Crusades of the 11th through 13th centuries, Islamic music met Western Latin music and both traditions were enriched. The 13th-century Spanish king Alfonso X, the Wise, el Sabio (d. 1284), commissioned the magnificent manuscript song book *Songs of Saint Mary*, *Cantigas de Santa Maria*, elegantly decorated with miniatures depicting musicians, including Moors, playing the lute, psaltery, and double-reed shawm.

The foremost influence on the musical tradition of Islamic Spain stems from the Arab East, particularly in the works of Ishaq al-Mawsili. Ziryab (d. 850), a freed slave musician who was forced under polemical circumstances to move from Baghdad to Córdoba, is credited with introducing this tradition into al-Andalus, where he became a respected singer, *ud* player, and music teacher in the Umayyad court.

Ziryab had been a pupil of Ishaq al-Mawsili at the court of Baghdad during the reign of Harun al-Rashid. His extraordinary talent and charismatic personality so captivated the caliph that he was prepared to name Ziryab master of music, to the detriment of Ishaq. The rivalry between the two musicians came to a head when caliph Harun invited Ziryab to perform using his teacher Ishaq al-Mawsili's *ud* (lute). When Ziryab refused, saying he preferred to play his own *ud*, al-Mawsili informed him that he would not tolerate such a rival at court. Implying that

From Madinat al-Zahra, Spain, 986, is this ivory pyxis of Prince al-Mughira showing three musicians. Erich Lessing/Art Resource, NY.

songs, usually *muwashshaha* or *zajal*, sung in faster meter. As discussed in the previous chapter, *muwashshaha* and *zajal* are genres of Arabic stanzaic poetry, the former composed in Classical Arabic and the latter in the vernacular, that are indigenous to al-Andalus and are meant to be sung or recited with musical accompaniment. Ziryab was said to have memorized a staggering 10,000 songs. He had a repertoire of 24 *nawbat* alone, each of which was a composite of vocal and instrumental pieces in a certain melodic mode. Muslims expelled from Iberia in the late 15th century took *nawba* tradition with them to North Africa. This composition technique presented romantic subject matter in a new style with strophic texts with refrains. The genre thrived in North Africa and the Levant and was especially cultivated in Aleppo, Syria.

It is interesting to note that Western names of many instruments seem derived from Arabic nomenclature, such as the lute from *al-ud*; the nakers, or kettledrums, from *naqqarat*; the rebec from *rabab*; the organ from *urghun*; the guitar from *qitara*; and the anafil, the natural trumpet, from *al-nafir*.

the upstart musician weight suffer an "accident" for which Ishaq would not be held responsible, Ziryab took the "hint" and fled westward to al-Andalus. Ziryab's influence on Andalusian music is seen in the performance of musical concerts, *nawbat* (s. *nawba*), in which the sequencing of individual musical pieces in a *majlis* is determined in order to maximize their aesthetic appeal. The word *nawba* means "turn" and thus also referred to the sequencing of musicians, that is, assigning them specific days or hours of the day to perform at the court and designating the order of their performance at a musical concert. With regard to the sequencing of the *nawba*, the ideal order was to begin with slow rhythmic vocal pieces and end with upbeat

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Christian Music and Dance

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Islamic Music and Dance

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11

HOLIDAYS
AND FESTIVALS

To understand a people, study its celebrations. Few aspects of a culture reveal so much so quickly. Better than the history of the adventures of important leaders or of battles fought and won, holidays preserve what the people think beautiful, sacred, and important; what the culture considers dangerous and forbidden. Holidays also set patterns for major rites of daily life and influence their customary sounds, sights, odors, tastes, and textures. Celebrations and holidays unite the elders of the culture with the youngest, the most nobly born with the lowest classes. The laity and religious celebrate the same festivals at church, synagogue, and mosque.

In medieval Christian, Jewish, and Muslim societies holidays and festivals fulfilled the same functions: They constituted a form of divine worship, a means of remembering and praising God. They enabled the community symbolically and liturgically to recall and relive the defining moments of its sacred history. Festivals and holidays allowed their observers to celebrate belonging to a community of believers and marked clear boundaries between the community and outsiders.

Holidays as diversions and distractions to those struggling with life put markers on the road of time, allowing things past to be remembered. In measuring time, celebrations gave hope for things future. Holidays were life's balancers, life's rhythm makers. Festivity and celebration provided recreation, reward, hope, and order. Feasts and festivals dramatized sacred ideas and demonstrated the holy as perceived in acts of daily life.

Christian Holidays and Festivals

Many Christian holiday ceremonies and ritual objects were built upon Jewish feasts, pre-Christian fertility rites, Roman calendar customs, and folk rituals that clever doctors of the church such as Saint Augustine of Hippo (d. 430) and Pope Gregory the Great (d. 604) emended for new pious Christian purpose. Ceremonial fires at June's Midsummer Eve honoring Saint John the Baptist, for instance, originated in the pagan summer solstice bonfires called the *beltane fires* celebrating the Druidic god Bel.

While holiday details differed with country, century, and class of celebrant, certain basic patterns were routine. In folk theatricals called *mummings* or *mumming plays*, an actor playing Saint George fought a Midsummer Eve dragon. This traditional dragon among royalty and wealthy townsmen was a magnificent machine with mechanical wings, bellowing smoke, an expensive marvel of engineering. With equal holiday gusto a poor blacksmith playing Saint George fought a homespun dragon-shaped kite a shepherd boy held from behind with sticks and strings. The Hobby Horse similarly was a beloved feature in folk rituals and pageantry. The hobby horse in country ceremonies was a rustic man riding a broomstick with a painted wooden horse head with bell and rough rope for bridle. In courtly festivity the hobby horse trotted under expensively embroidered *caparison* blankets, with jewel-encrusted reins on a horse head with eyes of precious stones and a mane of woven gold.

Likewise, during November's honoring of Saint Catherine, patron saint of lawyers, wheelwrights, carpenters, rope makers, lace makers, spinners, and women students, people ate delectable wheel-shaped Saint Catherine cakes, rich with sugar, eggs, and caraway seeds. *Cathern cakes* sometimes were triangular, representing the spikes on the wheel of her martyrdom. Local London bakeshops' traditional Cathern cakes probably were less spectacular than *Cathern cakes* baked in noble kitchens, but all alluded to Saint Catherine's wheel and were eaten on her feast day with similar ceremony. Young or

old, royalty or craftsman, city mayor or country villager followed customary patterns for celebrating holidays.

Local traditions such as Cathern cakes must take second place to the festivals and traditions that united the whole of Christendom and gave it its distinct identity. The liturgical calendar of Christian feasts was arranged according to the events of the life of Christ, from his birth to his Passion, death, Resurrection, ascension, and joyful expectation of his second coming. Most of the great holy days were fixed in the Christian calendar in the third and fourth centuries, taking definitive form by the 11th century. In chronological order they consist of the Advent season, whose major feasts included *Christmas*, *the Feast of the Circumcision*, and the *Epiphany*; the Lenten season, whose major feasts include *Ash Wednesday*, *Palm Sunday*, *Holy Week*, and the greatest feast of all, *Easter*; the *Feast of the Ascension*; the *Feast of the Pentecost*; the *Feast of the Holy Trinity*; and the *Feast of Corpus Christi*. Over the centuries the need clearly to distinguish orthodox Christianity from other rival beliefs, together with the increasing Marian piety of the 12th and 13th centuries, led to the addition of various Marian festivals to the liturgical calendar, the most important of them the *Nativity of the Virgin*, *Presentation of the Virgin in the Temple*, *Annunciation*, *Dormition of the Virgin*, *Seven Sorrows of the Virgin*, *Seven Joys of the Virgin*, and *Feast of the Assumption*. The Christian calendar also contained a prodigious number of saints' days, some of which were universal, honoring the apostles, the early martyrs, and doctors of the church. Others corresponded to pre-Christian spring, summer, autumn, and winter festivals, while still others celebrated the life and heroic death of local personalities. A brief description of each holiday's meaning is given in the following. (*See* chapter 5 on philosophy and religion for the larger theological and philosophical contexts for these ceremonies.)

Calendar of Christian Festivals

ADVENT

Advent, the Christian ecclesiastical season in preparation for the nativity of Christ, began to be observed in the late fifth-century Gallic Church when Bishop Perpetuus of Tours (d. 490) ordered that a fast be held on three days of every week from the Feast of Saint Martin (November 11) to Christmas. Originally this preparatory period was called Quadragesima Sancti Martini (Forty Days' Fast of Saint Martin's). The idea of a penitential fast quickly caught on and spread to different countries, including Spain, Germany, and England, albeit with each starting the fast from a different date. In England, for instance, it coincided with the Feast of Saint Catherine on November 25, while in Scotland it began on the Sunday nearest Saint Andrew's Day (November 30), and the four successive Sundays preceding Christmas.

Interestingly, the original penitential character of Advent as observed in [Gaul, England, Wales, Ireland, and Scotland with their tradition of fasting] was absent in Rome, where the season was one of festive joy. When the Frankish Church accepted the Roman liturgy in the eighth century, a compromise was reached between the longer nine-week solemn observance of the former and the shorter, more festive character of the latter. Medieval Advent was shortened to four weeks in keeping with the practice of Rome but was characterized by a blend of liturgical solemnity and joy, purple vestments, silent organ, partial fasting, and other signs of penitential observance. The Advent fast was not as severe as that of Lent and generally prohibited meat, fowl, butter, and cheese. Fish, an ancient symbol of Christ, and other species of seafood were allowed, as were eggs. The season of Advent does not figure in the Byzantine

calendar; however, since the eighth century the Eastern Church has observed a preparatory fasting period, the Quadragesima of Saint Philip (*Tessaranthemeron Philippou*), which begins on November 15, the Feast of the apostle Saint Philip, and lasts until Christmas.

Up until the sixth century the Advent season heralded the incarnation, the coming of Christ in his mortal birth. In the 12th century it marked the "threefold advent of Christ": his past coming in Bethlehem, his present coming through grace in the symbolic representation of the soul's preparation for Christ's arrival, and his future *second coming*. The *second coming* represented Christ's apocalyptic return to Earth in glory to judge the living and the dead at the world's end. This event, portended in the liturgy of *Advent*, stimulated popular belief in the emergence of Antichrist figures. It also was called *Parousia* (Greek, "presence" or "arrival"). The Antichrist was Jesus Christ's chief antagonist in theology, literature, and drama, appearing on Earth before Christ's second coming and the end of the world. A lawless, self-deified maker of mock-miracles, the Antichrist caused apostasy and mass defections from the true church. Christ would destroy the Antichrist.

CHRISTMAS

Medieval Christmas lasted 12 full days, beginning on *Christmas Eve* and ending on *Twelfth Night*. Some calendars counted the days from *Christmas Day* to *Twelfth Day* (January 5) or *Epiphany* on January 6. The triadic celebration of Christ's baptism as Son of God, the journey of the Magi prophesying Christ's kingship, and the miracle at the wedding of Cana, which demonstrated his miraculous power and mystically symbolized Christ's wedding to the church. Three masses, at night, day, and dawn, symbolized Christ's trinal birth. Eternally he was Son of God the Father. Humanly he was Son from the womb of Mary. Mystically, he lived in the faithful Christian soul.

Many of the holiday's merrymaking festivities derived from the Roman winter festival of Saturnalia. Remarkably, the date for Christmas, December 25, was not based on historical evidence of Jesus's birth but rather replaced the pagan festival *natalis solis invicti*, the birth of the Sun god Mithras, at winter solstice. The intention was to encourage the worshipers of Mithras to abandon their beliefs in a "false" Sun god and to worship the one who is "light of the world" and the true "Sun of justice." The Christian feast honoring Christ's birth was celebrated on December 25 from about the time of the fourth-century Philocalian calendar.

Christmas Symbols and Customs   The *crib* of the infant Jesus was one of the earliest Christian symbols. From late antiquity, churches were decorated with the manger and other motifs from the Bethlehem story. Likewise, Christian families decorated the walls of their homes with representations of Christ's birth as depicted in the Gospels. Saint Francis of Assisi is said to have initiated the custom of building a Bethlehem scene outside the church. According to his hagiographer the Franciscan friar Thomas of Celano (d. c. 1270), the first nativity scene was mounted at his behest in Greccio, Italy, on Christmas Eve 1223. The manger was made of wood and lined with fresh hay and was placed between a live ox and an ass. A crowd of people gathered with Saint Francis before the manger bearing candles and torches to illuminate the night and to welcome the newborn Christ with songs of praise. A solemn Mass was sung, during which Francis sang a carol and then delivered a sermon. Thus Francis's wish that Greccio "become a new Bethlehem" was made reality. From Italy the custom of building a "Bethlehem" in front of churches and in private homes spread to France, Spain, Portugal, and Germany.

The special reverence for the ox and the ass may be traced to apocryphal lore, but the custom expanded to include treating all animals with particular kindness on Christmas Eve and all the 12 holy nights of the Christmas season. Saint Francis urged farmers to give their animals extra hay and grain and implored the people in general to throw grain and corn of the streets so that the wild birds could feast during this blessed period. In some countries saluting animals at Christmas was so important that none could eat until animals first were fed. Throughout medieval Europe animals were fed extra portions of their regular foods, and Christmas bird feeders were stacked high with bird seeds for winter. Christian thanks to those animals who were the infant Jesus's first friends at the time of his need at the original Christmas were extended to all beasts so that they, too, could "rejoice" in the Messiah through their enjoyment of greater comfort.

When Saint Francis sang a Christmas carol at the first Bethlehem scene in Greccio, he was following a tradition from the fifth century when Christmas became an official feast day of the church and special songs were composed for the occasion. Between 400 and 1200 Christmas songs were really hymns, solemn canticles that emphasized the supernatural aspects of the Incarnation. After 1200 the songs acquired a more joyful character and generally accentuated the human elements of Christ's nativity. These joyful songs are called carols, a word derived from the Greek *choraulein* (*choros*, "dance"; *aulein*, to "play the flute"), referring to a dance accompanied by the playing of flutes. Such dancing, usually done in ring form, was very popular in ancient times among the Greeks and Romans, who spread it to the peoples in their empires. Spanish altar boys danced before the altar during mass on Christmas Day to the accompaniment of music and castanets as the congregants sang carols. English choirboys danced in the aisles of the church after morning prayers on Christmas, while the French performed "shepherd dances" in church to celebrate the occasion.

Franciscan and Dominican mystics such as Saint Francis, John Tauler (d. 1366), and Henry Suso (d. 1361) composed beautiful and tender carols that aimed to stir the emotions and heighten devotion to the infant Jesus. The Franciscan Saint Bonaventure (d. 1274) composed the beautiful "Adestes fideles" ("Oh Come, All Ye Faithful") as a poem, which was set to music in the early modern period.

In addition to song and dance, Christians celebrated the nativity of Jesus by performing plays that reenacted the events surrounding his birth. Plays derived from the Christmas *tropes* included the *Paradise Play*, which began to be performed in the 11th century. The *Paradise Play* was a mystery play that dramatized the story of Adam and Eve's expulsion from paradise. Paradise was represented by a single object, a fir tree with apples and wafers representing the Eucharist hanging from their branches. The play does not end with the tragedy of the expulsion but with the promise of Redemption through the savior and the Incarnation. The custom of the Christmas tree most probably derives from this play. Although the Paradise Play was suppressed in the 15th century because of the impious excesses of the laity, Christians began to keep a fir tree decorated with apples, known as the "paradise tree," in their homes. The custom was particularly solemnized in Byzantine homes since the Eastern Church regards Adam and Eve as saints.

Another important Christmas play was the *Play of Three Shepherds.* Customarily part of the Christmas *antiphonal* liturgy, the three shepherds sang: "Let us go and see what has been promised. Let us draw close to the manger." Two midwives stopped the shepherds. The women asked: "Whom do you seek in the manger, o Shepherds? Tell us!" The original Latin question was *Quem quaeritis in prosepe, pastores,*

dicite. The shepherds replied, "The savior, the infant Lord, as the angel told us." The midwives then reported, "Here is the little one the prophet Isaiah spoke of long ago. Go now, and announce that he is born." The shepherds bowed, worshipped the mother Mary and the child in the manger, and triumphantly cried, "*Alleluia! Alleluia*! We know the truth of the prophecy, *alleluia*!"

After the shepherds left to tell the good news at the conclusion of the *Play of Three Shepherds*, bells rang wildly. Hand bells and church bells rang 12 strokes followed by another 12, three rings, then another three. These bells were called the *Virgin's welcome* or the *devil's death knell.* Christmas bells ringing news of the birth of the holy child brought Christmas night revelries to their end.

Food and drink were also important in the celebration of the Christmas days. *Wassail*, from the Old Saxon *was haile*, meaning "your health," was a Christmas beverage particular to the English. It was made of ale, roasted apples, eggs, sugar, nutmeg, cloves, and ginger and was drunk while hot. By extension the word *wassailing* was applied to any kind of Christmas revels accompanied by drinking. *Wassailing* activities were repeated in clusters of three, honoring Christ's past, present, and future coming. *Wassailing with the Milly* was the singing of wassail songs and carols while parading a large box called the *Milly box* containing a statue of the Virgin and Child. As singers passed from table to table or house to house, every guest gave a gift to the Milly, My Lady the Virgin, of coins, fruits, even precious jewels, later distributed to the needy. Giving to the Milly assured good luck. Another Christmas drink that enjoyed widespread popularity was *posset*, a sumptuous beverage uniting milk, ale, egg, and nutmeg. In the Latin countries spiced wine was the choice Christmas beverage while Germans and other northerners favored beer.

Elaborate gold and enamel-painted table fountains spouted wines, liquors, and aromatic waters from animal-head finials or architectural terminals such as in this silver-gilt and translucent enamel French fountain of the late 14th century. Courtly and humorous scenes adorn the panels. (France, late 14th century. The Cleveland Museum of Art. Gift of J. H. Wade.)

The array of baked goods associated with Christmas harkens back to its calendrical association with pre-Christian fertility rites. Across Europe people traditionally gave thanks to the old gods for the gift of bread and prayed for a bountiful harvest the next year by making special wheat or bread offerings, decorating their homes with wheat, and baking special breads and cakes. Christians adapted this tradition to the Christian season, baking such delectable traditional foods as *frumenty*, a sweet wheat dish made with boiled milk, eggs, honey, and spices. The Irish, English, Scots, and Welsh

baked circular cakes flavored with caraway seeds for each member of the family. German and French Christmas cakes were topped with a likeness of the Christ child made of sugar, and the Greeks adorned theirs cakes with a crucifix. In Spain, Portugal, and Italy the Arabo-Islamic influence is clearly present in the tradition of pastries made of almonds and almond paste, such as *turrón*, the almond paste candy related to the Arabic *halwa*, and *dulce de almendra* (almond sweet), made of almonds, sugar, egg whites, and flour.

The menu and timing of the main Christmas meal varied from country to country, but the prominence of meat was universal, given its prohibition during the Advent period. Among royal and upper-class families of western Europe a boar's head was the central dish, taken to the banquet table in a procession with magnificent pomp. Other delectable meat could be venison, lamb, or beef. Those preferring fowl chose from goose, capon, or swan. Humbler families contented themselves with pigeon, chicken, or rabbit. The Christmas turkey became traditional in the early modern period when the Spaniards introduced the bird into Europe from the Americas circa 1530.

Since Christmas was a 12-day celebration, it ended in January on *Twelfth Night*. Between Christmas and Twelfth Night one somber note was sounded in the observance of *Childermas*, another name for the Christian *Feast of the Holy Innocents*, celebrated December 28. It commemorated the massacre of the children of Bethlehem two years old and younger by Herod the Great in his attempt to destroy the infant Jesus. The Feast of the Holy Innocents was also the official holiday for all choirboys and school-boys. In the 11th century, the *Feast of the Boy Bishop* was established on December 28. A boy would be chosen from among the choir members to dress up as a bishop or patron saint. He would preside over a mock-devotional service and deliver a sermon.

EPIPHANY AND TWELFTH NIGHT

January's *Twelfth Night*, which ended the 12-day festivity of Christmas, was celebrated on January 5. Four days earlier, on the eighth day after *Christmas*, January 1, Christians celebrated the *Feast of the Circumcision*, a tradition begun in the church of Gaul in the sixth century, whence it spread to Spain, the Frankish Kingdom, and Rome in the eighth and ninth centuries. According to Matthew 2:21, Jesus was circumcised in the Jewish tradition, as a ritual sign of covenant between man and God. In the 15th century devotions to the sacred name of Jesus begun to be celebrated jointly with the Feast of the Circumcision, owing to the ancient custom by which Jewish boys also received their names at their circumcision.

The solemnity of the Feast of the Circumcision, observed with fasting and a reverent Mass, coexisted uneasily with the Bacchic secular New Year also observed on January 1. Irreverence formed part of the Twelfth Night revelries in the celebration of the *Feast of Fools* (*festum fatuourum*), a church or town holiday celebrating hierarchies of church and world inverted. Clerks and priests wore masks and monstrous visages during the divine office. They danced in the choir dressed as women or minstrels, sang lascivious songs, played dice at the altar, ran about wildly in the church and throughout town making indecent gestures. Insignificant officials of cathedrals assumed the titles of bishop and cardinal, ceremonials were parodied, and revered people and sacred liturgy were mocked. Although the canons of order were reaffirmed at the end of the festival, it was suppressed in the late 15th century. The *Feast of Fools* had "carnivelesque" similarities to *April Fool's Day* and the *Feast of Asses*.

On *Twelfth Night* multiple celebrations honored the arrival of the three Magi carrying gifts to the Christ child, whose birth signified the true meaning of *Christmas. Twelfth Night* also

was called *Epiphany Eve*. Epiphany (Greek, "shining forth" = manifestation) was the Christian feast on January 6, creating a triple celebration of Jesus Christ's manifestation of divine powers. First was Christ's *baptism* (Mark 1), which marked him as the Son of God. Later one of the *seven sacraments, baptism* signified spiritual purification realized by immersion in water or sprinking of holy water via an *aspergill*, before the ritual celebration of Christ in the *Eucharist*. Second, the journey of the three Magi to Bethlehem (Matthew 2) manifested Christ as the prophesied king. Third, the miracle at the wedding of Cana (John 20) demonstrated Jesus Christ's prerogative to perform miracles. In the Greek Church *Epiphany* also was called *Feast of the Theophania* (the "shining forth of God").

The celebration of the Feast of the Epiphany predates the celebration of Christmas in the church liturgy, introduced in third-century in Egypt and fourth-century Byzantium, where it originally commemorated the birth of Christ and his baptism. When the Latin Church fixed December 25 as the birth of Christ in the late fourth to fifth century, Epiphany began to be associated primarily with the *Adoration of the Magi*. The Eastern Church also adopted December 25 as the date of Christ's birth according to the flesh and of the Adoration of the Magi and observed Epiphany as Christ's spiritual birth through baptism in the river Jordan, and as the manifestation of his miracles at the Wedding of Cana.

There are a number of ancient liturgical customs associated with the Epiphany and particularly with the Adoration of the Magi. One custom, which began in the early Church of Alexandria, is the *proclamation of feasts*, in which the official date of Easter is calculated and publicly announced. The practice spread to the Latin Church in the sixth century. Another early practice of Eastern origin is the *blessing of the water* to commemorate Christ's baptism in the Jordan. It was customary to bless the baptismal water of all churches on that day, and in Eastern churches, the nearest or most important river is also blessed, the most famous of which is the river Nile in Egypt. After the blessing of the water in the church some of it would be distributed to the congregants in small flasks to be kept at home. This practice became widespread in the Latin Church in the 15th century.

FEAST OF THE THREE KINGS

At least since the 12th century when Archbishop Hildebert of Tours (d. 1133) referred to the Magi as "saints," the Latin Church has venerated the three Magi or kings who gave the infant Jesus gifts of gold, frankincense, and myrrh. From this time onward in the Western Church Epiphany became known popularly as the *Feast of the Three Kings*. Veneration of Saints Gaspar, Melchior, and Baltasar increased in the 13th century when Emperor Frederick Barbarossa obtained the relics of the kings from the archbishop of Milan and transferred them to Cologne in Germany, where a pilgrimage and major devotions were instituted.

The festivities of the three kings also included the performance of mystery plays. The most popular play in medieval Western Christendom was the *Office of the Star*, a pageant of the Magi's visit on the Feast of the Epiphany. This play originated in 11th-century France as a part of the liturgical service in church and soon spread into all European countries. In due time the solemn play was transformed into a boisterous affair, with the introduction of the figure of King Herod, who appeared as a raging lunatic, creating havoc by wildly waving about a wooden spear and beating clergy and laity alike.

Because of these excesses the *Office of the Star* was removed from the liturgical service, and in the 14th century it was replaced by

another Epiphany play, the *Feast of the Star*, which was performed partly outside the church and partly inside, independently of the mass or the liturgical office. The first such play was held under the direction of the Franciscan friars in Milan, who ensured that the event would retain its devotional character. Wearing crowns and sumptuous vestments, the "Three Kings" appeared on horseback with a large retinue, bearing golden cups filled with myrrh, incense, and gold. They rode in state through the streets of the city to the church of Saint Eustorgius, where they dismounted, entered the church in solemn procession, and offered their gifts at the Christmas crib. Again, the custom quickly spread throughout western Europe, becoming especially popular in Germany, France, Spain, and Portugal.

An indispensable ingredient in the domestic festivities throughout Europe was the large, squat circular cake in French called "kings' cake," *gateau des rois* or *galette des rois*, also known as the *twelfth cake* or the *Dreikönigskuchen*. Two kings' cakes allowed selection, respectively, of *king and queen of the bean*, who discovered the favor that for townsmen was a large, dried bean, but in elegant kitchens a precious gold or porcelain bean baked into the served portion. Alternatively, a single large kings' cake would be baked, hiding inside a bean for the king and a pea for the queen.

In England, once the "king" and "queen" were chosen, the festivities would continue outside in a nearby orchard or forest as the "monarchs" superintended *wassailing the trees*. In this ceremony country folk bundled up in cloaks and coats would gather around the largest, oldest tree, the one bearing most fruit during the year, and 12 wassailers rhythmically danced, chanted, and stamped, shouting, *Wassail*, shaking noisemakers and bells. Wassailers cheered the trees with tankards filled with *lamb's wool* (a cider, wine, or beer heated with sugar, nutmeg, and ginger, with roasted apples floating on the surface) and poured libations on the tree. This amusing, noisy ritual was to ensure plentiful fruits, bountiful harvest, a folk charm for encouraging trees to bear copiously and slumbering tree spirits to awaken at spring. Alternatively, people might gather around a live tree in a public hall or an apple-tree sculpture made of papier-mâché, metal, or edible marzipan.

Other *Twelfth Night* customs included the performance of short contest plays. A strong Saint George fought a powerful evil knight, biblical plays and allegories depicted battles between good and evil, and the three kings following a marvelous star outwitted wicked King Herod.

Twelfth Night celebrations imaginatively melded old classical Roman and Indo-European customs with Christian biblical and apocryphal lore surrounding the birth of Christ and the arrival of the three kings from the East. The three Magi carrying gifts to the infant Jesus, outwitting King Herod, presented in the poor stable first a gift of gold, honoring kingship; a gift of spice and frankincense suitable for a god; and the herb myrrh, portending mortality. *Twelfth Day*, *Epiphany*, celebrated the joyous revelation that a king of kings was born, symbolizing hope, light after darkness, death of winter, birth of Sun, death and resurrection of the Son, and after sorrow, joy.

PRE-LENTEN SEASON

Liturgical preparations for the Christian paschal feast of Easter, the day of Christ's resurrection, occur in a series of five periods, each acquiring a progressively more penitential and severe character. The five periods in chronological order are: (1) the *Season of pre-Lent*, from *Septuagesima Sunday* to *Ash Wednesday*; (2) *Ash Wednesday* (the official beginning of the *Lenten season*) to *Passion Sunday*; (3) *Passion Week*; (4) the first four days of *Holy Week* from

Palm Sunday to Wednesday; and (5) the *Sacred Triduum* (*Holy Thursday*, *Good Friday*, and *Holy Saturday*). These last three days are the culmination of penitential fervor as all observances focus solely on the commemoration and reenactment of the Lord's passion, which conclude with the Easter vigil.

The Pre-Lenten season takes place over the course of the three Sundays preceding Lent, which are called Septuagesima ("70th"), Sexagesima ("60th"), and Quinquagesima ("50th"), and was observed in the Byzantine Church as an optional fast of devotion from the fourth century. The practice was introduced into the Roman Church in the sixth century; from there it spread throughout the churches of Western Christendom.

Pre-Lenten masses are suitably somber and penitential: The priests wear the liturgical purple vestments, the joyful hymns "Gloria" and the "Te Deum" are excluded from the liturgy of the mass and the divine office, respectively, and no flowers are placed on the altar.

Clergy and laity observed the optional fast in a progressive manner. In the Byzantine Church abstention from meat began on Septuagesima Sunday. On the following Quinquagesima Sunday, people stopped eating eggs, butter, milk, and cheese.

One of the most moving customs in the Latin Church was the ritual "Farewell to Alleluia." On the Saturday before Septuagesima Sunday, this hymn named after the Hebrew exclamation of joyful praise of the Lord was officially discontinued in all liturgical services, not reintroduced until the solemn Easter vigil on the midnight before Easter Sunday. In the Middle Ages the *deposito* ("discontinuance") of the "Alleluia" assumed a more elaborate ritualized character. The "Alleluia" was bidden farewell with great emotion as though departing from a beloved friend. Thus numerous "Alleluias" were inserted into pre-*deposito* celebrations and special odes such as the "Alleluia, dulce carmen" ("Alleluia, Song of Gladness") were composed in France and elsewhere especially for the occasion.

To increase popular fervor for the "Alleluia" hymn French churches began the custom in the 11th century of celebrating a quasi-liturgical "burial of the Alleluia" on the Saturday before Septuagesima Sunday, in which choirboys officiated and the laity actively participated. Choirboys would carry a small coffin in procession down the aisle of the church mourning and moaning until they reached the cloister, where they sprinkled the coffin with incense and holy oil and buried it. Afterward, a small straw figure bearing the gold-embossed word *Alleluia* was buried in the church courtyard.

Carnival The name *Carnival* derives from the *Dominica carnivala* (Carnival Sunday), from the Latin *carnem levare* or *carnelevarium*, which means the "withdrawal" or "removal" of meat from all meals. This was the optional fast that many clergy and laity undertook on the Quinquagesima Sunday, Monday, and Tuesday preceding Ash Wednesday. For most people, however, Carnival was a time of festive merrymaking and above all fabulous feasting to ensure that every ounce of meat, bread, eggs, cheese, milk, and other fatty products was entirely consumed before the onset of the Lenten fast. Anything not consumed would be burned, a practice reminiscent of the Jewish custom of assiduously removing all leavened products from the home in preparation for Passover.

Many countries developed special foods for Carnival and especially for Tuesday, known mainly as "Fat Tuesday" from the French, *Mardi Gras*, or *Shrove Tuesday* among the British. Especially prominent are pastries made of butter, eggs, milk, and fat. The English and French prepare pancakes and crepes. Celebrations also included games, plays, masquerad-

ing, and general festivities. Dramas were performed in marketplaces and courts, such as the *Fastnachtspiel* in German-speaking areas. In England *mumming plays* incorporated Indo-European fertility and sword dances, such as the *moresca*, *mattachin*, and *morris dance*, whereas in the Latin countries Roman Saturnalia influences were seen in the custom of masquerading. In 15th-century Rome the pope himself instituted the Carnival pageant in Rome.

THE SEASON OF LENT

Lent was the spring season's 40-day Christian fast beginning on *Ash Wednesday* and concluding on Easter eve, commemorating Moses's, Elijah's, and Christ's 40-day fast in the wilderness. The tradition of fasting 40 days was adopted universally in the church between the third and fourth centuries and the season came to be known as the *Quadragesima* ("40th" in the Latin Church, its equivalent *Tessarakosta* in the Byzantine Church. In all Romance language countries the word for Lent is derived from the Latin term *Quadragesima*, for instance, *Cuaresma* in Spanish. The English word *Lent* derives from the Anglo-Saxon *Lengten-tide*, a reference to springtime, when the days grow longer. In Germany the period was referred to as *Fastenzeit*, meaning "fasting time."

As noted, the Lenten season is characterized by fasting from all meat and meat by-products, including milk, butter, and eggs. In addition, on Fridays and certain other days, an even more "rigorous" fast called the *jejunium* was imposed; it consisted of consuming only one meal a day and drinking only water at other times. This strict fast was relaxed after the ninth century to permit eating bread and water at other meals.

Within the liturgy of the Church Lent is the holiest of all seasons, a blessed time of enhanced penitential devotion, severe fasting, and prayer in preparation for the great feast of Easter. The solemnity of the season was manifested in church liturgy with the wearing of purple vestments and draping of the altar in purple cloth; discontinuance of the celebratory hymns the "Alleluia," "Gloria," and "Te Deum" in all seasonal masses and offices; silencing of church organs; and prohibition of weddings and other joyous celebrations. From the earliest days of the church, the *jejunium* fast, additional prayer services, ritual expulsion from the community, and other penitential exercises were imposed upon those who had committed grave public sins and crimes. Lent was also the season to prepare catechumens and new converts for their acceptance into the church via baptism. During their period of instruction in the Christian faith catechumens were frequently subjected to questions about their knowledge and understanding of what they had been taught. A public scrutiny (*scrutinia*) was held, in which the bishop determined whether the catechumen had truly renounced all his or her sins, and witnesses were produced to testify for or against the sincerity of the person's motives for baptism or conversion.

From Ash Wednesday to Passion Week The name *Ash Wednesday* dates to the papacy of Urban II (d. 1099), who coined the term in Latin, *Feria quarta cinerum*. Previously the day was called simply the "beginning of the fast" (*initium jejunii*). During the celebratory mass priests anoint the foreheads of the congregants with blessed ashes in the form of a cross while reciting the biblical verse *Memento homo quia pulvis es et in pulverem reverteris* ("Remember, man, that thou art dust, and to dust thou shalt return") (Genesis 3:19). The use of ashes as a sign of penance and sorrow is a Jewish tradition attested in the Old Testament (cf. Jonas 3:5–9 and Jeremias 6:26 and 25:34), as well as in the New Testament in Matthew 11:21. Ash Wednesday is not observed in the Eastern Church. Lent officially begins on the Monday before Wednesday and is called Clean Monday

because the house must be completely cleansed of all meat and meat products beforehand.

In addition to the obligatory general fast, those who committed grave sins causing public scandal had to begin their period of "public penance" on Ash Wednesday. Such sinners would confess their sins to a priest beforehand and then be taken before the bishop outside the cathedral. Barefoot and dressed in humble sackcloth regardless of their social condition, the sinners stood with heads bowed in ritual humiliation as the bishop personally meted out penitential punishments and exercises according to the nature and gravity of the sin. The penitents then entered the church behind the bishop and together they sang penitential psalms, were sprinkled with holy water, and received a special sackcloth to wear. They were then led out of the church and were forbidden to enter at any time before the reinitiation ceremony of Holy Thursday. During this period the penitents were in "quarantine," physically and spiritually cut off from the church and from Christian society. Prohibited from residing with other Christians, most sought refuge in monasteries, where they went barefoot and were banned from cutting their hair or bathing.

The Lenten season is divided into various periods. *Judica Sunday* (Latin, *Iudica*, "Pass judgment on me") was the first Sunday in Lent, named for the opening words of the Latin mass of Psalm 42: "Judge me, sentence me, O God!" Medieval celebrants delighted in *Laetare Sunday* (Latin, *laetor*, to "exult"). This fourth Sunday in Lent was named from the opening words of the Mass, "Rejoice with Jerusalem." It was celebrated with a relaxing of the Lenten penitential observances. Flowers were allowed on the altar, organ music could be played during mass, and the liturgical purple was replaced by rose-colored vestments. In England the day was called *Mothering Sunday* for the custom of allowing novices to return home to the "mother" church where they had been baptized and lay flowers on the altar. Children would also give flowers to their own mothers.

Passion Sunday was the fifth Sunday in Lent, beginning *Passion Tide*, the two final weeks of Lent, and ending in *Holy Saturday*. Crucifixes, sculptures, and images in the church were draped in purple as a sign of mourning. *Palm Sunday* was the Sunday before *Easter* and *Holy Week*, commemorating Christ's exultant entry into Jerusalem, just one week before his Resurrection. In the liturgy the Passion according to Matthew (26:36–27:54) was sung in its entirety in place of the usual gospel reading of the mass. Three clergy would perform the readings in contrasting voices: The tenor represented Matthew, the voice of the narrator; the high tenor chanted the role of the individuals and crowds; and the bass intoned the words of Christ. Penitents in procession carried palm fronds that symbolized Christ's victory and represented his protection. Substitutions for palm fronds such as the Irish yew plant or the Mediterranean olive branch were used in countries where that plant was not autochthonous. The plants chosen were usually traditional symbols of immortality; both the evergreen yew and the olive tree lived for centuries and since ancient times had been planted at cemeteries.

Holy Week *Holy Week* was the calendrical week preceding *Easter*, devoted to celebrating and reenacting Christ's Passion with prayers, drama, and liturgy. Particular solemn events on *Good Friday*, a day of fasting, penitence, and abstinence, marked the only day of the liturgical year that mass was not celebrated. All events of Holy Week anticipated commemoration of Christ's Resurrection. The colors in the church, ecclesiastical vestments, music, and drama such as the "Quem quaerities trope" were essentials of the spectacular season beginning nine weeks before *Easter Sunday* (on *Sep-*

tuagesima) and ending eight weeks after Easter Sunday on *Trinity Sunday*.

Spy Wednesday was the Wednesday before *Good Friday* commemorating Judas Iscariot's betrayal of Jesus Christ (Matthew 26:14). The Christian holiday of *Easter* was closely connected to the Jewish festival called *Pesach* or *Passover*, celebrating the biblical Exodus from Egypt commemorated with a *seder*, an order of service in which a Jewish *Haggadah* was read and *matzoh*, the unleavened bread; bitter herbs; and *charoset*, the savory remembrance of mortar used for building the pyramids, were served as symbolic foods. This *Passover seder* was Christ's *Last Supper* in Jerusalem with his twelve apostles foreshadowing his betrayal. In consecrating the bread and wine, Jesus initiated the first *communion*, a first *Eucharist*, eating the spiritual food of souls. "Whoever eats my flesh and drinks my blood abides in me and I in him" (John 6:56). This Last Supper liturgically was commemorated during the *Triduum Sacrum* (Latin, "three sacred days"), *Maundy Thursday*, *Good Friday*, and *Holy Saturday*, the last three days of *Holy Week* dedicated to Christ's *Passion* and death.

Sacred Triduum: Maundy Thursday, Good Friday, and Holy Saturday   *Maundy Thursday* was named either after Jesus Christ's *mandatum novum* (Latin, "new commandment"), the first words of the ceremony for washing the feet, or after the *maund*, the *alms basket* used to distribute food to the poor. Bells were silent after mass on that day until the "*Alleluia*," during the vigil of Easter evening on *Holy Saturday*. Another name for *Maundy Thursday* was *Green Thursday* (Latin *dies viridium*, "green day") because penitents who had made Confession on Ash Wednesday were to carry green branches signifying reception into full *communion*, the rite of spiritual union between a Christian and Christ.

Also on *Maundy Thursday* the liturgical *stripping of the altars* took place. The priests dressed in liturgical purple removed the linen, candles, decorations, and veils from every altar and tabernacle except the repository shrine where the host was kept. The bare altar symbolized the denuded Christ, who was stripped of his garments before being sacrificed. It was at this time that the altars ceremonially were washed clean with holy water and wine, giving rise in Britain to the name *Sheer Thursday* (Anglo-Saxon *skere* or *sheer*, "clean" or "free from guilt"). On this day people confessed their sins and requested and received *absolution*, a priest's or bishop's conferring of formal forgiveness of sins by Christ's grace to the penitent. *Absolution* also was a service of prayers for a dead person's soul. Sinners completing the "public penance" were formally reconciled with the church by the bishop, who invited them into the church and absolved them of their sins and crimes after the Mass of Reconciliation. They were now able to resume their normal life, to bathe, and to cut their hair in preparation for the Easter celebration.

Good Friday has been known since early Church history as the day of bitterness and fasting. Its official Latin name is *Feria sexta in Parasceve*, a term ultimately derived from the word *Paraskeue*, which Greek-speaking Jews used to designate preparing for the Sabbath. The early church also employed the term *Pasch* from the Hebrew *pesach*, or Passover, to refer to both Good Friday and Easter Sunday, the former the "Pasch of Crucifixion" (*pascha staurosimon*) and the latter the "Pasch of Resurrection" (*pascha anastasimon*). As noted, Good Friday is the only day of the liturgical year in which Mass is not said. Instead, the *Synaxis*, or prayer with mass, is celebrated. Priests silently prostrate themselves before the altar, portions of the Bible are read, the Passion According to Saint John is solemnly chanted, and prayers are said on behalf of the community.

The highlight of the ceremony is the *adoration of the cross*. The presiding priest unveils the

cross singing, "Behold the wood of the Cross, on which hung the Salvation of the world!" The kneeling choir and congregants respond, "Come, let us adore!" The priest then takes the cross and places it on a pillow on the floor before the altar; then all the priests approach the cross, genuflect three times, and kiss the feet of the image. The laity are then invited to do the same.

Crusaders returning from Jerusalem introduced into Europe the extraliturgical tradition of the *Holy Sepulcher*, a devotion particular to the Church of Jerusalem consisting of a vigil before the location of Christ's tomb that lasted from Good Friday until the beginning of the Easter services. Across Europe the crucifix, or the blessed sacrament, or sometimes both, were taken out of the church and paraded in a solemn procession to a shrine called the sepulcher. There the officiating priest deposited them in a tabernacle shaped like a tomb, and the faithful held vigil there throughout Good Friday and Holy Saturday. In the Byzantine Church priests or elders of the parish solemnly carried a cloth bearing an icon of the dead Christ to the shrine of the Sepulcher, where it was placed on a table and venerated by the people.

People in the Latin countries held Good Friday processions in which images of the crucified Christ and the sorrowful Virgin were taken out of the church and carried solemnly through the street on a raised platform. Those who carried the images and the laypeople who walked in procession behind them donned simple penitential robes or sackcloth and covered their heads with a hood as a sign of humility. The penitents walked through the streets in silence carrying candles. In the 13th to 15th centuries zealous flagellants inflicted terrible wounds on themselves on Good Friday and throughout the Lenten period.

Good Friday was also observed with special foods and extreme forms of fasting. In many countries people only ate bread and water. The Irish practiced the "black fast," in which they consumed nothing but tea or water all day. Meals were mostly consumed in silence and standing. It was a widespread popular tradition from Greece to the British Isles to mark the bread dough with a sign of the cross before baking it. In England the tradition of baking "hot cross buns" was introduced in the 14th century in Saint Albans Abbey so that these smaller bread portions could be more easily distributed to the poor.

Holy Saturday (*Sabbatum sanctum*) was the vigil day before Easter Sunday, commemorating Christ's resting in the tomb, anticipating *Resurrection*. Holy Saturday also was called *Easter eve*. No liturgical services were held during the daylight hours of this day until the beginning of the Easter vigil. Catechumens about to be baptized or converted would gather at the church, where the priest would perform the rite of exorcism from the powers of evil. The priest touched their ears and nostrils to symbolize the opening of the spirit to the words and grace of God. Each catechumen turned to face the west and pointed the forefinger to the direction of the sunset and uttered the words "I renounce thee, Satan, with all thy pomps and all thy works." She or he then faced eastward and made the same gesture and pronounced the words "To Thee I dedicate myself, Jesus Christ, eternal and uncreated Light." Each catechumen then recited the Creed and then retired to spend the last night before baptism in silence and prayer.

EASTER

Easter Sunday was the most solemn celebration of the Christian liturgical year. This feast commemorating Christ's *Resurrection* on the third day after his *crucifixion* honored Christ's rising from the dead, observed by the three Marys and the 12 apostles (Mark 14:50). *Easter Sunday* is rightfully called the "peak of all feasts" and the

"queen of all solemnities." For the majority of the nations of Western and Eastern Christendom the festival name derives from the Greek and Latin term *pascha*, which in turn is from the Hebrew *pesach*. The English word *Easter* and the German *Ostern* derive from a Norse name (*Eostur*, *Eastur*, *Ostara*, or *Ostar*) that referred to the entire season of spring or a feast of the rising Sun. It was the English scholar and ecclesiast the Venerable Bede (d. 725) who attributed the name Easter to a pagan goddess of the dawn and of spring, *Eostre*. Most scholars now agree that the saint misinterpreted the name of the season for the name of a goddess.

At least since the fourth century, Easter celebrations have begun after sunset on Holy Saturday with the lighting of candles symbolizing the triumph of Jesus, the "uncreated and eternal light," over the darkness of sin, death, and the powers of evil. Churches and homes alike were illuminated with candles and torches turning the night into day, according to contemporary descriptions. The faithful would congregate in churches to spend the night in prayer and celebrate the Eastern vigil. The service began with the lighting of the paschal candle, which was accompanied by the jubilant singing of Easter songs. A prayer service was held, passages of the Bible were read, and everyone recited psalms. Just before midnight the priests approached the baptismal font, consecrated the water, and proceeded to baptize the catechumens. After the ceremony the new Christians were given sandals and white robes, which they wore for the remainder of Easter Week. The sacred host or cross was raised from the sepulcher in a ritual called the *elevatio*, or "raising." In solemn procession the clergy would carry the host or the cross back to the church and restore it to its place on the main altar.

Saint Patrick, the founder of the church in Ireland, is credited with instituting the tradition of lighting bonfires outside the church on Holy Saturday night as a substitute for the ancient Druid practice of lighting spring bonfires. The church approved this custom since it allowed the Christianization of surviving Indo-European spring rites common throughout Europe.

Mass on Easter Sunday was a jubilant celebration. The mournful purple liturgical vestments were replaced with white, the symbol of purity, or gold in the Byzantium tradition. Altar decorations were restored, including lilies and other flowers. The "Alleluia," "Gloria," and "Te Deum" hymns and organ music were restored to the liturgy. Congregants remained standing throughout the mass and were not allowed to kneel as a sign of the risen Lord. After mass, the doors of the church opened wide and the people sang the hymn "Surrexit Deus" (God Is Risen), and the church bells rang.

Many Easter popular customs beautifully combined Christian beliefs with Indo-European fertility concepts. Eggs were an ancient symbol of spring. The Persians, for instance, would exchange gifts of painted eggs at the spring equinox. Christians retained the symbol of the egg, seeing in it a representation of the tomb from which Jesus emerged to new life at the Resurrection. *Pace egging* was the ritual by which mummers and other entertainers performed short dramas and then begged for coins and pace eggs for their labors. *Pace* meant *Pasch*, from the same Hebrew word as the Jewish holiday of *Passover*, or *Pesach*. Pace eggs were hardboiled eggs decorated with flower and vegetable dyes, borders of lace, embroidery, and tiny glass jewels. Elaborate pace eggs were painted with each guest's family designs and coats of arms. Pace egging also was a form of egg rolling, through wickets, in particular formulaic designs, without breaking the shells.

Throughout Europe from the British Isles to Scandinavia and from the Iberian Peninsula to France, Italy, and central Europe pig or wild boar has been the favored meal to celebrate

Easter Sunday. Pre-Christian Indo-European peoples considered the pig and the wild boar to be a sign of prosperity and good luck and would consume the flesh of these animals at weddings and festivals and on other joyous occasions. In Spain eating roasted pig or boar assumed the added role of culturally distinguishing Chris-tians from Jews and Muslims, whose religion prohibited the eating of these animals. Whether pork, boar, or lamb, the main meat dish was usually arranged on a bed of green leafy vegeta-bles on a platter surrounded by boiled, colored Easter eggs. Easter tables overflowed with all the foods forbidden during the Lenten season: meats, sausages, cheese and other dairy prod-ucts, and breads and pastries made of butter and eggs. Tables would be decorated with gar-lands, flowers, and plants. Easter breads would be baked with Christian symbols such as the cross, the letters *JC* or the paschal lamb.

A festive Easter custom of pre-Christian ori-gin in Britain was the *morris dance. Morris danc-ers* performed stamping steps with jingling bells and holly wreaths on their heads and carried tall straight canes with flowing scarves. Accom-panied by cymbals, pipes, and tabor drums, morris dancers stamped and jumped high in the air, performing traditional spring fertility rituals. Insistent tapping steps and bell ringings originally were thought to awaken slumbering field spirits. Leaping was a reminder to allow grain to grow high, flocks to multiply, and peo-ple to prosper.

Elegantly clothed and seated at the high table, the hostess, beneath a richly decorated baldachin canopy, greets the entertainers who regale the guests with music and mummery. Sword-carrying musicians play a variety of fifes, flutes, recorders, shawms, drums, and stringed instruments. Bird-masked, armed entertainers mime and act a play. Most mumming preserved ancient fertility rites, including beheadings and resurrections, as in morris dances. The lead mummer carries a baton or torch and faces the ermine-collared surveyor of ceremonies, who directs the feast, alternating courses with entertainments. From Hans Burgkmair, *Der Weisskunig*, late 15th century. Courtesy of the Metropolitan Museum of Art, New York. Gift of Anne and Carl Stein, 1961.

LOW SUNDAY AND JUBILATE SUNDAY

The first Sunday after Easter was called *Low Sunday* or *Quasimodo Sunday*, the name derived from the opening words of the introit of the mass, *quasi modo geniti*, "as if in the manner of a newborn." *Jubilate Sunday* was the third Sun-day after Easter, so named from the words of the mass *jubilate deo omnis terra*, "All the Earth, rejoice in the Lord," from Psalm 100, or from the *introit*, Psalm 66, an ornate, antiphonal first chant of the mass.

FEAST OF THE ASCENSION

The *Feast of the Ascension* commemorated Christ's final triumphal appearance on Earth

before leaving his astonished apostles at Bethany, outside Jerusalem, and ascending from Mount Olivet into heaven (Luke 24). In the liturgy, *Ascension* has been celebrated on the sixth Sunday after Easter in both the Roman and the Eastern Churches since the fourth century. The solemn mass emphasizes the divine mystery of the ascension rather than the historical event, noting that Christ ascended into heaven so that Christians could share in his divinity. The celebrations included a liturgical procession outside the church and up to a hill, reenacting Christ's leading his apostles "out toward Bethany" (Luke 24:50). In the Byzantine Church, the priest delivered his sermon from atop the mountain. In the 10th and 11th centuries the procession became more elaborate with the addition of theatrical elements. In Germany, for instance, these rudimentary *Ascension plays* consisted of the priest's lifting up a cross on a hill when the words *Assumptus est en coelum* ("He ascended into heaven") were psalmodized. Thirteenth-century representations took place inside the church, with the crucifix raised up to the ceiling, as the congregants stretched up their arms and sang hymns. In Bavarian churches a platform was installed in the center of the church and the image of the risen Christ would be raised aloft. Choirboys wearing white dresses and wings represented angels who descended from heaven to meet Christ and accompany him on his celestial journey.

FEAST OF THE PENTECOST

Christian *Pentecost*, the seventh Sunday after Easter, celebrated the descent of the Holy Ghost in the form of tongues of fire to the apostles (cf. Acts 2:1–4). Also called *Whitsunday* or *White Sunday*, this day required white liturgical vestments, baptismal garments, and church hangings. In Judaism *Pentecost* (Greek, "50th day") was the *Feast of Weeks*, *Shevuot*,

the 50th day after the Jewish *Passover*, or *Pesach*, commemorating both the gift of the divine law to Moses on Mount Sinai and the first fruits of harvest. It was customary in late antiquity and the early Middle Ages to imitate the Jewish custom of referring to Pentecost as the entire 50-day season. For Christians, this meant the entire period from Easter Sunday to Pentecost Sunday. Liturgical vestments are red, the color of the love of the Holy Spirit and the color of the tongues of fire. It is also a day of fasting and penitence to atone for any sins or excesses committed during the Easter season.

On the basis of the gospel account of Jesus's baptism (Luke 3:21–22), the dove was a symbol of the Holy Spirit in ecclesiastical and popular culture. Church liturgy for the Feast of Pentecost dramatized the descent of the Holy Ghost. At the sequence in the mass in which the priest sang the hymn "Venite Sancte Spiritus" (Come, Holy Spirit) the choirboys would make a sound "as of a violent, blowing wind" (Acts 2:2) by hissing, humming, rattling their benches, or blowing a trumpet. A disk decorated with an image of a dove surrounded by golden rays would then descend from the "Holy Ghost hole" in the ceiling as the choir sung. When the "dove" settled, flowers would be dropped on those present to symbolize the gifts of the Holy Spirit. In the cathedrals of France live white doves or pigeons were used in the ceremony.

TRINITY SUNDAY

Trinity Sunday honored the Holy Trinity, the central Christian mystery of God's unity and three persons, the one God existing in the Father, Son, and Holy Spirit. The early church did not celebrate Trinity Sunday, since every day of the liturgical year technically praised the mystery of the Trinity. The fixing of *Trinity Sunday* as the first Sunday after Pentecost

originated in the Frankish Kingdom in the ninth century under the impetus of the abbot Alcuin (d. 804). The church of France, Germany, England, and the Netherlands quickly adopted the custom of celebrating Trinity Sunday, albeit on various dates. The official date was definitively established in 1334 by Pope John XXII. In England it was associated with Saint Thomas à Becket, consecrated in the year 1162 on that day. The Byzantine Church does not observe Trinity Sunday; the first Sunday after Pentecost is the *Feast of All Saints.*

THE FEAST OF *CORPUS CHRISTI*

Until the 14th century the church did not have a feast day devoted to the veneration of the Eucharist, the body of Christ. Maundy Thursday commemorated the institution of the first communion at the Lord's supper, but the mournful character of the tridium precluded the joyful celebration of the Eucharist. Pope Urban IV (1261–65) established the holiday in 1264 as the Thursday following Pentecost week. The feast day is intimately associated with the mystic piety of a Belgian nun, Saint Juliana (d. 1258), who received visions of the full Moon in a brilliant light except for one part of its disk, which remained dark. In one of the visions Christ appeared to her and explained its meaning, saying that the Moon represented the liturgical year and the black spot indicated the absence of a feast dedicated exclusively to the Eucharist. The bishop of Liàge and the canon lawyers of church, who included the man who would be become Pope Urban IV, supported her cause. The Dominican theologian Saint Thomas composed hymns in praise of the *Corpus Christi* (the body of Christ). *Corpus Christi* was celebrated almost from the very beginning with solemn processions in which the blessed sacrament was taken out of the church after mass and carried through the streets. Mystery plays and Corpus Christi dances formed part of the celebrations in Spain, France, Portugal, Italy, Belgium, Germany, and elsewhere.

MARIAN FEASTS

Doctrinal differences emerging in the early churches and the increasing devotion to the Virgin from the 12th century explain the establishment of numerous feast days venerating the Virgin Mary. The *Presentation of Christ in the Temple* was the Christian feast celebrated on February 2, coinciding with the *Purification Feast* or *Candlemas.* Following Jewish tradition (as depicted in Leviticus 12), the *Purification Feast* was a sacrifice of two turtle doves and two young pigeons for ritual purification of the new mother. The *Feast of the Purification* (Luke 2:22) purified Christ's mother, Mary, and commemorated the consecration of Christ at the Temple in Jerusalem. This day also coincided with *Candlemas*, a holiday noted for its ritual processions with lighted candles.

Other important holidays celebrating aspects of the Virgin Mary's life were the *Nativity of the Virgin*, celebrated from the seventh century on September 8. The *Annunciation of the Blessed Virgin Mary*, which commemorated the archangel Gabriel's announcement to Mary that she would bear the living God as Christ child, was observed on March 25 from the seventh century. Mary's death or *Dormition of the Virgin*, is discussed in chapter 5 on philosophy and religion. A particularly emotional feast was the *Feast of the Seven Sorrows*, observed on the Friday after Passion Sunday. It commemorates the painful events of her life, and especially her witnessing of the Passion of her son. The beautiful poem "Stabat Mater Dolorosa" (The Sorrowful Mother Stood) was composed for the occasion by a Franciscan friar in the early 14th century. Shrines with images of the sorrowful Virgin were installed in churches throughout Europe and became the object of profound veneration.

SAINT VALENTINE'S DAY

At least three saints named Valentine had deeds or deaths on February 14 in the second and third centuries. Somehow their names were linked to love, along with the names of Cupid and Venus, classical goddess of love, mother of the winged blind boy Cupid, who mischievously shot arrows caused people to fall in love at first sight. Saint Valentine's Day was a popular wedding day, thought in nature to be the time birds selected mates, imitated by western European people by celebrating a natural season for love.

Decorating a Saint Valentine's Day hall required love lanterns; vegetable candle holders made from hollowed out turnips, firm vegetables, or fruits; with a face cut through the skin, piercing to the now-empty center. A thick candle set inside was lighted, resembling modern Halloween jack-o-lanterns. Soft, gentle valentine lights accompanied sensual fragrances from rosemary, basil, marjoram, yarrow, and bay leaves crushed and floating on rosewater in small bowls and incense burners swinging with the fresh sweet smell of laurel and pine.

Guests wore love tokens. A small gold or silver pin worn on a chain or over the heart was called a *love knot*. An infinity sign, shaped like the number 8 resting on its side, the love knot represented perfection of affection without beginning and without end, and when made of gold, the metal never tarnishing, never dying, it signified eternal love. Women made love knots with their braided hair as their bridal coiffure, promising eternal love. Another jewelry love emblem was the *crowned A*. Worn on the chest or as metal clasp for a cloak, the letter *A* with a royal crown stood for the famous Latin tribute to Love, *amor vincit omnia*, "love conquers all," either the emotion called love or Cupid, the blind god of love, king of human love. Chaucer's proud Prioress in the *Canterbury Tales* wore a crowned *A* on her garments.

A lover wore a red heart cut from fabric or a jewelry heart celebrating love, the god of love, or its saint, Valentine. Popular love music was called the *chivaree*. The melodies and rhythms were designed to lift the spirits and create the mood for love. Some Valentine melodies imitated songs of birds, and others used stirring horn melodies with a strong beat, with rapidly increasing intensity of sounds and crescendos to arouse listeners to a thrill of pleasure and sexual excitement.

Valentine's Day foods of love included meats, fish, birds, eggs, vegetables, fruits, spices, and wines thought to be aphrodisiacs, stimulating affection. Peacock was served roasted, then refeathered, with camphor and cotton in its mouth set ablaze, making the ardent bird appear to breathe fire. Roasted partridge and stewed quail also quickened erotic emotions. At least one feast dish was made of eggs, and not simply chicken eggs. Other birds' eggs sensual to eat were those of geese, pheasant, quail, and sparrow. Seedy fruits were important foods of love, especially figs and pomegranates; apples, associated with sexual love since the biblical Garden of Eden; and sweet pears, favorite of the goddess Venus. Delicate red and purple cakes called *plum shuttles* were long finger-length oval cakes made with purple plums, currants, and caraway seeds. Resembling shuttles that weavers used to guide threads through warp and weft of cloth, the cakes signified weaving love into the fabric of life. Small heart-shaped cakes made with cherries, plums, or pomegranates indicated heartfelt feelings.

Fascinating combinations of pagan and Christian lore were preserved in Valentine's Day love divinations to answer such questions as "Who is my true love?" Divination used common objects that, studied "correctly," revealed answers. Divining by hemp seed revealed identity of a future husband or wife. A player holding a bag of hemp seed threw seeds

over the left shoulder to fall either on flat ground or into a trough of water. The seed pattern foretold the beloved's name or profession. A pattern resembling a house promised a wealthy suitor; a crown implied power and nobility. Another Valentine divination used the yarrow plant, whose vigor or death portended faithfulness or faithlessness in love. Fading, wilting yarrow indicted wavering, waning love, and withered or dead leaves spelled love's doom.

APRIL FOOLS' DAY

April in various countries began with the celebration of *All Fools' Day*. The April world was upside down. Things were not what they seemed. All Fools' Day was a splendid celebration of the ridiculous. Instead of a lord or lady presiding at high table, the chair of honor was reserved for a jester, the Lord of Misrule. Dressed in fool's costume called "motley," he wore a long, floppy, pointed hat with bells at its tip and carried a scepter topped with a small head, also wearing a belled fool's cap. Servitors performed their jobs backward. Least important tables were served first, the high table last. Bows were not made toward people but from them. People wrote notes in mirror writing starting at the right side of the page with letters moving left. Festivities took place in reverse order.

All Fools' Day sometimes shared activities with the January church holiday called the *Feast of Fools*. In churches, monasteries, and schools, students controlled teachers and the young ruled the old. Among the choirboys a "boy bishop" was chosen to preside over a mock mass and deliver a sermon.

The Lord of Misrule, leading the day, also was associated with a *Feast of Asses* and *Balaam's ass*. A celebration of the *Feast of Asses*, *Festum asinorum*, was particularly popular in the French towns of Rouen and Beauvais. Short plays depicted the adventures of the biblical prophet Balaam and his wondrous donkey. For a hefty fee, an evil king asked Balaam to prophesy and curse the children of Israel. Instead, Balaam blessed them. Later, when he foolishly disregarded certain instructions God gave him, his ass obeyed them. Balaam's ass became protector of the prophet, the rider directed by his mount. Balaam's ass wisely counseled the foolish prophet who would not hear.

Other asses taught and preached on *All Fools' Day*. Interspersed among excellent feast foods and entertainments, asinine, ridiculous tales were read or acted out from a brilliantly funny 12th-century satire called the *Mirror of Fools* (*Speculum stultorum*). The late 12th-century

A jester dressed in motley blows his horn. From a woodcut by Albrecht Dürer in Sebastian Brant, *Stultifera Navis*, Basel Johann Bergmann, 1497.

Benedictine monk Nigel Wireker wrote it about a university student at Salerno and Paris, the donkey named Brunellus the Ass, who founds a monastic order. He left farmwork because he was annoyed that his tail was too short. In his donkey world, cattle talked, turtles flew, oxen were harnessed behind their carts, donkeys gave lute concerts, and bold rabbits threatened fearful lions. The *Mirror of Fools* was written as a scathing criticism of the rival Cistercian Order and an allegory for the Christian sinner based on the words of Saint Paul in Corinthian 1:18–25): "Has not God made foolish the wisdom of the world?"

Sense in all this nonsense was *All Fools' Day's* reminder to merrymakers that though rules are uncomfortable to follow, disorder is disastrous. Conditions may seem difficult, but the world turned upside down would be even worse. After the amusements of *All Fools' Day*, people willingly turned their attentions forward and dealt with the restraints of life right side up.

MAYDAY

Mayday customs, costumes, decorations, dances, and delectable green foods signaled change of season. Many Mayday rituals were remembrances of pre-Christian ritual to seduce spring to return to the world. Dancers stamped the ground to reawaken it; shrill May horns and whistles and tinkling May bells alerted sleeping spirits of fields and forests to the new season. The *maypole* was at the center of revelry. Its strong, tall wooden shaft crowned with garlands of leaves and flowers resembled a giant tree. The *maypole* idol had long pendant streamers held by dancers who interwove them in circular patterns meant to imitate the course of the Sun. Derived from Indo-European summer solstice rites celebrating the god of vegetation in a tree, the festivities usually included *morris dances*, *mumming plays*, and *rogation processions*. Near it, the *queen of the May* was crowned.

Around it, she led circle dances and maypole contest games to identify the tallest, strongest, swiftest, prettiest, bravest, smallest, loudest, and best. Mayday festivities in a country often began before dawn. *Collecting the May* was the ceremony for young men and women going to the forest and fields to collect evergreen boughs and meadow flowers. These were woven into the wreaths and decorations for the hall, guests, and maypoles. *Going-a-Maying* was the name of the early woodland party.

Rogation days celebrated on certain Sundays during the Advent and Lenten seasons were days for Christian ceremonial processions circumnavigating the church precinct, parish, or a bonfire, to pray for good crops, protection against plague, sufficient rainfall, or other needs of the community. In times of severe drought Jews and Muslims were known also to participate in the ceremonies of Spain and Portugal. The ritual was derived from Celtic and other Indo-European fertility sun charms and *maypole* rites. The procession followed the direction of the Sun and moved against the Sun, *contra solis*, in reverse, only during times of mourning.

While on most holidays, participating in games was more important than winning games, on *Mayday*, competition and superlative performance were the purpose. In ancient Celtic spring rites, the gods were thought to listen most to requests from those already blessed with superlative abilities. The best therefore petitioned for all. Therefore the queen of the May directed games determining the fastest race, longest leap, farthest throw of a ball, longest-held note, most skillful hoop roll, most accurate ring toss, best guess of number of beans in a barrel, and finest archer. Celebrants played such games as backgammon, chess, and billiards. *Nine man's morris*, also called *merrils* or *merrelles*, was a popular pastime in Spain, France, the Scandinavian countries, Germany, and the British Isles. An

illustration of the game appears in *The Book of Games* (*Los Libros de acedrex dados e tablos*) produced in the late 13th century under the auspices of King Alfonso X (1221–84) of Spain, where the game was popular among Muslims, Jews, and Christians.

Noblemen or shepherds played indoors or out- on a small well-carved board or roughly cut grass or dirt court. In the basic nine man's morris pattern, each player had nine counters, identifiable by color or shape, made of ivory or wood, carved and enameled, or simply crude sticks or stones. Counters were called *morrells*, another name for the game itself. The object was to get three morrells in a straight row. The player making such a line had the privilege of taking any one morrell from his opponent. The player collecting the most morrells won the game. When played outdoors on a life-size board with people as the counters, the movements of the players resembled a morris dance, possibly the origin of the game's name, *nine man's morris*.

MIDSUMMER EVE: THE FEAST OF SAINT JOHN THE BAPTIST

Midsummer Eve on June 24 has been celebrated as the beginning of summertime since Neolithic times among the peoples of Europe and North Africa. It commemorated the summer solstice, when the Sun seemed to stand still, the year's days were longest, and nights shortest. Midsummer festivities honored the Earth's awakening from winter's sleep, resembling the Mayday festival. Midsummer ceremonies often used divination, as magic and plant remedies were thought to be especially powerful and efficacious on that night. The vast majority of nations celebrated the summer solstice with bonfires, often accompanied by singing, dancing, or leaping.

Two feast days dedicated to Saint John the Baptist, the precursor of Jesus Christ, are among the earliest festivals of both the Eastern and the Roman Church. The *Decollation* ("Beheading") *of Saint John the Baptist* was fixed on August 29. The most important festival is the *Feast of the Nativity of Saint John the Baptist*, which was established as June 24, based on suggestions in the Gospels that the precursor was born six months before the savior. The Feast of Saint John the Baptist is one of the few saints' days that commemorate the birth rather than the death of the saint, and it is one of the very few to be endowed with the highest qualification of a *solemn* festival, meaning that it is observed as usual even if it falls on a Sunday. The liturgical honors accorded to this saint reflect his unique theological role in heralding the coming of Christ, and his proximity to Christ as his earthly cousin. This proximity to Christ is emphasized in the liturgy for Saint John's Day as well. As the festival of Christmas has, *Saint John's Day* has three masses, the first in the middle of the night on *Saint John's Eve* to symbolize his role as precursor. The second is celebrated at daybreak to symbolize his preaching and baptism, and the third is held at the hour of terce to honor his sanctity.

Popular celebrations of Saint John's Day dating from the seventh century demonstrate the ease with which Christians magnificently and merrily mixed customs of ancient Indo-European and Nordic Sun worship with medieval Christian lore. This often meant simply adding the name *Saint John* to a pre-Christian custom. In various parts of western Europe, a particular counting game was played with Saint John's bread or carob, named for the legend that while Saint John fasted alone in the desert, he kept himself alive and healthy by eating locust seedpods, his bread of life.

To a question beginning with "How many?" the answer was obtained by biting into and eating Saint John's bread, carefully removing the seeds, and counting them. The long, brown, delectably sweet seedpods from the locust tree

produced flat seeds so regular in shape, size, and weight that the carob seed was a measure for precious metals and jewels. The weight of 24-carat gold or the size of a four-carat diamond originally was determined by Saint John's bread, the carob seed. Carats derived from carobs.

As in valentine divinations with yarrow, for testing whether love would endure, each guest was given a fragrant, leafy branch of the plant Saint John's Wort. If leaves did not wilt by the feast's end, love was durable. If Saint John's wort taken home overnight remained fresh in the morning, love would be vigorous and long lasting. Drooping, dying, or dead, Saint John's wort predicted a short, bleak romance. Christianity as the new belief retained what was useful in the old to make it serve the new. Pope Gregory and Saint Augustine agreed that what people enjoyed in their earlier faith could be turned to Christian advantage. Medieval physicians and churchmen often encouraged people to look for Saint John's fern as an excellent medication to change mood. Saint John's fern was thought to allow total escape from unpleasantness by providing tranquility and invisibility!

Most Midsummer entertainment revolved around building bonfires, which were believed to ward off evil spirits. In its origins the word *bonfire* referred to fires fueled by animal bones, which were thought to ward of evil spirits. Under pressure from the ecclesiastical authorities bonfires were usually lit in the open air with lighted logs, the wood considered a less "pagan" and more seemly material for combustion. In the Iberian Peninsula under the influence of the Muslim population, who also joined in the festivities, fireworks as well as bonfires lit up the night. Fire was also a feature of Midsummer Eve rogation ceremonies. People entering a midsummer festival space walked in procession toward a central pyre, which they then circled clockwise, imitating the path of the Sun, rising in the east and setting in the west. Men and boys jumped over the flame, and cattle and other livestock were driven over or near the fire to keep them free from disease.

FEAST OF SAINT JAMES THE GREAT

A popular summer liturgical festival celebrated throughout Europe was the *Feast of Saint James the Great*, observed on July 24. James, his brother John, and Peter are depicted in the Synoptic Gospels as the apostles closest to Jesus. Jesus called James and his brother "Sons of Thunder' (*Boanergas*) (Mark 3:17) because of their fiery zeal for his cause. James was the first of the apostles to be martyred. Pious apocryphal legend held that James had preached the Gospel in the Iberian Peninsula, and after his execution in 44 C.E. by King Herod, his followers transported his body to Galicia in northern Spain for burial. Centuries later his body was "rediscovered" and a shrine was built for his relics circa 900 in the Galician city of Compostela. The kings of Castile claimed the saint as their personal patron in their battles to defeat the Muslims of Spain. The saint was said to have miraculously intervened in battles clad as a warrior, riding a white horse in midair, and brandishing a sword with which he personally slew the Muslim enemy. Saint James appeared in official church iconography as the "Moorslayer," *Santiago Matamoros*, including on the facade of churches dedicated to him.

By the 12th century, the Shrine of Saint James of Compostela had become one of the Latin Church's most important shrines, on par with Rome and Jerusalem. The pilgrimage to Santiago exceeded those to Rome and Jerusalem during difficult times when access to the Holy Land was hindered by the crusader wars or by the schisms affecting the papacy. Major pilgrimage routes were established from Germany, the British Isles, and France to Galicia,

drawing thousands of pilgrims every year from these lands as well as Italy, the Netherlands, and the Scandinavian countries. All the Saint James pilgrims wore a distinctive uniform consisting of a short cloak, cape, and a hat and carried a pouch for receiving alms. Pilgrims decorated their costumes with scallop shells, a symbol of Saint James and a reference to one his most famous miracles.

Those unable to make the pilgrimage in time for the feast day celebrated by building a grotto made of scallop shells (or oyster shells in their absence). Children would ask passers-by for alms to honor the saint. In France and Spain images of the saint were taken out in procession and bread was distributed to the poor. Eating scallops or oysters on that day was believed to gain good luck. Saint James's pastries, such as the Spanish *tarta de Santiago*, bore the emblem of the scallop shell or the red dagger-pointed cross, the emblem of the military religious Order of Saint James, founded in Spain in the 11th century.

LAMMAS DAY

August was bread time, especially *Lammas Day*, from Anglo-Saxon ("loaf mass"), marked by a church celebration blessing grains and breads and offering thanks to God for the good harvest. Bakers gave lessons in geometry by baking round breads, square breads, ovals, rectangles, trapezoids, and figure eights. The rainbow's colors were mixed with delicious fragrances in red rose-petal bread, golden orange saffron bread, yellow lemon bread, green parsley bread, blue thistle bread, indigo plum bread, and purple violet bread. Whimsical animal breads represented monkeys, elephants, and dragons. Architectural bread sculptures depicted castles and multidecked warships. Special molded breads depicted Eve in the Garden of Eden or Roman noblemen or kings of foreign lands. Celestial breads were stars, Sun, and Moon,

and almost every bake shop or street vendor sold pretzels, some salty, some sweet with raisins, and glazed with honey. The pretzel was a popular double-baked bread shaped in imitation of a young scholar's arms crossed on his chest in prayer.

Lammas lands were fields growing grains and crops usually fenced to keep animals out so that they would not trample or eat the harvest. On Lammas Day, however, the gates of certain fields were open and sheep and other animals were allowed to graze these Lammas Lands with free pasturage. Lammas feasts were held in townhouse, country cottage, and noble castle, with breads important for feast decorations and the menu. Tremendous bread and pastry subtleties were paraded through the hall: a bread castle, for instance, raised on a platform in the middle of the room, its colors and turrets admired until feast's end, when it was eaten. Courses were served on bread or the courses themselves consisted of types of bread, such as currant buns, shortbread, gingerbread, cucumber bread, and plum bread.

FEAST OF THE TRANSFIGURATION

In the *transfiguration* as narrated in the Gospels (Matthew 17, Mark 9, and Luke 9), Christ manifested his divinity to his disciples Peter, John, and James during his lifetime, by appearing shining to them. Accompanied by Moses and Elijah, Jesus Christ appeared with God's voice announcing, "This is my Son." Accounts variously placed this event on Mount Tabor, Mount Hermon, or the Mount of Olives. Representations of transfiguration, showing Christ's face as radiantly transformed and his clothing brilliant white, were especially common in art of the Eastern Church, where the *transfiguration* was celebrated as a feast, beginning in the sixth century. August 6 was not designated as the *Feast of the Transfiguration* in the Western Church until the 15th century.

MICHAELMAS

September 29 was celebrated in the Latin Church as the feast-day of Saints Michael, Gabriel, and Raphael the Archangels. Saint Michael's exploits as a warrior leading the heavenly armies appeared in the Bible. Apocalypse 12:7 describes a "great battle in heaven" in which "Michael and his angels fought with the dragon." Saint Michael has four missions or "offices": to lead the war against Satan, to rescue the souls of the faithful from the devil, to champion God's people as the patron saint of many military orders, and to carry souls before God at the last judgment. Saint Michael's feats also included the miraculous apparitions on mountaintops to intervene in war or fight plague. He also used his supernatural powers to create springs from rock and to endow bodies of water with medicinal curative powers. The church bestowed special honors upon Saint Michael. Churches, chapels, and monasteries located on mountaintops near the sea were named after him, such as the magnificent Mont Saint-Michel in France. In Egypt he is the patron saint of the river Nile, and in Greece and other areas of Europe he is the patron saint of thermal baths and hot springs.

In England the fall season was called *Michaelmas*. People who pay rent for house or land four times a year call the autumn quarter the Michaelmas rent. Schools and universities named their autumn term Michaelmas. Even the September Moon or harvest Moon was called the Michaelmas Moon. The pleasures of Michaelmas often included a glove, goose, and ginger.

Every September a gigantic glove suspended from a pole on the roof of an important town building represented the Michaelmas Fair. Merchants traveled from miles away and from foreign countries packing beautiful fabrics, glassware, jewelry, and wines, and local craftsmen carried saddles, swords, and fireplace tongs. Weavers displayed tapestries, potters purveyed pitchers and platters, and farmers carted wheels of cheese and fresh vegetables. Michaelmas Fairs attracted so many thousands of people that the Pie Powder Courts held trials for those breaking market laws. The glove implied that the king, local nobleman, or town mayor gave permission for the market to welcome all sellers and buyers. The glove was symbolic of promise and contract. The king pledged to allow the fair and to provide the place and the money to announce it. The merchants and fair managers swore to give a percentage of the profits to either the nobleman or the king or a worthy charity. The English king John in 1211 granted the town of Sturbridge its charter for a fair to help support a hospital for lepers. The glove also symbolized open-handedess and generosity.

Michaelmas feast menus traditionally featured roast goose. A particularly skillful cook would skin, stuff, cook, and then refeather the bird to look as if it were alive. Carried to table with great ceremony on a platter decorated with autumn fruit and flowers, the goose was carved with special flourish, the neck reserved for the most honored guest.

Ginger accompanied feast dishes. Alternating with simpler foods were ginger ale, ginger beer, ginger wine, gingerbread, ginger snaps, and ginger cake. Michaelmas fish was baked with ginger. A fine ginger dessert called chardwardon was made with large succulent wardon pears, sugar, cinnamon, nutmeg, and, of course, ginger. Ginger caramels served with curls of ginger root shavings concluded the feast. Medieval physicians usually considered ginger a healing herb good for stomach and chest illnesses and protection against infection. Just as Saint Michael was a guardian and healer, so the ginger plant with similar qualities was remembered when he was. Ginger was its most plentiful best in Europe in September. A legend concerned a rich 12th-century merchant with a

huge boatload of ginger carried from the East to sell at an English Michaelmas Fair. He refused to pay a nasty new high tax to the town; instead, he broke open his crates; hired jugglers, trumpeters, minstrels, and puppeteers to entertain; and gave away ginger free to anyone who asked. Everyone did. Each gift was plenty for a year's worth of delicacies. Supposedly, then, Michaelmas was so full of ginger, vim, and vigor that the September feast was spiced with ginger ever after.

HALLOWEEN AND THE FEAST OF ALL SAINTS

Celebrating Halloween in October represented the end of the year in the ancient Celtic calendar. October's end was also called summer's end, *Samhain*, in Gaelic. This festival allowed one last opportunity for outdoor bonfires and for games comparable to those at Mayday and June's Midsummer. The holiday signaled entrance to winter. October was the month ghosts, spirits, witches, and supernatural beings were thought most powerful and most lonely. Supernatural beings of course were important in traditional in Christian beliefs about October. Halloween was the evening before *All Hallows'* or *All Saints' Day*, when the ghosts of those departed were most likely to appear to their loved ones and plead for their intercession. The Christian holiday *All Saints' Day* was fixed on November 1 in the eighth century by Pope Gregory III (731–741) to honor all the Christian saints. The next day, November 2, was *All Souls' Day*, when prayers were offered for all the dead whose souls were waiting in purgatory. Halloween festivities combined beautifully the customs of pre-Christian Samhain with Christian Hallows.

Ruling the high table was a guest disguised as King Crispin, dressed magnificently in regal robes, crowned and flourishing a scepter, wearing a heavy chain around his neck attached to which was a large medallion with the design of one huge boot. King Crispin or Saint Crispin was the patron saint of the cordwainers, the boot makers or shoemakers who worked with cordwain, or Cordovan leather from Spain. Since Saint Crispin's Day was a few days before Halloween, the two were often combined. Halloween divinations were common and resembled the Valentine's Day divinations with hemp seed, yarrow, eringoes, and pillow faces, as well as the Midsummer divinations with diviner eggs, destiny cakes, and flowers removed petal by petal. One divination on Halloween was so common that the holiday itself was called Nutcrack Night: If a man and woman ready to be married placed whole walnuts or hazelnuts in the glowing embers of a fire, the heated nuts would burst their shells. Nuts that crackled loudly portended hope. Nuts that burned and withered suggested a human love that would briefly flame but soon parish. Other love divinations included apple paring; a whole apple was peeled with a small knife and the long spiral of apple skin thrown over the shoulder would land in a shape resembling the initial letter of the beloved's name. Apple bobbing was a frolic to which divination was added. Every apple bobbed for was given the name of a desired mate. The bobber who succeeded in biting the apple on the first try would thrive with the love of that name. If the apple was caught on the second bite, love would exist only briefly. Success on the third chance meant hate, not love.

SAINT CATHERINE'S DAY

November was the time to celebrate the Feast of Saint Catherine of Alexandria, virgin and martyr. Saint Catherine was a fourth-century noblewoman who single-handedly confronted the emperor Maximinus to reprimand him for persecuting Christians and to instruct him in the true faith. Maximinus sent his most erudite

philosophers and scholars to debate with her, but each one ended up converting to Christianity. Catherine was imprisoned and sentenced to death. She was to be martyred on the wheel, but it shattered at her touch. Instead, she was beheaded. *Catherine wheels* were symbols of the death of this most famous of women saints, Saint Catherine of Alexandria. The wheel symbolized her death. In popular festivities jugglers made wheels of fire. Acrobats wearing silver ankle bands turned cartwheels, also known as Catherine wheels. Round chandeliers, round windows, and wheel-shaped pins on costumes honored Saint Catherine, patron saint of lawyers, wheelwrights, rope makers, carpenters, lace makers, spinners, unmarried women, and women students.

French unmarried women and girls would visit local images of Saint Catherine in their churches on her feast day to pray for a husband. The unfortunate girl who had reached 25 years old but was still unmarried was called a "Catherinette." Catherinettes wore special "Saint Catherine's bonnets" of yellow and green, the colors of faith and wisdom. During the Black Plague that ravaged Europe between 1346 and 1349, Saint Catherine was one of the saintly *fourteen holy helpers* invoked in rogation processions.

A Typical Fabulous Feast

The fabulous feast formed a fundamental part of any major secular or religious celebration. Customarily, townsmen and noble people as well as country folk participated in calendar festivities as lavishly as time and wealth allowed. Each person filed into the banquet hall dressed in best clothes. Rich and wealthier townspeople wore velvets, silks, jewels, and brocades. Costumed young servants directed them to their tables. The most noble guests or the host sat at the *high table*, raised above the others by a plat-

form or dais so as to see and be seen by the other guests. Behind the high table the fancy canopy called a *baldaquin* marked the seat of honor. Everyone sat according to social rank at long tables called *sideboards* arranged along the sides of the hall.

Religious feasts often featured foods that symbolized in some way the festival being honored. Multicourse meat and fowl dishes and rich pastries made of milk, flour, and eggs were *de rigueur* at weddings and harvest festivals, and on joyous liturgical occasions such as Christmas and Easter, and at the Carnival banquets leading up to the 40-day Lenten fast.

WELCOME

The *surveyor of ceremonies* was the feast hall's banquet manager. Carrying a large gold key attached to a heavy chain around his neck, the surveyor welcomed the guests heartily. There followed elaborate ceremonies before exquisitely prepared foods were elegantly served. Medieval feasting was theatrical ceremony. As important as food texture and taste were food coloring and food form. Dishes alternated with entertainments. Food followed instrumental music. Food alternated with singing and juggling. Magic, mime, minstrelsy, dancing, dramatic performance all were interspersed among feast courses.

The surveyor's inauguration of the banquet was followed by *presenting the salt* to the guests at the high table. The *salt* was an extravagant salt container. Often shaped like a ship, called a *nef*, it had practical and symbolic purpose. Salt, as a most valuable spice, signified rank. The most noble sat "above the salt." The other guests sat "below the salt." Remembering this ceremony, modern people identify the place of honor as the seat "above the salt."

The *pantler* then proceeded to the *cutting the upper crust*. The pantler, the noble servant in charge of bread, customarily slung a long,
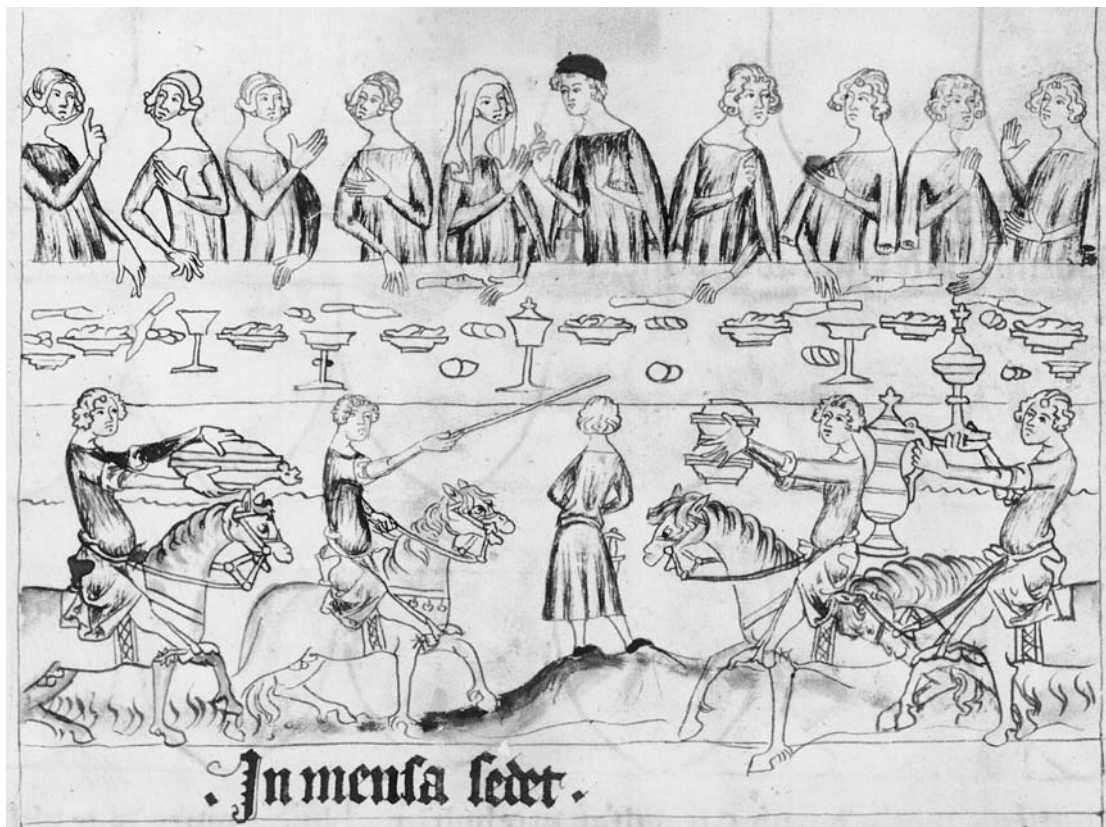
Mounted servitors carry large covered tureens and elaborate drinking and pouring vessels. The covered dish on the left has an animal-shaped mouth; the large hanap held by the cupbearer on the right is surmounted by a cross. On the table, footed drinking vessels and groaning wide-lipped serving platters share space with several knives of special design and small, sliced breads. Wielding the wand of his office is the steward, who directs the food service in the hall. Woodcut by M. Wohlgemuth, from *Der Schatzbehalter*, A Koberger, Nuremberg, 1491. Courtesy of the Metropolitan Museum of Art, New York. Rogers Fund, 1919.

fringed fabric called a *portpayne* on his shoulder. Using the fabric as if it were a presentation tray, he ceremonially carried loaves of bread. The pantler then cut the upper crust; using special knives, he horizontally cut the top from a round, delicately spiced, beautifully colored loaf. This "upper crust" he presented to the most honored guest, who then was called the "upper crust," a phrase used even today for socially important people.

Breads usually were delicately colored: red with rose petal, green with parsley, gold with saffron, violet with plum. From such fragrant loaves the pantler earlier would have fashioned the other guests' platters. Individual metal or porcelain plates also were used. But edible, aromatic, practical bread platters called *trenchers* supported various foods. With sauces and gravies well absorbed, the trenchers made nutritious, delicious bread slices to eat at the meal's

end, or they were toasted to eat the next morning at breakfast, floating in wine, then called a *sop*. Bread trenchers were offered to the eager resident dogs or saved as a food gift called *alms*, given to the poor waiting at the castle gate. The *almoner* collected such gifts in a huge bowl called the *alms dish* and distributed them to the needy.

The *laverer* then presented the *aquamanile*, the pitcher holding warmed, spiced, and herbed water for hand washing. The *aquamanile* often was amusingly shaped like a lion, dragon, wolf, or griffin whose mouth was the waterspout. Hand washing served both ceremony and hygiene. On the medieval table spoons and knives were used but no forks. Rather, the portable, practical extensions of the hands, the fingers, were used in elegant finger choreography. Every feaster ate with the fingers to assure that dining pleasure lingered. Finger etiquette determined which fingers were used for picking up meat, fish, fruit, and fowl. Pinky fingers were kept free of any food, used only for conveying spice, such as dried sweet basil, cinnamon, powered mustard, salt, and sugar. Forefinger and thumb in opposition were for conveying meat or flesh. Third finger and thumb in opposition were used for fish. Fourth finger and thumb fetched fowl. Fifth fingers were reserved as spice fingers. Certainly not crude or vulgar, finger eating was as practical as ceremonial.

Next the surveyor directed the *cup bearer* to test the wine. The master of wine bottles and barrels, the *butler* poured the drink. Testing assured the hosts, noble guests, and feasters that wine and cider were pure, safe, and free of poison. The *credence test* was performed by tasting or by dipping into the fluid a credence stone such as the *bezoar stone*. The bezoar changed color in the presence of particular impurities and poisons such as arsenic. Credence testers were well-paid, trusted banquet servitors who sometimes led, short, dangerous lives.

After the clergy or host blessed the food of the feast, then horns, trumpets, cornettes, shaums, drums, and bells played the fanfare signaling service of the first of the 17 courses or 29 or 77 or 127 courses, depending upon the holiday and the wealth and magnificence of the owners of the banquet hall.

MAIN COURSE

Servitors elegantly marched dishes for presentation first to guests at the *high table*. They proceeded to serve guests in descending order of social rank. Variety of tastes, textures, and food types astonish modern audiences. Superbly prepared meats, fish, fowl, vegetables, fruits, and sweets were served for appearance as well as taste and fragrance. Beautiful feathered birds such as partridges, pheasants, and peacocks were roasted, then refeathered, to create the illusion that they were alive. Their claws and beaks gleamed with painted gold. Other illusion foods delighted by surprising, looking as though they were one thing but actually another. *Golden apples*, for instance, were delicately spiced meatballs wrapped in gold-tinted pastry with marzipan green leaves. *Saint John's urcheon* was a whimsical hedgehog sculpture made of chopped meat wrapped in brown carob pastry with edible quills. *Four-and-twenty-black-bird pie* was not filled with cooked birds but rather live, tethered, feathered creatures that when the pie shell was cut burst through it to fly around the hall to amaze and delight the guests.

Subtleties were large, dramatic festival foods made of spun sugar, almond paste, marzipan, or pastry, an edible sculpture of an elephant, lion, or fire-breathing dragon with camphor and cotton in its mouth set ablaze. Some subtleties were crafted to resemble a queen, a warrior, a pope, or symbols such as a pear tree or a unicorn in a fenced garden. Venetians dazzled their banquet guests with sculptures of the

highly prized sugar molded into the shape of lions and other animals, a queen riding horseback, popes, King David, Saint Mark, plants, and fruit. Even the plates and serviettes were made of sugar.

FEAST MUSIC

Feast music announced courses and served as entertainment. Musicians walked in procession preceding servitors or played from *musicians' galleries* built high on the walls over the feasters' heads. Festival music cheered, pleased, and aided digestion. Some foods were thought best digested to particular melodies and rhythms, and some feasters because of their physiological temperaments were thought to eat best with music associated with their astrological moods. Therefore the sanguine and hopeful personality had special music, as did the phlegmatic and lethargic, the choleric and excitable, and the melancholic and sadly thoughtful. Banquet food also followed astrological temperaments, with feasters' personalities determining menu and order of food service. The best feasts suited meats, wines, herbs, and spices to the hosts' or honored guests' temperaments.

COOK, CARVER, AND WARNER

The *chief cook* of a noble house or castle customarily held a position under feudal land tenure called *petty sergeanty* granting land in return for personal service to the overlord. The chief cook's symbol of authority was a long-handled tasting spoon swinging like a medallion from a heavy chain. He tested food's quality and excellence by tasting. Often carrying a large feather brush for food painting of elaborate, fanciful dishes needing last-minute decoration, the chief cook had two major duties, protecting health and creating food art. If the banquet hall routinely served large numbers of guests, the chief cook supervised a staff of hundreds of kitchen helpers.

The *carver* was the feast expert who cut meat into portions. Carving etiquette books taught hand motions graceful as a dancer's, with particular foot positions and bows required as accompaniment for flourishings of the knives. Specially bladed and handled knives were held in proper finger positions for specific cuttings. There was a distinct carving vocabulary for each animal carved, as *breaking a deer*, *unbracing a mallard*, *winging a partridge*, and *tying a pigeon*.

Another banquet artist was the *warner*. As did the *chief cook*, the *warner* carried a feather paintbrush and a curved knife. The *warner* was a food sculptor who created *subtleties* sometimes paraded through the hall to "warn" guests that an important course was forthcoming. Subtleties were called warners, as were their creators.

BANQUET SERVITORS

Medieval feasts entertained all senses with banquet theater. The *surveyor* was chief actor and stage director, following a carefully crafted script to please an important audience. All other banquet performers had their precise parts with well-practiced entrances and exits. Each wore a costume suitable to social rank and carried an instrument both useful and symbolic of the profession. The following brief alphabetical catalog lists 22 common banquet performers on the dining hall stage. The *almoner* carried the large alms dish for collecting and dispensing food gifts to the poor. The *butler* with large keys to the wine cellar protected and mixed wines. The *carver* carried multiple knives for carving meats at table. The *chief cook*, identified by tasting spoon and painting feather, protected the feasters' health and created food art. The *cup bearer* wore on a chain around his neck a tasting cup for testing wines and drinks for purity and safety. The *dresser* carried twee-

zers and scissors for arranging food on serving platters. A *juggler* used balls, daggers, and rings for feats of juggling.

A *laverer* carried an *aquamanile*, bowl, and fringed towel for ceremonial and hygienic hand washing. A *magician* used balls, scarves, and boxes for feats of magic. A *master of venerie*, identifiable by his hunting horn, presented game animals as hunt trophies. A masked *mime* performed wordless drama. A *minstrel* played a lute to accompany his singing. A *musician* carried a horn or stringed instrument for performing fanfares, music for pleasure, and melodies for digestion.

Pages, young people in household service wearing the house *livery*, directed guests to table, filled drinking cups, helped serve, and participated in hall ceremony. The *pantler* carried a *portpayne* (the bread scarf or shawl) and knives for cutting the upper crust and the edible platters, the *trenchers*. The *patisser* used an icing comb for making and decorating pastry and cakes. A *quistron* wore heavy gloves for turning the spits in kitchen or banquet hall for roasting meats and helped the *rotisser*, who carried long needlelike skewers for preparing and presenting roasted foods. The *saucer* used a stirring spoon for preparing sauces and glazes.

Most *servitors* wore a baldric, a ribbon crossing the chest from shoulder to hip, for identifying rank, house, or holiday, ceremonially serving foods at table. The *surveyor of ceremonies*, wearing a large key, directed all feast festivity. Last, the *warner* carried his painting feather and sculpturing knife for creating *subtleties*. While not every manor house throughout Europe between the 12th and 16th centuries had all these banquet performers, many had most of them. Certain jobs easily were combined. A *butler* might also be *cup bearer*, *pantler*, and *carver*. When a troupe of mimes arrived in town and magicians were in short supply, mimes made marvelous entertainment, their magic in silence.

European Christendom expressed its unique cultural identity through penitential fasting at Lent and on other solemn feast days, and through feasting on foods that often set them apart from their Jewish and Muslim neighbors. The roasted wild boar, baked hams, and pork sausages that graced the tables of medieval Christian homes and castles in Britain, France, Spain, Germany, Italy, and elsewhere, as the maximal symbol of prosperity and joy were

Saint and queen, Elizabeth of Hungary smuggled scraps from her own table to feed the poor while her jealous, miserly husband, the king, tried to catch her out and prosecute her for disobedience. When he tried to grab her bowl from her, the food was miraculously transformed into roses. From a hand-colored woodcut, 1470s, South German. Courtesy of the Metropolitan Museum of Art, New York. Harris Brisbane Dick Fund, 1930.

With wind instruments accompanying service, a noble banqueter eats from rectangular trenchers served by the pantler. Wine flagons cool in a footed cumelin. At two long sideboards, 20 feast from round trenchers, using an occasional spoon. Woodcut by M. Wohlgemuth, from *Der Schatzbehalter*, A Koberger, Nuremberg, 1491. Courtesy of the Metropolitan Museum of Art, New York. Rogers Fund, 1919.

rejected and reviled by Jews and Muslims. It was not uncommon to find Jews and Muslims participating in the celebration of certain holidays of a secular nature, such as New Year's Day and Midsummer Eve. Other Christian festivals, however, especially Holy Week and Corpus Christi, were clearly markers of a distinct religious identity and could and did become the occasion for bigoted attacks upon Jews. The following section on Jewish holidays and festivals gives special attention to weddings, Sabbath, and liturgical festival celebration, the three cultural forms that enabled Diaspora Jews to retain their unique character whether living in Christendom or in Dar al-Islam.

Jewish Weddings, Sabbaths, and Holidays

The *Midrash*, the collection of homilies, legends, and tales explaining Scripture, contains no fewer than four variations of the story of Rabbi Jose and the conceited woman. An exceedingly wealthy woman of ancient Rome asked Rabbi Jose Bar Shalafta, "How long did God take to create the world?" "Six days." She then asked, "And what has God been doing since that time?" Rabbi Jose replied, "The Holy One has been sitting in heaven arranging marriages."

"Indeed!" she said, "I could do that myself. Why, I could marry thousands in a single hour." So she commanded 1,000 male servants to form a single line. Then she created another line with 1,000 female servants. She paired them off. The next day there were chaos and insurrection. New husbands and wives, battered, beaten, and bedraggled, begged her to annul their marriages. They threatened revolt. She was forced to rescind her matrimonial commands. Humbly she reported she had underrated matchmaking's delicacy and difficulty. Other examples of marriages made in heaven also suggest God's direct and benevolent intervention in human affairs, particularly marriage. In some tales, God as master matchmaker of marriages revealed his matrimonial designs in the stars.

King Solomon had proprietary curiosity about one such plan of God's. The king had discovered by astrology that his beautiful daughter was destined to wed the poorest man in the nation. Amiably intending to see just how powerful were God's foreordinations, and with no intended offense to divinity or his daughter, he shut her up in a tower with sheer rock walls, guarded by 70 aged watchmen. No man, poor or rich, could approach her there.

One day a weary, tattered, barefoot young traveler fainting from hunger and cold sought shelter from the wind by sleeping in the skeleton of an ox. A giant bird swooped down and lifted the carcass with its unconscious cargo and deposited it on the tower roof at the princess's door. The next morning she found him, clothed him, and anointed him. Soon they fell in love and she asked him to marry her. Since they had no ink for the marriage contract, the *ketubah*, he wrote it with his own blood, secretly solemnizing their marriage before God. When King Solomon learned of this and learned that his new son-in-law fit the description of the prophecy, he rejoiced, blessing God, who gives wife to man.

The Midrash stories of Rabbi Jose and King Solomon express the medieval ideas animating essential Jewish ceremonies: God cares specifically and directly about his people. Earthly ceremonies merely express God's heavenly plan. Feasts, fasts, and festivals are human reconsecrations of God's ancient covenant with the Jews.

Customs and ceremonies, the *Minhagim*, simultaneously serve four purposes. Ceremony creates a mood for celebrating God's splendors. Second, holidays establish an opportunity for demonstrating piety. Third, observances unite the individual with the current Jewish community and symbolically with the 5,000-year-old heritage. Last, liturgy and ceremony set the Jew apart from others.

Nevertheless, Jewish feasts and festivals such as the wedding, the Sabbath, and the calendrical holidays such as the spring festival of Purim demonstrate astonishing cultural interdependencies. A Jewish ritual wedding headdress is indistinguishable from a pagan Roman fertility wreath. Purim revelries and parodies parallel Christian festive bonfires, bean cakes, masks, and *mummings* of the *Feast of Fools*, *Twelfth Night*, and *Saint John's Day*. In these Jewish traditional rites of marriage, Sabbath, and Purim, folk tradition and learned heritage magnificently converge.

The Wedding

For the marriage planned in heaven, medieval celebrations on Earth require a formidable number of professional and amateur wedding personnel. Alternatively, weddings can be valid with none at all. As in King Solomon's daughter and her bird-borne lover's marriage, personal pledges of devotion would constitute a legitimate ceremony recognized by Jewish law. Until the 16th century it was not required in Judaism, or in Christianity, to solemnize matrimony in a house of worship. No rabbi, no cantor, no formulaic promises were necessary. A man and woman would simply pledge themselves in marriage to one another before two witnesses, or 10, and exchange a token, such as a loaf of bread, a shoe, or a ring. Such marriage would be perfectly legal.

With such flexible betrothing, however, many an unintentional wedding caused grief to an unsuspecting bride who innocently received a love token given as a humorous prank or in malignant malice. Rabbis often counseled women in their communities to accept no gifts in jest lest they become accidental wives in earnest.

But while not a legal requirement, custom demanded public celebration. So did practical humane consideration. The newly married pair almost invariably were children. Consider the

young bride Miriam, daughter of a local Jewish nobleman in Granada, Spain, and the young groom Yehudah, also from a family of wealth and learning, son of a rabbi and physician. Both Miriam and Yehudah were aged 14. They were not particularly young to be marrying, for such was the custom among medieval Jews as well as Christians and Muslims of child marriage arranged by parents for the good of the families or the towns. Life was too short to be wasted too long on childhood.

Miriam's cousin, aged nine, was a widow living with her parents who managed her finances while finding her another suitable husband. Her brother, age 12, waited another year at home before protesting his union with an older woman of 24. In a neighboring house, the wife of a silk merchant was pregnant. If her unborn babe was a girl, she already was legally betrothed to the equally unborn prospective son of the goldsmith. This commitment in utero could be revised, if the infants' sexes were reversed, or, of course, revoked if the sexes were identical.

The usual age of consent was 13 for a boy and 12½ for a girl, sufficient time for refusal before the marriage contract was signed and the union sexually consummated. Parents, loving their children, were not likely to make arbitrary or dangerous alliances. Nor would the professional marriage arranger, the *shadkan*, particularly if she or he valued his or her commission, which usually amounted to 1 to 2 percent of the dowry. The *shadkan* often was a respected rabbi, such as the famous 14th-century Maharil, Rabbi Jacob Levi Molin. As earthly match-maker, he simply expressed in human terms the intentions of God's matrimonial design. Often a *shadkan* was a merchant-traveler meeting at fairs and markets likely mates for townsmen less mobile.

The matchmaker frequently was a woman considered particularly skillful in balancing requirements of personality, family, and community. These arranged marriages worked as well or as poorly as those based on freer choice. A couple such as Miriam and Yehudah had a Talmudically typical two-stage betrothal. Aged 13 last year at their ceremony of engagement, called *erusin*, Yehudah lived in Miriam's father's residence for the year before their actual wedding, called *nissuin*. As was customary, he, but not she, wore a simple gold engagement band. It was a gift from her father. The young people, studying together, riding horseback, playing chess, singing, dancing, and talking, learned fondness and shared instructions of their tutors.

Elsewhere in Europe, the two-stage matrimony of *erusin* and *nissuin* was joined, often taking place the same day, as in 14th-century Germany, one at dawn, preceded by a candlelight procession; the other, in the afternoon. Or both were combined in the same service.

A wealthy bride from a distant community to be married in her husband's town in the Rhineland or Italy arrived in festive horseback procession. She might be met by riders on caparisoned horses. With musicians playing fanfares and marches, the men might engage in mock-tournaments along the way. If she arrived at night by barge on a river or canal, a torchlight procession with musicians, dancers, and jesters signaled her arrival at her future home.

The professional bride preparer combed her hair, making symbolic braids. Emulating the figure eight or love knot, the coiffure portended the endless intertwining of love. The bride preparer perfumed the bride with alluring scents and then dressed her. If the family had household servants, the bride preparer had little else to do but garb the bride in her gown, which was as colorful, rich, and elaborate as wealth allowed. Then the bride preparer cinched her around the waist or hip with a metal-linked bridal belt and crowned her head with a myrtle wreath.

Depending on the town and the century, the bride might cover her gown with a *sargenes*, a white cloak. The groom also wore over his wedding clothes a white *sargenes* with a hooded

cowl. Not an assertion of virginal purity, as one might suppose, the *sargenes* was remembrance of the death shroud. All who rejoiced must be mindful of delight's mutability into disaster.

The crowns and head wreaths worn by both groom and bride were made of myrtle leaves or designed to imitate them. Leaves from the myrtle tree sacred to the love goddess Aphrodite in pagan lore were thought in Jewish folklore hospitable to benevolent spirits, the odors driving away evil demons. So myrtle crowns as well as bouquets held above the heads of the wedding party protected them against baleful spirits.

If the bride and groom were not particularly wealthy, the bride preparer would be mistress of marriage etiquette, directing the betrothal reception and supervising her catering staff for the later feast. She would rent to the parents the dishes, nappery, and extra tables and chairs for the guests. She then would act as surveyor of festivities, directing the wedding ceremonies and reception. The bride preparer also would arrange for the payment to the town of a sumptuary tax or ostentation tax, depending on the number of guests and the quality of the wedding festival.

A wedding feast almost always began on Friday. If the festivities were grand, it was not only because the family was lavishly gracious. Because so many guests traveled so far so long so hard to get there, those journeying on road or sea for two weeks had to be entertained for at least a week to justify their voyage. The musicians, the *klezmorim*, played vigorous wedding music throughout the ceremony and stimulated joyous mood not only to entertain but to signal the momentous events, such as the march to the wedding canopy, the *huppah*.

WEDDING RITUAL OBJECTS

Originally the *huppah* was an elaborate bridal pavilion, often, as the Talmud describes it, of crimson silk embroidered with gold. It was a fully enclosed tent for the marriage bed. There in the groom's house the couple would consummate their union in privacy.

Later that *huppah* pavilion was replaced by a long narrow canopy, held above the heads of bride and groom, formed of a thin prayer shawl or *tallit*. Maharil used the long veil attached to his daughter's bridal crown to cover her head and her husband's. Sometimes the *huppah* was a large square cloth, the *sudar* held high by hand. Or it was a canopy held aloft on four poles, the underside painted or embroidered with Moon and stars of the night sky. That four-poster symbolically returned to the original fertility pavilion, the multiple stars intimating the couple's future numerous bright radiant children.

The bridal ring was the second important marriage ritual object. A simple or embellished gold band was placed on the bride's forefinger of the right hand while each pledged future fidelity. Some Italian synagogues lent the couple a huge, elegant, gold, enameled, and filigreed ring, often topped with a golden building or roof, opening to reveal the words *mazel tov*: "May you have good stars and good luck." That building symbolically represented several houses: the couple's future home, or the Temple of Jerusalem, or the local synagogue. Whichever, that communal ring reaffirmed the couple's ritual place, building with their union and their progeny more mansions in God's community.

After the couple's standing beneath the *huppah* and placing the ring, the groom was expected to stamp hard on a glass placed beneath his heel. Among the learned, the groom broke the glass believing it a reminder in the midst of joy of the destruction of the Jerusalem Temple. But in Jewish folk tradition it meant something quite different. That earlier glass was a slender-necked bottle, if the bride was a virgin. If she was a widow or a divorcée, the glass was a wide-necked flask. Filled with wine, the vessel was

tossed hard against a particular stone, usually on the north wall of the synagogue. Inscribed on the stone was a six- or eight-pointed star, along with the first words of Jeremiah's statement (7:34) "The voice of mirth and the voice of gladness, the voice of the bridegroom and the voice of the bride."

The broken wine bottle hurled against that stone simultaneously served as bribe and propitiation to evil spirits. The wine symbolically fed their demonic thirst and represented the blood of the virgin bride at the consummation of the marriage. The hurling of the glass and its shattering were, first, a symbolic reference to the breaking of the woman's hymen, and second, aggressive actions against evil powers that might injure the newly married happy pair or interfere with their physical reproductivity. The shattering of the glass, then, was a womb charm.

The fourth and most important wedding ritual object was the marriage contract, the *ketubah*, which guaranteed the woman's dowry rights. A legal document containing exact numbers and inventories of her goods and money, the *ketubah* protected the woman's property, particularly in case of a husband's death or their divorce. The *ketubah* also specifically enumerated the man's financial, social, and sexual obligations. Since this contract was displayed to the wedding guests and was one of the most important legal documents in the household, it usually was gorgeously embellished and illuminated. People of the book showed reverence for words by adorning those they hoped would endure.

MARRIAGE FEAST

At the wedding feast, beautiful foods and wines were served to musical accompaniment. The bride and groom ate food and drank wines thought erotically stimulating, as did the guests. Though varying from country to country, tra-ditional marriage feast fare required at least one egg dish, one spiced and herbed capon or chicken course, and the universal triumvirate of aphrodisiac fruits: fig, pear, and pomegranate. Erotically stimulating courses alternated with instrumental music, dancing, singing, reading of epithalamia or wedding odes, chanting, juggling, moral discourses, drama, mime, and magic. Quiet, pious, staid, scholarly men and women, rabbis and students, venerable matriarchs and patriarchs, all were encouraged to rejoice at weddings and ritually abandon restraints.

Wandering scholars, *bahurim*, and itinerant rabbis claimed a place in wedding revelry, enlivening dancing and singing with new "foreign" steps, songs, or jokes from distant lands. They were welcomed to the feast as a so-called commandment meal, the *seudot*, granting hospitality. Directing these colorful matrimonial festivities was the *bodchan*, the professional comedian-musician, clever master of celebration. The *bodchan* was the merrymaker responsible for sanctifying the wedding by joy.

DIVORCE

As the *ketubah* marriage contract signified the word of union, so breaking the pledge of devotion was possible only by written document of divorce, the *get*. Another legal separation was the conditional divorce. This was especially important for people in professions requiring long travel, such as gem or spice merchants, or in particularly dangerous distant jobs, as the international ship captains.

Consider Tamar, the 12th-century woman who when married only six months said farewell to her husband, a silk merchant, who left on a trading ship bound for India. It was the same route that Maimonides' brother David followed before he drowned in a storm in the Indian Ocean. Tamar's husband vanished without trace; he never returned. That had been 12

years earlier. They were too young, too stubborn, and too sentimental to get a conditional divorce so that after a specific time if he had not returned she could be free to marry again.

No one knew whether he was dead or alive. As he was, she was forever in a limbo state. In Jewish law, she was *agunah*, somewhere between but neither wife nor widow, neither married nor maiden. A woman without womanhood, she had left to her only yearning beyond hope.

Celebrating the Sabbath

Medieval and Renaissance Judaism preeminently was family religion. To celebrate the law the total Jewish community had the synagogue at its center. Nevertheless, after the destruction of the Second Temple in Jerusalem, the focus of Jewish religious celebration became the home. In fact, the tabernacle became the table. The modest household table was altar and ark of the covenant, where ceremonies of sanctity were practiced and ritual objects were not only venerated but used. At no time was this more so than on the Sabbath. Sabbath ceremonial vessels ranged from the prosaic practical to the embellished ornamental.

The Talmud maintains that observing the day of rest is to equal all other Jewish obligations combined. So critical is the Jews' obedience to the commandment to remember the Sabbath day to keep it holy, whosoever forgets the Sabbath invites punishment in the afterlife.

Everyone deserved the Sabbath, not simply the Jews who must obey the commandment to observe: Servants of the Jews must not work on the Sabbath. According to the 12th-century moral, mystical instruction book *The Book of the Pious*, even Jews' pack animals and plow beasts must be relieved of burden and set to graze on the Sabbath. Christian goldsmiths fashioning Jewish ritual objects must not work on Saturday.

Armies in the field must cease hostilities. The 11th-century Jewish prince and army commander in Muslim Spain Samuel ibn Nagrela lit Sabbath lamps in his battlefield tent. This weekly day of rest required by God's command also provided the triple benefits of physical, mental, and moral medicine.

Sabbath observance as a domestic Jewish ritual was especially the intelligent woman's responsibility. No matter what she might learn of Torah or Talmud, no matter what she knew of Jewish law, *Halakah*, she had the privilege and the responsibility of custom and ritual: *minhagim*. Let any man debate theoretical precepts of Halakah. But let every woman express them in ceremonial beauty of *minhagim*.

For in custom and in ceremony are truth and beauty born. To achieve holiness in beauty and beauty in holiness, the concept called *hiddur mitzvah*, the Sabbath celebrant used ritual objects beautifully embellished. The purposes of using exquisite ritual objects, as Profiat Duran insisted, were to enlarge the soul, quicken the heart, and empower the mind.

Primary among the Sabbath necessities was the lamp. The woman must light it, chanting a ritual prayer. The idea of kindling two Sabbath candles commemorating the biblical injunctions to remember and to observe, *zakor* and *shamor*, is a relatively modern 18th-century phenomenon. While candles were known and used in medieval Europe, the lamp of choice was the oil lamp, either table standing or a chandelier. The Ashkenazic (or Germanic) star lamp, the *Judenstern*, was raised during weekdays, lowered by ratchets on Sabbath eve. The Sephardic (or Spanish) and Eastern Sabbath lamp was the whimsically named "pregnant hourglass" suspended by ornamented chains. Lamp lighting officially welcomed the Sabbath.

Other aspects of Sabbath ritual were observed scrupulously. Just as marriages made in heaven had their earthly actuality, so the Sabbath peace and tranquility were foretastes

A 14th-century cast and engraved bronze German Sabbath and festival lamp. The Jewish Museum/Art Resource, NY.

of paradise. The Sabbath meals themselves were prefigurations of the final feast of the righteous at the coming of the Messiah. So what otherwise might be mere kitchen chore was invested with dramatic dignity.

Hand washing served ceremony and good hygiene, for in usual medieval fashion, to assure aesthetic pleasure lingers, all foods were eaten with the fingers. An iron or bronze water pitcher, its mouth its spout, had the blessing for hand washing inscribed on its flank.

The woman arranged for the wine and the wine cups, for the saying of the kiddush blessing, and the baking of the ceremonial twist bread, the *chaleh*, which almost always was braided, either oval or round. As with the ritual unleavened bread, the matzoh at Passover, the woman superintended correct baking, beautiful finishing, and proper choreography of bread service. Symbol superseded mere sustenance.

Since kitchen labor was forbidden so that the Sabbath could be devoted to study rather than cooking, the traditional Sabbath feast food in much of western Europe was a slow-cooking stew that could be prepared the previous day. The *cholent* was an aromatic, savory stew combining in a single pot meat, vegetables, herbs, spices, and dried fruits cooked the day before and slowly mellowed overnight in a still warm oven. Cholent, challeh, fruits, cold fish dishes, cakes, and wines were conventional western European Sabbath fare.

Sabbath spices, as foods, served more than mere aesthetic pleasure. They were presented in a decorative spice box. Aromatic herbs, crushed and burned for their pleasant fragrance, called *mugmar*, common in Jewish homes during Roman times, had their substitute in myrtle and flowers both in Sabbath spice box and in sprigs on the table. The special spirit inspiring the celebrant of the Sabbath is, according to the Talmud, an extra soul inhabiting the body. It mystically rests on the myrtle and herbs and is breathed in with the aroma. A simpler rationalistic interpretation of the special Sabbath quality and the effect of its spices are increased spirituality and heightened peace of mind.

Another reason justifies the use of spices such as myrtle on Sabbath eve. Myrtle stimulates erotic emotion. An important aphrodisiac in pagan lore, the myrtle transferred to Judaism was thought especially effective for strengthening sexuality on Friday night. The Mishnah also suggested eating aphrodisiac garlic as sexual stimulus on Friday evenings. The wife's right to sex and the husband's obligation to provide it were specifically written into the marriage contract. In fact, a man's denial of his sexual responsibilities was one of the three acceptable reasons for a wife to initiate a divorce. The other two were cruelty and encroachment on personal liberty.

As with all good things, even on Sabbath eve, there were a time for going out and a time for

going in. A husband and wife must not sexually join during her menstrual period. Abstinence, after all, stimulated desire. After menstruation, she must take a ritual bath, immersing herself in a *mikvah*. Some medieval women routinely preferred to bathe each Sabbath eve before joining their husbands in bed.

Reminding her of these Sabbath responsibilities, a rich medieval woman might own a splendid nielloed silver and gold coffer resembling a jewel box, a typical bridal gift, *sivlonah*. The customary design had front panels depicting the woman's three major symbolic rites or mitzvahs: *chaleh* baking, *mikvah* bathing, and candle lighting. These three obligations the Mishnah says are so important that forgetfulness of them could cause a woman to die in childbirth.

Typical Sabbath boxes had clock dials on the cover to help the woman keep her house in perfect order and her mind tranquil on the Sabbath. On a splendid box currently in the Hebrew Museum in Jerusalem there are eight dials, each with an inscription reading, sheets, tablecloths, towels, shirts, undergarments, handkerchiefs, underwear, and aprons. The dials would allow the woman to set them to reflect her exact inventories in her locked linen cabinets. On Sabbath eve, all keys were taken from the locks, placed in the coffer, and locked in, and one golden key to the key chest worn around the mistresses' neck. This would assure that no servant would steal when she was away at synagogue on the Sabbath. A beautiful, practical device, it symbolized her spiritual responsibility for the home tabernacle.

After the synagogue service conduced by rabbi and cantor, Sabbath contemplation was complemented by quiet entertainments, or exuberant story sung by the professional tale chanter, such as the German *Spielmann* wending his lyrics through Arthurian romance and fantastical heroic epic.

At twilight the beautiful ceremony called *havdalah* signaled the outgoing of the Sabbath, requiring blessings over lights and spices. The light usually was a braided candle of wax threads of two colors (customarily blue and white) intertwining. The candle represented the week's one sacred day and six profane days interanimated. The aromatic spices comforted and refreshed the mind lamenting loss of Sabbath spirituality because of return to the workaday world. But the spices also promised after another week the regaining of Sabbath peace. To followers of the mystic rabbi Rashi, havdalah spices were the myrtle leaf vehicle for the departing "extra soul" of a Sabbath. In fact, the spice box even today is called *hadas*, the Hebrew word for "myrtle." The glory of spirituality, as of other consuming passions, is its renewability.

Calendar of Jewish Festivals

Beginning with *Rosh Hashanah*, literally the "head of the year," followed by *Yom Kippur*, the sacred Day of Atonement, followed by *Sukkot*, the harvest festival, through *Chanukah*, the celebration of lights, the Jewish ritual calendar contains monthly observances commemorating both biblical and historical events.

The medieval Jewish calendar was lunar, not solar; therefore dates for holidays and festivals followed the monthly phases of the Moon. Unlike the Christian solar calendar, which primarily adhered to fixed dates for celebrating church festivals, such as Christmas on December 25, Jewish lunar reckonings make every calendrical celebration a movable feast.

Lunar reckonings of time's passage describe 12 months for each ordinary year. Ten days shorter than the solar year of the Christian world, the lunar calendar has been adjusted every few years by an additional 29-day month of *Adar*, the second *Adar*, *Adar Sheni*, making a

383-day leap year. The day after the sighting of the new Moon is called *Rosh Chodesh*, the "head of the month."

Hebrew names for the months are *Nissan, Iyyar, Sivan, Tammuz, Av, Elul, Tishri, Cheshvan, Kislev, Teveth, Shevat, Adar*. Five months have 30 days (Tishri, Shevat, Nissan, Sivan, Av), and the remaining five have 29 days to make a total of 354 days plus eight hours, 48 minutes, and 36 seconds. This short year requires the leap year readjustments to enable the lunar calendar to adhere to the biblical injunction to celebrate Passover and spring festivals within springtime and harvest celebrations such as Sukkot in the bountiful autumn.

ROSH HASHANAH

Rosh Hashanah falls on the first and second days of Tishri, the seventh month in the Jewish calendar. The name *Rosh Hashanah* is not attested in the Bible. Leviticus 23:24–25 institutes the observance of the feast under the names of *Yom Zikkaron* ("Day of Remembrance") and *Yom Teruah* ("The Day of the Sounding of the Shofar"). As the biblical names indicate, the feast day is one of introspection, of remembering the wrongdoings one may have committed toward God or one's fellows, and pledging to start anew with acts of restitution, prayer, and piety. The two days of Rosh Hashanah are the beginning of the so-called 10 Days of Awe (*Yamim Noraim*), which begin on 1 Tishri and culminate in the 10th day, Yom Kippur, the Day of Repentance.

If the Sabbath was celebrated mainly in the home, Rosh Hashanah was observed primarily in the synagogue. The blowing of the *shofar*, a horn's ram that sounds like a trumpet blast, in the synagogue was essential for the observance of Rosh Hashanah. According to Leviticus, the shofar must be blown a total of 100 times over the two-day festival. Medieval Jews would spend most of the days of Rosh Hashanah in
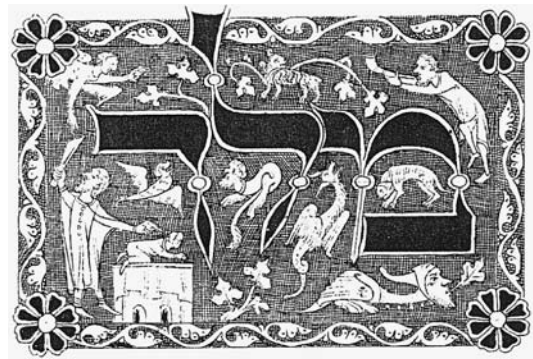
On Yom Kippur, as on Rosh Hashanah, the shofar is sounded and reminiscent of the Akedah. From German manuscript, early 14th century, Bodleian Library, Oxford.

the synagogue praying and listening to the sounding of the shofar blasts.

FAST OF GEDALIA

On the third day of the month of Tishri immediately after Rosh Hashanah, Jews observe the Fast of Gedalia. The origin of the fast lies in 2 Kings 25ff. and the Book of Jeremiah 40–41, which recount the political assassination of Gedalia, son of Ahikam, by a fellow Jew, Yishmael. After the Babylonians destroyed the First Temple of Jerusalem in 582 B.C.E., they appointed Gedalia king of Judea. Yishmael, a member of the royal house of David, was bent on restoring Jewish autonomy and probably resented Gedalia's appointment both because he was willing to collaborate with Babylonian rule and because he did not belong to the Davidic line. Whatever Yishmael's motivations, he murdered Gedalia and his followers, ending Jewish settlement in Judea. Jews remember this political murder as a grave sin and a tragedy since it occurred during the sacred Days of Awe and dealt the final blow to the Jewish monarchy. The Fast of Gedalia lasts from sunrise to sunset as a sign of mourning.

TEN DAYS OF AWE

The Ten Days of Awe (*Yamim Noraim*), which extend from Rosh Hashanah to Yom Kippur, are days of somber reflection. According to Jewish belief, God only forgives the sins committed against him; he does not forgive the wrongdoings that humans commit against one another. Lest these deeds be inscribed as well in the "Book of Life" on the Day of Atonement, Jews spend the days before Yom Kippur making amends to anyone whom they have hurt, for any vows that they have broken before the End of Days.

YOM KIPPUR

The Ten Days of Awe culminate in *Yom Kippur*, the Day of Atonement, a solemn feast day spent in fasting and prayer to beg God's forgiveness for sins committed and to make amends to one's fellows for any wrongdoings. The observance begins the day before as each family prepares a special banquet that much be eaten prior to sunset. During the meal each person asks and receives forgiveness from whomever he or she has wronged during the year. With this accomplished, a strict and complete fast officially begins at sunset and lasts until after nightfall on the following day. Not only are all food and drink prohibited, but people must also refrain from bathing, anointing the body with perfume or oils, or wearing leather shoes and must abstain from sexual relations.

At sunset it is customary to gather in the synagogue to recite the prayer "Kol Nidre" (All the Vows) from a special prayer book called the *Machzor*. The prayer is recited three times to signal the official beginning of the Yom Kippur feast. It may seem ironic to note that in the "Kol Nidre" prayer Jews ask God to annul all vows that they will make in the next year. The prayer is in fact a reminder of the solemn duty to honor all vows even if made under duress.

During times of persecution, when Jews were forced to convert to Christianity or Islam or were tried by the Inquisition, the "Kol Nidre" comforted those who felt bound to honor their conversion.

Another significant and special part of the Yom Kippur liturgy is the confession of the sins of the community. The confession is a two-part communal prayer: The first part, the "Ashmanu," is a brief list of sins of a general, moral nature, for instance, "We have been treasonable; we have been aggressive; we have been slanderous." The second confession, called the "Al Chet," is a longer and more specific list asking forgiveness of various sins, for instance, "For the sin we sinned before you by acting callously." These prayers conclude with a general confession asking forgiveness for breaching any of the positive commands or the negative commands, whether knowingly or unknowingly. It is interesting to note that most of the sins belong to the category of the "sins of the mouth" (*lashon ha-ra*), such as slander, lying, offensive speech, scoffing, and giving false testimony.

Most people spend the entire day at the synagogue praying. The ark of the tabernacle, which holds the Torah scrolls, is kept open throughout the festival. Yom Kippur concludes with the recitation of a lengthy prayer called "Neila." The congregation must recite the entire prayer standing before the open ark, and it should be intoned using a tone of desperation in recognition of the final opportunity to repent all sins before the Book of Life is "closed."

SUKKOT

The somberness and sobriety of Yom Kippur give way a mere five days later to the joyful celebration of the seven-day Festival of Sukkot on 15 Tishri, which is mandated in Leviticus 23:34. The unabashed ritualized joyfulness of the holiday is noted in the liturgical literature, where it

is often referred to as *Zman Simchateinu* "the season of our rejoicing." During the seven days of the festival, Jews leave the comfort of their homes and live in temporary dwellings or booths, the meaning of the word *sukkot*. The holiday has a dual significance as a harvest festival and as a commemoration of a biblical event.

It recalls the 40-forty year period of wandering in the desert when the Israelites lived in temporary shelters. The booth must be made of two and a half walls and be large enough to eat and sleep in, in order to fulfill the command of "dwelling." The roof must be a material covering called *sekhakh* (lit. "covering") made of anything that grows from the ground and is cut specifically for the holiday. Typically the *sekhakh* is made of tree branches, corn stalks, or bamboo reeds and must be put on last.

Another key element of the Sukkot observance is the *Arba minim*, or "four species," of plants with which Jews are to "rejoice before the Lord," in keeping the Leviticus 23:40: "On the first day, you will take for yourselves a fruit of a beautiful tree, palm branches, twigs of a braided tree and brook willows, and you will rejoice before the Lord your God for seven days." The four plants are a citron, a palm branch, two willow branches, and three myrtle branches. The latter three are bound together and collectively are called a *luvav* ("palm branch"), while the citron, a citrus fruit, is held separately. Holding all four species in one hand, the celebrants recite a blessing and wave the species in all six directions, north, south, east, west, up, and down, symbolizing that God is everywhere. On each of the seven days of Sukkot, celebrants parade in procession around the *bimah*, the pedestal in the center of the synagogue where the Torah ark is positioned, and recite a prayer in which the words *Hosha na* ("Save us!") are repeated. The procession around the bimah recalls the ancient processions the people of Israel made around the sacred Temple in Jerusalem. On the seventh day the people circumambulate around the *bimah* seven times.

SIMCHAT TORAH

After the booths are dismantled and the period of Sukkot officially ends, the joyfulness of occasion continues for two days more with the celebration of Shmenei Atzeret and Simchat Torah, respectively. According to Leviticus 23:34, on the eighth day (the day after the seven-day observance of Sukkot), God commanded the Jews "to make a holy convocation" for the Lord. This "holy convocation" is Shmeini Atzeret, the literal meaning of which is "the assembly of the eighth day." Rabbinic literature explains that the Lord has enjoyed the presence of the Jews in his house so much during the previous seven days of Sukkot that he invites them to stay one day longer.

The following day is the festival of Simchat Torah ("Rejoicing in the Torah"), a joyful celebration that marks the end of the annual cycle of Torah readings in the synagogue. On Simchat Torah the last portion of the Torah, Deuteronomy 34, is read aloud and this is followed immediately by the reading of the first portion, Genesis 1, as a reminder that the Torah is a never-ending cycle. As a sign of their jubilee and in gratitude for the gift of Torah, the rabbi removes the Torah from the ark and the people parade with it in procession around the synagogue, singing and dancing to exhibit the happiness of the occasion. The scrolls are passed along, permitting as many people as possible the honor of carrying them, and *aliyas* ("blessings") are recited over them.

Abundant wine drinking is an essential element of the celebration.

CHANUKAH

Chanukah is the Festival of the Rededication of the Temple, also known as the Festival of

Lights for the eight days during which candles are lit at home and in the synagogue as part of the celebration. Chanukah is a postbiblical festival instituted in the text Shabbat 21b of the Babylonian Talmud (and the apocryphal Book of Maccabees), which stipulates that the feast begins on the 25th of Kislev and is to be observed with *Hallel* ("prayers of praise") and thanksgiving.

Chanukah traces its roots to the reign of Alexander the Great and his benign policy of allowing the peoples conquered to continue practicing their own religion and traditions and to maintain a degree of political autonomy. This laissez-faire attitude actually encouraged the Jews, as well as the Egyptians, Syrians, Iranians, and other subjects of the Greek Empire, to adopt Hellenist customs rather than cling to their own traditions. Under the reign of Antiochus IV, however, this live-and-let-live situation deteriorated as the king ordered the persecution of his Jewish subjects: A Hellenistic priest was appointed to control the Temple and the blasphemous sacrifice of pigs was carried out on its altar. Those who protested were murdered and the Jews were finally prohibited from practicing their religion. The ensuing Hasmonean Revolt led by Mattathias and his son, Judah the Maccabee, succeeded in defeating the Greeks and wresting the control of the Temple from the Hellenized Jews.

Legend has it that there was very little purified oil left to light the *menorah* ("candelabrum") needed to rededicate the Temple because most of it had been polluted by the Greeks in the course of performing their own religious rituals. Miraculously, the remaining oil, which should have been enough to burn throughout only one whole night, kept burning continuously for eight days, giving the Jewish priests time to prepare a fresh batch of ritually pure oil. Chanukah celebrates the memory of this glorious miracle with the burning of the menorah candles.

On the first day only one candle is lit, on the second day two candles are lit, and so on, progressively until the eighth day, when all eight are lit because, according to Shabbat 21b of the Babylonian Talmud, "We increase in sanctity but do not reduce." The menorah candelabrum has nine candle holders, one for each of the eight candles, plus one more of a slightly different height, which is called the *shammus* ("servant"). The procedure for lighting the candles is highly regimented: On the first night those present recite three blessings: *l'hadlik neir* (a general prayer over candles), *she-asah nisim* (a prayer thanking God for performing the original miracle), and *she-hekhianu* (a general prayer thanking God for being alive to celebrate this day). When the blessings are completed, a candle is lit and placed on the far right. Then the shammus candle is lit and placed in its holder. On each successive night another candle is added to the menorah from right to left; however, the candles themselves are lit from left to right. Moreover, the third blessing, the *she-hekhianu*, is only recited on the first night.

Hymns of praise are sung during the ceremonial lighting whose lyrics commemorate the miraculous events. One such hymn, dating to the 13th century, beseeches God, the "rocky fortress of my salvation" to "restore my House of Prayer" from the "blaspheming foe." Besides the lighting of the candles, the significance of oil is seen in the foods prepared for the occasion. Fried food requiring abundant oil takes pride of place.

TU BSHVAT

Tu Bshvat literally means "the 15th of the month of Shevat," the date more commonly known as the New Year for Trees. Tu Bshvat is not named as a festival in the Bible, but rather as a reminder of the tithes due to God. According to Leviticus 19:23–25, when a tree is

planted, its fruit "shall be treated as forbidden and not eaten." In the fourth year all the fruit must be sanctified and offered to God, and finally in the fifth year the fruit may be consumed as normal. There is no liturgy as such that accompanies this day, but Jews would normally observe it by eating a new fruit from one of the permitted trees.

PURIM

Purim, the *Festival of Lots*, falls on the 14th and 15th of the month of Adar and is the outrageously joyful celebration of Jewish delivery from certain massacre by the Babylonian king, as a result of the ingenuity of the heroine Esther. Reading from the Book of Esther is essential to the celebration, however, as later detailed discussion will indicate, the feast is complex and filled with carnivalesque events.

PESACH

Pesach, the Jewish "Passover," is the major festival of Judaism and celebrates the miraculous delivery of the Jewish people from slavery in Egypt. The festival begins on the 15th of the month of Nissan and lasts for seven days. The name *pesach*, or "Passover," refers to the angel of the Lord who "passed over" the houses of the Jews and slew only the first sons of all the houses of the Egyptians, including pharoah's own heir. (*Pesach* also alluded to the "sacrificial offering" of the lamb that was made on this date in the Jerusalem Temple.) The festival is often referred to as the "Feast of Unleavened Bread" in recollection of the biblical command that "for seven days you shall eat unleavened bread" (Exodus 12:16).

Preparations for the festival usually begin the evening before with the complete removal of all leavened substances (*chametz*), meaning wheat, oats, spelt, rye, and barley, from the home. As will be recalled from the biblical nar-

rative, in their hasty Exodus from Egypt, God commanded the Jews to "remove all leaven" from their homes and to take with them only the unleavened bread called *matzoh*, which is made of flour and water and cooked very quickly. Accordingly, medieval Jews removed all *chametz* products from their homes, although interesting differences arose between the Ashkenazic and Sephardic communities over the permissible ingredients for making matzoh. Sephardic Jews used *kitniyot* (literally, "bits") of non-*chametz* products such as chick peas, lentils, rice, or sesame seeds, which they ground to make bread. Ashkenazic Jews followed a stricter interpretation of the command and prohibited the use of the *kitniyot*, since they were being used as *chametz*.

Food assumes a prominent role in the celebration of Pesach. The first night of the holiday Jewish families have a special meal called the *seder* (meaning "order"), which must be consumed in a ritual order and whose ingredients are filled with symbolic meaning. So extensive is the accompanying liturgy for the ritual that it is recounted in a special prayerbook called the *Haggadah*, which narrates the story of the Exodus and explains the meaning of the symbols used in its observance. Medieval Passover Haggadahs were richly illuminated with biblical scenes.

The seder begins with a *kaddesh*, a "sanctification," of the wine that is drunk in honor of the holiday. The head of the family pronounces the blessing, everyone drinks, and a second cup is poured. Next is the *urekatz*, the ritual "washing of hands," in preparation for eating the first of the requisite food items, the *karpas*. The *karpas* is a common dark green vegetable, most often parsley, which is dipped in saltwater and eaten. The karpas symbolizes the humble origins of the Jews and the saltwater symbolizes the tears shed while in slavery.

After this, the celebrants begin to consume the matzoh bread. Altogether there should be

three matzohs on the seder table. A piece from the middle bread is broken off in a ritual called *yachatz* ("breaking") and is set aside for later, while the remainder is replaced on the table. The participation of children is important in the seder ritual, and often it will be a child who is given charge of setting the broken matzoh piece aside or even hiding it.

In Ashkenazic homes the youngest child in the family takes center stage in the next ritual, the *maggid*, the "retelling of the story," of the Exodus and the first Pesach. The child asks four questions, each of which begins with the words *Mah nisthanah* ("What is different?"). In Sephardic homes the entire family will recite the questions in unison. The order of the questions also differs in the Ashkenazic and Sephardic traditions. In the former, the four questions are "Why eat matzoh?" "Why eat *maror* [bitter herbs]?" "Why dip the green vegetables twice?" and "Why recline at the dining table?" Sephardis switch the order, asking why dip twice, why eat matzoh, why eat maror, and why recline.

At the end of the maggid a blessing is pronounced over the second cup of wine and it is drunk. Among Sephardic Jews it was tradition to reenact a Passover play at this point. The person presiding over the meal would get up, leave the table, go to another room, and return with a walking stick and the *afikomen*, the piece of matzoh removed earlier, in a sack over his shoulder. The children would ask him, "Where are you coming from?" to which he would reply, "From Egypt," and he would go on to tell them the story of the Exodus. Then the children asked him, "Where are you going?" and he replied, "To Egypt!" The Ashkenazic do not perform this reenactment.

The maggid is followed by another ritual washing of the hands, called *rachtzah*, which is done while reciting a blessing in preparation for eating the matzoh. Before the matzoh is eaten, a special blessing especially for grain products, called the *ha-motzi*, is said over the bread. Another blessing is recited over the matzoh and each person eats a piece.

Next, a blessing is said over the *maror*, or bitter herbs, and a portion of them are eaten. In fact, there are two types of bitter herbs, the maror proper, usually horseradish or a bitter lettuce, and the *chazaret*, which is eaten later in the ritual. The maror is dipped in a pasty substance (the second of the ritual "dippings") usually made of wine, cooked apples, nuts, and cinnamon. The bitter herbs recall the bitterness of slavery and the paste, called *charoset*, symbolizes the mortar that the Jews used when forced to build the pharoahs' tombs in Egypt. The other bitter herbs, the *chazaret*, are eaten next, together with another piece of the matzoh bread, which together are called *korech*.

The symbolic foods are placed on a special large plate called the seder platter. Again there are noteworthy differences between Sephardic and Ashkenazic practices. Seder platters of the Sephardic Jews of Spain and Portugal were much larger than their Ashkenazic counterparts and richly decorated in the Arabic style of ceramics. Sephardic platters are larger because the Sephardim would place all six symbolic foods plus the three matzoh breads on it, while the Ashkenazis use a separate plate for the three matzoh, which in turn will have two dividers preventing the breads from touching each other.

Spanish Jews endowed the symbolic foods with kabbalistic meanings and arranged them on the platter to resemble the cabalistic "tree of life." For the Sephardim, each of the symbolic foods and the plate mystically represent the 10 *sefirot*, or attributes of the divine godhead. Thus, the three matzoh, the most important of the ritual foods, symbolize the first three *sefirot* of the godhead, *Keter* ("Crown") *Hokmah* ("Wisdom") and *Binah* ("Understanding"), and are placed at the top of the platter. Below them on the left side of the "Kabbalistic tree" are the

roasted egg (*beitzah*), which symbolizes *Gevurah* ("divine judgment"), and in parallel placement on the right side is the shank bone (*zeroah*) corresponding to *Hesed* ("grace"). The maror are placed in the center of the tree and stand for *Tiferet* ("beauty"). Below to the left of the maror is the other green vegetable, *karpas*, which symbolizes *Hod* ("majesty"), while to the right is the charoset dip, which corresponds to *Netzah* ("eternity"). At the bottom of the seder platter lies the chazeret, the other bitter herb, which symbolizes *Yesod* ("foundation"). The seder platter symbolizes the *Shekinah*, representing God's kingdom or presence.

Once this symbolic meal is completed, the family moves on to the main course of the dinner, the *shulkhan oreh*. Here there are no specific requirements, except the avoidance of all leavened substances. Sephardic Jews tended to prefer lamb for the main meat dish, while Ashkenazic Jews ate beef or chicken. After dinner was finished the piece of matzoh bread set aside earlier was recovered for the dessert, or *afikomen*. Again, the children might be asked to find the bread and each person would eat a tiny bit. After this, a third cup of wine was poured and a special blessing, the *birkat ha-mazon* ("grace after the meal"), was recited, and the wine drunk. A fourth cup of wine was poured for everyone, with one extra cup for the prophet Elijah, the traditional herald of the Messiah, who is supposed to visit each home to do this. *Hallel*, or hymns of praise, were sung and a blessing was said over the last cup of wine, which everyone proceeded to drink. The Passover seder officially ended with a simple but moving closing statement, the *Nitzah*, proclaiming the end of the meal and expressing the messianic desire that next year Pesach could be celebrated in Jerusalem, meaning that the Messiah would have come.

In preparation for Elijah's "arrival" Jews would usually leave the front door open during the seder. In the Middle Ages, leaving the door open served a more practical, if pathetic purpose of assuring suspicious Christians that the Jews were not desecrating the eucharistic host or using the blood of Christian babies to make the matzoh bread. Previous chapters have noted the tragic consequences of the Christian paranoia that the Jews stole eucharistic hosts and defiled them to make their matzoh bread.

LAG BOMER

In Leviticus 23:15 the Jews were commanded to undertake the *Lag Bomer*, or "Counting of the Omer," the counting of the days between from Passover to Shavuot. In the days of the Jerusalem Temple, an *omer* a unit of measure of barley was cut and taken to the Temple as an offering. Every night from the second night of Passover to Shavuot, Jews would say a ritual blessing and count the unit of measure. Symbolically the ritual is a reminder of the connection between Passover, the commemoration of the Exodus from Egypt, and Shavuot, which celebrates the occasion when God first gave the Torah to Moses. A certain controversy surrounded when the Counting of the Omer should begin, because the word *pesach* is not mentioned in Scripture, but rather *Shabbat*, meaning "Sabbath." While the majority of opinion agreed that the Shabbat mentioned referred to the first day of Passover, which is Sabbath in the sense that no work is allowed, the Karaite sect held the view that Shabbat referred to the first Sabbath day during Passover.

SHAVUOT

The Counting of the Omer culminates in the festival of *Shavuot* (Heb. "weeks"), another of the major Jewish holy days, which falls on the fifth or sixth of the month of the month of Sivan. Shavuot, also called Pentecost, is observed on the 50th day after Passover, and as

with the Counting of the Omer, Jews were likewise commanded to count the days from Passover to Shavuot (cf. Lev.21:15–16, 21). As Sukkot has, Shavuot has an agricultural symbolism linked to the ancient Temple, corresponding to the time when the first fruits were harvested and taken to the Temple as an offering of thanksgiving. But historically it celebrates the initial giving of the Torah to Moses on Mount Sinah and is thus also known as *Hag Matan Torateinu* ("Festival of the Giving of Our Torah"). Traditionally the rabbis have insisted on the term *giving*, as opposed to *receiving*, the Torah, because each day Jews "receive" the Torah when they pray; however, it was only "given" for the first time once.

Passover and Shavuot are connected spiritually, because while the Exodus freed the people of Israel from their corporeal bondage, the gift of the Torah liberated them from their spiritual bondage to sin, idolatry, and mortality. No work is allowed on Shevuot and most people would observe it by staying awake the entire night and reading and studying Torah. Traditionally one of the meals eaten on Shavuot would be a dairy meal, which some believe is a symbol of the promise to Israel of a land "flowing with milk and honey." The liturgical reading for the day is taken from the Book of Ruth.

TISHA BAV

Joy turns into mourning with the observance of *Tisha BAv*, literally, the ninth day of the month of Av, since, according to the Book of Kings 2:25, Jeremiah 52, Zechariah 7, as well as the Talmud, the worst calamities afflicting the Jews occurred during this month: The Persian king Nebuzaradan burned the Temple, the Romans destroyed the Second Temple, and the city of Jerusalem was destroyed. The same degree of severe fasting is observed on this day as on Yom Kippur with the total abstention from all food; drink, including water; and sex; refraining from bathing and anointing the body with oil or perfume; and not wearing leather shoes. People may also adopt the ritualized gestures of mourning, refraining from smiling, laughing, or engaging in idle conversation.

A solemn liturgy is observed in the synagogue, featuring readings from Lamentations and the recitation of mourning prayers. The Torah ark is draped in a black cover. From the Middle Ages, Jewish observers began to associate the distant tragedies of the destruction of the Temple and the city of Jerusalem with the more contemporary tragedies of massacres, pogroms, and forced conversions.

Most holiday celebrations, as with the Jewish wedding, Passover, and the Sabbath, portray God's direct intervention in human affairs. The interventionist hand of God is joyfully recalled in the festival of Purim.

PURIM

Intriguingly, the Book of Esther is the only biblical book in which the name of God is not mentioned. The Purim feast and festival represent, as do the wedding and Sabbath, ingenious psychological ploys for making discipline endurable and desirable. Purim celebration also demonstrates marvelous cultural interdependencies among Christians, Muslims, and Jews, while also retaining vestiges of classical paganism.

The story is familiar: the Persian and Median king Ahasuerus angrily dismissed his wife Vashti and welcomed as queen the Jewish beauty Hadassah, or Esther, niece of the learned Mordecai. Together they overcame the wicked Prime Minister Haman's attempt to exterminate the Jews.

The Book of Esther is one of the last scrolls, a *megillah* of the third part of the Bible, called the *Hagiography* or *Ketubim*, the "Writings." Numerous elaborations upon this dramatically complete tale appear in the Apocrypha, the

Talmud, and the Midrash. The Megillah reading in the synagogue is musically presented by traditional cantillations, the joyous *Megillah* mode tempered by the sadder Lamentations mode. Medieval and Renaissance listeners created responses that have become traditional, many of them still sounding in Jewish temples worldwide.

First was the erasure of the tyrant Haman's name. Each time the cantor or chazzan read the name *Haman*, the audience was obligated to eliminate it. Each congregant might write the name *Haman* on one of two flat, hand-held stones and vigorously rub them together to "rub out" the name. Or each celebrant would write the hated name on the sole of the shoe and stamp and scrape at each mention of the name. The more staid wrote the word several times on a slip of paper or vellum and literally rubbed it out with an abrasive. The most common eliminator of the spoken word was cacophony by sounding a loud raucous percussion instrument, the *grogger*.

The *grogger*, a ratchet rattle particularly common in 13th-century France and Germany, was a combination of two primitive noisemakers: the "bull roarer" (an object on a string whirled around the head to make a whining sound) plus the "scraper" (a notched or ridged stick or washboard rubbed by a flat stick, creating a grating sound). The grogger has its Christian equivalent in the *crazelle* used at Mardi Gras and on Saint John's Day. In another form, lepers shook or sounded a grogger, to warn people of their approach to prevent exposure to the disease and possible contamination.

The second Purim ritual was the beating or burning of Haman in effigy. A straw figure set up in a marketplace either would be attacked by men on horseback, tilting at it with lances or swords, or placed in the synagogue courtyard or nearby, set afire, and burned until consumed. The congregants' chanting and moving in a circle followed the course of the Sun in its daily rotation. That ritual is identical to the originally pagan but later Christian bonfire rogations on Midsummer Eve or Saint John's Day. The 13th-century Italian Jewish satirist Kalonymous ben Kalonymous described the merry making around a Haman puppet set high on a stage, amid shouts of vengeance and blowing of trumpets, the custom called *ira*, Italian for "fury" and "vengeance."

Guiding festivities for the Purim carnival was the Purim king or the Purim rabbi, a young man selected to parody the habits of a venerable synagogue leader or Talmudic scholar. The Purim king delivered a mock-sermon, using language and poetic meters of Scripture in celebration of something banal such as wine. Comparable to the boy bishop or the Lord of Misrule in the Christian *Twelfth Night* (after Christmas) and *Feast of Fools*, the Jewish Purim rabbi was the intelligent fool whose socially permitted abandonment of restraint and once-yearly profanation of the sacred reaffirmed social discipline.

Similarly, the masks and masquerades, the mimes and mummeries dramatizing part of the Esther story allowed a cathartic excess, a pleasurable release from the bonds of decorum. Soon such freedom became a fear of chaos. Then it stimulated yearning for familiar restriction. Once again, the Christian *Feast of Fools*, *Twelfth Night*, and Lenten Carnival achieved similar purpose with play.

The *Purimspiele*, a drama specifically written for the Purim festival, utilized such ingenious psychological manipulation. Well known in Germany by the 15th century (though scripts apparently were not published until the 17th century), the *Purimspiele* doubtless was a phenomenon far older. Its first performers were the wedding jesters, the *bodhanim*, delivering monologue parodies of important community figures and burlesque impersonations of holy luminaries. Some early *Purimspiele* were allegorical morality plays: dialogues between per-

sonified abstractions as Good and Evil, Summer and Winter, the Learned and the Ignoramus. Others dramatized the Esther-Haman hatred or similar triumphs over political tyrants, such as David's overcoming Goliath, or Joseph's outwitting his treacherous brothers.

Common folk and students, the *bachurim*, were the major actors of the *Purimspiele*, integrating professional jesters, jugglers, and musicians in the festivities. They also borrowed stock characters from secular popular drama. Later *Purimspiele* routinely had such characters as the Loudmouth Shrew or the Charlatan Physician, emended from the popular *commedia dell'arte*. One character constant to most *Purimspiele* was named called *Montrish* or *Smart Alec*, a pompous fool. Players moved from town square to marketplace or house to court or performed in the communal dance hall. They collected money for themselves and for charity. *Purimspiele*'s humor, bawdry, and revelry were essentials of the Purim feast.

The Book of Esther expressly commands Purim days of feasting and gladness, of sending "portions" one to another; and of gifts to the poor (19:22). Three separate culinary pleasures were inherent in this biblical stricture: the making of the Purim banquets (*sedurot*), the sending of food portions to friends (*mishloah monot*), and the giving of food gifts (or money) as charity. In his hilarious parody of 13th-century Italian Purim practices, Kalonymous ben Kalonymous lists no fewer than 24 meat and pastry dishes, so respected by tradition even then that the recipes are said to have been translated down from the supreme chef to Moses at Mount Sinai.

Four of these historical cookery symbols have persevered for pleasing Purim palates among the Ashkenazic Jews today. The most familiar is the triangular, poppy-seed filled pastry *Hamantaschen*, originally called in German *Mohn* (poppyseed) *Taschen* (pockets or pouches). Similarity in sound to the hated Haman's name,

plus the assumption that he wore a three-cornered Persian hat, probably caused the name change from *Mohntaschen*, "poppy pockets," to *Hamantaschen*.

A second popular feast dish is kreplah, pastry triangles filled with savory chopped meat. Supposedly kreplah with its beaten meat is eaten on those days when emotional "beating" or flogging is required, as on the Day of Atonement, Yom Kippur; on Hoshanna Rabba, when willow branches are beaten; and on Purim, when Haman's effigy is flogged. A variation upon triangular kreplah is *verenikes*, a round pastry filled with chopped liver, mashed vegetables, or a grain beaten from its plant, as *kasha*.

Queen Esther's abstemious food while in the Persian harem was commemorated by *Nahit*, *Bub*, or *Babbelech*, a vegetarian dish of salted, herbed, and spiced beans in their pods or chick peas. A fourth medieval Purim feast specialty was the bean cake. A huge cake was baked with a large bean or amulet or small sculptured favor hidden within. Whoever found the portion with the favor had the "luck" for the year, and the appointment as Purim king or Purim rabbi for the duration of the festival.

Remarkably similar to the Christian *Twelfth Night cake* or *king's cake*, in which the bean assigned the position of power to the boy bishop or King of Misrule, both Jewish fortune cakes served ceremonial purposes of reaffirming discipline after intentional unyoking from restraints. Purim encouraged hilarity and riotous behavior usually with intellectual weapons of verbal swords and stilettos meant to wound, not to kill.

Purim foods and festivities with their associated folk themes appealed alike to the more and the less educated. For the most learned scholars, Purim offered an excuse for the most scandalously ingenious Jewish satirical writing of the Middle Ages and Renaissance. The Purim parody is a particular form of satire playfully, or viciously, ridiculing the original text it

imitates plus the human subject it is meant to mock. One of the earliest Purim parodies is 12th-century Menachem ben Aaron's *Hymn to the Night of Purim*. In style it is wicked parody of a religious Passover hymn. Its subject celebrates wine drinking and drunkenness and particular leaders who enjoy wine overmuch.

To appreciate these glorious medieval parodies, it is useful to acquire a new vocabulary not customarily taught in institutions of higher learning. For instance: One ought to know not only the language and rhythms of the Talmud for reading Kalonymous ben Kalonymous's *Masseket Purim*, which it parodies, but the language of bars, distilleries, and all-night feasting halls where one might meet a glutton who, fishing for a choice piece of meat, doffs his clothes to dive naked into a giant bowl of soup. Linguistically dazzling, these parodies bristle with puns and brilliant imitations of learned pomposities and of holy word. Their satire on human foibles and vices ranks among the finest condemnations of the miser, the idler, the drunk, the whore, and the hypocrite.

A culture secure in its own discipline will dare to mock its own sacred text and laugh at its own people. Certainly, exaggerations of personal debauchery are not to be read as fact. The distinguished 14th-century scientist and astronomer Levi ben Gershon wrote the *Megillat satarim*, a mock-biblical book of the prophet named Bottle. A humorously ingenious swipe at pretentiousness and at abstinence, it partly burlesques language of rabbinic exhortations to rejoice at Purim and simultaneously describes gross, illogical results of unrestrained revelry. The Purim parodies' gargantuan exaggerations extend the limits of decorum. They are great solemnizations of gullet and gut. They are as hilarious as the classical Roman *Trimalchio's Feast* satire and the Renaissance crudities of Rabelais.

Mirth and roistering characterize many medieval Purim documents. Essentially the holiday revivifies two concepts: First, tyranny can be fought and must be vanquished. Second, no matter how intense the anti-Semitism or impossible the circumstance, Jews ultimately will triumph and celebrate with relief their deliverance.

Belief in God's saving power demonstrated in the original biblical Purim was translated to personal signification in nearly 20 medieval and Renaissance special Purims. Local town, city, family, or even individual escapes from persecution annually were celebrated by name and form as "a Purim." The Purim of Shiraz celebrated 13th-century Persian Jews' relief from forced conversion to Islam. The Purim of Castile commemorated the downfall of a Haman-like Jew baiter in 14th-century Spain. The Purim of Zaragoza commemorated a 15th-century miraculous release from a potential political disaster.

Knowledge that Purim could be used as an outlet of protest against contemporary Jewish persecution led some European Christian rulers to ban Jews from celebrating it, or at least from burning the effigy of Hamam, fearing it to be a closeted attack on Christianity or Christians. Such fears had their basis in fifth-century events when Syrian Purim celebrants taunted a Christian boy, accidentally causing his death. As a result, the emperor Theodosius II (401–450) included the prohibition of the burning of Hamam effigies in the Theodosian Code issued in 438.

Likewise, there were the Purim of the Poisoned Sword, Purim of the Bombs, Purim of *Fatmilk*. All of these second or special Purims were holidays on the date pertinent to the event but shared with the biblical Purim of Esther the same pastimes, the reading of a commemorative *megillah*, the dispensing of charity to the poor, and traditional feasting and festivity.

Purim's spiritual lesson dramatically generalized to personal life of a human being or a city. The inherent message was that God's

hand directly guides his people's destiny. God directly rescues his people from the destroyers' hands.

The customs and ceremonies of Purim, the Sabbath, and marriage vivify three important interdependencies: First, God directly participates in human affairs, God to man, God to woman. Second, surprising interchanges occurred among classical, Judaic, and Christian ritual forms, if not philosophies, such as marriage crowns and aromatic spices, bonfires, and masquerading fools. Many Christian holidays, such as Lent and Pentecost, were transformed versions of their Jewish predecessors. We shall also see in the next section that the celebrations of Muslim festivals, such as Ashura and Ramadan, find their precedent in Jewish parallels and share many of the same features. Third, Jewish folklore and learned tradition merged, as in the shattered wedding glass, both a decorous reminder of the Temple's destruction and a bridal fertility charm for guarding by good spirits and avoidance of evil influences. Feasts and ceremonies of Jewish marriage, Sabbath, and Purim validate studying a culture by tasting its food and testing its festivals.

ISLAMIC HOLIDAYS AND FESTIVALS

An Islamic feast or festival was called an *id*. Two major canonical festivals in the Islamic calendar are the Feast of the Sacrifice, the *Id al-Adha* or *Id al-Qurban*, and the Feast of Breaking the Fast, the *Id al-Fitr*. Of the two canonical holidays, the Feast of the Sacrifice, which ends the ritual celebrations of the hajj pilgrimage, is considered the greater feast day, hence its alternative name *al-Id al-Kabir* ("The Great Feast"), while the Feast of Breaking the Fast, which

closes the month-long fast of Ramadan, is referred to as the Minor Feast (*al-Id al-Saghir*). Both shared customs and rites.

The celebration of both festivals is a solemn communal obligation, requiring the performance of the communal prayer called *The Prayer of the Two Festivals, Salat al-Idayn*. These communal prayers were held according to particular time schedules, and special donations and gifts of charity, *zakat*, were obligatory. The Prayer of the Two Festivals was led by an *imam* and was obligatory for Muslims living in a city large enough for a communal mosque, a *jami* mosque. The prayer took place in the morning between sunrise and noon. The typical Friday prayer took place after noon.

The customary Friday prayer was preceded by a first call to prayer, the *adhan*, followed by a second call to prayer, the *iqana*. Yet the Prayer of the Two Festivals was preceded by a simple invitation to prayer, a liturgical formula repeated only once: "Come to public prayer," *al-salat jami atan*. In the customary Friday prayer, the sermon, or *khutba*, preceded the prayer itself. In the Prayer of the Two Festivals, however, the *khutba* followed the prayer. The prayer itself was much simpler and shorter in form than the Friday prayer, consisting of only two *rakas*, or cycles of prayer formulas and prostrations. The *imam* and the congregation would begin the prayers by uttering many more *takbirs* (the ritual formula *Allah akbar*, or "God is great") than in the normal prayers.

On the Festival of Breaking the Fast, *id al-fitr*, the *khutba* included a set of instructions concerning the charity or alms, the *zakat*, for that festival. On the Festival of Sacrificing, the *id al-adha*, the *khutba* described the regulations for sacrifice. The local mosque was a routine site for regular Friday prayers. Yet the Prayer for the Festivals took place in the antecourtyard of the mosque, the open-air *musalla*. In the city of Mecca, however the Prayer for the Festivals took place in the Mosque of the Prophet.

In addition to the two canonical *ids*, medieval Muslims observed many voluntary festivals in the belief that the special prayers, rituals, fasts, and charitable acts that they performed on these days would merit a divine reward. The sermons of popular preachers, Sufi mystics, and the theologians who wrote treatises on the virtues (*fadail*) connected these festivals to the practices of Muhammad and promised that those who observed them would have their sins forgiven and be spared from the torments of the grave.

Ibn Iyas (d. 1525), the Egyptian historian, wrote a chronicle of Cairo during the reign of the Mamluks in which he listed the ceremonies of the Prophet's birthday, the cutting of the Cairo dike to free the Nile to flow, the beginning and end of Ramadan, and the departure and welcome of the pilgrimage caravan. Special occasions for celebration included the welcoming of a foreign ambassador and the birth of a son to the ruler. At these festivals the merchants and shopkeepers festooned the city with lights and the ruler processed in pomp and circumstance.

Certain religious judges, such as the ultraconservative Andalusian Maliki judge al-Turtushi (d. 1126) or the equally conservative Hanbali judge of Damascus Ibn Taymiyya (d. 1328), denounced these popular practices as *bida*, or innovations that departed from or contradicted with the legitimate (*sunni*) practices of Muhammad and the early Muslim community, and tried to have them banned.

Pilgrimage

The Quran commanded that the pilgrimage to Mecca, *hajj*, was a duty: "It is the duty of all men to come to the House a pilgrim, if he is able to make his way there." (Q 3:97) Though it was possible to make pilgrimage at any time of the year, the prescribed time was the month of Dhul-Hijja, the 12th month of the Muslim calendar. Every Muslim of sound mind and body was expected to make the hajj at least once in a lifetime. Those too poor or too young were excused, as were women without a husband or guardian. People on pilgrimage were never alone for long. Most pilgrims traveled in large caravans by land or sea. By the time of the Mamluks the most favored pilgrimage starting points were Cairo and Damascus. Pilgrims from the Maghrib went by sea or land to Cairo, met Egyptians traveling there, and then by land traveled in camel caravans across the Sinai desert, then through western Arabia to the holy cities. The caravans were organized by, protected by, and led in the name of the ruler of Egypt. The journey from Cairo to Mecca took between 30 and 40 days. Pilgrims from Anatolia, Iran, Iraq, and Syria met in Damascus and traveled for 30 to 40 days. Pilgrims from West Africa crossed the Sudan, then the Red Sea, and traveled from southern Iraq and the Gulf ports across central Arabia to Mecca. Depending on one's point of departure, the entire journey could take months, and accordingly many pilgrims combined travel in search of knowledge and business with the fulfillment of the religious duty.

The great 14th-century traveler Ibn Battuta expressed the exhilaration of the pilgrimage: "Of all the wondrous doings of Allah the most high he created in the hearts of men an instinctive desire to seek these sublime sanctuaries, a yearning to present themselves at these illustrious sites, and has imbued each man's heart with such love for the holy places that once one enters them they seize the whole heart and once one leaves them one suffers grief of separation." (cited in Hourani, 151)

On the approach to Mecca the pilgrim would wash to purify himself symbolically and put on a white garment symbolizing a funeral shroud called the *ihram*, customarily made of one single cloth. Women would wear either a

white or a black cloak covering them from head to foot and not don any jewelry. In an act of consecration, the pilgrim said: "Here am I, O my God; here am I. No partner hast Thou; here am I. Verily the praise and the grace are Thine, and the empire." With these words pilgrims consecrated themselves in mind, body, and soul to God and pledged to refrain from any wrongdoing.

Once in Mecca the pilgrim entered the sacred area, the *haram*. By the 12th century the cluster of symbolic sites for pious visitation included the well of Zamzam that the angel Gabriel opened to save Hagar and her son, Ishmael. Nearby was the stone that preserved the patriarch Ibraham's footprint, known as the *maqam Ibrahim*. The most important building in the *haram* was the Kaaba with the holy Black Stone situated in one of its walls. The pilgrim circumambulated the rectangular Kaaba building seven times and touched or kissed the Black Stone. There were also particular places associated with *imams* of the four legal schools, the *madhhabs*.

An essential ritual of the pilgrimage was to leave the city of Mecca and go toward the hill of Arafa and stand there on the plain for a prescribed time, during which a special *khutba* ("sermon"), which emphasized repentance in preparation for the Day of Judgment, was preached. On the return to Mecca, the pilgrim stopped at Mina to throw seven stones at a pillar representing the devil. Then he sacrificed an animal. At that same time throughout the Islamic world families celebrated the Sacrificial Feast, *Id al-Adha*. For the Meccan pilgrim, the *hajj* was done. The pilgrim removed his white symbolic garment, the *ihram*, and resumed the clothes and the cares of the world, inevitably changed by this profound experience of collective piety. The pilgrim returning home also acquired a higher social status, manifested in the honorific title *Hajji* if a man and "Hajjiyya" if a woman.
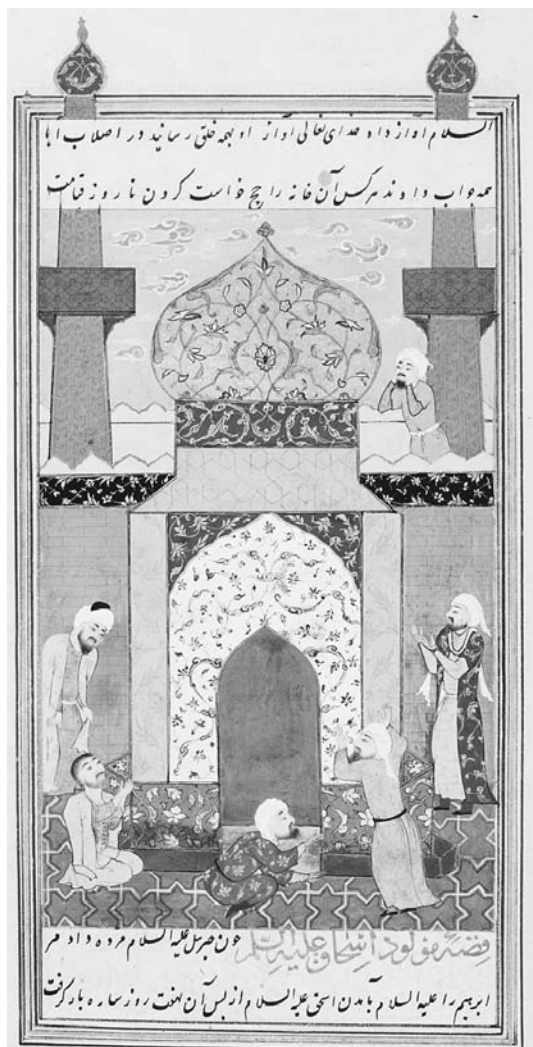
This 1577 miniature shows Muslim pilgrims before the Kaaba in Mecca.   Bildarchiv Preussischer Kulturbesitz/Art Resource, NY.

FEAST OF THE SACRIFICE, ID AL-ADHA

On the 10th day of the month of Dhu l-Hijja, the month of the hajj, Muslims celebrate the

Sacrificial Feast, *Id al-Adha*, which was also named *Id al-Nahr* and *Id al-Qurban*. On this day pilgrims made their sacrificial offerings in the valley of Mina near Mecca, sacrifice there a survival of a pre-Islamic practice maintained in Islam as part of the Prophet's *sunna*. This sacrificial feast commemorated Ibraham's (Abraham's) incomplete sacrifice of his son, Ishmael, in Muslim tradition (Isaac in the Jewish-Christian traditions). During the sacrifice ritual the participants must pronounce various prayer formulas: the *Basmala* ("In the name of God, the merciful, the compassionate") and the *Salat ala al-Nabi* ("God grant blessings and salvation to the prophet Muhammad"). They should then face the direction of Mecca and say the prayer formulas "God is great," "In the name of God, the merciful, the compassionate," and again "God is great," before beseeching God graciously to accept the sacrifice.

Muslims not traveling and wealthy enough to own an animal were assumed, though not absolutely required, to sacrifice a sheep for their own personal piety. One Muslim would sacrifice a cow or camel for as many as 10 faithful Muslims. The animal was required to be perfect: not blind, lame, skinny, or defective in ears or tail. The sacrificed animal flesh would be distributed to the poor or rich, but one-third was to be reserved for charity, *sadaqa*.

The sacrifice physically took place directly on the Festival of Sacrifice or the first or second day thereafter. The location was either the *musalla* of the mosque or a special slaughter site called a *manhar*.

PILGRIMAGE CEREMONIES

Ceremonies surrounding the yearly *hajj* to Mecca were celebrated in all Muslim countries. In addition to the Festival of the Sacrifice that coincided with the *hajj* sacrifices, Muslims celebrated three other customs: the welcoming of the pilgrim caravans, the parading of the

kiswa, and the procession of the carriage called the *mahmal*. The *kiswa* was the fabric covering for the sacred stone of the Kaaba. The caliph in Egypt sent the *kiswa* with the pilgrim caravan after it had been ritually paraded through the streets of Cairo and Fustat before being carried to Mecca. From the 13th century on, an empty, highly decorated cart or carriage was drawn by the camel leading the caravan to Mecca. It may have contained a prayer book that was displayed to the populace after the return of the caravan from the *hajj*. For an Islamic ruler, the sending of the *mahmal*, as providing the *kiswa*, became an important statement of political independence.

Ramadan

Ramadan was the month that the Quran began to be revealed to Muhammad. All Muslims older than 10 years old were required to fast, to refrain from all food and drink, sexual intercourse, and smoking, from daylight to nightfall. These physical abstentions and hardships were a necessary precursor to the internal fast of repenting one's sins and pledging to abstain from sinful thoughts, words, or deeds. No one was excluded except those too physically weak, the mentally unfit, the heavy laborer, the warrior, and the long-distance traveler. The intention of the fast was for the pious person to draw nearer to God and to unite with other Muslims in recalling what distinguished them from other communities, namely, the revelation of the "Glorious Quran" and the blessing of the prophet Muhammad, the last, or "seal," of the prophets. In addition to maintaining the fast, the pious Muslim might spend the greater part of the day or evening praying in the mosque, reciting or listening to quranic recitation, engaging in religious studies, or listening to sermons and pious stories (*qisas*) about Muhammad and the other prophets. Each day at sun-

set, Muslims would break their fast in a custom called *iftar*, usually consisting of a few dates and juice followed by a larger, more festive meal. At the end of the month the entire community celebrated the holiday for Breaking the Fast, *Id al-Fitr*.

NIGHT OF THE DIVINE DECREE, THE *LAYLAT AL-QADR*

The Night of the Divine Decree, the *Laylat al-Qadr*, was celebrated on the 27th day of Ramadan and celebrated the night that Allah began to dictate the Quran to Muhammad. On this night the heavenly gates were thought to be opened and prayer especially efficacious. The Quran itself fosters this belief, saying "The Night of Prayer is better than a Thousand nights." (Q 97:3) The most pious in certain Islamic groups believed that the Quran was revealed sometime during the last 10 days of Ramadan and therefore practiced a retreat from the world, known as *itikaf*, in a mosque. The faithful gathered in the mosques at night and kept vigil, reciting the Quran in its entirety.

FESTIVAL OF BREAKING THE FAST, *ID AL-FITR*

The Festival of Breaking the Fast was celebrated on the first day of the month of Shawwal, which follows Ramadan. Two requirements were attending the Prayer of the Festivals and paying alms, *zakat al-fitr*, the latter of which must be paid before the commencement of the communal prayer. Charity consisted of food for the needy and the poor; however, many celebrants also bestowed culinary gifts on family and friends. These ritual gifts consisted of particular amounts of wheat, dates, raisins, or barley.

Popular custom added festivities and costumes. People were expected to wear clean new clothes and pay visits to the homes of relatives, friends, and patrons, as well as the graves of loved ones in the cemeteries. Clothing gifts were so common, especially in Egypt, where the caliph distributed elaborate costumes and robes of honor to members of his court and bureaucracy, that the holiday was popularly known as the *Festival Gala of Costumes, Id al-hulal*.

The route to the *musalla* of the mosque for the Festival of Breaking the Fast was required to be one way only, with the return to follow a different itinerary. The learned ascribed the one-way routing as promoting distribution of the largest amount of *zakat* to the hands of individual needy people. Yet the purpose might well have had a mystical or allegorical interpretation as well. The walk to the *musalla* provided the opportunity for the faithful to dispose of their sins before reaching the sacred service. Taking a new route home from the service prevented the pious from reencountering their old sins.

Supererogatory Festivals

THE PROPHET'S BIRTHDAY, *MAWLID AL-NABI*

The birthday of the Prophet, *mawlid al-Nabi*, was observed on the 12th day of the month of Rabi al-Awwal (the third month of the Muslim calendar) and was celebrated with prayers and ritual recitations. Writing in the 12th century, the Tunisian traveler Ibn Jubayr mentions that the official celebrations took place in Mecca, where the pious would visit the house where Muhammad was born and pray there in the hope of receiving divine blessings (*baraka*). In 14th-century Cairo, the official Mawlid al-Nabi celebration took place in the courtyard of the Citadel palace. A tall tower was constructed to give the Mamluk prince the seat of honor. On the eve of the Prophet's birthday after the evening prayer, the people gathered briefly in

the palace courtyard bearing torches and candles as a symbol of Muhammad's sanctity. They returned the following day to attend the sermons and listen to the poetry and songs played in honor of the Prophet of Islam.

The Fatimid Shiites gave the holiday a great impetus as the sanctification of the Holy Family was the foundational myth of their legitimacy as descendants of the Prophet through his successor, Ali, and his wife, Fatima, the Prophet's daughter. Thus in Fatimid Egypt three other birthdays also were celebrated: the *mawlids* of Ali and Fatima and the *mawlid* of the current living *Imam*. Later the birthdays of Hasan and Husayn were added and were celebrated with elaborate ceremonials and rites. Birthdays were opportunities for the Fatimid caliph to reaffirm his legitimacy before his people, as he sat in splendor, veiled, on a balcony of his palace. Three canonical preachers (*khutaba*) of the Cairo mosques each delivered a sermon in which, in addition to extolling the blessings and virtues of the Prophet, they extolled those of the ruler, comparing him to Muhammad. The recitation of a special genre of panegyric, also called a *mawlid* or *mawlidiyyat*, formed an important part of the celebration.

Sufis also celebrated the *mawlids* of their saints in which the "birth" being commemorated was in reality the saint's death, the day he or she was "reborn" in God, a custom also observed in Christian saints' festivals. In the Middle Ages as well as today, the birthdays of Muhammad and the other Islamic prophets and local saints were popular festivals. The Sufis added their mystical practices to these birthday celebrations. A particular Sufi ritual invocation of the names of God, called *dhikr*, became extremely popular as the general public attended and participated in these practices. In Egypt celebrations of saints' birthdays included those of women saints such as *al-Sayyida Zaynab* (the daughter of Ali ibn Abi Talib) and *al-Sayyida*

Nafisa (d. 824, also a descendent of the Prophet through Ali ibn Abi Talib), as well as that of *Ahmad al-Badawi*, the renowned 12th-century founder of the Badawi Sufi order. Conservative *qadis* such as Ibn Taymiyya, referred to earlier, denounced these practices as a reprehensible imitation of the Christian cult of saints. On the other hand, many *qadis* of al-Andalus, North Africa, Egypt, and elsewhere, while recognizing that the *Mawlid al-Nabi* was an innovation (*bida*), justified and encouraged its celebration in part to deter Muslims from participating in the celebration of Christmas. To this end, children were particularly encouraged to celebrate the prophet's birthday by donning new clothes, and bringing candles to school as gifts for their teachers.

NIGHT OF ASCENSION, *LAYLAT AL-MIRAJ*

The Night of the Ascension, *Laylat al-Miraj*, commemorated the night Muhammad ascended to heaven and returned to Earth. It was celebrated on the 27th day of Rajab, the seventh month of the Muslim calendar. Some Islamic traditions associated the Night of the Ascension with Muhammad's night journey from Mecca to Jerusalem, the *isra*. According to the legend, one night Muhammad was sleeping in Mecca when the angel Jibrail (Gabriel) took him to a winged creature called al-Buraq and transported him across to sky to "the farthest mosque," which most sources identify as Jerusalem. From there he ascended the ladder into the seven heavens, where he encountered and conversed with the previous prophets, including Ibrahim, Moses, and Jesus, before going before the seat of God. During this encounter God commands that Muslims pray five times a day. That event was celebrated with prayers and recitations of the details of Muhammad's famous night journey on the winged al-Buraq to the holy city.

NIGHT OF FORGIVENESS, *LAYLAT AL-BARAA*

The Night of Forgiveness or the Night of Quittance, the *Laylat al-Baraa*, was celebrated on the 15th day of the month of Shaban, the eighth month of the Muslim calendar. That holiday commemorated the time that God descended to the lowest of the seven heavens and summoned human beings to request his forgiveness of their sins. On that night the tree of life was shaken. On each leaf of the tree the name of a living being was inscribed. When the tree was shaken, certain leaves fell to the ground. On those leaves were the names of those who would die in the forthcoming year. Muslims spend the night in prayer and sometimes fasting in the belief that their prayers and supplications will surely be answered and sins forgiven.

Shiite Festivals

The Shiite conviction that Muhammad explicitly appointed Ali to succeed him as caliph, that Ali and his heirs were also divinely favored, and that the holy family was victim of a terrible injustice at the hands of the Umayyads gave rise to the creation of a number of feasts commemorating these events.

ASHURA

Ashura, the 10th day of the first month of the Islamic calendar, Muharram, was a fascinating optional fast day that Shiites observed as the anniversary of the death of the martyr Husayn at Karbala in southern Iraq. Shiites considered it a day of mourning and made pilgrimages to Karbala. On that day they also performed passion plays called *taziya* vividly representing the deaths of their martyrs.

In Egypt during the reign of the Shii Fatimids, Ashura was celebrated with elaborate banquets featuring the traditional mourning foods made of lentils. Many ritual prayers accompanied the feasts. In its origins Ashura coincided with the 10th of the Jewish month of Tishri, the Day of Atonement, which the Jews of Arabia celebrated. Muhammad and his community also observed this day as a day of repentance and fasting from sunrise to sunset. When the Prophet's relations with the Jews worsened, he ordered the obligatory fast to be moved to the month of Ramadan in order to distinguish it from Jewish practice.

In the Sunni world fasting the day of Ashura, and most often the first 10 days of the month, became a "commendable" act deserving of spiritual rewards and blessings. Islamic lore was filled with the tales of the blessings that occurred on this day in sacred history: Noah's ark landed on this day, Abraham was saved from the fire, Adam and Eve received God's forgiveness. Thus for the Sunnis, perhaps to distinguish themselves from the Shia, the celebration of Ashura acquired a joyous character with the promise that sincere acts of repentance, fasting, prayer, and charity would be generously rewarded, as surely as God had saved the scriptural prophets from peril.

FESTIVAL OF GHADIR KHUMM

Ghadir Khumm is the name of a pool located at Khumm, a valley between Mecca and Medina. When the prophet Muhammad was on his way back to Medina from his farewell pilgrimage to Mecca, he stopped at this site and pronounced a speech before his community. Taking Ali by the hand, he asked the people whether it was true that he was closer to them (*awla*) than they were to themselves, to which they enthusiastically replied, "It is so, O Apostle of God!" He then said, "He of whom I am the patron [*mawla-hu*], Ali is his patron." This event is acknowledged in both canonical Sunni and Shiite sources, although the sects interpret its meaning differently. According to Shiite inter-

pretations, Muhammad's pronouncement merely made public one of the divine secrets that God revealed to him during his heavenly journey (*miraj*), making Ali's succession a divine decree. The Sunnis, however, maintain that in this speech Muhammad merely intended to show his public support for Ali in the aftermath of a minor dispute. The Fatimid Shiites and subsequent Shiite dynasties celebrated the day of Ghadir Khumm, the 18th of Dhu l-Hijja, as a solemn feast.

Christian Celebrations

Many medieval Arabs were Christians and of course celebrated all the Christian festivals. But many Muslims living in Egypt, Syria, al-Andalus, and other countries with significant Christian populations also celebrated Christian festivals such as Christmas and Easter and observed secular holidays like New Year's Day. In Baghdad particular patron saints' days were popular. In Cairo Muslims and Christians celebrated Palm Sunday, *Shaanin*, along the Nile, as well as Easter and Christmas.

Egyptians often celebrated the Christian feast of Epiphany, called in Arabic *The Festival of Diving*, *Id al-Ghitas*. Epiphany was called *Id al-Ghitas* because Christians wearing their crosses and carrying high their candles often would dive into the Nile. Many Andalusian Muslims celebrated Christmas, preparing special foods, buying new clothes, and sharing meals and exchanging presents with their Christian neighbors. Depending upon the country and the century, caliphs and *qadis* condemned popular celebrations that united Christians and Muslims just as they lamented the tendency of Muslims to celebrate Jewish holidays. Nevertheless particular caliphs, particularly in Egypt, built facilities to observe such festivities, such as a caliph's riverside pleasure house, called a *manazir*.

Secular Festivals and Rites of Passage

INVESTITURE OF THE RULER, *BAYA*

According to ancient Arabian custom, the *baya* was a hand clasp between prominent members of a community and a new leader, a ritual that conferred on the latter communal allegiance and obedience. The practice continued in the Islamic period, as the early community formally recognized its the first caliph, Abu Bakr, through the gesture of the *baya*. When a new caliph assumed the throne, the *baya*, now an official ceremony of investiture, served to present the ruler to his people. Hafsid Tunisia had a two-part ceremony consisting of the government officials' pledge of allegiance to the new ruler and then a presentation of the ruler to the people of the capital city.

NEW YEAR'S DAY

In Islamic Egypt New Year's Day was celebrated three times. First was the Persian New Year called *Nawruz*, which was also celebrated in al-Andalus, the Maghrib, and elsewhere. The second was the Coptic New Year, which was celebrated in August, coinciding with the annual flood period of the Nile. The third new year was the beginning of the Muslim year, the first of Muharram, the date commemorated as the day of the Hijra, or "migration," of the Prophet and his community from Mecca to Medina, thus inaugurating the creation of the Islamic *umma*. The Persian and Coptic New Years were times of celebration, in contrast to the more reserved, pious observances of the Muslim New Year.

While piety was important, the celebrations of the Muslim New Year were occasions for magnificent processions in which the caliph was followed by thousands of mounted soldiers all wearing extravagant expensive costumes and caparisons for their animals, and ostentatious

displays of wealth and magnificence. In Egypt, for instance, the trees, the shops, and the streets were decorated in Cairo and Fustat to demonstrate the religious and political might of the caliph.

FLOODING OF THE NILE, *WAFA AL-NIL*

The flooding of the Nile was also a holiday called *Wafa al-Nil*. Celebrated in ancient Egypt, the flooding of the Nile River led to fertility of the land and abundance of crops and wealth. The level of the Nile was registered by a calibrated Nilometer. One was established in pre-Islamic times on Roda Island in the center of the Nile. A dam was built at the mouth of the canal at Cairo. Every year that the flood waters were appropriately powerful, it burst, and the breaking of the dam signaled that flood waters would sweep into the canal and irrigate all adjacent land. Islamic celebrations of the flooding of the Nile utilized pre-Islamic rites probably going back to pharoanic times. The caliph's visits to the Nilometer and to the dam were pagan fertility rites. Muslim prayers and recitations of the Quran were part of the festivities.

BIRTH OF A CHILD

Two family holidays were associated with the birth of a child. The sacrifice on the seventh day after a child's birth, called *aqiqa*, might involve a sacrifice of two rams if the child was a boy and one ram if the child was a girl. This was the only time other than the *Id al-Fitr* that Muslims were required to perform a sacrifice. Customarily, the child's hair was shaved on that day.

The second family festival pertaining to children was circumcision, *khitan* or *tahara*. Ritual circumcision often was communal. When a ruler's sons were circumcised, several hundred other boys also would submit to the ritual operation of removing the foreskin of the boy's penis.

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12

CLOTHING, COSTUME, AND TEXTILES

Clothing and costume identified from afar those whose power originated in the altar, sword, and ledger. In the Middle Ages uniform costume was used to identify members of a nation, tribe, profession, guild, social class, religion, philosophy, or political idea. Uniform costume provided triple visual identification. Clothing self-identified the person wearing a garment volitionally with pride or involuntarily with loathing. For wearer and observer the uniform allowed instant recognition of others from the same group to allow for allegiance or avoidance. For leaders clothes reliably enforced hierarchical order. The priestly class, whether Christian clergy, Jewish rabbis, or Muslim ulema (religious scholars and functionaries), wore clothing to distinguish themselves from laypeople. The clothing and accoutrements of warriors distinguished them clearly from civilians. Rulers and aristocrats reserved for themselves certain clothing and regalia. And secular laypeople wore clothing suitable for their daily activities, for their profession or craft, for their celebrations and ceremonies, and for symbolic social purposes.

Christians, Muslims, and Jews created sumptuary laws to restrict freedoms in clothing and costume and to enforce visible, quick identifying devices. Jews legislated among Jews to distinguish themselves from the gentiles and to avoid ostentation that called dangerous attention to their wealth. Christians legislated for Christians to avoid the sin of pride and to reinforce social hierarchies. Christians and Muslims created sumptuary laws governing clothing of the "infidels" living among them, at certain times and places requiring distinctive livery. Under the cross Jews and Muslims wore clothing differentiators, with Jews, for instance, required by civil and ecclesiastical laws to wear the Jewish hat, the *Judenhut*, and the Jewish badge, the *rouelle*. Under the crescent, Jews and Christians as non-Muslims wore identifying garb and hats. Islamic law in Mamluk Egypt obligated Jews to wear yellow outer garments, Christians to wear blue, and Samaritans red.

CHRISTIAN CLOTHING

Religious Vestments

VESTMENTS AND CANON LAW

Vestments were ecclesiastical garments men and women afflicted with the Christian Church wore for ceremonial occasions, including robes, gowns, capes, and hats. Colors, shapes, designs, and ornaments of ecclesiastical garments were not whimsical, arbitrary, or individualistic, but strictly controlled by tradition and canon law: a vast compilation of laws and regulations made or adopted by the ecclesiastical authorities in order to govern every aspect of the organization of the church and the lives of its members. The laws so decreed concerned the tenets of faith, the status and administration of the seven sacraments, ecclesiastical government, holy orders, clerical discipline, laws on marriage, and ecclesiastical garments. The sources of canon law ultimately originated with God, the divine law revealed in the Old and New Testaments, particularly in the person of Jesus Christ, whose words and deeds were interpreted by Christians as having abrogated many aspects of the "old laws" governing the Jewish community. In addition to the biblical Gospels and the apostolic letters, canon law was compiled from early papal letters, decretals and decrees of important bishops, and judgments of church councils. Not until the ninth century were steps taken to centralize and unify canon law, albeit through the initiative of individual members of the

church. The most significant private initiative was undertaken by the 12th-century Italian canon lawyer, jurist, and churchman Gratian, who collected, selected, and ordered about 4,000 texts by subject, recognizing and resolving contradictions. Although as a private initiative *Gratian's Decree, Decretum Gratiani*, or *Concordantia discordantanium canonum* (Concordance of Discordant Canons) (1140) does not have official status in the church, its scientific method served as the model for later decretal compilations and pronouncements by church councils. Pope Innocent III's (1198–1216) *Compilatio tertia* (Third Compilation), the first official and systematic compilation of canon law, relies heavily upon Gratian's *Decretum*. Succeeding popes continued to make canon law based upon additions to Gratian's work, for instance, Pope Gregory IX (1227–41) in his *Extravagantes* and the *Novo compilatio decretalium* (*The New Compilation of Decretals*), Pope Boniface VIII (1294–1303), and Pope John XXII (1316–34). Mention must also be made of the canons promulgated in ecumenical councils, such as Council of Vienna (1311–12) and the Council of Trent (1545–63).

Throughout western Europe Christians entering churches for prayer and praise of God encountered the same colors for the visual and theological identification of the festival season or particular day. Liturgical colors for vestments, banners, altar frontals, and other fabric decorations of the church and clergy were carefully prescribed as follows: White, the symbol of purity and holiness, was required for the Christmas and Easter seasons (except Good Friday), Corpus Christi, Ascension, Trinity Sunday, and feasts of angels, virgins, and unmartyred saints. Gold, also representing holiness and purity, might be used as an alternative color in the Western Church on the aforementioned occasions and was particularly favored in the Eastern Byzantine Church. Red, the symbol of fire and blood, was the primary color for Pentecost (in memory of the tongues of fire that descended upon the apostles), Palm Sunday, Good Friday, Holy Cross Day, and other feasts of the cross and martyred saints' days. Green, the symbol of hope, was the guiding color for Epiphany and the days between the Monday after Trinity Sunday and the beginning of Advent. Purple, the symbol of penance, was the principal decoration for Advent and Lent. Blue was the color for almost all feasts pertinent to the Virgin Mary. Black, the symbol of death and mourning, was the dominant color for funerals, All Souls' Day, and requiem masses. Monastic orders, orders of the friars, and lay confraternities often distinguished one another by the colors of their habits. For instance, Benedictine monks and Dominican friars wore black, and Carmelite friars wore white to distinguish themselves from the Franciscan friars, who wore gray.

GLOSSARY OF RELIGIOUS VESTMENTS

alb   The *alb* vestment was an ankle-length tunic, a shirtlike garment, with round neck and narrow sleeves, made of white linen, sometimes embroidered. Originally secular clothing, it became exclusively liturgical for a priest or deacon. Often the *alb* was decorated in front and back by an *orphrey*, an embroidered panel usually of a vertical rectangular shape, often jeweled and bordered with precious fringe and lace, depicting holy scenes, symbols, or saints and their attributes.

baldrics   Some ecclesiastical figures were required to wear *baldrics*. A baldric was a fabric or the leather band worn diagonally across the chest and back, anchored at one shoulder, tied or buckled at the opposite hip. For ceremonial occasions, knights, monarchs, and ecclesiastics sported them, encrusted with jewels, mottos, emblems, medals, and appliqué.

barrette A *barrette* was a round felt or wool hat, sometimes as small as a skullcap, resembling the *yarmulka* worn by observant religious Jewish men.

cardinal's hat A *cardinal's hat* was almost always red, wide brimmed, originally secular, tied by a cord beneath the chin, and slung on the back when off the head. This flamboyant hat when not worn was carried in ceremonial processions. After a cardinal's death, his hat was hung above his tomb. Pope Innocent IV in 1245 declared red the color for cardinals. Cardinal rank was defined by the number of tassels terminating the hat cords.

chasuble Over the *alb* was the *chasuble* (Latin, *casula*, "little house"), the outermost liturgical vestment, its color depending on the church season or feast being celebrated. Worn during ecclesiastical processions and while elevating the Eucharist, the chasuble usually was ornamented with a cross on the back or with an embroidered band called an *orphrey* on both front and back. The chasuble was associated symbolically with Christ's crucifixion garment and exemplified the all-encompassing virtue of Christian charity.

cilice The *cilice* was a penitential hair shirt, the traditional sack of sackcloth and ashes (Matthew 11:21). Public penitents wore the cilice from Ash Wednesday until reconciled with the church on Maundy Thursday. Monks, hermits, and pious lay folk wore a cilice during Lent, as intentional suffering in imitation of Christ, *imitatio christi*. Would-be saints for their sins wore a cilice as a daily garment, suffering penance of perpetual itch and pain.

cingulum A priest wore a *cingulum*, a white girdle or colored rope to belt the alb when dressing for mass. The belt was symbol of priestly celibacy. *Zond* was another name for the priest's white *cingulum*.

dalmatic A *dalmatic* was a formal, knee-length over-tunic worn by kings at coronations, and by ecclesiastics, especially deacons, during mass. The vestment often was made of silk and designed with an embroidered border that decorated wide flaring sleeves, the wide neck, and openings. A jewel-studded belt encircled the wearer's waist. The *tunicle* was an ecclesiastical vestment shaped like a small tunic and similar to a *dalmatic*, often worn over the *alb* at celebrations of the Eucharist.

lappet A *lappet* was a pair of flat lace ribbons or pendant fabric strips usually worn in pairs and attached to a *miter*, cap, crown, or clerical headdress. An infula was a *lappet* or ribbon on a bishop's *miter*.

maniple On the middle of the arm, a priest wore a *maniple*, an embroidered linen or silk scarf customarily worn on the left arm or hand. The ecclesiastical *glove* resembled the layman's utilitarian hand cover and protector, an important article of fashion from the 12th century on. Popular fabrics were cotton, silk, velvet, or soft animal skins, such as deer, dog, buck, chicken, sheep, beaver, and doe. Rings usually were worn on or over gloves. In the 13th and 14th centuries glove cuffs were deep, buttoned, slashed, dagged, and sometimes ornamented with bells and jewels.

miter A bishop was distinguished by a *miter*, a tall, deeply cleft hat or headdress. From the front, the *miter* resembled a pointed arch. From the side, it resembled the two horns of Moses, though sometimes positioned on the head with arch visible from the sides and horns of Moses frontal. Moses's mythical horns, familiar from Michelangelo's magnificent depiction, were culmination of an earlier tradition depicting Jews as horned, an image traceable to fourth-century Saint Jerome's mistaken confusion of the Hebrew word *qeren*, meaning "scintillat-

ing with rays of light" (Exodus 34:29), with the Latin *cornuta*, meaning "horned." Horns as symbols of honor in ancient, barbarian, and Anglo-Saxon arts, particularly when worn on warrior's helmets, degenerated later into emblems of infamy, demonic attributes of Satan and of Jews. The 12th-century Christian theologians Robert Paululus and Petrus Cantor associated Moses's horns and the horns of the bishop's *miter* with the Old and New Testaments. Or according to William Durandus (d. 1296), bishop of Mende (Norbonne), the horns on the miter were signs of God's resplendent brightness and truth. The miter was made of linen or satin fabric, often embroidered and bejeweled. Permission to wear a *miter* also was granted to abbots and abbesses of important monasteries.

pall   A *pall*, originally a full cloak worn by a philosopher, became a popular ecclesiastical vestment, often worn by an archbishop. An altar cloth, a Eucharistic chalice cover, and a coffin shroud at a funeral were also called a *pall*. The *cope* was originally a secular, hooded rain cape. It was a semicircular armless and hoodless ecclesiastical cape or cloak worn over the *alb* by priests and bishops. Made from silk, brocade, or embroidered fabric, it was fastened by a brooch called a morse (Latin *modere*, "to bite"), a clasp or fastening for a cape or cloak, usually wrought in gold or silver and set with stones. The *cope* often was ornamented with an *orphrey* and an imitation hood.

scapular   A particularly important symbolic garment was the *scapular* (Latin, *scapulae*, "shoulder blades"). It was a narrow cloak or stole and was an essential part of most monastic habits, the technical name for ecclesiastical garments. The Benedictine Rule institutionalized the use of the scapular. Symbolically the scapular represented the yoke of Jesus Christ, and thus it was sometimes also referred to as the *jugum Christi* (Latin, "Christ's yoke").

surplice   The *surplice* (Latin, *super* + *pellicia*, "over-fur-coat") was a loose-fitting cloak, usually white and ankle-length, worn by clerics and choir singers from the 13th century onward. A ceremonial garment crossing the boundaries between ecclesiastical and royal was the *pluvial*, a floor-length, open-fronted mantle, worn as a ceremonial ecclesiastical vestment and as coronation regalia for nobility.

tiara   Only the pope wore a *tiara*, a triple-tiered or triple-crowned headdress. When the pope was not wearing his tiara, it was carried in front of him during important though non-liturgical functions. The coronets symbolized the Trinity or the three estates of the church, Rome, Christendom, and spiritual sovereignty, in which each had rights and responsibilities and the church's ideas and judgments were supreme.

tonsure   The *tonsure* was a distinctive clerical haircut for men. It was achieved by shaving all or part of the head. Different monastic orders favored shaving the front from ear to ear or creating a bald circle on the crown of the head.

MONASTIC VESTMENTS

Members of the Carmelite Order of friars wore white habits and scapulars and were known familiarly as the White Friars. White Monks, members of the Cistercian Order, wore a habit made of white or undyed fabric. Living under strict interpretation of the Benedictine Rule, the Cistercians were founded in 1098 by Robert, abbot of Molesme. In 1200 Saint Bernard of Clairvaux dedicated his Bernardine Cistercian monks to spiritual mysticism. The Cistercian habit was white or gray under a black scapular.

A Black Friar was a member of the Dominicans Order, founded by Saint Dominic of Guzman in the 13th century, so named because of

the black-hooded habit worn by regulation. The Black Monks of the Order of the Benedictines, founded in the sixth century by Benedictine of Nursia, usually wore a black habit in accordance with the Benedictine Rule; however, it became obligatory from the 13th century onward.

The Gray Friars or minorites or friars minor were Franciscans, followers of Saint Francis of Assisi and his 13th-century mendicant order, whose habit was a gray or brown robe or cloak belted with a rope.

The Carthusians, whose order was founded in the 11th century by Saint Bruno, were purely contemplative hermit monks, bound by vows of silence and strict vegetarianism. Their habit was pure white, consisting of a cowl and gown. The Donates, from the Latin, meaning "gifts," were lay brothers who wore the same habit as the monastic house to which they belonged. Carthusian Donates wore a white cowl and gown.

Secular Clothing

MARRIAGE CLOTHES AND MOURNING GARB

Marriage clothing almost never was white. Both the man and the woman wore as flamboyant and colorful clothes as wealth and whimsy permitted. Though matrimony was one of the seven sacraments, with the double purpose of uniting man and woman for procreation and preservation of the species and for comfort, companionship, and satisfaction, it nevertheless did not have to be celebrated in a church until the 16th-century Council of Trent required that marriage be sanctified by the clergy. The essential religious properties of marriage were unity and indissolubility. However, clandestine marriage permitted an essentially private, non–liturgically blessed union that nevertheless was recognized by civil law and canon law.

Though child marriage was common, theologians and exponents of canon law, such as the great jurist Gratian, insisted on marriage by consent. Each of the partners had to agree to the matrimonial union. The usual age for a boy was 12 and for a girl age 13. Since the wedding ceremony was a public celebration even before it was sanctified in a church, the wealthiest families provided sumptuous marriage garb and even the lowest peasant wore "best" clothing for the momentous occasion.

Though the church's color for mourning and requiem masses was black, black was not a universal European color for medieval mourning garb.

FASHIONABLE HATS AND HEADGEAR

Men and women wore fashionable hats and veils. Young and old, rich and poor, laborer and scholar, all wore hats in summer and winter. Headgear often proclaimed a social, cultural, religious, or moral message to the observer by means of the hat style, fabric, and distinctive method of presentation. Wealthy or noble Christian women in 15th-century France and Burgundy wore the stylish pointed, conical *hennin* headdress, whose mild to extravagant height ascended according to the woman's social rank. English, French, and Burgundian women wore a forehead ornament called a *frontlet* when exaggeratedly high, wide foreheads were fashionable. Consisting of a small pendant loop of velvet, silk, or precious metal attached to the edge of an undercap, such as the *calotte* worn beneath the tall pointed *hennin*, the frontlet often indicated rank or wealth. A gold loop suggested substantial yearly income. Another woman's hat was the *caul*, an elaborate headdress consisting of silken sheaths covering strands of hair or braids. Over the cover was a netting of reticulated gold or silver cord embellished with pearls, beads, jewels, spangles, sequins, or bells. Or a woman might wear a
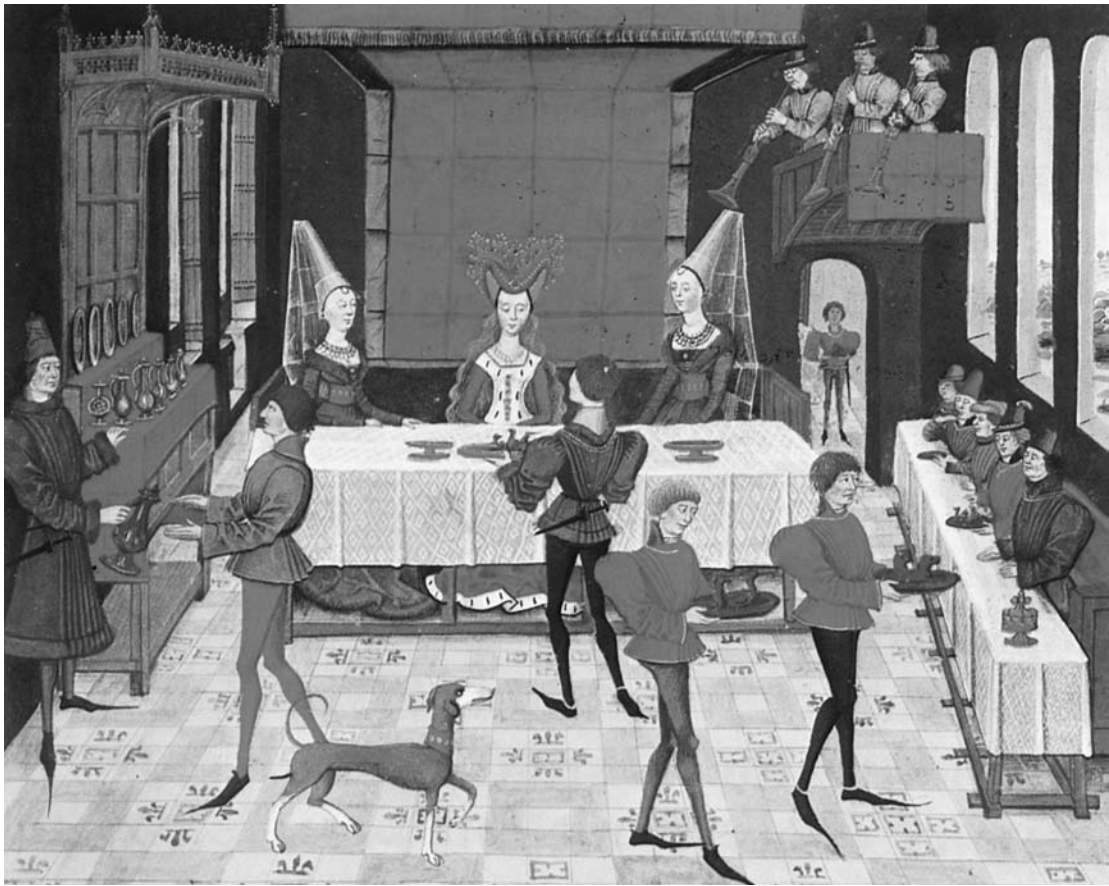
At her bridal feast, the slender bride, seated regally beneath a red canopied baldachin, allows her long golden hair to cascade down her back, cinched above by her elaborate gold-and-red headdress, called a crowned atour. *Her hat's two "horns" are stylistically related to the single-horn hats, or* hennins, *fashionable in 15th-century Europe, that her two gentlewomen wear. With pendent diaphanous veils called* lambrequins, hennins *enabled a small woman to appear tall and a noblewoman effectively to assert power. The latter's hat usually was the tallest spire in a procession, emulating the Gothic cathedral's vault and vertical skyward thrust toward God in heaven. A carver serves the women at the high table whole birds. Servants enter the dining hall from the kitchen to serve guests seated at the long table, the sideboard. Musicians standing in an overhead gallery play fanfares on long trumpets to announce the progression of courses in the feast, to entertain, and to aid digestion. A blue-robed surveyor of ceremonies presides over the feast service, standing near a tall Gothic wooden aumbry displaying silver and gold pitchers and platters. A white-pawed hound majestically prances on the decorated tile floor. The servitors, shod in long pointed poulaines, wear cinch-waisted buttock-hugging tunics called* pourpoints *whose extravagantly exaggerated shoulders and sleeves are extended by cylindrical pads called* mahoîtres. *Fifteenth-century noble costume complemented the exquisite physiques both women and men cultivated by exercise and diet.* From *Histoire de Renaud de Montauban,* France, 1468–70. Courtesy of Bibliothèque de l'Arsenal, Paris, Manuscript 5073.

CLOTHING, COSTUME, AND TEXTILES

chaplet, a head wreath, usually a garland of real or artificial leaves or flowers. A chaplet also was a circlet with gems or a twisted cloth or padded roll holding a veil on the head.

Men and women in Spain and Italy wore the graceful tripartite headdress hood the *chaperone*, consisting of a *roundlet*, a stuffed fabric circlet covered by a turban called a *garget*, which was folded lengths of fabric fulsomely wound around the head and culminating in a *liripipe*, the long fabric tail of the hat worn wound around the neck or swung over the shoulder, often ornamented with bells, fringe, or decorative precious stones. As did the height of the *hennin*, the length of the *liripipe* signified hierarchical rank.

Shown here is a chaperone, a graceful headdress for a man, popular between the 12th and 16th centuries, consisting of a turban wound upon a roundlet and a long garget.   Isabella Stewart Gardener Museum, Boston.

Hats served multiple practical purposes. In the cold north, a hat conserved bodily warmth. Hatless, a woman or a man was obligated to wear heavier gowns, coats, cloaks, and capes, but a cotton or silk hood or hat enabled the wearer to achieve comfort with fewer and lighter garments on the body. Likewise, with the head covered, one could travel lighter and better in a carriage or cart, on horseback, or on foot. Hats also served both men and women to maintain their hairstyles in place. A hat, then as now, could cover multiple sins of hair gone wild. Even more important was the hat's role in asserting importance and power. A person in a position of authority wore the hat signifying dignity, respect, and control. The more powerful the person, the more attention accorded to the headdress, which ideally should both flatter the face and transmit appropriate social ideas to onlookers. Men and women wearing ceremonial headgear with veils that trailed down the back appeared regal and patrician when facing the audience; when they turned aside or around, the back view confirmed magnificence.

Hoods and hats also were worn in bed at night. No matter how fine the building construction or cozily curtained the bed, in the days before central heating, drafts were inevitable in almost all seasons. Therefore men and women wore lightweight silk or cotton nightcaps in summer and heavier silk or wool in winter. Bed hats also prevented hair from being messed as one turned on pillows. Another reason for hats in bed was to protect the bed linens if one colored the hair. Blacks, browns, reds, and other dyes were important cosmetics that as temporary or semipermanent colorings could stain pillow covers and sheets. For neatness of head and bed, it was customary for hair to be hatted.

Outdoors or inside, another reason for wearing a beautiful hat or hood, particularly one decorated with precious metal ornaments or encrusted with jewels, was that valuable headgear provided portable property immediately con-

vertible to cash when necessary. Medieval Jews wore elaborate hoods, hats, and headgear not merely for fashion or ostentation but for informal banking, if attacked by robbers on the highway or pirates on the sea, or when unexpectedly requiring ready cash while traveling without the luxury of advance credit or promissory notes.

Sumptuary Laws

Sumptuary laws were rigorously enforced rules and regulations promulgated by civic or religious authorities to govern clothing, as well as food, entertainment, and all articles and actions of ostentatious display. Certain furs, fabrics, silks, and taffetas could be worn only by particular classes, nationalities, and professions. Certain colors also were restricted. Royal purple was meant for nobility. Red was the favored color for physicians. In the 14th century prostitutes could be fined or jailed for wearing fur-lined hoods, which were allowed only for noblewomen. Specific colors were reserved for special classes. Among the constitutions produced by the Fourth Lateran Council presided over by Pope Innocent III in 1215 was the legislation requiring that Jews and Muslims be distinguished from Christians by the character of their dress. In practice this meant that when Jews ventured outside the ghetto they had to wear distinctive badges, specifically identifiable capes, coats, and hats, such as the nefarious yellow pointed *Judenhut.*

Fur sumptuary laws allocated particular animal skins to specific social ranks. Common city whores who wore the fur hoods of noble ladies forfeited their garb before being clapped into jail. Lining, edging, and cloak furs included squirrel, fox, marten, beaver, and white imitation ermine called *laitice.* Only royalty and members of the court were permitted to wear garments made of *gris vair,* budge, and ermine as either exterior furs or cape and cloak linings.

Wearing a sumptuously brocaded robe with huge pendent sleeves lined with ermine, and a headdress that partially covers her lavishly braided hair, a noblewoman presents her children to their royal grandfather. Crowned and seated on a throne beneath a fringed baldachin upheld by stout columns, the monarch greets his family while his counselor gesticulates at his side. Children's costumes emulated adults' clothes. Sumptuary laws regulated by profession or class who could wear which fabric, fur, color, or style. From Hans Burgkmair, *Der Weisskunig,* late 15th century. Courtesy of the Metropolitan Museum of Art, New York. Gift of Anne and Carl Stein, 1961.

Beaver, otter, hare, and fox graced the garments of the lower nobility and middle classes. Common people used lamb, wool, goat, and sheepskin.

In the late Middle Ages English statutes regulated the ornateness of dress and limited extremes in the shortness of doublets and the extravagant length of long coats. Since the purpose was to regulate overindulgence in luxury and extravagance in dress, food, drink, and lifestyles, statutes marked class distinctions clearly

and attempted to prevent any person from assuming the appearance of a superior class.

CLOTHING AND THE BONFIRE OF THE VANITIES

The sumptuous and ostentatious clothing of royalty and the aristocracy became an obvious target of preachers and spiritual reformers. Between the 13th and 15th centuries, at the very moment when the most flamboyant items of clothing became fashionable within the church and the European courts, a veritable counterculture exalting religious poverty and the humble apostolic life emerged. The "lives of the saints" composed in these centuries abounded with stories of wealthy lay men and women who, as did Saint Francis and Saint Clará of Assisi (d. 1253), renounced their wealth, social position, vanities of the world, symbolized by luxurious clothing and jewelry. Lay movements such as the Beguines and the Beguards and the Franciscan and Dominican tertiaries demonstrated their rejection of worldly wealth and their adoption of the ascetic apostolic life by draping themselves in simple dark clothing and wearing hairshirts and pebbles in their shoes as acts of penance.

Charismatic preachers such as the Franciscan friar Bernardino of Siena (1380–1444) wandered throughout western Europe preaching poverty and staging spectacular "bonfires of the vanities." After a sermon was delivered to the multitudes in an outdoor square, the throngs would push forward, throwing their wigs, cosmetics, sumptuous clothes, jewelry, as well as other frivolous or dangerous items—such as playing cards, dice, and amulets—onto the pyre. As an eyewitness wrote after attending one such bonfire in Santa Croce:

> You never saw more beautiful flames, going way up into the air to the spite of the enemy of God, the Devil, and to the glory and praise and honor and reverence of our Lord Jesus Christ, supreme God. . . . I can't begin to describe, it seemed like thunder, and the tears shed out of piety, what great devotion. Amen. (Mormondo, 1999, p. 107)

The anonymous eyewitness attests that for the Franciscans, the Dominicans, and the lay voluntary poverty movements, the rejection of fashionable clothing was a sign of Christian piety and humility, the visible symbol for all to see of a life dedicated solely and exclusively to praising God. Thus even within different sectors of Christian society, clothing not only identified social status and profession, it also revealed religious affiliation and established clear boundaries between the spiritually humble and pious and the worldly and vain.

Finally, in spite of the sumptuary laws requiring marking distinctions in Christian, Jewish, and Muslim garb, many items of clothing were cross-cultural. Indeed, it could be argued that Lateran IV's decree that Christians, Jews, and Muslims be clearly distinguishable through their clothing needed to be imposed precisely *because* the three peoples wore similar clothing. (*See* the glossary of clothing items at the end of this chapter, which further demonstrates the adoption and adaptation of some Muslim clothing and headwear by both Jews and Christians.)

JEWISH COSTUMES AND CLOTHING

The reverence for light, reverence for sign, and reverence for the written word that animated Jewish art applied as well to the wearable art of costume. While medieval Jewish costume mistakenly is thought somber, monochromatic,

and usually black, the authentic manuscript, commercial, and legal evidence demonstrates costume and clothing of spectacular colors, flamboyant styles, and varieties of fabric. Between the ninth and 16th centuries Jewish costume exemplified the celebration of light through a stunning spectrum of color. Medieval Jewish and Muslim traders precisely identified minute differences among fabric pigments, shades, and hues. Words for different shades and hues of red and yellow, for instance, alluded to specific local flowers; to precious gems; to the spices of turmeric, saffron, and pepper; to the fruits quince, pomegranate, and apricot; and to the feathers of grouse and peacock. Exquisitely colorfully garbed medieval Jews as represented in the Cairo *geniza* documents seem to have been "color intoxicated."

Signs and symbols adorned clothing of the wealthy and the poor. Jews ornamented their clothes with decorative traditional silver, gold, base metal, and jewels. They wore embroidered amulets, such as the *kameah*, to assure good luck, and the symbolic upraised open hand against the evil eye, to prevent malevolence. Muslims also followed the custom of wearing protective amulets and as well as the upraised hand, called the hand of Fatima. Jews wore certain signs and symbols of self-distinction, while others were imposed as identifiers to distinguish them from Christians and Muslims. In Muslim lands laws prescribed Jewish robe colors, usually yellows, and hat styles. In Christian Europe Jews by law wore the *Jewish badge* and the *Jew's hat*, the *Judenhut*.

Jewish respect for word had a surprising corollary in costume that ideally signified the wearer's spiritual condition. Hebrew Scripture gave reasons for dressing carefully and well. Costume aided a Jew's praising God and demonstrating piety. As owning a Bible, a *menorah* light, and a *mezzuzah*, marking the doorposts of the home as site for ritual observance and

prayer, Jewish daily garments had spiritual import. The Talmud (Yevamot 63b) said: The glory of God is Mankind. The glory of Mankind is clothes.

COSTUME AS MORAL STATEMENT

Such Talmudic sentences seem shockingly worldly. What power resides in costume to make it equal the best of creation? How is costume mankind's image? How can clothing represent the intrinsic, invisible self? Fashion, associated in medieval Christian thought with dangerous vainglory and pernicious pride, took such precedence in medieval Jewish life that the marriage contract, the *ketubah*, usually listed the sums the new husband was required to expend on his wife's clothing. For Jews living under Muslim law, garments were substantial percentages of dowries, representing up to half the wealth the woman took to her marriage.

Costumes entered Jewish wills. While valuable garments were passed down through generations as heirlooms, some wills also transmitted the philosophy of dressing well. Just as a Jewish last will and testament transferred material goods to the family, an *ethical will* transmitted best advice and counsel. Jacob ben Asher (d. 1343) wrote in his ethical will that the true purpose for studying law is to know personally how to pursue the right and avoid the wrong, which included respectful care and clothing of the body. "A man's toil in the concerns of his body is to preserve the soul." In a 14th-century Spanish ethical will, a father specifically implored his sons; "Accustom yourselves, your wives, and your children always to wear clean and beautiful clothes so that both God and man may honor you."

Even the great sage Rabbi Akiba (d. c. 135) honored his beloved wife with radiant clothing and a gold crown. He started to study Torah at the late age of 40 and by the age of 53 became

an honored teacher to multitudes thanks to his generous wife, Rachel, who supported the family while Rabbi Akiba studied. According to the ethical code *The Sayings of the Fathers*, *Pirke Avot*, Rabbi Akiba honored Rachel's graciousness by praising her and giving her precious garments to wear, including golden sandals for her feet and for her hair a golden tiara in the shape of the walled city of Jerusalem. As Rabbi Akiba told his disciples, "Many were the trials she suffered for my sake, that I might study Torah." Rachel's costume gift was visible, public signifier of her acquired dignity, inherent merit, and good name. Rabbi Simeon, also cited in the *Pirke Avot*, celebrated four crowns, the traditional three diadems, the crown of Torah, the crown of the priesthood, and the crown of kingship, and excelling them all, the crown of a good name.

Clothing to differentiate people by appearance was thought part of God's divine plan: If God had not distinguished men's taste, they would have envied one another. Had God not distinguished appearances, then women of Israel would not recognize their husbands and men could not recognize their wives.

The Jewish attitude toward clothing and fascination with beautiful costume may be explained partly on the basis of biblical and Talmudic teachings and partly as a result of internally- and externally-imposed sumptuary laws: When God created animals he endowed them with copious fur to protect them against the elements. Yet when God created human beings, he made the human body naked with only minimal hair. Jews praise God for creating the body by treating it with the gratitude, piety, and dignity that bespeak its holiness.

Hence Jews must cover the holiness of the body and protect it against both the natural perils of the sun, wind, rain, snow, and ice, and the human-made perils of fire, dirt, glass, malice, and accidents. Not any garment will do, however. Jews show their obedience to God by observing the law against *shatnez*—the mixing of fabrics. As it is written in the Torah, "You shall not wear combined fibers, wool and linen together." (Deut. 22:11). The Torah also states that men's and women's clothing must be clearly defined and describes cross-dressing as an "abomination": "Male garb shall not be on a woman, and a man shall not wear a feminine garment, for anyone who does so is an abomination of the Almighty" (Deut. 2:5).

Apart from these restrictions, splendorous dressing is a means of expressing gratitude for God's handiwork. It is a sign of the use of the God-given intellect by which humanity imitated God. Moreover, beautiful clothes are difficult to create and expensive to buy, and keeping them fit for wear is difficult. Special occasions such as the Sabbath, holidays, and weddings require a special wardrobe. God delights in seeing his creatures use their rationality, creativity, and ingenuity in creating beautiful clothes to wear as they remember, praise, and worship him. He appreciates art in praise. Clothing choice and fabrication are art forms, *hiddur mitzvah*, the art of holiness and the holiness of art.

Clothing serves not only to protect the body and to give thanks for God's creation. Wearing clean attractive clothes also demonstrates respect for other people. People judge one another by their clothing. As the Talmud says, "At home you know the name, abroad the costume" (Talmud B. Shabbat 145b). Relatives and neighbors who know one another can ignore outward appearances. But the person traveling abroad causes an impression by the clothes he or she wears. Clothing intimates character. When Joshua appeared unkempt before the angel of the Lord, the angel ordered him to remove his filthy clothes. He then said to Joshua, "See, I have taken away your sin and I will put rich garments on you" (Zech. 3:4). Hence the choice clothing, its care, and carriage of the wearer subtly demonstrate inher-

ent disposition and intrinsic attributes of the wearer. And upon death, the soul is separated from its physical garment and re-clothed in the pure, clean, spiritual garments of the Rabbinical Mantle, or spiritual body, *Haluka d'Rabbanan*. This is the true meaning of the "fine clothes" to which the angel referred when speaking to Joshua—the raiment of spiritual energy that those being led into paradise will wear.

Last but not least, fine clothing showed one's respect for God and for other people. But the tendency toward superfluous luxury had to be tempered with reason, with compassion, and with sumptuary laws. Sumptuary laws were more or less rigorously enforced rules and regulations governing clothing, food, entertainment, and articles of ostentatious display. Sumptuary legislation limited clothing design, fabrics, furs, colors, expense, and flamboyance. Sumptuary laws promulgated by Jews within Jewish communities, such as the laws of the Italian city of Forli, were intended to protect individuals from immorality of excess and to prevent the Jewish community from stimulating envy among non-Jews.

Costume as Cultural and Social Statement

Costume demonstrated the extravagant plenitude of medieval urban civilization, contemporary Mediterranean documents reveal a cornucopia of fabric names and textile vocabulary intimating the multiplicities of luxury. Twelve different types of silk were distinguished among more than 60 distinct classes of fabrics listed in the Cairo *geniza* documents, the storehouse of a Jewish synagogue that preserved such Jewish historical treasures as inventories for trousseaus, marriage, and divorce; business ledgers and ships' manifests; personal diaries and works of literature; sacred book fragments and profane texts. Commercial

notices dated between the seventh and 13th centuries identify 183 Arabic and Persian names for discrete fabrics.

Made from these multiple materials were varied styles and qualities of robes, coats, capes, shawls, caftans, tunics, leggings, tights, stockings, and shoes, and great profusions of hats and veils of various vogues, sizes, purposes, ornamentation, and materials worn by both men and women. Copious headgear names enrich medieval commercial vocabulary. More than half of the named garments in trousseau lists from the Cairo *geniza* are of headgear and veils, such as the woman's *mindil*, *bukhnuq*, *isaba maila*, *khimar*, *khirqa*, *miqnaa*, and *tarha*. Scholarly men also wore the *tarha* and *taylasan*.

Clothing was a symbol of wealth and the physical expression of it. Clothes were also portable property readily convertible to cash when traveling. In sites far from banks and credit, precious fabric items that could be easily folded, packed, and transported could be sold and transferred far more easily than real estate. Costumes, and tapestries, could be used to pay ransoms. Valuable costumes became cherished family heirlooms, displayed at holidays, worn for honorific occasions, and protected by legal documents when transferred at wedding by dowry and at death by will. Ceremonial items of attire, especially among Jews in Muslim lands, were ritually bestowed or received as robes of honor.

Sumptuary Laws Demarcated Social Status and Religious Affiliation

Christians and Muslims created sumptuary laws for the double purpose of demarcating social status and distinguishing religious affiliation both within their respective communities and with respect to members of other religions.

Humble clothing was the essential outward sign of the lay, friar, and monastic orders of voluntary, apostolic poverty that flourished in late medieval Christian Europe. Jews wore their own traditional ceremonial garb such as the *tallit* for prayer, for Jewish festivals, and for life's rites of passage such as weddings. In all cases, for wearer and observer, clothing allowed instant recognition of others from the same group to allow for association or avoidance. Anxious to differentiate insiders from outsiders clearly, Christian and Muslim authorities imposed sumptuary laws that readily identified the outsiders living among them.

While Jews obeyed dress codes of both their Christian and Muslim leaders, they had their own sumptuary laws that controlled flamboyance and ostentation in households, in community celebration, and in details of daily life. Rigorously enforced sumptuary rules and regulations governed clothing, food, entertainment, and articles of public display. Laws determined which furs, fabrics, silks, designs, and jewels could be worn; which were prohibited; when and where a person was free of sumptuary legislation; and how and when a person would be punished for violating the strictures. Remarkably, the city itself benefited from the fines for broken laws of Jewish self-government. In Italy in 1416 the Jews at Forli, for example, created the law requiring that no Jewish man or woman wear a cloak or hood of sable, ermine, or mixed furs, or of fabric colored red or violet. A fur-lined hood or cloak was acceptable so long as the fur was hidden, with no fur displayed on the outer covering. Women's fur-lined hoods and cloaks were permissible if worn indoors but not in public unless cloaks were covered with an overcape or garment completely hiding the fur. Any hoods or coats lined with fur must be designed and crafted to hide the precious pelts.

Moreover, no woman was permitted to wear a necklace or a gold hairnet on her head unless she covered it with a veil. Newly married brides might wear golden hair nets, however, but only for the 30 days after the wedding. Thereafter they, too, must veil their glittering hair cover.

Monetary fines for transgressing these laws on clothing and ornamentation were 10 silver coins or their value paid to the treasury of the city for each offense. Men were responsible for their wives' infractions of these rules. Anyone refusing to obey clothing ordinances was refused admittance to the prayer *minyan* and forbidden to read the Torah.

Similarly, in Valladolid in 1432, a synod of Castilian Jews promulgated the rule that no woman unless unmarried or a bride in the first year of her marriage could wear a gold brooch or one made of pearls, or a string of pearls on her forehead. Likewise, women were forbidden to wear dresses with trains on the ground beyond a precise measured length, nor fringed Moorish garments, nor coats with high collars, nor red fabrics. No son of Israel aged 15 or older could wear any cloak of gold thread, olive-colored material or silk, or any cloak trimmed with gold or olive material or silk, or a cloak bearing rich trimmings of olive color or gold cloth.

These prohibitions did not include clothes worn at the time of festivity, at the reception of a lord or a lady, at balls, or on similar social occasions. Jewish lawmakers, recognizing the diverse clothing customs among Jewish communities and consequent impossibility of fair and reasonable universal laws, authorized each community to make local sumptuary ordinances as they saw fit, the stricter the better.

Why did Jews create sumptuary laws? The Forli prelude to the 1416 regulations stated the intentions directly and typically: "We make the following decree to present ourselves modestly and humbly before the Lord our God, and to avoid arousing envy among the Gentiles." (cited in Finkelstein [1964] 292). Though heretofore accustomed to highly colored garb,

no Forli Jews, from inception of the decree in 1416 until the year 1426, were permitted to make a hooded cloak called a *foderato-cinto* unless its color was black. If open-sleeved, there was to be no silk lining showing. Any Jews already owning a *foderato-cinto* made in colored fabric, not black, could continue to wear the cloak until it wore out, provided that the sleeves were not open and the cloak was worn closed both front and back.

CHRISTIAN SUMPTUARY LAWS REGULATING JEWS

The same Pope Innocent III who supported King John of England during the debate over the *Magna Carta* announced in 1215 at the *Fourth Lateran Council* his two important goals, recovery of the Holy Land and reformation of Catholic life. As noted, this reform required Jews to wear distinctive dress. The council's 68th canon stated that in some church provinces a difference in dress distinguished Jews and Saracens from Christians, but in others there was great confusion and Jews could not be distinguished. Therefore at times it happened "through error that Christian men have relations with Jewish and Saracen women. And Jews and Saracens have relations with Christian women." To prevent uncertainty and to forestall future pretexts and excuses for "such accursed intercourse," the pope decreed that Jews and Saracens of both sexes in every Christian land at all times should be distinguished in the eyes of the public from other peoples by character of their dress. The pope thought this particularly correct for Jews because Moses in Numbers 15:37–41 imposed upon Jews a law of distinct dress.

Amusing confusions between Jews and the Christian clergy led to revisions of prohibited and required garments. The Council of Albi, for instance, had required Jews to wear round capes. But in 1254 the council forbade round capes to Jews because customarily Christian clergymen wore round capes and people greeted the caped clergy with appropriate deference and respect. Jews wearing round capes were so often mistaken for Christian clergy that they inappropriately garnered approval rightfully reserved only for Christian holy men. Henceforth, Jews were forbidden to wear round capes.

In 1396 Jews under the jurisdiction of King John of Aragon were required to wear a *gramalla*, a long outer gown or cloak or other garment reaching to the toes, and a yellow badge affixed to the breast. Majorcan Jews also wore a *gramalla* with a funnel-shaped cowl attached to the hood. The city of Cologne in 1404 required Jews to wear garments conforming to a minutely precise dress code. All sleeves on coats and jackets could not exceed half an *elle* in width. Collars on jackets and cloaks could not be wider than one finger's width. No fur could show at either neck or hem. Lace was permitted on sleeves only. Sleeve cuffs could not exceed the length of the hand. Coats were required to be fringed and reach the calves. Cloaks could not be opened on both sides and could not be floor length but rather hemmed to within a hand's width from the ground.

Men over the age of 13 were required to wear hoods as long as one *elle*, and a shoulder collar one and a half *elles* but not wider than one-eighth of the length. For both men and women, silk shoes were forbidden indoors and out. No child over the age of three could wear "open" clothing. A girl could not wear hair ribbons worth more than six *gulden* or of a width wider than two fingers. On nonfestival days, women were not permitted to wear more than one ring on each hand nor any ring valued at more than three *gulden* and could not wear gold belts nor a belt wider than two fingers. However, on festivals they were permitted to wear belts up to the value of two silver marks and two rings valued at six *gulden*.

In Valladolid in 1412 all Jews were required to wear long robes over their clothing down to their feet. They were not permitted to wear cloaks. In all cities, towns, and places they were required to wear distinctive red badges. However, the ruler King Juan of Castile (d. 1454) recognized that these distinctive clothes might put the Jews in danger while traveling. Therefore on the road the clothing restrictions were suspended and customary garments allowed. Nevertheless, all Jewish and Muslim women of the kingdom and its dominion were required to wear long, floor-length mantles with hoods. Anyone acting contrary to the rule would forfeit all the clothes on the body down to the undergarments. Within 10 days of the signing of the law, no Jew or Moor was permitted to wear a suit made of cloth costing more than 30 *maravedis.*

Punishment for a first offense was forfeiture of apparel down to the level of the shirt. For a second offense, the perpetrator would lose all clothing, to nakedness, and receive 100 lashes of the whip. A third violation of the sumptuary law would result in forfeiture of all personal property to the royal treasury. At the king's pleasure, however, Jews could fabricate new clothing out of old clothes they currently possessed.

Moreover, Jews and Moors were not to shave their beards or have them shaved with either razors or scissors, nor trim or cut their hair, but to wear them long and natural. Any acting contrary to this law would receive 100 lashes plus pay a fine of 100 *maravedis* for each transgression.

The Jewish Badge   Beginning with Pope Innocent's *Fourth Lateran Council* in 1215, Jews were required throughout western Europe to wear an identifying badge. Fashions varied according to city and date. Usually the Jewish badge was round, often yellow, resembled the letter *O*, and was worn on the chest. So common was this circle that it was called by its French name *rouelle*, worn by men, women, and children, usually stipulated as required from age seven on.

The Jewish badge was a good fund-raiser for municipalities. In some towns and cities Jews were required to purchase the badge, sometimes in multiples, because badges had to be worn on both front and back of a coat or on both cloak and hat. Elsewhere, Jews could buy their way out of the necessity to wear the badge, thereby exchanging money for the degrading nuisance of wearing the badge. The most valuable municipal use of the badge was in collecting fines for violation of the law. In some cities, definitive fines were established, posted, and enforced. Elsewhere fines depended upon the graciousness or viciousness of the prosecuting authority. In Barcelona in 1313, the penalty for not wearing the badge was either a fine or 20 strokes of the whip. Understandably, medieval Jews considered the badge, whatever its shape, the badge of infamy.

Informers who reported Jews who violated clothing statutes were rewarded with money, sometimes an equivalent of the value of the Jew's costume, and or with the Jew's clothing itself. In 1314 at Perpignan where Jews were required to wear a cape with a badge of contrasting color of cotton or silk worn on the middle of the chest, offenders forfeited their clothing and the informer received one-third of its value.

The ring-shaped badge that originated in France was first described in 1208. In 15th-century Grenoble, a badge with two colors was required to be worn by men on the chest and by women on the head. At Valence Jewish women wore their badge on their clothing. In Spain Pope Honorius III imposed a yellow badge upon all Jews in the year 1219. In 1313 Jews in Barcelona were required to wear yellow or red badges. In 1315 Ismail I, the Nasrid king of Granada (r. 1314–25) imposed a Jewish

badge as a distinguishing mark to prevent confusion with Muslims. When Enrique II ascended the throne as king of Castile in 1368 he vigorously enforced badge laws. In Aragon Pope Benedict XIII in 1415 imposed a red and yellow badge men wore on the breast and women on the forehead.

Portuguese Jews customarily wore a red badge with six points resembling a Jewish star of David, a *mogen David*. Italian Jews in the year 1222, under Holy Roman Emperor Frederick II, wore a blue badge shaped like the Greek letter *T*, whereas Jews in the Papal States wore a yellow patch if male and two blue stripes if female. Jews wore a star in Verona in 1433. At Palermo, Sicily, in 1488, red cloth cut to the size of a ducat coin Jews wore on the left side of garments at the level of the heart.

From the year 1218 English Jews residing in the kingdom of Henry III wore a badge resembling two "tables of the law," the *tabula*, consisting of two broad strips of white linen or parchment. In 1275 a statute required every Jew over age seven to wear a badge in the form of two tables made of yellow cloth, specifically six fingers long and three fingers wide. German Jews customarily wore their *Jewish hats* but as of 1434 the Council of Augsburg required a yellow badge on the breast. The *Jewish badge* and *Jewish hat* converged amusingly in Switzerland, where at Schaffhausen in 1435 each Jew wore a badge shaped like a *Jew's hat*.

Jewish Hats and the *Judenhut* Local ordinances on the *Jewish hat* were enforceable on authority of Pope Innocent III's canon law in 1215 as well as preceding council decrees. Papal interest in Jewish costume began prior to the ninth century. Describing Jewish fur-trimmed hoods and cloaks, a ninth-century writer reported that Pope Nicolas was strongly opposed to Arsenius, bishop of Orta, because of his effort to introduce Jewish fur garments into fashion, the *Judaicae peluciae*. The pope threatened to exclude Bishop Arsenius from the Palatine procession unless he vowed to discard the clothes of "the superstitious race" and agreed to walk in the procession wearing only the priestly hat called the *fillet*. The bishop who admired the Jewish fur-trimmed hood succumbed to papal sartorial authority.

Certain exclusively Jewish hats derived from canon law. In 1257 the pope required Jewish women to wear the veil with two blue stripes called the *oralia*. That veil rule was reconfirmed as law by the Council of Ravenna in 1311, and by the Council of Cologne in 1442. As did the *oralia*, the Jewish *cornalia* and the German *sendelbindel* or *riese* consisted of a pointed stiff veil or headdress, like the *hennin*, resembling a horn or steeple. Sometimes the hat having two peaks, a double-horned hat, was comparable to the *atour*. Another hat popular as synagogue gear in 14th- to 16th-century Germany was the *Viereckiger schleier*, a cap covering head and hair, featuring two stiffly starched square wings of white linen. Sometimes also required by law to be decorated with two blue stripes, as was the *oralia*, the *Viereckiger schleier* also was called the *square veil*.

For men, the *Judenhut* probably was the most common identifier of Jews in medieval art. Resembling an inverted martini glass, variations in shapes of Jew's hats from country to country and century to century nevertheless retained the basic pointed cone. The Jew's hat originally may have been a pointed cap similar to the Persian *kalansuwa* that in Muslim countries was required identifier for both Christians and Jews. The Jewish hat resembled the later tall pointed headdress called the dunce cap, named after the Scholastic philosopher Duns Scotus, and often was surmounted by a round knob at the pinnacle. Colored yellow, red, or white, the Jew's hat was mandatory costume. In the 13th-century German code of law, the *Schwabenspiegel*, Jews were required to wear the *Judenhut*, and that

Men and women wear typical 16th-century Dutch clothes, including the chaperones, collared capes, and Jews' hats—even in this feast for King Herod, where the head of St. John the Baptist is presented to Herodias. From a woodcut by Leyden, 16th century, Netherlands. Courtesy of the Metropolitan Museum of Art, New York. Harris Brisbane Dick Fund, 1925.

prescription was confirmed in the 14th-century *Sachsenspiegel* code.

In 13th-century Poland at Gnesen, as well as at Breslau, at Strasbourg, and in all of Austria, Jews were required to continue wearing the traditional pointed hat called in these laws the *pileus cornutus*. In Portugal King Alfonso IV (r. 1325–57) required Jews to wear a yellow hat or hood. In 15th-century Nuremberg, Jews wore a red *Judenhut* and later a *barrette*. Jews who disobeyed hat edicts and were caught wearing hats of current Christian fashions were punished with stiff fines.

Unlike the *Jewish badge*, considered a mark of infamy and degradation, Jews themselves celebrated the *Jewish hat* in manuscript art and in Jewish heraldry. In the coats of arms of Jewish families, the *canting arms*, alluding to the name of the family, for the names of Judden or Judei of Westphalia used three gold *Jewish hats* placed in triangular formation within a shield surrounded by Hebrew letters.

JEWISH CEREMONIAL GARMENTS

The *Tallit* Worn over the head and shoulders, the *tallit* in the Middle Ages, as well as today, was a prayer shawl worn by Jews during worship. Fringes called *ziziyyot* on the borders of the tallit were symbolic reminders to the wearer of the duty to observe all 613 commandments of the Torah. Numbers 15:3–41 established the wearing of those fringe reminders: "Speak to the children of Israel and direct them to make a tassel on the corners of their garments throughout their generations and to put on it a twined blue cord."

Ziziyyot fringes are biblical, though the *tallit* to which they are attached is not. Each *tallit* fringe is composed of four threads passing through a hole, doubled, twisted, and knotted at the four corners of the *tallit*. Jews wishing to wear fringes daily created a special garment called the *arba kanfot*, "the four corners," an undergarment worn under simple work tunic or extravagant ceremonial attire.

Though the *tallit* usually covered head and shoulders, sometimes it enwrapped the whole body, like a large shawl or ceremonial blanket. During wedding ceremonies, particularly in France, the *tallit* was used as a wedding canopy, a *chuppah*, spanning the head of both bride and groom during the marriage ceremony, simultaneously symbolizing their temporal home and their place in God's universe.

Not all observant Jews wore the *tallit* at prayer at all times. Medieval manuscript depic-

tions of the pious in communal prayer some-
times show worshipers and rabbis wearing the
tallit, sometimes only rabbis wear it, and yet
other times no one at all wears a *tallit*. For
major holidays, however, medieval Jews
wrapped themselves in the *tallit*, sometimes
worn only over the shoulders, sometimes cov-
ering the head, usually with the fringed end
thrown over one shoulder. By the 14th century,
it was customary to have a richly embroidered
band of design or inscription on that part of the
tallit covering the wearer's forehead, therefore
ritualistically a crown, called an *atara*. Gener-
ally woven of silk, cotton, or wool, the *tallit*
usually had stripes woven across the width, near
the edges, grayish brown in the 13th century,
later red, black, or blue.

Sabbath Clothes   The dress code for syna-
gogue consisted primarily of clean garments
and "good" clothes as opposed to work
clothes. Women and men wore overcoats and
capes whose extravagant fur linings and bro-
cade cuffs and collars carefully were hidden
during those periods when sumptuary laws
were strictly enforced and flamboyantly dis-
played otherwise. Women's Sabbath hats for
synagogue varied according to local fashion.
Scarves and veils were customary in Muslim
lands. In western Europe women wore hats
called the *oralia*, *cornalia*, *sendelbindel*, and
viereckiger schleier with two blue stripes. The
remarkable plethora of hat styles merits longer
lists and explanations, later. Men in western
Europe wore to synagogue the customary hats
of their era and city, such as the *chaperone* with
liripipe or the *barrette*.

Jewish badges and the *Jewish hat* sometimes
were worn to synagogue, other times not,
depending on whether in a particular time and
place the sumptuary laws were vigorously
enforced, rigorously obeyed, politely ignored,
or individuals or the total community bought
the privilege of freedom from wearing the dis-
tinguishing items by paying copiously for
independence.

Wedding Clothes   Neither bride nor groom
wore white. Wedding garb was as elegant,
graceful, colorful, and stylistically varied as local
fashion, individual wealth, and taste allowed.
Jewish moralists and Jewish sumptuary laws
railed against the dangers of extravagance at
weddings, warning Jews that ostentation leads
to notice, envy, and social reprisals.

Customarily the groom wore his most mag-
nificent Sabbath clothes as his wedding garb. So
did the bride. She, however, usually sported a
marriage belt fashioned from silver, gold, or
brocaded fabric with elaborate metal or jeweled
clasps. Some wedding belts were valuable
engagement gifts, called *sivlonoth*, exchanged by
bride and groom or as gift from parents. A 15th-
century bride in the Rhineland received a gold-
studded belt from her fiancé and a silver belt
from her mother. She also wore a *kurse*, a cape-
like short jacket, and a garland on her hair.

Pistachio green was a favorite color among
medieval Jewish grooms in the Muslim Medi-
terranean, symbolic of fertility and of the Gar-
den of Eden. Often both bride and groom
dressed according to the current fashion of
parti-colored clothes, *mi-parti*, in which two
colors, symbolic or whimsical, were used for
fabricating left half versus right half of a gown,
left leg versus right leg of tights, left side versus
right side of a hat. Medieval Jews, as did Chris-
tians, selected particular color combinations,
or specifically avoided them, because of their
association with family coats of arms and heral-
dic devices. The Jewish couple wishing to cele-
brate connection with a noble house selected
those house colors for *mi-parti* clothing and for
festive decoration.

In Muslim countries, medieval Jewish brides
customarily wore veils. Veiling for modesty
was not so common as veiling for historical
tradition, imitating the biblical matriarch

Rebecca, who covered her eyes before she met her groom. In both the East and West, women lavished attention on the bride's hair beneath the veil. Often a professional bride preparer would be hired to create a magnificent hair design. (*See* chapter 11, Holidays and Festivals.) For the poor bride as well as the rich, pre–wedding-ceremony rituals usually began with hairstyling. The bride preparer, the bride's matrons of honor, and her bridesmaids combed the bride's hair, fashioned symbolic braids, such as forming a figure eight to imply endless continuity of love, or clever, whimsical designs. They would cover her hair with a garland, fillet, or crown before placing the bridal veil on and accompany this ritual with songs, dancing, and games. In some wedding ceremonies, for all or part the groom alone or both the bride and groom wore over their flamboyant wedding garb a floor-length white linen high-necked coat called a *sargenes*. The *sargenes* or *kittel* was the Talmudically sanctioned garment pious Jews wore during the New Year celebration of the High Holy Days and especially on the day of atonement, *Yom Kippur*. The leader of the Passover *seder* also would celebrate wearing the *sargenes*.

***Brit* Clothes**   The same moralists and promulgators of sumptuary laws who castigated extravagant weddings also lambasted Jews for attracting invidious attention during the *brit milah*, the circumcision ceremony eight days after a baby boy's birth. Similar flamboyance marked the parents' and guests' costumes at *brit* celebrations as at weddings and, according to the sumptuary legislators, might incite envy and anger among non-Jews.

Mourning Garb   Medieval Jews apparently did not wear black for mourning the dead except in those times and places where they wore black routinely. In the 14th and 15th centuries, the darker, more restrictive, more pernicious the laws against Jewish life, the greater the tendency toward wearing black clothing. When Queen Maria of Aragon (d. 1456) attempted to force all Jews to wear black, her intentions were less sartorial then ecclesiastical. Furious that the Aragonese Jews refused to convert to Christianity, the queen ordered black clothing for them as symbolic of their dark, hard, stubborn, unrepentant hearts.

FASHIONABLE HATS AND HEADGEAR

In addition to Jewish hats by prescription, Jews wore the same fashionable hats and veils that were popular among the Christians of almost every European and Mediterranean country. Men and women wore them, young and old, rich and poor, laborer and scholar, in summer and winter. Jewish men and women followed local Christian and Muslim fashions in hat style, fabric, and distinctive method of presentation. When wealthy or noble Christian women in 15th-century France and Burgundy were wearing the stylish pointed, conical *hennin* headdress, whose mild to extravagant heights ascended according to the woman's social rank, so Jewish women adorned their heads with *hennin*-like hats made from stiffened silk or velvet with a veil flowing from the pinnacle. Jewish texts call the *hennin* the *cornalia* or *sendelbindel*. Similarly, when both men and women in Spain and Italy wore the graceful headdress hood, the *chaperone*, so did the local Jews. The tripartite chaperone consisted of a *roundlet*, a stuffed fabric circlet covered by a turban called a *garget*, which was folded lengths of fabric fulsomely wound around the head and culminating in a *liripipe*, the lavishly long fabric tail of the hat worn wound around the neck or swung over the shoulder, often ornamented with bells, fringe, or decorative precious stones. As with the height of the *hennin*, the length of the *liripipe* often signified hierarchical rank.

Although modern observant religious Jewish men routinely wear a *yarmulka*, a skullcap when indoors and outside, this head covering is not prescribed in the Bible. It may well be a custom acquired during the Babylonian exile and adapted and adopted by Oriental Jews. Western European Jews in the Middle Ages sometimes covered their heads in synagogue, sometimes not. French Jews did not use a head cover in the 12th century, nor later in France and Germany in the 13th century. Fourteenth- and 15th-century representations of worshipping Jews routinely show their heads covered in synagogue, with the styles varying city to city, sometimes a small cap, or *coif* also called a *cale*, or a hood such as a *capuchon.*

Outside the synagogue Jewish men and women wore hats as varied and flamboyant as wealth, social class, and courage allowed. Medieval Jews seem to have worn headgear as frequently or uncommonly as their neighbors living under jurisdiction of crescent or cross. The variety of Jewish hats and headgear surpasses the plenitude of overgarments and shoes represented in manuscript art, sculpture, the decorative arts, literature, and the commercial documents from the Cairo *geniza.*

Just as men and women in northern climates customarily covered their heads for warmth, so people in temperate and hot desert climates covered their heads for Sun protection. The number of veils and head shawls listed in the Cairo *geniza* documents demonstrates astonishing prevalence of headgear in various colors, designs, and styles for draping not only around and over the head and neck but the face. The yellow tripartite face veils called the *talthinas* were very popular among women in the 12th- and 13th-century Mediterranean. Judges in law courts also wore the *talthina*. Face veils offered protection against Sun, wind, and sand; when the appropriate section removed for indoor use, the veil served to signal dignity and station.

MUSLIM CLOTHING AND TEXTILES

As with the Christian and Jewish communities, dress and accessories were markers of identity and social status among Muslims. Clothing quickly distinguished men from women, rich from poor, nomads from city dwellers, Muslims from non-Muslims. Descendants of the Prophet wore green turbans. A turban with 12 folds indicated allegiance to the 12th Shiite imam. Muslim mystics were so identified by their distinctive coarse woolen cloak called a *suf* that they came to be called Sufis.

Though fashions varied from country to country and from century to century, two basic clothing traditions were distinguished in medieval Islam. In Arabia and the Mediterranean, people wore loose flowing robes made of lengths of cloth draped like togas on the body or sewn together with relatively little tailoring. In Iran and Central Asia, people wore close fitting garments outlining the shape of the body and limbs. Trousers and shirts were cut from lengths of cloth, carefully tailored, and sewn together. In certain periods styles merged and flowing robes were worn in Iran and tailored garments in Egypt.

Men wore the turban called the "crown of the Arabs." Women sometimes wore veils in public. At some times and places veiling was the fashion or the custom, the *urf*, but not a religious duty as part of *Sharia*. There was surprising variety in the way veils were used and what they signified: what part of the face, hair, or neck was covered, what was revealed; what social class the wearer belonged to, whether she was married or virgin, slave or free born. Likewise, there were wide variations in the age when a girl donned a veil, and what purpose

the headdress promoted: modesty, decoration, celebration, or mourning. In some countries men, such as the Tuareg and the Almoravid Berbers of North Africa, wore veils. There women did not.

Head covers for men and women in northern climates provided warmth and head covers in temperate and hot desert climates provided protection against the Sun. A large number of veils and head shawls were listed in documents of the Cairo *geniza*. Veils and headgear were worn in various colors, designs, and styles for draping around and over the head and neck, and across and around the face. Yellow tripartite face veils called the *talthinas* were very popular among Muslim and Jewish Mediterranean women in the 12th and 13th centuries. Judges in law courts also wore the *talthina*. Face veils offered protection against Sun, wind, and sand. Veils were worn indoors as well as out, and with the appropriate section of the veil removed for indoor use. The veil served to signal dignity and station.

Clothing Styles

FROM BEDOUIN AUSTERITY TO UMAYYAD SPLENDOR

Clothing in the time of the prophet Muhammad retained the simplicity that characterized the vestments of pre-Islamic Arabia. Two common garments were the *zeira*, a long, flowing garment fastened with a belt, and the *izar*, also called *azr* or *mizar*, a large, versatile unisex sheetlike wrap that could be worn as a loincloth, mantle, or waist cloth. Generally speaking the complete wardrobe of men and women consisted of an undergarment or *izar*; a body shirt (*qamis*); a long dress, gown, or tunic, generically known as a *thawb*; a mantle or cloak as outerwear; and a head cover. Footwear was simple as well, usually sandals (*nal*). Under the influence of Persia, Arab men and women also adopted the *sirwal*, a type of pantaloon or long billowing trousers. An outer garment popular in Syria was the *jubba*, a woolen tunic with narrow sleeves.

Modesty and austerity were the guiding principles of dress during the Prophet's lifetime. Many hadiths attest to his urging modesty for men and women in public. Muhammad is said to have forbidden seven things: silver vessels, gold rings, garments of silk, garments of brocade (*dibaj*), the *kassi* (a striped Egyptian fabric made of silk), garments of satin, and tanned hides. He expressed a preference for the simple *izar* over the more decorative black *khamisa* cloak with its richly embroidered borders. The Prophet's penchant for modesty in seen in the following anecdote: He once received as a gift a robe made of fine silk, wore it, even prayed in it, then suddenly threw it off as loathsome, saying that the God-fearing should not wear silk in this world but that they would be adorned with in paradise (N. Stillman, "Libas," *Encyclopedia of Islam*, 1999, 732a). Muhammad is most often associated with wearing a green wide-bordered woolen cloak of Yemeni design called a *burda*. Hadiths depicting Muhammad draping his *burda* over his family or bestowing a *burda* as a gift to his favorite poet would be immortalized in poetry and legend.

In addition to covering the body, clothing had important social uses. Clothes were customarily given as gifts to show one's appreciation or esteem. Despite his own austerity, Muhammad is said to have bestowed valuable items of clothing on his followers as a sign of favor—a custom that would be taken to unimaginable heights under the Abbasids and the Fatimids. Clothing formed a major component of women's dowries. Clothes could be used as currency in lieu of cash in order to purchase basic or luxury items or to pay the prescribed *zakat* (alms tax). Garments were important items of war booty.

RITUAL CLOTHING

The ritual purity required for prayer, quranic and Hadith recitation, and performance of the greater and the lesser pilgrimages (hajj and *umra*, respectively) applied not only to the body but also to one's clothing. While no particular item of attire was prescribed for ritual performances by law, a devout Muslim should ideally wear clean clothing and sprinkle the body with musk when going to the mosque or engaging in prayer. She or he should remove shoes from the feet when praying as a sign of humility and to protect oneself and God's house from the impurities on the soles of the shoe.

Even in later periods from the Umayyad dynasty onward when luxurious and opulent fashion became the order of the day and the measure of social status, wealth, and refinement, a pilgrim on the hajj to Mecca was required by law scrupulously to observe the ritual *ihram* ("consecration"). As noted in chapter 11's description of the Muslim hajj, after performing the special ablutions, all men regardless of their rank wore two seamless white garments—white, the color of purity—the *izar* cloth wrapped around the loins and the *rida* cloak draped over the upper body. Men's heads must be bare—the bare head was the ultimate sign of humility—and the feet dressed only in simple sandals or backless shoes. While no particular garb was prescribed for the woman pilgrim, she was expected to wear plain, modest attire such as a long sleeved, full-length tunic; to cover her hair and breast with a veil; and to use no perfume.

Pilgrims of all classes and distinctions usually wore amulets hanging from or sewn into their clothing in order to assure divine protection while traveling. In fact, the wearing of amulets was a long and venerated custom throughout Mesopotamia, the Mediterranean, and North Africa retained from pre-Islamic times. In the Islamic period, however, amulets, whether made of shells, stone, cloth, or other materials, typically had verses of the Quran, litanies to God or the prophet Muhammad inscribed upon them. Caliphs and the nobility, elegant urban men and women, traders and merchants, soldiers, rural people, pregnant women, and even the savviest religious scholars wore amulets for protection from the evil eye, while traveling or going off to battle.

Menstruating women wore a special garment in imitation of the custom of the Prophet's wives. While there was no official mourning garb, one was expected to wear one's oldest and worst clothing as a sign of mourning. The law did prescribe that the dead be buried in a seamless white shroud and some pilgrims chose to be buried in their *ihram* garment. Islam prohibited women in mourning to wear dyed clothing. Conversely, new and brightly dyed clothing was associated with joyful celebrations, be they marriage, the birth of children, the circumcision of baby boys, or religious festivals such as Feast of the Breaking of the Fast (*Id al-Fitr*), which ends the month-long Ramadan fast; the celebration of the Prophet's birthday, first endorsed in the 10th century by the Shiite Fatimids.

CLOTHING COLOR AND RELIGIOUS IDEOLOGY

The second Abbasid caliph, Abu Jafar al-Mansur (r. 754–775), is said to have instituted the color black as the symbol of the Abbasid dynasty and the color to be worn at official ceremonies. The Shiite Fatimids chose green as their official color in remembrance of certain hadiths stating that it was the Prophet's favorite color and the color of his famous *burda* cloak with which he had draped Ali, Fatimid, and their sons, Hassan and Husayn. Green was also the color of the *sharifs*, persons, Sunni or Shiite, who derived their nobility (*shurf*) from their descent from the Prophet's family. Indeed,

during the reign of the Abbasid caliph al-Mamun (r. 813–833), green was briefly imposed as the official state color in order to vindicate their claims of descent from the Prophet.

Among the Shiites it became customary to wear black as a sign of mourning during the observance of Ashura, in commemoration of the 10th day of the month of Muharram when the Prophet's grandson, Husayn, was murdered by the Umayyad ruler Muawiyya in 661. In Umayyad Spain and elsewhere in the Sunni world, however, Muslims showed their rejection of Shiism by joyfully celebrating Ashura as a great festival of divine forgiveness by spending generously on the household, donning one's finest attire, and giving gifts of expensive new clothing and delicious food.

UMAYYAD *TIRAZ* AND SUMPTUARY LAWS

The establishment of the Umayyad caliphate and the transfer of the Islamic capital out of Bedouin Arabia to urbane Damascus provoked indelible changes in culture, fashion, and overall sense of aesthetics. Umayyad legitimacy, power, nobility, and ideology were now to be manifested in the use of clothing and luxurious fabrics, institutionalized by the establishment of *tiraz* factories for fabricating embroidered garments (discussed later).

In the Arabia of the early Islamic period Arab clothing was clearly distinguishable from the attire worn by non-Arab Jews, Persians, and others. Under the Umayyads, however, the urbane taste for fine clothing was shared by Muslim, Jews, and Christians alike, provoking the caliphs to introduce unprecedented sumptuary laws (*ghiyar*, literally, "laws of distinction"). The *Ahl al-Dhimma*, the Jews, Christians, and Zoroastrians, were forbidden to wear Arabo-Islamic headgear such as the turban (*imama*) and the *taylasan* head wrap. They also were required to wear distinctive belts called *mintaq* or *zunnar*, around their tunics.

While the sumptuary laws seemed to have been enforced under the Abbasids as well, the information obtained in the Cairo *geniza* records clearly indicates that they were not applied in Fatimid and Ayyubid Egypt (10th to mid-13th centuries). Jewish, Coptic, and Muslim women wore the same attire and there was no specification of difference in the fabrics or colors that could be used. All dressed in the same fashionable *tiraz* embroidered garments such as the *bukhnuq*, *isaba maila*, *khimar*, and *khirqa*, and all covered their heads and faces with the *miqnaa*, *mindil*, *tarha*, and other styles of veils, shawls, and scarves. The Mamluks appear to have enforced the sumptuary laws more vigorously than their Ayyubid and Fatimid predecessors.

ABBASID REFINEMENT AND GOOD MANNERS

The aesthetics of artistic refinement, good manners, and impeccable taste that was the subject of much of the *adab* (belles-lettres) literature of the Abbasid golden age was paralleled in the new attention accorded clothing and costumes. Gone were the last vestiges of the modesty and simplicity that were the leitmotifs of proper dress in the time of Muhammad and the first generation. Under the influence of the tasteful Persian secretarial class, the Abbasid nobility and the bourgeoisie who imitated them now draped themselves in intricately decorated silks and satins, made possible in large part by the introduction and production of new embroidered fabrics and garments, collectively known as *tiraz* (*see* under textiles).

When the Abbasids seized power from the Umayyads in 749–750, they came riding in on horseback bearing black embroidered banners. Black was the color of Abbasid robes of state.

Abbasid caliphs such as Harun al-Rashid wore elegant caftans made of Tustari silk imported from Persia, distinguished by their gold and silver brocade (*tiraz*) and sleeves that buttoned in the front. Caliphs and nobles wore on their heads the *kalansuwa*, the high conical hat fashioned out of a wicker or wooden frame and covered with colorful silk, another Persian import.

Clothing and dress did not escape the attention of the writers of *adab* (belles-letters). One Abbasid man of letters, al-Washsha (d. 936), has left a vivid record of the fashionable outfits of the bourgeoisie. His *Kitab al-muwashsha wal-zarf wa l-zurafa* (*The Book on Elegance and Elegant People*) is a veritable "how-to" of fine dress: The fashionable man should outfit himself with several layers of clothing, starting with an undershirt (*ghilala*) over which he wore a heavier lined shirt (*qamis mubattan*), both made of the finest linen from Egypt or Persia. Over his *qamis* he should wear a *jubba*, a long tunic made of the finest silk, linen, or *mulham*, a novel combination of silk and wool. In public the man of honor donned his *rida*, the cloak hallmarking his honor and rank, and covered his head with a turban with its silk *taylasan* draped about it. The man of good taste should be clean, his body perfumed—but not his clothing, as was the custom of slaves—his clothing, spotless and of harmonious colors. His shoes or sandals must be of fine leather, and sporting a shoe of a different color on each foot was particularly popular.

Al-Washsha described the elegant woman as wearing as her undergarments a smoky gray colored *ghilala* shirt and gray or while *sirwal* pantaloons. She avoided white outerwear at all costs—white was the color of masculinity. Her long colorful dress should have wide sleeves and a round collar fastened by a drawstring. Only an outer wrap (*rida*) made in Rosetta in Egypt or Tabaristan in Iran was good enough to cover her body. She covered her head with a *mijar*, preferably black, and draped her face with a veil (*miqnaa*).

FATIMID COURTLY SPLENDOR

Clothing took pride of place in creating the unrivaled splendor, pomp, and ceremony that characterized the Fatimid dynasty. As the descendants of the Prophet through his son-in-law, Ali, and his daughter, Fatima, through splendorous clothing and adornments they visibly indicated their noble rank. Every official, every member of the court received a sumptuous wardrobe of ceremonial clothing fashioned out of the finest silk, linen, and brocade. The preferred color for their ceremonial robes was white ornamented with gilded and silver threaded embroidery, symbols of the divine light that illuminated from them. Shiite lore claims that the divine light that God cast upon Muhammad, Ali, Husayn, and his successors also dwelt within the Fatimid rulers. Each member of the imperial retinue wore a precious turbaned headdress (*imama*), but none equaled the majesty of the caliph's headgear, known as the "noble crown" (*al-taj al-sharif*). The noble

Shown here is a pair of 11th-century golden earrings. HIP/Art Resource, NY.

crown consisted of an enormous jewel-bedecked turban (*shashiyya*) around which was an enormous *mandil* wrapped in a way unique to the caliph and centered on the caliphal crown was an enormous solitary jewel (*yatima*).

WOMEN'S WEAR: MECCAN GARMENTS AND PERFUME

The 14th-century world traveler Ibn Battuta described Meccan men and women as very elegant and clean in their dress. Most wore white garments that looked fresh and snowy. Meccans used a great deal of perfume and kohl. They also freely used toothpicks of green arak wood. Meccan women were extraordinarily beautiful, pious, and modest. They made such great use of perfume that they preferred to go to bed hungry in order to buy perfume with the price of their food. They visited the mosque every Thursday night, wearing their finest clothes. The whole sanctuary was saturated with the smell of their perfume. When a perfumed woman left the mosque the odor of her perfume clung to the place long after she was gone.

TURKISH WOMEN'S CLOTHING

Ibn Battuta described the opulent clothing of 14th-century Turkish women, who were so revered by their husbands that they seemed to hold more a dignified position than the men. Near Qiram Ibn Battuta saw the Turkish princess, wife of the *amir*, traveling in a wagon covered with rich blue woolen cloth, with the windows and doors of the tent open, accompanied by four maidens, exquisitely beautiful and richly dressed, and followed by more wagons with women in her entourage. When they arrived at the *amir*'s camp, 30 maidens carried the train of the princess's gown, which had loops that lifted the train off the ground to enable her to walk with elegant stateliness. The *amir* arose to greet her and she sat beside him and poured a beverage into a cup for him, which she presented as she knelt before him. They then ate together, and the *amir* then gave her a ceremonial robe before she withdrew to her quarters.

Likewise Ibn Battuta observed that a wife of a merchant or common man would travel in a horse-drawn wagon attended by three or four maidens to carry her train and wear on her head a conical headdress encrusted with pearls and topped by peacock feathers. Since the windows of the tent were open her face was visible, for Turkish women did not veil themselves. If a woman was accompanied by her husband, his dress might mark him as her servant for he wore only a sheep's wool cloak and a matching high cap.

SUF AND *KHIRQA*, THE GARB OF THE MYSTICS

Before going on to speak of the magnificent tradition of textile fabrication introduced by the Umayyads, a final word must be given to the attire of the Sufi mystics and ascetics. Some four centuries before the voluntary poverty movement emerged in 12th-century Christian Europe, Muslim ascetics, scandalized by the opulence and vanity of the Umayyads and the Abbasids, began showing their yearning for the austerity, humility, and simplicity of the Prophet's generation by clothing themselves in sober garments made of wool (*suf*). Of course wool, as the cheapest and most available fabric, had always been worn by the urban poor, rural dwellers, and Bedouins. But the ascetics and after them the Sufi mystics would make the poor woolen garb their garment of glory, in imitation of a famous saying by Muhammad that "my poverty is my pride."

Hagiographic dictionaries make frequent mention of the clothing as a sign of the renunciation of the world. One 12th-century Andalusian account tells of the jurist Abu l-Rabi Sulayman al-Jazuli, who was "a powerful and

influential emir of his country. . . . He resigned from his position, no longer mounted a horse or carried a sword, and dressed in complete humility in the poorest rags" (Meier, 1999, p. 435). A 14th-century hagiographic notice of the renounced Sufi judge and preacher Ibn Abbad of Ronda depicts him perfectly imitating the prophet Muhammad's custom and wearing his favorite color, green:

> His greatest enjoyment from the mundane world was perfume and much frankincense. He undertook the matter of serving himself by himself, for he did not marry and he did not have a maid. At home he wore rags and tatters but if he went out would cover them over with a green or a white burnoose. (Ibn Qunfud, 1965, p. 79)

Thus while caliphs, the aristocracy, and the bourgeoisie glorified their status and wealth by draping themselves in stunning embroidered attired, the ascetics and Sufis wrapped themselves in woolen mantles and rags of poverty and humility.

Textiles and Colors

Fabrics and cloths were so important to the history of Islam that the culture itself has been described as draped, as in the scholar Golombek's title *The Draped Universe of Islam*. Textiles protected people from the Sun and provided warmth in winter. They covered and defined spaces. A single space could have multiple functions depending upon the way textiles were spread or hung. Rugs were spread on floors. Curtains and other hangings adorned walls. Strung on a cord or wire across a room, a curtain separated space for functions as if by walls. While furniture in western Europe usually elevated people above the floor on sturdy materials such as wood, furniture in the Islamic world indicates that human actions were best performed on the floor with the help of fabrics.

Portable fabric storage sacks functioned in place of trunks, seat cushions and back bolsters in place of chairs. Tablecloths might be spread on the floor for meals. Diners sat on the floor and served themselves from communal trays perched on a low stand. After dinner ended, the tablecloths were removed. Rugs, blankets, and bedspreads then could be placed on the floor for sleeping. Carpets were so admired for their warmth, softness underfoot, and beauty that stone mosaic pavements sometimes imitated carpets. In the early Umayyad palace of Khirbat al-Mafjar near Jericho, the beautiful mosaic in the *diwan* had *tesserae*, or tiles, set to imitate a carpet with fringe.

Textiles were important to all social classes. Nomads used fabrics for clothing, furnishing, carrying of goods, storage, and shelter. Tents were sturdy portable houses with rigid supports sustaining a cloth cover. Two basic tent types in the Muslim world were the Middle Eastern tent and the Central Asian tent. The typical Middle Eastern tent had poles supporting a fabric covering secured by ropes. The typical Central Asian tent was a self-supporting wooden lattice covered with felts. Within either type of tent, space was partitioned into men's and women's zones by textile hangings. Nomad tents used for royalty increased the size, splendor of fabrics, and opulence of floor coverings and fabric furnishings. The great Mongol conqueror Timur or Tamerlane (d. 1405) erected tent cities for his court.

THE SACRED *KISWA* OF THE KAABA

Textiles were important from the earliest days of Islam. A holy veil called the *kiswa* covered the Kaaba in Mecca. The veil draped over the holy Black Stone of the Kaaba, a venerated black meteorite thought to belong to the original pre-Islamic structure, had political as well as religious import. Rulers fought for the right to supply the veil, because it was an honor and

sign of their sovereignty. The *kiswa* fabric could be any one of several colors, including white, green, or red. (Nowadays the Kaaba is veiled in black cloth with bands of inscriptions from the Quran woven in gold.)

In Muhammad's time each new *kiswa* was draped on top of the previous one. During the caliphate of Umar (r. 634–644), the Kaaba was threatened by collapse from the weight of all the coverings draped over it. The *kiswa* veil probably symbolized a sacred tent. A parallel could be found in Jewish tradition, for the Israelites made a beautiful tent for the Ark of the Covenant (cf. 2 Samuel 6:17), where it was said that God himself dwelled.

Luxurious textiles are well known from legal documents in seventh-century Arabia. The Quran and the hadith referred to sumptuous materials and their decoration. The Quran described voluptuous silks adorning the virtuous in paradise: The garments of the virtuous will be made of silk (suras 22:23 and 35:33). The virtuous will recline on carpets lined with rich brocade (sura 55:54). Because silk was associated with paradise, most schools of Islamic law prohibited men on Earth from wearing silken garments next to the skin. Some legal theorists permitted textiles of silk mixed with another fiber, such as the hybrid *mulham*, while others allowed silk cushions, prayer mats, and silk outer garments, so long as another fabric intervened between the silk and the skin.

Decorated fabrics were associated with Hadith traditions from the Prophet's life. One story in the Burkhari collection described Muhammad as surprised when his wife Aisha hung a curtain decorated with figures of animals and birds. The Prophet exclaimed that those who imitated God's creative acts will be severely punished on judgment day. Aisha took down the curtain and cut it up to make it into cushion covers. That pleased the Prophet. Some scholars interpreted this as proof that figural decorations were dangerous and caused idolatry. Other

scholars viewed this as proof that elegant fabrics existed in Muhammad's household and whatever Muhammad did was worthy of imitation.

Moreover, the Prophet himself used the cosmetic kohl to decorate and protect the eyes. When the 14th-century traveler Ibn Battuta visited Upper Egypt, hoping to cross the Hijaz, he stayed at the monastery of Dayr at-Tin, which housed illustrious relics of the Prophet—a fragment of his wooden basin and the pencil he used to apply the cosmetic kohl. There also was the awl the Prophet used for sewing his sandals.

MUHAMMED'S CLOAK, THE *BURDA ODE*

Many legends surround the cloak (*burda*) that the prophet Muhammad wore. In the rebuilding of the Kaaba textiles were related to honor. Workmen had removed the venerated Black Stone from its place during reconstruction work. When ready to reinstate it the workmen erupted in a quarrel over who should have the honor of repositioning the sacred relic. The laborers decided to honor the first passerby. Fortunately Muhammad arrived, gently placed the stone in his cloak, and gave one corner each to the head of each tribe to carry the sacred stone.

The Quran relates that one morning the Prophet wore his black cloak while he went walking and encountered his daughter, Fatima; his son-in-law, Ali; and his grandsons, Hassan and Husayn. He took them all under his *burda*, hugged them, and said, "People of the House, God only desires to put away from you abomination and to cleanse you" (Sura 33:32). The Shiites customarily interpreted this incident as demonstrating the right of the Prophet's family to lead the Muslim community.

In another tradition the Prophet gave his *burda* to his follower, the seventh-century poet Kab ibn Zuhayr, as a reward for a poem he wrote. The Umayyad caliph Muawiya I (r. 661–680)

bought that cloak from the poet's son, kept it in the treasury of the Abbasid caliphs in Baghdad, and only lost it when the Mongols conquered the city in 1258. Some scholars claimed that Muhammad's *burda* was burned, others that it was saved, but it eventually reappeared as a relic in the treasury of the Ottoman sultans in Istanbul.

The holy garment was immortalized in a poem composed by the 13th-century Egyptian poet Sharaf al-Din al-Busiri after he was miraculously cured of fatal illness when the Prophet appeared to him and draped the *burda* over the poet's shoulders, as once he had for the poet Kab ibn Zuhayr. The ode to Muhammad's *burda* was a renowned poem in Arabic. The ode was thought to convey the cloak's blessing (*baraka*) to all who heard it.

WOOL, LINEN, COTTON, AND SILK FABRICS

Four major textiles used in the Islamic world were wool, linen, silk, and cotton. Each had its own history, source, and production techniques. Wool apparently was native to the Mediterranean, as was linen. Cotton and silk were imported from Asia. Wool was one of the most versatile and important fabrics to Muslim economies. Shorn from sheep, goats, and camels, the sheared fleece was cleaned, carded, combed, then spun into long threads and thereafter woven into fabrics. Nomads, farmers, and town dwellers used almost all parts of a sheep. Wool was shorn from the animal's undercoat. Its skin made leather for shoes and book bindings. Its flesh was eaten, its milk churned into cheese, and its excrement use to fertilize crops.

Linen was far stronger than wool though more difficult to prepare and harder to color with dye. Fabricated from the flax plant, flax stalks were dried, fermented in warm water, then pounded, combed, and spun into threads. Great amounts of water were required for linen

production. Since linen fibers rotated naturally to the left they were usually spun counterclockwise, producing an S twist. This became characteristic of Egyptian fibers. Elsewhere, fibers were spun with a clockwise or Z twist. In the fifth century before the Common Era, the Greek historian Heroditus already had noted the unusual quality of Egyptian spinning, and Egypt was a major center of linen production. Linen also was produced in Syria, Mesopotamia, Sicily, North Africa, and Spain.

Cotton was a plant fiber harvested then spun. Native to India, cotton was introduced as early as the first century in Central Asia and cultivated in large oases near rivers. Cotton was grown in Mesopotamia under the Persian Sassanians (third to seventh centuries) and became a major manufacture in the Mediterranean after the Muslim conquest. Iraq, Syria, Palestine, and Yemen were important Muslim cotton-producing centers. Cotton usually was glazed or starched to produce a smooth surface for decoration.

Silk was produced by silkworms' spinning cocoons that when unraveled released a fine filament that was twisted with other filaments to create a thread, and then woven. Mulberry trees provided the silkworms' food. Silk production, sericulture, thrived where mulberry trees were cultivated. The secret of silk culture was smuggled from China to Central Asia, India, and then Persia. Silkworms were cultivated in Persia under the Sassanians and in northern Syria as early as the sixth century. The Byzantine emperor Justine I (r. 527–565) was said to have induced two itinerant monks to hide silkworm eggs and mulberry seeds in their hollow walking canes in order to smuggle these essentials for silk production from Central Asia to his capital city of Constantinople.

Soon silk manufacturing in the Byzantine Empire was a state monopoly, as earlier it had been in China. Syria evolved as its major center of production. When the Muslims conquered Syria in the seventh century, they increased silk

production and silk profits. Silk was introduced to Spain by the ninth century and to Sicily by the late 11th or early 12th century.

Significant commodities in international trade, silk thread, silk cloth, silk textiles, and silk finished goods were among the most important exports from the Muslim world. Silks were shipped overland along the silk routes through Central Asia, Iran, and the Fertile Crescent to the Mediterranean. In the 14th century weavers of the Italian city of Lucca gained sufficient skill and excellence to break the Islamic monopoly on silk production.

EGYPTIAN COLORED LINEN, ELEGANT TURBANS, FABRIC SHOPS

Egyptian colored linen was so highly valued that the Persian poet and traveler Nasr-i Khus-raw (d. c. 1078), who visited the fabric manufacturing town of Tennis, meticulously described in his *Safarnama* linen woven in the royal workshops that was so precious that it was not to be sold to anyone. Even kings could not buy it. The king of Fars tried to buy one suit of clothing of the special Egyptian material and sent 20,000 dinars to Tennis through his agents, who remained there for several years but returned home empty-handed. Nasr-i Khusraw himself observed the extravagant turban woven for the caliph that was estimated to be worth 4,000 dinars. So elegant and refined was cloth making in Egypt, and so great the moral authority of the caliph, that fabric sellers, as did others who dealt in precious commodities, moneylenders, and jewelers, did not have to lock their shops. They merely lowered a net across the front to indicate the workday was done. No one dared tamper with anything.

MULHAM, HYBRIDS, AND DYES

Fabric combinations were important in Muslim trade. A diaphanous fabric called *mulham* or half-silk combined raw silk with cotton. Egyptian linens often had wool or silk bands woven into the fabric. Mesopotamian cottons usually were embroidered in brightly colored silk. Woolen rugs sometimes were knotted on cotton for extra strength. An annual cloth market in Jiddah, situated the port of Mecca, encouraged trading of Egyptian linen for Indian cotton.

Dyes were associated with their regions of origin. Most dyes were derived from indigenous, natural substances, though imported when necessary. Saffron from crocuses provided yellow. The herb madder created red. Vibrant reds were derived from the insect kermes, cochineal, and lac. Indigo leaves created a bright blue dye. Minerals such as copper provided verdigris, green. Gold and silver were wrapped in filaments with silk.

Chemical mordants made the colors fast. Alkali fixed the color of golden saffron. Sumac and gall nuts were used for both dyes and mordants. Bleaches, niter, and quicklime degreased wool, and starches helped finish the fabrics and glaze them. Fullers earth made wool soft and cleaned it.

WEAVING LOOMS

"Horizontal" and "vertical" looms were commonly used in the Muslim world. Nomadic tribes preferred horizontal looms because they were easily collapsible and portable, although they created relatively narrow woven strips. Large fabrics were created by sewing multiple strips side by side. Vertical looms were used in towns and cities. Excellence of fabric was determined by fiber, thread thickness, and weaving techniques. The sturdiest fabrics, meant for tents and transport bags, customarily were woven of wool and goat hair. Veils and shawls and rich fabrics often combined silk and cashmere, the hair from the underbelly of the Kashmir goat. Carpets were woven from wool and silk, knotted into a woven substratum. An early

wool carpet discovered in the ruins of Fustat (Egypt) had six colors, and a medallion with a stylized sharp-clawed four-legged animal and was woven with Z-spun warp and weft. Though in Egypt S spinning was traditional, the old carpet might have been imported.

Felt was created by matting wool fibers by pressure, heat, and moisture. Felting was important for making camel blankets and tents. In Central Asia, even before fabrics were spun and woven, felting was a major fabric technique.

IKAT AND FABRIC MOSAIC

Stripes and checks in woven fabrics were created by coloring individual threads with dye before weaving them. *Ikat* was a common technique in the Islamic world, in which the warp and sometimes weft threads were tie-died to create patterns when woven. Popular in Indonesia, central Asia, and Yemen, it originated in India. Spectacular cotton fabrics were made at Sanaa, capital of Yemen, in the ninth and 10th centuries. Cotton warps were dyed blue and brown before weaving and then woven with natural cotton wefts, creating a typical variegated stripe. Yemeni *ikats* often were decorated with embroidery or painted with gold with inscriptions blessing the owner.

Mosaic pattern decorations were created during weaving of tapestry by using discontinuous wefts that were woven around a few warps to create a small area of many colors. Bands and medallions with animals, birds, and inscriptions were woven and added to plain linen fabrics. Compound weaves utilized two or more sets of warps and wefts simultaneously. Compound weaves allowed complex figural patterns to be produced in several colors. Fabrics from Egyptian graves such as Akhmim in Upper Egypt preserved Greek and Coptic names, implying they were made for the Christian market. Others with Arabic inscriptions also were excavated. Other decorations were added after weaving. Throughout the entire piece of fabric or only on sections of the fabric, parts of the design were covered with black to prevent the dye from penetrating into that part, as in the batik or resist-dye technique. Then other designs were painted or block printed on the fabric. Embroidery or sewing in various colored threads on the finished fabric or appliqué embellished pieces of textile that were sewn in patches, forming elaborate patterns.

KHILA

Manufacturing and trading textiles were significant to Islamic economy and Islamic art. Large numbers of people were employed to create in textiles those items that in the West graced households and public places fabricated of wood and other sturdy materials. Specialized textile manufacturing took place in royal cities for the production of tribute and honor garments called *khila*. Textiles were diplomatic gifts. Robes of honor, *khila*, were rewards for high officials and court favorites. Yearly gifts as well as celebratory gifts of fabric garments were common.

Other manufactures of textile art were sold in the *suqs* and exported by caravan and ship to a world glad to pay for Islamic fabrics that could be crafted into European costume styles or for finished goods in cushions, bolsters, carpets, blankets, curtains, embroidered wall coverings, tapestries, tents, horse blankets, and other items for practical purposes and ostentatious display. Wealth bought specific colors, weavings, embroideries, and fabulous silks.

Moreover, the caliphs, and from 1250 onward the Mamluk sultans, had the privilege of providing a new *kiswa*, the ornamental cloth or veil covering the *Kaaba* at Mecca. The fabrication of the *kiswa* provided opportunity for employing numerous fabric makers and decorators at the court textile factory.

TIRAZ

The Umayyad caliphs who reigned between 661 and 750 established large palace weaving factories called *Dar al-tiraz* (House of Embroidery). *Tiraz*, from the Persian and Arabic words meaning "inscription," were bands of linen or other cloth embroidered with inscriptions. *Tiraz* was reserved for royal purposes. The most common type of *tiraz* embroidery was the long band inscribed with a ruler's name, and often the place and date of manufacture. Fabrics were made in state workshops for distribution by the ruler to his court. Apparently the caliph provided cloth for clothes for both summer and winter garments. The *tiraz* system expanded under the Abbasids, who established factories in Central Asia, Mesopotamia, and Egypt in order to clothe their enormous retinues.

Some embroideries were in silk on cotton; others on *mulham*, the combination of cotton and silk; or on linen. Large numbers of people were involved in every aspect of making *tiraz*, from the creation of the raw materials from which thread was spun to weaving of cloth, design and fabrication of cloth into garments, then cleaning, storing, and bestowing of *tiraz* garments upon those selected.

The estate of the caliph Harun al-Rashid (d. 809) consisted of 8,000 coats, 400 lined with sable or other fur, 400 lined with figured cloth; 10,000 shirts and tunics; 10,000 caftans, 2,000 trousers; 4,000 turbans; 1,000 hooded cloaks; 1,000 outer capes; and 5,000 kerchiefs. Other furnishings made of fabric included 1,000 Armenian carpets, 4,000 draperies, 5,000 cushions, 5,000 pillows, 1,500 silk pile carpets, 100 silk spreads, 1,000 silk cushions, 300 carpets from Maysan, 1,000 carpets from Drabjird, 1,000 brocade cushions, 1,000 cushions made of striped silk, 1,000 pure silk drapes, 300 brocade drapes, 500 carpets, 1,000 cushions from Tabaristan, 1,000 small bolsters, and 1,000 pillows. Since Islamic law required burial in a plain white shroud, Muslims were buried in their white pilgrimage garment and gave gifts of white honor garments.

Baghdad was famous for its fabric factories that created *tiraz* and *mulhams* richly decorated with embroideries and inscriptions. Rows of medallions with animals flanking stylized trees or plants were common decorations in the Baghdad fabrics.

Spain, Syria, and the province of Fars in Iran had important textile industries. Spain produced magnificent woven silks. Palmettes and scrolling vines were signature decorations on Spanish silks, as were eagles, animals, and human figures. The "lion strangler" was a common motif.

COPTIC CLOTH

Islamic fabric workers utilized techniques derived from the Copts, who flourished in the fabric trades in Egypt and created exquisite fabrics woven in silk, wool, or wool combined with linen. Coptic fabrics used bold colors such as deep aqua, citrus green, and tomato red. Designs included palmettes, running animals, human figures, mystical symbols, and magical devices. Woven in multiple bands of fabric then joined, the Coptic textiles continued to flourish in Egypt under the Shiite Fatimids who ruled between 909 and 1171.

ANATOLIAN CARPETS, EGYPTIAN SILK, SPANISH SILK

Anatolia, particularly from the 13th century onward, was significant for creating Islamic pile carpets. These became popular in Europe and were a major export. Fabric production was a major source of income in 14th-century Mamluk Egypt and Syria. Particularly notable were Egyptian silks with Chinese designs such as the large lotus blossom. During the reign of Sultan al-Malik al-Nasir Muhammad (r. 1293–

Shown here is a fifth-century Coptic cloth depicting a man with a club offering food to a tiger. Borromeo/Art Resource, NY.

wool of the Kashmir goat. *Taffeta* is from *tafton*, the Persian verb meaning "to spin." A rich satin was and is called *atlas*.

An amazingly well-preserved fabric dating from the eighth or ninth century was excavated from a tomb at Moshchevaya Valka in the northern Caucasus Mountains. Apparently a prince's robe, it was emerald green with long sleeves. The garment wrapped around the body and was fastened with golden buckles. It was decorated with rows of medallions depicting in yellow the *simurgh*, the mythical lion-headed bird from the Persian *Book of Kings*, *Shah-Nameh*, that nurtured the heroic white-haired Zal in her nest. Facings and bindings of the robe were made of silk. Many precious fabrics constructed this burial clothing for a remote ruler in a remote land on part of the Silk Road connecting China and central Asia to Byzantium and the West. Opulent silks were imported into Syria for murals at the Umayyad palace of Khirbat al-Mafjar. The study of Islamic textiles reveals Islam's wealth, power, cultures, technology, and diffusion.

TEXTILES AND PROFESSOR MUHYI AL-DIN

The *Rihla* of Ibn Battuta records the prevalence of textiles in polite 14th-century Islamic society, with its rich tents, carpets, cushions, embroidered fabrics, embellished cloaks, honor clothes, and clothing gifts. One day Ibn Battuta decided to visit a distinguished theologian in the town of Birgi named Muhyi al-Din. Ibn Battuta went to his madrasa and found him just arriving, mounted on a spirited mule and wearing gold-embroidered garments, surrounded by his slaves, servants, and students. Ibn Battuta later visited the professor in his garden, which had a stream of water flowing through a white marble basin rimmed with enameled tiles. There the professor looked like a king seated on his raised seat covered with embroidered cloths, his students and slaves beside

1340) silk woven with a particular form of flame-shaped lotus blossoms along with inscriptions proved to be popular commission.

From the 13th century onward many fabric workers employed a new type of embroidery. It was characterized by inscriptions, interlaced grids, S curves, and half-palmettes stylized in wedge shapes. Decorative motifs in 14th-century Islamic Spain almost always were variations on geometric interlaces and radial star designs.

Arabic and Persian words that described Islamic fabrics, weaving techniques, and important cities in the cloth trades still are used today. *Damask* derives from Damascus. *Muslin* was from Mosul in Iraq. *Organdy* is from the place-name *Urgench* in Central Asia. Mohair was from the Arabic word *mukhayyir*, meaning "choice" or "select." *Cashmere* derives from the

him. The professor announced Ibn Battuta's arrival to the sultan of Birgi, living at his summer home nearby, who sent the traveler the gift of a tent called a *kurgan* consisting of a dome of wood lathes covered with felt, the upper part open to admit light and air.

The sultan offered food and hospitality for many days and then an extended visit to his city palace, where they sat in the sultan's opulent audience hall with daises covered with carpets, on one the sultan's cushion. But the sultan sat down with Ibn Battuta and the professor on the carpets, the Quran readers nearby. During the 14-day stay at the palace the sultan showed Ibn Battuta a hard black stone that had fallen from the sky, an asteroid, and gave him lavish gifts of food, fruit, candies, candles, 100 pieces of gold, 1,000 dirhems, a complete set of new garments, and a Greek slave named Michael.

The sultan also sent a robe and money gift to each of the traveler's companions. After leaving the sultan, Ibn Battuta visited the ancient Greek town of Ephesus, where he visited the cathedral mosque that formerly had been a church. There he bought a Greek slave woman for 40 dinars.

A Glossary of Christian, Jewish, and Muslim Hat Styles and Clothing

Hats and Headwear

almuce—a cloth or fur hood worn by secular Jewish and Christian men and women, sometimes with pendant bands draped over the wearer's chest. In Christian vestments the *almuce* also was called an *amict*.

atara—a crown, or the embroided strip on a Jewish *tallit* which when worn over the head hung down the forehead.

atour—a two-horned hat. A bifurcated, cylindrical, or parallel cone-shaped hair net or hat popular among 15th-century Jewish and Christian women. The hat resembled or covered upswept hair shaped like conical horns. The *atour* was constructed as if two *hennins*, one worn above each ear.

barbette—a linen head band or veil passing over the chin or just under it, essentially hiding chin and neck. Older Christian and Jewish women and sometimes widows wore the *barbette* with a *coverchief*, a fabric headdress piled or wound, sometimes fastened beneath the chin and crowned with a standing starched band. A *barbette* also could form a *wimple*, a face-framing linen or silk headband, enveloping the forehead, chin, sides of face, and neck.

beguin—a head covering for Christian men, women, and children named after the 12th-century semimonastic women's religious movement called the Beguines, consisting of a three-piece cap. Made of fine linen for the wealthy, the same style beguin was made from coarser cloth for common people.

berrette a cannelatto—fashionable in Mantua and Lombardy among Christians and Jews, this brimless hat had a layered crown with felt piping around its bottom edge.

biretta—originally a soft skullcap, it developed into a fashionable headdress for professors, physicians, churchmen, and businessmen, consisting of a fine fabric hat built over a rigid

elevated hat framework consisting of three or four joined panels topped by a pom-pom.

bonnet—like the Christian *beguin*, a three-piece head covering tied with strings under the chin. In 15th-century France, the common style was the "sugar loaf bonnet," a particularly high-crowned cap primarily worn by men over bobbed hair.

bukhnuq—a woman's veil or head shawl popular in the Muslim Mediterranean.

cale—a linen skullcap that Jewish and sometimes Christian men fastened under the chin and wore under a hat. Without the chin strap, it was called a *coif*.

calotte—a 13th-century flat skullcap made of leather, velvet, wool, or cotton, worn by Jews and Christians.

cappuccio a foggia—often though not exclusively worn by Jewish physicians, it was a compound hat composed of a wide fillet with a long *liripipe* slung over one shoulder or wrapped around as a shawl covering both shoulders.

capuchon—a hooded cape sometimes long, sometimes short, worn both by secular Jewish men and women as well as Christian churchmen. Later pointed hood became the *chaperone* turban with an extravagantly pendant tail called a *liripipe*.

caul—an elaborate headdress worn by Jews and Christians consisting of silken sheaths concealing strands or braids of hair covered by a netting of reticulated gold or silver cord further embellished with pearls, beads, jewels, spangles, sequins, or bells.

chape—a *capuchon* hood worn by Jews and Christians as rain protection or as a disguise for a reveler against identification.

chapeau—either an ordinary hat worn by Jews and Christians or a heraldic cap of dignity worn by rulers, made of crimson velvet and bordered with ermine.

chaperone—of tripartite construction, a popular hat among Christians and Jews consisting of a *roundlet*, a stuffed circlet over which long folds of turban called a *garget* were wound, concluding in the *liripipe*, the exceedingly long tail draped over the wearer's shoulder. In 14th-century Spain, one fashionable chaperone style was a relatively short hood whose closed end called the *peal* was drawn from the back of the head to the top to form a crest.

chaplet—a head wreath, usually a garland of leaves or flowers; or a circlet encrusted with gems; or a twisted cloth or padded roll holding a veil on the head, worn by Christians and Jews.

circlet—a headdress holding back the hair, consisting of a narrow band of precious metal, silken braid, flowers, or a bejeweled fabric that a Jewish or Christian man or woman wore encircling the forehead between eyebrows and hairline.

coif—a close-fitting cap worn by Jews made of linen worn beneath a helmet or hood. It was essentially a *cale* without its chin strap.

cornalia—worn by Jewish women, a pointed stiff veil or headdress resembling a horn, a *hennin*. Sometimes it was a doubled-horned hat, the *atour*. The *hennin* evolved from the simpler *oralia* that in Germany was called the *flieder* or *riese*.

coverchief—a Jewish fabric headdress piled or wound over the head, sometimes fastened beneath the chin, and crowned with a standing starched band. The more exuberant coverchiefs weighed as much as 10 pounds.

crespinette—a variant of the Jewish *caul* headress.

diadem—a Jewish crown or ornamental head-band, symbolizing honor, royalty, or dignity. Often it was a metal or fabric fillet, either simple or adorned with jewels, circling the head, worn low on the forehead.

escoffion—a women's headdress of a silk or gold thread trellis net, worn by Christians and Jews. Sometimes it was an elaborate velvet or satin reticulated cap covered with a bejeweled gold net.

escoffion a sella—resembling an upside-down saddle, this headdress popular in northern Europe and Italy was attributed to Flemish, French, or "foreign" influence, as in, respectively, *escoffion alla fiamminga*, *alla francese*, or *alla di la*.

estrain—straw hat popular among Jews and Christians.

fillet—a Jewish and Christian women's stiff linen encircling band worn low about the forehead, plain, embroidered, or bejeweled. Alternatively a hat worn by Christian priests.

flieder—a variant on the fashionable *cornalia*, widely used, but especially favored by German Jews for secular and synagogue events.

fret—a women's headdress, worn by Jews and Christians, made of gold or silver trelliswork or netting, reticulated, jeweled, and spangled.

frontlet—a forehead ornament worn by Christian and Jewish women to accentuate the width of the head, consisting of a small pendant loop of velvet, silk, or precious metal attached to the edge of the under cap, usually worn as a mark of social rank or wealth. A gold loop particularly suggested nobility and wealth.
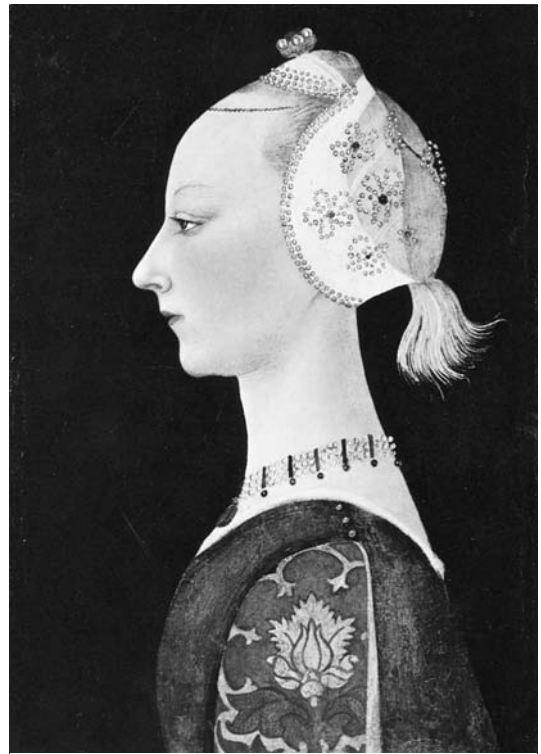
A frontlet ornament was worn by women when exaggeratedly high, wide foreheads were fashionable. Consisting of a small pendent loop of velvet, silk, or precious metal attached to the edge of the under cap, the calotte worn beneath the hennin, *often to indicate rank or wealth. A gold look suggested a substantial yearly income. The young lady of fashion shown here is wearing a frontlet.* Isabella Stewart Gardener Museum, Boston.

galile—popular in England, this diamond-shaped headdress worn by Christian and Jewish women entirely concealed the hair, and usually was worn with a *wimple* and *gorget*.

garget—that part of the chaperone consisting of folded lengths of fabric wound around the head.

godron—a tall, frilled, pleated collar of starched muslin, a ruff worn by both Jewish and Christian men and women in the early Renaissance, often so high it was virtually a head cover.

gorget—a linen neck cover worn by Jews and Christians.

guimp—a *wimple*, a light veil, surrounding a women's face, popular among Jews and Christians.

gularon—the part of the *chaperone* hat covering the shoulders, worn by Jews and Christians.

headrail—a Jewish oblong linen or cotton headdress usually with a chinstrap held in place by a fillet or a crown.

hennin—a pointed conical headdress worn by Christian and Jewish women, popular in late medieval France and Burgundy, usually made of stiffened silk or velvet with a veil following from the pinnacle, the veil called a *lambrequin*. Originally it was taken to France by Isabel of Bavaria in the 14th century. Its extravagant height was regulated by sumptuary laws.

horned headdress—a variant of the Jewish *atour*.

huve—a projecting headdress with many folds worn by Christian and Jewish women, it was anchored to the side of the head by long pins and *bodkins*.

isaba maila—woman's veil or head shawl popular in the Muslim Mediterranean, as evidenced by frequent appearances in women's trousseau lists in the Cairo *geniza*, worn by Muslim and Jewish women alike.

Jew's hat, Judenhut—a conical pointed hat, usually yellow in color, that adult male Jews were required to wear in public in Christian Europe. The *Judenhut* was officially imposed by Pope Innocent III at the Fourth Lateran Council in 1215.

kalansuwa—a peaked Persian hat worn by Jews, Christians, and Muslims, crafted of particular colors and adorned with two special button-shaped emblems or badges. When sumptuary laws were enforced in Muslim countries, the *kalansuwa* was often worn only by non-Muslims.

khimar—a woman's veil or head shawl popular in the Muslim Mediterranean, worn by Muslim and Jewish women alike.

khirqa—a woman's veil or headdress appearing often in trousseau lists in the Muslim Mediterranean, worn by Muslim and Jewish women alike. Alternatively, the cloak garment worn by Sufi mystics.

lambrequin—a veil or scarf worn by Christian women, attached to the pinnacle of the *hennin* or to a knight's helmet as a token of love.

liripipe—the extravagantly long fabric tail of a *chaperone* hood worn wrapped around the head or neck or swung over the shoulder and ornamented with bells, fringe, or decoratively set semiprecious stones. Its length often signified social rank among Christians and Jews.

maajirs—a woman's hat popular in the Muslim Mediterranean, worn by Muslim and Jewish women alike.

marfors—a long narrow veil covering a woman's head, pendant to her shoulders.

mazzochio a cianbella—a huge turban topped by a tall, wide crown, the folded fabric making a wide, flexibly limp, and elaborately draped hat, worn by Italian Jews.

mentonniere—a type of Jewish headgear, essentially a chin piece, sometimes made of braided brocade or piping, and attached to a *coverchief*.

mindil—a woman's veil or headdress popular in the Muslim Mediterranean, worn by Muslim and Jewish women alike.

miqnaa—a woman's headdress appearing in trousseau lists in Muslim Mediterranean towns, worn by Muslim and Jewish women alike.

oralia—a Jewish woman's headdress veil with two blue stripes, required by 13th-century law and later superseded by the extravagant, horned *cornalia*.

orle—a narrow heraldic band that bordered a Christian woman's headdress or a knight's helmet. Often part of a *chaplet*, the orle represented the wearer's identifying colors and often was parti-colored, *mi-parti*.

pileus cornutus—a tall conical hat worn by the Jews, a *Judenhut*.

reticule—a hairnet or hair cover resembling a net, usually adorned with jewels, sequins, and precious-metal braiding. Particularly popular among Jews in Italy, France, and England, reticules customarily were worn alone over hair though often beneath a veil or hat.

riese—a pointed veiled hat, comparable to the *hennin*, fashionable among German-Jewish women.

roundlet—a stuffed fabric circlet or a crownless underhat worn by Christians and Jews either alone or covered by the turban folds of the *chaperone*, usually ending in a long *liripipe*.

saffa—a small, embroidered women's bonnet trimmed with coins, worn by Syrian women.

shal—an Arab woman's woolen shawl.

snood—a net hair covering usually ornamented with pearls, jewels, and small designs in precious metal, similar to the *caul*, *tressour*, and *reticule* favored by Jews.

tajira—a large embroidered shawl worn by Jewish and Muslim women in the Muslim Mediterranean.

takiya—a common unisex skullcap worn by Muslims either alone or under a headdress.

talthima—yellow tripartite face veil worn by Jewish and Muslim women and by Islamic judges in the Muslim Mediterranean.

tantur—a high, conical cap worn by Sufis; alternatively, a woman's headdress.

tarha—a veil Jewish and Muslim women wore and, likewise, the covering scholarly men wore in the Muslim Mediterranean countries.

taylasan—in Muslim-ruled lands, a popular face veil of Persian origin worn by women and men, a special favorite of scholars.

touret de nez—a fabric attachment to a hood, fitting over the upper part of the face, often including a small transparent pane for visibility, to protect the nose and eyes against northern cold, common among French and Burgundian Christians.

tressour—a fabric girding and decoration for tresses, or an elaborate jeweled headdress or *caul*, sometimes resembling the Jewish *reticule*.

truffeau—false hair fringes added to natural hair, as well as struts used to create bouffant hairstyles, popular among Jews and Christians.

Jewelry imitations of such hairstyles also were called *truffeau.*

viereckiger Schleier—an Ashkenazic Jewish woman's synagogue hat, customarily worn to synagogue and at home during the Sabbath. Closely covering the head and hair, it featured two stiffly starched square and pointed wings of white linen. In certain cities it was required by law to have two blue stripes.

wimple—a linen or silk headband that framed the face, enveloping the forehead, chin, sides of face, and neck, often worn with a *caul*; worn by Jewish women and Christian laywomen and nuns.

Fashionable Garments

aba—a unisex coat, shoulder mantle worn by peninsular and Eastern Mediterranean Arabs.

antari—a short to knee-length lined vest worn by Egyptian and eastern Mediterranean Arab women.

arisard—a mantel or plaid cloak worn by Scottish women, hooded, and ankle length, cinched or draped at the waist.

balandras—a 12th-century hooded rain cape, opening either at the front or side, worn by Christian women.

blanchet—a woman's long outer garment, a form of doublet, usually white, lined, and fur trimmed. Also, the name of a low-grade inferior wool fabric comparable to russet, used for clothing by the poor.

bliaut—a long overgown used by both Christian and Jewish men and women, often richly ornamented. The women's version was closely fitted at the bustline with long wide sleeves and slits to the sides to allow easy mounting of horses. Men wore a bliaut under chain male armor.

branc—a woman's smock common to Jews and Christians.

broigne—a man's rugged leather or linen vest or *jerkin* strengthened by a metal or bone framework, particularly popular in the 12th century as a protective garment before the *hauberk* superseded it.

brusttuch—a wide fabric stole worn by Jews and Christians, draped to fall loosely over the chest, usually jeweled and decorated with pearls, cradling the hands as if a muff.

burda—a heavy woolen wrap worn by Arabian and Egyptian men.

burnose—a woolen hooded cloak of North African origin.

byrrus—a heavy woolen, cowled cloak popular among Christians and Jews.

caban—a fitted cloak with wide sleeves probably derived from the Arabic *gaba*, introduced from the East to Europe through Venice in the 14th century. Its sleeves were open under the armpit.

caftan—a long-sleeved, unbelted outer garment of Persian origin made of wool, brocade, silk, or velvet, usually between knee length and floor length.

capa—a short, silk-lined, hooded cape worn by 11th through 13th-century men and women.

carcaille—an extravagantly flared collar of a *pourpoint* or *houppelande*, riding right up to the wearer's ears.

chamarre—a long, wide, fur-lined, braided, and decorated coat derived in the late 15th century from the sheepskin *samarra* of Spanish shepherds.

chemise (camise, kamise)—a shirtlike undergarment most commonly made of linen, originally unisex but increasingly worn only by Muslim, Christian, and Jewish women, and derived from the Arabic *qamis*.

cloak—from the French word for "bell," *cloche*, a bell-shaped outer cape.

cope or Cape—originally a circular, hooded rain cape, it was adopted in the 13th through 14th centuries as an ecclesiastical vestment worn over an *alb* by priests and bishops. The secular cope generally was designed from silk, brocade, or embroidered fabric and was fastened at the neck by a brooch and often ornamented with an *orphrey* and an imitation hood. A variant was used by monks on special occasions.

cote—a tunic that Christian and Jewish women wore in the 12th to 15th centuries, with long narrow sleeves, tight fitting bodices, sometimes buttoned down the front or back, usually culminating in a full skirt. Tunics often were *mi-parti*.

cotehardie—a long, close-fitting overgarment worn by Christian and Jewish men and women, held at the hip by a girdle or belt, usually tight-sleeved, embellished with buttons from elbow to pinky finger. Its high neck sometimes was secured with a drawstring. A *cotehardie* frequently was *mi-parti* with two colors alternating on the garment as well as the wearer's hose, as one leg green, one leg red; one shoulder green, the alternate hip green; the other shoulder and sleeve red, their opposing hip also red. Customarily *cotehardie* and tights were worn with *poulaines*.

Emperor Maximilian I, 1518, wearing the Order of the Golden Fleece over a richly brocaded cloak trimmed with pearls. This large woodcut is based on a portrait that Dürer drew of Maximilian from life in June 1518. HIP/Art Resource, NY.

cotelette—a German popular sleeveless, open-sided overdress worn by Christians and Jews without a belt by young girls and married women, comparable to a *sargenes*.

cotteron—a short, standard, utilitarian peasant smock ranging in length according to climate and season from a short minidress to a long commodious floor-length garment.

cyclas—a short, capelike cloak worn by men and women crafted of the rich silk manufactured in the Cyclades. At the coronation of England's King Henry III, guests and citizens of London

wore the *cyclas*. An alternative term is *ciclatoun*, which ultimately derived from the Persian *sakarlat*, via the Arabic *siqlatun* or *siqala*.

dogaline—an aristocratic Venetian fashion for men and women consisting of a long brocade or velvet robe with wide, flaring sleeves reaching down to the knee. Lined and bordered with fur, the sleeve's lower edges were fastened to the shoulder to reveal the undergown sleeve.

doublet—a short, fitted, quilted "doubled" or lined garment worn beneath armor and in civilian clothes customarily embellished with trimmings and edgings, usually worn with *hose* or *chausses* (lightweight colored or striped leggings knitted or woven of linen, cotton, silk, or wool originally covering only foot and leg but later rising up the trunk when short robes became fashionable, the forerunners of modern tights).

epitoga—a wide, unbelted robe with bell sleeves sometimes worn as an academic gown and often called an *epomine hood*.

fichets—slits in the side of a surcoat, allowing the hands to pass through.

flugel—long, open, ground trailing sleeves for 15th-century German garments, usually edged with fur or brocade.

frock—a long, hooded gown, often girdled at the waist with rope.

gabardine—a loose-fitting smock or frock, commonly made of a coarse-grained fabric, and worn by men, women, and children.

gardecorps—a unisex, loose, flowing hooded garment, sometimes worn over a *surcoat*, often sleeveless or with wide short sleeves. It virtually replaced the *surcoat* in the 14th century.

garnache—a warm overrobe or *supertunic* similar to a *tabard*, with short capelike sleeves, usually fur-lined and falling to the elbows.

giornea—a very popular tunic worn by Italian Christian and Jewish men and women, sometimes short and thigh level worn with tights, sometimes just above the knee, and sometimes midleg in length. Often sleeveless, the *giornea* allowed elegance of style and color of the undergarment, especially with elaborate sleeves, to show to advantage. The *giornea* was worn over a shirt with sleeves of contrasting color or over a *justaucorps* with sleeves tight fitting at the wrist and billowing toward the shoulder. The *giornea* was worn free or belted at the waist or hip.

gippon—a padded, quilted short tunic, tight fitting and buttoned to breeches, trousers ranging in length from ankle to short trunks.

gonelle—a hooded cloak opening at the front or a long tunic worn by knights.

gramalla—a long outer garment reaching from the neck to toes. In the 14th century, King John I of Aragon (1350–96) required all Jews under his jurisdiction to wear it in addition to the Jewish badge and a special hood.

great coat—a short, loose fitting, full-sleeved outer garment for men decorated with gold and elaborate stones, also called a *paletot*.

habara—a dark, silk enveloping wrap worn by Muslim women.

haincelin—a short *huppelande* with embroidered sleeves, named after the fool or jester of King Charles VI of France (1380–1422), whose name was Haincelin Coq.

herigaute—a type of long shawl, similar to the *housse* or *gardecorps*, open at the side.

houpelande—a popular 14th- and 15th-century voluminous robe or gown worn by both Jewish and Christian men and women. It was full and richly ornate in fabric, belted at waist or hip, with exceedingly long, usually fur-lined, funnel-shaped sleeves and a funnel-shaped collar called a *carcaille*. The sleeves and the collar often both had *dagging*, ornamental cuff edging, with borders shaped as leaves, tongues, or scallops.

housse—a short mantle of coarse cloth worn by rural women to cover the head and body; also spelled *houce*.

huque (haik, huke)—a long or short flowing robe often edged with fur or embroidered with precious stones, mostly worn by Christians and Jews.

izar—a large enveloping body wrap worn by Arab men and women.

jacket—a man's close fitting, upper-body garment derived from the *jack*, which was a quilted, padded military sleeveless doublet often armored with small, intertwined metal leaves.

jerkin—a padded *jacket* derived from an earlier *cotehardie*, worn by Jews and Christians.

Jewish badge—a device to distinguish Jews and thereby ostracize them. Taking many shapes and colors, in the Papal States, a yellow fabric patch for men, yellow and blue striped patch for women; a yellow or red circle in Barcelona; in Rome, a parti-colored circle, yellow and red, worn on men's breasts and women's foreheads; a blue insigne shaped like the Greek letter *tau*, in Sicily and Naples. The Verona Jewish badge was a yellow star. In Spain a coin-sized red cloth was worn over the heart. Elsewhere the

badge was shaped as a tablet or star. Shaped as the letter *O*, it was called *rouelle* or *rowel*. The badge was worn in addition to or as a substitute for the *Jew's hat* or *Judenhut*.

jillaya—a Muslim woman's embroidered wedding costume or a man's wedding caftan.

journade—an elaborate parade cloak, worn by Jews and Christians, consisting of a flowing cape with wide, slit sleeves.

jubba—a unisex outer garment of Arab origin.

jube—a silk or wool overshirt with elbow length sleeves decorated with needlework or braid.

jupe—a loose fitting jacket derived from the Arabic *juba*, "short jacket."

jupon—a close-fitting tunic or doublet, especially worn by knights, also derived from the Arabic *juba*.

kagoule—a peasant's short, hooded cape of cloth or fur.

karry—a black-hooded cloak, traditional in the British Isles and central Europe.

khalwatiyya—a variety of *aba* popular in Syria.

khirqa—a woman's cloak appearing often in trousseau lists of Jewish and Muslim women in the Muslim Mediterranean. Among Sufi mystics the *khirqa* was the patched woolen cloak placed around the mystical novice at the moment of his investiture into a Sufi order, which symbolized the spiritual bond between the disciple and master.

kirtle—a long tunic worn by Christian and Jewish men and women, sometimes an under-

garment, usually an outer garment or coat often made of velvet, silk, taffeta, or satin, with elaborate trimming and close-fitting sleeves buttoned hand to elbow.

kittel—another term for the *sargenes*, a white linen overgarment with voluminous sleeves; also the name of the lace collar worn by Jewish men to attend the synagogue.

kubran—a unisex jacket with long, wide sleeves worn by Syrian men.

libas—unisex trousers or underpants popular in Arabia, Iraq, Egypt, and Syria.

livery—contractually or customarily guaranteed clothing given by feudal overlords to household retainers. The livery was made using heraldic colors and emblems and with different fabrics and furs to identify social rank. A professional uniform identified members of craft guilds and professions, such as the red livery required for Jewish physicians.

mahoître—cylindrical pads for extending shoulder width on men's garments such as the *gippon* and the extravagantly wide *pourpoint*, the wide shoulders were complemented by a tightly cinched waist.

mandilion—a *tabard*, an open-sleeved, hip-length garment usually with heraldic emblems worn either by civilians or by knights over their armor.

manteline—a short parade mantle, often hooded and elaborately decorated, worn by Jews and Christians.

mantle—a semicircular or rectangular cloak clasped at the neck or shoulder with a fibula and sometimes embroidered and bordered with braid or fur.

maphorion—a long great cloak or cape.

milhafa—a large, enveloping wrap worn by eastern Mediterranean women.

paletot—a short greatcoat.

paltoch—a short, fitted doublet laced to hose or to a *chausse*, the prototype of tights.

peasecod-bellied doublet—worn by men with *hose* or with *chausse*, an extravagantly wide and padded doublet with a wooden or bone armature shaping the front section covering the genitals, called the *codpiece*.

pelicon—a woman's *overtunic*, fur-lined, fabricated of silk, wool, or other fine textile, usually knee length and unbelted, sometimes adorned with a hip girdle and pouch.

pelisse—a popular, full-length, long-sleeved, fur-lined cloak worn by both men and women, comparable to the pelicon.

plastron—a protective metal armor breastplate worn by both warriors and fencers, and an adornment for women's garments laced to the bodice.

pluvial—a floor-lengthed, open-fronted mantle worn as a ceremonial garment and for the nobility, coronation regalia.

pourpoint—a man's short ceremonial coat popular in France from the 13th through 15th centuries. The coat had extravagantly wide shoulders padded with *mahoitres* and a tightly cinched waistline, fine for displaying a magnificent physique, and worn with long pointed shoes, *poulaines*.

qamis/a—a unisex shirtlike tunic worn by Arabs and adopted in the West as the *chemise*.

rheno—a 12th-century hoodless, short cloak lined with sable, ermine, or other expensive fur. Favored by the Angevin nobility, it was imitated by courtiers.

robe—all the elements of a costume from the undergarments to the outer cloaks, the smallest lacings, major fabrics, and fur components. Some classes of robes included *robe deguisee*, the richly ornamented, daring, new fashions; *robe de commune*, the ordinary daily wear; *robe gironnee* or a *plis gironnees*, the pleated, full-folded garb, belted at the waistline; and *robe longue*, an academic gown or physician's gown.

roc—a woman's overgarment, comparable to a man's overtunic.

roquet—a short, hooded, smocklike wool cape worn by commoners and young boys, particularly those serving as pages in noble households.

sarbal—a sleeveless cloak or gown.

sargenes—in Muslim lands, a white linen overgarment with voluminous sleeves, lace collar usually worn with a matching cap and girdle belt, worn by Jews. Customarily worn at the synagogue during the High Holy Days, particularly *Yom Kippur*, the *sargenes* was often worn by bridegrooms as well as by the leader of the seder at Passover. The *sargenes* was also called *kittel* or a *sukenis*.

sirwal, shalwar—loose unisex trousers or pantaloons of Persian origin.

socq—a flaring, regal ceremonial cloak fastened at the right shoulder, worn for coronations and important ceremonies, worn by Christians and Jews.

sorquenie—a woman's tunic tightly fitted at the bustline, flowing freely down to the hemline, worn by Christians, Jews, and Muslims.

sottana—A 12th- and 13th-century Italian solid color or striped undergown for a *tunic*, worn by both men and women.

stomacher—a vest worn over armor covering the chest worn by Christians and Jews. A woman's stomacher was an ornamental breast covering beneath lacings of a bodice.

sukenis—a woman's tunic worn by Christians and Jews.

supertunic—a circular, full-sleeved overgarment, often belted at the waist, worn by Christians and Jews.

surcoat—a knee- to floor-length overgarment, with side slits for horseback riding, usually sleeveless or half-sleeved though sometimes with long tight sleeves, worn by Christians and Jews.

surtout—from the French word meaning "over everything," an outer cloak, coat, or cape worn over all other garments by Christians and Jews.

tabard—a short-sleeved or sleeveless short coat, usually open at the sides, and worn over a shirt or a *justaucorps*. Knights wore tabards with armorial devices emblazoned on front, back, and sleeves. Special colors identified the wearer's social group. In 1360 all Jews of Rome with the exception of physicians were required to wear a red tabard.

thawb—the basic, full-length tunic worn by men and women throughout the Muslim Middle East.

tiraz livery—under Islam, *tiraz* (from the Persian word meaning "embroidery") fabrics were spun and woven in state workshops. The caliph then distribted cloth or complete garments to his court for an official uniform for the summer and another for the winter. Likewise, in the Christian West, both Jews and Christians received contractually or customarily guaranteed costume and clothing gifts from feudal overlords given to household retainers. The livery was constructed to identify heraldic colors and emblems. Subtle distinctions among fabric and fur indicated social rank. A professional uniform identified members of craft guilds and professions, such as the required red livery of Jewish physicians.

tunic—a shirtlike garment worn by men and women, usually with round neck and narrow sleeves. Of knee or ankle length, it was simple or elaborate according to social class. The tunic or *cote* usually was worn beneath a *supertunic* or mantle.

Shoes

babush—Middle Eastern slippers made of soft leather.

brodequin—a light boot, probably derived from the closed Roman shoe called the *caliga*, worn inside heavier boots. For ostentation, the wealthy had them fashioned from rich ornamented stitched silk or velvet.

campagus—a popular Byzantine low boot worn through the Carolingian period. It was fitted above the ankles and laced over the instep.

cordovan—soft, fine-grained goat skin leather from Córdova, Spain, supple and strong, used for making shoes as well as articles of clothing, wall covering, and jewel boxes. Córdovan often was painted, gilded, or embroidered.

cracowes—Polish shoes popular at the Cracow court, having outlandishly long-pointed toes that required anchoring by thongs or chains at the knee, or even the waistline. Fashionable in the French and Burgundian courts, where they were called *poulaines*.

duck bill shoes—exaggeratedly wide-toed leather shoes popular in the 15th century, dramatically contrasting with *poulaines*.

eschapins—light, flat shoes, ornamentally slashed or pierced on top.

galliochios—Gaulish shoes, wooden-soled shoes with leather straps protecting fine undershoes from rough stone pavement, mud, and water.

gillie—a shoe made of rawhide, tongueless and laced with a thong.

hose—cotton, wool, or leather stockings, sometimes fitted with a thin leather sole, making shoes unnecessary. As garments became shorter, hose became longer or higher, covering from the waistline to the toes. Hose traditionally was worn with a *doublet*.

houseaux—tall, thick-soled leather boots ranging in height from beneath the knee to midthigh. They often had an open toe or heel.

khuff—short boots or leather outer socks worn in Arabia and the eastern Mediterranean.

markub—pointed men's shoes of Moroccan origin made of thick red leather.

patten—a thick-soled, high-heeled shoe popular among Christians and Jews in Spain, Italy, and France, usually made of decorated leather or velvet and worn over a slipper. When fitted with a blade, it was an ice skate.

pedule—a northern European rawhide boot worn by both men and women, sometimes laced to breeches.

pigaches—fashionable 11th- and 12th-century shoes with long, upturned, pointed toes, similar to a classical shoe called the *calceus rependus.* They were a prototype of the extravagant *poulaines.*

poulaines—from the French meaning "Polish," shoes with extravagantly long and pointed toes, fashionable in 14th- and 15th-century France and Burgundy; also called *cracowes, poulaines* affected the gait, dance, and etiquette of the wearer. Toe points sometimes were long enough to curve upward to reach the wearer's knees or belt. Following Polish fashion, *poulaines* were derived from the earlier *pigaches.*

sabaton—a broad-toed boot or shoe, and if made of metal, part of armor.

Such were the magnificent varieties, shapes, colors, and names of clothing of medieval Christian, Jewish, and Muslim men, women and children.

READING

Christian Clothing

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Rubens 1973: hairstyles; Evans 1951: jewelry; Brooke 1963 and 1964, Cosman, 1996, Davenport 1948, Husband and Hayward 1975, Kohler 1963, Metzger and Metzger 1982, Platt 1979, Stillman 1972 and 1995: clothing styles; Boissonade 1964, Cosman 1976 and 1996, Coulton 1960, Evans 1969, Neckham 1966, Quennell and Quennell 1948, Strong 1973: clothes in daily life; Dale 1932, Goitein 1973, Power and Postan 1933, Power 1941, Stillman 1972, 1995: merchants' records as a source for information about clothing.

ASUMPTUARY LAWS

Baldwin 1926, Cosman 1976, Reilly 1992 and 1993: sumptuary laws; Baer 1961, Finkelstein 1964, Grayzel 1933, Reilly 1992, Roth 1946 and 1949, Rubens 1973: Jewish insignia; Grayzel 1933: dress restrictions imposed by various church councils; Little 1978, Walker Bynum 1987 and 1992: spiritual poverty, women: Mormondo 1999: Bernardino of Siena.

Jewish Clothing and Costume

GENERAL

Y Stillman 1972 and 1995: colorful clothing as described in traders' letters in the Cairo *geniza*; *Talmud* (Yevamot 63b), Cosman 1976, Metzger and Metzger 1982, Rubens 1973: spiritual importance of clothing.

COSTUME AS MORAL STATEMENT

Y Stillman 1995: clothing as dowry; Abrahams 1969, Mansoor 1991, Metzger and Metzger 1982: advice for dressing in ethical wills; Goldin 1995: Rabbi Akiba's wife; Herford 1978: Rabbi Simeon's four crowns; Goldin 1995, Talmud B. Shabbat 145b: the Talmud on what clothes can teach; Rubens 1973, Roth 1946 and 1959: sumptuary laws in the Italian city of Forli.

COSTUME AS CULTURAL AND SOCIAL STATEMENT

Baron 1967, Cosman 1976, Metzger and Metzger 1982: sumptuary laws to identify and subjugate Jews; Goitein 1973, N Stillman 1970, Y Stillman 1972: descriptions of textiles, fabrics, and clothing in the Cairo *geniza* documents.

SUMPTUARY LAWS

Kedouris 1979, Metzger and Metzger 1982, N Roth 2002, Rubens 1973: Jewish badges and the Jewish hat; Finkelstein 1964, Metzger and Metzger 1982, Rubens 1973: sumptuary laws imposed from inside the Jewish community; Baer 1961, Grayzel 1933, Reilly 1992, Roth 1959, Rubens 1973: sumptuary laws imposed from outside the Jewish community; Rubens 1973, Roth 1946, 1959: sumptuary laws in Forli; Grayzel 1933: dress restrictions under various church councils; Rubens 1973: proscriptions on Jewish and Muslim hairstyles.

JEWISH CEREMONIAL GARMENTS

Metzger and Metzger 1982: tallit designs; Cosman 1996, Rubens 1973: Sabbath and wedding clothing in Muslim lands; Cosman 1996, Rubens 1973: Sabbath and wedding clothing in western Europe; Metzger and Metzger 1982, Rubens 1973: changing fashions for mourning.

JEWISH FASHIONABLE HATS AND HEADGEAR

Cosman 1996 and 2000, Rubens 1973: various fashionable headgear; Goitein 1973, Y Stillman 1972: headgear depicted in the Cairo *Geniza* documents; Metzger and Metzger 1982: yarmulke.

Muslim Clothing and Textiles

GENERAL

Blair and Bloom 1994, Metzger and Metzger 1982, Rubens 1973, Y Stillman 1995: the cultural meanings of clothing; Y Stillman 1999: Umayyad, Abbasid, Fatimid, and Mamluk clothing, Muslim sumptuary laws.

CLOTHING STYLES

Sharon 1983: Abbasids; Y Stillman 1995 and 1999: Umayyad, Abbasid, Fatimid, and Mamluk clothing, Muslim sumptuary laws; Guthrie 2001: medieval women; Gibb 1958, Morgan 2001: Ibn Battuta; Y Stillman 1972, 1995 and 1999: women's fashionable garments; Behrens Abou Seif 1999, Frenkel 1999, Ibn Arabi, 1990, Michon 1999, Qustantini 1965, Y Stillman 1995 and 1999: Sufi *khirqa* and *suf*; Behrens Abou Seif 1999, Stillman 1999: ritual and religious ideology; Sharon 1983: Abbasids; Sanders 1994: Fatimid ritual; Stetkevych 2002: Umayyad ritual; Steensgard 1999: religious attitudes toward silk; Budge 1959, Dols 1992: amulets and clothing.

TEXTILES AND COLOR

Atil 1981, Beckwith 1959, Britton 1938, Lamm 1937, May 1957, Sergeant 1972: textiles and

rugs; Goitein 1967, 1971 and 1971, N Stillman 1970, Y Stillman 1972 and 1995: descriptions of textiles, fabrics, and clothing in the Cairo *Geniza* documents; Blair and Bloom 1994: the *Burda Ode*; Thackston 1986: Nasir-i Khosraw on the manufacture and sale of linen; Atil 1981, Beckwith 1959, Blair and Bloom 1994, Britton 1938, Sergeant 1972, Whelan 1982: textile techniques; Atil 1981: textiles in the Mamluk courts; Beckwith 1959: Coptic textiles; Lamm 1937: cotton textiles; May 1957: silk textiles in Spain; Sergeant 1972, Whelan 1982: textile motifs; Gibb 1958, Morgan 2001: Ibn Battuta; Y Stillman 1972 and 1995: fashionable garments.

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INDEX

NOTE: **Boldface** page numbers indicate extensive treatment of a topic. Page numbers in *italic* indicate illustrations. Page numbers with the suffix g refer to glossary entries.

I N D E X

I

Mutakallimun
and *Ilm al-Kalam* theology
391–395
and Maimonides 379, 380
and philosophy and religion,
Islamic 387
al-Mutawakkil 620
Mutazila 392–393
Muti ibn Iyas 688
muwashshaha 690–691
mystery plays 645, 780
mystical eating 178–180
mystical poetry 691–692
mysticism
about 414
Christian **416–424**
Bernard of Clairvaux 417–418
Catherine of Siena, Saint
422–423
Gertrude the Great 418–419
Hildegarde of Bingen
421–422
Islamic influences on 458
Juan de la Cruz, Saint
420–421
Julian of Norwich 423–424
Meister Eckhart 417
Marguerite Porete 417
pseudo-Dionysius 416
Teresa of Ávila, Saint 419–
420
trinal triplicity 339
dervishes 459
Islamic 451, **452–459**
Abbasids 70
Rabia al-Adawiyya 453–454
Ibn al-Arabi 455–457
Hasan al-Basri 453
Abu Yazid al-Bistami 454–455
al-Hallaj 455
al-Junayd 454
al-Muhasibi 454
al-Suhrawardi 455
al-Tirmidhi 453
and Brethren of the Free
Spirit 364
dervishes *460*
Jewish 439–449
Islamic influences on 458
levels of meaning 439–444
trends 444–449
resources 464–467
Sufism 457–459

Nachman, Yehuda ben 77
Nachmanides, Moses
Jewish philosophy and religion
382–383
and Jewish sensuality 172, 173
nadim 754
naffata 308
nafs 401
naft 308–309
Nagid, Samuel ha **97**
Nagrela, Samuel ibn 319
Naples 315
Narbonne
Jewish soldiers 316
and Jews in Carolingian
Renaissance 82–83
Nasi, Judah ha 76
nasib 684, 686
al-Nasir 299
Nasir-I Khusraw 404–405
nasism 169
naskh script 615
Nasr i-Khosraw 70
nastaliq script 615
nasturtium 489
Nativity scene 766
natural correlative doctrine 519–520
naturalism 565
natural law 378–379
nature, secrets of 424, 425
nave 559
nawbat
Islamic music 758, 759
music theory, Islamic 751
necessarium
castles 558
churches and cathedrals 559
necromancy 434
Neidhard von Reuental 642, 726
Neoplatonism
and Abu Hamid Muhammd ibn
al-Ghazzali 399–400
and Augustine of Hippo 348
and Avenpace 401
and Avicenna 399
and Islamic mysticism 452, 455
and Ismailis 404
and al-Kindi 396
philosophy and religion, Jewish
366–367
nest of weights 200, *200*
Nestorianism 327, 361–362

neumes 720
nevus 476
New Christians 33
New Testament
and allegorical writings 654
food references 136
New Year's Day 820–821
ney 756
Nibelungenlied 636
Nicene Creed
and changing role of papacy
18–19
Christian philosophy and religion
327, 329–331
Great Schism 22
Nicholas II (pope) 100
Nicholas of Lyra 370, 371
Nicholas of Salerno 491
niello 579
Nigel Wireker 783
Night of Forgiveness (Laylat al-
Baraa) 819
Night of the Ascension (Laylat al-
Miraj) 818
Night of the Divine Decree (Laylat
al-Qadr) 817
Nikiou, Battle of 47
Nile, Flooding of the (holiday) 821
Nineveh, Battle of 45
Nine Worthies 638–639
Nizam al-Mulk 146
Nizami Ganjawi 703–706
Nizari Ismailis 405–406
Njal's Saga 658
nominalism 356, 357
noncombatants 294, 295
Norman architectural style 569
Norman Conquest 100
Normans
and Byzantine Empire 51
coinage in Islamic world 227
Norte Dame, Cathedral of 39
Northumbrian dialect 658
nose surgery 481–486
*Notable Commentaries on the History of
Plants* (Fuch) 487
Notre-Dame Cathedral (Paris,
France) 555, *560*
Notre Dame school 718–719
Novellae 79, 91
nudity 598
nuns 48–49
Nusayriyya Alawis 406–407