Encyclopedia of Native American Jewelry

A Guide to History, People, and Terms

Paula A. Baxter
with
Allison Bird-Romero

ORYX PRESS


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Paula A. Baxter
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Oryx Press
2000

The rare Arabian Oryx is believed to have inspired the myth of the unicorn. This desert antelope became virtually extinct in the early 1960s. At that time, several groups of international conservationists arranged to have nine animals sent to the Phoenix Zoo to be the nucleus of a captive breeding herd. Today, the Oryx population is over 1,000, and over 500 have been returned to the Middle East.

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awl
cold chisel
dies
draw plate
filing
findings
flux
pump drill
punch
rolling mill
solder

PREFACE

Jewelry, a form of personal adornment, is part of the dress of virtually every Native American culture in the United States and Canada. Native people make and wear jewelry for reasons that range from simple aesthetic enjoyment to ceremonial use. The types of jewelry covered in the *Encyclopedia of Native American Jewelry* are those objects created as decorative attachments for the body. Certain dress ornaments are included if these items are considered to be part of a particular native jewelry-maker's standard repertoire, or if the creation, forms, or designs of such items have had an impact on subsequent jewelry production. This encyclopedia is not intended as a survey of each cultural group's jewelry, but treats the development of native jewelry-making as a significant post-European contact craft or art form. Consequently, this work focuses on native-made jewelry from the period after 1776, with emphasis on works of the nineteenth and twentieth centuries; earlier cultural traditions are mentioned if influential. Today, native North American jewelry fulfills various functions: as artifacts, craft work, fine art, folk art, and tourist goods. Such jewelry, the product of strong and dynamic acculturation, appeals widely to non-native consumers, thereby providing its makers with a compelling economic incentive to continue to produce.

During the past half-century, interest in Native American cultures has blossomed. Native American arts and crafts are much in demand, and Indian jewelry is a multimillion-dollar industry of great importance to both native and regional economies. The popularity of this jewelry, which is based on strong design and intriguing materials, has even begun to affect mainstream jewelry production. The mid- to late twentieth-century fascination with named native artists has created a vital market for their work, and a number of supporting art institutions, venues, and events have sustained this market. The most famous examples—the fellowships from the Southwestern Association for Indian Arts (SWAIA) and the Indian Arts and Crafts Association (IACA)—began in the 1980s and have boosted individual artists' name recognition. Other examples include the annual (since 1922) Indian Market sponsored by SWAIA in Santa Fe, New Mexico, and the more recent (since the early 1990s) Schemitzun festivals in Connecticut.

Yet, despite this growth of interest in the subject, there is currently a lack of substantial reference information on native-made jewelry, and a great amount of misinformation is available. The sheer variation of types of Native American jew-

elry—from tourist trinkets to high-end, fine-art pieces—and the development of imitation goods have both confused matters.

Also, while jewelry has often been described as part of tribal dress, actual accounts of jewelry creation, and how a market developed for these products, are few and far between. Until the mid-twentieth century, Native American jewelry was treated as an element of indigenous material culture, with ethnological data stressed above other considerations. Anthropological reports from non-native observers provide some glimpses into the history of the jewelry. For the most part, however, the documentation of jewelry production has been mainly the work of non-Indians involved in the industry as dealers or collectors.

Few books have been written wholly on Indian jewelry. In mid-1999, Lois Sherr Dubin published a monumental study of personal adornment that emphasized beadwork over metal jewelry. Dubin's *North American Indian Jewelry and Adornment* (*see* bibliography) covers the origins of works by cultural region. With the exception of this massive visual and textual survey, a large part of the existing literature is derived from travel and regional-interest magazines. And, although the business of Native American jewelry has proliferated significantly since World War II, most writing comes from the 1960s onward, with a sudden upswing during the "boom" period of the mid-1970s. Certainly, the majority of published literature focuses on the American Southwest. But some important documentation of jewelry from other cultures is appearing, especially as those cultures begin to engage in attention-getting revivals.

The *Encyclopedia of Native American Jewelry* provides an overview, background, and specific facts about historic Indian jewelry, with information about key events, people, materials, techniques, forms (or styles), and design motifs. Because this book strives to accurately reflect existing jewelry arts, the regions and groups that are included are necessarily weighted to reflect actual practices. Therefore, at least 50 percent of the subject matter in this encyclopedia centers around the native cultures of the American Southwest, the major producers of Indian jewelry in North America.[1] The remaining native jewelry-making groups are scattered across the continent. In both the United States and Canada, the primary non-Southwestern producers may be found in the Eastern Woodlands, Midwestern Plains, and Northwest Coast cultural areas, and in the far northern Inuit regions.

The most common queries from consumers of Indian jewelry center around biographical information on artists, descriptions of materials and techniques, and records of the origins and development of forms and design motifs. With the introduction comprising historical background essays for each category, the 350 entries in this A to Z encyclopedia cover these topics. This format is meant to assist users who need either quick reference answers or more extensive descriptions.

Some of the information presented here has never appeared in print; it has been gathered from a variety of sources, including archival, oral, and unpublished data. Each of the four main categories represented in this work—the People, Materials and Forms, Techniques, and Design Motifs—cover topics that have not elsewhere been given a written definition or examination. Some entries, particularly those on materials and techniques, have had glossary-like mentions in various publications, but these items have been scattered throughout existing literature, and many are in resources that are out-of-print or hard to locate. Many biographical entries or mentions of native jewelers appear here in print for the first time. This range of information is meant to satisfy queries from a variety of interests, whether scholarly or consumer-oriented.

Criteria for Inclusion

Biographies on specific individuals have been created based on each artist's historical or contemporary name recognition, achievements, holdings in important museums and galleries, and marketplace value. Reliable biographical details have often been difficult to obtain, particularly birth and death dates; in some cases, where more definite dates are unavailable, the term "active ca.—" is used instead.

Practical documentation of the lives of Native American artists began in earnest in the 1980s. Since it is still too early to gauge the contribution and stature of jewelers from the post-1970s generation, this book places a greater emphasis on artists from earlier generations; however, reliable biographical information has been easier to obtain for contemporary artists. A few non-native individuals have been included if they have made a significant and acknowledged contribution to the history and development of Native American jewelry. The same criteria apply to entries for organizations; these groups must have played, or must currently play, a key role in assisting those involved in the Indian jewelry industry, from artists to consumers.

Entries on materials and forms were selected specifically for their relevance to native jewelry production. Certain terms apply to Native American jewelry only; others have a broader context, and are here defined only in relation to the jewelry. When these terms—particularly those for jewelry forms—have been derived from original native or other non-English words, the most commonly used spelling seen in published literature has been chosen. Some terms, such as *turquoise,* involve detailed explanations and cross-references, and lead to more extensive citations for text and images. The entries have been designed to be concise, but also to be as informative as possible.

The techniques entries define terms for broad practices common to all jewelry-making as well as for those processes that are unique to Native American production and design. Only the most important and frequently used techniques are defined. When applicable, the names of artists who have invented, revived, or popularized techniques are mentioned in these entries.

Meanings and purposes behind the uses of certain native design motifs have always been problematic. Some motifs are based on traditional symbolism; others have been invested with dubious meanings. The interpretation of "symbols" in Native American art has been the subject of intense reevaluation in the later twentieth century. In many cases, would-be buyers of native art have indicated that they only appreciate works that satisfy their ideas about tribal image, historical representation, or aesthetic impact, whether these assumptions are based on reality or not. Traders and other jewelry dealers, writers for popular magazines, and even some artists themselves, have accommodated this disregard for veracity and have thereby muddied the waters further.[2] Much native-made jewelry evolved from origins as tourist items; this transformation has redirected design motifs away from "traditional" contexts to those forms that more clearly reflect cross-cultural influence and accommodation. The images defined in this encyclopedia—which should probably be considered motifs, rather than symbols—have been chosen carefully, based on an examination of Native American decorative arts as a whole. It also has been the conscious decision of the authors, made in conjunction with the advice of Indian art experts in the field, not to treat ceremonial jewelry or regalia in any manner within the pages of this work; this subject belongs to the native people themselves. In covering native-made jewelry produced since 1776,

emphasis has been placed on those items made for sale in the ethnic arts marketplace.

How to Use This Book

Reference works can take many forms, but their common goal is to provide easy access to information on specific topics. This work is divided into five parts: An introduction to the subject that comprises essays on the four main categories of entries covered in the encyclopedia, 350 alphabetical entries, two appendixes, an extensive bibliography, and two indexes—an artist-name index to 576 jewelry-makers and a general subject index. Entries are written to be as concise as possible, except for those covering cultural groups or general, historical topics. If further information on an entry's subject is indicated, a bibliographic reference will be listed at the end of the entry. In addition, URLs of appropriate Web sites are provided where possible. These URLs are accurate and active as of December 1, 1999, but the reader should be aware of the constantly changing nature of the Web. The bibliography is organized alphabetically by author name. If there are multiple authors, a general editor, or corporate authorship, the work is entered by title. Cross-references are provided where appropriate in the entries to lead the reader to pertinent related entries.

There have been many changes in terminology and other designations for Native American cultural groups. Even the issues revolving around the use of "American Indian" versus "Native American" have not been fully resolved. Many Native Americans still refer to themselves as Indians in daily communications. In Canada, the term "First Nations" has developed to designate the native people of that country, many of whom live on *reserves,* while some natives in the United States occupy *reservations.* Anthropological theory of the nineteenth and early to mid-twentieth century divided cultural groups by broad, usually geographical, headings: Woodlands, Plains, Subarctic, and so on. These older names may still be referred to in appropriate historical contexts, and they therefore appear to a limited extent in this encyclopedia. However, whenever possible, the current name for a group—often decided by the people within the group—is used, as in the case of the people known formerly as Eskimos, and now called the Inuit. An exception to this decision occurs in some cases, where the term has not gained wide acceptance despite its attempted adoption by a native group. In such cases, we have used the preference of the native artist, for example, Kwakiutl for Kwakwaka'wakw, or Nootka for Nuu-chah-nulth. Spellings have been chosen to reflect the most common usage consistent with published literature. When artists are listed, their better-known Anglicized names are used, with references made to alternate spellings or names in their original languages.

This book has been deliberately designed to facilitate easy consultation appropriate to study or quick fact-checking. The layout of entries, their contents, and references to further reading or additional, related entries, has been standardized for consistency. We have also provided summaries of broad topics to accommodate the extent of information required, making this work a useful reference tool for public, academic, and school libraries, while also serving the interests of more specialized readers, such as artists, business professionals, collectors, and hobbyists.

Notes

1. This large percentage of Southwestern Indian jewelry production is confirmed by a variety of sources, including *Native America in the Twentieth Century: An Encyclopedia*, edited by Mary Davis (New York: Garland, 1994). "Silverwork and Jewelry," an essay from that book, is the defining source for the choice of cultural groups that receive their own entries in this book.
2. The best explanation for this development can be found in Barton Wright, "Fact or Fallacy, the Meaning of Indian Design" (pamphlet). (Santa Fe: Southwestern Association for Indian Arts; Indian Arts and Crafts Association, 1988).

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INTRODUCTION

A Brief History of Modern Native American Jewelry

Jewelry is considered an integral part of dress and personal adornment by virtually all of the more than 500 Indian nations that occupy the present-day United States and Canada. The type of jewelry a group wears depends for the most part on that group's environment and what kinds of materials are available. Native American jewelry created since 1776 springs from two main traditions: the first tradition developed with the use of such natural resources as bone, shell, stone, and wood; the second involves the growth of post-European contact metalworking as a basis for further jewelry production. The resultant variety of adornment—whether jewelry pieces meant to be suspended from some part of the body or dress ornaments (such as buttons, collar corners, or hair combs) made incidentally as part of the silversmith's repertoire—was as complex and diverse as the people for which they were made. Equally meaningful was the use of jewelry for trade. Long before Europeans and others reached North America, the indigenous inhabitants had created extensive trade networks, and jewelry was a prime article for trade. For example, shells were brought from coastal areas into the interior and distributed for use as early as 3000 B.C. Trade also brought copper ornaments that had traveled great distances from their origin points in either the Great Lakes region or Meso-America, circa 1000 to 1300 A.D.

Various cultural regions created jewelry from natural materials in ways that satisfied both functional and decorative needs. In the far north of the North American continent, where people were greatly dependent on warm clothing and other coverings, facial jewelry (such as labrets and earplugs) and ornaments that were attached to outer dress (such as belts, pins, and collar belts) were essential decoration. Plains Indians wore pendants, armbands, and other objects made from animal claws and teeth, with their warriors favoring bone breastplates. The early cultures of the Southwest, including the Anasazi and Mogollon, developed fine mosaic work from pieces of jet, shell, and turquoise, and the Hohokam even etched designs onto ornaments using the acid from local cactus fruit. Such materials were of great significance to jewelry-makers and to wearers because these ornaments were everyday (or ceremonial) items—such as buttons, brooches, belts, and hair-pins—and as such were an immediate part of their lifeways.

Romantic-style portrait of a native woman (possibly Micmac) wearing an eagle feather headpiece, c. 1910. *Toffett/National Archives of Canada/PA-082233.*

The tradition of metalworking only truly developed after the coming of European Americans, but a few pre-contact precedents exist. Copper, hammered and shaped into beads, was worked by people in the Great Lakes area and found its way into the burial goods of the early Hopewell and Mississippian cultures. Copper bells found during excavation of the Casas Grandes site in northern Mexico show that metalwork from Central America came close to reaching the ancient Southwest. Later, native access to metalsmithing tools and techniques became part of the cultural intersection with European settlers. The Iroquois were the earliest workers in silver, creating jewelry based on trade ornaments obtained from French fur trappers, Jesuit missionaries, and local European immigrants. The Plains people traded German silver and silver pieces, particularly belt concha plaques, pendants, and hair ornaments, from the Atlantic to western regions during the nineteenth century. Navajo and Pueblo silversmithing, from the American Southwest, underwent a rich period of initial experimentation from the late 1860s up to 1900. On the Northwest Coast of the Pacific, Haida artist Charles Edenshaw worked silver into bracelets during the 1880s.

European American influence shaped the direction of native jewelry-making. In fact, the history of Native American jewelry can be seen as a microcosm of the larger history of European American attitudes and actions toward native culture and its crafts. The year 1776 serves as a convenient starting date because the domination of the continent by European American settlers was assured by this time. Already by 1777, the Articles of Confederation claimed that "The United States in Congress . . . shall . . . have the sole and exclusive right and power of . . . regulating the trade and managing all affairs with the Indians" (a sentiment repeated in the 1785 Hopewell Treaty between the Cherokees and the United States). As a part of this "management," indigenous arts and crafts were encouraged as a means of boosting tribal economies. Non-Indians had engaged in trade with native people from the earliest days of exploration in the New World, and the newcomers found their trading partners well versed in the dynamics of barter. Among the most influential trade goods to be introduced were glass and china beads, ranging from "pony beads" to the popular, smaller-sized "seed beads"; the import of such beads would have a profound impact on the development of native beadwork throughout North America. After the removal of native groups to reservations and reserves, most late-nineteenth-century non-Indians assumed that indigenous cultures would fade away. Craft revivals were instigated by the end of the nineteenth century as a means of countering this decline.

Together with such craft revivals came an increased interest in visiting Indian locales, with such firms as the Fred Harvey Company developing a nascent tourist industry by the early twentieth century. The growth of tourism, and the increasing numbers of potential customers it provided, proved to be a powerful stimulant to native art work.

Just how potent the impetus of tourism became can be seen in the creation of an ethnic art market. While many native groups were subject to dispersal and marginalization in the face of a dominant alien culture, others learned to survive and adapt. Part of this adaptation was the ability of some native groups to capitalize on whatever resources and trade products they could provide. Jewelry—especially metalwork—lent itself well to manufacturing and commercializing processes. Pieces previously made only for native wearers were transformed according to new European American expectations. The resultant hybrid creations were the direct product of cross-cultural adaptation. Such styles thus became even more popular with non-natives, who responded with an ever-increasing demand for native jewelry. In areas with a strong influx of settlers and tourists, such as the southwestern United States, an active market for such goods developed.

Unfortunately, Native American jewelry has been subjected to much more imitation and misrepresentation—especially since the introduction of manufacturing—than other craft forms, such as rugs and pottery, which are not as easily imitated. As early as the 1890s (and continuing to at least the 1930s), manufacturers in Colorado, New Mexico, California, and the New England states took advantage of the appeal of authentic native-made jewelry, but, looking for quick profits, flooded the market with cheap and shoddy materials and stereotyped, overwrought designs. These substandard efforts harmed the reputation of the genuine product. Concerned non-Indians enacted protectionist measures in an attempt to counter such damage; they campaigned for the promotion of better materials, workmanship, and design. By the early twentieth century, jewelry-making was incorporated into the crafts curricula of U.S. government Indian schools. Regula-

Walking Buffalo family, Canadian Plains, ca. 1920s-1930s. *National Archives of Canada/C-026442.*

tions were drafted to protect Native American access to good-quality silver during the Depression and World War II. And in 1935, under President Franklin D. Roosevelt's New Deal, an oversight institution, the Indian Arts and Crafts Board, was created. Similar activities were sponsored by the Canadian Indian Affairs Branch, which organized a national purchasing and distribution program. Non-governmental patronage led to the founding of various organizations to increase educational and marketing opportunities for Indian artisans. A membership organization based on ethical practices, the Indian Arts and Crafts Association, started in 1974. Concerns about the authenticity and quality of Native American jewelry have reverberated through the century, and such concerns were a prominent factor in the passage of the Indian Arts and Crafts Act of 1990 (U.S. Public Law 101-644).

Native American jewelry went through various stages of evolution and revision as its makers' circumstances changed through the twentieth century. Many tribes took up jewelry-making as a source of income. It even became a cottage industry for some, with Zuni Pueblo a leading example. Jewelry production expanded through the 1950s, and achieved a sudden surge in popularity during the 1970s. It was in the 1960s, however, that Native American jewelry, like most native arts, became established as a popular part of the overall ethnic art market. A number of factors contributed to this, including an increased interest in Native American values and spirituality, the Indian civil rights movement, celebrity endorsement of Indian art as chic, and such pan-Indian interactions as powwows.

In the mid-twentieth century, much Native American jewelry was still viewed as costume jewelry, and this perception did little to promote the importance of Indian artistic achievement. As many Indian jewelers moved from roles as anonymous craftspeople to individuals with artist status, there was a lag in societal awareness of this development. Talented individuals began to be noticed, tentatively at first in the 1950s and 1960s, and then more enthusiastically through the 1970s. Hopi silversmith Charles Loloma (1921–1991) may be safely credited as one of Native American jewelry's first "stars." The new generation of post-1970 Indian jewelry-makers had increased opportunities to attend art school, travel, and absorb ideas from the mainstream art world. Many of their works attracted new critical attention when they demonstrated innovative fine-art characteristics.

Ivory bracelet by Lincoln Milligrock (Inupiaq). *Courtesy of U.S. Department of the Interior, Indian Arts and Crafts Board, W-85.28.3.*

A number of factors came together in the later twentieth century to enhance the development and popularity of Native American jewelry. First, handmade crafts goods became much more in demand among an increasingly educated and discriminating set of consumers. This new appreciation on the part of the general public

spurred sales of well-made native arts, and this interest continues. Second, the rise of named artists, with devoted collectors, permitted the expansion of a high-end market for fine-art jewelry. Third, native artists, talented in lapidary skills and design vision, started to add gold and other precious stones—even diamonds—to their repertoire. Native American jewelry now possesses many of the aspects of the mainstream jewelry trade, with pieces ranging from simple costume adornment to unique, custom-made artworks. Today's native jewelers, who continue to work within their own aesthetic frame of reference, are thus able to twist to a new advantage the forces of cultural accommodation thrust upon them. They can adapt new influences and create rich designs that satisfy both artists and consumers because they practice a living art and use existing conventions as they see fit.

Another major feature in the development of Native American jewelry in the late twentieth century is the active role played by non-native Indian traders, as well as dealers in contemporary and antiquarian art. These individuals, usually independent entrepreneurs, have done much to create a market demand for Native American arts, including jewelry. There is a long precedent for this activity. Indian traders of the late nineteenth century, whether based in Canada's Northwest Territories (such as the Hudson's Bay Company) or on the sprawling Navajo Reservation in Arizona and New Mexico, served as catalysts for the development of native crafts. They ensured an economic incentive for native artists and a distribution link for the sale of their products to non-Indians. Then, in the years following World War II, shops and galleries devoted to the sale of native arts became well established. At the same time, a market developed for dealers and appraisers of antiquarian Indian artifacts, including older jewelry, centered around a number of antique-show venues.

This encyclopedia tracks the most significant aspects of the history of the Native American jewelry market. Native American jewelry has clearly become one of the most important media in the decorative arts. However, the specter of misrepresentation and potential fraud still troubles many would-be enthusiasts. The wide range of quality in what is available on the ethnic art market calls for more substantive consumer education. There is a long-standing tradition of blatant and fraudulent copying from native-made designs; as long as these practices persist, there will continue to be a need for experts and ethics in the industry. The more the collector or buyer learns about Indian jewelry, the better that person's ability to discern authenticity and quality. One caveat must be made: This encyclopedia is only a first attempt to bring useful facts and historical survey to the interested reader. Poised at the start of a new millennium, the continuing growth and popularity of Native American jewelry, including recent developments outside the Southwest, will require further research and documentation.

The People: Artists, Key Individuals, and Organizations

The creators of Native American jewelry faced inevitable changes in their circumstances with the arrival of European Americans and Canadians. The newcomers' involvement transformed the demand for—and even the nature of—the kind of jewelry that had been made by the indigenous people of North America since at least 3000 B.C. Once the continuing appeal of this jewelry was established, non-Indians looked for ways to augment, improve, and even imitate the craft. This last tendency led to commercial exploitation, and non-native supporters of Indian arts soon recognized that jewelry was a medium that was particularly vul-

Unidentified man kneeling to buy curios from a native woman, Juneau, Alaska (?), March 1898. *E.F./Keir/National Archives of Canada/PA-149810.*

nerable to fraud and misrepresentation because it was so easily imitated. As a result, standards were imposed, along with other constraining means of retaining the "purity" of the product. During the 1930s and 1940s, for example, the U.S. government passed various regulations on quality and standards for native handmade silver jewelry (*see* Schrader in bibliography). As non-Indians increasingly became the chief consumers of native jewelry, their preferences had to be acknowledged. Materials, forms, and designs were altered as a consequence; for example, beads for necklaces and new choker-style pieces were made smaller and lighter for non-native use, and new types of ornament, including tie clips, cuff links, and watchbands, were made to suit consumer demand. The European predilection for named artists over anonymous artisans also influenced the nature of native jewelry-making.

Ironically, such changes were not without their controversies; concerns surfaced repeatedly about authenticity, integrity of materials and designs, and genuine acknowledgment of artists. Native American jewelry-makers found themselves surrounded by growing ranks of traders, dealers, museum professionals, collectors, and other interested consumers. Many individuals from these groups would have a decided impact on the Indian jewelry market. During the mid-twentieth century, such individuals as Frank Patania and Millicent Rogers were influential in promoting native jewelry. Another important individual, Pierre Touraine, began to teach fine jewelry techniques to native apprentices in the 1970s.

While the artists themselves would ultimately determine their creative direction as the twentieth century progressed, they were subjected to many tugs and pulls from others involved in the industry. For example, individuals might have their careers redirected by the needs of their gallery representatives (usually non-

natives). Self-promotion was strongly urged upon artists whose own cultural tradition did not encourage such endeavors. Financial success sometimes meant an artist would have to relocate away from his or her community.

The Nature of the Artist's Role

Recent literature has emphasized the fact that pre-contact Native American cultures did not consider "art" as a separate concept; it was merely part of daily lifeways. The establishment of independent functions for craft and art production was the result of European American colonialistic intrusion into native industry. By the late nineteenth century, the collapse of subsistence hunting and farming for many indigenous groups—and the resettlement of most tribes onto reservations (in the United States) or reserves (in Canada)—made craft work vitally important for economic survival. Existing jewelry-making practices were encouraged, and new modes, such as silversmithing, were introduced.

The new emphasis on craft work gave many impoverished native people a source of badly needed revenue. Since the earliest days of exploration and trade with Indians, non-natives had appreciated native crafts. With non-Indians comprising the largest market for jewelry, their preferences could not be overlooked. While jewelry pieces were initially developed as curio and souvenir items, enthusiasm also developed for native jewelry as costume wear. In time, this interest translated, as with other decorative arts, into a market for collectible pieces. Soon those people involved in the marketing and sale of native jewelry were calling for the work of skilled jewelry-makers to add hallmarks or other types of identification to their work.

While this drive for identification had been building before World War II, it did not become popular practice until the late 1960s. Pioneering figures emerged during this period, individuals whose creative expressions and articulate statements helped to redefine public opinion about Indian jewelry, especially in the Southwest. The exquisitely original designs of Kenneth Begay, Charles Loloma, and Paul Saufkie, among others, set the stage for a new type of fine-art jewelry. The writings of other artists, such as Fred Kabotie and Preston Monongye, capture the growing spirit of innovation that marked the 1960s and 1970s. The founding of the influential Institute of American Indian Arts in Santa Fe, New Mexico, provided a solid academic grounding for a new generation of native jewelers. These jewelers' artistic exploration came at the same time that public interest was drawn to non-mainstream, ethnic cultures; the Indian jewelry market expanded as non-Indians "discovered" Native American values. This interest, once awakened, has continued to the present day. Native American jewelry—particularly fine-art jewelry—has remained attractive to collectors, whether new or experienced, in a manner that has reanimated the market.

Unfortunately, biographical information on jewelers did not develop to keep pace with such interest. Biographical information on Native American artists had been largely neglected until the 1980s. Occasionally, an invaluable resource, such as Jeanne Snodgrass-King's *American Indian Painters: A Biographical Directory* (1968), was painstakingly created. Other useful reference tools have followed, with a number appearing in the past five years, although jewelers still receive minimal or no coverage. The main reason for this imbalance has to do with the long-standing academic research emphasis on fine artists over decorative artists. However, this trait may be redressed in the coming years, as the increased (and

sustained) popularity of crafts and decorative arts make the need for relevant documentation more pressing.

Supporting Individuals

Many non-native people have played significant roles in the development of Native American jewelry, especially in regard to its strong presence in the ethnic arts marketplace. The production of Native American jewelry splintered into various levels of quality and artistic complexity according to non-Indian demand. This demand was also directly responsible for the creation of a mass-manufacturing line of inexpensive and imitative "Indian style" jewelry. These commercial products and their misleading appearance have damaged the reputation of much genu-

Della Casa Appa, jeweler of Zuni Pueblo, ca. 1935. *Photo by Frasher. Courtesy of the Museum of New Mexico, neg. #9189.*

ine, handmade native jewelry, causing lasting confusion and unrealistic expectations about price and quality. Key non-Indian partisans of native jewelry have labored to overcome or reverse this inequity.

These non-native people influenced the development of the medium in a variety of ways. The role of certain Indian traders who made specific contributions to jewelry types and forms—such as C.G. Wallace at Zuni Pueblo (who encouraged Zuni and Navajo artisans, and provided designs and materials) and Lorenzo Hubbell of Ganado, Arizona (who recruited Mexican silversmiths to train native artisans, and imported turquoise for native use), represents one aspect of cultural change and redirection. In another case, Herman Schweitzer of the Fred Harvey Company (who developed a distinctive style of tourist jewelry) provided the impetus for groundbreaking commercial alterations to Southwest silver jewelry. Certain key figures emerge from museum settings or anthropological investigation: Harold and Mary-Russell Colton (who developed the Hopi Silver Project in 1938 to encourage Hopi jewelry work), Dr. H.P. Mera (who in 1960 wrote about "desirable" aesthetic principles in native jewelry), and John Adair (who in the 1930s undertook the groundbreaking anthropological study of Navajo and Pueblo silversmithing), among others. Non-native silversmiths, such as Frank Patania and Pierre Touraine, provided educational opportunities in their training of native jewelers. Significant collections of Native American jewelry were gathered by enthusiasts as diverse as Charles De Young Elkus, Millicent Rogers, and Mary Cabot Wheelwright. Some of these individuals' contributions receive entries in this book; others are cited in the bibliography.

Organizations

Certain organizations also played a part in the development of this jewelry. Many groups were started by non-Indians in the drive to assist native arts. These organizations range from early confederations of fur and mercantile traders (such as the Hudson's Bay Company) to governmental agencies, committees, and boards (such as the U.S. Department of the Interior and the Indian Arts and Crafts Board) and private organizations (such as the Indian Arts Fund and the National Association of Indian Affairs). Their founders were eager to extend patronage and other protectionist efforts in reaction to worries about the negative effects of commercialization. Such alarms started in earnest by the first two decades of the twentieth century. While the resultant ventures, especially government intercessions, have not always been successful, a number of important organizations remain. Some groups formed around the exposition and sales events that provided significant showcases for native jewelry, such as the Gallup Inter-Tribal Ceremonial, the SWAIA's annual Santa Fe Indian Market, and venues of the (now defunct) Canadian Handicrafts Guild. For the most part, these organizations were created as a means of addressing issues central to the problems and successes of the medium, such as ethical concerns, the creation of market opportunities, and consumer education.

Materials and Forms

Indigenous Materials and European Imports

The archaeological evidence of personal adornment in pre-contact North America shows that it was made by almost all indigenous peoples. These items were derived from available natural resources that included animal bones and teeth, shell, stone, and, in some cases, raw copper. While it is difficult to

separate the religious or ceremonial aspects of this ornament from everyday wear, items found in ancient burial sites, plus inferences by anthropological investigations, indicate that the acquisition of jewelry clearly implied some sort of personal wealth and status. Various regions possess examples of jewelry-making materials that date to very early times: olivella shells from the West Coast were used about 6000 B.C.; copper beads worked by cold-hammering and annealing processes appeared around 3000 B.C.; and turquoise was imported from the southwestern part of the continent into Mexico between 800 and 1500 A.D. Other parts of North America produced such resources as argillite, dried juniper berries, ivory, pearls, pipestone, and steatite, all of which could be fashioned into jewelry. The use of local and imported materials in the pre-contact period was well established. The most commonly made items were pendants and beads, followed by bracelets and earrings.

Necklace worn by young women before marriage—stones, dentalia, and beads—Tahltan, collected in 1915. *Canadian Museum of Civilization, Image #74-19084.*

Materials made from animals, minerals, and plants continued to be used even after the arrival of European explorers and settlers. Native peoples had a long-established, extensive trading network around the continent (with many items traded for use in personal adornment), and they quickly incorporated the newcomers' offers of glass beads and metallic ornaments into their jewelry-making repertoire. Venetian, Bohemian, and Dutch glass beads were introduced and spread by settlements on the northeast coast from the seventeenth through nineteenth centuries. Such beads then made their way into the interior of the continent through various trade networks. Those in more remote locations, such as the Inuit, received these goods at a later date. For example, the Inuit of Alaska only began to acquire European and Chinese glass beads from Russian traders in the last quarter of the eighteenth century. Extended trade also brought metals to Native Americans and gave rise to an immediate demand for silver in the Great Lakes and upper Mississippi regions. The early years of post-contact trade show that metals were readily integrated into ongoing native jewelry-making processes. However, this jewelry production only really expanded after native metalworkers began to use European tools.

The Iroquois, among the earliest silverworkers, replaced their previous use of copper with silver by the mid-eighteenth century. But it was not until the middle

of the next century that most native peoples began to use silver with greater regularity than copper or other base metals. The Plains groups, especially those from the Southern Plains, worked almost exclusively with German silver, while Northwest Coast inhabitants preferred fine silver after earlier endeavors with iron and copper. By the last quarter of the nineteenth century, European settlers had begun to note the proficiency in silverwork of certain peoples, such as the Haida, Tlingit, Navajo, and Pueblo. A split in beadworking versus metalworking affinity could be traced among various groups, with Plains and Woodlands peoples continuing to make a greater volume of beadwork (but adopting metalwork in some cases).

Native preferences for or access to certain materials could define jewelry production, as in the case of the Inuit, who used walrus ivory and bone almost exclusively. The settling of tribes onto reserves in Canada and onto reservations in the United States also concentrated the choice of materials for jewelry-making. While many native artisans relied on traders to supply them with extraneous materials when they were available, they also continued to make use of traditional local resources. During periods when turquoise became increasingly scarce (starting early in the twentieth century), native jewelers in the Southwest welcomed the importation of the mineral stone from abroad. Other favored stones for setting in silver included coral, garnet, jet, malachite, and onyx. Certain materials, such as petrified wood, enjoyed brief periods of popularity before falling out of vogue.

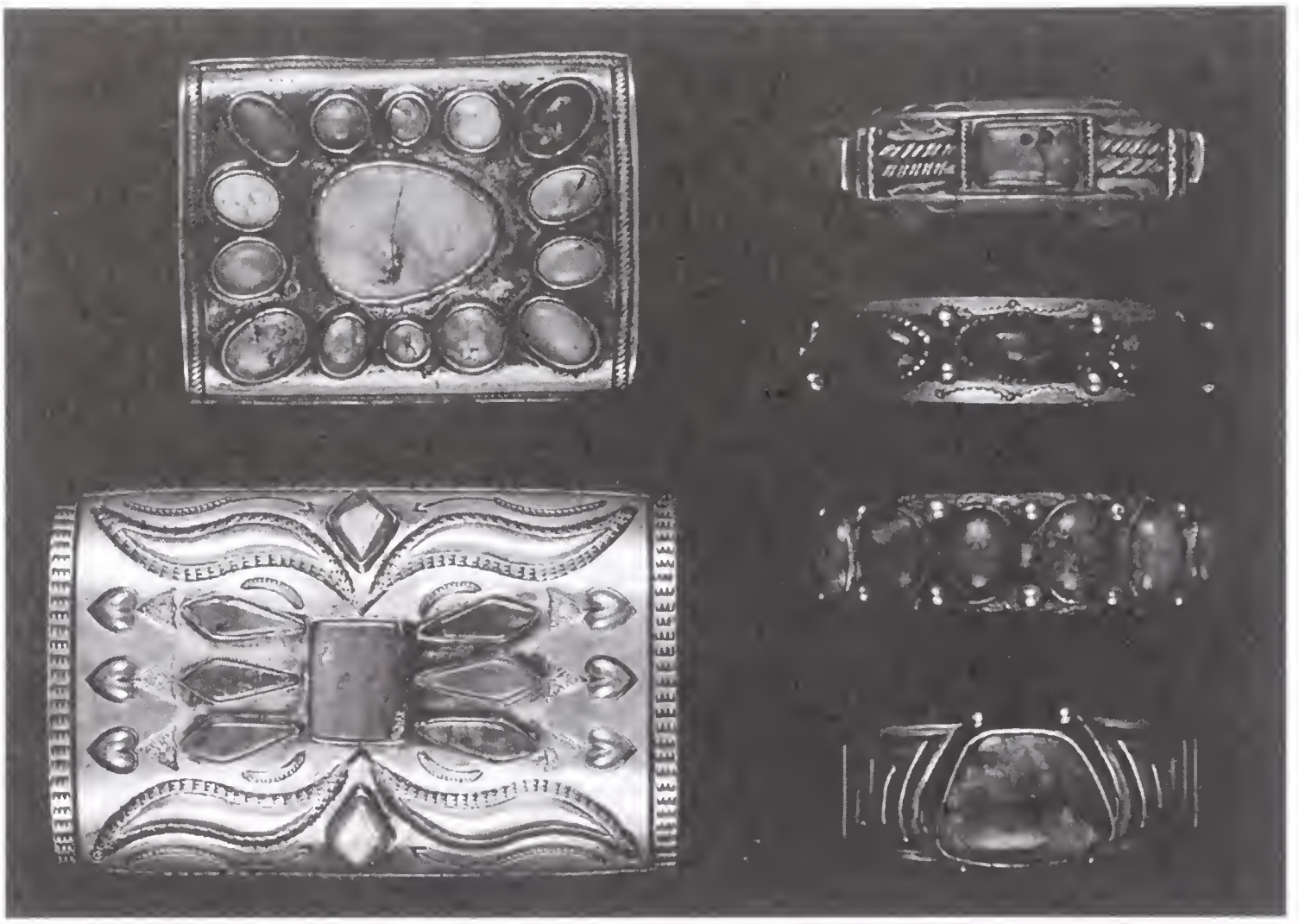
Late Twentieth–Century Transformations

As the twentieth century progressed, Native American jewelry materials were decisively altered by tourist demand and by the predominance of non-Indian consumers; for example, non-natives began to develop less expensive replacement materials—such as paste made with crushed turquoise chips or "white metal" (alloys that substituted for silver). In addition, some tourist pieces were made with lighter metal so they would be easier for travelers to carry home. An accelerated expansion of materials, techniques, and designs marked the 1950s and 1960s; in some locations, like the Northwest Coast, there was a renewed interest in gold- and silversmithing. This resurgence did not occur everywhere, however; the mid-century saw silver ornament creation diminish among some cultures (particularly in the eastern Woodlands) to simple dress elements.

Only with the establishment of fine art jewelry, arising from the general economic "boom" of the 1970s, did new and more challenging materials find a firm foothold. Previously, few native jewelers had the financial means or incentive to use costly resources—such as gold and precious stones—in their work. With improved lapidary tools in hand, and increased access to art-school training, native jewelers began making bold use of these new materials. An upsurge in the use of brightly colored alternative minerals and gems increased, with new combinations of such previously exotic resources as lapis lazuli, peridot, sodalite, sugilite, and tourmaline. By the 1990s, many artists were able workers in those techniques that supported fine jewelry creation, and their creative use of materials not previously associated with native adornment added a new dimension to the public's perception of Indian jewelry.

Quality of Materials as an Ethical Issue

There has been a persistent concern about how to determine material quality in Native American jewelry, a concern that dates back to the late nineteenth century. Native peoples of those times had few opportunities to amass steady quantities of



Bowguards (*ketohs*) and bracelets, Navajo and Hopi, early twentieth century. *Courtesy of John C. Hill, Antique Indian Art, Scottsdale, AZ.*

good-quality materials for jewelry-making, and they were often reliant on what was available from the nearest trader. By the 1920s and 1930s, mass manufacturing processes were in place, and "Indian-style" jewelry of poor quality became a fixture in the marketplace. Promoters of Indian arts quickly saw how both Indian-made and imitation "Indian-style" jewelry made with shoddy materials (including low-grade metal and dubious stones) did not endear the medium to unsuspecting buyers. However, the ingenuity of native artists in substituting certain materials with alternative substances did not mean that all were engaged in fraudulent practices. Such activities were often the mark of artists with limited economic means or a penchant for experimentation. In some cases, the use of substitute materials increased historical and collecting interest in these goods.

The depredations of the Depression years, the disruptions of World War II, and limited economic opportunities on the reservations meant jewelers were careful in the accumulation of materials. As one example, enterprising Pueblo artists from Zuni and Santo Domingo made inlay pieces from the black plastic of phonograph records because it was inexpensive and convenient. Native artists would also reuse and reconstitute materials from existing jewelry—concha plaques were detached and made into pins, stones were removed from settings and replaced, and various metallic parts were removed and resoldered to repair or alter a piece's original form. Some jewelry items on the market are therefore "compositions," made with elements old, new, and reworked; this sort of adaptation is valid as long as it is properly acknowledged for what it is.

Because misrepresentation, sometimes based simply on lack of information, dampens enthusiasm for the medium, buyers and sellers of Indian jewelry need to watch for the evidence of inferior materials passed off as genuine. This concern is allied to the development of deliberate reproduction and revival-style (see entry) pieces. When such works are misidentified or misrepresented as genuine artifacts,

the practical reuse and recycling of materials assumes a less benign character. As a consequence, the appraisal process—assessing the value of a piece—requires looking out for a number of clues. The problem of quality in materials can already be complicated by repairs and alterations that obscure an object's origins. Various questions can be asked: How much alloy is in the silver? Is the turquoise treated or stabilized? Are all the stones in a piece of inlay genuine? Has plastic or colored glass been made to look like a certain gemstone? The better the quality of the materials, the more durable and wearable the object will be.

The Development of Jewelry Forms

Early jewelry shapes and styles followed elemental lines. Forms were simply delineated; for example, bracelets and necklaces made of iron and copper were shaped into single or twisted bands. In many cases, fashioning these objects from materials like animal bone, abalone, and stone meant laborious cutting; thus, pendants and earrings often approximated the natural shape of the materials they were made from. Some pieces, such as breastplates and bowguards, had practical functions for warriors and hunters. Certain cultural groups demonstrated preferences for specific forms: crosses and gorgets for Woodlands Indians, round pierced brooches for those in the northeast and Great Lakes regions, and pectorals for Plains Indians. The significant trade, communications, and currency patterns made on wampum (shell-beads woven in a line or into a belt form [see entry]) were readapted to be used as personal adornment such as beaded bracelets, chokers, and watchbands (and so honor the original importance of this material). Native-made silver bracelets, earrings, and pendants were the most frequently chosen forms for trade to European settlers.

A variety of silver and stonework brooches, mid-twentieth century, U.S. Southwest. *Courtesy of the VanderWagen Trading Company.*

The trade dominance of European American and Canadian culture caused great changes in native choices for jewelry forms. This alteration began with the exchange and use of glass beads and metal trade ornaments for dress wear. In some areas, such as the Southwest, natives were influenced in two directions: from the adornment of Spanish colonists, and from trade with Plains Indian neighbors. Popular forms evolved during the mid-nineteenth century, only to be displaced by non-Indian tastes. Often the more traditional forms were reworked to accommodate the consumer, as in the miniatur-

ization of some types of jewelry shapes, such as concha belt plates, squash-blossom pendants, and armbands.

Forms made solely for non-Indians, such as cuff links, tie clips, and watchbands, appeared more regularly by the mid-twentieth century. This move to jewelry-making mainly for non-native consumption decreased the production of certain objects that had been used for everyday (or ceremonial) dress, like manta pins, hair clips, and bowguards.

When Native Americans approximated the forms of European-style personal decoration, they also began to experiment with indigenous design and techniques. For example, correlations between Victorian jewelry styles and native-made tourist pieces are found in abundance. Mastery of new forms was consonant with building a demand, or market, for such items; in following these trends, native artists were widening their own options. With the later development of Native American fine-art jewelry, experimentation altered forms with a new purpose. Avant-garde approaches meant deliberate rethinking of familiar jewelry shapes, which were then modified or exaggerated through the choice of materials used in the piece. Bracelet cuffs or pendant outlines could vary in their form according to such new vision. Jewelry forms retained some of their "traditional" native aspect, but they now also reflected a deliberate change for the sake of artistic expression. Many jewelers of the 1970s and 1980s won recognition for their facility in merging—and then reworking—formerly traditional materials and forms into strikingly original statements.

Techniques

New World Techniques Meet Old World Processes

Evidence shows that jewelry-making processes have existed as long as native peoples have occupied North America. The archaeological record reveals several types of personal adornment techniques that range from the stringing of shells, bones, and other natural materials to a form of copper metalwork that was practiced as early as 3000 B.C. This early use of copper for ornament was evidently meant to be used solely for ritual purposes, as can be seen in artifacts from the Woodlands Adena and Hopewell cultures. The making of hand-hammered copper ornaments has turned out to be a long-running indigenous technique that survived well into post-conquest times. (Just as interesting is the fact that more sophisticated metalwork—including goldsmithing and more intricate metal finishing—developed in South and Central America only, and did not spread to the north.) While many techniques employed prior to the coming of European explorers and settlers have endured into the present, most Indian jewelry as we know it today is the cross-cultural product of the newcomers' tools and influence mixed with the design and production innovations of the indigenous peoples.

By 1776, the introduction of European tools and processes had reached many native cultural regions, but the process of borrowing, integrating, and adapting ways to make jewelry for personal and tribal use came first. Changes in technique developed over time. Such basic incentives as the availability of metalworking tools, and the usefulness of making products that could be traded to other tribes—or to a growing number of interested non-Indian consumers—encouraged jewelry-makers to develop their craft. By the mid- to late nineteenth century, the sustained production of jewelry items for sale induced more native artisans to take up metalworking; the number of jewelry-makers increased from a handful to doz-

Navajo silversmith, working at Santo Domingo, ca. 1935. *Photo by T. Harmon Parkhurst. Courtesy of Museum of New Mexico, neg. #3180.*

ens. A direct increase in production followed the lines of the railroads that began to traverse the western United States. However, this increase did not occur in every cultural region: while metalsmithing took hold in the Southwest and on the Pacific North Coast (where hand-wrought methods yielded new results in terms of experimentation with the shaping and decoration of jewelry forms and brought alterations to technique, surface quality, and the use of stone settings), existing production levels dropped among the Iroquois and other eastern groups, such as the Seminole. Only after World War II, and the spread of pan-Indianism in the decades following the 1940s, did the impulse for creating metal jewelry reach most areas of indigenous native North America. Undoubtedly, the introduction of hand-cranked drills and wheels that could be pumped by foot, followed by electri-

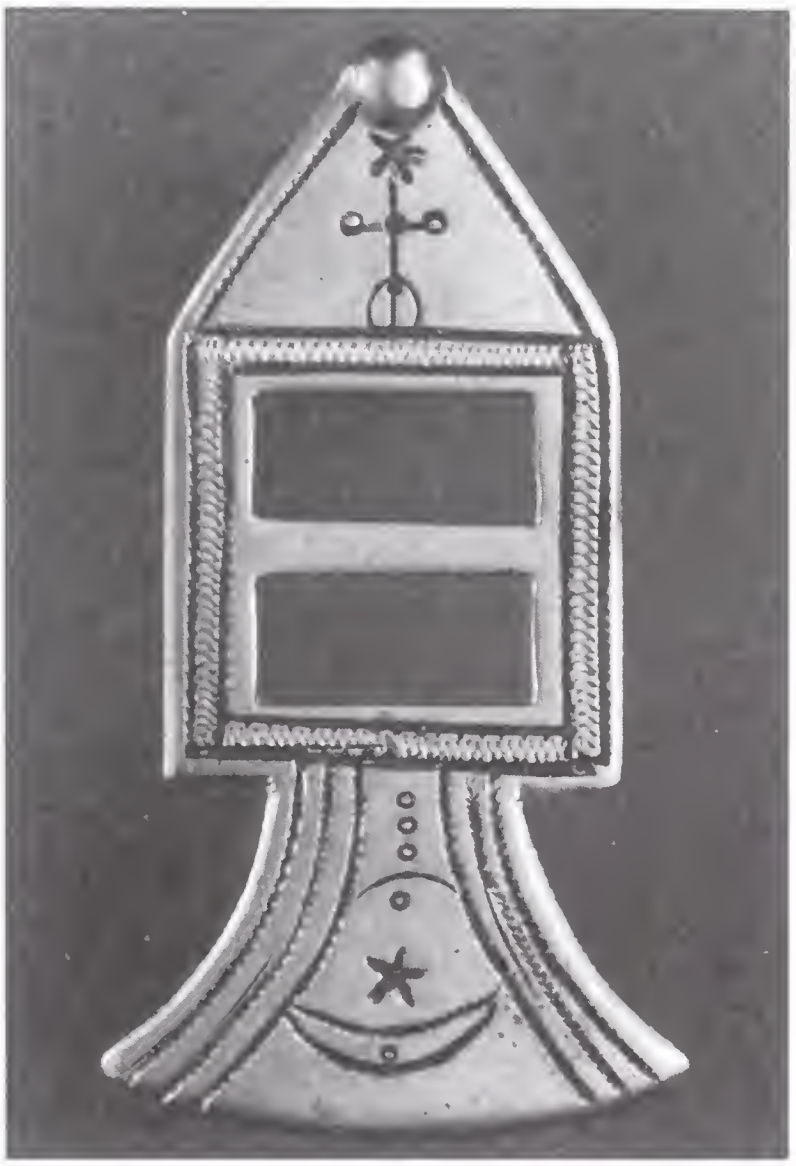
cally powered machines and tools, aided this wider dissemination of jewelry creation. However, only after complex procedures were mastered by hand did native jewelers welcome these technological advances that included mechanized buffing, precision casting, and the automation of steel die stamping and alloy mixing. Yet the hand-crafted tradition marks the best of all native work, and improved technical processes are not the sole reason for the ingenuity of native-made jewelry—just one of the contributing factors.

One of the most distinctive features in the history of Native American jewelry creation has been this ability by native artisans to absorb new technologies, including those related to process. Such jewelry retains its ethnic context while profiting from experimentation. Native jewelers adopted existing tools to get the job done more easily (as in improvising crucibles from pottery shards or clay, or creating anvils from abandoned scrap metal); later on, they used technological innovation to achieve innovative and aesthetically pleasing effects. Some processes developed more slowly simply because most natives did not have the means to obtain certain materials or tools available to European American jewelers. Even after European metalworking was introduced to North America, silver was treated in a method more closely resembling pre-contact metalworking well into the mid-eighteenth century. Remarkably durable early native-made jewelry was produced in these conditions, aided by earlier efforts with iron, brass, and copper. When certain tools were not available, native jewelry-makers improvised, with impressive results. When expertise grew and spread with the increase of tools and materials by the early to mid-twentieth century, there was a rapid enhancement of existing techniques, and the investigation of new processes for differing aesthetic effect. This can be particularly seen in how North American native artisans have reanimated certain procedures, known to virtually all world jewelry-making, such as ivory carving, sandcasting, and metal stamping for decoration. The same impulse exists in art-school-trained native jewelers who have used lost-wax casting, or revived cuttlefish bone casting, as a means to creating a "new" look to their pieces.

Beadwork Refinements

Beads were prevalent as ornament throughout North and South America from 3000 B.C. on, and in keeping with other indigenous cultures around the world, there existed strong local traditions for making and stringing beads. The techniques used to grind, shape, polish, and drill holes for bead stringing usually involved great labor. Pump drills, also known as bow drills, were an early means whereby holes could be drilled into such materials as turquoise, and the use of these drills required great physical energy. These tools are still in use today. One pre-contact technique unique to North America was the softening and shaping of porcupine quills for quillwork. The making of quillwork was also a laborious process, but its results were prized; today, the designs that appeared in this quillwork have been re-created on jewelry, and this technique has had a limited revival for dress adornment. The importance of quillwork as an indigenous form of beadmaking has ensured its survival as a decorative technique; jewelry creation pays tribute to the attractive effects of quillwork.

Once glass beads began to be imported from Europe, native artists quickly adopted the new materials. Without the burden of having to hand-fashion beads, more effort was directed toward beads as a medium. The advent of more sophisticated tools and an increasing supply of beads produced a greater range of tech-



Tie slide or brooch, silver with incised designs, mid-twentieth century, probably Plains U.S. *University of Pennsylvania Museum, neg. #S4-142833.*

niques and styles centered around enhancing designs. The use of trade beads made an indelible impact on native North American jewelry creation. While beads from local materials—especially turquoise, shell, and bone—continued to be made, glass and ceramic beads brought new values to the "look" of ornamentation. Woven beadwork techniques were created using single and double weft-and-warp stitchery. Cylindrical shells, like those used as beads in creating wampum, were strung in new ways not related to the communication/exchange of native wampum, and such works thus became subtly detached from their original contexts. Objects decorated with these beads were attractive commodities for trade and export. Indian-made jewelry and dress ornaments entered the souvenir and curio trade, and their popularity ensured imitation whenever mass-production methods could be implemented. More useful materials, such as foxtail (a sturdy commercial steel-braided wire) and cotton string, increased the durability of jewelry made with beads. The native taste for beadwork was stronger than that of non-Indian consumers through a large part of the twentieth century, largely due to the limited production and visibility of true native-made bead adornment. In addition, low-quality manufactured variations on beaded ornaments allowed many people to see this work as a "tourist" or souvenir product. At best, beadwork has been viewed as a minor craft. Only in the last two decades of the twentieth century has beadwork outgrown this status, and it is now hailed as an increasingly sophisticated—and popular—form of fine art (see beadwork entry).

Metalwork and Lapidary Skills Expand

Where and when native North American artisans learned European-based metalworking and lapidary procedures varies according to the history of each native group's cross-cultural contact. In the U.S. Southwest, an important study was undertaken to record such knowledge. Anthropologist John Adair investigated the origins of silversmithing among Navajo and Pueblos through fieldwork in the 1930s. He interviewed native inhabitants with memories ranging back to the 1870s and 1880s, the first full decades of continuous smithing activity. Adair was able to establish names for the first Navajo and Pueblo smiths, noting Atsidi Sani of the Navajo, and another, Atsidi Chon, who taught the first Zuni smith, Lanyade. In turn, Lanyade transmitted his learning to one Hopi individual, Sikyatala of First Mesa, who then taught others. Unfortunately, this sort of ethnological information gathering was not done for other native groups, and in those cultures where

silversmithing was more active at an earlier period—most notably the Iroquois—names of working smiths are missing. Only when a determined revival of Iroquois jewelry-making began in the early to mid-twentieth century, stimulated by WPA-funded efforts in New York State, did attention return to recording the activities of its practitioners.

Nevertheless, by the beginning of the twentieth century, metalsmithing and lapidary skills had gained a strengthened foothold across North America, and such skills were developed according to their benefits for specific native groups. By this time, silver jewelry-making had started in the Pacific Northwest, from Seattle to southern Alaska; in addition, the number of silversmiths from tribes in the Southwest, and those settling in the Oklahoma region, grew steadily. Enough silver jewelry was now being made to warrant the concern of non-Indian agents, traders, and others involved in the Indian arts industry; soon there were vigorous debates about silver alloy quality and the integrity of mechanized processes. As manufacturing increased, these anxieties settled around the issue of handmade versus machine-made jewelry.

The expansion of stone and metal native jewelry since the late eighteenth century brought new attempts at decorative techniques. Modes of surface decoration ranged from engraving and etching to repoussé (a relief design created by hammering from the back of the metal) and chasing (indented, beveled lines). German silver ornaments were initially patterned by file- and rocker-engraving (engraving by rocking the chisel corner to corner [see entries for these techniques]). Northwest Coast silver and gold jewelry adhered to the incised decorative techniques that sprang from the strong carving traditions of that cultural region. The first Navajo and Pueblo smiths embellished coin silver jewelry with filed and stamped designs, including some that derived from Spanish Colonial leatherworking punches. Soon other decorative processes followed, techniques that involved actual physical manipulation of the metal itself through such active means as doming (gently hammering metal into a hemispherical shape) and swedging (hammering long grooves). The work done by narrow cold chisels, awls, dies, and punches was enhanced by the creation of finer stamps (made from steel), and the eventual availability of machine-milled stamps failed to divert the native jeweler from the use of handmade dies and punches for decorative stampwork. Improvements in soldering materials and techniques meant smiths could abandon the time-consuming process of making granular silver solder. They also quickly learned that silver solder was a better choice than lead or soft solder, because the silver solder offered a stronger bond. Well before native smiths had access to the products of commercial supply houses, their ingenuity was apparent in handmade tools (such as brass blowpipes) and improvised forges and furnaces.

In the Southwest, a series of general dates can be discerned for the evolution of native silversmithing and lapidary work and changes in technical processes and abilities. Between 1870 and 1920, metal jewelry was heated over open hearths, fire pits, or improvised metal pans using bellows and charcoal soldering. The early smiths melted a small amount of brass (from discarded bullet cartridge casings) with silver from U.S. or Mexican coins to make solder. Despite the intensive activities required to create silver for jewelry-making, some notable pieces were created in this time period. The coming of the automobile (and all its accompanying tools and supplies) to the Southwest rendered the period between 1920 and 1940 "the age of the gasoline blowtorch," which eased the soldering process. A number of specific metal tools aided the jewelry-creation process, including drawplates,

needle-nose pliers, rolling mills, soldering frames, and the jeweler's saw for lapidary work. Stamps and other dies were augmented into various forms for cutting, punching, and shaping metal decoration. After 1940, the introduction of the acetylene torch made the metal-heating process safer and allowed the jewelry-maker to direct the flame more effectively. Metal flasks used for sand and liquid metal casting were replaced by electric melting furnaces. The wider availability of different gauges of sheet silver and wire permitted further experimentation with jewelry forms and effects. Improvements in such tools as mandrels (for bending and rounding metal), anvils, and saw blades assisted the native jeweler's work. When native artisans began to receive art-school training in the 1960s and 1970s, they gained access to mainstream jewelry processes (such as lost-wax casting); now the stage was set for ventures into fine-art jewelry creation.

Lapidary tools brought further changes for the twentieth-century native jewelry-maker. Nineteenth-century silversmiths lacked effective ways to cut stones like turquoise to fit small settings. New tools for sawing, grinding, dapping (hammering metal into a dome shape), sanding, and polishing made artists' work easier. This new facility in facet cutting and drilling encouraged experimentation with additional materials and methods. A jeweler's saw and a carborundum wheel allowed stones to be finished more smoothly. With the building of silver cabs and whole inlay channels, lapidarists had a firmer foundation for developing ways to set stonework into decorative patterns. Southwestern Indian lapidary work reached a certain climax in the Zuni creation of the cluster technique, in which multiple stones in silver mountings were added to jewelry pieces; in turn, cluster work gave birth to attractive techniques using small stone settings, such as needlepoint (clusters of narrow elongated stones), petitpoint (clusters of ovoid stones), and row work (clustering of stones in straight, symmetrical lines) (see entries). The resulting effects were popular with those who had always prized stonework, and from its genesis in the 1920s to today, cluster work is recognized as a genuinely native achievement in modern jewelry creation. Jewelers could make whole metal "forms" or "blanks" into which any type of stone could be added. By the 1970s, silver and gold jewelry pieces set with semiprecious stones were the most common type of native-produced adornment. However, when the advent of artificial stabilization and treatment processes for turquoise—including color enhancement through the application of animal or plastic substances or dye injection—allowed a wider range of quality and effect to be introduced, this development only seemed to substantiate the natural highs and lows of Native American jewelry production.

A silver "blank" or "form" ready for the inlay of stonework, ca. 1970s, U.S. Southwest. *Courtesy of the VanderWagen Trading Company.*

All these factors played a role in the acceleration of native jewelry-making techniques, and the forces of non-Indian demand and pan-Indian spirit were united for

the purpose of generating a clearly recognizable product. However, the inevitable contrasts between handmade versus machine-made creation still haunts Indian jewelry to the present day. Native jewelers have been caught in a web of critical opinion that celebrates only the hand-wrought and that views machine work with suspicion. However, like all jewelers, native artists have received timesaving and economically invaluable benefits from such machine processes as centrifugal casting and the use of technologically improved grinding wheels and blow torches. In fact, as native jewelers gained utility in such other technical procedures as hollow-forming, their work was launched in new directions. Yet concerns about authenticity of materials and the techniques employed in their creation still deeply influence the presentation of jewelry work at Indian art shows and exhibitions.

As jewelry-making techniques became more sophisticated, including those processes that simulated hand detail through industrial means, the opinions of non-native consumers grew even more critical. Beginning with the first manufactured imitation Indian silver produced by a Denver firm in 1910, native-made jewelry was inevitably compared with the ensuing spate of manufactured goods, and often such comparisons harmed the bona fide article. The onslaught of imitation work into the Indian goods marketplace confused the uneducated consumer. As a result, reformers called steadily for "traditional" and "authentic" Indian jewelry to be handmade. This type of pressure both stimulated and depressed the technical maturation of native jewelry-making—creating opportunities for experiments with mainstream effects that could prove lucrative, but at the same time locking native jewelers into making predictable types of jewelry. As a consequence, the transmission of technical ability was deeply affected by trade and sales incentives; for example, certain styles (such as cluster work) became popular, sold more than other styles, and thus encouraged more artists to use those styles. Yet at the same time, the establishment of production lines and bench work, such as that pioneered by Maisel in Albuquerque, New Mexico, also became a training ground for many Indian smiths. The initiatives taken by native studio jewelers from the 1960s onward took the contradictions forced onto native jewelry-making and transformed them into new avenues of exploration. These jewelers combined mainstream and traditional native materials, forms, and techniques into new creations, such as raised inlay and unusually shaped pieces.

Experimentation and Creative Solutions

Native American metalsmithing became increasingly self-defined by the mid- to late twentieth century. Jewelers began more intensive work with gold and other delicate materials, and sought new approaches to technical refinement. They were aided in this endeavor by apprenticeships with influential non-Indian master jewelers (see entries on Frank Patania and Pierre Touraine). The role of the Institute of American Indian Arts also stimulated technical innovation. The advancement of technical process was triggered first by the desire for certain natives to develop a specific tribal style, or "look"; later on, it reanimated itself into the development of individuals' artistic impulses. In effect, technique could be used as a form of creative identification tag. As non-traditional processes were mastered, and even altered for the sake of accommodating those materials and forms preferred by native sensibilities, jewelers could continue their experimentation while still making an identifiable product.

In this respect, the American Southwest served as a geographical catalyst for a host of technical innovations. One reason for this was simply that the largest vol-

ume of jewelry was created there, and numerous native groups depended on jewelry as a major source of income. Physical proximity created notable collaborations. For example, Navajo smiths made silver settings that were filled by the stone cutting of Zuni lapidaries. Intricate and small-scale fabrication in metal encouraged the development of such lapidary techniques as channel work and various forms of inlay. The creation of such specific techniques opened the door to the rise of certain "styles" for Indian jewelry.

One of the most deliberate uses of technique to create a style was the Hopi adoption of the overlay process. Experiments with the economic use of leftover turquoise led to development of the chip inlay process by a family of Navajo silversmiths, the Singers. And the expansion of the shadow box technique, with its deep oxidation-blackened recesses, marked another critical juncture in the history of native technical achievement. The mingling of stone in and on metal was creatively exploited throughout the 1960s and 1970s. Pride of workmanship played a role in these innovations, along with an unerring eye for proportion and design. Technical experiments—and their successful results—were most possible in the hands of artists with a genuine sensibility for the physical properties of the material they worked. The ability to see and manipulate the potential of improved tools, equipment, and materials for aesthetic effect was remarkable.

This technical progression was also a reaction to the overwhelming forces of the predominant culture that surrounded these jewelers. Jewelry made by Indians, like other native arts, blossomed with the establishment of materials, techniques, and designs that proclaimed their native identity. However, as more and more jewelry-making techniques were made universal, native artisans felt less and less limited to tribal choices. Some jewelers continued to learn specific techniques from family or artisans in the community, adopting or altering the procedures as they saw fit; others learned through vocational or art-school training. Continued exposure to mainstream jewelry-making techniques broadened artistic options. Within Native America, the post-World War II growth of pan-Indianism also brought artists together, irrespective of their cultural origins, and caused artistic modes to mingle more freely. As contemporary native jewelers saw an increased interest in older jewelry, finishing techniques were developed to reproduce the patina and detailing of older pieces, to be used on revival-style pieces. Various technical elaborations, from the use of labor-saving mechanical processes to the adoption of hallmark stamps, were adopted to meet the demand for distinctively native-made jewelry.

From the 1960s onward, native jewelry creation visibly branched out into two ongoing directions: the first branch continued the craft aspect of jewelry production, in which pieces were made according to whatever local, even cottage-industry, process had originated them; and the second branch marked the establishment of fine-art jewelry as a viable and sought-after commodity. The new generation of individualistic jewelers, creative and often outspoken, reached the public's attention through the popular media, especially in the American Southwest. Once part of Native American jewelry-making had broken away from its anonymous craft context, the innovative—even avant-garde—nature of works by individual artists held even more appeal for consumers.

Not only did some contemporary native jewelry pieces now resemble small works of art, but a true virtuosity of execution could be discerned. General perceptions about Indian jewelry were forced to change yet again, as this new wave of objects enlarged the market. The entire spectrum of Native American jewelry cre-

ation had been increased and broadened by technical ability. Impressive as this was, the unsuspecting consumer now faced even greater grounds for confusion in distinguishing quality and process. Worries about misrepresentation persisted, and were intensified, on the one hand, by the strict entry and judging criteria employed at native arts shows and other venues, and on the other, by the total absence of such guidelines when consumers were on their own. Technique, like materials and forms, helped to define Native American jewelry; the history of changes and improvements in technical process is reflected in the successful, albeit confusing, range of jewelry choices available today.

Design Motifs

Sources for Design

Transformations in Native American jewelry design, as with materials, forms, and techniques, demonstrate the enduring popularity of this medium. Design elements, or motifs, possess powerfully recognizable and identifiable features; observers are drawn to visually descriptive images that express native qualities. While some sources for such decorative impulses date back to prehistoric times, others are of later invention. Ranging from the playful and experimental to the deliberate or sacred, old and new motifs reflect a certain amount of aesthetic sensitivity in their adaptation. Ornamental patterns on jewelry often appear reduced or simplified, even if the overall effect is actually complex in its rendering. The mingling of cultural forces is apparent, and the history of native jewelry design is richer for this mixture.

Design on objects is part of an overwhelming human compulsion or need, spurred by basic creative reactions. Lines, forms, colors, and textures fulfill nonverbal expressions. Native American design motifs (as with all design motifs) fall into two categories: representative or abstract images. A number of conventional modes of decoration evolved—geometric shapes, plants, flowers, animals, humans, and man-made forms—and were combined into compositions. Native peoples used various mixes of these modes according to the relevance of each motif to the jeweler's culture.

The development of visual decoration may be compared to the rich remains of petroglyphs and pictographs, usually known by the term "rock art," that are found throughout North America. Such creations attest to an existing vocabulary that is largely unknown to us today. The significance of rock art may ultimately remain unreachable, but it was among the first visual modes of ornament.

In the making of rock art, native groups generally adopted pictorial elements from their immediate surroundings. Maritime or agricultural-based groups, for example, developed related motifs and imagery, such as water symbols and corn stalks. Sign-like representations of nature played an important role from the very first days of visual creation, and such representations appear as a consistent element throughout all native design. Pre-contact design motifs and decoration, however mysterious in their origins, still serve as inspiration for modern jewelry design endeavors.

Before the arrival of European settlers and immigrants, native artisans did not depict obvious or representative images from their own culture's cosmology, historical narratives, or religious ceremonies on their jewelry. The sacred was represented through abstracted elements that were meant only for the initiated, or were symbolized by the materials used (such as abalone or shell). As European Ameri-

can and European Canadian culture became more and more predominant and intrusive, most native people went "underground" with their beliefs. At the same time, non-Indians delighted in objects that supposedly contained spiritual symbolism. In reaction to this, native artists either offered their own (sometimes diluted or even spurious) versions of religious motifs, or they developed secular images, often based on the material culture of the artist's heritage, as an alternative design emphasis. Consequently, much jewelry design evolved according to the tastes of those for whom it was intended, as a type of commodification. The resulting compromises guaranteed Native American jewelry's success as a decorative art form, since both makers and buyers were satisfied.

Motifs Versus Symbols

Since North American native design possesses ornamental characteristics unlike those of European origin, it is important to define what design motifs actually are, and how they vary from the system of sign-symbols established by Western cultures. While tourist-oriented contemporary native jewelry decoration makes use of "symbols," these forms may well be devoid of any true meaning. One of the most common non-native misunderstandings associated with Indian jewelry is the automatic assumption that any decoration thereon is significant, and redolent with associations from the artist's culture. In fact, the collision between cultures, native and European, ultimately formed a particular kind of artistic collusion, one that expanded and elevated decorative motifs into a pictorial code of "Indianness." The work of Indian traders as intermediaries between the artist and non-native consumers produced "new" imagery, such as crossed arrows, symbolic animals, and objects from daily native life (e.g., pottery and dwellings).

Motifs are design elements arranged according to the artistic conventions of those who use them. In other words, they are not culturally specific, learned emblems. Most motifs contain lines, spaces, and other visual details, all of which may become simplified or complicated in treatment. Motifs also vary according to the nature of the materials and techniques used to make an object. In jewelry, as in other decorative goods, motifs assume an ornamental function. Motifs may be representational or abstract in character, but they usually have a tendency to become more conventional when they are used as repetitive decoration. Over time, some motifs become more graphic in representation, but they slip into conventionalized representation through enforced simplification and subordination to an overall decorative pattern. This explains why nineteenth- and twentieth-century

Two silver bracelets, bird (left) and beaver designs, late nineteenth century, Northwest Coast. *Art Price Collection/National Archives of Canada/PA-201445.*

native jewelers seeking expressive motifs often chose patterns employed on other forms of decorative arts, such as pottery, textiles, masks, and even certain techniques such as leatherpunching—because they lend themselves to repetition.

Symbols are visual devices with a meaning attached; this meaning is either universally recognized or it represents a conventionalized image that has significance to a specific group of people. The clamor for Indian symbols by non-Indians was a demand for a certain set of conventions that would make native design immediately identifiable. However, symbols that had an implied value could be manipulated in both directions by their creators: Having no previous experience with the aesthetics of Native Americans, European Americans and European Canadians approached natives as if they were members of primitive cultures, and seemed most touched by the sense of "otherness" they encountered in Native American imagery. European settlers, the main market for native arts by the late nineteenth century, were interested in, and expected, items that proclaimed symbolic content. They also imposed their own assumptions on native design. Impatient with learning what decoration meant to native artisans, non-Indians developed whole groups of symbols to explain indigenous thought processes. This trend is best exemplified by the invention of "keys" to the meaning of "Indian" symbols, such as those published in postcard form by various traders and souvenir manufacturers. Ironically, many of these symbols had been taken up by non-native designers (such as Herman Schweitzer of the Fred Harvey Company), but they had become stereotypes of "Indian" symbology.

However, the decorating of objects can be little different from filling blank spaces on an object with meaningless symbols, especially when those symbols have been dictated by another culture. Symbols are most useful if they are accurate reflections of a culture's image signs; this is often not the case for much Native American decoration. Certain types of motifs used in native design are often not genuine symbols but artificial embellishments. Variations in the significance or form of any particular motif are a result of whether they were created from technical, aesthetic, ideographic, or sacred (religious) purposes.

Misunderstandings about the symbolic meanings of figures used in Native American design are common. In some cases, whatever significance may have once been attached to a particular design now lies far in the past and has been forgotten. Even if a motif has been used repeatedly over the years, it may have developed into a purely decorative mode—making it ripe for a reinvented context. The kinds of theories of ornamentation that developed in Europe do not apply in the case of non-European art forms; native artists employed motifs based on their own cultural imperatives, which often may have been simply instinctive or aesthetic in origin.

Inventions and Adaptations

Primitive ornament and decoration had enjoyed a vogue among Europeans since their discovery and exploration of other continents. Once the value of North American native arts as a commodity was established, native decorative products were diffused through tourism, and knowingly altered, throughout the twentieth century. Non-Indians were responsible for the intentional invention and enlargement of "Indian" symbols; for example, industrial stamps using obvious images such as arrows, feathers, and thunderbirds. The American Southwest saw the largest expansion of this industry because of its extensive tourist attractions. Tourist and outsider influences redirected the course of native jewelry design, providing peri-

odic infusions of new ideas for decoration, as they had for materials and techniques. Forms were miniaturized and imbued with designs or decorations deemed appropriately "Indian."

Perceptions about what constituted "Indianness" pervaded the marketing of native arts in North America. Allied with a lack of understanding about tribal differences and cultural exchanges, attempts were made by non-native middlemen to conventionalize Indian motifs into a generic mode. This can be seen on the similarly styled imitation Indian jewelry made by mid-twentieth-century manufacturers. But the reality was that meanings for motifs could and did change from tribe to tribe. European Americans often issued pamphlets or similar handouts containing common "Indian symbols" that were interpreted according to non-Indian ideas and values, inviting the establishment of preconceived notions about Indian design. At the same time, non-native views of such motifs as snakes, lightning, thunderbirds, and swastikas colored their use in decoration. The best known example of this was the banishment of the swastika sign at the start of World War II because of its external associations with Nazism. Images such as cloud symbols, animal tracks, and spirit beings were particularly popular because of their associations—for non-natives—with a romanticized spirituality. Many artists built upon invented conventions and adapted them to suit their own aesthetic purposes. Sometimes native artisans even turned the tables on the dominant society; one example is the playful and exact copies of Mickey Mouse and his friends as inlay jewelry rendered by the Zunis in the 1960s and 1970s (before the Disney Company made its displeasure known).

Expressiveness, comic and serious, still pervades Native American design and decoration. Nineteenth-century Europeans and Canadians were intent upon cultural absorption, and they regarded Indian motifs as quaint, soon-to-be extinct, decoration. While natives did not choose absorption, they did find their artistic activities to be subject to cultural assimilation. Motifs were invented, adopted, and adapted according to marketplace needs and desires. Native jewelers were more fortunate than their counterparts working in the fine arts; design motifs for jewelry are less controversial in their appearance and have received less criticism from non-Indian enthusiasts than the imagery used by painters and sculptors. Native transformations of imagery for jewelry-making purposes possessed their own version of synergy. Jewelers used creative license in how they adapted original design impulses into less formal and more realistic decorative patterning. Motifs with reduced forms became more memorable than previous picture signs. This process of stylization reinvigorated jewelry design yet still accommodated the demand for symbolic expression. The finest examples of this can be seen in the work of fine-art jewelers in the 1980s and 1990s, when designs were manipulated for avant-garde effect.

The past 100 years of Indian jewelry creation has thrived on adaptation. New developments in the life of Native America affected motif choices, as in the growth of the Native American Church, or the appeal of powwows. Tribal design tendencies also received a firmer place in consumer perceptions. Plains jewelry approximated bead and bone forms, Navajo pieces emphasized silver, and Northwest Coast elements were derived from sculptural traditions related to animism and totemic representation. Unfortunately, such typification also brought out the worst in imitative efforts. The more distinctive and identifiable the type of native design that appeared, the easier it became to duplicate and fake.

Postwar-Era Decoration

Throughout the twentieth century, opportunities for experimentation with design increased as native artisans produced larger amounts of jewelry. These experiments in design and decorative patterning paralleled those made with materials and techniques. Decoration often grew more complex as a result. By the 1940s, the application of ornamental features had reached such a peak in southwestern native metalwork that much of this jewelry was described as "baroque" in effect. Motifs were now frequently combinations of representational and abstract imagery. The postwar increase in compositional elaboration brought more and more useful design solutions.

For example, at Zuni, a sizable number of motifs were developed with unique representations of specific birds and insects. Geometric and abstract patterning often accompanied these central figures, and could be extended into decorative borders. The mid-century saw the general proliferation of generic leaf and floral scrollwork patterns as decorative framing.

Tribally inspired motifs also flourished by this time; designs were drawn from sources considered relevant to an individual's artistic identity, such as symbols for the four cardinal directions, or animals central to creation beliefs. Another direction for design was the establishment of scenes and characters from daily and ceremonial life. Such a "folk art" approach can be seen in the storyteller bracelet, ring, or concha belt; this relatively new convention depicts narrative scenes of pueblo plazas and mesa vistas, and activities from traditional life—depicted in such vignettes as sheepherding, traveling in pickup trucks, and social events. Because non-Indians enjoyed ceremonial dances and their attendant display, decorative subject matter was extracted from this source; however, artists chose what imagery to portray in an attempt to shield meaningful sacred images. Therefore, such "colorful" creatures as koshares and mudheads (see entries), or figures in dance finery, were rendered rather than presented as exact depictions from religious ceremonies.

The rise of native artistic individualism from the 1960s onward reanimated originality in design choices. The sources for decorative conventions could be commingled; what was important was the artist's own taste and sense of aesthetic effectiveness. Native jewelers felt more and more free to be designers in the full European American sense of the word—including the artistic freedom, prestige, and financial benefits. Yet, consistent with long-held practices, they continued to make the materials and technical execution of their pieces integral parts of the overall design. Native jewelry-makers drew upon the expanded horizons of the world around them, borrowing from mainstream American and other cultural traditions. Distinctive design elements from a variety of sources could be incorporated into a piece, just as native-originated motifs from differing time periods could be linked together. Artists, whether trained at the Institute of American Indian Arts or through a local vocational program, crossed tribal and cultural lines willfully in pursuit of their own visions.

By the late twentieth century and into the twenty-first, native jewelry design, with its associative motifs and symbolic content, celebrates both its past and present. Artistic jewelry design is viewed as part of an ongoing creative process. Native pride, as expressed through pan-Indianism, meant jewelers, like fine artists, reexamined specific subject matter as a means of boosting Native American identity. Two distinct impulses persist: on the one hand, native craftspeople can confine themselves to older conventions and reconstructions of previously existing design

motifs, while on the other hand, fine art jewelers may use or bypass these motifs according to their personal, creative requirements.

These two options have been significant because of the manner in which artists thought of themselves. Many jewelry-makers considered their work as traditionally inspired and charged with ethnic character. Others wished to be known as producers of fine jewelry, who happened to be Native Americans. The common denominator was how jewelry-makers conceptualized the appearance of their pieces; successful works possessed properties that raised them above the mass-market, generic nature of Indian jewelry. Therefore, collectors and consumers grew to expect—and demand—design quality and integrity. The fine-art aspect of native jewelry, with stress placed on its handmade attributes, was tirelessly promoted in the last two decades of the twentieth century. In addition, emphasis has been given to talented individuals, artists who have gathered a dedicated following for their highly personalized versatility in rendering materials, forms, techniques, and design.

Understanding and Appreciating Native Design

Native American design manages to possess penetrating marks of both the past and future, and many motifs are connected over time by artistic conventions. However, since general education about native cultures remains sporadic and rudimentary, preconceived notions about what Indian art should "look like" remain in force. Native designs as seen on jewelry and other decorative objects look so intricate and deliberately constructed that most people believe these forms must be based on specific meanings. But there is no consistent vocabulary for Native American art. Signs, symbols, and other forms of abbreviated visual expression have been developed over the last 100 to 150 years, but the meanings of these forms may have been invented or altered. What can be affirmed, however, is that all such types of decoration, native or otherwise, are based on human values. It is helpful to look at the various principles and properties that are inherent in native jewelry design.

If we cannot be sure about the meanings behind jewelry motifs and symbols, we can determine what distinguishes a good piece of Indian-made jewelry from a poor one. While observations about a piece's beauty and clarity (i.e., consistency in design and function) are strictly value judgments, the following decisive features can generally be found: balance, emphasis, proportion, repetition, and rhythm. Decorative quality includes thoughtful use of alternation, contrast, sequence, symmetry, and transition. This does not mean that native designs are always free from falsehood or inept expression. Poorly conceived and executed designs represent failure by an artist in vision and ability. Nevertheless, the enduring popularity of Native American jewelry derives, in large part, from a consistent application of harmony and fitness in design.

Too many consumers of Indian jewelry are diverted by a desire to know exactly what the motifs on pieces mean. They want to know specific intentions or covert meanings, particularly those spiritual in nature. While it has been established that native design is far from clear in its symbolic derivation, many purchasers (and would-be purchasers) still demand explanations for motifs. Because this desire by customers is so intense—indeed, in some cases, it may be the only way to "clinch" a sale—many native jewelers offer interpretations, sincere or imaginary.

Those who purchase, collect, and wear Native American jewelry do so because these objects appeal to them. The relationship between the appearance of such

jewelry and those who made it is the culmination of many factors and social forces. Because jewelry is personal adornment, it also becomes intimately linked with the desires of the wearer. Perhaps the best last word on native jewelry design comes from poet Witter Bynner, one of many Anglo writers and artists drawn to the American Southwest in the early twentieth century.

> Let poets and people take beautiful craftsmanship into their hands and find their own meanings.[1]

Note

1. Witter Bynner, "Designs for Beauty" [originally published in August 1936], *New Mexico Magazine*, vol. 75 (August 1997): 33.

A

abalone

A mollusk shell used for native ceremonial and personal jewelry-making and adornment. Abalone is found in waters off Mexico and the United States. The iridescent inner shell, a source for mother-of-pearl (which is often used for INLAY), possesses generally a whitish color with hues of intermingled blue, green, and red. Sometimes a salt-water pearl is also produced from the core of abalone. By the late 1990s, abalone was on the verge of extinction from pollution and overharvesting.

Since early times, California, Plains, and Plateau Indians have strung abalone onto necklaces, along with DENTALIUM and other natural materials. This shell has also been used in MOSAIC inlay since the technique was first developed by pre-contact jewelry-makers in the Southwest. Color preferences play a role in its use; red abalone was popular with native jewelry-makers of the 1940s. On contemporary Northwest Coast silver, gold, and ARGILLITE jewelry, pieces of abalone shell are frequently used for decorative purposes; small, shiny circles and strips are added to PENDANTS, pins, and other ornaments for contrast. Abalone as a material has been considered sacred to many native peoples, and pieces of abalone might be found in the medicine bundles and pouches of individuals, healers, and medicine men; this spiritual property has carried over into contemporary native appreciation for abalone as an ornamental material. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present.* New York: Abrams, 1999.

Ear pendants of abalone shell, beads, and rawhide strips, Western Plains U.S. *University of Pennsylvania Museum, neg. #S4-142830.*

agate

A form of CHALCEDONY or quartz stone, usually variegated in bands, used for stone settings on native-made jewelry. Agate is dense and hard to cut but produces distinctive colors, ranging from cloudy to deep tones. For example, if the agate is layered with carnelian (another form of chalcedony), the agate can be a red to red-orange hue; agate can also be a pink chalcedony. Agates polish well and can be tumbled into useful shapes for settings on silver (*see* TUMBLED STONE).

Popular types used in native jewelry-making are Mexican agate, Apache flame, fire agate, moss agate, and sardonyx. Early native jewlery-makers had difficulty working with agate because of their primitive tools; this material was used most in the 1930s and 1940s, when agate, jasper, and PETRIFIED WOOD all enjoyed a vogue as materials for SOUTHWESTERN INDIAN JEWELRY. The use of these materials declined after the 1940s, but has reappeared in REVIVAL-STYLE pieces in the 1980s and 1990s.

Aleut. *See* INUIT, INUPIAT, AND ALEUT JEWELRY

alloy

A combination of two or more metals; an alloy will often differ in physical properties and appearance from the constituent metals themselves. Metals commonly used in jewelry-making, such as GOLD and SILVER, usually require some amount of alloy to make them workable and more durable. The alloy mix for STERLING SILVER is usually 92.5 percent pure silver to 7.5 percent COPPER. Alloy amounts vary depending on the desired effect; for example, for RETICULATION, 82 parts of fine silver are used with 18 parts of copper.

Anasazi

"The ancient ones," who lived from 100 B.C. to A.D. 1300 in the Four Corners region of the Southwestern United States (where modern-day Colorado, Utah, Arizona, and New Mexico meet). These ancient inhabitants are revered as ancestors by present-day Pueblo groups. Anasazi decorative motifs have inspired native jewelry designs.

The Anasazi were gifted builders and craftspeople, with many of their most notable creations made during their Pueblo Period (after A.D. 750). They created decorated pottery, TURQUOISE jewlery and ornaments with intricate mosaic designs, and carved figures, such as a JET frog found at Chaco Canyon in New Mexico. Another notable Anasazi legacy, their cliff and mesa-top multistory dwellings, also serve as a theme for evocative decoration. Their designs have been imitated and adapted to modern SOUTHWESTERN INDIAN JEWELRY compositions.

Anasazi material culture has become a repeated motif for Southwestern native artists; a new twist in the 1980s and 1990s was to combine an Anasazi-inspired design with a contemporary variation in material, form, or technique. For example, some Pueblo artists take imagery derived from Anasazi artifacts and set them in GOLD with gemstone highlights. The Anasazi's disappearance around 1300 is still the subject of much archaeological speculation. The growth of the KATSINA Cult is believed to have been an Anasazi development, and one that remained to influence modern Puebloan belief and ceremonial practice.

animal tracks

Reproductions of animal tracks, particularly those animals hunted by native peoples, can be seen in PETROGLYPHS AND PICTOGRAPHS, or rock art, throughout North America; animal tracks as interval or repetitive designs appear on virtually all Native American decorative arts, including jewelry.

The significance of these tracks is evident even if their meaning is not. Often such tracks lead up to a central depiction of the animal in question, which may be presented in pictograph, outline, or realistic fashion. The single outline of an animal's paw or foot is also often used as a clan emblem in SILVER or GOLD jewelry HALLMARKS. Whatever its origi-

nal meaning, the symbolic re-creation of an animal's tracks is an evocation of that creature's spirit and purpose, the object of a hunter's pursuit, or the essence of the animal itself.

annealing

A metalworking process in which metal is heated and cooled to certain temperatures that make it more malleable, but also less brittle and more resistant to cracking. Annealing is essential to jewelry-making as a means of relieving stresses on metal that have built up while the metal was being cold-worked, that is, shaped by hammering, bending, or rolling without heating.

Native artisans working with such materials as iron, BRASS, and COPPER learned the importance of heating these metals for shaping. Annealing is particularly important for pieces made of STERLING SILVER or GOLD, and as native smiths produced more and more types of jewelry made with these metals, they used this technique to form and finish gold or SILVER pieces more effectively. The initial annealing of sterling silver, done at temperatures of 900 to 1200 degrees Fahrenheit, turns the metal a dark red color; once removed from the heat, a black or purplish "fire scale" appears on the surface, resulting from the OXIDIZATION of the metal's copper content (7.5 percent of sterling silver is copper ALLOY). The fire scale is removed by placing the metal in a "pickling" solution; this pickling, a type of acidic bath, leaves the silver surface exposed and gleaming. Any dark spots that remain can be removed by re-annealing the object, dropping it into the pickling solution again, and then brushing the surface. Annealing can also be repeated to reshape the metal in a different manner, or to reshape another physical component that has been soldered onto the piece, such as coiled metal wire.

After annealing has been completed, decorative finishes can be added with ROLLING MILLS and planishing hammers (polishing hammers used to smooth metal by cold-hammering the metal against formed metal pieces called stakes).

Eighteenth- and nineteenth-century native smiths used open hearths and forges to create the temperatures necessary to anneal metal. By the early twentieth century, the introduction of mainstream European-American tools, such as any variety of hand-held torches (e.g., acetylene, propane, natural gas and oxygen, or compressed air), allowed native smiths to anneal metals with greater ease.

Antique Tribal Art Dealers Association (ATADA)

A professional organization started in 1988 to promote the business of selling and collecting antique tribal arts of the world, including Native American. ATADA membership is composed mostly of dealers and collectors, but the organization also includes appraisers, auction houses, book dealers, museum professionals, and restorers. These members have expertise in one or more of the following areas: baskets, beadwork, ceremonial objects, ornaments (including jewelry), pottery, weaving, and woodcarving. The association's mission statement stresses the educational and ethical role that dealers in antique tribal arts must play, and acknowledges that authenticity, fair representation, and provenance are essential issues for their consumers.

ATADA also recognizes the sensitive aspects of tribal peoples' cultural patrimony; in 1990, the association participated in the writing of important points in the Native American Grave Repatriation Act (United States). ATADA produces a quarterly newsletter and a regional directory of members, sponsors tribal arts shows, and offers lectures and courses on related topics. Collectors and consumers seeking fair dealings in purchasing older native jewelry may find reassurance in the mission statement of this organization, whose members keenly understand the problems involved with the ownership of such objects.

Further Reading: ATADA's Web site can be found at <http://www.atada.org>.

Apache mountain spirit dancer (*gan*)

Masked spirits of the Mountain People who visit the Apache as DANCERS to perform various rites of healing and protection; these dancers also preside over young girls' coming-of-age ceremonies. They are also often referred to as Crown Dancers. This figure is one of the most popular design motifs used in SOUTHWESTERN INDIAN JEWELRY.

The *gan* dancer is a colorful figure wearing a black hooded MASK that is drawn by a cord at the neck and has small holes for the eyes and mouth; this mask is topped with large wooden slats, or horns, in various shapes, and is usually accompanied by wooden slats made into movable EARRINGS. Dancers wear buckskin skirts, moccasins, and body paint. The dancers' movements are distinctive, filled with energy and combinations of mystery and menace. These dances are immensely popular with spectators, and the appearance of Apache mountain spirit dancers is a draw at inter-tribal ceremonials.

In native jewelry, the depiction of a dancer is usually done in INLAY on PENDANTS, pins, and rings. Such imagery is frequently taken up not just by Apache, but also by Navajo and Zuni jewelers; often, the presentation of these dancers is not necessarily meant for spiritual evocation but may instead celebrate their "colorful" folk art image.

appliqué

A decorative technique in which a cutout design is fastened onto a piece of metal jewelry by soldering. In the appliqué process, SOLDER is placed onto the inside of a cutout that is to be attached to a base. Once the pieces are in position, they are set on a soldering screen so that the metal may be "sweated" into place through the application of even heating. The resulting cutout creates a decorative pattern, and its raised position provides visual and textural contrast.

Jewelry-makers can create a variety of effects with the appliqué process, from basic forms to highly detailed patterns or figures. Native silversmiths experimented extensively with this technique, which became more commonly employed in the early to mid-twentieth century. Use of the technique was assisted by the introduction of blow torches, commercial solder material, and sweat-soldering techniques. Appliqué continues to be refined by contemporary jewelers, who often use it to mix two or more metals in a composition.

argillite

A form of slate containing graphite, kaolin, pyrophylite, and SERPENTINE. Argillite is one of the older materials used by native North Americans in personal adornment; the use of argillite predates the arrival of Europeans to the continent. In the twentieth century, native artists of the Pacific Northwest region continue to use argillite, making both fine-art and TOURIST JEWELRY.

Several types of argillite exist, including a black form, called *Haida slate*, that is mined in the Queen Charlotte Islands off the coast of British Columbia, Canada, and a *banded slate* extracted in the central Great Lakes region of North America.

As early as the 1820s, Northwest Coast natives worked argillite into many ornamental and functional forms, from GORGETS (breast ornaments) and PENDANTS to pipes and small figurines. These products were popular with non-natives who lived near the native villages, as well as with travelers to the area; between 1820 and the early 1900s, a small but steady tourist industry developed for carved argillite items as craft work—pieces such as plates, miniature TOTEM poles, small boxes, pipes, spoons, and figurines. During this time, a small number of jewelry pieces began to appear in the form of BRACELETS, pins, pendants, and EARRINGS. Throughout most of the twentieth century, however, Northwest Coast artisans did not work extensively with argillite. It was not until the 1980s that, as a sign of pride in older carving traditions, an interest in REVIVAL STYLE carved argillite jewelry came to the market with any regularity. Many galleries stocking native arts now carry a selection of these objects. By the late 1990s, argillite ornaments with regionally inspired designs (such as stylized images of local animals, marine life, and

Argillite carved bracelet, Northwest Coast, late nineteenth century. *Art Price Collection/National Archives of Canada/PA-201442.*

supernatural figures) had gained recognition as a distinctive category of Pacific Northwest Coast native jewelry, appearing alongside the SILVER or GOLD incised pieces that had been considered typical of the region. Argillite and precious metal jewelry pieces share certain design motifs. Often centered around animals or other clan symbols (such as the RAVEN and the THUNDERBIRD), these motifs possess sinuous lines and interlocking figures. Some native jewelers add small pieces of ABALONE or other INLAY material to an argillite piece for decorative contrast.

Older argillite pieces tend to have matte or semigloss finishes; these finishes appear on some revival-style work but a number of contemporary artists now choose a highly polished finish for their jewelry. Argillite is easily damaged if dropped or struck against a hard surface; for this reason, many contemporary jewelers set carved pieces in sturdy frames, and they may also support pendants and dangling earring parts with tightly secured pins. Because argillite is less expensive than gold or silver, contemporary argillite jewelry is often considered tourist work and not fine-art jewelry. This designation, however, is probably too general in terms of the design quality and the inherently fragile nature of the stone itself. Consumers should take note that black plastic is often used to imitate the stone.Genuine argillite is heavy and cool to the touch. *See also* NORTHWEST COAST NATIVE JEWELRY; PIPESTONE.

Further Reading: Duffek, Karen. *A Guide to Buying Contemporary Northwest Coast Indian Arts.* (Museum Note No. 10). Vancouver, B.C.: University of British Columbia Museum of Anthropology, 1983.

arrowheads, arrows

The use of arrows and arrowheads is popular among many native groups, especially the Woodlands (Iroquois and Abenaki, among others) and Plains Indians. The depiction of arrows and arrowheads on jewelry is a tribute to the importance of arrows as a material culture form.

Contemporary design motifs representing arrows on a piece of jewelry may or may not have symbolic associations for their makers, depending on their cultural heritage. Many modern artists acknowledge their use of arrows and arrowheads as symbolic design. On the other hand, the adoption of arrows and arrowheads as a repetitive pattern device also has generic origins; non-native INDIAN TRADERS of the late nineteenth and early twentieth centuries deliberately urged the use of the

arrow motif in native-made jewelry. Historic and contemporary TOURIST JEWELRY frequently contains arrows or arrowheads that are devoid of any spiritual context.

Atsidi Chon (active 1870s to ca. 1900, Navajo)

Born to the Standing House clan, Atsidi Chon ("Ugly Smith" in translation) was one of the first Navajo silversmiths known to be active on the Navajo Reservation after the Navajos' return from Fort Sumner in 1868 (*see* NAVAJO JEWELRY). He was known to have lived mostly near Klagetoh, Arizona, but he also made SILVER in the Ganado, Arizona, area. Chon is believed to have been the first—or one of the first—Navajo silversmiths to set TURQUOISE in silver, circa 1878, and to have taught the first Zuni silversmith during a stay in that pueblo in the 1870s (*see* LANYADE).

His silver work was heavy and crudely decorated because he had access only to scissors, hammers, and files. He made NAJAS, BRACELETS, belts, and solid silver BUTTONS from discarded cartridge shells. A silver bridle headstall, made around 1875, is attributed to Chon, and is part of the collection at the Laboratory of Anthropology/Museum of Indians Arts and Culture, Museum of New Mexico, in Santa Fe, New Mexico.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Woodward, Arthur. *Navajo Silver: A Brief History of Navajo Silversmithing*. Flagstaff, AZ: Northland Press, 1971, 1973.

Atsidi Sani (active 1860s to 1890s, d. 1918?, Navajo)

Through oral history reports, Atsidi Sani ("Old Smith") is believed to be the first Navajo to learn silversmithing. He supposedly learned from a Mexican smith named Nakai Tsosi, who lived near Mount Taylor (New Mexico), with the initial intention of learning how to make bridles from scrap iron. There is some controversy over whether Sani learned to work SILVER before the forced relocation of his people to Fort Sumner in 1864, but he was known to be teaching other smiths, including his four sons and his younger brother, SLENDER MAKER OF SILVER (active 1880s–1890s, d. 1916), in the late 1870s. *See also* NAVAJO JEWELRY.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Woodward, Arthur. *Navajo Silver: A Brief History of Navajo Silversmithing*. Flagstaff, AZ: Northland Press, 1971, 1973.

avanyu. *See* WATER SERPENT

awl

A pointed tool of iron or steel used to punch holes or incise surfaces, as in engraving; awls were employed jointly with files to make decorative patterning.

The awl is one of the oldest tools for decorative marking; awls were used extensively by early native silversmiths until they turned to DIE stamps and PUNCHES in the last two decades of the nineteenth century. However, many contemporary jewelers continue to use awls.

azurite

A gemstone made of COPPER carbonate that is popular for its rich blue color when cut into CABOCHONS. Found in the upper layers of copper deposits in Arizona and California, azurite can change to a form of MALACHITE, and can combine with malachite to form a material known as azurmalachite. As a local material, azurite has been popular with native lapidaries working in the western United States. In the 1980s and 1990s, azurite gained popularity as an INLAY material in combination with other brightly colored stones.

B

backing

The material that is placed behind set-in stonework in jewelry. The term has an added meaning in the context of Native American jewelry because the material used to back the stonework on metal pieces often varies considerably from non-native work. Indian jewelers work with settings that contain an application of black epoxy to strengthen thin stones. Lapidaries cut their stones thicker and often do not need to apply any backing. Native jewelers have improvised with the use of such materials as sawdust, cardboard, and paper (ranging from tissue to newspaper) under stones, often to level the stones when they are being set. These improvisations distinguish native jewelers from non-native jewelers; native artisans often could not afford the commercial materials usually used for backings.

badger

This burrowing animal is significant to numerous cultural groups. As the guardian of the south, the badger is one of Zuni's important fetish personifications of the six DIRECTIONS.

The badger is found depicted on Indian jewelry, and it is most frequently associated with the qualities of aggressiveness, single-minded persistence, and control, as well as kinship with the earth because of its burrowing. The badger paw is a clan symbol found in Hopi overlay, and badger figures often appear on animal storyteller jewelry pieces (*see* STORY, STORYTELLER).

bandolier bag (or pouch) ornamentation

A form of men's dress accessory made from leather or skin, the bandolier bag has a long strap and was slung over the shoulders and across the chest. Often decorated with jewelry-like ornamentation, the bag might be worn alone or attached to a sash, or even used as a container for cartridges. The bandolier bag was often worn by medicine men and was meant particularly for ceremonial or social occasions; it is also sometimes called a bandoleer or medicine pouch.

Native jewelers often created metal ornaments for the bandolier according to the traditions of its wearer, with BONE, QUILLWORK, and GERMAN SILVER decorations for Plains and northern Athapaskan men, silver BUTTONS and studs for Navajo and Pueblo individuals (who consider these bags as medicine pouches, not bandoliers per se), or BEADWORK for the Iroquois and other Woodlands peoples. Southwestern silver ornaments devised for a bandolier bag were often derived from buttons, and such ornaments might be domed, ridged, or stamped for decorative effect (*see* DOMING and STAMPING).

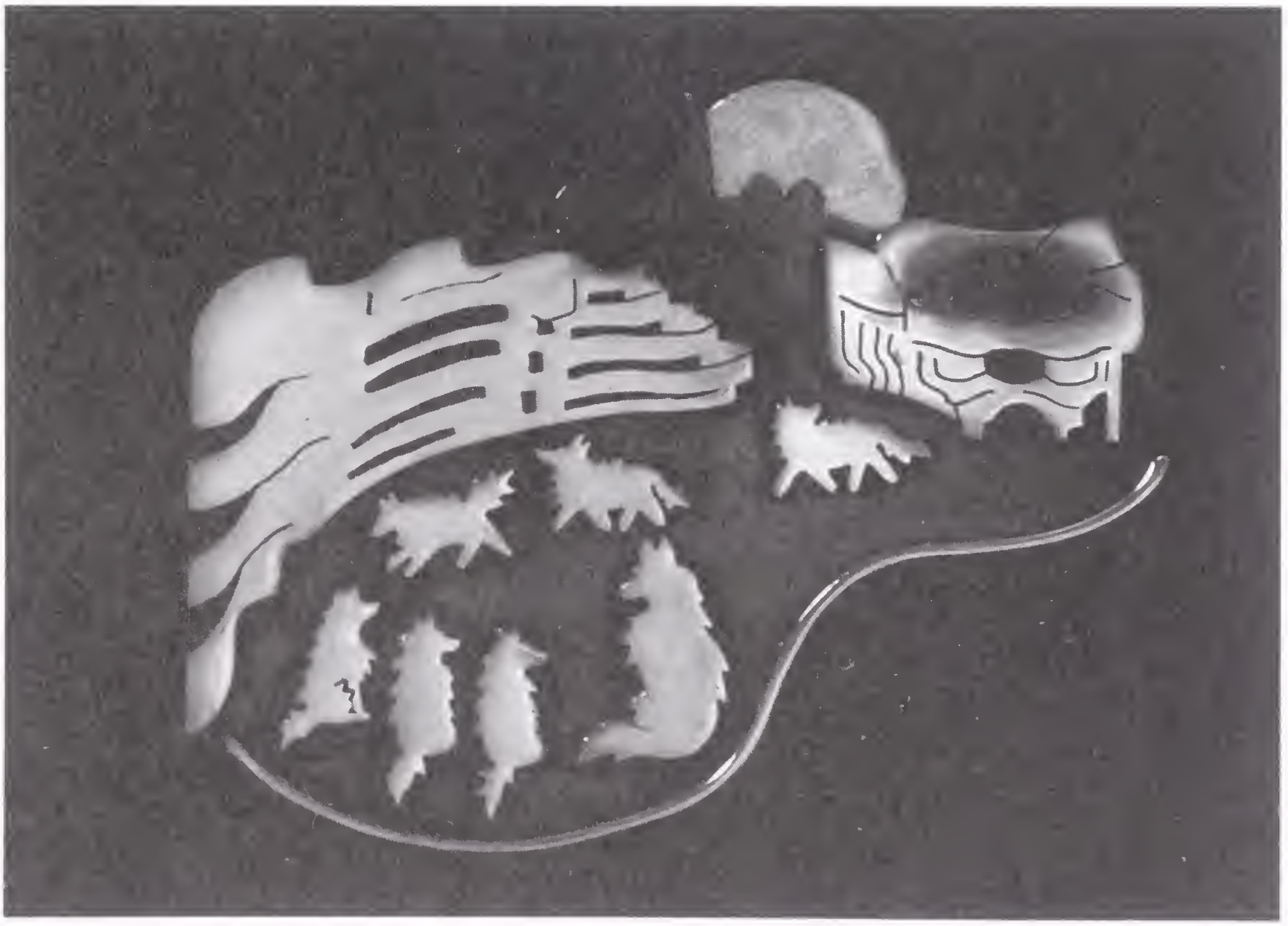
Bandolier bags with metal ornaments occasionally appear on the antique Indian arts

market. Sometimes the ornaments themselves have been removed from the original bag or pouch and resold or reworked into other jewelry pieces. These metal ornaments have influenced other forms of jewelry, such as EARRINGS and dress fastenings. Bandolier bag ornaments could be made out of metal scraps, but their creation was considered part of the native silversmith's general repertoire. Largely an artifactual item today, although some artists create them as REVIVAL-STYLE cultural items, the bandolier is now worn principally for ritual or ceremonial purposes, or as part of a male dancer's dress at POWWOWS.

Barkhouse, Mary Anne (8/28/61– , Kwakwaka'wakw, formerly Kwakiutl)

Born in Vancouver, British Columbia, Mary Anne Barkhouse has achieved widespread recognition for her metal jewelry and sculpture. A New Media major of the Ontario College of Art in Toronto (graudating with honors), Barkhouse works in SILVER, bronze, BRASS with silver dust, and COPPER; she creates pins, EARRINGS, and BRACELETS, using both the LOST-WAX CASTING process and FABRICATION techniques. Her jewelry reflects marine, WOLF (derived from her personal TOTEM), and other animal imagery, and draws upon Northwest Coast designs, which mirror her environmental concerns. Barkhouse also works with Michael Belmore to create multimedia and sculptural works that have received much critical acclaim.

Her jewelry appears in galleries in Toronto, Ottawa, and cities in British Columbia, and is in great demand. She won a scholarship from the Canadian Native Arts Foundation (1990) and an award from Jaguar Canada, Inc. (1991). Exhibited at Woodland Cultural Centre, Brantford, and in Toronto. **Museums:** Banff Centre for the Arts, Banff, Alberta; University of British Columbia Museum of Anthropology, Vancouver, British Columbia; Thunder Bay Art Gallery,



"Wolves at the Canadian Museum of Civilization," sterling silver and patinated copper pin, 1996, by Mary Anne Barkhouse (Kwakwaka'wakw). *Courtesy of the artist.*

Thunder Bay, Ontario; Indian Art Centre, Indian and Northern Affairs Canada, Ottawa, Ontario.

Further Reading: For additional background, see <http://collections.ic.gc.ca/artists/barkhouse.html>.

beadwork

The stitching of small glass, ceramic, or plastic beads to hides or textiles for personal adornment purposes, which also extends to the FABRICATION of jewelry pieces. Beadwork is one of the most important forms of decoration used by Native Americans. (For metal beads, *see* BENCH BEADS; HOLLOW BEADS; MELON BEADS; SILVER BEADS.)

Beadwork is a living art, and the main market for beadwork ornament continues to be native peoples themselves, who value beadwork items for personal use, dance decoration, or ceremonies. However, non-native interest in beaded jewelry has grown extensively since the 1960s. Beaded trinkets were considered tourist goods throughout the early to mid-twentieth century, and such items are still made today. More detailed and professional items, conceived with imagination and painstaking workmanship, command high prices at Indian art venues, and pre-1900 beadwork is in great demand on the antique ethnic arts market. Pan-Indianism has promoted beadwork as well, placing beads on everything from moccasins to tennis sneakers and many artists from groups lacking a tradition for beadworking have adopted this art form.

There is a wide range of quality in beaded jewelry. For example, inexpensive bead jewelry, made from kits sold at TRADING POSTS, is offered for sale at and around major tourist attractions in the West, and some uninformed consumers may only associate beadwork with these modest products. On the other hand, some contemporary bead weavers have achieved major fine-art status, such as Marcus Amerman (Choctaw), who makes elaborate pictorial works. The most common beaded jewelry forms include belt BUCKLES, BRACELETS, EARRINGS, hair ties, medallions, and NECKLACES; sets of multiple forms, such as a matching necklace, earrings, and bracelet, have been popular since the late 1960s. As with metal jewelry, nonauthentic (non-native or machine-made) beadwork items often appear but they can usually be recognized. Many dealers and shop owners avoid this situation by only buying from native artists they know. Most decorative items on the market are made from cut beads or SEED BEADS; some jewelry

Beaded necklace, 1998, by Jovanna Poblano (Zuni). *Courtesy of the artist.*

pieces are augmented with various types of TRADE BEADS (such as PONY BEADS). Museums are increasingly featuring beadwork displays and exhibitions, especially the museums of Plains art and culture in Oklahoma, Montana, and South Dakota, operated by the INDIAN ARTS AND CRAFTS BOARD. Articles on this art form have begun to appear more frequently in various publications on both mainstream jewelry and native arts, including *Ornament*, *Indian Trader*, and *Native Peoples*. Appreciation for handmade crafts has added to consumer interest in Native American

beadwork; even some native metal and stone jewelers have paid tribute to the technique by imitating it through tiny rounded colored stones set on SILVER.

Recognition of the role beadwork plays in Native American personal adornment was furthered by an influential exhibition, "And the Bead Goes On!," held from April 1995 through February 1996 at the San Diego Museum of Man (the show was part of a series of exhibitions entitled, "The Vision Persists: Native Folk Arts of the West"). The images on display and the accompanying catalogue reintroduced the public to the exquisitely detailed effect of beading. The curators drew careful distinctions between beadwork made solely for native wear and items developed for tourist sales. "And the Bead Goes On!" also reinforced the understanding that native artists have retained creative control of their work. While exposing viewers to specific beadwork materials, styles, technical achievements, and personal statements by artists, this exhibition also provided a critical overview of the form. In 1999, a monumental study of the role of beadwork in all native North American cultural regions was published (*see* Dubin, 1999).

The development of innovative beadwork for jewelry-making appears to be a strong contemporary trend. Traditional beadwork items, as seen in the pieces made by Dorothy Little Elk (Lakota) and Brenda Boyd (Navajo), continue to be appreciated, along with the rich experimental variations produced by Joyce Growing Thunder Fogarty (Assiniboine/Sioux) and Wendy Weston (Navajo) (all active since the 1980s). Youthful alterations to the process can be seen in the works of Teri Greeves (Kiowa) and Jovanna Poblano (Zuni), two notable designers among many emerging artists. The importance of beadwork as a decorative art form was affirmed when one out of fifteen 1998 National Heritage Fellowships, awarded by the U.S. National Endowment for the Arts, was granted to beadworker Sophie George (Yakima/Colville).

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bear

An animal considered to be a powerful life force by virtually all indigenous peoples in North America, and a meaningful symbol for use on native-made jewelry. The bear possesses numerous spiritual qualities and is meant to be approached with respect. Important oral traditions, rituals, and taboos are associated with the encountering, hunting, eating, and evocation of bears. Many cultural groups, ranging from the Eastern Algonquians to peoples of the Northwest Coast, have bear societies. Athapaskans revere bears as totemic figures, and as "master of the forest." Shamans of the far north acknowledge the bear's potency as well as its ability to shape-shift from spirit to earthly body. Peoples of the Pacific Northwest have long referred to the bear as "Elder Kinsman," and jewelers from the Northwest Coast use the bear image to symbolize such diverse qualities as friendship, ferocity, and power. The Haida characterize the bear as a symbol of motherhood, frequently depicting a human figure or bear cub as part of the design. The Sea Bear is a legendary Northwest Coast figure represented as a land bear but also hav-

Incised silver brooch with bear design, Tsimshian. *Canadian Museum of Civilization. Image #72-166604.*

ing a dorsal fin on its back and fins instead of paws. Overall, the bear is a teacher of legends, and a leader of important dances and rituals.

Consequently, with so many native cultures that revere this creature, the bear is rendered in a variety of modes. Bear-claw necklaces are one example of a prized form of jewelry, particularly among Plains and Southwestern groups. Use of the bear as a PENDANT form is also popular; the animal is usually depicted in full profile or some sort of outline shape. Occasionally, parts of a bear (often the head, paws, or claws) are isolated for design. Bears can also be rendered in upright poses, and some carved FETISH necklaces use standing bears for the central pendant figure. The bear can become a trademark of sorts for certain artists, such as Jesse MONONGYE (b. 1952, Navajo), known for his colorful inlaid bear profile pendants and pins, Carlton JAMON (b. 1962, Zuni) who has devised a popular hollowform bear figure for NECKLACES and pendants, and Ben NIGHTHORSE (b. 1933, Southern Cheyenne) whose bear and horse INLAY on SILVER pendants are well-known. Among Pacific Northwest Coast artists, the carver and jeweler Bill REID (1920–1998, Haida) is the best-known portrayer of the bear figure. *See also* NORTHWEST COAST NATIVE JEWELRY; BEAR PAW, BEAR CLAW.

Further Reading: Rockwell, David. *Giving Voice to Bear: North American Indian Rituals, Myths and Images of the Bear.* Niwot, CO: Roberts Rinehart Publishers, 1991.

bear paw, bear claw

Most often seen as a clan emblem or HALLMARK sign on SOUTHWESTERN INDIAN JEWELRY, but used in other areas as well, the bear paw and claw symbolize the bear's potency. In native jewelry design, paws and claws have lent themselves well to precise, or even abstract, geometric form, and can appear as interval or repetitive motifs for patterns. This usage echoes their early appearance in rock art and historic pottery (*see* ANIMAL TRACKS; PETROGLYPHS AND PICTOGRAPHS). Actual bear claws are popular material for use on belt BUCKLES and for NECKLACES, and they enjoyed a great vogue in the 1970s. They can still be

Necklace with grizzly bear claws, turquoise and silver, maker unknown, Southwest U.S. *University of Pennsylvania Museum, neg. #S4-142828.*

found in contemporary pieces, and on REVIVAL-STYLE jewelry. A popular, but probably nonauthentic, meaning assigned to the visual representation of the bear paw is that of inner strength.

Beck, Victor (10/2/41– , Navajo)
A highly regarded fine art jeweler, Victor Beck works with GOLD, SILVER, and SEMIPRECIOUS STONES. Beck studied at Northern Arizona University (Flagstaff) and at the State University of New York at New Paltz in the 1970s. He also participated in an important art internship at the Museum of Northern Arizona in 1975, led by Jacob Brookins. Beck acknowledges being influenced by artists Kenneth BEGAY (1913–1977, Navajo) and Charles LOLOMA (1921–1991, Hopi). His work illustrates thoughtful experimentation and refinement in technique and form, and demonstrates his search for an individualistic style. These achievements can be seen in his innovative side INLAY rings (sometimes called "side channel"—a style unique to Beck); texturally distinctive BOLA ties; and handsome necklaces in a combination of GOLD, TURQUOISE inlay, and multistrand beads. Beck received a commission in 1978 to create a rosary for Pope Paul VI. He exhibits at all major venues, such as the Heard Museum Guild Fair, SWAIA Indian Market (where he has won many awards since 1983), and also at the Museum of Northern Arizona and the Navajo Nation Tribal Fair. Beck also received the Ted Charveze Memorial Award from the Heard Museum in 1991. **Galleries:** Faust Gallery, Scottsdale, Arizona; Gallery 10, Santa Fe, New Mexico, and Scottsdale, Arizona; Four Winds Gallery, Pittsburgh, Pennsylvania.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Jacka, Jerry. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; Schiffer, Nancy. *Jewelry by Southwest American Indians: Evolving Designs*. West Chester, PA: Schiffer, 1990; Tryk, Sheila. *Santa Fe Indian Market: Showcase of Native American Art*. Santa Fe: Tierra Publishers, 1993.

Begay, Harvey (7/5/38– , Navajo)
Son of master silversmith Kenneth BEGAY (1913–1977), Harvey Begay originally pursued a career in aeronautics, with a B.S. degree from Arizona State University (Tempe), and flying for the U.S. Navy and McDonnell-Douglas. He returned to his artistic roots in 1970, and by 1972 he was a full-time jeweler. His apprenticeships with his father, during high school and college days, and with master jeweler Pierre TOURAINE in the late 1970s, gave Begay the means to develop his own artistic sense.

His progress has been formidable and has led to a repertoire of fine-art jewelry and METALWARE in SILVER, GOLD, SEMIPRECIOUS STONES, and gems. He enjoys working with gold and TURQUOISE, but he is equally facile in employing diamonds or lapis on a piece. Begay works with hand FABRICATION, LOST-WAX CASTING, and tufa CASTING, and he possesses the ability to transform abstract motifs and repetitive patterns, often drawn from indigenous sources, into striking design elements. Clean and strong in its execution, Begay's gold and silverwork manages to pay tribute to his father's achievements yet conveys a fine-art sensibility appropriate to his own generation and vision. **Galleries:** Faust Gallery,

Gold necklace and earrings by Harvey Begay (Navajo). *Courtesy of Lovena Ohl Gallery, Scottsdale, AZ.*

Scottsdale, Arizona; Lovena Ohl Gallery, Scottsdale, Arizona; Two Rivers Gallery, Steamboat Springs, Colorado; Four Winds Gallery, Pittsburgh, Pennsylvania. **Museums:** Heard Museum, Phoenix, Arizona; Denver Museum of Natural History, Denver, Colorado; Montclair Art Museum, New Jersey. Exhibitions in various museums, including institutions in Arizona, Kentucky, New York, and Minnesota. Begay has won more than 40 awards at various Indian art venues, including the Heard Museum Guild Fair and the SWAIA Indian Market (1994–1996).

Further Reading: *Arizona Highways*, April 1979, May 1986; Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Jacka, Lois, and Jerry Jacka. *Beyond Tradition: Contemporary Indian Art and Its Evolution*. Flagstaff, AZ: Northland Press, 1988; Jacka, Lois, and Jerry Jacka. *Enduring Traditions: Art of the Navajo*. Flagstaff, AZ: Northland Press, 1994; Jack, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

Begay, Kenneth (5/28/13–12/23/77, Navajo)

Kenneth Begay is a major figure in terms of technical achievement, teaching, and providing inspiration to Native American jewelers, especially Navajo silverworkers. Begay first learned blacksmithing at the Fort Wingate Boarding School in Crystal, Arizona. Soon afterward, he learned metalsmithing from Fred Peshlakai (nephew of first-generation smith SLENDER MAKER OF SILVER) in the 1930s. His employment at the WHITE HOGAN shop in Scottsdale, Arizona, in the late 1940s and early 1950s created new economic opportunity for native smiths. Begay's experiences spurred him to experiment with the development of a rich variety of artistic METALWARE. From 1968 to 1973, he taught metalsmithing at Navajo Community College in Many Farms, Arizona; here, he inspired a number of young native artists.

Begay's jewelry-making in the 1950s and 1960s was truly innovative. A master of design, he created powerfully clean, evocative

Silver brooch, made after 1958, by Kenneth Begay (Navajo). *Courtesy of The Heard Museum, Phoenix, AZ.*

pieces that balance silverwork and stone settings. An example of this is in his effective use of IRONWOOD set on SILVER. Begay's work was derived from the aesthetics of the earliest generation of Navajo silversmiths, but he brought a modernized look to his creations. He reintroduced the "classic" feeling of NAVAJO JEWELRY by using repetitive yet simple lines. Begay's teaching experiences also permitted him to develop his own articulate philosophy of jewelry design. Pieces by Begay can be found in major Southwestern museums, including the Heard Museum, Phoenix, Arizona, and the Elkus Collection, California Academy of Sciences.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Jacka, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

bench beads

Referring to metal (usually SILVER) beads created by handmade processes; the term may also refer to beads shaped by machine and then finished by hand. Because the making of wholly handmade silver beads is very laborious, silversmiths have, since the mid-twentieth century, created bench beads by using a hydraulic press for the punching and DOMING of SILVER BEAD halves (usually cut from

sheet silver). Decorative markings, such as STAMPWORK or fluting, are added prior to doming. The silversmith then SOLDERS the two halves together by hand. Bench beads can be recognized by an apparent "shoulder," or dip, on each half where the curve irregularly tails off to the seam at the center of the bead. The development of additional mechanized processes also led to the formation of "spun" beads, which are totally machine-made and do not possess any seam.

bezel

The metal part of a ring, or CLUSTER WORK piece of jewelry, that holds a stone in its setting. A bezel is usually a metallic vertical box or rim into which the stone can be mounted and tamped into place; native makers also call this a "housing."

Sometimes a bezel is simply a thin collar, or lip (usually called a flange in jewelry-making manuals) of metal, such as 26-gauge SILVER or GOLD, fitted to the stone, and then soldered.

Early bezels on native-made RINGS often have jagged, or sawtooth, edges, and this bezel shape often appears in REVIVAL-STYLE work as well. Small stonework requires a thinner, usually serrated, bezel made with a checkered file. By the early twentieth century, many Southwestern native silversmiths had moved away from using heavy bezel mounts (which were developed between 1880 and 1900), preferring instead more artful forms of bezel finishing to accommodate the new taste for small, shaped stones on jewelry pieces. Commercial bezel mounts were available as early as the 1920s; precut bezel strips on a roll can be bought at supply houses, and these are usually made from 28-gauge silver. Native-made bezels often rise high so that the stone setting is flush with, or rises only slightly above, the lip.

Inspection of jewelry containing stonework set in bezels should involve gently rocking the stone to see if it is secure within its setting. An asymmetrical bezel mount, or one with a gap between the metal and the set-in stone, is usually a sign of poor or hasty workmanship. Many contemporary jewelers buy machine-made bezels with plain or decorative edges. *See also* SOLDER.

Bird, Gail (1949– , Santo Domingo/ Laguna) and **Johnson, Yazzie** (1946– , Navajo)

These self-taught artists collaborate on unusual fine-art jewelry, using various metals and gemstone combinations, and drawing motifs from Southwestern native culture. Their CONCHA BELTS have received special acclaim. Bird and Johnson have gathered their own following, evident at INDIAN MARKET, and they are often mentioned in contemporary publications. **Galleries:** Dewey Galleries, Santa Fe, New Mexico. **Museums:** San Diego Museum of Man, San Diego, California; Millicent Rogers Museum, Taos, New Mexico; Wheelwright Museum, Santa Fe, New Mexico.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

Bird, Mike. *See* BIRD-ROMERO, MIKE

Bird-Romero, Mike (1946– , San Juan Pueblo)

Mike Bird-Romero was born in San Juan into a family of noted artists that included his mother, Lorencita Bird (1916–1995), an influential embroiderer and educator. In 1995, he changed his last name to Bird-Romero. He became interested in jewelry-making after observing, among others, Santo Domingo silversmith Julian LOVATO (b. 1925), when Lovato was living at San Juan Pueblo. Bird-Romero did not begin to make jewelry full-time until 1979. The artist has extensively researched the forms and techniques of early Pueblo and Navajo jewelry and tourist silverwork, and this knowledge of antique pieces is reflected in his work through the reproduction of a wide variety of silver CROSS pendant styles, the use of die-stamping for

decoration, and his revival of swedged, or ridged, SILVER armlets (*see* SWEDGING).

Bird-Romero is also known for his STERLING SILVER and 14-karat GOLD petroglyph pins resembling shamanic figures found on rock art in New Mexico and Utah (*see* PETROGLYPHS AND PICTOGRAPHS). His versatility in recent years can be seen in works made with antique CORAL beads, SEMIPRECIOUS STONES in complex INLAY patterns, and large brooches set with non-traditional materials mounted on silver. **Museums:** American Craft Museum, New York City; Gene Autrey Museum, Los Angeles, California; Heard Museum, Phoenix, Arizona; Museum of Man, San Diego, California; Millicent Rogers Museum, Taos, New Mexico; School of American Research, Santa Fe, New Mexico; Wheelwright Museum, Santa Fe, New Mexico; Museum of Mankind, British Museum, London. **Galleries:** Four Winds Gallery, Pittsburgh, Pennsylvania; Gallery 10, Scottsdale, Arizona and Santa Fe, New Mexico. The artist exhibits regularly at the annual SWAIA INDIAN MARKET and the Heard Museum Guild Fair.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

birds

Because of their long-standing importance in Native American cultures, these feathered and winged creatures appear regularly as design motifs on jewelry. Birds serve as messengers from or intermediaries with the supernatural world, and their FEATHERS are integral to ceremonial practices. Certain birds, such as the EAGLE and the RAVEN, assume major roles in the oral traditions of many groups. Some supernatural birds, like the rain bird and the THUNDERBIRD, are symbolic in their own right.

The depiction of birds on jewelry takes many forms; the choice of bird is drawn from the artist's culture and environment. In the Southwest, artists derive popular motifs from ancient designs (often adapting artwork found on pottery), especially using the quail, parrot, turkey, Hohokam water bird, and Zia Pueblo bird. Pueblos depict birds for decorative purpose, evoking their natural and symbolic roles equally, as in the case of Zuni mosaic jewelry designs. In recent years, some birds, like the roadrunner (New Mexico's state bird), have been added as motifs.

Sterling silver bird brooch, Northwest Coast, late nineteenth century. *Art Price Collection/National Archives of Canada/PA-201441.*

In the Northwest Coast region, the Tsimshian have special associations for certain birds, which range from joyful connotations for the hummingbird to apprehensive prophet of death and transition associations for the OWL. Other Northwest Coast birds of special meaning include the raven and the loon. In other cultures, such birds as the bluejay, crane, crow, and swan are portrayed as significant. A tourist-era interpretation of the bird motif as carefree and lighthearted also persists. *See also* PEYOTE BIRD.

bison. *See* BUFFALO

Black Eagle (8/13/54– , Shoshone/Yokuts)

Rick Christman, known as Black Eagle, works in a REVIVAL STYLE devoted to reproducing Shoshone and Northern Plains cultural artifacts, including jewelry. He is a

self-taught artist who uses authentic materials, such as ground pigments from nature (for paint), bison and deer sinews, BONE, rawhide, and antique TRADE BEADS. Many of his cultural artifact recreations are of ceremonial and dress regalia. He has made such items of personal ornamentation as hair-pipe bone breastplates and chokers. He has won awards at the Heard Museum Guild Fair (1993, 1994) and at a range of other venues in Arizona, Colorado, Indiana, Oklahoma, and Texas, as well as at the SWAIA INDIAN MARKET, O'odham Tash, and the Gallup Inter-tribal Ceremonial.

Bobelu, Caroline (10/19/46– , Zuni)

Caroline Bobelu is a well-regarded lapidarist and jewelry designer who renders contemporary-looking pieces inspired by traditional materials and techniques. After medical training in Chicago, she returned to Zuni, New Mexico, and took up a career in jewelry-making. A self-taught artist, she joined the INDIAN ARTS AND CRAFTS ASSOCIATION (IACA) in 1978. After winning the IACA Artist of the Year award in 1983, Bobelu began receiving wider recognition, including an exhibition at the Southern Plains Indian Museum and Crafts Center (Anadarko, Oklahoma) in 1984.

Her pieces, mainly STERLING SILVER, include PENDANTS, chokers, EARRINGS, and RINGS; her unique designs include hand-worked INLAY of CORAL, IVORY, JET, mother-of-pearl (*see* ABALONE), and TURQUOISE. These designs are abstract and figurative, and they are often based on Zuni motifs. She exhibits regularly at a variety of Indian art venues, including the Gallup Inter-tribal Ceremonial, the Heard Museum Guild Fair (first place award in 1981), the SWAIA INDIAN MARKET (award in 1982), O'odham Tash, and the Santa Monica Powwow. *See also* ZUNI JEWELRY.

bola, bolo

A distinctive form of neckwear, resembling a string tie, created in the western United States as a man's personal adornment item, but now worn by both sexes. A bola is generally a length of braided leather with a central ornament on a slide and decorative metal tips.

Bola tie, silver with sugilite, turquoise and opal inlay, ca. 1998, by Tom Baldwin (Navajo). *Collection of Richard Pearce-Moses. Courtesy of The Heard Museum, Phoenix, AZ.*

Victor Cedarstaff, a non-native silversmith and leatherworker from Wickenburg, Arizona, is usually credited with the invention of the modern bola tie around 1948. Bolas have since been associated with Native American decoration, with the most varied examples produced as an offshoot of SOUTHWESTERN INDIAN JEWELRY. The wearing of bola ties quickly became a substitute for many men in Arizona and the surrounding region, as a concession to the warm weather that can make the wearing of a cloth necktie confining. The bola tie also became a popular Western-wear item for ranch and cowboy attire.

The bola is a fertile form for experimentation in design; its central setting has been the framework for a wide variety of decorative techniques, materials, and shapes. Popular bola designs have been either abstract compositions of metal (usually SILVER or GOLD) and contrasting stonework (often TURQUOISE, CORAL, or MALACHITE), or figurative objects executed in various forms of INLAY. Navajo and Zuni bolas, including contemporary and older pieces, are especially notable in terms of marketplace appeal. However, many other cultural groups have taken up this form as well, and bolas are now made in a wide variety of materials, ranging from natural resources such as antler and hide to BEADWORK on leather.

Native jewelry-makers have developed creative variations on the basic bola shape since the 1970s, and the central frame is often newly invested with artistic flair. Many contemporary native fine-art silversmiths use the bola tie as a palette for intricate designs in precious stone and metal. As a personal adornment form, bolas are made in a wide range of prices and quality, including inexpensive pieces using less expensive materials that are variations on a popular (to the point of stereotype) metal OVERLAY and turquoise stone composition. The wearing of bolas remains largely a western North American custom.

Further Reading: Kramer, William J. *Bola Tie: New Symbol of the West*. Flagstaff, AZ: Northland Press, 1978; Ullman, Eleanor E. "The bola tie." *Arizona Highways*, 42 (October 1966): 2–7.

bone

Material derived from the skeletons of animals. Bone has long been popular for native jewelry-making. Northern native groups, including Woodlands and Plains peoples, prized bone for practical and spiritual purposes. Artisans throughout the continent developed careful and meticulous processes for hand sanding, cutting, and polishing bone from cows, deer, and other animals for beads and carvings. Plains Indians developed intricate bone breastplates, bibs, chokers, disks, and beads for hair and clothing decoration. Bone could be decoratively enhanced by bleaching, painting, incising, and carving. Bone, and even imitation bone (often plastic or wood), is used for REVIVAL-STYLE jewelry and personal adornment cultural items, including BOLAS and hair pipes (long, tube-shaped bone beads used especially in making breastplates). *See also* BEADWORK; BREASTPLATE-DERIVED ORNAMENTATION.

bowguard

A device worn by native men on their wrists to protect against the recoil snap of a bowstring. The bowguard, made from a combination of leather and other stiff materials (usually metal), is one of the few native adornment items used for a combined utilitarian and ornamental purpose that has escaped commercialization.

A wide range of cultural groups have used bowguards, but the best examples of bowguards that have influenced native jewelry-making design are the *ketohs* of the Southwest. These Navajo bowguards were made by early silversmiths starting around 1895. The smiths usually cast a rectangular outline piece of metal with intertwined crosspieces, or started with a rectangular sheet of thin metal; in either case, the artisan normally hammered a design onto the metal and then attached it to the leather wristpiece. A common design was a curvy X shape formed by two elongated S-bars. Other decorations were also employed, including stones set in BEZELS or INLAY, and decorative stampwork.

Amulet necklace of fox bones and sinew, Copper Inuit, collected ca. 1914-16. *Canadian Museum of Civilization, Image #73-12911.*

Many metal-on-leather bowguards from the late nineteenth and early twentieth centuries are on display in museums. These pieces provide good examples of native material culture reflecting hunting practices; the designs on such works are usually purely abstract and geometrical, and most often use applied decoration made by hammering and REPOUSSÉ techniques, or by the application of die stamps (*see* DIES; STAMPING, STAMPWORK). Bowguards made in the mid-1900s show changes in materials for design effect, such as the carved stones and mosaic inlay on Zuni pieces, or the inclusion of CLUSTER WORK stone groupings on Navajo *ketohs*. Bowguards have been collected and sold on the antique Indian arts market, but many remain treasured family heirlooms; while contemporary smiths and jewelers continue to make these objects, they are principally reserved for use by native men. Bowguards are now seen mostly (but not exclusively) in the Southwest, where men wear them for ceremonial and social occasions, including POWWOW dancing. *See* p. xxx for an illustration of a bowguard.

Further Reading: Branson, Oscar T. *Fetishes and Carvings of the Southwest*. Tucson, AZ: Treasure Chest, 1976.

bracelets

Bracelets, worn around the wrist or as bands for the upper arm, have long been popular with native peoples. Armlets and wristbands of hide and other natural materials are among the earliest examples of ornament found in the archaeological evidence of early Native America. With the introduction of trade goods and metalsmithing tools and techniques by European traders and immigrants, native bracelet-making took on new dimensions by the mid-eighteenth century. Throughout the eighteenth and early nineteenth centuries, native peoples wore BRASS

Three silver incised bracelets, Northwest Coast, late nineteenth century. *Art Price Collection/National Archives of Canada/PA-201445.*

and COPPER pieces, usually hammered or twisted into simple wire cuff shapes. Bracelets made from SILVER were especially prized; as native smiths from the Southwest and Northwest Coast learned to work with silver, the production of such bracelets increased with demand. The first silver bracelets were made to please tribal tastes. Southwestern Indian jewelers had particular skill in devising varieties of styles.

TOURIST JEWELRY influences altered bracelet production early in the twentieth century. As native smiths became more aware of European-American consumer expectations, bracelets took on new and more complex forms. When the same awareness hit manufacturers, companies turned out a flood of imitation Indian-style bracelets, made either in copper or white metal or low-grade silver. The lightweight, inferior qualities of these pieces undercut both the value of and demand for the genuine handmade work. Yet, bracelets made with good materials and design continue to be popular adornment.

Since the 1950s and 1960s, many native artists have added soldered circular bangles, link bracelets, and charm bracelets to their design repertoire, largely to please non-Indian jewelry preferences. Bracelets are now made for both women and men; as a concession to non-native masculine tastes, the bracelet style itself was transformed into watch bracelets and watchbands beginning in the mid-twentieth century. The majority of native-made bracelet forms are in the shape of cuffs. Native American jewelry-makers occasionally make complete circlets, or bangles, good examples of which have a neat, or even concealed, SOLDER line.

Silver cuffs, incised, stamped, or set with stones, remain the best-known, salable products of Native American workmanship, and these types of bracelets are rendered throughout North America according to the design heritage and creative inspiration of their makers.

brass

One of the base metals, an ALLOY of COPPER and zinc, that has proved pleasing in its color for ornamentation. Brass was used by early smiths because it was initially more available than silver; jewelers have used brass because it is malleable and resists corrosion.

Brass jewelry pieces, mainly RINGS, BRACELETS, and PECTORALS, exist from the earliest years of European contact, and are part of the earliest native metalworking experimentation phase (early to mid-nineteenth century). For example, the first Hopi metalsmiths used brass cartridge cases or discarded scraps to make both tools and decorations. Brass fell out of favor partially because it is a soft metal that does not hold STAMPING well; some native metalworkers still create brass jewelry today, although mainly as artifactual recreations—part of a deliberate REVIVAL STYLE—

or in combination with several other metals. Some contemporary Plains artists have created revival-style personal adornments in brass.

breast ornament. *See* GORGET

breastplate-derived ornamentation

More than a type of personal adornment, breastplates were symbolically meaningful to the Plains warriors who wore them. The original breastplate form, worn suspended over a warrior's shirt or vest, offered ritual signifi-

"One of the Past," a Cree Indian, 1904, wearing a choker of hair pipes; a portion of his breastplate is visible. *G.E. Fleming/National Archives of Canada/PA-028998.*

cance to battle dress as well as protection. A typical breastplate consisted of two rows of long, tube-shaped BONE beads (known as *hair pipes*) attached in the middle by a row of shorter bones or circular beads; together, the rows were wide enough to cover the wearer's chest from side to side. The breastplate had sinews or thongs at the top so it could be hung from around the neck. Just as the breastplate protected the torso, chokers made in a similar style protected the neck.

Breastplates appeared with great frequency between 1860 and 1900, and they are periodically revived as reproductions of specific cultural items. On the nineteenth-century forms of breastplates—those worn in battle—the hair pipes were carefully crafted. On contemporary pieces, the bone beads on a breastplate are often reduced to a smaller jewelry element. The most common items derived from the breastplate for personal adornment are multistrand bone bead chokers and tubular bead PENDANTS. Native artists have drawn the designs for such pieces from museum examples or from old photographs depicting Plains family adornment. Revivals of Plains jewelry and dress carefully recreate such bone bead items, sometimes interspersed with metal or glass TRADE BEADS for contrast and decorative effect. Tourist imitations, as well as Woodlands-derived examples of bone collars and chokers, are sometimes made from plastic or wood.

Further Reading: For additional information on hair pipes, see <http://www.sil.si.edu/DigitalCollections/BAE/Bulletin164/tptoc.htm>.

buckles

In a native jewelry context, fastenings developed for CONCHA BELTS and other belt forms. Early buckles made of SILVER were often basic circlets or horseshoes with a crossbar to hold the tongue in place. The first concha belt buckles were small in size and made in shapes that contrasted the main concha plate decoration. Eventually, around the 1880s, smiths began to increase the buckle size relative to the concha, and then started to cast the buckle in a rectangular or lozenge shape—or even in a shape approximating the concha disk itself. Casting allowed native smiths to add (usually wing-shaped) side pieces to the buckles, and they also began to apply stamped designs and other forms of patterning (*see* STAMPING, STAMPWORK).

It was not until the twentieth century that native jewelry-makers began to explore the ornamental possibilities of the buckle most fully. Stone setting emerged by the early 1900s, and many buckles took on a more curvilinear aspect, or even a butterfly-type shape, although outlines tended to remain rectangular, square, oval, or round. Jewelry-makers also used a flat metallic buckle as the field for all varieties of decorative techniques,

Concha belt with butterfly-shaped buckle, Navajo, ca. 1880. *Collection of Lynn D. Trusdell.*

including CLUSTER WORK, INLAY, OVERLAY, APPLIQUÉ, and BEADWORK. The emergence of fine art jewelry-making allowed the buckle to become a "palette" for an outstanding design or a modified and unusual shape; the products of this artful experimentation have given a tremendous boost to appreciation of native-made buckles. A buckle set (i.e., the buckle, a decorated metal tip for the other end of the belt, and sometimes one or two decorated loops called "keepers" because they keep the end of the belt in place when the belt is buckled) also allowed for the extension of metal and stonework combinations. *See also* RANGER SET.

Further Reading: Hunt, Walter Ben. *Indian Silversmithing*. New York: Bruce Pub., 1960.

buffalo

The North American buffalo (*Bison bison*), also called a bison, has had a long association with Native Americans, and serves as an important jewelry design motif. Images usually emphasize the hump over the buffalo's shoulders, its large head, and its sharp, curved horns.

The buffalo, with its life-giving flesh and hide, had—and continues to have—a deep significance to the peoples of the central and northern Plains; those affected by the buffalo gave it a connotation of healing and power. Other native groups have also been affected by the buffalo. During the nineteenth century, almost 75 million of these animals roamed an area from Pennsylvania to the Great Basin of the Northwest, and they were known to tribes from Canada to Mexico. The buffalo is celebrated in many ceremonials and dance sequences because it could fulfill many important economic and spiritual needs.

A buffalo usually appears on jewelry in full profile, or the head alone will be depicted, and the image is most often used on belt BUCKLES, pins, or PENDANTS. As a motif, the buffalo has been used not just by Plains artisans but also by native groups ranging from the Hopi to the Yurok. Particularly when rendered by artists of Plains and Oklahoma native heritage, the buffalo assumes an iconic stature that indicates deep meaning; for example, certain artists speak of the parallels between the buffalo and Indians, and how both have been brought close to extinction. Renditions

Pendant and earrings with buffalo motif, ca. 1998, by Kevin Pourier (Lakota). *Courtesy of the artist.*

of designs from parfleches (hide containers for transporting items), including triangular and diamond geometric patterns, have been used to create abstract representations of buffalo.

Some artists who are known for their depictions of the buffalo on jewelry include Julius CAESAR (1910–1982, Pawnee) and Bruce CAESAR (b. 1952, Pawnee); Clarence LEE (b. 1952, Navajo) and Russell LEE (b. 1976, Navajo); and George Shukata WILLIS (b. 1936, Choctaw).

buffing

A finishing technique in metalworking, often using lightly abrasive polishing compounds applied to the metal to increase the shine of a finished piece. Early native jewelry-makers used a buff stick to complete the polishing process on metal or stone work. This polish-

ing was accomplished by fine, light strokes using a loose abrasive powder for smoothing and polishing the metal surface. Contemporary jewelers now rely mainly on electrically powered buffing tools. Before the actual buffing takes place, a metalworker will first use 240-grade (coarse) emery cloth (a polishing cloth embedded with abrasive material) to reduce the impressions of file marks; this can then be followed up with polishing by a 320-grade (less coarse) emery cloth. This step can reduce the amount of time needed in the next stage, polishing with a buffing wheel to produce a fine, high-gloss finish.

Buffing wheels are mounted on machines that spin the wheels at speeds of up to 3,500 to 4,000 RPM. The polishing surface of the wheel is treated (or "charged") with a buffing compound. Each compound varies in coarseness; therefore, a buffing wheel should be used with a single compound only. The first compound used on a piece is usually diamond white or tripoli, which removes the scratches made by the emery cloth. Other buffing wheels can be charged with compounds such as green rouge (which produces a mirror finish) or red rouge (which produces an even greater shine). Goblet-shaped buffing forms are used for jewelry wire because they provide an easier, more secure polishing surface. Use of the buffing process has varied over the years, depending on the artist's preferred choice of metal finish. In the 1980s and 1990s, an emphasis was placed on highly buffed—and therefore extremely shiny—pieces, often in combination with brightly colored INLAY stones.

burnishing

A polishing process using a smooth hardwood or metal tool (a burnishing stick) for rubbing. The burnishing technique was developed to shine small areas on a jewelry piece, often APPLIQUÉ or OVERLAY work. Relief work and other detailing could be polished to a desired finish through the use of a burnishing stick; jewelry-makers operate this tool like a lever to increase pressure downward onto the metal surface.

Burnsides, Tom (active early to mid-twentieth century, Navajo)

A resident of Pine Springs, Arizona, Tom Burnsides was featured in John Adair's classic study, *The Navajo and Pueblo Silversmiths* (1944). Burnsides made heavy silverwork typical of native jewelry of the 1920s through 1940s, including filed, sandcast, and stamped pieces (*see* CASTING; STAMPING, STAMPWORK). Burnside was noted for his skilled craftsmanship in finished jewelry, and traders often turned to him to finish the substandard work of other smiths. Adair described the artist's tools, equipment, and metalworking processes in some detail, allowing readers a clearer understanding of the skill and effort involved in silversmithing during this period. **Museums:** Heard Museum, Phoenix, Arizona.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973.

butterfly spacer ornament

Usually part of a silver CONCHA BELT, a metal form made in a butterfly-wedge shape and intended to fill the interval between concha plaques. The spacer probably originated from a blouse ornament. It is placed on the belt as an alternating decoration between the conchas. This interval form is popularly called a "butterfly," sometimes regardless of its shape. The spacer first appeared around 1920, and it remains a popular device. *See* HATBAND entry for an illustration of butterfly spacer ornaments on a hatband.

buttons, button-style ornaments

Fasteners on native dress were originally made in a wide range of available natural materials: BONE, HORN, IVORY, SHELL, stone, and wood. The introduction of SILVER permitted many variations in button shapes and ornamental effect. Button styles, especially the early twentieth-century designs and shapes, have been adapted for use in native jewelry (such as EARRINGS).

Prior to 1900, buttons were primarily used on blouses, dresses, leggings, and trousers, blossoming especially after some native peoples borrowed and adapted elements of Western dress. The making of buttons was an important part of native silversmithing, and these items could also be used for other ornamental purposes, for example, as decorative elements on a piece of jewelry. Most buttons were round with center holes; when made in silver, the circular form assumed conical or hemispherical dimensions, and the surface could be corrugated, filed, or grooved. Native jewelry-makers devised other styles by DOMING, fluting, and elongation, particularly after 1900. STAMPING provided design contrast. Experimentation with button styles tapered off after commercialization; early examples are now hard to find and are highly collectible.

Buttons are still considered dress ornaments but many of the earlier forms have been reinterpreted for earrings and for ornaments that hang from choker-style NECKLACES. Contemporary native jewelers regularly revive these button styles, and examples now constitute part of the design repertoire of round- and oval-shaped metal jewelry forms. A TOURIST JEWELRY form, popular since the advent of Santa Fe style dress (1980s onward), is the *button cover,* a decorative metal addition that clips over shirt buttons to give a shirt a more "Western" or "Southwestern" appearance.

C

cabochon

A lapidary process in which a stone is cut as a convex form and highly polished rather than faceted. A finished cabochon has a rounded top and a flat bottom and may be translucent. The actual stone can be variable in its overall form, as well as in the depth and surface of the domed portion. Native lapidarists and jewelers frequently employ the cabochon process because it works well with TURQUOISE and CORAL (and other semiprecious mineral stones), and these stones are usually then set in BEZELS.

Caesar, Bruce (5/12/52– , Pawnee/ Sauk and Fox)

Bruce Caesar, a fourth-generation jewelry-maker, is the son of famed silversmith JULIUS CAESAR (1910–1982). Bruce makes jewelry in both traditional and contemporary styles, and his creations feature designs in GERMAN SILVER that derive from Plains and Oklahoma native traditions. Caesar is involved in educating people about the products of Native Americans from the Great Plains, Woodlands/Great Lakes, and Prairie regions; this educational concern has led to Caesar serving on numerous Oklahoma and surrounding area arts associations, including the Red Earth Festival. He conducts lectures, seminars, and workshops, and his work has been featured in exhibitions and activities at the Southern Plains Indian Museum and Crafts Center, Anadarko, Oklahoma. He was awarded a National Heritage Fellowship in 1998 from the National Endowment for the Arts.

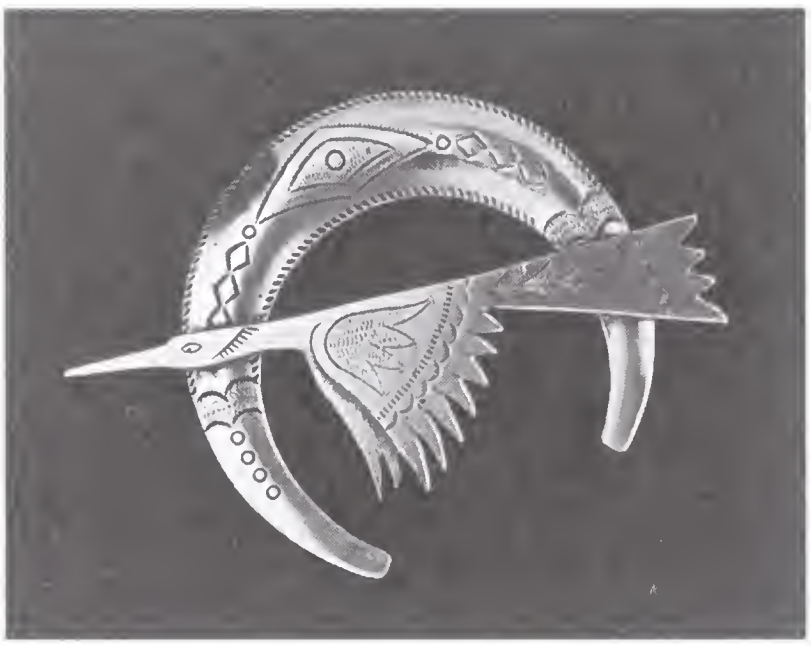
Bruce's son, Adam (2/5/71–, Pawnee/ Mesquakie), has been producing work as a fifth-generation artist. He began carving IVORY and BONE at the age of 11, and soon took up metals for jewelry creation. Adam has won awards at the American Indian Exposition held in Anadarko. He adds the perspective of a new generation in his jewelry-making, which reflects a combination of traditional values and contemporary vision.

Further Reading: For additional background, see <http://arts.endow.gov/explore/Heritage/CaesarBio.html>.

Caesar, Julius (1910–1982, Pawnee)

Julius Caesar is one of the most highly regarded native master metalsmiths of the twentieth century. Apprenticed in the 1930s to Pawnee metalsmith Hiram Jake, who made jewelry based on designs from the Native American Church, Caesar also learned craft techniques from Sac and Fox metalsmith Bill Leaf. Caesar embarked on an extensive program of personal study in the 1950s and 1960s, centered on his interest in GERMAN SILVER and the variations to be found in tribal symbols and design. He developed a broad knowledge of Plains and Woodlands metalwork design, returning frequently to an interest in jewelry with the PEYOTE BIRD motif.

Caesar found German silver more challenging to work with than pure SILVER, and he developed a HALLMARK for his creations. He has inspired many other native artists, and



German silver pin by Julius Caesar (Pawnee). *Courtesy of U.S. Department of the Interior, Indian Arts and Crafts Board, AD-68.24.1.*

his two sons, BRUCE CAESAR (b. 1952) and Harry Caesar, have continued his metalsmithing traditions. **Museums:** Indian Arts and Crafts Board, Department of the Interior; National Museum of the American Indian, New York City; Denver Art Museum, Denver, Colorado; Southern Plains Indian Museum, Anadarko, Oklahoma.

Further Reading: *American Indian Art Magazine*, Autumn 1978, Winter 1995; Ellison, Rosemary. *Contemporary Southern Plains Indian Metalwork* (exhibition catalog). Anadarko, OK: Indian Arts and Crafts Board, Department of the Interior; Oklahoma Indian Arts and Crafts Cooperative, 1976.

California and Central West Coast native jewelry

Jewelry produced by the native peoples of California and Oregon. Jewelry-making from this region is done largely with natural materials, such as BONE, juniper berry, steatite (*see* SOAPSTONE), stone, wood, and various SHELLS (including ABALONE, DENTALIUM, and conch); these native peoples also produce REVIVAL-STYLE adornment, including ceremonial regalia.

The native peoples in this region suffered much disruption from non-natives, ranging from Spanish missionaries in the eighteenth and early nineteenth centuries, to Mexicans and then Americans (first as prospectors and then as settlers) from the nineteenth century onward. Despite this, the area's native groups, from the Mission and Chumash in the south to Yurok and Hupa near the border with Oregon, have retained their presence. Basketry remains the strongest craft tradition for natives of this area, with expanded activities related to bead weaving; the designs used on these materials also appear on jewelry work.

Strings of beads and PENDANTS are the most common jewelry forms made by California native artists. Some jewelry-makers continue to base their pieces on objects from local material culture, such as elk antler and elk bone EARRINGS resembling carved spoons, and glass TRADE BEADS interwoven with natural materials such as abalone and OBSIDIAN. While the number of native jewelers from California is not large, these artists have been influential in their own right. In the mid- to late twentieth century, some artists turned to making metal jewelry as well, in COPPER, SILVER, and GOLD.

In turn, the work of native artists in the region has also been influenced by the inter-

Wampum and bead necklace strand, Hupa. *University of Pennsylvania Museum, neg. #S4-142834.*

section of powerful neighboring native cultures from the Southwest, Northwest Coast, Great Basin, and Plateau. California native artists have had training at the Indian school in Riverside, California, as well as access to other institutions, such as the INSTITUTE OF AMERICAN INDIAN ARTS in Santa Fe, New Mexico. Some of these artists have relocated to surrounding regions for greater opportunities; one example is Larry GOLSH (b. 1942, Pala/Mission), who has worked mainly in Arizona.

Another factor in the development of native arts in this region is California's significance as a marketplace for Native American arts, including jewelry. Wealthy non-natives from the state, including Hollywood celebrities, have championed the acquisition and collecting of native work; the affluent Western lifestyle has equated Mission furniture, Santa Fe-style interiors, and Indian decorative objects as highly desirable commodities.

Some native artists from the region who have gained recognition for jewelry pieces include William Benson (Pomo); George Blake (Hupa/Yurok), a master in several media; Victor Gabriel (Washoe); Leonard Hawk (Yakima); Bradley Marshall (Hupa); Lavina Matty (Yurok), known for her necklaces; James Tomeo (Yakima/Colville); Linda C. Vit (Karuk); and Alan WALLACE (b. 1951, Maidu/Washoe).

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present.* New York: Abrams, 1999; *New Horizons in American Indian Art: A Varied Exhibition of Contemporary Concepts in Paintings . . . and Jewelry from Northern California Indian Artists*. Los Angeles: Southwest Museum, 1976.

Campbell, Ben Nighthorse. *See* NIGHTHORSE, BEN

Canadian native jewelry

Jewelry created by the people of Canada's First Nations. This jewelry (known in that country by the British spelling of "jewellery") remains, for the most part, firmly lodged in a craft tradition (more so than the fine art or tourist designations applied to jewelry done by native peoples in the United States).

Canadian native decorative arts, by staying within the craft designation, have received attention from ethnographers, marketers, and even government agencies; the only exception to this has been the acceptance of Inuit carvings as fine art (*see* INUIT, INUPIAT, AND ALEUT JEWELRY). Inuit jewelry-making developed as a craft commodity created in response to the impetus of the tourist trade, as had most other native crafts. Separate jewelry pieces—like those commonly worn by European Americans—were less practical in arctic and subarctic climates, and were therefore less important to most northern Canadian native peoples, who often made jewelry principally for dress ornament or be affixed to clothing. Therefore, a stronger tradition for BEADWORK can be found here, especially among the eastern Woodlands and northern Athapaskans. Here, too, older forms of ornament, such as LABRETS and GORGETS (breast ornaments), were abandoned at a later date than in other areas of North America.

However, traditions for jewelry survive and are celebrated through local endeavors. National interest in the fur trade in Canada has kept alive the collecting of TRADE SILVER ornaments, and their use as jewelry designs. Valuable collections of jewelry and metalwork can be found in both the major national museums and regional museums, from the province of Quebec all the way to British Columbia, as part of the native material culture. These holdings, however, remain firmly classed as anthropological collections. Art galleries featuring native-made jewelry are also found mainly in the major cities of Montreal, Quebec City, Toronto, and Vancouver.

Jewelry made by peoples from more geographically distant areas, such as the northern Atlantic provinces and the Yukon, finds its way to galleries via the GUILDS or cooperatives (networks of native artists based in a community that produce art for export). The Canadian Handicrafts Guild (now defunct) played a major role in the dissemination of

native arts in the mid-twentieth century; only the guilds for the provinces of Ontario and Quebec still retain this function. In the 1980s and 1990s, native communities, anchored by a local cooperative, developed programs for jewelry-making through their colleges and community centers. One such example is the Inuit community and their Jewellery Program at Nunavut Arctic College, Iqaluit, Nunavut; another example is a program by the Iroquois of the Six Nations Reserve, near Brantford, Ontario.

Prominent Canadian native jewelers and silversmiths can be found in most of the major cultural group sections (*see* IROQUOIS JEWELRY; PLAINS, PLATEAU, AND OKLAHOMA INDIAN JEWELRY; NORTHWEST COAST NATIVE JEWELRY).

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999; Friesen, John W. *Rediscovering the First Nations of Canada*. Calgary: Detselig Enterprises Ltd., 1997; Macmillan, Alan D. *Native Peoples and Cultures of Canada*. Vancouver: Douglas & McIntyre, Ltd., 1995; Patterson, Nancy-Lou. *Canadian Native Art: Arts and Crafts of Canadian Indians and Eskimos*. Don Mills, Ontario: Collier-Macmillan Canada, 1973; Glenbow Museum. *The Spirit Sings: Artistic Traditions of Canada's First Peoples*. Toronto: McClelland and Stewart; Glenbow Museum, 1987.

carination

A shape used on older and REVIVAL-STYLE metal bracelets consisting of a triangular cross-section that comes to a point away from the wrist; this apex forms a keeled, or carinated, ridge created by casting the piece in a V-grooved mold.

Early native smiths (active last quarter of the nineteenth century), principally from the American Southwest, were the first to make this type of bracelet. These pieces were initially decorated by COLD CHISELS and FILING; later, patterning was done with die STAMPING. These BRACELETS were narrow, but a wider cuff could be created through the CASTING, or soldering together, of several separate pieces. Some twentieth-century native artists have revived carination; contemporary makers favor clean, simple lines and stamping, or they try to approximate known earlier types. Most native jewelers refer to carinated pieces as "triangle bracelets."

Casa Appa, Della (1889–ca. 1963, Zuni)

Also referred to as Casi or Della Casi, Della Casa Appa is credited with being the first woman in Zuni Pueblo to work as a silversmith. Learning from her husband, and working out of their home, she started around 1926 to produce enough silverwork to earn a reasonable living, thanks to tourist demand. She is best known for nugget and cluster

Cross pendant of silver, red coral, and channel inlay, made ca. 1932, by Della Casa Appa (Zuni). *University of Pennsylvania Museum, neg. #S4-142829.*

stone jewelry set in SILVER, including EARRINGS, NECKLACES, and RINGS (*see* NUGGET STYLE; CLUSTER WORK, CLUSTER SETTING). Casa Appa made jewelry for sale to noted Zuni Indian trader C.G. WALLACE in the late 1920s and early 1930s. Her achievements as a jewelry-maker were an inspiration to other Zuni women, and by 1940 at least 27 other women were working as jewelers; women jewelers

continue today as an important segment of Zuni's artistic population. The PROVENANCE of some of her pieces is better known than that of other Zuni jewelers; works by Casa Appa can be found in such museums as The University Museum of Anthropology and Archaeology in Philadelphia, and in various Southwestern institutions, such as the School of American Research, Santa Fe, New Mexico, and the Heard Museum, Phoenix, Arizona. *See* p. xxvi for a photo of Della Casa Appa.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973; Slaney, Deborah C. *Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection*. Phoenix: Heard Museum, 1998.

casting

A process for shaping metal by pouring molten metal into a mold that is carved or shaped to a desired design or form. The mold has a reverse, or "negative," version of the actual design. Once the metal has cooled, it is removed from the mold, and unneeded pieces of the cast metal are cut or filed away in preparation for finishing the piece.

In *tufa casting,* one of the oldest forms of casting (from the 1860s on), Southwestern native smiths carved stone molds out of volcanic pumice (TUFA), which is porous and easier to carve than many other rocks (it is also plentiful in many parts of the Southwest). Smiths usually used two-part tufa molds to create a piece with shaping on both sides (rather than a flat back); the two pieces were held together as the molten metal was poured in and until the metal cooled and hardened. Smiths also learned to *sandcast* by pouring the molten metal into a vessel filled with firmly packed sand that had been shaped into the desired design; this technique is still used by some native jewelers. Sandcasting requires mixing sand and water into a consistency that will hold the desired form and that will not dissolve under the heat of the molten metal. The back of a sandcast piece is flat, but it may show small dents from the removal process. From the later 1800s to the 1920s and 1930s, native smiths also made casting molds out of *cuttlefish* shell. (Cuttlefish is a mollusk that has a hard calcified shell that is also called cuttlebone.) Eventually, however, most smiths found tufa easier to work with. Also, in most cases, the molds used in these processes may need to be broken open to release the cast metal, so only a few pieces can be made from any one mold.

Cast SILVER jewelry of various native peoples, especially the Navajo and Pueblo of the American Southwest, is among the most distinctive forms known to non-natives (*see* NAVAJO JEWELRY; PUEBLO JEWELRY; SOUTHWEST INDIAN JEWELRY). Mainstream techniques and materials, such as the replacement of sand or stone with clay or ceramic vessels, were added in the twentieth century. Newer techniques include *hollow casting,* in which a close-fitting object is suspended within the mold, and the molten metal flows between this object and the walls of the mold. (This technique results in a hollow, rather than a solid, piece of cast metal.) As native jewelers gained art-school training, they began to see the possibilities for casting metal by means of wax molds encased in clay or in an inexpensive "investment" material; when these materials are heated, the wax melts and runs out of a small opening in the mold, and then the melted metal (silver or GOLD) is forced in under pressure (*see also* LOST-WAX CASTING). After World War II, a mass-production process called *spin casting,* involving the use of a centrifuge, was used for the creation of multiple pieces. Since the 1960s and 1970s, more casting has been done in electric melting furnaces.

Hand-cast pieces, however, are a point of pride for many native artists who understand that personal manipulation of the process ensures its quality; many fine-art jewelers use lost-wax casting methods to create nontraditional forms. Some contemporary native fine-art jewelers have revived cuttlebone casting, not only out of respect to a historical process, but also as a means to give a strik-

ing air of three-dimensionality and texture to their pieces.

Navajo and Pueblo smiths began sandcasting silver around 1875, and the technique continues to be vital to the present day. A detailed description of an early Navajo casting process, using rough and improvised tools, was included in an 1881 report to the Smithsonian Bureau of Ethnology by Army surgeon Washington Matthews; an additional detailed account of casting by Navajo silversmiths working in the 1930s appears in John Adair's classic study, *The Navajo and Pueblo Silversmiths*. Navajo-made sandcast BRACELETS, along with other cast jewelry forms such as CONCHA plaques and NAJA pendants, are highly evocative to non-Indian collectors. These objects are widely recognized by dealers and knowledgeable consumers as some of the finest Southwestern Indian jewelry ever produced and the result of one of the most unique techniques of Native American metalwork.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944.

catlinite. *See* PIPESTONE

ceremonial regalia. *See* CALIFORNIA AND CENTRAL WEST COAST NATIVE JEWELRY

chalcedony

The most frequently used category of quartz for gemstone setting; stones are usually cut as a CABOCHON. Containing tiny crystals within the quartz, chalcedony is translucent and has a gray or light blue color with a milky cast. Chalcedony varieties are AGATE, carnelian, and chrysoprase.

channel work, channel inlay

A technique devised by Zuni jewelry-makers in which precut stones are fitted into boxes or compartments on the outer layer of a jewelry piece. The compartments are created by setting silver strips upright on (i.e., perpendicular to) the base of the piece.

The inlaid materials are usually hand-cut to fit their spaces, and then the stones are cemented in place. (Before the 1940s, the cement used was either resin or pine pitch; later, epoxy began to be used.) The artist then grinds and polishes the finished piece; some jewelery-makers grind the stones to be level with the compartment sides, while others leave the stones rounded on top.

Channel inlay differs from MOSAIC inlay in that the SILVER strips forming the compartments are meant to show between the stones. In fact, these silver lines often dictate the arrangement of a channel inlaid design, usually geometric and abstract in nature.

This technique originated in the late 1920s and became more widespread by the 1960s. In older channel-work pieces, Zuni lapidarists initially cut stones to be set in silver pieces created by Navajo smiths. Since the 1970s, the silver compartments can be made by centrifugal CASTING; buyers should be informed if this is the case.

The silver used for channel work is normally 18 gauge. Because materials must be carefully fitted into the channels, each stone requires expert grinding. Popular channel work materials include TURQUOISE, ONYX, and SHELL. The secure fit of such stonework into channel pieces means that these items are often difficult to repair.

Channel work is often displayed to best advantage on BRACELETS. Domed channel work jewelry, especially bracelets, is a popular form, with the inlaid stones cut and formed into individual high domes, resembling a half-bead shape. *See also* INLAY.

chasing

A process of applying decoration to a metal surface by using a specialized PUNCH and a hammer. The chasing tool, a type of punch, is normally an angled, pointed instrument. A jewelry-maker hammers the chasing tool along the metal surface in a manner similar to STAMPING, except the chasing tool is moved across the metal in a steady motion during hammering. The result is an indented, beveled line that looks like ENGRAVING, but no metal is removed from the piece. Chasing can

be done to add textural highlights. A jeweler might also use a center punch for chasing.

chicklet

A Southwestern-derived form of ornament, most often a small squared cube or cylinder of mosaic INLAY. A chicklet can be strung as an individual center ornament on a metallic chain or as a spacer on a bead necklace.

The origin of the chicklet is unclear, but it has become particularly popular since the 1980s, perhaps because its light weight and delicate appearance provide a contemporary-looking alternative to some of the heavier and more traditionally elaborate NECKLACES made by Native Americans.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992.

children's jewelry

Most Native American groups have traditionally made jewelry for children; such pieces generally represent scaled-down versions of adult pieces.

This jewelry could be either BEADWORK ornamentation or smaller metal pieces such as CLUSTER WORK bracelets or even squash blossom necklaces. Because jewelry is worn for festive and ceremonial occasions, and often for dancing, there has always been a local demand for child-sized adornment. Yet the production of such ornaments was always limited, and the amount of children's jewelry on the market is usually fairly small; these items are prized by dealers and collectors. Only a small amount of children's jewelry is made deliberately for the Indian arts market.

However, the tradition of making children's jewelry had an impact on the TOURIST JEWELRY and curio markets. The various firms dealing in imitation "Indian-style" jewelry also manufactured child-sized jewelry, and examples from the 1920s and 1930s include pieces that were labeled "Little Miss" and other similar youthful designations. The legacy of this trade can be seen in gift shops in national parks and other natural monuments associated with native populations: children's jewelry made in the usual "Indian style" is often among the souvenirs of choice. *See also* BRACELETS; SQUASH BLOSSOM BEADS, SQUASH BLOSSOM NECKLACE.

chip inlay

A design technique in which small chips of TURQUOISE, CORAL, or other material (usually pieces left over from lapidary grinding) are made into a form of MOSAIC and glued (with epoxy) onto a SILVER surface.

This technique is referred to by some in the Indian jewelry industry as "singer style," because credit for the first use of chip inlay, produced around 1961, is usually given to the Singer family of Navajo silversmiths. Chip inlay proved to be an economical way to use small pieces of stone left from other lapidary work. Some native jewelers pour plastic resin over the gathered pieces of material as a

Pair of engraved silver girl's bracelets, Shawnee, early- to mid-twentieth century. *University of Pennsylvania Museum, neg. #S4-142832.*

binder. The type of designs rendered in chip inlay tend to be small and elongated, because most native jewelers gather the chips into a narrow channel for decorative effect; therefore, designs made with this technique are most often found on pins, PENDANTS, and WATCHBANDS. The INLAY channels are used to make sinuous abstract borders or miniature sets of images that lend themselves to elongation, such as PEYOTE BIRDS, SNAKES, or running animals. Many native artists refer to chip inlay as "crushed turquoise."

Good-quality chip inlay is difficult to appraise. Often, the tiny "chips" used in this inlay technique are from lesser-quality materials (e.g., poorly colored turquoise or broken coral branches), or the chips themselves are made from SYNTHETICS; because these materials are inexpensive, a fine piece of chip inlay is valued more for its expertly rendered design. When lower-quality materials and binders have been used in older chip inlay jewelry, the piece can have a tendency to darken over time.

Churino, Juan Rey (active 1870s–1920s, Laguna/Isleta)

Also spelled Churina in some sources. Along with fellow Laguna smith Jose Platero, Juan Rey Churino moved to Isleta Pueblo in 1879 as the result of a "religious dispute." At Isleta, Churino seems to have been one of the creators of the "Isleta Cross" pendant necklace. He was known to have made these CROSS necklaces, along with MANTA PINS and bent-wire-work EARRINGS. He was the teacher of Isleta artist Jose Jaramillo around 1903. Churino moved to Sandia Pueblo in 1923, and, according to his daughter, made little SILVER after that.

Further Reading: Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973.

clan emblem

Many native artisans belong to family groups known as clans. They may deliberately mark their jewelry with some token of this relationship, often by a HALLMARK, such as an ANIMAL TRACK or symbol, a sun symbol, or other form of descriptive mark. Many eastern Woodlands and Southwestern artists use clan emblems as design motif elements in their compositions. Pacific Northwest Coast artists do likewise, using a TOTEM or family crest image; the Chilkat use such designs on weavings, adapting designs that are taken from painted pattern boards in their families' possession. Charles LOLOMA'S (1921–1991, Hopi) use of his badger clan symbol, the BADGER paw, is a well-known example of a clan emblem used as a jewelry hallmark.

cloud symbols

The importance of rain in the desert Southwest is apparent in the use of cloud symbols in jewelry from that region. Representations of clouds as design motifs usually appear in two generalized forms: (1) as an abstract terraced shape, sometimes resembling kiva steps (that is, steps leading up or down into the *kiva,* an underground sacred meeting place of the Pueblo peoples) or mountains, or as a series of triangular points, and (2) a more realistic depiction of semicircles resting on a horizontal line, often with straight vertical lines underneath to depict falling rain (*see* RAIN SYMBOLS). This second design form is still much used today in Pueblo-made NEEDLEPOINT or PETITPOINT pins and PENDANTS, and on Hopi OVERLAY pieces. The terraced cloud form appears also as caps or headdresses (as in the TABLITA DESIGN headpiece for ceremonial DANCERS) on supernatural beings used in jewelry designs.

Geometrical origins for such cloud symbols derive from early pottery, basketry and textiles, and from petroglyphs (*see* PETROGLYPHS AND PICTOGRAPHS); these images are used as repetitive design motifs on jewelry, usually in combination with other natural symbols such as LIGHTNING. A connotation invented in the tourist era is that the rain cloud motif means "good prospects."

cluster work, cluster setting

A jewelry setting arrangement in which a larger central stone is surrounded with geo-

metric rows or designs of four or more smaller stones. These small stones are usually uniform in size, and they may be cut to be round, egg-shaped, or ovoid. The overall cluster design pattern can be round, oblong, rectangular, or even butterfly-shaped. This technique is unique to Southwestern native jewelers.

The cluster work technique evolved from the culmination of increased silversmithing and lapidary skills, often rendered as collaborations of native smiths (such as Navajo smiths and Zuni lapidarists), commencing as early as the turn of the twentieth century. However, this technique really only achieved its present recognizable form by the early 1930s. Smiths moved from setting straight rows of stones to organizing them in cluster patterns as they gained more comfort with the technical process.

Both the Navajo and Zuni continue to excel at this form of setting, and cluster work is popular with native peoples, especially in the Southwest, for personal wear. Most pieces are made from matched stones; over time, however, cracked or damaged individual stones can and do get replaced, sometimes by a stone with a slightly differently color. Therefore, older, repaired cluster pieces appear occasionally with non-matching stones, and sometimes replacement stones are deliberately interspersed with stones of slightly varying hues for effect. Some cluster work jewelry-makers choose TURQUOISE with or without MATRIX, depending on their aesthetic preferences. Cluster work can be found on brooches, RINGS, and BRACELETS, and as ornament for squash blossom necklaces. Alice QUAM (b. 1929) and Duane QUAM (b. 1919) of Zuni, New Mexico, are well known for the excellent cluster work they have been making since the late 1940s.

Many "classic" turquoise cluster work pieces, especially those made in the 1940s through 1960s, are rather large in scale; they present an imposing sight when worn by native people for ceremonial or social purposes.

Three Zuni variations on the cluster work technique are NEEDLEPOINT, PETITPOINT, and ROW WORK; all these variations involve skillful use of small-scale stonework.

Large-scale cluster work jewelry reappeared as recently as the February 1999 Spring-Fall fashion shows in New York City, when models for major American designers were seen on the runways adorned in squash blossom necklaces and CONCHA BELTS. *See also* NAVAJO JEWELRY; SQUASH BLOSSOM BEADS, SQUASH BLOSSOM NECKLACE; ZUNI JEWELRY. *See* QUAM, Alice and QUAM, Duane entry for an illustration of a bracelet with cluster work.

coin silver

A predominant type of SILVER in use for jewelry through the nineteenth and early twentieth centuries, so called because the metal was obtained from melting coins, using INGOT molds, or hammering silver coins. At that time, coins were the main source of silver for jewelry-making.

United States currency was used until its defacement was prohibited by law in 1890; Mexican pesos were also retooled until their use was banned in 1930. (These dates are not absolute. Coin silver was made until well after World War II, and is still made by forgers and revivalists.) Coin silver is usually composed of 90 percent silver and 10 percent COPPER. The introduction of silver slugs and sheet silver, together with the move to STERLING SILVER for jewelry-making, replaced coin silver as a favored material, except for collectors and devotees of older native jewelry work, who appreciate its color, sheen, and heft.

In a related design technique, necklaces made by Southwestern native smiths with coins as ornaments were most frequently made between 1890 and the early to mid-1920s. The dates on these coins are not reliable indicators of when the piece was actually made. Coin necklaces have also been made for REVIVAL-STYLE purposes, as a tribute to a distinctive older style.

cold chisel

A chisel shaped and tempered to chip, cut, and decorate cold metal. Eighteenth- and nineteenth-century native smiths worked principally with cold chisels; these tools were

made of iron (later steel) and used in a labor-intensive fashion for cutting and incising onto cold metal to make surface decoration. The earliest Navajo and Pueblo silversmiths used chisel STAMPING and cutting as a main source of decoration up to the 1880s, when the introduction of other tools provided alternative means. Contemporary native smiths, working in traditional or REVIVAL-STYLE designs, still use cold chisels.

collar corner ornament

More commonly called a collar tab by natives, this decoration was meant to be placed on the collar edges of the traditional velvet and velveteen shirts worn by Navajo men and women, and was adopted by other Southwestern peoples as well.

Native silversmiths made collar corners from two pieces of SILVER soldered together into an L-shape, which could be die stamped or set with stones (*see* STAMPING). Since the mid-twentieth century, the corners are attached to the collar by screw posts or tie tack pins; earlier corners were sewn on. Collar corners are still made today, now usually from one piece of sheet silver. As an ornament meant expressly for native-style dress, this form has not been widely produced. The best examples were made from the 1910s through the 1940s, and collar corners have not yet been subject to any sustained revival efforts. *See also* NAVAJO JEWELRY.

color

For many indigenous peoples, colors possess symbolic significance; native artists, including jewelry-makers, use colors that carry significance in their cultures. The use of certain colors in a design or compositional grouping often has a distinct connotation.

Many colors are associated with the sacred properties, from legends and rituals, of natural materials: green CORN, the yellow of corn pollen, white SHELL, TURQUOISE (the sky stone), various green stones, and the black of OBSIDIAN and JET. Colors are assigned to the four cardinal DIRECTIONS. Native jewelers will often discuss the meanings behind their use of colors in a piece if they consider them important to the creation of the overall design.

Colton, Harold and Ferrell Colton, Mary-Russell

Harold Sellers Colton (1881–1970) and his wife, Mary-Russell Ferrell Colton (1889–1971) founded the Museum of Northern Arizona in Flagstaff, Arizona, in 1928. He became the Museum's director and she the Museum's curator of art. Harold Colton was a professor at the University of Pennsylvania and his wife was an established artist and educator; upon their arrival in the Southwest, they became enthusiastic supporters of local native arts. The Coltons were particularly interested in Hopi crafts, and their patronage decisively influenced the development of Hopi silverwork (*see* HOPI JEWELRY). They launched the Museum's first Hopi Craftsmen Exhibition in 1930, in which more than 200 objects, including jewelry, were displayed.

The Coltons' concern for improving Hopi jewelry design and boosting the sales of such work led in 1938 to the Museum-sponsored development of the Hopi Silver Project; Mary-Russell commissioned assistant curator Virgil Hubert to make drawings based on older Hopi designs from basketry, pottery, and textiles that would translate onto SILVER jewelry. The results of such design motifs could be seen in the Hopi Craftsmen Exhibition of 1941. The Coltons worked with the INDIAN ARTS AND CRAFTS BOARD on the improvement of economic opportunities for Hopi artisans during and after the war. They also encouraged an annual Navajo Craftsmen Exhibition, the first of which was held in 1936 at Wupatki National Monument (near Flagstaff); the Coltons saw Navajo silverwork directly imperiled by the flood of machine-made imitation Indian silver and TURQUOISE jewelry, and they organized such exhibitions to showcase the quality of the genuine article. *See also* NAVAJO JEWELRY.

Further Reading: Colton, Mary-Russell F. "Hopi Silversmithing—Its background and Future." *Plateau* 12 (July 1939): 1–7; McGibbeny, J.H. "Hopi Jewelry." *Arizona Highways* 26 (July

1950): 18–25; Wright, Margaret. *Hopi Silver.* Flagstaff, AZ: Northland Press, 1972; rev. ed, 1998. For the Web site of the Museum of Northern Arizona, see <http://www.musnaz.org>.

concha, concha belts

An early decorative form for use on belts, seen first on Plains peoples, then spreading to Southwestern native wear (by both sexes) and jewelry-making; the concha was a plaque made of metal, usually GERMAN SILVER or SILVER, in either an oval or round shape, and often possessing a COPPER back.

Plains work was usually rounded and devoid of much decorative relief. Southwestern native smiths made plain, domed conchas at first (*see* DOMING); they then gradually developed various means of STAMPING for design work, and added stone settings as an option after 1900. From 1880 onward, the silver work on a concha grew more elaborate with experimentation. Along with stamping for design effect, the disks could be domed, treated by REPOUSSÉ or even cutout patterning, or given scalloped borders. Early conchas had diamond-slot openings cut into the center so they could be slid onto a leather belt; around the 1880s, smiths began to use closed center plates with soldered loops on the back (*see* SOLDER). Early to mid-nineteenth-century concha plaques were larger in size than most contemporary pieces, and belts had an average of six or seven conchas, plus a matching decorated buckle. Fine examples of concha belts were carefully collected by anthropologists and ethnologists, and many good examples of FIRST-PHASE (1868–1900) and second-phase (1900–1930) belts appear in museums with important holdings on native material culture (such as the Heye Foundation's Museum of the American Indian, now the National Museum of the American Indian).

The concha belt has maintained a vigorous association with Southwestern jewelry and dress. Many variations on this form have been produced since the 1930s, with a diverse category of decorative elements introduced (*see* BUTTERFLY SPACER ORNAMENT). Types of concha belts range from expensive pieces with elaborately worked plates, rendered in fine arts fashion, to less expensive approxi-

First phase concha belt, ca. 1900, Navajo. *Collection of Lynn D. Trusdell.*

mations of the original form, meant simply as dress accessories.

One popular adaptation of the original form has been to miniaturize the concha plaque itself, probably to serve non-native tastes. These belts received new and wider attention in the 1960s when they were adopted by rock singers and Hollywood figures. Conchas have appeared on broad-brimmed felt hats, and as individual pieces used as dangle EARRINGS, pins, or PENDANTS; the concha's shape, ranging from a rounded disk to a broad oval, has even been used as a design motif in itself. This form is among the most widely recognized examples of native-derived personal adornment.

Further Reading: Tanner, Clara Lee. *Southwest Indian Craft Arts.* Tucson: University of Arizona Press, 1968; Woodward, Arthur. *Navajo Silver: A Brief History of Navajo Silversmithing.* Flagstaff, AZ: Northland Press, 1971, 1973.

Coocheytewa, Victor (6/7/22– , Hopi)

One of Hopi's most respected artists, Victor Coocheytewa returned from service in World War II to become one of the first students in the G.I. Bill-funded silversmithing course established by FRED KABOTIE (1900–1986) and PAUL SAUFKIE (ca. 1910–1998) in 1947. Coocheytewa creates strong, elegant OVERLAY jewelry, using original designs often based on traditional Hopi motifs. He worked for the Hopi Arts and Crafts Guild, (*see* GUILDS; HOPI JEWELRY), achieving recognition for his work.

Belt buckle, silver overlay, ca. 1970, by Victor Coocheytewa (Hopi). *Courtesy of The Heard Museum, Phoenix, AZ.*

One of his major contributions to native jewelry-making is an innovative refinement in the OXIDATION process for overlay work, which gives the background a greater texture and contrast. Coocheytewa was one of the earliest native artists to work in GOLD as an overlay material, starting in the early 1970s.

His son Ricky has worked with him since 1970, starting in SILVER and now mainly working in gold. The two artists have branched out into adding new material such as diamonds, and they even work in platinum; they also make jewelry for Kopavi International of Sedona, Arizona.

Coocheytewa has exhibited and received many awards from the Heard Museum Guild Fair, Gallup Inter-tribal Ceremonial, and SWAIA INDIAN MARKET. His jewelry can be found in the permanent collection of the Heard Museum in Phoenix, Arizona, and the Elkus Collection in the California Academy of Sciences in San Francisco. An elder of Shungopavi, Second Mesa, Coocheytewa was presented with the state's Arizona Indian Living Treasures Award in 1994.

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Cook, Julius M. (5/16/27– , Mohawk)

Also known as Sakaronhiokeweh, Julius Cook is one of the most popular contemporary Iroquois artists working in jewelry. He is adept in GOLD and SILVER, and he uses PRECIOUS STONES, IVORY, leather, and wood in his creations. Cook makes belt buckles, chokers, NECKLACES, PENDANTS, BRACELETS, EARRINGS, BOLA ties, and RINGS. A self-taught jeweler, he began working with silver in the early 1970s. His designs come from the stories, symbols, and teachings of the Haudenoshaunee ("Iroquois") Confederacy. Favorite themes include ARROWHEADS, the TURTLE, WOLF, and BEAR (all three animals are CLAN EMBLEMS), peace symbols, and a symbolic "Life Ring," which displays the various important elements of Creation. His silver

"The Story of Creation," silver and inlay necklace by Julius Cook (Mohawk). *Courtesy of the artist.*

rings with narrative designs, popular because of their skillful blending of imagery and Iroquois lore, are frequently used for wedding bands.

Cook was featured in a number of exhibitions in the 1980s and 1990s, including a group exhibition on "Iroquois Artists" at the Smithsonian Institution, Washington, D.C., in 1981. He was also a recipient of a New York State Council on the Arts Artist in Residence award. Cook exhibits regularly at various Iroquois festivals in Ontario and New York State. *See also* IROQUOIS JEWELRY.

Further Reading: *Iroquois Arts: A Directory of a People and their Work*. Edited by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983. For additional background, see <http://www.peacetree.com/akwesasne/sak.htm>.

copper

An early choice for ornamentation by many native peoples, copper has remained a viable metal for jewelry; its hue is reddish, and may even contain green elements when in its natural state (OXIDATION causes the surface deposit verdigris to form). BRASS, an ALLOY of copper and zinc, is also used by native artists.

Early copper pieces were often hammered or rolled. Copper had significant usage in the Eastern Woodlands, Great Lakes region, and northern areas up to southern Alaska. Native artists along the Pacific Northwest Coast used stone tools to hammer copper ornaments out of nuggets found in their natural state. Copper and brass wire, armlets, ankle bands, and BRACELETS were prevalent in the early 1800s in most jewelry-producing regions, and they found their way into general

Copper ribbed bracelets, Dakota Sioux, early twentieth century. *University of Pennsylvania Museum, neg. #S4-142831.*

trade. Copper was worked by the first native smiths in the Southwest, using the ANNEALING process, but the smiths quickly exchanged this material for SILVER when it became more readily available, because they preferred the white-colored metal.

By the early twentieth century, the development of machine-stamped, copper-plated imitation Indian TOURIST JEWELRY served as an alternative to works made in more expensive metals, such as silver. Contemporary artists from a wide range of cultural heritages currently use copper for REVIVAL-STYLE pieces, or combine it with other metals for a varied effect.

In a different context, Pacific Northwest Coast groups have traditionally produced "coppers" (also known as *hiatsks*) as house emblems—viewing copper as a source of wealth and status—and this form of metalwork has strongly inspired modern jewelry designs from that region. The distinctive shield-like shape of a "copper" (usually with a pentagonal top and a rectangular lower portion) currently appears on a range of pins and PENDANTS made by native artists from the Pacific Northwest (*see* NORTHWEST COAST NATIVE JEWELRY).

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coral

As used in jewelry, a rock-like material composed of calcium carbonate that comes from the skeleton of the coral polyp; coral is used as a red or pink "stone" in native jewelry. Coral is imported from locations as diverse as the waters off Italy and Japan, and the Gulf of Mexico, and it comes in either raw pieces or round or tubular beads that may or may not be polished. Coral comes in a wide range of colors, from pinkish-white to a pale pink hue called "angelskin," to a deep oxblood red (the most expensive variety). Some types of coral grow in shapes similar to tree branches. Today, coral is less easily obtainable and therefore commands good prices. Older coral is particularly prized by native jewelers, and by native and non-Indian collectors alike.

Non-native observers reported seeing examples of coral ornamentation worn by Southwestern Indians in the eighteenth and nineteenth centuries. However, in terms of jewelry production, native lapidarists gained only limited access to coral during the 1930s; it was not until the late 1950s, when traders and wholesalers made concerted efforts to import quantities, that this material became available on a regular basis. Native lapidarists have tried various methods of strengthening coral for jewelry-making, investigating ways to fill in surface pitting or to create a stronger finish.

Coral is cut into "stones," and raw branch pieces are strung for NECKLACES. Multistrand necklaces of coral beads are the most popular form; small SILVER BEADS are often strung on many of these pieces for contrast. Jewelry that combines coral and TURQUOISE (seen in beads as early as 1750 in the Southwest) was created specifically, and regularly, for the Indian jewelry market from 1938 onward; the most numerous examples of this combined stonework—for beads and metalwork pieces alike—appeared in jewelry fashioned from the 1950s through the 1970s.

Coral is frequently imitated in GLASS, plastic, and porcelain, and even some types of SHELL are passed off as coral through bleaching or dying. In fact, the use of *red shell* has grown greatly since the 1940s as an alternative means of fulfilling the native taste for coral. Imported glass beads made in a coral hue (mainly coming from Italy in recent years) are particularly valued.

Further Reading: Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976.

corn, cornstalk

Corn's enduring importance as a food crop for Native Americans has made it a natural design motif, one that appears frequently on jewelry. A key element in ritual and origin stories, corn is represented in stylized or realistic renderings, with the depiction of plants with kernels, tendrils, and tassels. Another variation is to show women or animate spirits as personifications of the plant's spiritual significance (*see* CORN MAIDEN). Corn designs may generally refer to the evocation of fertility and prayers for a good growing season, but, above all else, corn represents the gift of life.

Corn motifs appear on ornamentation from all native cultures that are dependent on this plant for nurture. In actuality, the representation of corn is a pan-Indian design; its particular use depends on the traditions of an artist's heritage; for example, Metis (in Canada) and Athapaskan decoration will use corn as a flowering border, while HOPI JEWELRY decoration may feature the corn stalk as a central motif.

Corn Maiden

A popular motif for both conventional and innovative jewelry design in SOUTHWESTERN INDIAN JEWELRY, the Corn Maiden is represented as a woman with a corn-ear-shaped body, sometimes wearing a headdress.

The Corn Maiden is often used as a PENDANT form. In the traditions of the Southwest, the Corn Maidens brought the divine gift of instruction in the growth and cultivation of corn to native peoples. Rendered as almost abstractly stylized beings, these maidens appear in combinations of SILVER and SEMIPRECIOUS OR PRECIOUS STONES or are carved from stone in FETISH form, and part of the body may be shaped in a way that mimics the texture of corn kernels.

Cotton, C.N.

An Indian trader active in the region between Ganado, Arizona, and Gallup, New Mexico, in the late nineteenth and early twentieth centuries. Although Cotton (1859–1936) is best known for his shrewd promotion of Navajo

Corn Maiden necklace, turquoise and gold, 1970, by Charles Loloma (Hopi). *Courtesy of The Heard Museum, Phoenix, AZ.*

weavings as blankets and rugs, he also was one of the first traders to see the commercial possibilities in Navajo silverwork. Cotton worked in partnership with Lorenzo HUBBELL to hire Mexican silversmiths who would teach the metalworking arts to local native men in Ganado around 1884. Cotton also provided Navajo smiths with U.S. currency and Mexican dollars for smithing (*see* COIN SILVER). Later, he established a working wholesale business in Gallup that set precedents for the Indian jewelry industry. Cotton's mail-order catalogs were another innovation that helped to spread commercial awareness of Indian jewelry, and these catalogs became important selling devices used by other traders and

manufacturing companies. *See also* INDIAN TRADER; NAVAJO JEWELRY.

cotton wrap

A form of necklace finishing in which jewelers employ tightly wrapped cotton strands to finish BEADWORK, and even metal, NECKLACES. Cotton wrap is used especially by Navajo and Pueblo jewelers.

While cotton (such as the white cotton skeins traditionally sold at TRADING POSTS) is the main material used in these wraps, some more fibrous-type twines can be substituted. As an alternative to metal clasps, eye catches or hooks mounted on metal cones, cotton wraps are popular with native wearers, and prized by some non-Indian consumers. This method is also called "squaw wrap," a term that many native jewelers find insulting. *See also*, NAVAJO JEWELRY; PUEBLO JEWELRY.

covenant chain

This term does not refer to a specific type of ornament, but to a symbolic bond that was usually finalized with a SILVER chain. The covenant chain was a metaphor used throughout the seventeenth, eighteenth, and early nineteenth centuries for a pledge of friendship, or alliance, between Eastern Woodlands tribes and Dutch, French, or English European American settlers.

As these alliances were made, the participants sealed their agreements through the proffering of a silver chain (originally made of iron) as a form of cultural linkage. Meetings to renew these covenants were marked by a further exchange of gifts, such as WAMPUM, TRADE SILVER medals, and other decorative goods. An important traveling exhibition entitled "The Covenant Chain: Indian Ceremonial and Trade Silver," was organized in 1980 by the National Museum of Man in Ottawa. The catalog for this exhibition provides key documentation on the cultural heritage of Indian trade silver. Thus, the origins of the covenant chain explain much about the importance of trade ornament and early silver jewelry worn by native peoples in eastern North America.

Further Reading: Fredrickson, N.J., and S. Gibb. *The Covenant Chain: Indian Ceremonial and Trade Silver*. Ottawa: National Museums of Canada, 1980.

coyote

A dog-like creature native to North America and related to the American WOLF, the coyote is a symbolic beast, known as a culture (or folk) hero and trickster throughout most native cultures. The coyote figures in creation legends as a catalyst for the making of the earth. Coyotes are also associated with aspects as diverse as humor and witchcraft. The coyote possesses many negative connotations as a motif; therefore, it is not a traditional choice for jewelry design. Some native artists, however, have added this animal to their design repertoire simply because of its widespread recognition value. Non-natives have made a stereotypical icon out of the coyote in Southwestern arts, typified by the "howling coyote." *See also* SOUTHWESTERN INDIAN JEWELRY.

crests

The depictions of animals, natural forces, and mythic creatures that identify the moiety (social group) or lineage of an individual. Crests are the mark of privilege and status in Pacific Northwest Coast native communities, and they have become a popular design motif for jewelry from that area.

The RAVEN and the EAGLE are important crests for the Haida; in fact, since the raven and eagle clans are not permitted to intermarry, the combined raven and eagle motif has become a popular jewelry design, usually called "the lovebirds." Other animals with key spiritual qualities are represented as well, such as the beaver, grizzly BEAR, swan, and WOLF.

Another form of identifying a clan crest is represented on "coppers," a metallic ornament for households. The shield-like shape of a copper (with its pentagonal top and rectangular lower portion) and its designs have influenced contemporary jewelry forms, particularly on PENDANTS and pins. *See also* NORTHWEST COAST NATIVE JEWELRY.

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cross

The cruciform shape has existed as a design motif for personal adornment from the time of the earliest indigenous peoples in North America. With the arrival of Europeans to the continent, the Christian cross symbol was introduced. Cross-cultural variations on this design's symbolism often resulted.

Native peoples most often associated a cross form with the stars and their sacred power; an example of this is seen in an even-sided cross motif that represents the morning star to Plains and Southwestern groups. When missionaries, determined to convert the native population, reached the continent, they brought rosaries and other types of crosses as symbols of their faith. From the east, the fur traders, accompanied by Jesuit missionaries, carried cross forms from French sources, principally the double-barred Lorraine, or Patriarchal, cross. The Spanish Franciscan missionaries came from Mexico into the Southwestern region and introduced the cross of Saint James, patron saint of Spain, also a double-barred form of cross. Catholic influence also brought the single-barred Latin, or rosary, cross into use. A less common style was the ornately inscribed triple-barred Papal cross.

Initially made out of GERMAN SILVER by non-native metalworkers, many such crosses were popular as PENDANT ornaments for native peoples as they were traded through the Northeast, Midwest, and eventually, Great Plains regions. Crosses from better-grade SILVER also gained favor, and these were among the earliest types of ornamentation to be made by Iroquois smiths of the eighteenth and early nineteenth centuries.

In the Southwest, the DRAGONFLY symbol of the Pueblo Indians closely resembled these imported cross types, with its double bars and heart-shaped form on the end. By the early twentieth century, Navajos and non-Indians alike admired and imitated the elegant silver cross NECKLACES made by Pueblo artisans; these items featured a large central pendant cross and smaller crosses interspersed with SILVER BEADS. Many of these designs lost their references to the original European imported form and received generic names associated with their place of popular wear and creation, such as the "Isleta cross."

The use of these native-inspired cross styles has become a steady feature of contemporary fine-art jewelry creation, especially as a vogue for wearing crosses swept through the Indian arts marketplace in the 1980s and 1990s; the cross form can be seen on brooches and as the central motif on TRADE BEAD-style necklaces. Crosses can also be worn as simple pendants, or even as EARRINGS. Another recent development has been another cross-cultural borrowing from Hispanic craft, as Native American artists make more deliberately ornate metal crosses using profuse decorative STAMPWORK and FILIGREE. *See* Della CASA APPA entry for an illustration of a channel inlay cross.

Further Reading: Bird, Allison. *Heart of the Dragonfly: The Historical Development of the Cross Necklaces of the Pueblo and Navajo Peoples.* Albuquerque: Avanyu Publishing, 1992; Dubin, Lois Sherr. *The History of Beads: From 30,000 B.C. to the Present.* New York: Abrams, 1987.

curio jewelry. *See* INDIAN MAID; TOURIST JEWELRY

curios and novelties. *See* METALWARE

cushion cut

A form of stonecutting done with a squared outline and rounded corners; it is also known as "mine-cut" and is considered an older style of lapidary cutting. For INLAY stonecutting, a similar shape is crafted that raises the stone above the SILVER (or other metal) surface and the edges are shaped into a rounded, cushion-like form. This form is known in the industry as "cushion-style inlay."

D

dancers

Dance is integral to the lifeways of virtually all Native Americans, whether for sacred or social purposes. Because dance is one of the most distinctive elements of native culture discernable to outsiders, it has therefore become a major subject for native-made arts. The depiction of dancers is a popular design motif on Native American jewelry.

Many jewelers represent dancers from outside their own cultures (*see* APACHE MOUNTAIN SPIRIT DANCER). The depiction of dancer groups, usually engaged in non-religious dances, can be seen in STORYTELLER narrative pieces, usually BRACELETS and CONCHA BELTS. More frequently, one dancer is isolated as a central motif (*see* EAGLE DANCER). The focus in such motifs is often on the dancer's clothing, MASK, attendant artifacts, or movement. Native peoples consider their dances as cultural treasures, so renderings are done respectfully and usually in such a manner as to accentuate the folk-art element. Tourist expectations are often satisfied, however; many dancer pieces are made wearing feathered bonnets or performing distinctively colorful activities, such as the powwow-circuit derived hoop dance. The popularity of POWWOWS has also fostered dancers as subject matter for personal adornment of all forms.

David, George (8/13/50– , Nuu-Chah-Nulth)

Like many Northwest Coast native artists, George David is known principally for his carving. He has acknowledged his debt to fellow artists Ron HAMILTON (b. 1948, Nuu-Chah-Nulth) and Art Thompson. David began his craft in the mid-1970s by duplicating various native styles. His jewelry is made from SILVER and GOLD or IVORY, and he mainly crafts BRACELETS, EARRINGS, PENDANTS, and pins. He is interested in storytelling and Christian themes. His works appear in galleries in the Seattle, Washington, area. *See also* NORTHWEST COAST NATIVE JEWELRY.

Davidson, Robert (11/4/46– , Haida)

A master carver, Robert Davidson has also been an influential figure in NORTHWEST COAST NATIVE JEWELRY creation. He apprenticed with famed Haida artist Bill REID (1920–1998) in 1966 and studied jewelry-making at the Vancouver School of Art in 1969.

Davidson was influenced by visiting museums and studying his heritage through the work of Reid and from the work of native art authority and educator Bill Holm. Besides his better-known large carvings of TOTEMS, MASKS, and sculpture, Davidson makes SILVER jewelry, boxes, and flatware. His designs are drawn from Haida legends and pay tribute to older silverwork; recently, he has made jewelry pieces derived from coin designs.

Davidson's former wife, Dorothy Grant, is a well-known clothing designer in Vancouver, British Columbia; they have collaborated on Haida-inspired designs for garments and accessories, and these designs have become widely popular and imitated.

Davidson exhibits extensively throughout British Columbia and Canada, and he received various national awards and honorary degrees in the 1990s. **Museums:** National Gallery of Art, Ottawa; Department of Indian and Northern Affairs, Ottawa; University of British Columbia, Vancouver.

Further Reading: *American Indian Art Magazine* (Scottsdale, AZ), autumn 1993; *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art.* Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum. For additional background, see <http://www.douglasreynoldsgallery.com/davidson.htm> and <http://collections.ic.gc.ca/artists/davidson_robert.html>.

Dawahoya, Bernard (4/4/37– , Hopi)

A native of Second Mesa, Arizona, Bernard Dawahoya is a member of the Snow Clan. His Hopi name is Masaqueva (Wings of the Sun). Dawahoya carves KATSINA FIGURES and does leatherwork and textile weaving, but is best known for his fine silver OVERLAY jewelry. His interest in silversmithing began in 1956, and he learned the craft from relatives Sidney Secakuku and Washington Talayumptewa. His jewelry has often appeared at the Hopi Cultural Center; he worked for the Hopi Guild, and for Hopicrafts, before setting up his own business. His HALLMARK represents a Hopi snow cloud.

Dawahoya's technique and style had been fairly traditional in the use of abstract and figural design motifs. In the 1990s, Dawahoya became more experimental and innovative in the combination of materials, forms, and a contemporary "look." He makes BOLAS, BRACELETS, PENDANTS, RINGS, and METALWARE objects. He has exhibited at most major Indian art venues, including SWAIA INDIAN MARKET and the Museum of Northern Arizona shows. His work is also in many private collections. **Galleries:** Morning Star Traders, Tucson, Arizona. *See also* HOPI JEWELRY.

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dealers

The purveyors, or sellers, of antique and contemporary Native American arts; dealers have played a significant role in the encouragement of native-made jewelry. Indian jewelry has been sold in venues ranging from elegant art galleries to craft shops, and even in boutiques or other small specialty stores. While non-Indians have dominated (and continue to dominate) the business of selling Indian arts, a small but growing number of Native Americans have entered the profession.

Dealers in art and collectibles are expected to possess relevant knowledge and experience in recognizing and handling those materials. Not all dealers in Indian arts may have established expertise on native-made jewelry. Even those who do claim such authority usually strive to be completely honest about the difficulties, for example, in determining natural TURQUOISE or in establishing firm dates for older pieces. Ethical dealers will be candid about what they know or do not know.

The problems involved in authenticating native arts has led to the creation of various professional organizations for dealers, such as the ANTIQUE TRIBAL ART DEALERS ASSOCIATION; the INDIAN ARTS AND CRAFTS ASSOCIATION; and SWAIA (SOUTHWESTERN ASSOCIATION FOR INDIAN ARTS, INC.).

Dealers have been key instigators in the promotion of Native American jewelry and specific artists. Numerous native fine-art jewelers have had their careers boosted by the work of such active and enthusiastic intermediaries. Ideally, dealers serve as information brokers and consumer guides for the purchase of quality products. Some dealers occupy a firm niche in the high-end market for fine-art and antique native jewelry; their

clientele is prepared to spend substantial amounts of money for aesthetic appreciation, dedicated collecting, or investment. The recognition of Native American jewelry as a desirable commodity—available in a range of prices—has made the role of dealers important to the industry.

Further Reading: Baxter, Paula A. "Cross-cultural Controversies in the Design History of Southwestern American Indian Jewellery." *Journal of Design History* 7 (Winter 1994): 233–45.

denim lapis. *See* LAPIS LAZULI

dentalia, dentalium

Also called tooth shells, these are the thin, jagged, or pointed SHELLS of certain mollusks; dentalium shells have been used as beads for NECKLACES and PENDANTS, or as adornment for garments.

Easily strung on rawhide or rope, dentalia served as a form of currency for the Indians of California and the Northwest Coast. In addition to appearing in the jewelry produced by natives of those regions and cultures, dentalium was used, in conjunction with shell and BONE disks, by various Plains and Plateau Indians, and often strung into long loop necklaces. While the use of dentalium shells decreased in the later half of the twentieth century, contemporary native jewelers still pay ornamental tribute to their aesthetic appeal and cultural relevance (as with ABALONE) in REVIVAL-STYLE pieces that are often used with ceremonial regalia.

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999.

Depression jewelry. *See* SANTO DOMINGO JEWELRY

Deyuse, Leekya (1889–1966, Zuni)

Leekya Deyuse is considered one of Zuni's foremost artists, famed for his stone carvings, many of which were set into SILVER or strung onto NECKLACES. Between 1920 and

Bracelet, silver with turquoise carving, 1924, by Leekya Deyuse (Zuni). *Courtesy of The Heard Museum, Phoenix, AZ.*

1950 he created some of his finest work using a hand grinder; only later in life did he turn to electric equipment to produce more refined carvings. Deyuse worked for several Indian traders at Zuni, including C.G. WALLACE. He produced FETISH-style carvings for necklaces, pins, RINGS, and BRACELETS, and these settings include animals (particularly FROGS and SNAKES), BIRDS, leaves, and human hands or whole figures. Deyuse used travertine, TURQUOISE, SHELL, and JET as his principal materials. His work, which can be found in a number of Southwestern museums, is considered a benchmark for quality in stone-carved settings for jewelry. His style was much copied and has also been confused with the work of other members of his family. Genuine Leekya pieces are in great demand with collectors, and they carry high prices. Leekya's family honored him by adopting his first name as their last name, and they are well-known artists in their own right.

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dies

This term describes two different metalworking tools.

In early native usage (mid-nineteenth century), a die was a rod made out of discarded pieces of iron (similar to a PUNCH), with a decorative form engraved at one end. A smith would hold the die in place over a metal piece and hammer down onto the die, impressing an image onto the metal. In this manner, dies were used to stamp out small designs or repetitive patterns. By the 1870s, dies became important handmade tools as native metalsmiths developed their skills. Some early dies were carved from stone. Dies gained broader use after 1890 with the implementation of fine files. The relief pattern produced by early dies encouraged the wider use of STAMPING on jewelry. Most Indian jewelers now use the term "stamps" for dies. Many contemporary native jewelers proudly retain old dies or employ those of their own making for hand use.

The second and later type of die is a metal form (or a pair of "male" and "female" forms) into which a thin softer piece of metal, like SILVER, is pressed, forcing the softer metal to deform into the shape of the die, a process also called die forming. The development of machine die-stamping has eliminated the need for expending great manual force in such die pressing; however, this mechanized technique is often shunned by studio jewelers, and is mainly used by those who work for jobbers who mass-produce items.

Diesing, Freda (1925– , Haida)

Freda Diesing's main contribution has been as a carver, but her jewelry-making has inspired younger native artists, particularly women. She was educated and received training in jewelry-making at the Vancouver School of Art, and she was one of the first students at the Kitanmax Indian Museum and Craft Center arts program, 'Ksan (near Hazelton, British Columbia). As an educator, her influence has been remarkable in encouraging young Haida, Tlingit, and Tsimshian art students to turn to carving and jewelry design. Her portrait MASKS celebrate the traditional LABRET form, and her jewelry pieces preserve the three-dimensional qualities of traditional carving.

Diesing is a former director of the Indian Arts and Crafts Society of British Columbia. Her work was featured in the influential "Legacy" exhibition in 1980 at the University of British Columbia's Museum of Anthropology. She has exhibited her carving widely throughout Canada and the Pacific Northwest, and in Australia and Japan. **Museums:** Canadian Museum of Civilization, Hull, Quebec; Museum of Northern British Columbia, Prince Rupert, British Columbia. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art.* Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum; Steltzer, Ulli. *Indian Artists at Work.* Seattle: University of Washington Press, 1976.

directions

The *four* cardinal points north, south, east, and west, or the *six* cosmological directions that include these principal compass points as well as the points to the upper (heaven) and lower (nether) regions.

Various colors, symbols, and sacred animals represent the four or six directions, according to the beliefs of the culture a native artist comes from. For example, the Zuni assign a guardian animal and color to each of the six directions. These representations of the directions have been used as motifs that combine meaningfulness and decorative qualities on jewelry; their usage has become part of the native jeweler's traditional design repertoire.

doming

A form of decorative relief and shaping for jewelry. Pieces of metal, such as SILVER, are made hemispherical or domed on the ends through the use of dapping PUNCHES; the art-

ist hammers the metal into dapping DIES (concave metal or wood forms) to produce the desired rounded shape.

Doming has the best results on hammered sheet silver, and often is a prelude to the soldering together of hollow beads (*see* BENCH BEADS; SOLDER). Silver BRACELETS decorated with surface doming are of enduring popularity, whether older works or REVIVAL-STYLE pieces.

dragonfly

Native peoples throughout the North American continent appreciate the dragonfly, and it appears in many stories and legends. The dragonfly is also popular for depiction in native art, including jewelry.

The best known examples of dragonfly images come from the American Southwest, ranging from early HOHOKAM and MIMBRES objects to contemporary renderings in many distinctive styles and techniques. The physical form of the dragonfly has also been translated into a CROSS shape, with a vertical base and cross-bar, sometimes terminating in a heart, or more closely resembling the actual outline of the insect. The dragonfly is a harbinger of summer rains and their life-giving force; it remains a design motif that is recreated in a variety of abstract or realistic forms.

Further Reading: Bird, Allison. *Heart of the Dragonfly: The Historical Development of the Cross Necklaces of the Pueblo and Navajo Peoples*. Albuquerque: Avanyu Publishing, 1992.

drawn silver. See LIQUID SILVER

draw plate

A tool used to make wire before COPPER and SILVER wire became available commercially. A draw plate consists of a sheet of hardened metal with a series of holes of decreasing diameter, or shapes, through which metallic rods are drawn. These holes of various sizes are often coated with beeswax to smooth the movement of the rods through the plate. Heavy-duty pliers are used to pull the wire through the draw plate to achieve a desired thickness. Native jewelers often sized 28-gauge silver strips through this process. Sometimes ANNEALING may need to be done to render the wire more pliable because heating and immersing in pickling solution will soften the metal.

Once a wider range of ready-made silver wire was stocked by supply houses, many native artists stopped using this time-consuming tool. However, studio jewelers still use draw plates, along with "combination" ROLLING MILLS (which can roll sheet metal or wire to a desired gauge), to reduce metal into a wire strip or to create a specific gauge for a wire instead of resorting to a commercial source.

dreamcatcher

Although they originated with the peoples of the Plains, such as the Ojibway, dreamcatchers are now made by a wide range of cultural groups throughout North America. The general shape and dangling form of this object lends itself well to jewelry design, especially for PENDANTS and EARRINGS.

The dreamcatcher is an object consisting of one or more feather-bedecked hoops with webbed centers, onto which small beads are attached. The frame from which the hoops are suspended is usually wrapped in buckskin or some type of animal hide. Most native artists say that dreamcatchers were created to catch bad dreams and let the good ones through; the hoops also represent the sacred hoop, or circle of life, one with no beginning or end. The dreamcatcher style now used by various native groups is more generic than authentic, and has become a popular tourist item throughout the United States and Canada.

Duwyenie, Preston (9/6/51– , Hopi)

A jeweler and potter, Preston Duwyenie has played a significant role as an educator of Native American artists. He studied at the INSTITUTE OF AMERICAN INDIAN ARTS (IAIA), and earned a B.F.A. in metalsmithing from Colorado State University in 1984, continuing in the university's M.F.A. program.

Duwyenie has taught at a number of Southwestern colleges, including IAIA from 1988 to 1992. His current position is professor of jewelry at the University of New Mexico (Albuquerque). He also teaches for various special workshop and lecture series held at colleges and museums, where he has inspired many young artists. Duwyenie's jewelry displays fine-art techniques united with design elements drawn from Hopi and other Native American cultural aesthetics. He exhibited widely throughout the Southwest in the 1980s and 1990s, including most major Indian art show venues; he has won many awards as well. **Museums:** Denver Art Museum, Denver, Colorado; Heard Museum, Phoenix, Arizona; Institute of American Indian Arts Museum, Santa Fe, New Mexico; Millicent Rogers Museum, Taos, New Mexico. *See also* HOPI JEWELRY; NAVAJO JEWELRY.

Further Reading: *St. James Guide to Native North American Artists.* Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

E

eagle

The chief of all birds, and an important design motif for use in jewelry. Native Americans prize the eagle as a personification of strength and courage. The eagle is sacred to many native peoples, such as the Hopi, and has a supernatural significance similar to that given to such legendary creatures as the THUNDERBIRD.The Haida have an eagle clan, just as the Iroquois perform an eagle dance. Eagle FEATHERS also possess powerful associations—such as friendship or peace—that warrant their use by medicine men and tribal leaders.

In decorative use, the eagle follows the conventions of the artist's cultural group. For example, the eagle will be shown in a frontal, upright, totem-like pose on NORTHWEST COAST NATIVE JEWELRY, but may be depicted in flight in carved stone or metal PENDANTS made by Southwestern or Woodlands artists. In general, an eagle design possesses general connotations of prestige and power. Since the bald eagle is the national symbol of the United States, it has gained added stature as an "American" folk symbol in decorative art.

eagle dancer

The eagle DANCER, one of the most graceful of native dance figures, is a popular subject for depiction on Indian jewelry. EAGLE dances are held at various tribal ceremonials, including annual dances at the pueblos of Pojoaque and Sandia (both in New Mexico), among others. The eagle dancer is noted for a colorful headdress and winged plumage that extends down past the hands. Eagle dancers are frequently represented in mosaic INLAY; they are most often shown in the process of approximating a soaring motion, with arms and plumage outstretched and headdress dipping.

earrings

A jewelry form of ancient origins in North America as revealed by the archaeological record. Most native peoples wore a type of ear PENDANT fastened by either a bent wire or string passed through a pierced ear lobe. The earliest shapes for earrings were tab stones, plain metal hoops, or suspended loops made from natural materials such as BONE or SHELL; these ornaments were worn by both men and women. More elaborate variations in styles and materials developed as the technical abilities of the makers increased and after exposure to European American examples. The introduction of clips and screws for fasteners, known as FINDINGS, only took hold after the 1950s. TURQUOISE and SILVER, alone or in combinations, became prized materials for earring creation in the Southwest. Other forms, such as the SQUASH BLOSSOM BEAD and cone-shaped pendant dangle, also became popular. The development of CLUSTER WORK

An example of Navajo and Pueblo silver and turquoise earrings. *Courtesy of John C. Hill, Antique Indian Art, Scottsdale, AZ.*

and FILIGREE (made from drawn wire) increased design possibilities.

By the end of the twentieth century, Native American earrings—those made by native artists as well as those inspired by Native American styles—became one of the most pervasive types of jewelry for women. While many consumers see these items only as popular costume jewelry, they have had a tremendous impact on the design of contemporary earrings. For example, the earring designs by Native American jewelers are directly responsible for the prevalence of silver FEATHERS and carved animals as dangling ornaments, turquoise drops and BUTTONS set in silver for feminine adornment, as well as single ear studs and cuffs—of GOLD or silver or offset with gems—that are worn by men and women alike.

Edenshaw, Charles (1839–1920, Haida)

A pioneer figure in native Northwest Coast art creation. Charles Edenshaw's work was a model for leading artists Bill REID (1920–1998, Haida) and Robert DAVIDSON (11/4/46– , Haida), among others. Edenshaw fashioned SILVER and GOLD jewelry in the late nineteenth century. His style and technique epitomized traditional Haida metalwork but also possessed the seeds of modern innovation. He made jewelry for both Haida and non-native consumers, with BRACELETS and brooches being his best-known product. Edenshaw preferred depictions of clan and CREST figures over floral motifs. He made his bracelets as cuffs or with hook-and-clasp slots. Examples of his work have been studied and used as sources of inspiration for the metalwork of contemporary native jewelers.

A 1998–1999 exhibition, "Attributed to Edenshaw," at the University of British Columbia's Museum of Anthropology, demonstrated the wide influence he exercised in his jewelry pieces and metalwork. Three other Haida contemporaries, John Cross, Tom Price, and John Robson have also made engraved jewelry that has sometimes been confused with Edenshaw's work. **Museums:** Museum of Anthropology, University of British Columbia, Vancouver; Royal British Columbia Museum, Victoria. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *American Indian Art Magazine* (Scottsdale, AZ), summer 1995. For additional background, see <http://collections. ic.gc.ca/artists/edenshaw.html>.

embossing

A technical process that creates relief decoration through the raising of a metal surface by striking the piece from its back side. Embossing tools are made mainly from iron scrap metal, and can produce such designs as small raised spheres, stars, or crescents. This technique is related to the REPOUSSÉ process as worked by native jewelers. Some important examples of Navajo- and Pueblo-made band BRACELETS with embossing, dating from the

1880s to the 1920s, have been collected by anthropological museums; the decoration on these works continues to be an inspiration for later generations of native artists, working in both traditional and fine art modes. Embossed bracelets are made by using a combination of male and female CONCHA and BUTTON dies, and smaller DIES to offset the outline of the embossed central design. Button PUNCH dies (half-domed dies) are used to make embossed SILVER BEADS, a NAVAJO JEWELRY specialty popular with a wide variety of consumers.

engraving

As a decorative technique, engraving involves the scratching of shallow lines or other tracks into a metal surface (compare with CHASING). When engraving by hand, a jewelry-maker uses a specialized tool (a burin or graver) that has a highly sharpened point with one of several shapes (such as square, round, oval, or texture points); the object to be engraved is normally held down on an engraver's block.

Rocker engraving (done by rocking a short-bladed chisel, corner to corner, while pushing the chisel forward) and file engraving (notches and grooves are made by files, and relief is created by FILING down surrounding areas) were among the most popular SILVER decorating techniques for Woodlands and Great Plains Indians of the late eighteenth and early to mid-nineteenth centuries. These effects have been reproduced in recent years in REVIVAL-STYLE pieces. Incised, or engraved, silver is also a benchmark of modern NORTHWEST COAST NATIVE JEWELRY, with designs made for the most popular forms, such as EARRINGS, BRACELETS, PENDANTS, and pins.

Eriacho, Tony, Jr. (7/1/55– , Zuni/Navajo) and Eriacho, Ola (5/29/49– , Zuni)

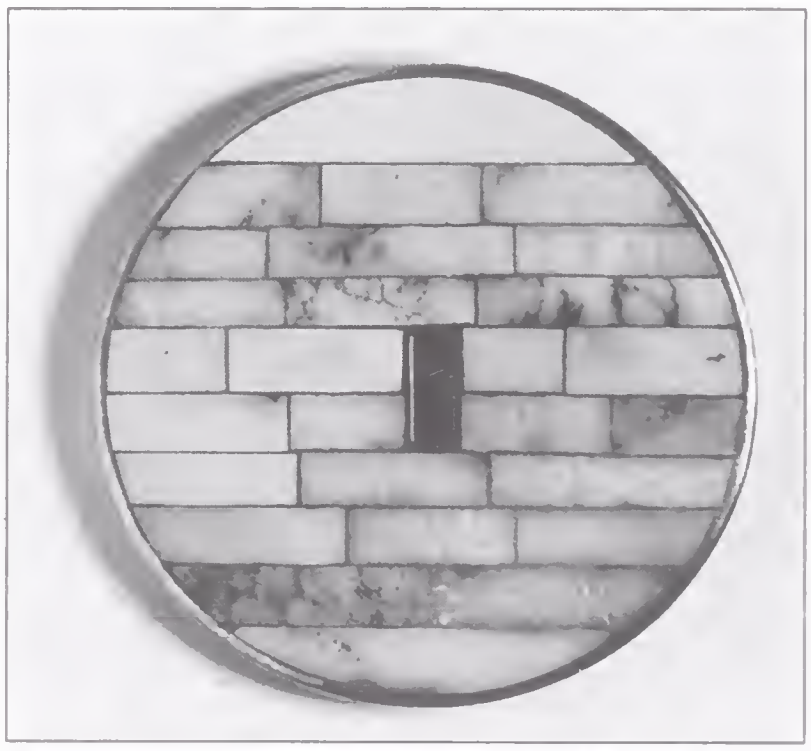
The Eriachos are highly regarded makers of STERLING SILVER and gold INLAY jewelry in the traditional Zuni style. Self-taught, they use HALLMARKS on their pieces. Their inlaid NECKLACES, BRACELETS, EARRINGS, pins, RINGS, and WATCHBANDS are made with a variety of materials, including CORAL, JET, SHELL, and TURQUOISE. The Eriachos are deeply concerned with educating people on the authenticity and quality in Native American-made jewelry, and they often do this when they exhibit at Indian art venues. They are active in the Zuni Cultural Arts Council and are members of the INDIAN ARTS AND CRAFTS ASSOCIATION (IACA). They exhibit widely, from the New Mexico State Fair (where they have won seven awards) to the SWAIA INDIAN MARKET; they also attend other shows, from the Schemitzun Festival in Connecticut to events in Arizona, California, and Indiana.

Further Reading: *New Mexico Magazine*. (Santa Fe, NM), February 1995.

Eskimo. *See* INUIT, INUPIAT, AND ALEUT JEWELRY

Eustace, Christina A. (12/7/54– , Zuni/Cochiti)

Born into a family of talented jewelers, Christina Eustace began making jewelry at the age of 13 and was working full-time by 1982. She attended the University of New Mexico, but a fellowship from SWAIA in 1983 truly started her career, and thereafter she began exhibiting widely at Indian art venues and



Wall pin in turquoise and silver, 1994, by Christina Eustace (Zuni/Cochiti). *Photo by Robert D. Rubic. Private Collection.*

galleries in Arizona, Illinois, New Mexico, and New York.

Her work in STERLING SILVER and SEMIPRECIOUS STONES is hand-fabricated and based on indigenous imagery, such as the DRAGONFLY, petroglyph figures (*see* PETROGLYPHS AND PICTOGRAPHS), and even abstract floral forms that were inspired by her work as a stained-glass artist in 1977–1978. She uses artistic abstraction in her designs, including motifs drawn from native MASKS or ancient masonry. Many of Eustace's pieces are small-scale and look deceptively fragile. She exhibits regularly at SWAIA INDIAN MARKET and the Eight Northern Indian Pueblos Arts and Crafts Show. **Museums:** Heard Museum, Phoenix, Arizona; San Diego Museum of Man, San Diego, California; American Craft Museum, New York City. *See also* FABRICATION.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Slaney, Deborah C. *Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection*. Phoenix: Heard Museum, 1998.

F

fabrication

The process of assembling a piece of jewelry out of its various components. The artist's considerations about materials, forms, techniques, and design motif come together at the point of fabrication. Native American jewelry-makers excel at fabrication, and their innovations in this respect have made the craft an enduring art form. Students at the INSTITUTE OF AMERICAN INDIAN ARTS (IAIA) have proved to be remarkable transmitters of the fabrication process to other native jewelry-makers, thanks to the consistently high quality of instruction they have received since IAIA started in 1962.

fakes and forgeries

One of the most difficult issues affecting the Native American jewelry industry. More than any other native-made decorative art, the Indian jewelry market has been subjected to both flagrant and subtle fraud. Key abuses occur in the misappropriation of designs, the use of imitation semiprecious and gem stones (*see also* PRECIOUS STONES; SEMIPRECIOUS STONES), false "aging" of metal and other materials, and outright misrepresentation of the origins of jewelry work.

The matter of representation is critical in itself; whether an item is a fake or an honest reproduction depends on the application of terminology and the honesty of the seller. For example, there is a clear distinction between a piece made in Asia that is an exact replica of old-style jewelry and sold as an "old piece," versus a native-made REVIVAL-STYLE piece done to recreate the look of older jewelry, and legitimately represented as a reproduction or a revival piece. The determination that a piece of jewelry is authentically native-made, and thus genuine in its origins, is a central concern that may be called into question again and again.

In addition, the limited amount of authentic artifactual and historical jewelry available to the antique Indian arts market has provided a strong incentive for enterprising forgeries, or reproductions, offered as originals. The demand for older Native American jewelry continues unabated, and this trend has aided the impetus for legitimate contemporary works made deliberately in revival styles. The appeal of works offered as old pawn is another facet of this demand. With only a trickle of older items becoming available through auctions and estate sales, imitation works have been a profitable business for forgers. Even experienced INDIAN TRADERS, DEALERS, and collectors have been deceived by these clever operators.

Older jewelry pieces that have been repaired with newer materials, as part of a restoration process, also risk being misrepresented. Some jewelry pieces are deliberately assembled as "composites," possessing parts from older objects as well as newer elements. So bold is the faking of contempo-

rary Indian jewelry that foreign countries have used false names and stamps to brazenly copy popular designs and make their imported goods look like the genuine article. (A favorite story recalled by those in the Indian jewelry industry is that in the 1970s a village in Japan was actually renamed "Reservation" to support such bogus imports.) Southeastern Asia has been a longtime source of many such inferior, imitation copies.

Native peoples' livelihoods are directly threatened by these practices. Fakes and forgeries were already a problem by the early twentieth century; as a consequence, a number of initiatives, from professional committees and associations to governmental intervention, were developed to protect native artists and non-native consumers. Such efforts include the 1935 founding of the INDIAN ARTS AND CRAFTS BOARD (IACB), an agency of the U.S. Department of the Interior, and the creation of an independent members' organization, the INDIAN ARTS AND CRAFTS ASSOCIATION (IACA), in 1974. But these "watchdog" groups have had only limited success because enforcement has always been problematic. Yet protests and calls for protection of native artisans grew so strong that the U.S. government eventually enacted the controversial Indian Arts and Crafts Act of 1990 (P.L. 101-644 [104 Stat. 4662]). Some measures that have helped since the 1970s are the use of HALLMARKS for STERLING SILVER, and more signing of pieces by their makers. Fakes and forgeries still persist, especially as the flow of imitations from both within and without North America continues. Those working in the Indian arts market recommend that consumers buy from reputable sources and seek more education about the works that interest them. *See also* ANTIQUE TRIBAL ART DEALERS ASSOCIATION; IMITATION TURQUOISE; SYNTHETICS.

Further Reading: Smith, Scott S. "The Scandal of Fake Indian Crafts," by Scott S. Smith, at <http://www. cowboysindians.com/content/issue/sept98/fakecrafts.html>. For tips for consumers, see <http://www.iaca.com/update/tips/htm>; for the New Mexico state regulations defining "authentic" Indian arts and crafts, see <http://www.ago.state.nm.us/cprotect/naac.html>.

Fawn, Patty (1944– , adopted Kwakiutl/Cherokee)

Part of the talented Lelooska family of Cherokee blood, adopted by the hereditary chief of the Kwakiutl people, Patty Fawn has created jewelry pieces that celebrate her dual heritage. Her work draws upon Northwest Coast imagery, and incorporates ABALONE, antler, BONE, ebony, fossil walrus IVORY, STERLING SILVER, and GOLD. Fawn carves small design miniatures out of these materials, frequently inlaying them with mother-of-pearl or abalone, and she sets these pieces onto jewelry forms such as PENDANTS, BRACELETS, EARRINGS, or BOLA tie ornaments. She uses the LOST-WAX CASTING process for some of her metal jewelry, mostly on pendants or animal figure RINGS, often basing the piece on one of her ivory miniatures. She favors animal designs of both natural and legendary creatures.

Equally skilled is the work of her daughter Nakwesee, whose own designs often reflect an affinity for water animals, like otters and beavers, with sinuously curved bodies rendered as pendants or pins. **Gallery:** Lelooska Gallery, Ariel, Washington. **Exhibitions:** Native American Heritage Exhibit,

"Raven Stealing the Sun," fossil ivory inlaid with abalone shell, 1998, by Patty Fawn (adopted Kwakiutl/Cherokee). *Photo courtesy of Sunrise Southwest, Katonah, NY. Ralph Norris, photographer.*

Art Institute of Chicago, 1977; Indian Images, Denver Museum of Natural History, 1978. *See also* NORTHWEST COAST NATIVE JEWELRY.

feathers

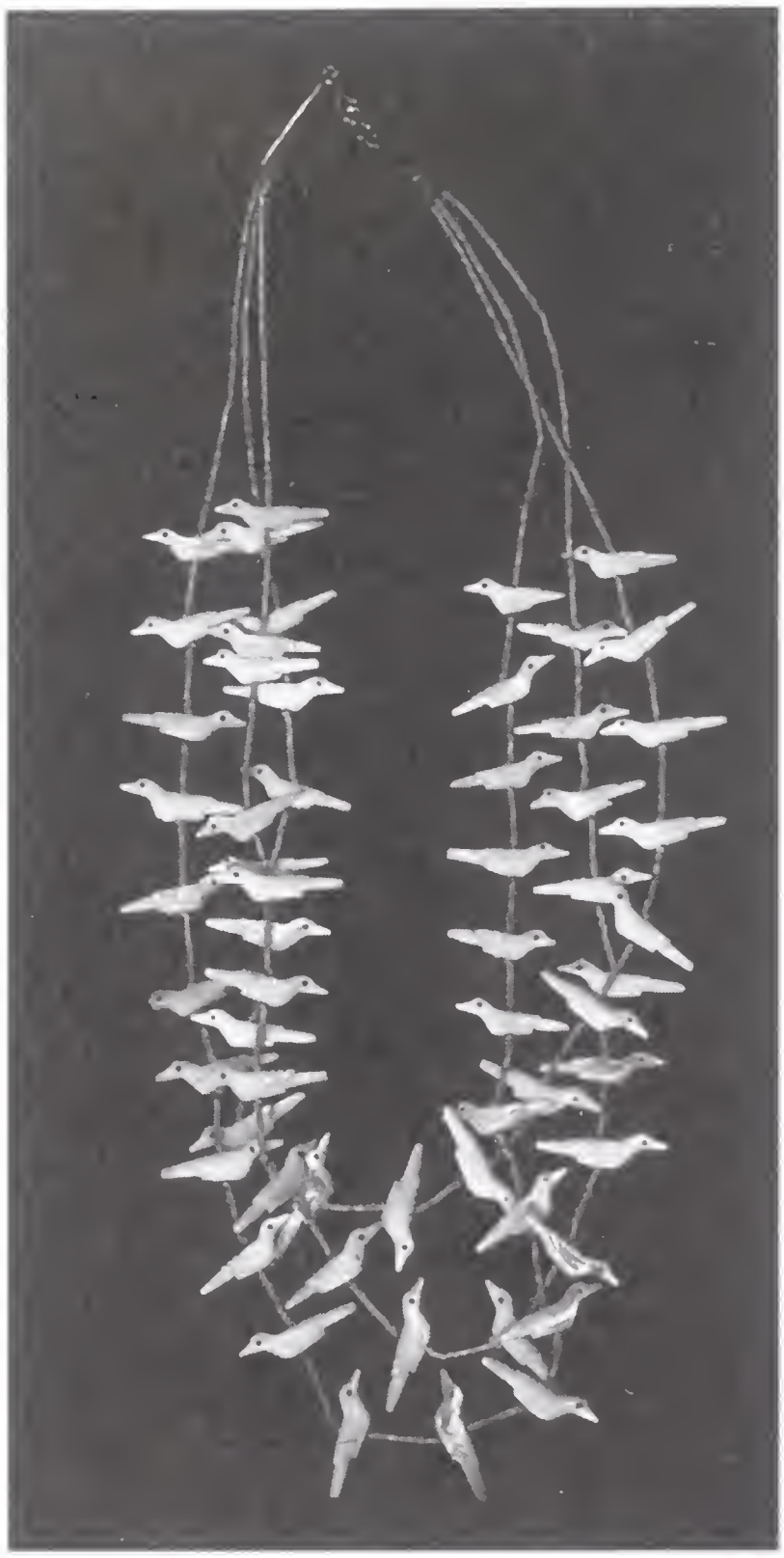
Feathers have as much significance as the BIRDS they come from, and are therefore useful design motifs for native-made jewelry. In the United States, all birds, except domestic or game birds, are protected by federal law; only Native Americans are permitted to gather certain feathers for religious purposes, and such objects appear on ceremonial garments.

As a design motif, feathers have been given a symbolic connotation of freedom and flight; they also denote birds as beings that travel between spiritual and physical worlds. On a more general level, feathers (like DREAMCATCHERS) are associated—by non-natives—with overall Native American values and beliefs. Feathers made from SILVER, GOLD, wood, and beads are popular forms for dangling EARRINGS and PENDANTS. The engraved or stamped depiction of feathers is another common motif on fine art and TOURIST JEWELRY pieces alike.

fetish, fetish carving

A number of Native American cultural groups possess objects of significance to them, usually made from stones or other natural materials, that represent the spirits of guardian animals or beings. These objects may be chosen because they resemble a certain animal or being, or, more often, the stone is carved to create or enhance the likeness to the animal.

The artisans of Zuni Pueblo, who originated the practice, have gained international recognition for their unique fetish carvings, and especially the secular brand of carving they do for sale to outsiders. Zuni fetish carved PENDANTS and NECKLACES are among the best known of native-made jewelry types, and such carvings have been taken up by other native groups, notably the Navajo, as well as by peoples of the subarctic and arctic regions. Santo Domingo artisans began carving fetish BIRDS as a jewelry motif for necklaces in the mid- to late 1960s.



Zuni fetish necklace, turquoise, mother of pearl, and silver, 1970s, by unknown maker. *Courtesy of The Heard Museum, Phoenix, AZ.*

Fetish carving originally had direct reference to the sacred properties of the fetish image, such as the Zuni assignment of a guardian animal for the six DIRECTIONS, and many of these animals were significant for hunting purposes. But the use of fetish carvings in jewelry is primarily decorative. However, many non-Indian consumers appreciate the added value of the original purpose of fetishes (*see* HEARTLINE; MEDICINE BUNDLES, POUCHES), as well as the artistry in fetish carving. Most fetish necklaces are strung either with a variety of animals, anchored by a

slightly larger figure (often a BEAR) at the bottom center, or made as a strand of figures of one type of animal, such as birds or HORSES. Fetish necklaces became popular in the 1950s and 1960s, and fine, handmade pieces continue to be prized.

Consumers should be aware that imitation fetish carvings are common in the market, often done in plastic or fillers made to resemble colored stone (such as TURQUOISE, JET, or PIPESTONE); these bogus pieces come from factories in the United States and abroad, mostly from Southeast Asia and Japan. *See also* SOUTHWESTERN INDIAN JEWELRY; ZUNI JEWELRY.

Further Reading: Branson, Oscar T. *Fetishes and Carvings of the Southwest*. Tucson: Treasure Chest, 1976; MacManis, Kent. *A Guide to Zuni Fetishes and Carvings*. Tucson: Treasure Chest Books, 1995.

filigree

Fine metal wire (usually SILVER) bent and soldered onto jewelry as design elaboration; filigree appears most commonly on SOUTHWESTERN INDIAN JEWELRY. Filigree began to be used extensively in the 1930s and 1940s, when native jewelry-makers experimented with various creative approaches in the twisting and application of metal into delicate, even lacy, forms of open or closed ornamentation. Most experts point to filigree as being derived from Spanish colonial decoration, and therefore having a strong influence on Northern Rio Grande Pueblo-made silverwork. However, both Navajo and Pueblo silversmiths experimented with this effect.

Filigree can range from ropes of loosely twisted wire to carefully and tightly coiled wire spirals (a decorative effect popular in the 1930s). When the wire decoration is made into patterns of curlicues, ovals, or circles, the smith applies FLUX and SOLDER over the wire forms, then heats and solders them to the metal base.

A trio of turquoise and silver brooches decorated with various forms of filigree, ca. 1930s-1940s, probably Navajo or Zuni. *Courtesy of the VanderWagen Trading Company.*

filing

A form of surface decoration; native smiths used files and related tools as soon as they began to work with metal. Files were used to create repetitive groove markings, to enhance raised details, and to produce other decorative effects.

Navajo and Pueblo use of filing marks for decoration on metalwork commenced around 1868 and continued up to 1900; some native jewelry-makers might still use filework for certain decorative effects. Before commercial files were developed, jewelers used metal tools with ridged or tooth-like ends to cut or incise surfaces. Fine files were introduced in the early 1880s. Files are made in specific lengths, edges, and filing surfaces, and they range in shape from round to triangular.

Filing is also used to finish off detail work, usually to remove the rough or uneven edges caused in the CASTING process. *See* NAVAJO JEWELRY entry for an illustration of filing decoration.

findings

Commercially mass-produced metal parts for jewelry forms, such as ear screws and clips (for EARRINGS), clasps and catches (for NECKLACES and BRACELETS), cones (for necklaces),

and swivel joints (for link bracelets). Findings first became available in the early to mid-twentieth century. Jewelers purchase these ready-made items and attach them to pieces that might otherwise be all handmade. Most jewelry purveyors feel that the inclusion of such parts should not affect an item's authenticity, although some purists frown on their use.

first phase

A historical term used to designate the first decades of experimentation and development in SOUTHWESTERN INDIAN JEWELRY from 1868 to 1900. These years saw the mastering of materials, tools, and techniques, when the items were made for personal use (and free from commercial influence).

The term "first phase" also describes the early design choices of this time period, such as the pieces done in the early 1890s in which TURQUOISE and other stones began to be set in SILVER—a choice of combination that guaranteed this jewelry's enduring popularity and influence. After 1899, non-Indian-inspired commercial influences began to dominate the industry. The term "transitional period" has been attached to the time between 1900 and 1930 when these craft developments, aided by growing tourism, ensued. Not all Indian jewelry experts employ these terms, but they have made their way into collector literature and other writings.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Frank, Larry, and Millard Holbrook. *Indian Silver Jewelry of the Southwest 1869–1930*. West Chester, PA: Schiffer, 1990.

flatware. *See* METALWARE

fluted beads

SILVER BEADS that are created with ridged, decorative lines radiating from their center. Begun as a hollow bead, fluted beads are worked to be slightly flattened or conical in shape, and the contrast of the decorative lines can be enhanced by OXIDATION. Fluting by FILING can be seen on the earliest examples of hollow coin silver beads. Fluted beads are usually made from lighter gauge SILVER than stamped beads (*see* STAMPING). Southwestern native-made fluted bead-making originated in the 1920s; this form reappears in REVIVAL-STYLE necklaces, or as individual beads strung for contrast with other types of silver and glass TRADE BEADS.

flux

A chemical barrier that keeps OXIDATION from interfering with the soldering process in metalwork. The earliest Navajo smiths used almogen, a local paste-like substance, in the 1870s and 1880s. After 1885, commercially produced borax pastes became available, and borax flux (in paste and liquid forms) continues to be used by metalworkers. Other types of flux include flouride-based compounds and combinations of boric acid and alcohol. *See also* SOLDER.

foxtail

The popular name for a form of strong, braided steel wire used for stringing contemporary NECKLACES. Many artists, DEALERS, and INDIAN TRADERS restring older beads, either TRADE BEADS or SILVER BEADS, PENDANTS, and necklaces with foxtail wire because of its strength and durability.

Fred Harvey Company

A travel and tourism company, in business from 1876 to 1968, that had a great impact on the promotion, popularity, and commercialization of SOUTHWESTERN INDIAN JEWELRY and crafts. In addition to making it easier for tourists to travel in the West—and thus be exposed to native crafts—the Harvey Company also created a type of TOURIST JEWELRY that popularized native jewelry across the country.

The company ran a string of travelers' services (called "Harvey Houses") at numerous stops along the railroads that ran from Chicago to the West Coast. Harvey Houses offered rail passengers comfortable, clean, and reliable hotel and dining services, staffed

by the famous Harvey Girls, in a time when tourist travel across the United States was expanding. Harvey Company "Detours" were also organized to various important natural attractions (including pueblos); the company had their female guides appropriately adorned in native SILVER and TURQUOISE jewelry to help stimulate tourist appetites for these objects.

Led by Herman Schweizer, head buyer for the Fred Harvey Indian Department museum and sales rooms section, the company set out to recast Indian jewelry into a new form that would make it especially appealing to tourists as curios; pieces were made from lightweight silver (to make them easier to pack and carry) and stamped liberally with Indian "symbols" (which were mostly designed by Schweizer's staff and only vaguely related to actual native motifs). Schweizer commissioned this jewelry from local INDIAN TRADERS in the Southwest, providing them with lighter silver and turquoise stones for setting. The traders gave these materials to Navajo smiths, who worked on a piecework consignment basis. Trading posts based in the Thoreau, New Mexico, area served as the first sites for the exchange of such lighter materials to native smiths.

The Harvey Company dictated styles and forms that sold well, encouraging native artisans to make items such as pins, EARRINGS, and PENDANTS that more closely resembled conventional European American-style jewelry than those worn by native peoples. Collectors often turned to Harvey personnel for advice in building their holdings of Indian arts, including textiles and silverwork; William Randolph Hearst was one such collector. Museum curators also were clients, turning to Harvey staff for assistance in assembling quality Native American arts for their collections.

In an interesting parallel development, Schweizer assembled a Fred Harvey Collection of more than 4,500 items of native arts that included silver jewelry and BEADWORK. Good-quality Navajo silver made between 1875 and 1929 was carefully collected as benchmark examples of fine design and workmanship; ironically, little of the Harvey House-inspired commercial tourist silverwork was retained in this collection, which is now in the Heard Museum, Phoenix, Arizona.

Further Reading: Harvey, Brian, E.W. Jernigan, and Gary Witherspoon. *White Metal Universe: Navajo Silver from the Fred Harvey Collection* (exhibition catalog). Phoenix: Heard Museum, 1981; Howard, Kathleen, and Diana Pardue. *Inventing the Southwest: The Fred Harvey Company and Native American Art.* Flagstaff, AZ: Heard Museum; Northland Publishing Co., 1996. For additional information, see <http://www.heard.org/exhibits/inventingsw/index.html>.

frog

An aquatic creature naturally associated with rain and water, making it a life-giving symbol. Frogs have been depicted extensively on ancient Pueblo pottery, in both realistic and abstract forms; such depictions include images of polliwogs—a sign of the approaching rainy season. Frogs appear in FETISH carvings that are part of jewelry and as carved PENDANTS; frog images are also integrated into central designs on silver BRACELETS, pendants, and brooches.

Frog bracelets and RINGS in GOLD and SILVER have become a popular motif for Northwest Coast native jewelry, probably inspired in part by the designs of Haida artist Bill REID (1920–1998). Pacific Northwest Coast associations for the frog include its representation as good luck, or as a "voice of the people," and so it can be a symbol of positive communication. *See also* NORTHWEST COAST NATIVE JEWELRY; RAIN SYMBOLS; SOUTHWESTERN INDIAN JEWELRY; WATER SYMBOLS.

fur trade

The development of the fur trade, especially in the seventeenth and eighteenth centuries, was one of the earliest activities to bring Europeans (especially from France and Great Britain) and native peoples together for the purpose of commerce. In payment for valuable pelts, traders exchanged SILVER and beads, among other commodities, with native groups; thus providing them with new models and materials for use in personal adornment (*see also* BEADWORK).

As early as the mid-sixteenth century, European explorers brought home news of rich natural resources to be had from North America, and entrepreneurs had soon started a flourishing fur trade. Trading brought new and desirable objects for native use, notably glass TRADE BEADS and TRADE SILVER ornaments. From such transactions developed an indigenous taste for such types of adornment that has left its mark on all subsequent native jewelry creation and design. In addition, the fur trade served as a highly successful vehicle for the dispersal of trade goods—and specific jewelry forms from northern Europe—to native peoples throughout the continent, such as single and double-barred silver CROSS pendants (*see* COVENANT CHAIN). Traditional forms spread by the fur trade throughout Canada retain their appeal to native artists who work in REVIVAL-STYLE jewelry-making.

The fur trade generally moved decorative objects roughly to the west and north across the continent, appealing to Plains Indians, among others, who then traded with neighbors in adjoining geographical regions. As a consequence, certain jewelry forms had reached western areas by the early to mid-nineteenth century, and these models stimulated native attempts to work with base metals, until silversmithing displaced the desire for other forms of metalworking for personal adornment. In Canada, the fur trade had diminished by 1870, due to changing fashions in Europe and the dissolution of the Hudson's Bay Company monopoly.

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G

Gabriel, Raymond (3/1/33– , Mohawk)

Known also as Kanatase, Raymond Gabriel's works are popular in Canada. He apprenticed for four years at the Henry Birks firm in Montreal, where he learned silversmithing; he acquired additional jewelry-making skills from five years of working for master jeweler George Delrue. Gabriel worked independently thereafter. He uses his own creative motifs based upon native subjects; he does not use TRADE SILVER designs that are nonnative in origin, instead preferring Iroquois themes and animals associated with clan stories. His SILVER charms are popular pieces; like his other jewelry work, these pieces portray carefully detailed allusions to Indian objects in everyday usage. **Museums:** Canadian Museum of Civilization, Hull, Quebec; Department of Indian and Northern Affairs, Ottawa. *See also* IROQUOIS JEWELRY.

Silver jewelry with Iroquois designs by Raymond Gabriel (Mohawk). *Courtesy of the artist.*

Further Reading: *Iroquois Arts: A Directory of a People and their Work*. Ed. by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983.

Gabriel, Victor (1/27/44– , Washoe)

Victor Gabriel works with both stamped silverwork and INLAY on SILVER (*see* STAMPING, STAMPWORK). He has a B.S. from the University of California, Davis, and A.A. degrees from D-Q University, Davis, and the University of San Francisco, and has taught jewelry-making for the Native American Department at the University of California, Davis. His great aunt was the well-known basket weaver Dat-su-lalee, and Gabriel's California upbringing exposed him to the artistic traditions of the Southwest, Northern Plains, and his native Great Basin region. Another source of inspiration for Gabriel was native artist Ben NIGHTHORSE (b. 1933, Northern Cheyenne).

Gabriel uses various other techniques for his jewelry design, including OVERLAY, CHANNEL WORK, and the incorporation of GOLD, SEMIPRECIOUS STONES, mastodon IVORY, and fossilized ivory, SHELL, and wood. Some de-

signs draw upon the imagery of the Native American Church. Among his favored types of fabricated and inlaid jewelry are belt BUCKLES, BOLA ties, BRACELETS, EARRINGS, NECKLACES and PENDANTS, and RINGS. Gabriel has exhibited and won awards at the Heard Museum Guild Fair, Eight Northern Indian Pueblos Arts and Crafts shows, SWAIA INDIAN MARKET, and various California native art venues.

Gallup Inter-tribal Indian Ceremonial

An annual event that has proven to be a significant venue for the exhibition and sale of predominantly SOUTHWESTERN INDIAN JEWELRY. While a venue like the Santa Fe INDIAN MARKET is based on direct sale of products by Indian artisans to visiting consumers, the Ceremonial's marketplace has through the years been a place where both Indian artists and non-native traders have displayed and sold goods.

The first Ceremonial was held on September 28, 1922, at Lyon Memorial Park in Gallup, New Mexico. Originally envisioned as a local tribute to native culture, the Inter-tribal Indian Ceremonial was termed an "Indian Pageant and Exposition" in its early years. Aided by Gallup's location on old Route 66, the Ceremonial has drawn a steady crowd of tourists and others, exposing them to high-quality Indian arts and crafts. Over the years, the event has helped to create collectors and enthusiasts for these arts, and has assisted many artists in their careers. Prize winners read like a "Who's Who" of Native American traditional and fine-art jewelers. As with the SWAIA annual Indian Market in Santa Fe, New Mexico, the Ceremonial gives native artists the opportunity to view the work of fellow artists, and to draw inspiration from technical and design innovations. In the 1970s, Indian jewelry sales boomed, and in 1975 the Ceremonial moved to new, permanent quarters at Red Rock State Park, five miles outside Gallup; this event currently occurs in mid-August, and does not overlap with the annual Indian Market in Santa Fe.

Along with a POWWOW, ceremonial dances and rodeo, and the (often controversial) parade through downtown Gallup, the Ceremonial is anchored by juried exhibitions of arts in various traditional and contemporary media categories. Entries within the Jewelry and Flatware division are judged by a jury of experts. Prize-winners receive award ribbons and the winning pieces are displayed in the Ceremonial Showroom. Many notable Navajo, Hopi, Plains, and Zuni jewelers, among others, have gained acclaim for their pieces when entered for judging. Indoor and outdoor marketplaces allow visitors to buy jewelry and other crafts directly from native artists and from non-native traders. In the mid- to late 1990s, the financial status of the Ceremonial was endangered, with shifts from state to private funding. Because the Ceremonial provides an important magnet for tourist business, those involved in the promulgation of its activities continue to consider various ways to ensure that the event will survive into the new millennium.

Further Reading: Linford, Laurance D. *Ceremonial Indian Art: A Measure of Excellence*. Gallup, NM: Inter-tribal Indian Ceremonial Assoc., 1995. Web site: <http://www.cia-g.com/~gitica>.

gan. *See* APACHE MOUNTAIN SPIRIT DANCER

garnet

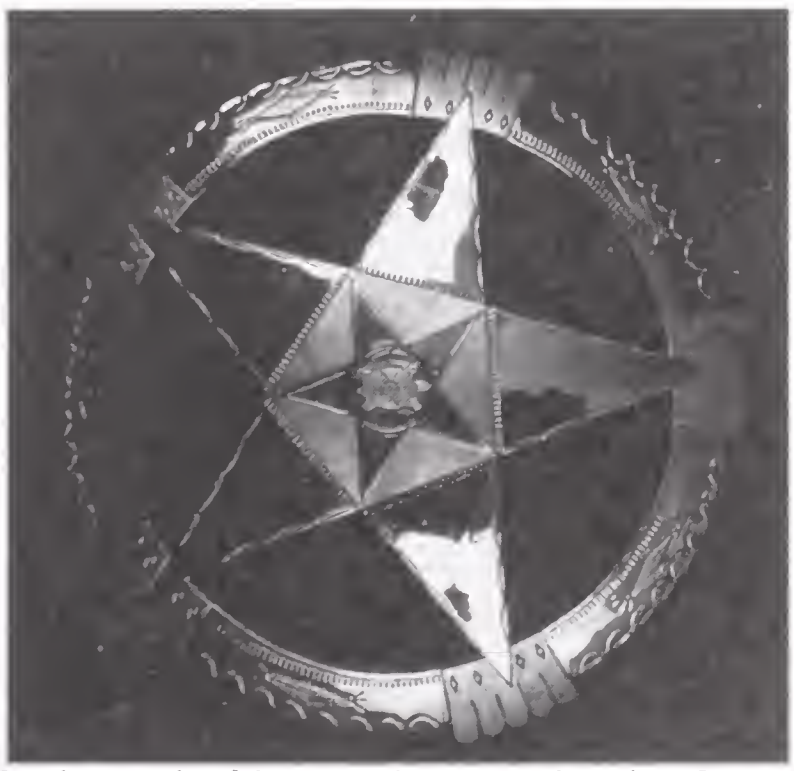
A common and relatively inexpensive gemstone with a red or purple color, composed of iron aluminum silicate, used as a stone setting in early SOUTHWESTERN INDIAN JEWELRY, frequently for RINGS. Garnets were one of the first stones to be set in SILVER by Navajo smiths working in the nineteenth century (examples are known from about 1885); these first garnet settings were very small, with the stones left in their natural form. Garnets are found in Alaska, various Rocky Mountain regions, and South Dakota; popular alternative names are "Apache tears" and "Arizona ruby." Blood red or purplish-red in hue, they are usually cut as CABOCHONS (or carbuncles), but since the 1950s lapidarists have increasingly turned

to faceting this stone. A recent trend in native jewelry-making has been the drilling of garnets into small beads for multistrand NECKLACES. One variety, the demantoid garnet, is green in color.

German silver

A lesser metal that is not a pure form of SILVER, German silver is an ALLOY composed of 60 percent COPPER, 20 percent zinc, and 20 percent nickel. It is used in jewelry because of its low cost compared to STERLING SILVER, and it can be stamped, soldered, and polished like silver. An alternative name for German silver is "nickel silver," despite the small proportion of nickel in the alloy. It is also called "white brass."

German silver was made in the eighteenth and nineteenth centuries for trade goods, particularly in ornaments traded to the Plains Indians, who have retained a strong preference for adornment made from German silver. This taste is less pronounced in other areas, such as in the Pacific Northwest and American Southwest. However, Southwestern native peoples prized the unadorned, domed-style German silver CONCHA plaques they obtained in trade with Plains tribes; these conchas influenced the subsequent evolution of the concha belt form in late nineteenth-century Navajo and Pueblo silversmithing.



Pendant made of German silver, 1990, by Adam Caesar (Pawnee). *Photo by Terry Zinn. Courtesy of Bruce Caesar and the artist.*

Twentieth-century Plains silversmiths and jewelers work in REVIVAL STYLES with German silver because the use of this metal has been claimed for their own cultural heritage; designs from the Native American Church are a favorite decorative choice. German silver has also been used more extensively as an inexpensive metal for imitation Indian jewelry or native-made TOURIST JEWELRY pieces.

Further Reading: Ellison, Rosemary. *Contemporary Southern Plains Indian Metalwork* (exhibition catalog). Anadarko, OK: Indian Arts and Crafts Board, Department of the Interior; Oklahoma Indian Arts and Crafts Cooperative, 1976.

glass

Unknown to native artisans until its exportation from Europe in the form of glass TRADE BEADS as soon as the FUR TRADE began, opaque or colored glass meant for use in jewelry-making became an inexpensive alternative to gemstones and other materials by the early twentieth century.

Glass trade beads made their way from the East and West Coasts into various areas of the North American interior. Some types of trade beads were prized above others, depending on their color and nature of the designs; for example, "HUBBELL GLASS" beads in the Southwest were used as substitutes or replacements for TURQUOISE. Later, other creative substitutions were devised, especially for TOURIST JEWELRY, in which pieces of colored glass were used as replacements for cracked and missing stonework, or as an alternative to PASTE.

gold

A precious metal only rarely worked throughout the early historic-era decades of native metalsmithing in North America, gold did not become an established feature of native jewelry-making until the 1960s and 1970s. Charles LOLOMA (1921–1991, Hopi) is frequently credited with being the first Southwestern native artist to work with gold, probably around 1953. Since then, gold has become a prized material as more and more native jewelers have elected to use its prop-

erties. Metalworkers—and consumers—appreciate its resistance to OXIDATION and corrosion.

Early evidence of gold work can be seen in a COPPER bracelet with gold INLAY of Tlingit make, dating to about 1870, in the collection of the University of British Columbia's Museum of Anthropology. Because of gold's soft and malleable nature, not to mention its cost in relation to SILVER, many native smiths initially shunned its usage. Initial efforts were made with 10- or 14-karat gold, but by the 1980s most jewelers worked with 14- to 16-karat gold, or even with 24-karat quality gold. (24-karat indicates pure gold with no additives; lower karat designations mean increasing amounts of additives, usually silver or copper. For example, 14-karat indicates .5833 pure gold.)

Improved tools and exposure to mainstream training (*see* TOURAINE, Pierre) allowed jewelers to experiment and incorporate gold's fine qualities into their work. Goldsmithing also led many artists to extend their repertoire by adding PRECIOUS STONES, such as diamonds, or unusual materials, like pearls and exotic wood. TURQUOISE and gold combinations were explored as well. The development of fine-art gold jewelry owes much to native artists who explored the possibilities of gold in their work, such as Loloma, Bill REID (1920–1998, Haida), Robert DAVIDSON (b. 1946, Haida), Kenneth BEGAY (1913–1977, Navajo), and Harvey BEGAY (b. 1938– , Navajo).

A number of other artists working in the 1980s and 1990s have been acclaimed for their gold jewelry production: Hopi artists Phil Navaysa, Phil Sekaquaptewa, and Victor COOCHEYTEWA (b. 1922), Navajo artists James Little, JESSE MONONGYE (b. 1952), and Gibson NEZ (b. 1944, Apache/Navajo); and Pueblo artists Ted Charvese (Isleta) and Richard Chavez (San Felipe). Some ventures into gold work were cooperative efforts between two, or even three, artists in fabricating a piece. Gold was incorporated into several well-used techniques: sheet work, CASTING, and OVERLAY. PRESTON MONONGYE (1927–1987) experimented with the use of gold in the RETICULATION process, thus pioneering another aspect of technical innovation.

Many native artists use a combination of gold and silver for relief work, often adding an ALLOY as well as repeated reheating, to increase a piece's hardness or enhance its color. A number of native jewelers have experimented with free forms and one-of-a-kind creations when working in gold, thus accentuating the fine-art nature of their endeavors. Fine strings of beads, ear cuffs, and jewelry sets of matching pieces are popular renderings in gold. Gold-plating is another, post-1970s option for some jewelry decoration. In addition, while gold work that used hammered sheets and LOST-WAX CASTING processes was well known to metalworkers in Meso-America, its adoption into North American jewelry-making has really only flowered since the 1970s.

Further Reading: Tanner, Clara Lee. "Southwestern Indian Gold Jewelry." *The Kiva* 50 (1985): 201–11.

Golsh, Larry (1/31/42– , Pala Mission/Cherokee)

Larry Golsh is considered one of the foremost native jewelers resident in the Southwest. He attended El Camion College (Gardena, California) and Arizona State University (Tempe). Golsh studied architecture and apprenticed under Paolo Soleri. He started working in fine-art jewelry around 1971; his pieces feature sophisticated designs, often based on his study of sculptural form, and many pieces use GOLD and gemstones; he learned to work with these materials from study with master jeweler Pierre TOURAINE. Golsh was also influenced by Hopi jewelry-makers Charles LOLOMA (1921–1991) and Manfred Susunkewa.

Golsh works steadily on technical innovations that incorporate such processes as TUFA casting, and his "seashell effect," achieved by cuttlebone CASTING. His early pieces often used Lone Mountain, Morenci, and Bisbee TURQUOISE for settings, as well as CORAL, IRONWOOD, and more unusual stones. He has benefited from the study of art works

in a wide range of media, and his fine-art jeweler's sensibilities have inspired many other young native artists. He was awarded a grant from the National Endowment for the Arts, and he has received awards from Arizona institutions and art competitions, including 11 awards for his jewelry in 1975 alone. He has exhibited at invited shows in California, Texas, and New Mexico, including the Santa Fe INDIAN MARKET, and was the subject of a television documentary in 1984. **Galleries**: primarily in Scottsdale, Arizona, such as the Lovena Ohl Gallery and Faust Gallery, and the Glen Green Galleries, Santa Fe, New Mexico. **Museums**: Heard Museum, Phoenix, Arizona.

Further Reading: *American Indian Art Magazine* (Scottsdale, AZ). Spring 1976; Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Monthan, Guy, and Doris Monthan. *Art and Indian Individualists*. Flagstaff, AZ: Northland Press, 1975; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

gorget

A form of breast adornment meant to be worn around the neck or throat and rest upon the chest in PENDANT fashion. A gorget is usually circular with one or two pierced holes so a thong or leather cord can be passed through; the thong or cord is then tied in a loop, to go around the wearer's neck.

Originally, these ornaments would be made of stone, conch shell, BONE, or slate, and incised with decorative outlines. Partly from the influence of the TRADE SILVER industry, many such breast ornaments evolved into objects of a more clearly pendant nature. The gorget shape was also subject to alteration into forms more closely associated with amulets—human hands, animal paws, and shaped stones, for example. This jewelry form is most prevalent among the Woodlands, Plains, and northern Athapaskan peoples. While subject to revival, the gorget design has also been transposed onto other forms, such as brooches and EARRINGS.

granular silver solder. *See* SOLDER

granulation. *See* RETICULATION

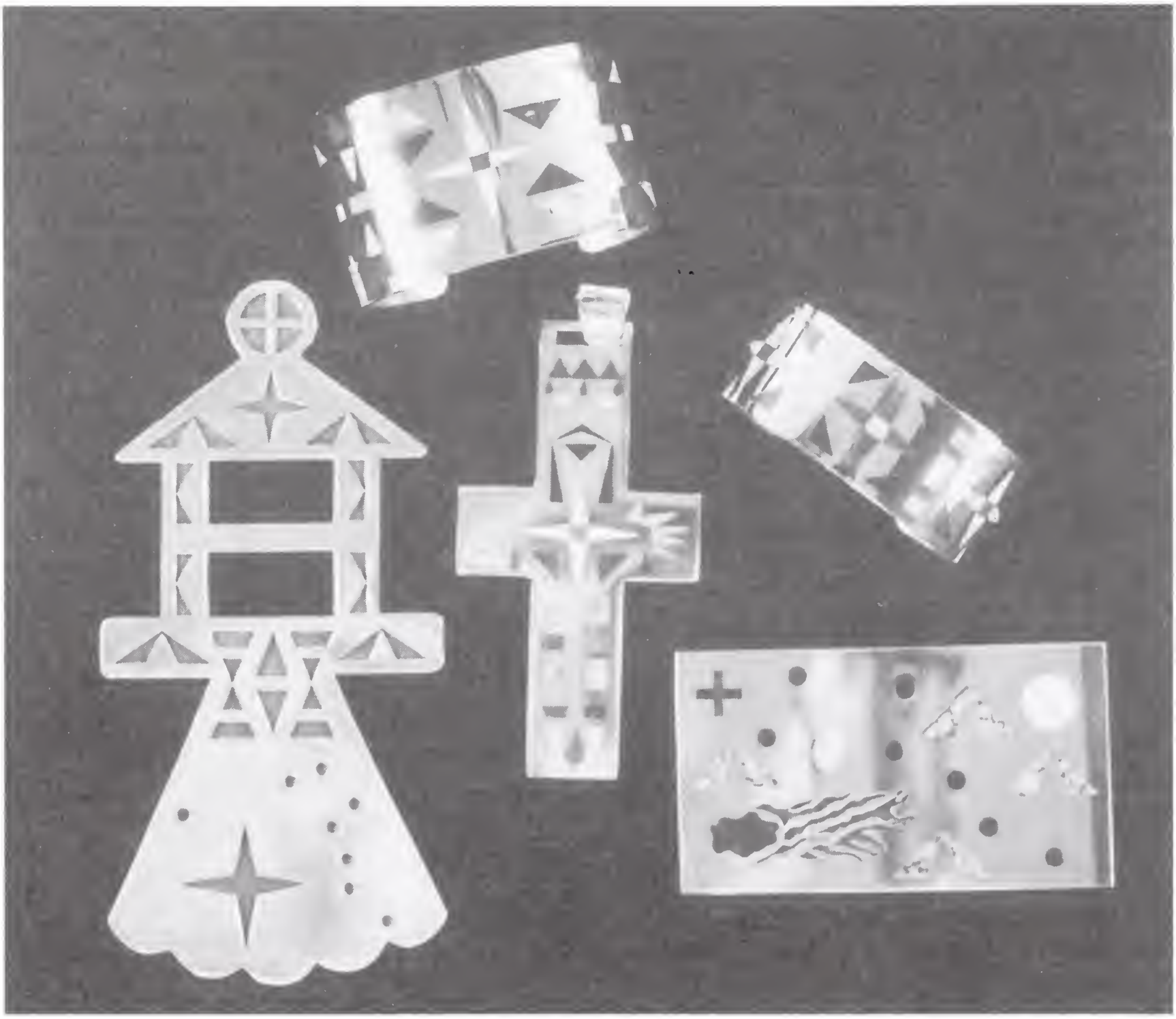
Green, Elwood (4/10/36– , Mohawk)

Iroquois silversmith Elwood Green creates jewelry using important clan symbols, such as deer, hawks, herons, and TURTLES. Known also by his professional name "Floating Canoe," he works in STERLING SILVER and augments his pieces with CORAL, TURQUOISE, slate, and WAMPUM shell. Green is self-taught and has in turn provided training for young artisans. He has studied BONE carving and historical TRADE SILVER styles. Many pieces are hand-cut and cast by the LOST-WAX process. **Museums**: McMichael Canadian Collection, Kleinburg, Ontario; Museum of the American Indian, Heye Foundation, New York City; Native American Centre of the Living Arts, Niagara Falls, New York. Exhibitions in various galleries in Ontario, Canada. *See also* IROQUOIS JEWELRY.

Further Reading: *Iroquois Arts: A Directory of a People and their Work*. Edited by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983.

Gress, Robert (6/9/63– , Absaloka Crow)

Robert Gress is a silversmith who creates jewelry that pays tribute to the "Classic Period" of Crow art, 1850–1900. He studied at Montana State University, and in 1987 received an A.A. degree from the INSTITUTE OF AMERICAN INDIAN ART in Santa Fe, New Mexico, where he acknowledges inspiration from jewelry instructor Millard Holbrook. His pieces are usually STERLING SILVER and inlaid with SEMIPRECIOUS STONES. Geometric and color patterns, generated as REVIVAL STYLES, are expressed in many pieces; Gress favors sky-blue TUROUOISE and rose CORAL, and he works with LAPIS LAZULI, SUGILITE, and OPAL as well as more traditional materials like fossilized IVORY and HORN. He has exhibited at the Santa Fe INDIAN MARKET (with awards in 1993, 1994, and



Silver and inlay pieces, made 1990s, by Robert Gress (Absaloka Crow). *Courtesy of the artist.*

1995) and at various venues in Montana and South Dakota. **Museums:** Institute of American Indian Art, Santa Fe, New Mexico; Smithsonian Institution, Washington, D.C.

guilds

The non-native enthusiasts concerned with the protection and support of Indian artists and their art felt the need for local organization and effective marketing of native products; consequently, these individuals—led in the United States by the INDIAN ARTS AND CRAFTS BOARD and in Canada by the Canadian Handicrafts Guild—urged native artists to form guilds, commencing in the 1940s.

Such coalitions of native artists were established to ensure standards for quality. The guilds then marketed the artists' products for retail sale to department stores and other shops. Certain guilds set up shop sites as inducements for sales to outsiders, although initially there was little deliberate emphasis on the tourist trade. Some guild shops arose in pertinent areas; for example, the early Navajo Arts and Crafts Guild (established in 1941) started centers on the Navajo Reservation in Window Rock and Fort Defiance (both in Arizona), and in Shiprock and Toadlena (both in New Mexico). The Hopi Silvercraft Guild was started in 1947 on Second Mesa.

From the 1940s through 1960s, a number of guilds sprang up around the United States. Similar efforts occurred in Canada through the auspices of the Canadian Handicrafts Guild (now defunct), and have continued into recent years through the guilds of individual provinces; the best known are in Quebec and Ontario. Guilds also devel-

oped among the Inuit, Seminole, and various Plains tribes. Many guilds were eventually subsumed into *cooperatives* (networks of native artists based in a community, producing art for export), especially in the geographically remote regions of the subarctic and arctic, where marketing and transportation concerns were critical factors for selling arts. Some guilds underwent various local political transformations, such as the Eight Northern Pueblos Artisans Guild (active from 1972 to 1982), the Northwest Indian Artists Guild (incorporated in 1977), and the Hopi Silvercraft Guild (1947). Guild-produced jewelry in the Southwestern United States has been criticized for being conservative in its design. Unfortunately, the history of these guilds, including information about their design and marketing of jewelry, has not been written about or researched in any consistent manner. Knowledge about various guilds, and their artists and products, is scattered and mainly available from the recollections of tribal historians, involved artists, INDIAN TRADERS, and DEALERS. Jewelry pieces with guild marks gather collector interest and high prices in the antique Indian arts market. *See also* HOPI JEWELRY; INUIT, INUPIAT, AND ALEUT JEWELRY; NAVAJO JEWELRY.

H

Hailstone, Vivien Risling (10/16/13–, Hupa/Yurok)

Vivien Hailstone is a gifted basket weaver and jewelry designer who draws upon traditional techniques and a strong sense of aesthetics. Her jewelry pieces are primarily pins and PENDANTS that pay tribute to basket designs through interwoven or contrasting geometric motifs. Many of her pendants are discs suspended from strings of multi-faced, alternately shaped beads. Hailstone earned an A.A. degree in art in 1983 from DeQuincey University, California, and has attended various continuing education programs. She has participated in various group exhibitions in California. **Museums:** Crocker Art Museum, Sacramento, California.

Further Reading: *St. James Guide to Native North American Artists.* Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

hallmark

A traditional means of identifying the maker of a piece of jewelry, or as a statement of the piece's purity, for example, the use of "sterling" as a mark on STERLING SILVER jewelry. While the practice of hallmarks was introduced to native jewelry-makers as early as the 1940s, most did not start using hallmarks until the 1970s.

The need for hallmarks stems from two areas of concern about Native American jewelry and attempts to boost the image of this medium. The first concern is to make it clear to the buyer, through the use of the "sterling" stamp, that a particular piece is made from high-quality metal. Many Indian-style pieces were made (and continue to be made) from poor quality materials, and the perception among many consumers is that all Indian jewelry is made from such low-grade stock. The second concern is that, by signing their jewelry pieces (that is, by adding a name or an identifying hallmark), individual artists receive credit for their work and generate interest in upcoming pieces.

Various types of cutting tools are employed, from gravers and burins to stamps and engraver's pencils. Artists' hallmarks range from variations on their signatures to emblematic signs or pictographs; for example, a BADGER paw as a mark of a Hopi artist's clan, or the well-known THUNDERBIRD mark used first by Frank PATANIA, Sr. (1899–1964), originator of the Thunderbird Shops in Arizona and New Mexico; Patania's mark is now the property of Santo Domingo jeweler Julian LOVATO (b. 1925). Sometimes the artist will mark his or her cultural group or town of residence onto a piece. Hallmarks became common by the 1970s, especially in the Southwestern United States, although there are some known examples that date from the 1940s and 1950s; for example, during those decades the Navajo silversmiths and instructors Fred Peshlakai and KENNETH BEGAY (1913–1977) used their initials as hallmarks.

Forged hallmarks come to light from time to time, however, and the authenticity of some signed pieces has also come into question on occasion.

Hallmarks are a requirement for works sold at the SWAIA INDIAN MARKET, the Heard Guild Fair, and other important Indian arts venues. Virtually all contemporary native jewelers, whether they work in traditional or fine-art styles, use personalized hallmarks for their works.

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Hamilton, Ron (2/11/48– , Nuu-Chah-Nulth)

Ron Hamilton has studied carving from other prominent Northwest Coast native artists such as Robert DAVIDSON (b. 1946, Haida) and Henry Hunt. Hamilton's intensive study of West Coast art styles has influenced his jewelry designs. He works with SILVER, GOLD, IVORY, and ARGILLITE; his pieces advocate traditional forms and incorporate themes from his culture. His work has been particularly inspirational to a younger generation of native jewelers. Hamilton has exhibited mainly in Canada, at such venues as the Royal British Columbia Museum, Victoria, British Columbia, and the University of British Columbia, Vancouver. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: For additional background, see <http://collections.ic.gc.ca/artists/hamilton.html>.

Hamlett, Victoria Adams (6/19/50– , Southern Cheyenne/Arapaho)

Victoria Adams Hamlett draws upon materials and imagery from her Oklahoma tribal heritage; she has been making jewelry since 1972. She has studied at various colleges, including the San Francisco Art Institute and the University of Nevada at Reno, and she has had various study courses and apprenticeships between 1969 and 1981. Her jewelry designs are unusual in their variety of colors, figural and abstract forms, and textural effect.

Hamlett works with a wide range of materials: BONE, GOLD, STERLING SILVER, contemporary gemstones such as SUGILITE, and BEADWORK. She uses Cheyenne material culture as a starting point. Plants, animals, ceremonial DANCERS, and creation stories are among her design motifs. She has exhibited regularly since 1973 at venues mainly in Colorado, Idaho, Wyoming, Montana, and Oklahoma, including the Red Earth Festival (1996, 1997). Galleries: Eagle Plumes, Allens Park, Colorado; Martin-Harris Gallery, Jackson Hole, Wyoming. Hamlett is also known for her work with young native artists, including providing them with apprenticeship experience.

Further Reading: *Southwest Art Magazine*, Dec. 1987, July 1990, Dec. 1997.

hare. *See* RABBIT, HARE

Harris, Walter (1931– , Gitksan)

Harris studied at the Kitanmax School of Northwest Coast Indian Art, 'Ksan (near Hazelton, British Columbia), and learned jewelry-making from Jack Layland, among others. He later was an instructor at the school. Harris designs GOLD and SILVER jewelry, but he is more widely known for his carving and printmaking. Harris's elegant jewelry has encouraged younger Tsimshian artists to study their culture for design inspiration. He has exhibited in *The Legacy*, 1980; at the Edinburgh International Festival; and at Vancouver and other British Columbia galleries in the mid-1990s. **Museums:** British Columbia Provincial Museum, Victoria; Department of Indian and Northern Affairs, Ottawa; Canadian Museum of Civilization, Hull, Quebec.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art*. Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/

Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum; Steltzer, Ulli. *Indian Artists at Work*. Seattle: University of Washington Press, 1976.

Harvey jewelry. *See* FRED HARVEY COMPANY

hatband

The wearing of broad-brimmed hats with wide crowns was introduced to native men by Europeans. With the advent of silversmithing in the Southwest, the SILVER hatband—a thin strip of silver meant to go around the circumference of the hat just above the brim—began to be made around 1900, as a new and desirable form of dress ornament.

Older hatbands measure about 5/8-inch wide and are outlined or incised by die stamps. Early designs fasten the two ends of the band by a silver bow set with stones. Variations in decoration abound, with repetitive STAMPING to form decorative lines or a series of motifs and OXIDATION used to create contrast.

A more recent style, which has gained wide popularity with non-Indians since the 1960s, resembles a miniature concha belt, using a leather band instead of silver and studding the leather with numerous small silver stamped and scalloped CONCHAS; the final piece is trimmed with a small square silver BUCKLE. This hatband form has become an integral part of modern Western-style dress. Another recent development has brought beaded leather hatbands back into vogue. These BEADWORK bands have moved beyond generic tourist-type goods into fine-art crafted designs that reinterpret traditional motifs.

Further Reading: Branson, Oscar T. *Indian Jewelry Making*. 2 vols. Tucson: Treasure Chest, 1977; Hunt, Walter Ben. *Indian Silversmithing*. New York: Bruce Publishers, 1960.

heartline

A feature derived from fetish carving, but one which has become a visual convention that

Hatband with conchas and butterfly spacers, mid-twentieth century, Navajo. *Courtesy of the VanderWagen Trading Company.*

appears on some native-made jewelry pieces, usually when a hunting animal is depicted. A line, often irregular or jagged, is drawn on the body to represent the mystical force of the animal's breath from its heart. Sometimes a small offering bundle is also attached, composed of ARROWHEADS, SHELLS, or stones. The heartline and its optional bundle can be carved, engraved, inlaid, or painted, depending on the materials used for the jewelry. *See also* FETISH, FETISH CARVING. *See* Carlton JAMON entry for an illustration of a heartline.

Further Reading: MacManis, Kent. *A Guide to Zuni Fetishes and Carvings*. Tucson: Treasure Chest Books, 1995.

heishi, hesche, hieschi, hishi

A term used to describe fine, handrolled beads, usually made from SHELL or TURQUOISE; such beads were traditionally ground, drilled, and strung into NECKLACES by jewelry-makers from Santo Domingo, San Felipe, and other Rio Grande pueblos. In Keresan (one of the Pueblo languages), "heishi" is the word for "shell."

The INDIAN ARTS AND CRAFTS ASSOCIATION (IACA) notes that the term heishi now generally refers to small handmade beads made out of any natural material. Other popular materials for heishi include olive shell, spiny oyster shell, mother-of-pearl (*see* ABALONE) and melon shell, PIPESTONE, LAPIS LAZULI, SERPENTINE, and even SILVER (*see* LIQUID SILVER).

Heishi is an ancient form of bead-making, possibly one of the oldest forms in North America, and one that is widely employed by Native Americans of all cultural groups today. Early shell-made heishi came into the American Southwest from trade with groups that traveled to the Gulfs of California and Mexico. Handmade heishi is a labor-intensive process, and this is usually reflected in its price. The materials chosen for use are sliced into strips, then shaped into square pieces. The hole is drilled into each piece, and then the pieces are strung. Once this has been done, the maker starts the painstaking operation of shaping the beads, originally through use of a PUMP DRILL, but now usually on a stone wheel grinder; the jewelry-maker continues the carefully controlled motions until smoothing has been completed. The resultant rough string of cylindrical beads has to be sanded and polished, and often many small pieces or even whole beads are lost during these processes. The creator of a heishi string may take up to a full week to produce just one strand.

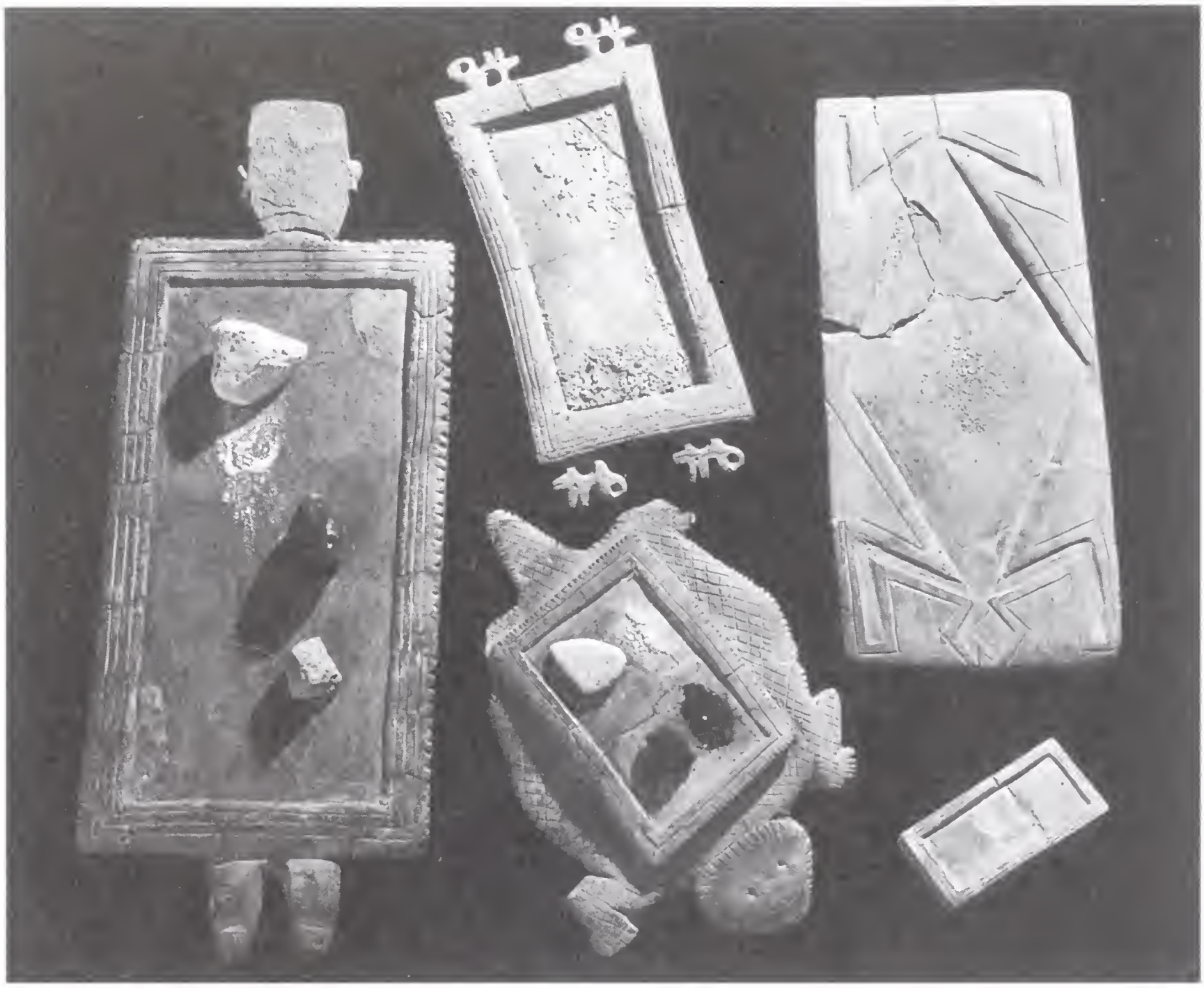
Heishi-style beads can also be duplicated by a manufacturing process; many low-quality imitations come from Taiwan and Southeast Asia. Experts point to the uniform consistency of a string of good, handmade heishi, and contrast this uniformity with inferior products that contain large bead holes and uneven and irregular beads, often made of plastic block or other SYNTHETIC materials that simulate the look of CORAL, JET, or TURQUOISE. Authentic heishi pieces are the most desirable; the way to ensure authenticity is to buy directly from the artist, especially at a juried Indian art venue, or from a reputable DEALER. *See also* BEADWORK.

Further Reading: Bennett, Edna Mae, and John Bennett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs, CO: Turquoise Books, 1973; Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999; Turnbaugh, W.A. and S. Turnbaugh. *Indian Jewelry of the American Southwest*. West Chester, PA: Schiffer, 1988. For additional information, see <http://indy4.fdl.cc.mn.us/~isk/art/beads/heishi.html> and <http://www.collectorsguide.com/fa/fa041.shtml>.

Hohokam

The early inhabitants of what is now south-central Arizona, who left evidence of their existence between 100 B.C. and A.D. 1500. The present-day Pima and Tohono O'odham (formerly Papago) peoples are believed to be the descendants of the Hohokam. Various sources record that the first-known TUROUOISE jewelry of the Southwest was found in their ruins.

The Hohokam interacted with the cultures of Meso-America through trade, and traces of this outside influence can be seen in Hohokam building structures and excavated artifacts, including personal adornment. This



Paint pallets, Snaketown, Hohokam culture, ca. 900-1200 A.D. *Arizona State Museum, University of Arizona. Helga Teiwes, photographer.*

trade network brought materials for jewelry to the region, especially saltwater SHELLS. The Hohokam developed a means of etching designs on shells using acid from saguaro cactus juice; they also inlaid these shells with pieces of local stone (*see* INLAY). Hohokam designs and techniques have been revived and integrated into modern SOUTHWESTERN INDIAN JEWELRY, especially by the Pueblo. Some contemporary fine artists have drawn inspiration directly from Hohokam artifacts, most notably Angie Reano OWEN (b. 1945) of Santo Domingo.

Further Reading: Jernigan, E.W. *Jewelry of the Prehistoric Southwest*. Santa Fe: School of American Research, 1978.

hollow beads

The earliest and most common form of handmade silver BEADWORK, developing over time among native smiths in various regions, but particularly in the American Southwest. Bead halves were stamped from sheet SILVER, soldered together, and then ground and polished until the SOLDER line was flat. Such finishing was laborious, and early hollow beads were generally made in a larger size than the conventional European-American beads of the time created and worn by non-Indians. Bead lengths could be variable and many early hollow bead NECKLACES were strung with beads in graduated sizes. The holes on these early beads usually have a punched-out appearance. Handmade hollow beads are now considered to be a staple of fine art jewelry-making and are much prized. Alternatively, modern native jewelers can use a process for making hollow beads by machine STAMPING and BUFFING (*see* BENCH BEADS).

Hopi jewelry

Jewelry created by members of the Hopi tribe, whose traditional homeland is on three isolated mesas in northern Arizona; the major Hopi villages are Walpi (on First Mesa); Shungopovi, Mishongnovi, and Shipaulovi (Second Mesa); Oraibi (Third Mesa); and the farming community of Moencopi to the west of Third Mesa. Much of Hopi jewelry is done in OVERLAY style. In addition to jewelry, arts for which the Hopi are known include textile weaving (done by men); coiled and plaited baskets (done by women); pottery; and the carving of secularized KATSINA FIGURES from cottonwood, an art form immensely popular with non-native collectors. Many of the decorative motifs on these traditional crafts have found their way onto jewelry design.

The Hopi are the caretakers of a remarkable cultural heritage that has drawn many other native and non-native peoples to regard the aesthetics of their arts with respect. During the early decades of tourism in the Southwest, many visitors were drawn to Hopi because of the famed Snake Dances; Hopi artisans demonstrated their work at Grand Canyon Village as well. In the mid- to late 1930s, Hopi jewelry was promoted and championed by the Museum of Northern Arizona in nearby Flagstaff. The publication of Frank Waters's *The Book of the Hopi* (1963) reignited non-native interest in the Hopi world-view, with its descriptions of Hopi legends, rituals, and ceremonies.

Before their first contacts with Europeans, Hopis fashioned jewelry from BONE, seeds, SHELL, and local stones (including TURQUOISE), according to ancestral ways. Metalsmithing techniques, including silversmithing, came to Hopi somewhat later than to other Southwest tribes. Prior to the mid- to late nineteenth century, Hopi's geographical remoteness precluded sustained local trade with Anglo traders. The earliest Hopi metal ornaments were usually items salvaged from discarded BRASS bullet cartridges and COPPER wire. The first silversmith, Sikyatala of Walpi (First Mesa), learned the process from LANYADE (active 1870s–ca. 1910) after visiting him in Zuni around 1898. Lanyade accompanied Sikyatala back to Hopi; soon, various men from First and Second Mesa, including Duwakuku and Tawahonganiwa (whose four sons also became smiths) were learning the craft in the first years of the 1900s. The earliest Hopi SILVER jewelry was little different from Navajo and Pueblo work; Hopi's lack of traders and distance from sizable towns and cities made the economics and promotion of such works difficult, particularly once the Great Depression started in 1929. Nevertheless, there were sufficient examples of jewelry from the early twentieth century, along with other objects of Hopi material culture, that were gathered into major museum collections in the eastern United States, such as those at Harvard University (Peabody Museum), Yale University, the Smithsonian Institution, and the University of Pennsylvania.

The number of silversmiths at Hopi was small (and often fluctuated) in the first decades of the century. They were primarily men who also engaged in farming and other activities. The early generation of smiths taught by Sikyatala had mostly ceased production by 1920. The next generation of Hopi silversmiths, active in the 1920s and 1930s, included Willie Coin, Bert Frederick, Pierce Kewanwytewa, Lewis Lomay, Earl Numkima, Frank Nutaima, Morris Robinson, and Homer Vance. By the 1940s, some smiths, such as Harry Sakyesva (active in the 1940s through 1960s), were known to have received jewelry-making training and worked off-reservation.

Patronage arrived as a form of relief from Depression-era unemployment and lagging sales when Harold COLTON and Mary-Russell Ferrell Colton, founders of the Museum of Northern Arizona in Flagstaff, attempted to increase silversmithing possibilities for the Hopi. The Museum offered Hopi jewelry for sale in its shop, established an annual Hopi Craftsman Exhibition, and used its authority to advocate governmental and trader assistance. In 1938, the Coltons developed the Hopi Silver Project; the intention of the project was to encourage a new and tribally

Pendant or brooch, silver overlay, 1972, by Hopi Crafts. *Courtesy of The Heard Museum, Phoenix, AZ.*

distinctive silverwork technique and style, using "indigenous and fundamental" designs from other Hopi objects, such as pottery and weaving.

The resultant product was a cleanly wrought silver piece, known as Hopi overlay, which was considered "modern" in its neat, simplified lines. The overlay process involves two pieces of silver; in the top piece, a design is cut out, and then this top piece is soldered onto another sheet of silver. Then the sections of the bottom piece that show through the cut-outs are darkened with OXIDATION for contrast. The overlay style and its technique were taught by artist Fred KABOTIE (1900–1986) and Shungopovi silversmith Paul SAUFKIE (ca. 1910–1998), with governmental assistance. After World War II, these two Hopi men began a school for silversmiths with funding under the G.I. Bill; the school's first course was held in 1947. A new generation of artists studied in this program, including the first president of the soon-to-be established Hopi Silvercraft Cooperative Guild, Bert Puhuyestiwa (active from the 1950s). Soon, other Hopi artists were able to expand on this newly envisioned tribal style. By the late 1950s, the Hopi overlay style had become part of the jewelry-making repertoire of most Indian school arts programs.

Notable silversmiths of the postwar era, especially the 1970s, included Victor COOCHEYTEWA (b. 1922), Bernard DAWAHOYA (b. 1937), Preston DUWYENIE, Philip Honanie, Richard Kagenvema, Pierce Kanateywa, Dan Koitshongva, Leon Lomakema, Patrick Lomawaima, Roscoe Narvasi, Gene Pooyouma, Billy Sekakuku, Emory and Wayne Sekaquaptewa (two brothers who were the founders of Hopi Enterprises, Inc., later called Hopi Crafts, a training ground for many young artists), Manfred Susunkewa (who, like some other artists, later moved from smithing to katsina carving), Ted Wadsworth, and Cheryl Yestewa (Navajo/Hopi). Since the 1950s, most Hopi jewelry has not been marked by a profusion of stonework, as can be seen in Zuni and Navajo silverwork; an exception to this tendency, however, can be seen in the work of Charles LOLOMA (1921–1991).

Loloma, from Third Mesa, emerged in the late 1950s to redirect Hopi jewelry-making into unique lapidary explorations. An educator and innovative designer, Loloma is probably the best-known Native American jeweler in the world. His legacy, along with that of PRESTON MONONGYE (1927–1987), has inspired a number of Hopi fine-art jewelers, including Loloma's nieces Verma NEQUATEWA (b. 1949, also known as Sonwai) and Sherian Honhongva. Other Loloma-inspired jewelers, active since the 1970s, are Chalmers Day, Watson Honanie, Michael Kabotie, Phil Navasya, Philbert Poseyesva, Howard Sice, Charles SUPPLEE (b. 1959), Mitchell Sockyma, and Gary (b. 1953) and Elsie (b. 1951) YOYOKIE.

The start-up of the Hopi Cultural Center on Second Mesa in 1971 also gave many people the opportunity to be introduced to Hopi arts. Jewelers who have gained attention steadily since 1990 include Thomas Banyacya, Jr., Bennard Dallasvuyaoma, Dinah and Bueford Dawahoya, Ramson Lomatewama, Raymond Sequaptewa, Roy Talahaftewa, and Milson Taylor. While overlay continues to be a specialty of Hopi execution and aesthetic appeal, many Hopi jewelers have turned to the exploration of

merging GOLD and silver with PRECIOUS STONES in a variety of unusual shapes and innovative forms. The use of raised INLAY is another area where Hopi artists have made significant contributions. The Hopi may be credited for producing an outstandingly high number of successful fine-art jewelers in the field of Native American art. *See also* SOUTHWESTERN INDIAN JEWELRY.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Colton, Mary-Russell F. "Hopi Silversmithing—Its Background and Future." *Plateau* 12 (July 1939): 1–7; McGibbeny, J.H. "Hopi Jewelry." *Arizona Highways* 26 (July 1950): 18–25; Wright, Margaret. *Hopi Silver.* Flagstaff, AZ: Northland Press, 1972; rev. ed. 1998. See Hopi Cultural Preservation Office Web site at <http://www.nau.edu/~hcpo-p/index.html#table>.

horn

Antlers and horns from bison, deer, elk, and moose were widely used throughout North America, particularly for belt BUCKLES, BUTTONS, and BOLA tie ornaments. The bony, fibrous material is easily worked through heating and shaping. Horn could also be used for SCRIMSHAW work. Carved horn jewelry, using elk antlers, has been revived among some contemporary California Indian artists. In the far north, caribou antler has become a "politically correct" material of choice because it falls off the animal through normal activity and wear, and it therefore can be gathered without harming the animal.

horse

Brought to North America by Spanish explorers and settlers in the sixteenth century, the horse became important to many indigenous peoples, especially those who used the animal for hunting, raiding, and warfare. Cultures from the Plains, Plateau, and Great Basin regions, such as the Sioux, regarded the horse as a great gift. Metal ornaments devised for horse gear influenced native jewelry forms, especially in objects like CONCHAS and NAJAS.

The attributes of the horse—its speed, power, and beauty—are celebrated when the image of the animal is used as a design motif. Western native artists use the image of the horse most often, in pieces ranging from belt BUCKLES to PENDANTS; ranching, stock herding, and the Indian rodeo circuit are all subjects reflected in decorative work. Whether as sacred or everyday images, horses appear in storyteller jewelry narratives (*see* STORY, STORYTELLER) and as isolated figures on BEADWORK and metal pieces. Anglo traders of the early to mid-twentieth century assigned a specious meaning to horses on jewelry as symbolizing a "journey."

In recent years, a number of exhibitions have been created that explore the role of the horse in Native American culture and arts. The sensitive portrayal of the horse by native artists can readily be found in traditional and fine-art jewelry designs, and these also strike a chord with non-natives who are devoted to this animal.

housing. *See* BEZEL

Hubbell, Lorenzo

The Hubbell family and its leader, John Lawrence (later calling himself "Don Lorenzo") Hubbell (1853–1930), ran the noted Hubbell Trading Post in Ganado, Arizona. This post, now a national historic monument, was the site of various endeavors that promoted the development of Southwestern Indian—especially Navajo—arts and crafts. While Hubbell is best known for his encouragement of Navajo weavings into a strong local industry, he also took an interest in native-made SILVER jewelry.

Allied in partnership with like-minded traders (*see* COTTON, C.N.), Hubbell was concerned about ways to improve materials and training for Navajo silversmiths. He brought Mexican smiths to Ganado in 1884 to provide instruction to local native artisans. He also imported Persian TURQUOISE in the 1890s, and he regularly sought sources outside the region for jewelry-making materials. Hubbell expressed concerns about the quality and appearance of native-made silver and turquoise jewelry, and he was concerned with

finding ways to enhance their appeal to a non-Indian market. In a mail-order catalog he prepared around 1902, Hubbell offered silver CONCHA BELTS and silver-and-turquoise BRACELETS for sale. His influential activities continued over the next two decades, with Hubbell campaigning for the growth of native arts into a wider market.

Despite a decline in their financial resources in the decade before Hubbell's death, his family continued the tradition of advocacy; for example, his son, Lorenzo Jr., served as a director on the INDIAN ARTS AND CRAFTS BOARD when it was established in 1935. The senior Hubbell's powerful sense of mission, linked to his business sense and the respect he commanded, typify the best qualities of the trader (*see* INDIAN TRADER; TRADING POSTS). Since the 1990s, the Hubbell Trading Post National Historical Monument has sponsored an annual Hubbell Trading Days event, which recreates what life at a trading post was like during the height of the trading post era (1880s to 1930s).

Further Reading: For additional information, see <http://www.nps.gov/hutr/hubbell.htm>.

Hubbell glass

A term, probably misnamed, that refers to a generic type of glass TRADE BEADS widely used by Native Americans. These beads were made principally in Czechoslovakia and Italy, and their color was meant to imitate TURQUOISE; the tonal value was varied, however, with the main colors gray-blue or turquoise-hued, but also powder blue to darker blue with a purplish MATRIX. A form of pink molded glass bead, a "CORN" bead, was also used for decorative contrast. These beads were imported from the late nineteenth century until about 1923.

Their association with the name Hubbell may have arisen from the discovery of a large cache of such beads at the Hubbell Trading Post in the late 1960s, and the possibility that one of Lorenzo HUBBELL's sons may have actively promoted their use (*see also* IMITATION TURQUOISE). Genuine Hubbell beads are now hard to find, and therefore they are highly collectible items commanding high prices in the antique Indian art market.

Further Reading: Branson, Oscar T. *Turquoise: The Gem of the Centuries*. Tucson: Treasure Chest, 1975; Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999.

Hunt, Richard (1951– , Kwakiutl)

Principally known as a master carver, Richard Hunt has inspired new ways of creating two-dimensional Northwest Coast-style jewelry. Hunt apprenticed with his father, Henry Hunt, and brother Tony HUNT (b. 1942). Despite many commissions in Canada, the United States, and abroad, Hunt spent time in 1993 studying new jewelry-making techniques at Camosun College (Victoria, British Columbia). Hunt has exhibited throughout British Columbia, Canada. **Museums:** American Museum of Natural History, New York City; Department of Indian and Northern Affairs, Ottawa; Canadian Museum of Civilization, Hull, Quebec; University Museum of Anthropology, Philadelphia, Pennsylvania. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art*. Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum. For additional background, see <http://collections.ic.gc.ca/artists/hunt_richard.html>.

Hunt, Tony (1942– , Kwakiutl)

Along with his famous father, Henry Hunt, and brother Richard HUNT (b. 1951), Tony Hunt is best known as a Northwest Coast master carver and printmaker. However, his jewelry designs are also in great demand, and they are found in galleries and museum shops throughout Canada. His carving techniques and love of MASKS and figural sculpting can be seen in his RINGS and his imaginatively shaped PENDANTS and pins. He works in both REVIVAL STYLES and fine art explorations of

"transformation" imagery (in which shamanic revelations can transform a man into a beast, then back to a human); these works possess innovative touches that attest to his high status among Northwest Coast native artists. He has exhibited extensively in Canada and the United States, largely during the 1970s and 1980s, and has undertaken many public and private commissions. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art.* Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum. For additional background, see <http://www.chieftonyhunt.com/> and <http://collections.ic.gc.ca/artists/hunt_tony.html>.

I

imitation turquoise

Because of the limited availability of natural TURQUOISE, many types of imitations have been devised. There are three categories of imitations: GLASS or enamel substitutions; SYNTHETIC compounds, many with virtually identical chemical properties, and therefore hard to detect as imitations; and substitutes of other mineral materials, such as AZURITE, chrysocolla, greenish CHALCEDONY, lazulite, and VARISCITE, which resemble natural turquoise closely.

Plastic "block," also called "cake," is now one of the most common substitutions for turquoise on the market; many pieces, especially HEISHI, are made from plastic block and are simulated to look like the genuine article, even down to the creation of "MATRIX" markings. Generally, fake turquoise feels denser and heavier than the real stone. Intense scrutiny through a high-powered magnifying loupe can sometimes detect glass, but the detection of imitations is difficult. Certain tests can uncover imitations, but these often involve handling, and possibly damaging, the stone. A technique developed in the 1980s using near-infrared spectroscopy is most promising in detecting imitation turquoise.

Indian Arts and Crafts Act

The Indian Arts and Crafts Act of 1990, P.L. 101-644 (104 Stat. 4662), cosponsored by Representative Ben Nighthorse Campbell (b. 1933) of Colorado—himself a Native American jeweler (*See* NIGHTHORSE, Ben)—sets federal definitions for authenticity of native arts (including jewelry) and allows for criminal action (including fines and prison terms) against violators who create FAKES AND FORGERIES. Under the act, imitation goods must be represented truthfully; artists must be tribally enrolled in a federally recognized tribe, nation, or village; and imports require accurate labeling.

Attempts to regulate Indian products for authenticity have had a mixed history throughout the twentieth century in the United States. After its establishment in 1935, the INDIAN ARTS AND CRAFTS BOARD (IACB) fought many battles on behalf of Native American artists and their work. However, these efforts often failed in the face of inconsistent enforcement; in many cases, legal recourse has fallen to the consumer fraud units of state governments. Therefore, Congress drafted legislation to protect native artists.

In essence, the act is a truth-in-advertising law that prohibits misrepresentation in marketing of native arts and crafts products within the United States. The act makes it illegal to offer, display for sale, or sell any art or craft product in a manner that falsely suggests that it is native made. Individuals violating the act face civil penalties up to a $250,000 fine or a five-year prison term, or both. Businesses found in violation of the act can be prosecuted and fined up to $1,000,000.

However, the language of the act concerning tribal certification and the nature of an "Indian product" has been the subject of extensive inquiry, and questions from those in the Indian arts industry extended resolution of the act's definitive wording into the mid-1990s. Some opposition still exists to this specific increase of governmental regulation, particularly among artists who may have trouble in obtaining tribal enrollment papers; many people experienced in the Indian arts business also feel the problems are too entrenched. Enforcement remains a concern, and only time will tell if the Indian Arts and Crafts Act becomes an effective tool against artwork, including jewelry, of questionable origins. In the late 1990s, the state governments of Arizona and New Mexico initiated their own legislation (such as the New Mexico Indian Arts and Crafts Sales Act) and began some actions against fraudulent materials and various sellers of such goods.

Further Reading: Sheffield, Gail K. *The Arbitrary Indian: The Indian Arts and Crafts Act of 1990.* Norman: University of Oklahoma, 1997.

Indian Arts and Crafts Association (IACA)

The mission of this international nonprofit organization, as stated in its membership brochure, is "to support the effective protection and ethical promotion of authentic Native American arts and material culture." Members agree to promote and preserve handmade native creations and aid buyers to find reliable sources of authentic arts and crafts.

Membership logo, Indian Arts and Crafts Association (IACA). *Courtesy of the Association.*

The association, started in 1974, attempts to achieve these goals through various activities, such as the use of the IACA logo by members, indicating that they will adhere to ethical practices in their sales; sponsorship of two annual wholesale markets for retailers, held in the spring and fall; distribution of publications on resources, services, and artists; seminars for educational purposes; an annual award for member artists; and national advertising and advocacy for members.

Categories for IACA membership include individuals (artists and collectors), organizations, and retail and wholesale businesses; all members agree to abide by a six-point "code of ethics." The IACA has taken a leadership stance against fraudulent practices in the Indian arts industry, such as perpetual discounting, block TURQUOISE (see IMITATION TURQUOISE), and cast jewelry misrepresented as handmade; the association also generates publicity about unethical DEALER claims. The organization serves as an important voice for consumer education, with the realization that the sale and promotion of Indian jewelry, among other native arts, requires special safeguards. Members are granted a revocable license to exhibit at the established IACA wholesale markets.

The conditions stipulated for jewelry products include the following: (1) the metal content of a piece must be clearly identified; (2) pieces may not contain or possess multiple-cast or machine-made parts; (3) FINDINGS are the only non-handmade materials permitted; (4) SILVER BEADS that are not Indian handmade must be so identified; (5) stones should be natural and must be correctly identified if altered; (6) man-made materials used in stones are not permitted, including "block"; (7) stabilized turquoise HEISHI and FETISH CARVINGS are allowed (*see* STABILIZING); and (8) imported items are absolutely prohibited. Inspections take place during these markets, and penalties are invoked for violations.

Further Reading: For more information, see the IACA Web site at <http://www.iaca.com>.

Indian Arts and Crafts Board (IACB)

The Indian Arts and Crafts Board (IACB), an independent federal agency within the United States Department of the Interior, was created in 1935 to ensure governmental advocacy of Indian culture through the development of arts and crafts. The IACB continues to pursue this mission, now sponsoring native craft enterprises throughout the United States, administering museums, and publicizing the works of native artists.

A New Deal-era program, the IACB came into existence through Public Law 74-355 (49 Stat. 891; 25 U.S.C. 305 et seq.; 18 U.S.C. 1158-59). The first IACB board of directors contained some highly placed authorities on Indian affairs, ranging from legal experts to individuals who were active in the Indian arts marketplace. Starting in the 1930s, the IACB focused on efforts to aid the recognition and promotion of Indian arts through exhibitions and expositions around the United States. Specifically, the IACB became involved in three areas related to Indian jewelry: advocating SILVER standards and regulations; ensuring that Indians would have the means to make good-quality jewelry despite adverse economics; and campaigning for the elimination of imitation Indian handicrafts sold in sales shops in the national parks.

Several exhibitions held in the late 1930s and early 1940s were the product of IACB committee members, and these events were accompanied by extensive efforts to bring Indian-made arts to the general public through retail and related outlets. During the next two decades, the IACB worked extensively on aiding the establishment of tribally owned crafts GUILDS and cooperatives, as well as other marketing ventures. Field representatives from the IACB assisted native efforts in finding better sales venues for products.

These same goals continue today, as the board supports the promotion of more than 260 native-owned craft marketing enterprises operated by Indians, Aleuts, and Inupiat. In addition, the IACB produces a directory for consumers that identifies such businesses. The IACB also administers three federal museums (the Southern Plains Indian Museum, Anadarko, Oklahoma; the Sioux Indian Museum, Rapid City, South Dakota; and the Museum of the Plains Indian, Browning, Montana; *see* Appendix) and provides publicity about the works of native artists, including many jewelers and beadworkers, through exhibitions and biographical data. *See also* BEADWORK.

Further Reading: Schrader, Robert F. *The Indian Arts and Crafts Board: An Aspect of New Deal Policy*. Albuquerque: University of New Mexico Press, 1983. For additional information, see <http://www.artnatam.com/law.html>; for various sections of the law, see <http://www4.law.cornell.edu/uscode/25/305.html>; <http://www4.law.cornell.edu/uscode/25/305a.html>; <http://www4.law.cornell.edu/uscode/25/305e.html>; <http://www4.law.cornell.edu/uscode/18/1158.html>; and <http://www4.law.cornell.edu/uscode/18/1159.html>.

Indian Maid

One of several labels attached to imitation native jewelry during the early and mid-twentieth century suggesting Indian origins when native artisans actually had no involvement. Another such term was "Indian Style."

Shortly after 1910, the Denver firm H.H. Tammen began making imitation Indian jewelry by mass-production techniques, thereby undercutting prices for the authentic handmade product. Other U.S. manufacturers, many of them staying anonymous in their marketing, also began turning out these items. Various companies' lines of manufactured imitation Indian jewelry proliferated from the 1920s through the 1950s. Often selling their pieces in "five and dime" stores, these firms used evasive names for their product, including "Indian Style" and "Indian Maid," rather than the actual company name.

"Indian Maid" became a term of derision to proponents of genuine Indian arts and crafts. Such manufacturers' intentions were emblematic of the dark side of the Indian curio market, which often traded on appearances. Aside from falsely hinting at native origins, this imitation Indian jewelry was spe-

cious on several other counts: the manufacturers used unspecified metal ALLOYS (known as "white metal" and passed off as genuine silver), added bogus gemstones of PASTE or GLASS, and invented Indian designs for decoration.

It is important to understand the distinction between these products and those offered by the FRED HARVEY COMPANY. Harvey pieces were in fact executed by Indian workers (operating through trader middlemen), based on specifications dictated by the company.

More recent studies of the Indian souvenir market paint a less dire portrait of "Indian Maid" jewelry, with claims that early purchases of such items have led to appreciation and pursuit of the genuine article. However, it cannot be emphasized enough how worrying "Indian Maid"-type products were to Indian arts advocates of the early to mid-twentieth century. In time, this concern was reflected in the promotion of HALLMARKS for STERLING SILVER pieces, and emphasis on the handmade and the authentic. Collector demand for imitation and souvenir Indian-style jewelry is cyclical; these items do appear from time to time, and DEALERS and INDIAN TRADERS will display examples for educational or contrast purposes.

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Indian Market

Also known as the Santa Fe Indian Market, this annual event is the largest all-Native American arts and crafts venue in North America. It originated in Santa Fe, New Mexico, in 1922 as an exhibition of Indian arts meant to encourage sales to non-natives. The market, usually held on the third weekend in August, sprawls across Santa Fe's central plaza and onto surrounding streets.

Indian Market's organizers were a band of European American advocates of Indian rights and the preservation of native cultural heritage, then called the New Mexico Association for Indian Affairs (New Mexico AIA)—a powerful lobbying force against the Bursum Bill and other threats to local native peoples (*see* SWAIA). Indian Market has survived, celebrating its seventy-fifth anniversary in 1997; throughout the years, it has retained its reputation as a prestigious arts show for established and emerging native talent. Sponsored by the Southwestern Association for Indian Arts, Inc. (SWAIA), participation is juried and invitational; to enter this event, applicants must prove their tribal affiliation and produce works of outstanding aesthetic merit that fit SWAIA guidelines. Some of the criteria for how Indian Market entries must be made, imposed for the purposes of ensuring authenticity and consumer satisfaction, are controversial. (Compare with the GALLUP INTER-TRIBAL INDIAN CEREMONIAL, whose marketplace is more of a combination of Indian artists and non-native traders displaying and selling goods.)

Artists may also submit individual pieces to be judged, and they can receive prizes in a variety of categories. For jewelry alone, there are seven divisions; numerous subcategories within these divisions cover such forms as NECKLACES, BRACELETS, and belts, and types of technique such as INLAY and CHANNEL WORK, hand-drawn metal beads, and nontraditional SHELL or stone jewelry. A preview of prize-winning items is held on the eve of the market, so avid collectors can decide on what they would like to buy; this activity can be quite competitive and has given rise to the famed practice of collectors "staking out" their favorite artists' booths well before opening.

During the market itself, booths are checked by SWAIA evaluators to verify that materials are authentic and items are handmade. Some of North America's most celebrated fine-art jewelers have launched their careers at Indian Market. The sales from this event often represent a large percentage of many native artists' yearly incomes. Indian Market is a celebration in its own right, allowing attendees a good survey of the best in contemporary Native American arts.

The management emphasis for Indian Market has been controversial in recent years, as the SWAIA board and staff have devised varying ways to deal with the continuing demand for more artist participants. Over the

years, the number of new booths has been limited, and artists holding booths have had to share space with younger relatives informally, since families retain booth rental privileges for long periods. While an area for young artists has often been demarcated, the problem of additional booths remains. In the last few years, the market has been extended to another side street off the Santa Fe plaza. Booth size and numbering has been experimented with, but many artists are resistant to any major changes in the overall organization. Indian Market has become an international attraction. Although Indian arts industry sales fluctuated in the 1980s and 1990s, the market's reputation as a leading venue for top native arts has grown ever stronger.

Some devotees of Indian jewelry argue that Indian Market is not the best place to buy pieces because prices are at a premium. This argument does not necessarily carry much weight with the most enthusiastic collectors, who wait all year to see what their artists have brought to the market. Some fine-art jewelers also complain that many other would-be purchasers (not the collector crowd) try to bargain, or haggle, for reductions in the prices of their creations; this practice is not welcome by those who believe they are producing unique art works.

The dilemma here may reside in the long-standing perception by the general public about the variability in quality and price of Native American jewelry. The old practice of "50 percent discount off the marked price" (still done by some stores) also works against native artists. The potential consumer attending Indian Market should understand that this is a serious venue, intended to allow the display and sale of the finest works. At the same time, it is understandable that consumers may be confused, because even at the market, there are differing categories of native artists, and substantial differences in quality. A well-established native jeweler, especially one with a devoted following, will certainly charge much higher prices than a young, up-and-coming silversmith. Ultimately, Indian Market is a potentially rewarding training ground for the Indian jewelry consumer, with benefits and pitfalls that may simply be part of the inevitable collector experience.

Further Reading: Tryk, Sheila. *Santa Fe Indian Market: Showcase of Native American Art*. Santa Fe: Tierra Publishers, 1993. View the SWAIA Web site at <http://www.swaia.org>.

Indian style. *See* NATIVE STYLE

Indian trader

Initially, in colonial times, any person who engaged in various means of exchanging goods with native peoples. From this original meaning, the term later came to mean individuals who had established (or worked through) TRADING POSTS on or near reservations and engaged in commerce with Native Americans. Indian traders located on reservations must be licensed by the U.S. government. Many traders, particularly those located in the American Southwest, had the means to influence the development of local silversmithing and jewelry-making practices.

The creation of the professional Indian trader took various turns in the United States and Canada. Traders who exchanged goods with the indigenous peoples of North America appeared shortly after the first waves of exploration and immigration from Europe, when it became known that the continent possessed rich natural resources. Whether Spanish, French, English, or, much later on, Anglo-American, these traders engaged in various means of commerce. They actively imported glass TRADE BEADS as well as the materials for making TRADE SILVER; as SILVER became an important metal for jewelry-making, traders supplied native smiths with currency for making COIN SILVER, INGOTS, and, later on, sheet silver. In Canada, the French principally pursued trading for pelts (*see* FUR TRADE); while covering large tracts of the northern territory in search of furs, they initiated many first contacts with native peoples. By the time Great Britain took complete control of the country in 1763, the large Hudson's Bay Company had established a virtual monopoly over most of northern Canada, largely because the company was the

first to take the great financial risks and expend the capital needed to cover the vast distances and remote locations of trading posts. Hudson's Bay employees manned these posts, and they played an active role in identifying local native arts and crafts as potential trade commodities. In the United States, commercial companies did not fare as well with trading. The federal government, almost from the earliest days of independence, established laws for controlling Indian trade, largely to prevent abuses by private operators. The strongest of these laws was the 1834 "Act of Congress to Regulate Trade and Intercourse with Indian Tribes."

The concept of Indian reservations in the United States was created in the Indian Removal Act of 1830 (which designated the large tract of land called "Indian Territory" in Oklahoma), but boundaries of specific reservations did not occur until the 1850s. The advent of reservations, among other things, created a "captive" market for enterprising white traders, who established posts in the Indian territories (with licenses from the federal government) and could benefit from true monopolies within the reservations (or over a sizable portion of the larger reservations). In Canada, the Indian Act of 1876 codified the system of reserves for indigenous peoples; such reserves had developed out of treaties as early as the 1760s in the East, but not until 1871 in the West.

Independent traders continued to move through the United States, with the largest number of posts established in a westerly direction from Missouri to the Pacific Coast. Trading posts were combinations of general store, bank, post office, and meeting place. The trader's activities were monitored by Indian agents, federal employees who operated as the local authority in Indian-white relations. At trading posts, the traders would serve a local native community, providing supplies in return for such bartered goods as wool, livestock, hides, crops, and craft work. Indian arts and crafts were considered to be commodities in their own right in the Southwest; on the Navajo reservation, traders also permitted their native customers to PAWN various types of personal possessions, including jewelry, as collateral for hard goods or credit towards purchases. Such transactions were important in a frontier environment, and in a time when transportation was difficult and risky.

Early traders in the Southwest often took over activities that could be seen as extensions of an Indian agent's role. The traders played an important role in supplying native-made goods to major anthropological museums, such as those attached to Harvard University and the University of Pennsylvania, and assisted these institutions' various artifact-gathering expeditions of the late nineteenth and early twentieth centuries. Such traders were also usually consulted concerning the availability of native materials and labor for the international expositions of the times. Thomas Keam, licensed to trade with the Hopi by 1875, and Douglas Graham, the first trader to open a store at Zuni Pueblo (in 1881) were representative of the new breed of Indian trader. The heyday of the Indian trader's influence stretched from the 1880s to World War II; during this period various notable individuals successfully marketed and encouraged Indian products, including silverwork, to interested non-native tourists and collectors (*see* COTTON, C.N.; HUBBELL, Lorenzo; WALLACE, C.G.).

Traders assisted native jewelry-making by supplying TURQUOISE from various mines, or importing this stone from abroad when local mines played out. They also obtained SILVER for smithing and tools and materials from commercial supply houses. Traders worked to establish markets for local smiths and jewelers, and attempted to encourage certain design motifs and styles that seemed to be popular with non-native consumers. Visitors to trading posts might buy jewelry there and often became collectors who looked to certain traders as a source for future acquisitions. After 1950, reservation traders were forbidden to use pawn as collateral; however, the practice continues off-reservation, particularly in towns along the borders (such as Gallup, New Mexico, and Winslow, Arizona,

which are on the edges of the Navajo Reservation).

In the late twentieth century, the small number of remaining traders includes individuals vigorously involved in the promotion and marketing of local native arts. Many of these businesspeople are members of an organization for traders, the United Indian Traders Association (founded in 1931), which was influential in the early to mid-twentieth century; the association still sponsors scholarships and related activities. Being an Indian trader has traditionally been hard work, requiring strong local ties and sharp business acumen. In northern Arizona, western New Mexico, and southeastern Utah, a small, but well-networked, number of trader families, have carried on businesses over several generations. Some prominent names for this group include Babbitt, Carson, Foutz, Garcia, Kelsey, Kennedy, Kirk, McGee, Simpson, Tanner, VanderWagen, Wagner, Wheeler, and Woodard. One influential individual from the Southwest, Clay Lockett, was honored in the early 1990s with an exhibition in his honor at the Museum of Northern Arizona in Flagstaff, where he had established a high-quality museum sales shop. During the 1970s in the Southwest, traders were strongly criticized by newly politicized native communities over prices and credit practices. As a result of this activity and other industry developments, far fewer Indian traders were in operation in the late 1990s than at any time previously in the century. The glittering pawn vaults and cases of the last active trading posts have incited potential collectors and enthusiasts, as can be witnessed by the true scarcity of genuine pawn jewelry.

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ingot, ingot mold

Metal cast into a block for storage; in a native metalworking context, silver coins (U.S. and Mexican) that were heated, melted, and poured into sand or volcanic stone molds to cool. In the early days of native CASTING (the late nineteenth century)—before the advent of SILVER slugs and sheet silver that refineries sold to INDIAN TRADERS for resale or distribution to native artisans—such metal was cast into ingot form for later finishing, including further casting, hammering, or rolling. Most early COIN SILVER jewelry was made by the ingot process, but the use of coin silver decreased after 1930 when silver slugs and then sheets of STERLING SILVER became available and were adopted by smiths.

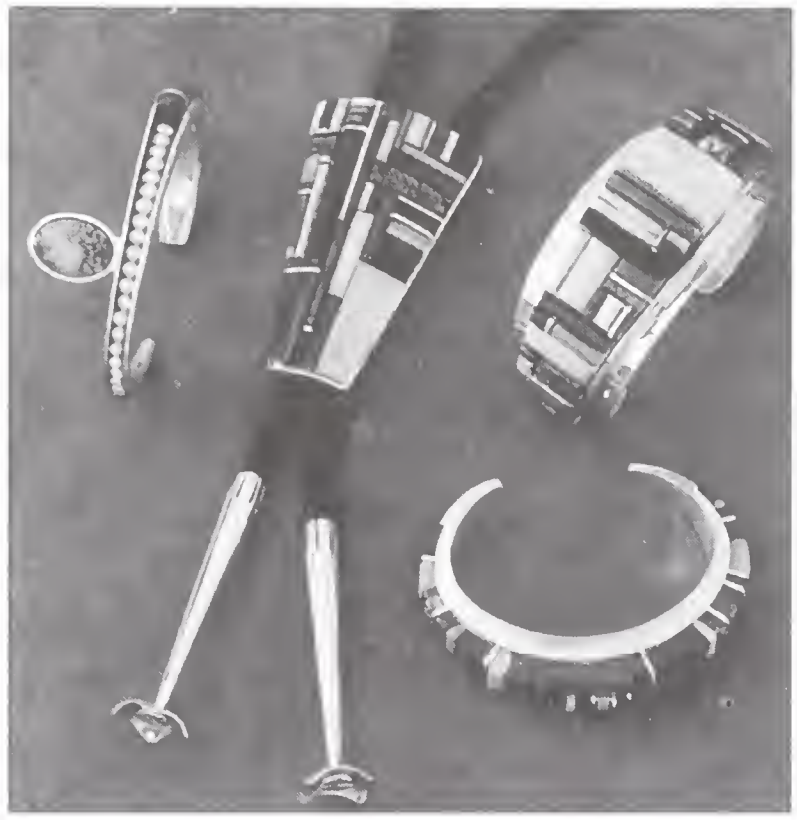
The REVIVAL-STYLE trend, however, has reanimated native smiths' interest in ingot and coin casting, and some contemporary jewelry-makers are creating such pieces. Notable fine-art jewelers have rediscovered the concept of working with ingot silver, including Cipriano (Cippy) Crazy Horse (Cochiti), Phillip LORETTO (b. 1951, Jemez), and McKee Platero (Navajo). Consumers should be aware that disreputable producers of FAKES AND FORGERIES have also fastened onto the use of the ingot silver process as a technique that can render modern pieces that are passable imitations of true older jewelry.

inlay

A jewelry design technique, used especially in SOUTHWESTERN INDIAN JEWELRY, in which colored material, such as SHELL or TURQUOISE, is glued onto a base. By the late nineteenth century, the base was usually made from SILVER, and recessed compartments or channels were created into which the colored pieces could be set. (In contrast, CHIP INLAY uses small pieces left over from lapidary grinding.)

The inlay process has precedents that date back to the centuries before the arrival of Europeans in North America. Early Southwestern peoples, such as the HOHOKAM and Salado in south-central Arizona, excelled at this personal adornment technique, but the inlay process was used in other regions as well, including the California Coast and early Southeastern cultural areas.

Even into the late twentieth century, native artists have continued to be experts in setting decorative material onto the surfaces of other substances, such as shell or silver, without elevating the surface of that substance; this is largely done by precisely cutting, grinding, and enclosing such decorative material into BEZELS or grooves. Most native lapidarists work with three main types of inlay: flat, raised, and etched. *Flat inlay* calls for a decorative stone to be fit tightly into a groove and then ground flat on top until its surface is flush with the groove's top. *Raised inlay* follows the same procedure as in flat inlay, but the set-in stone's top is rounded, not ground flat, and can even be carved for effect (the trademark of many fine-art jewelers). In *etched inlay*, a set-in stone is etched with a design that may relate stylistically or thematically with designs in the metalwork. In the 1970s, Zuni jewelers began a variation on the inlay process by creating a new technique called *overlay inlay*; the OVERLAY technique is followed, involving the use of a BACKING and a cut-out design. However, while most jewelers would then create a textured or oxidized surface for the cut-out design once it is soldered onto the backing, the Zunis inlay this recessed area with small multicolored stonework.



Bracelets and bolo tie with raised inlay on silver, made 1990s, by Sherian Honhongva (Hopi). *Courtesy of Lovena Ohl Gallery, Scottsdale, AZ.*

The inlay technique, in all its variations, has been widely adopted by native jewelers from a wide range of cultural groups. Inlay has been most frequently associated with Southwestern Indian jewelry-making, and Zunis have proved its most adept practitioners in both MOSAIC inlay and channel inlay modes. Jewelers Ben NIGHTHORSE (b. 1933; Southern Cheyenne) and Ray TRACEY (b. 1953; Navajo) have brought inlaid designs on jewelry to popular attention, and inlay jewelry is now commonly associated with Native American jewelry styles. Charles LOLOMA (1921–1991; Hopi) made the sculptural effects of raised inlay into new and unusual shapes for jewelry pieces. Contemporary fine-art native jewelers have introduced yet further refinements for the technique; for example, Irene and Carl Clark, and their son Carl Jr. (Navajo), are the creators of a technique called *microscopic inlay*, which is actually a form of intarsia (mosaic) inlay requiring the complex arrangement of many micro-fine stones that are ground, scaled, and shaped into delicate fine designs. *See also* CHANNEL WORK; ZUNI JEWELRY.

Institute of American Indian Arts (IAIA)

Established by U.S. federal charter, the Institute of American Indian Arts (IAIA) is an accredited two-year college dedicated to the study and practice of American Indian and Alaska Native arts and culture. The IAIA offers a general art curriculum enhanced by a special focus on the study of Native American cultural heritage. Students completing the IAIA program receive an Associate of Fine Arts degree.

Located in Santa Fe, New Mexico, the federally funded institute started in 1962 after research and recommendation by the U.S. Department of the Interior's INDIAN ARTS AND CRAFTS BOARD (IACB). Noted native educator Lloyd Kiva New played a major role in defining the new institution's mission and outlook. Formally titled the Institute of American Indian and Alaska Native Culture and Arts, the college averaged, in the 1991–1992 academic year, about 220 students from 76 tribes; there were 25 students in the 1999 graduating class. The institute also has a museum studies program centered around an institutional museum with a rich permanent collection; this collection contains a wide range of jewelry and METALWARE made by alumni. Jewelry-making has been taught there regularly, and the program has included such distinguished faculty as Charles LOLOMA (1921–1991, Hopi), Preston DUWYENIE (b. 1951, Hopi), Millard Holbrook, and Lane Coulter.

Many well-known contemporary fine-art jewelers have studied at the IAIA. These artists' impact on post-1970s native jewelry-making—through the encouragement of experimentation with forms, techniques, and designs, investigation of mainstream jewelry trends, and the fostering of individualism in artistic expression—is deeply significant. An IAIA publication from 1992, *Creativity Is Our Tradition*, highlights the number of expanded educational activities that have made IAIA-trained artists so influential.

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Inuit, Inupiat, and Aleut jewelry

Jewelry created by the indigenous peoples of the northernmost parts of North America, including the Inuit and such neighboring groups as the Inupiat of northern Alaska, the Yup'ik of southern Alaska, and the Aleut (or Sugpiaq).

Long known to non-natives as Eskimos (an Algonquin word), the indigenous peoples of northern Canada and northern and southern Alaska are now known by their preferred collective name of Inuit; individuals are referred to as Inuk. Jewelry and other body ornaments identified ethnic or social distinctions among peoples; decoration of garments was often more important than the wearing of conventional ornamental forms of jewelry. In terms of the latter, however, early choices were LABRETS and PENDANTS. Since pre-contact times, Inuit craftspeople hand-created adornments using such local materials as COPPER nuggets, IVORY, BONE, stone (including jade and JET), hair, and hide. European explorers and traders offered glass TRADE BEADS, which quickly became popular. Today, walrus and vegetable ivory are popular materials, along with SOAPSTONE, whale baleen, and caribou antler; copper, SILVER, and GOLD are increasingly used, individually or in combinations.

The impetus for modern Inuit-made jewelry came in the 1950s and 1960s with the intervention of European Americans, who saw jewelry-making as a viable craft sideline, suitable for tourism and curio purposes. While Inuit artists are best known for their carvings, Inuit jewelry pieces generally portray the same subject matter, drawn from nature and local lifeways, for example, images of marine and land animals, hunters and other human figures, and traditional objects, or scenes from stories of legends and mythic beings, and even shamanic transformations. In recent years, environmental concerns have led jewelry-makers to begin using such materials as caribou antler, which is shed natu-

"Ancient Voices Brooch," copper and sterling silver, 1997, by Pootoogook Qiatsuk (Cape Dorset Inuit). *Photo by Beth M. Biggs.*

rally by the animal. Because jewelry-making derived from tourist or non-native interests, the forms created—pins, pendants, EARRINGS, and jointed BRACELETS—are generally portable and suited to carving.

Inuit jewelry is marketed, much like carvings, through governmental, cooperative, GUILD, and private outlets. "Eskimo art" began to be marketed in earnest from the 1930s on, with a strong push from 1961 to 1989. Alaskan crafts have been vigorously promoted through the United States Department of the Interior's INDIAN ARTS AND CRAFTS BOARD (IACB). Some products are marked by a "Silver Hand" symbol, used to indicate authenticity. Alaskan Inupiat artistry has also been strongly influenced by Russian and Scandinavian settlers. Increased tourism in the 1980s and 1990s assisted the interest in, and demand for, native crafts. A biographical directory of Canadian Inuit artists includes the following individuals who noted that they created and exhibited jewelry in the 1970s and 1980s: Enook Manomie and Qaunak MIKKIGAK (b. 1932) from Cape Dorset, an area noted for its artists; Leoni Nuyaoqiq Aaluk and Martha Kamookak Kernerk from Gjoa Haven; Nuveeya Ipellie and Pudloo Josephie from Iqaluit; Paul Angiliq (Apak) of Igloolik; Davidee and Eva Ituluk and Elijah Michael (Eelaya) of Lake Harbour; and Madeleine Isserkut Kringayark of Repulse Bay.

Two exhibitions of the 1970s also gave important exposure to Inuit jewelry creation: "Cape Dorset Jewellery" in 1976, organized by the Canadian Guild of Crafts Quebec in Montreal, and a touring exhibition that ran from January 1978 to August 1980, "The Things that Make Us Beautiful," from the Department of Indian Affairs and Northern Development.

A new generation of college-trained artists is developing Inuit-made jewelry along innovative lines. Nunavut Arctic College (Nunatta Campus at Iqaluit) started a Fine Arts and Crafts program in the fall of 1989. Out of this project began the Nunavut Arctic College Jewellery Program, offering a two-year diploma and various short-term courses held in scattered communities. The results of this educational program have been remarkable, as witnessed in a 1997 exhibition at the Spirit Wrestler Gallery in Vancouver, British Columbia, "Amulets to Art: An Exhibition of Arctic Jewellery," and another in 1998, "Iniliuqtut, Making Our Mark: Inuit Jewellery and Metalwork" (*see* bibliography for catalog). Some young jewelers of note that have emerged from this training are Mark Eetak, Sandy Okatsiak, Matthew Nuqingaq, and Nancy Tasseor of Arviat; Paul Nagyougalik, Elizabeth Haqpi, and Elizabeth Paungrat of Baker Lake; Inuk Charlie and Leona Poodlat from Cambridge Bay; Michael Qilluq of Clyde River; Pootoogook Qiatsuk of Cape Dorset; and Okpik Pitseolak of Iqaluit. These young artists proudly assert that they are, in effect, creating a new tradition with their jewelry-making and METALWARE. Their pieces are completely contemporary in appearance, yet well-marked by an enduring awareness of their cultural heritage and its visual meaningfulness. Others who have had their works sold through the Canadian Guild Shops, and who are popular with collectors of native craft works, are Jacobie Adamie, Joe Akeeshoo, Mark Airut, William Ekomiak, D.W. Kilabuk, and the Nowldvak family, Annie, Lucassie, and Peter.

While Inuit carvings have gathered international acclaim as fine art, jewelry has lagged behind, still categorized as a craft. However, the prospects for its development are promising. The rich iconography and humor of these Arctic peoples' art can be seen in contemporary pieces rendered in silver, gold, soapstone, jade, and ivory. A number of artists have also acquired international reputations as jewelers and educators, including Mike MASSIE (b. 1962) of Labrador, Melvin OLANNA (1941–1991, Inupiaq), Ronald SENUNGETUK (b. 1933, Inupiaq), and Ovilu TUNNILLIE (b. 1949; Cape Dorset). Inupiaq jewelers Leonard Menka and Lincoln Milligrock are well-respected. Denise WALLACE (b. 1957, Sugpiaq [Aleut]), who lives and works in Santa Fe, New Mexico, has gained a wide following for her beautiful and intricate pieces based on imagery from her Aleut heritage. Canadian native-art authorities made statements in the 1990s that Inuit, Inupiat, and Aleut stone and metal jewelry will become a stronger artistic force over the next decades, attracting a broader base of collectors.

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ironwood

A natural dark brown-toned material used in jewelry-making, usually for INLAY. Ironwood is taken from the hard, durable dark wood of trees and shrubs found in the desert regions of the American Southwest, most notably from mesquite and tesota bark, and from manzanita shrub. In the early 1950s, the noted Navajo silversmith KENNETH BEGAY (1913–1977) was the first native artist to create jewelry made from ironwood set in SILVER. *See also* SOUTHWESTERN INDIAN JEWELRY.

Iroquois jewelry

Of all the cultural groups of the eastern Woodlands, the Iroquois—the six nations comprising the Haudenoshaunee Confederacy: (Cayuga, Mohawk, Oneida, Onondaga, Seneca, and Tuscarora)—have become the best-known jewelers, particularly in their tradition of working SILVER for ornamentation. The Iroquois people now live mainly in scattered reservations and residences in northern New York State, and on reserves in the provinces of Ontario and Quebec.

Heart-shaped silver brooches, possibly based on a design from Scotland, non-native and Iroquois-made. *Canadian Museum of Civilization, Image #80-6212.*

The Iroquois traded with the Europeans for silver objects, including decorative items, as early as 1700. Their preference for silver over pre-contact era COPPER, and other imported metals, was quickly established. Iroquois men and women began to wear adornment such as armbands, brooches, CROSSES, EARRINGS, finger RINGS, GORGETS (breast ornaments), "Jesuit" rings, and wristbands; these items were eagerly sought in trade, given as gifts, and eventually made for local use. Iroquois silversmithing began around the end of the eighteenth century and reached its peak by the 1860s, then declined. By 1907, there were only a handful of native smiths at work. Yet metal craftwork never vanished completely, and a later revival of sorts came during the Depression in the 1930s with a Works Progress Administration (WPA) Arts and Crafts Project in connection with the Rochester (New York) Museum of Arts and Sciences.

The rich variety of Iroquois-made jewelry forms and styles reveals the strong effects of cross-cultural influences. Designs were based on specific patterns brought to North America by silvermiths of French, English, and Scottish heritage. Trade ornaments from the French and English can be seen in various brooch types, such as double-barred crosses, heart-shaped pins, and "council fire" brooches. These pieces were usually engraved with animal, floral, geometric, or human designs. PENDANTS in a "chestnut" shape and circular- or crescent-formed gorgets were popular. Men wore sheet silver armbands exclusively in the nineteenth century; their use disappeared by 1900 when most Iroquois began to wear European American shirtsleeves.

Such a strong legacy of silversmithing and strong design taste has been retained by contemporary artists, and BEADWORK pieces have also seen a revival. In addition to the WPA project, there have been other government-sponsored programs (*see* POWLESS, Arthur). The revival of older Iroquois techniques and decoration is taken seriously by contemporary artists, who display their works for exhibition and sale at a growing number of venues.

Attendance at Iroquois festivals in New York State and Ontario, Canada, by non-natives is rising, along with demand for Iroquois crafts. Exhibitions at the Iroquois Indian Museum, Howes Caves, New York, and the Woodland Crafts Centre, Brantford, Ontario, among others, have exposed viewers to a rich variety of art production that includes beadwork and metalwork. Iroquois jewelry-making, particularly silverwork, promises to become not just a revival but a steady output based on a rich background of experience.

Jewelers of note (all active since the 1970s) conversant with traditional styles, trade silver, and even avant garde creations, can be found amongst the Six Nations, including Cayuga artists Sandy Baird, Daniel C. Hill, Ronald R. Kraft, and Steven LONGBOAT (b. 1955); Mohawk artists Roy Black, Julius M. COOK (b. 1927), Richard G. K. Deer, Jeffery Gabriel and Raymond GABRIEL (b. 1933), Elwood GREEN (b. 1936), and Walter Jacobs; Onondaga artist Arthur POWLESS (b. 1938); Oneida artists Marshall Ellis and Raeburn SCHUYLER (b. 1944); Seneca artists Janice Sundown Hallet, Brad John, Judith Kennedy, Clayton Logan, Uriah Printup (a WPA program participant), Virginia G. Snow, Juanita and Neville Spring, and James T. Watt; and Tuscarora artists Gary Henry, and Jim and Erwin Printup. Two women, Darelyn Clause (Mohawk/Algonquin) and Connie Pierce (Seneca), are notable creators of fine-quality beaded jewelry that uses traditional and contemporary Iroquois design aesthetics. *See also* COVENANT CHAIN; TRADE SILVER, TRADE ORNAMENTS.

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Museum. Edited by G. Paesano. Rochester, NY: Rochester Museum and Science Centers, 1971; *Iroquois Silverwork from the Collection of the Museum of the American Indian*. New York: Museum of the American Indian, Heye Foundation, n.d.; Parker, Arthur Caswell. "The Origins of Iroquois Silversmithing." *American Anthropologist* 12 (July–Sept. 1910): 349–57. For additional information on early native metalwork in the Northeast, see <http://www.nativetech.org/metal/pendants.html> and <http://www.nativetech.org/metal/wireornaments.html>.

Iule, Horace (1901–1978, Zuni)

One of Zuni's major jewelers of the early to mid-twentieth century, Horace Iule was taught jewelry-making in 1924 by his father, one of the first generation of silversmiths at the pueblo. Iule had learned blacksmithing while attending the Phoenix Indian School; he, in turn, taught silversmithing to young people at the Zuni Day School in the 1920s. His working techniques were covered by John Adair in his pioneering study, *The Navajo and Pueblo Silversmiths* (1944). Iule made large SILVER objects by drawing patterns on stone, carving these patterns out, and then pouring silver into the stone. He made traditionally styled CROSSES and belt BUCKLES, among other work, and he hammered his pieces, decorating them with die STAMPING. Iule is credited with being the first Zuni to use the KNIFEWING FIGURE in silver, sometime around 1928. His products include CONCHA BELTS, SQUASH BLOSSOM BEADS, RINGS, pins, and ROW WORK bracelets. An influential artist in his community, his jewelry is prized by Southwestern museums and collectors of antique Indian arts. His children continue his legacy of fine design and craftsmanship, even using his CASTING equipment to make "Iule" pieces. *See also* SOUTHWESTERN INDIAN JEWELRY; ZUNI JEWELRY.

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ivory

An organic material largely composed of calcium phosphate; for native artisans, the source of ivory is usually from animals such as the walrus or narwhal. Fossil ivory (from mammoth and ancient walrus) is currently most widely used for lapidary work. However, vegetable ivory (such as the hard, white seeds, called "ivory nuts," that come from the ivory palm, or tagua plant) has gained increasing favor since shortages of these animals have occurred. New walrus ivory is banned from importation into the United States, and this restriction has affected the import of Canadian native-made jewelry and crafts.

Ivory is often striated and elastic; it is lightweight and it yellows with age. It can easily be worked by hand or even with power tools, and only sandpaper is needed for polishing. Aged ivory jewelry in good condition pos-

Two ivory and sterling silver lockets: "Man Making Igloo" by Sandy Okatsiak (left) and "Sedna and Bird" by Mark Eetak (both Arviat Inuit). *Photo by Beth M. Biggs*.

sesses a warm, fairly translucent appearance. Ivory ornaments of quality should have a uniformly attractive color, translucency in surface luster and polish, and fine workmanship in carving and finish. Northwest Coast and Inuit artists, such as Patty FAWN (b. 1944), use ivory for BRACELETS and brooches. Although walrus ivory continues to be a material popular with Inuit and Inupiat carvers, the 1990s saw a conscious switch to other materials (for conservation purposes), such as caribou antler. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY; NORTHWEST COAST NATIVE JEWELRY.

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J

jacla, jackla, jocla

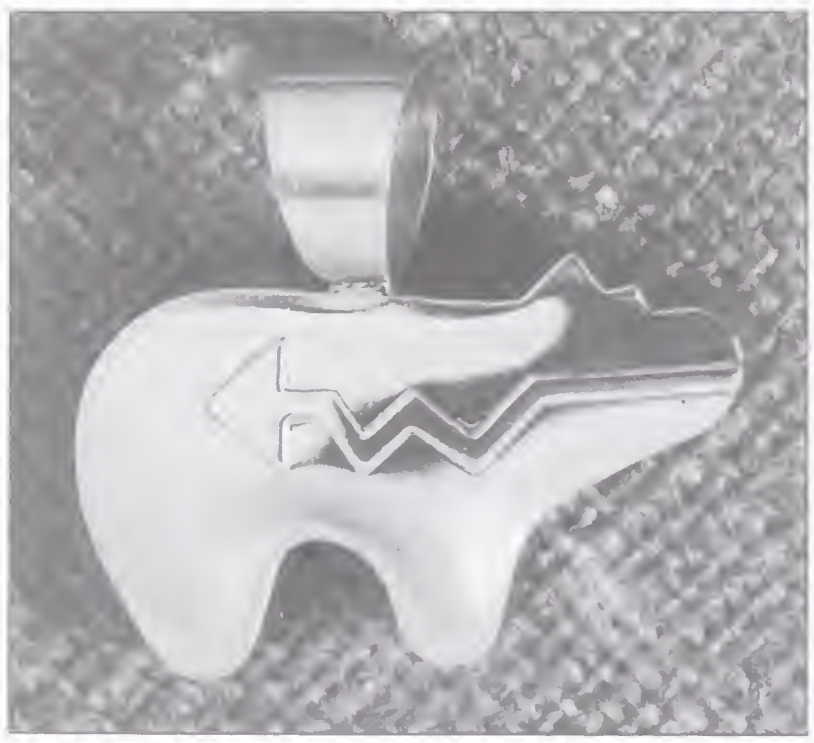
A specific adornment form of Pueblo origin, made from ground and shaped HEISHI, the jacla (the Navajo spelling) is a short double loop of (usually) TURQUOISE beads that were originally worn as EARRINGS, but might also be fastened to the bottom center of a bead necklace, as a kind of PENDANT attachment.

Many older or older-style Southwestern Indian turquoise and SHELL bead NECKLACES possess jaclas tied to the bottom of the strand; the type and color of beads for the necklace and the jacla can vary. Jaclas are considered a "traditional" form, and they undoubtedly date back to the era before European contact; consequently, they may not necessarily be made by today's fine-art jewelers.

The center of each jacla loop is often decorated with one or more contrasting tabular stones (sometimes referred to as "corn" or "corn kernels" because of their slightly raised shape) made from white or orange shell or CORAL. The tips near the tops of the loops, where the jacla is tied onto the necklace, may be strung with contrasting beads of reddish coral or shell, or even with red glass TRADE BEADS. Occasionally, INDIAN TRADERS may have a strand of jaclas alone for sale; more often, these forms come attached to a necklace. The jacla shape has also been miniaturized as a popular earring style and such earrings are made using various materials and colors. *See also* PUEBLO JEWELRY.

Jamon, Carlton (1962– , Zuni)

Carlton Jamon's grandmother and great-grandmother were noted silversmiths. Self-taught, Jamon works with his wife Julie Marie (Navajo); they have been creating jewelry since 1984. The artists' most notable creation is a handcrafted hollow SILVER fetish BEAR, which has no apparent seams. Acknowledging the symbolic importance of the bear to native culture, Jamon strings these FETISH forms onto single and multiple strand NECKLACES. Such necklaces contain various types of stone beads, including CORAL, freshwater pearls, LAPIS LAZULI, and TURQUOISE. Jamon also makes INLAY pendants, often with a figural motif, in GOLD or SILVER with PRECIOUS



Hollow silver bear pendant by Carlton Jamon (Zuni); the bear figure includes a heartline. *Photo by Robert D. Rubic. Private Collection.*

STONES, and he fashions silver tube and spherical beads. He has also used the CORN MAIDEN motif for PENDANT necklaces.

Jamon won many awards between 1991 and 1996 at the GALLUP INTER-TRIBAL CEREMONIAL, Eight Northern Pueblos Show, and at the Santa Fe INDIAN MARKET. He is a member of the INDIAN ARTS AND CRAFTS ASSOCIATION (IACA), and has exhibited at the Ray Tracey Gallery, Santa Fe, New Mexico. Jamon is a charter member of the Zuni Cultural Arts Council, and is one of the organizers of the annual Zuni Cultural Arts Expo held at Zuni in August. *See also* ZUNI JEWELRY.

Further Reading: Linford, Laurance D. *Ceremonial Indian Art: A Measure of Excellence*. Gallup: Inter-tribal Indian Ceremonial Association, 1995; *New Mexico Magazine*. (Santa Fe, NM), February 1995; Ostler, James, Marian Rodee, and Milford Nahohai. *Zuni, A Village of Silversmiths*. Zuni: A:Shiwi Publishing, 1996. For additional background, see <http://www.nativehands.com/html/artists/jamon.html>.

Janze, Phil (1950– , Tsimshian)

Phil Janze's interest in native Northwest Coast design is reflected in his carving, graphic work, and jewelry creation. Janze makes sculpturally detailed pieces in GOLD and SILVER. He prefers animal motifs, such as crabs, FROGS, and RAVENS, and some pieces are executed with keen and unusual details of bodily features. The artist's work was featured in the 1980 "Legacy" exhibition at the University of British Columbia, but most of his jewelry has gone into private collections, and his career has not been as well documented as that of other jewelers. Nevertheless, his unusual technical ability has inspired many young Northwest Coast native artists. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art*. Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum.

jet

A hard, black, and shiny form of fossil lignite that is used for jewelry-making, much like OBSIDIAN and ONYX. Native use of this stone developed through the nineteenth and early twentieth centuries, although onyx was often substituted for jet during the 1920s and 1930s. Jet's popularity as a material for native adornment meant it was readily accepted for beads, FETISHES, and INLAY. It resembles coal in its rough form, and can be worked with sandpaper and steel tools. Fine details can be carved into jet, and it can be finished by polishing to a brilliant sheen.

Johnson, Kenneth (6/4/67– , Seminole/Muskogee)

Kenneth Johnson works in SILVER and GOLD; he produces a variety of jewelry forms, including BRACELETS, CONCHA BELTS, EARRINGS, PENDANTS, and unusual, hand-stamped hair ties made from old and new silver coins (*see* STAMPING, STAMPWORK). Johnson credits training from noted artists Woodrow Haney (Seminole) and Johnson Bobb (Choctaw) with aiding his development as a jeweler. He has exhibited at the United Tribes Indian Art Expo, Bismarck, North Dakota (1992); Tulsa

"Turtle Shell Rhythm Under the Stars," based on the Muskogee stomp dance, sterling silver, 14k and 18k gold, hand-braided wire, and gemstones, 1998, by Kenneth Johnson (Seminole/Muskogee). *Photo by Jennifer Wright. Courtesy of the artist.*

Indian Arts Festival, Red Earth, Oklahoma City, and Lawrence (Kansas) Indian Arts Show. He also exhibits regularly at the SWAIA INDIAN MARKET (award in 1995) and won an SWAIA fellowship in 1997.

Further Reading: *Native Peoples.* (Phoenix, AZ), Feb.–Apr. 1997. For additional background, see <http://www.nativehands.com/html/artists/johnson.html>.

Johnson, Yazzie. *See* BIRD, GAIL AND JOHNSON, YAZZIE

K

Kabotie, Fred (2/20/1900–2/28/86, Hopi)

Fred Kabotie, a distinguished illustrator, painter, and muralist, played a seminal role in the development of postwar Hopi OVERLAY jewelry. From 1947 to 1951, Kabotie, along with Paul SAUFKIE (ca. 1910–1998), taught a course on jewelry-making to Hopi veterans; the course was funded by the G.I. Bill. Kabotie provided oversight on design instruction, even drawing from MIMBRES as well as traditional Hopi imagery and symbology. He played an instrumental role in the formation of the Hopi Silvercraft Guild (1949), and inspired many gifted Hopi and native artists, including master jeweler Charles LOLOMA (1921–1991). Kabotie's son Michael continues his father's legacy as a painter and silversmith. Fred Kabotie was awarded an Honorary Doctorate of Fine Arts from the College of Ganado (Arizona) in 1978. *See also* HOPI JEWELRY.

Further Reading: Belknap, William. *Fred Kabotie, Hopi Indian Artist*. Flagstaff, AZ: Northland Press, 1977; Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Wright, Margaret. *Hopi Silver.* Flagstaff, AZ: Northland Press, 1972; rev. ed. 1998.

kachina figures. *See* KATSINA FIGURES

Kaniatobe, Robert W. (2/11/36– , Choctaw)

Robert Kaniatobe is one of the foremost fine-art jewelers creating unique pieces based on Southeastern Woodlands forms and design motifs. Kaniatobe studied at the Haskell Institute (Lawrence, Kansas), earned a B.A. from California State University, San Francisco, and took courses from the Gemological Institute of America. His best-known jewelry pieces are multiple-strand NECKLACES incorporating BEADS, FETISHES, and carved talismans from natural materials, such as wood and BONE. These necklaces and related pieces are REVIVAL-STYLE works derived from historic artifacts of the Mound Builder and other early Southeastern native cultures. He also makes jewelry in BRASS, COPPER, and STERLING SILVER, and crafts personal adornment items from freshwater pearls, SHELL, wood, and old and new TRADE BEADS. He has won awards from the Heard Museum Guild Fair, GALLUP INTER-TRIBAL INDIAN CEREMONIAL, Eight Northern Indian Pueblos Arts and Crafts shows, New Mexico State Fair, SWAIA INDIAN MARKET, and the Five Civilized Tribes Museum, Muskogee, Oklahoma. Kaniatobe has been an INDIAN ARTS AND CRAFTS ASSOCIATION (IACA) member since 1981.

katsina figures

Katsinas are sacred beings of the Pueblo peoples, and their physical representation on earth comes from the men who dance in Pueblo ceremonies; each DANCER wears a combination of MASK, body paint, and costume that replicates an individual Katsina spirit, a holy force of nature that brings some benefit to humanity. These sacred intermediaries between the gods and the Pueblo peoples visit the pueblo villages at certain times of the year, bringing gifts—such as katsina dolls, representations of Katsinas carved from cottonwood that are painted and adorned with FEATHERS and other materials—and performing dances for the benefit of all humanity. Each Katsina represents an aspect of earthly life, such as fertility, healing, the granting of justice, or life-giving rain.

Katsina dancers are often accompanied by the clowns that bring essential humor to these religious rites (*see* KOSHARE; MUDHEAD). Non-Indians have long prized katsina figures when they are reproduced in native-made arts, and artisans have worked carefully to separate the sacred context of Katsinas from their secular representation on objects for sale to outsiders. Therefore, the images of katsina figures made for jewelry are more abstract and less realistic in exact details; they, like the katsina dolls, are meant to represent the characteristics of a particular Katsina, not to depict Katsinas realistically.

Of all the Pueblo peoples, Hopis and Zunis have the largest number of Katsinas. In particular, the Hopis have approximately 250 Katsinas, with about 30 "chief" Katsinas who appear at specific annual ceremonies. The other Katsinas can appear at various other ceremonies.

Depictions of Katsinas first appeared around the 1920s but were developed more actively in the 1940s. Many Navajo jewelry-makers used Katsinas as a sort of folk subject for compositions; a popular stylized figure made from SILVER, wearing a headdress and holding various dance paraphernalia, appears from 1950 onward. Pueblo artists approached their portrayal of Katsinas with greater care, making sure not to render them in any disrespectful fashion, or to disclose details appropriate only to ceremonial functions. For example, a specific conventionalized Katsina-style repertoire of figures made of silver and INLAY came into use from the late 1920s through the 1950s, particularly at Zuni. Another generic variation, made by Navajo artists, including in particular the Long family, consists of an upright silver katsina figure holding various objects, sometimes set with oval TURQUOISE or CORAL stones, which appeared around 1950.

The Zuni are less likely to make representations of the important Shalako ceremonial figures, but related deities, such as Saiyatasha, Rain God of the North (*see also* KNIFE-WING FIGURE; RAINBOW FIGURE), appeared on inlay pins as early as the 1930s. As a result, some types of Katsina dancers persist as popular design motifs, and many dancers are re-created just by their masks. Multiple groupings of Katsina dancers are rare; an individual figure is the preferred element for a design on a piece of jewelry. Colorful Hopi and Zuni Katsina dancers are most often depicted, including antelope and deer head mask figures, or variations of ogre or Crow Mother Katsinas. Katsina figures are rendered in chip or MOSAIC inlay, or on engraved or OVERLAY silver. *See also* CHIP INLAY; NAVAJO JEWELRY; PUEBLO JEWELRY; SOUTHWESTERN INDIAN JEWELRY; ZUNI JEWELRY.

Further Reading: Bahti, Mark. *Southwest Indian Designs, with some Explanations*. Tucson: Treasure Chest, 1994; Baxter, Paula A. "Cross-cultural Controversies in the Design History of Southwestern American Indian Jewellery." *Journal of Design History* 7 (Winter 1994): 233–45. For additional information, see <http://www.wpl.lib.oh.us/docs/Kachina/what.html>.

ketoh. *See* BOWGUARD

King, Monica (5/23/59– , Pima/Navajo/Tohono O'odham)

A fine-art jeweler who is as articulate in words as she is in her designs, Monica King has studied jewelry-making since high school. Her junior year was spent at the INSTITUTE OF

American Indian Arts, Santa Fe, New Mexico, where she eventually earned an A.A. degree. She learned much from her instructor there, jeweler Millard Holbrook. King experimented with various metalwork techniques, and in 1981 received a B.F.A. from the University of the Arts in Philadelphia. Graduate studies at Arizona State University (ASU) in Tempe allowed King to formulate her nontraditional approach to jewelry fabrication. An SWAIA fellowship in 1995 gave her a start in her jewelry-making business, and then King enrolled in the M.F.A. program at ASU. She has exhibited at the SWAIA Indian Market and Eight Northern Pueblos Arts and Crafts Show. *See also* Southwestern Indian Jewelry; SWAIA (Southwestern Association for Indian Arts, Inc.).

Further Reading: Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

Knife-wing figure

A supernatural being and culture hero found in various legends of the Pueblos. The Knife-wing has associations with the zenith (heavens) and war, and it represents an important animal spirit to the Zuni. Bearing some physical resemblance to the thunderbird figure, the Knife-wing merges human and bird form, possessing great flint-knife feather wings and tail, and is crowned with a terraced cap (*see* Tablita Design).

A Zuni silversmith, Horace Iule (1901–1978), is credited as first translating the Knife-wing into a silver jewelry ornament in 1928. By the 1940s, the motif was popular, with examples displayed at the 1941 "Indian Arts of the United States" exhibition at the Museum of Modern Art in New York City. Zuni-made inlay pieces of this figure made from the 1930s through the 1960s are particularly prized by collectors. The Knife-wing continues to be fabricated regularly by Zuni and Navajo jewelers (who use this as more of a thunderbird design), usually in silver for pendants, pins, and rings; the most common techniques used for these renditions are casting, cut and file work, and, most often, chip or mosaic inlay. *See also* Chip Inlay; Navajo Jewelry; Pueblo Jewely, Zuni Jewelry.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Ostler, James, Marian Rodee, and Milford Nahohai. *Zuni, A Village of Silversmiths*. Zuni: A:Shiwi Publishing, 1996; Slaney, Deborah C. *Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection*. Phoenix: Heard Museum, 1998.

Kokopelli

A humpbacked flute-player originally appearing in rock art throughout the American Southwest (*see* Petroglyphs and Pictographs), and one of the best-known images of the area. The only anthropomorphic petroglyph that has a name and gender, Kokopelli has been depicted on rock art sites and pre-contact pottery throughout the Southwestern region; his image appears on ancient ceramics made by Anasazi, Hohokam, and Mimbres peoples. Often described as "ithyphallic," he almost always appears in profile. The Kokopelli form is used as a design motif on many types of jewelry, and twentieth-century traditional and fine-art jewelers have created pendants, brooches, and even small earrings using this figure. In fact, the image of Kokopelli is so widely replicated, including on native-made jewelry, that it has become almost a cliché.

Kokopelli's origins and prehistoric-era symbolism are not truly known, but he has been incorporated into modern Hopi and Acoma stories and legend as a Pueblo katsina figure, with sexual overtones. He has also been associated with a legendary trader of Meso-American origins, with his back bent over from carrying a bag. Alternative renderings found in rock art show him carrying a club, a cane or walking-stick, and even a bow and arrow. Some versions of his figure have him wearing horns or feathers. All of these accoutrements may possess a context related to natural forces: the flute may represent rain; his hump (or bag) could contain seeds (or sperm) or rainbows; and the bow and arrow and other devices could signify Kokopelli's role as a magical hunter or member of a war-

rior society. Some stories tell of Kokopelli staying overnight in a pueblo; when he leaves the next morning, all the young girls are pregnant. A feminine counterpart, the Kokopelli Mana, sometimes appears with him at Pueblo ceremonial dances and chases the men of the village. *See also* PUEBLO JEWELRY.

Further Reading: Slifer, Dennis, and James Duffield. *Kokopelli: Flute Player Images in Rock Art*. Santa Fe: Ancient City Press, 1994. For additional information, see <http://kokopelliusa.com/kokopelli/kokopelli.html>.

koshare

A male Pueblo ritual figure, the koshare is a member of a clown society. He is usually depicted with his body painted with horizontal black and white stripes, wearing a black kilt, and with painted black circles around his eyes. The koshare's role is an important one; acting as sort of "holy buffoon," he provides humor and social satire to ceremonial activities and narrative, often accompanying KATSINA dancers. The colorful nature of this figure has led to encouragement—particularly from non-Indians—for its representation in some jewelry work, mainly INLAY. *See also* PUEBLO JEWELRY.

L

labrets

Sometimes referred to as a "lip plug," a heavy oval or round disc or plug of BONE, SHELL, stone (including PIPESTONE and SOAPSTONE), or wood, worn in a slit or hole pierced in the lower lip. Labrets were a traditional facial ornament of deep social significance to peoples in the northernmost part of the North American continent, such as the Aleut, Inupiat, Inuit, Haida, and Tlingit. Labrets could be worn by men and women, depending on tribal practices. Although not a conventional form for commercial native-made jewelry in the late twentieth century, some modern jewelry pieces make historical reference to the shape, style, and materials of labrets, especially in EARRINGS and PECTORAL-type PENDANTS. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY.

Further Reading: Chaussonnet, Valerie. *Crossroads Alaska: Native Cultures of Alaska and Siberia.* Washington, DC: Arctic Studies Center, National Museum of Natural History, Smithsonian Institution, 1995; Grumet, Robert S. *Native Americans of the Northwest Coast.* Bloomington: Indiana University Press, 1979.

Lanyade (active 1870s–ca. 1910, Zuni, also spelled La:niyahdi)

Lanyade was reputed to be the first Zuni to learn silversmithing. When the Navajo smith ATSIDI CHON (active 1870s to ca. 1900) came to Zuni in 1872, he stayed at Lanyade's house, and Chon agreed to teach his host how to work SILVER. Chon made bridles and CONCHA BELTS, silver BOWGUARD mounts, and CROSSES for PENDANTS. He also introduced the Zunis, who had been using files, to die STAMPING. Lanyade devised a bellows and his own DIES after Chon's departure from Zuni, and he set up his own shop in 1873. His known products include plain HOLLOW BEADS, BUTTONS, conchas, hoop EARRINGS, ketohs and triangular-shaped old-style BRACELETS. Lanyade acted as the area smith for not only his people, but also for those Navajo living south of Gallup, New Mexico. In 1898, he went to First Mesa and taught the first Hopi silversmith, Sikyatala. He traveled to the pueblos of Acoma and Laguna in 1900 to make silver items for people there. Lanyade taught another Zuni, Balawade; both men made friends with the visiting anthropologist Frank Hamilton Cushing during Cushing's stay at Zuni from 1879 to 1883. Anthropologist Matilda Coxe Stevenson bought Lanyade's tools around 1902; she shipped them to the Smithsonian Institution, where they were accessioned into the national collection in 1905. Lanyade spent the rest of his remaining years in farming; as a consequence, his achievement as Zuni's first silversmith was not widely known. *See also* ZUNI JEWELRY.

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lapis lazuli

A silicate rock, rather than a mineral, lapis is valued for its deep, rich blue color, usually opaque or marked with small white mottling; lapis is a favored material of contemporary native jewelers active since the 1970s, who use it for CABOCHONS and opaque BEADS, and even for CHANNEL WORK. Lapis contains elements of lazurite, pyrite, and sodalite in its composition, and it can be imitated with dyed ceramic, marble, or PASTE. Natural lapis is found in Colorado and California, but it is mainly imported from Afghanistan, Chile, and Russia. In the 1990s, a variety called DENIM LAPIS was introduced; it is a denim-colored, faded, and dyed tone of lower-grade lapis created strictly as a fashion device to match jewelry pieces with denim clothing colors. This new style proved so successful that denim lapis, despite its inferior properties, is now more expensive and more sought after than the original lapis lazuli stone.

Larson, Gail Farris (8/23/47– , Creek)

A noted metalsmith and jewelry designer, Gail Larson's creations celebrate the commingling of contemporary fine art exploration and native craftsmanship skills. Some of her jewelry is avant-garde in its form and sculptural tendencies. The artist received an A.A. degree in art in 1967 from Northeastern Oklahoma A & M Junior College, and a B.A. (1969) and M.A. (1971) from Kansas State College. She studied jewelry design with Alan Elkerman at Indiana University, and received an M.F.A. degree in 1974. Larson has taught art and received a variety of craft awards and commissions. She exhibited extensively in the 1970s, including a solo exhibition at the Museum of the Plains Indian and Crafts Center, Browning, Montana, in 1977.

Lee, Clarence (6/10/52– , Navajo)

Clarence Lee is known for his humorous STORYTELLER silver jewelry and intricate METALWARE

Navajo shepherdess with goats, silver pin, ca. 1994, by Clarence Lee (Navajo). *Photo by Robert D. Rubic. Private Collection.*

whimsies. Lee's subject matter, conceptualized around 1973, features Navajo country life, with figures in traditional and cowboy dress; activities centered around hogans, social dances, and sheepherding; animals such as balky goats; and even pickup trucks. The artist uses LOST-WAX and TUFA CASTING and handmade stamps and DIES (*see* STAMPING, STAMPWORK). His favored technique is APPLIQUÉ, and a piece may contain combinations of COPPER, GOLD (which he started using around 1980), STERLING SILVER, and even various types of stonework, such as TURQUOISE, CORAL, or JET. His son Russell (11/6/76–) works with him, and both artists have collaborated on such projects as an elaborate, award-winning windmill-topped container, and pickup-truck-inspired imagery. Their work has won awards at the GALLUP INTER-TRIBAL INDIAN CEREMONIAL and Heard Museum Guild fair (both awards in 1994), and they exhibit regularly at the Eight Northern Indian Pueblos Arts and Crafts shows and the SWAIA INDIAN MARKET. *See also* NAVAJO JEWELRY.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

lightning

Natural phenomena serve as frequent motifs for indigenous design; the jagged lines of lightning, powerful force of the heavens and harbinger of rain, occur in native jewelry designs as repetitive patterns. Lightning is also associated with supernatural spirits and animals, such as the EAGLE and the THUNDERBIRD. Lightning zigzags appear as popular DIE stamps on both native silverwork and TOURIST JEWELRY (*see* STAMPING, STAMPWORK). The lightning bolt is occasionally tipped with an arrow point or a crossed bar, a tourist-era addition that also carried the specious meaning of "swiftness." *See also* CLOUD SYMBOLS; RAIN SYMBOLS.

liquid silver

A technique that creates fine tubular beads that can be either hand-drawn or machine made; sometimes referred to as "drawn silver."

Liquid silver—even liquid GOLD, or gold and SILVER combinations—is used principally for chokers and NECKLACES, and is most often worn by non-native women. Considered a form of silver HEISHI, the first liquid silver necklaces were made by Ray and Mary Rosetta (both b. ca. 1930), of Santo Domingo Pueblo, in the 1950s. Their son Johnny developed the original liquid gold necklace in 1972, from 18- and 22-karat gold. As with heishi made from TURQUOISE or other stones, appearance and price are important guides to quality; handmade liquid silver or gold should look and feel fluid, and the strand should reflect the labor-intensive process involved. Because liquid silver jewelry has a distinctive SOUTHWESTERN INDIAN JEWELRY association, it has also become a popular TOURIST JEWELRY style. Mass production has made this technique more available through the use of thin-gauge silver, so consumers should be careful when attempting to discern the quality of materials.

Further Reading: Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976.

Livingston, Jake (4/27/45– , Navajo/Zuni)

Jake Livingston learned to make silverwork from his Zuni father. Livingston began silversmithing professionally in 1972. He makes SILVER, GOLD, and INLAY jewelry, often adding weight to his pieces by using additional layers of silver and gold. His trademark designs feature traditional Zuni BIRD motifs, with delicate inlay features and small flowers and leaves, using such materials as Nevada Blue spiderweb TURQUOISE, CORAL, LAPIS LAZULI, SUGILITE, and SHELL. His wife Irene (Navajo) assists him in this inlay work, and the results are reminiscent of the delicate inlay work produced by his Zuni uncle, Dennis

Edaakie. Livingston also makes BRACELETS and PENDANTS in reversible settings. The artist creates a wide range of jewelry: BOLAS, bracelets, BUCKLES, CONCHA BELTS, and RINGS, and some METALWARE boxes and customized silver saddles. Livingston exhibits at major venues such as the GALLUP INTER-TRIBAL INDIAN CEREMONIAL (award 1974), O'Odham Tash, and SWAIA INDIAN MARKET, and even at some POWWOWS, where he has gathered a following. He was named INDIAN ARTS AND CRAFTS ASSOCIATION (IACA) Artist of the Year in 1988.

Further Reading: Jacka, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995.

Loco, Jan (4/13/55– , Fort Sill Apache)

Jan Loco, who was an adopted child, only learned about her Apache heritage as an adult. This prompted a voyage of personal and creative discovery, in which she received inspiration from famous Apache sculptor Allan Houser, among others. Loco started her jewelry-making career in 1988. A self-taught artist, Loco's textured SILVER and GOLD jewelry is visually distinctive. She uses a hammering technique, in which she tools metal over the surface of a rock to achieve the desired textural effect. She uses hand tools such as chicken shears, files, and steel wool, and she uses diamond compound for finishing her pieces. Loco also works with carnelian, OBSIDIAN, and ONYX for stones. Her subject material is drawn from various sources, such as animals, butterflies, APACHE MOUNTAIN SPIRIT DANCERS, and the four-pointed morning star, a popular motif that appears regularly in her work. Her NECKLACES are particularly prized, as are her popular pins made in groups of four, a significant number in Apache culture.
Galleries: Gallery 10, Santa Fe, New Mexico, and Scottsdale, Arizona; First Peoples Gallery, New York City.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

Loloma, Charles (1/7/21–6/9/91, Hopi)

In terms of achievement and reputation, Charles Loloma is undoubtedly the foremost jeweler of Native American birth in this century: His impact on native jewelry-making can be seen again and again in literature and statements by contemporary artists. Loloma started out by exploring various media, with artistic encouragement from Fred KABOTIE (1900–1986) and Lloyd Kiva New. In the 1950s and 1960s, Loloma used nontraditional materials in combination with avant-

Bracelet, lapis lazuli, gold, coral, and Kingman turquoise, 1975, by Charles Loloma (Hopi). *Courtesy of The Heard Museum, Phoenix, AZ.*

garde styles and designs. Favored motifs included CORN MAIDENS, KATSINAS, and hidden designs made in the undersides of BRACELETS and PENDANTS to reflect the "hidden" beauty of their owners. Loloma was one of the first Southwestern native jewelers to work effectively with GOLD, probably around 1953. His "height bracelets," of raised INLAY stonework, were large-scaled and bold in both design and effect.

Loloma attracted a clientele of the rich and famous, including a Hollywood contingent. They helped to enhance his reputation as a remarkable designer—a reputation based not on his heritage but on his unerring instinct for innovative design and impeccable workmanship. Loloma understood and practiced good marketing and salesmanship skills. These talents, allied to his artistic flair, made

his career and work an outstanding definition for the Native American fine-art jeweler.

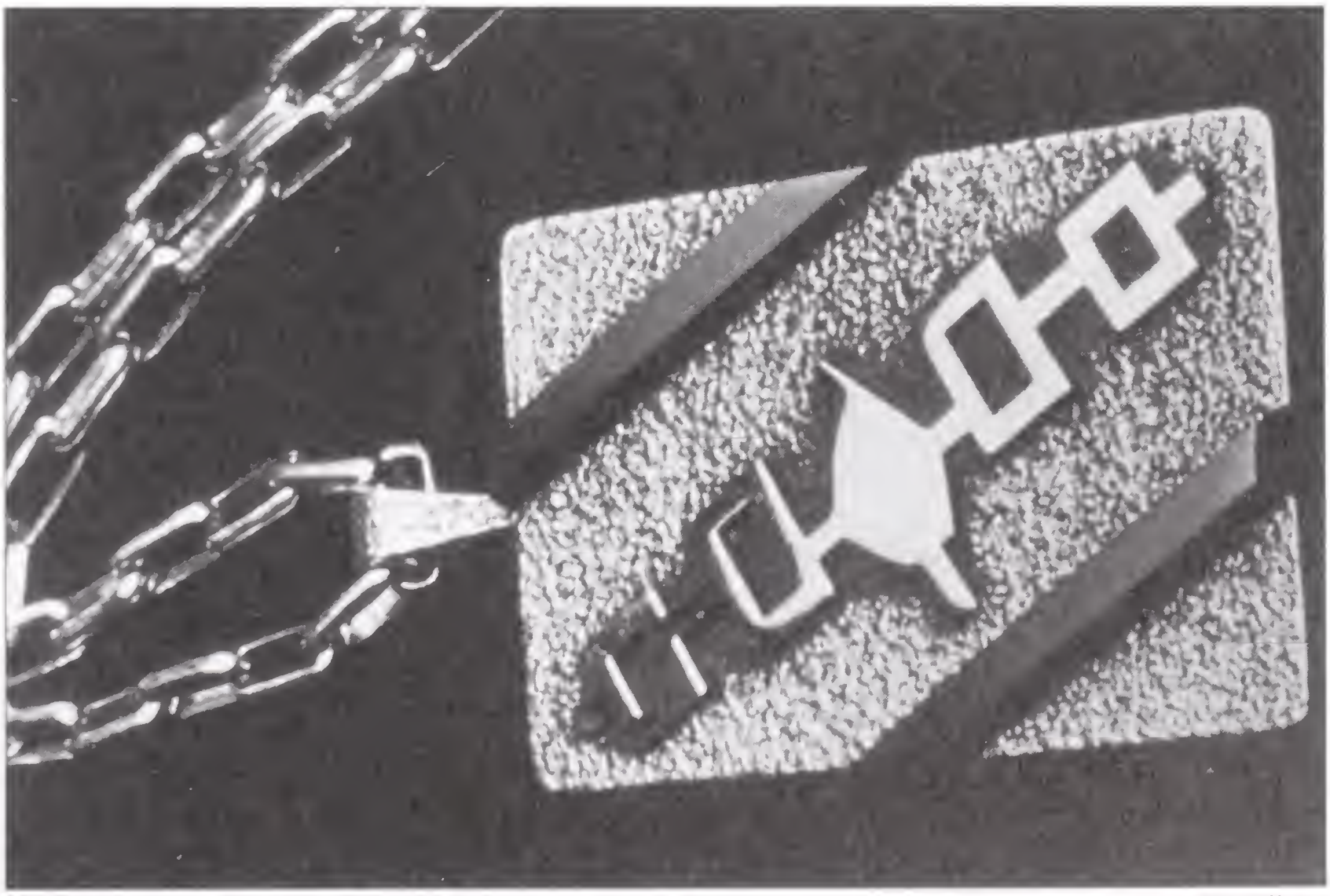
Teaching at various colleges since 1955, he played an important role in the creation of the INSTITUTE OF AMERICAN INDIAN ARTS (IAIA) in Santa Fe, New Mexico, where he founded and headed the Plastic Arts Department from 1962 to 1965. Loloma's concern with education remained with him throughout his life. His international reputation was aided by a solo show in Paris in 1963, and lectures and travels throughout the United States, Europe, and Asia commencing in 1970. He had another solo show at the Heard Museum (Phoenix, Arizona) in 1971, with numerous group exhibitions over the next 20 years in New York, California, and abroad. **Museums:** Arizona State Museum, Tucson, Arizona; Heard Museum, Phoenix, Arizona; Museum of Northern Arizona, Flagstaff, Arizona; San Diego Museum of Man, San Diego, California; California Academy of Sciences, San Francisco, California; Wheelwright Museum, Santa Fe, New Mexico; Millicent Rogers Museum, Taos, New Mexico.

Loloma's nieces Verma NEQUATEWA (b. 1949, also called Sonwai) and Sherian Honhongva apprenticed with him for many years, forging a new direction based on his jewelry-making legacy, as have many other Native American fine artists. *See also* SOUTHWESTERN INDIAN JEWELRY. *See* CORN MAIDEN entry for an illustration of another piece by Loloma.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; *Indian Artist*. (Santa Fe, NM) vol. 1–, Spring 1998; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; *St. James Guide to Native North American Artists*. Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998; Wright, Margaret. *Hopi Silver*. Flagstaff, AZ: Northland Press, 1972; rev. ed. 1998.

Longboat, Steven P. (10/4/55– , Cayuga)

An innovative jeweler from the Six Nations Reserve in Ontario, Steven Longboat learned silversmithing from the Native Canadian Cen-



Pendant by Steven Longboat (Cayuga). *Courtesy of Indian Art Centre, Department of Indian and Northern Affairs. Photo by Lawrence Cook.*

tre, Toronto, in 1979, and taught himself other techniques. He expresses his creative debt to SOUTHWESTERN STYLE jewelry, and he uses TURQUOISE, CORAL, and LAPIS LAZULI in his pieces. He uses some traditional Iroquois motifs but is not interested in producing a "typically native" style. Work by the artist includes PENDANTS and BRACELETS of GOLD that incorporate diamonds hung from multiple strands of tourmaline, LAPIS LAZULI, or combination stonework beads. Longboat exhibited widely in Ontario in the 1980s. **Museums:** Department of Indian and Northern Affairs, Ottawa; Native American Center for the Living Arts, Niagara Falls, New York. *See also* IROQUIS JEWELRY.

Loretto, Phillip (8/28/51– , Jemez)

Phillip Loretto studied in 1969 with architect Paolo Soleri at Arizona State University; he also studied at Albuquerque Technical Vocational Institute and received his B.A. from Ft. Lewis College, Colorado, in 1976. After working on jewelry for tourist sale, Loretto decided to embark upon a career as a fine-art jeweler, fabricating unique pieces in unusual compositional arrangements. Such works, intricate in design and technical execution and displaying distinctive lapidary skills and inventiveness, have brought Loretto much acclaim. He uses Pueblo themes and contemporary political and social references or commentary. The artist also uses a wide variety of SEMIPRECIOUS STONES, along with fine grades of TURQUOISE (including chrysoprase) and Brazilian OPAL. Loretto taught jewelry-making at the INSTITUTE OF AMERICAN INDIAN ARTS (IAIA), as part of a special project, in 1990. He exhibits at Eight Northern Indian Pueblos Art and Crafts Show, the New Mexico State Fair, the Santa Monica Powwow, and the SWAIA INDIAN MARKET (award 1978). **Museums:** Albuquerque Museum, New Mexico. **Galleries:** Case Trading Post, Wheelwright Museum, Santa Fe, New Mexico; Packard's, Santa Fe, New Mexico.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992.

lost-wax casting

A method of CASTING learned by contemporary native jewelry-makers; the process also includes hollow forming (the casting of a hollow piece of jewelry). The lost-wax process is very old (it was practiced in ancient Egypt), and is a well-established, mainstream European-American jewelry-casting process. However, it is a technique that came late (mid-twentieth century) to native jewelers, who had relied more on sandcasting and TUFA casting. Native jewelers, especially fine art studio jewelers, learn the lost-wax process through art-school training or during apprenticeship to non-native jewelers.

The lost-wax process has many variations. In general, an artist begins by making a model of a jewelry piece in wax. A wax stem, called a sprue, is attached to the model (depending on the size of the piece, more than one sprue may be needed). The sprue helps hold the model in place while the mold is being prepared, provides a vent for gases and the melted wax to escape when the mold is heated, and acts as a passageway for the molten metal to enter the mold. The wax is then completely coated with clay, or with gypsum plaster (called an "investment"). Once the investment or clay is set (becoming a mold around the wax), the entire form is heated in a kiln; this melts the wax completely away (the "burnout" phase). While the mold is still warm, molten metal—usually SILVER in native-made jewelry—is poured through the sprue into the mold; once in the mold, the metal takes on the shape vacated by the "lost" wax. The mold is allowed to cool, and then it is submerged in water. This treatment usually breaks the mold, so that the cast metal piece can be removed for further work and finishing. To create a hollow object, a piece of mold material (investment) is fixed within the mold; when the molten metal is poured into the mold, this mold material creates a cavity in the finished cast piece.

The lost-wax process has become a distinguishing activity for some remarkable native fine-art jewelry-making, as in the creations of artists Harvey BEGAY (b. 1938, Navajo), Larry GOLSH (b. 1942, Pala Mission), and James Little (Navajo).

Further Reading: For additional information, see <http://www.fa.indiana.edu/~conner/akan/casting.html>.

Lovato, Julian (1/30/25– , Santo Domingo)

Julian Lovato learned to make jewelry in his mid-teens by working with his father and grandfather. He worked briefly for MAISEL in Albuquerque. Lovato then worked in Frank PATANIA's Thunderbird Shop in Santa Fe, New Mexico, from 1946 to 1968. This experience taught Lovato new approaches to jewelry-making, and he evolved more of a fine art style as a consequence. His designs, including BOLAS, belt BUCKLES, PENDANTS, and RINGS, retain traditional features but are clearly contemporary in tone. As a tribute to their relationship of mutual respect and learning, Lovato inherited Patania's HALLMARK stamp, the THUNDERBIRD, upon Patania's death in 1968.

Lovato has remarkable lapidary skills, and he uses handmade tools to fashion strongly designed, weighted pieces with central stones of fine-quality TURQUOISE, CORAL, and LAPIS LAZULI in sleek SILVER settings. He makes raised or dimensional pieces, including shaped CORN necklaces with stonework resembling corn kernels. Lovato has won many awards at all the major Indian art venues, starting with his first entry at the 1977 GALLUP INTER-TRIBAL INDIAN CEREMONIAL and continuing into the 1980s and 1990s. He exhibits regularly at the SWAIA INDIAN MARKET. **Galleries:** Morning Star Traders, Tucson, Arizona; Dewey Galleries, Santa Fe, New Mexico. **Museums:** Heard Museum, Phoenix, Arizona. The artist has inspired a younger generation of native jewelers, including various distinguished Pueblo artists. *See also* PUEBLO JEWELRY.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

M

Maisel

The Maisel Trading Post Company of Albuquerque, New Mexico, which started in 1924, was one of a number of manufacturing firms making TOURIST JEWELRY and related goods in the early twentieth century. The company employed Indian employees in a workshop setting, with non-Indians supervising. While this was assembly-line work using mechanized equipment, Maisel acted as a critical training ground for many native artists, who later incorporated the skills they learned into their own businesses. In addition, these machine-made products are now considered important collectibles, and they surface from time to time as prime examples of historical tourist jewelry.

The company gained special notoriety in a 1932 case initiated by the Federal Trade Commission (FTC). Spurred by concerns from the Department of Interior's INDIAN ARTS AND CRAFTS BOARD (IACB), the FTC began to target manufacturers of imitation Indian jewelry when it was believed fraudulent claims were made. The FTC charged that Maisel had misled consumers by describing its products as native-made. Maisel defended its practices as production-line work and denied claims that the firm misrepresented its jewelry; the company's lawyers defended Maisel's right to call its product "made by Indians."

Maisel lost the case, but the company eventually won after numerous appeals. This case is an early example of the difficulties involved in defining and resolving issues of authenticity in Indian arts. *See also* TRADING POSTS.

Further Reading: Schrader, Robert F. *The Indian Arts and Crafts Board: An Aspect of New Deal Policy*. Albuquerque: University of New Mexico Press, 1983.

maker's mark. *See* HALLMARK

Maktima, Duane (8/24/54– , Laguna/Hopi)

A well-known artist of Pueblo heritage, Duane Maktima has based his fine-art jewelry-making on respect for both ancestral native and contemporary European-American design. An internship at the Museum of Northern Arizona in Flagstaff in 1975 gave him experience with historical artifacts from native culture and inspired his creative impetus. He received a B.A. in metalsmithing (studying under Joe Cornett) from Northern Arizona University in Flagstaff in 1982, followed by a fellowship from SWAIA, which helped him establish his jewelry-making business.

Maktima works with SILVER and GOLD and a wide variety of richly colored INLAY materials from CORAL to OPAL. Many pieces possess a sculptural quality enhanced by his use of hollow-form CASTING and RETICULATION techniques. Maktima's approach to design is complex; his imagery ranges from abstract to representational variations on ancient native

motifs—such as LIGHTNING and parrots (a Laguna CLAN EMBLEM)—revealing his extensive research into Indian art and symbolism. Maktima has won many awards for his jewelry, and he is active in professional societies that bridge contemporary art and Native American educational concerns. **Galleries:** Four Winds Gallery, Pittsburgh, Pennsylvania; Gallery 10, Santa Fe, New Mexico; Wadle Galleries, Santa Fe, New Mexico. *See also* SWAIA (SOUTHWESTERN ASSOCIATION FOR INDIAN ARTS, INC.).

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997. For additional background, see <http://www.duanemaktima.com/jewelry>.

malachite

A SEMIPRECIOUS STONE with either a clear, deep green color or bands of green and black. Malachite may be cut as a CABOCHON or carved, and it has been a popular stone for setting in silver SOUTHWESTERN INDIAN JEWELRY since the early to mid-twentieth century. FETISH figures carved from malachite are used for fetish NECKLACES. Since the 1980s, sets of matching jewelry pieces with malachite stones have achieved greater interest, as well as increased marketing, perhaps as a result of the decreased availability of green TURQUOISE.

man in the maze

An especially popular design motif for SOUTHWESTERN INDIAN JEWELRY; the Navajo and Hopi in particular have adopted this design for use on pins, RINGS, BRACELETS, and WATCHBANDS, often rendering it in a combination of GOLD and silver OVERLAY (*see* SILVER). The motif consists of a man, seen in full front silhouette, standing at the start of a maze that is in a general circular, oval, or pentagonal shape; the maze is seen from above. Alternatively, the man is sometimes shown in the center of the maze.

The image comes from the creation stories of the Pima and Tohono O'odham (formerly known as the Papago), which revolve around Elder Brother (*I'itoi* or *Se-eh-ha*) and his symbolic journey to his mountain home while eluding various enemies. Therefore, the maze is thought to represent his home, with the human figure placed in what could be interpreted as either the entrance or the center of the maze. Popular interpretations have also called this home plan a "path of life," especially since the actual path around the figure is not a maze but an exact route without shortcuts, dead ends, or false turnings; consequently, this "maze" is indicative of the path a person must follow to complete the life journey.

Further Reading: Bahti, Mark. *Southwest Indian Designs, with some Explanations*. Tucson: Treasure Chest, 1994.

manta pin

A decorated SILVER pin, embossed, stamped, or set with stones, used to secure the garments of Pueblo women, who often refer to it as a "sew on" (*see* EMBOSSING; STAMPING). This piece was made regularly through the nineteenth and early twentieth centuries; since the 1940s, however, it has become a custom order.

A manta pin is worn mainly at ceremonial and social occasions calling for traditional dress; it is usually sewn onto blouses or multiple pins are placed in a line down the sides of a Pueblo woman's dress or skirt. As an older ornament form devised specifically for native women, the manta pin is prized by collectors. The patterns used on older pins have sometimes been transposed onto a contemporary fine-art jewelry pin or belt BUCKLE. Plain silver manta pins seem to have been the earliest style, but pieces made at Zuni by the mid-twentieth century were frequently embellished with a profusion of shaped TURQUOISE. This combination of silver and stone now seem to be predominant, undoubtedly as a reflection of the Pueblo predilection for small stonework. Contemporary pieces are now made that pay tribute to the manta pin's shape and historical context. *See also* PUEBLO JEWELRY.

Marks, Gerry (6/20/49– , Haida)

A carver by profession, Gerry Marks also works extensively at jewelry design, carving pieces in SILVER REPOUSSÉ, GOLD, IVORY, and jade. He studied with Freda DIESING (b. 1925, Haida) in 1971; he also attended a silversmithing seminar in 1977 at the Vancouver Planetarium. His interest in demonstrating his repoussé and engraving techniques has been influential, and the artist makes his own tools to shape his BRACELETS and PENDANT medallions. He exhibited in the 1977 "Guild Exhibition" at the Vancouver Art Gallery. **Museums:** Department of Indian and Northern Affairs, Ottawa; British Columbia Provincial Museum, Victoria. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: Steltzer, Ulli. *Indian Artists at Work*. Seattle: University of Washington Press, 1976.

masks

Masks are an integral part of the material culture of many native groups; they are also valued as artifactual acquisitions representative of a particular culture and its beliefs. Whether they are rendered abstractly or in a representational mode, masks are frequently used as design elements on Native American jewelry.

Masks are usually associated with religious activities—often dances (*see* DANCERS)—and supernatural beings, ancestor spirits, sacred animals, culture heroes, or specific rites, such as initiations into medicine societies. Some masks have immediate connotations of the people that make and wear them, from Iroquois False Faces to the mighty TOTEM masks donned by Northwest Coast shamans. Masks also serve as "decorative shorthand" for a people and their culture—as in the immense demand for Pueblo KATSINA dancer masks (which are made by the Hopi and Zuni, but less frequently by the other Pueblos)—and so comprise a powerful design motif choice for Indian artists.

The manner in which masks are reproduced depends largely on the cultural tradition of each jeweler; masks may be elaborate, intricate compositions, or they may be simple—even modernistic—renditions, with a deliberate lack of detailing. INLAY, stone CLUSTER WORK, incised SILVER, or carving from BONE, IVORY, or other natural materials are preferred techniques for presenting masks on a piece of jewelry; mask images are used on a wide variety of forms, from BOLA ties to faceted-link BRACELETS. Brooch pins made of

Neck ring of twisted cedar bark with small wooden mask, Tsimshian, collected ca. 1945. *Canadian Museum of Civilization, Image #75-9329.*

wood, brightly painted to represent masks, are made by some Pacific Northwest Coast artists as a form of TOURIST JEWELRY.

Massie, Mike (1962– , Labrador Inuit)
Mike Massie's career has been that of a contemporary fine artist, and his three-dimensional carved artwork—primarily METALWARE and some jewelry—is anything but traditional. However, his aesthetic base for many works comes from objects of indigenous material culture, such as his ulu knife teapots, and his brooches and sled EARRINGS. Massie's Inuit, Innu, and Qablunaaq (white) heritage has taught him respect for different cultures. He has experienced (and questioned) the dangers of being "typed" as an Inuit artist and therefore restricted in the usage of materials and styles. He works extensively in STERLING SILVER, and he also uses exotic woods, IVORY, and HORN.

Massie studied at Western Community College, Stephenville, Newfoundland, and received his B.A. in 1991 from Nova Scotia College of Art and Design, majoring in jewelry. He has taught at various colleges in northern Canada, including courses in jewelry instruction at Arctic College (Iqaluit, Nunavut) from 1992 to 1994. He received a grant from the Canada Council in 1992, and another in 1996 from the Newfoundland and Labrador Art Council. He has had extensive solo and group exhibitions in the United States and Canada, and at the First Canadian Indigenous Arts Festival, Scottsdale, Arizona, in the late 1990s. **Galleries:** Alaska on Madison, New York City. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY.

Further Reading: *Inuit Art Quarterly.* (Toronto, Ontario) Spring 1996.

matrix
A contrasting material found in the parent rock of a gem or mineral such as TURQUOISE or OPAL. Matrix is often made of iron pyrite and can appear as flecks, spots, or a delicate line of tracery known as *spiderweb*.

Matrix can be a prized design element in a gemstone on a piece of jewelry; lapidarists consider its great variation in color, effect,

A green turquoise butterfly brooch, with strong matrix markings, ca. 1950s-1960s. Navajo or Zuni. *Courtesy of the VanderWagen Trading Company.*

and texture to be factors in evaluating the quality of a stone. Matrix lines can vary in color, including black, brown, and even a GOLD tone.

Further Reading: Hammons, Lee. *Southwestern Turquoise: The Indians' Skystone.* Glendale: Arizona Maps and Books, 1976.

medicine bundles, pouches

Personally sacred objects to their owners (whether medicine men or not); the contents of a bundle or pouch, worn or carried on the body, provides power, strength, and protection by way of the properties of the items therein: pieces of stone, SHELL, FEATHERS, HORN, sweetgrass, sage, and so on. Small medicine bundles can also be attached to a FETISH figure, usually with a piece of sinew or twine. The re-creation of medicine bundles or pouches as a design element for native-made jewelry is a late twentieth-century development (usually a REVIVAL-STYLE feature from the 1980s onward). Typically, medicine bundles are a motif in use by contemporary Plains artists. These artists recognize that the medicine bundles or pouches were usually concealed objects because the "medicine" they contained was personally sacred and meant for the wearer only; therefore, the direct representation of a medicine bundle or pouch is meant to be a tribute to Plains material culture. Navajo men wear a leather shoulder bag, often decorated with SILVER ornaments, that is commonly called a medicine pouch. Non-native people who follow "new age" precepts are particularly interested in this kind of decorative motif.

melon beads

Hollow SILVER BEADS with a slightly elongated shape, pointed at each end; their physical resemblance to the melon seed gave them the earlier name "melon seed beads." They are also sometimes referred to as "*pinon beads*." The surface of these beads can be stamped or decorated by fluting or other forms of decoration (*see* STAMPING, STAMPWORK). When viewed through the center, the interior cross-section may appear slightly elliptical or even square. *See also* BEADWORK.

metalware

Utensils and household material made of metal, often created as a by-product of silversmithing for making jewelry pieces and dress ornaments. Most metalware items were made (and continue to be made) specifically for non-Indians.

Many early works have become prized objects for antique dealers and collectors. Certain items are notable for their "curio" or souvenir intentions, and they vary from commercialized derivative designs to extraordinary examples of fine metalworking. The following objects have been part of the native smith's metalware repertoire: ash trays, bowls, boxes, church SILVER items (such as chalices, goblets, and plates), letter openers, and tableware (more commonly called "flatware"), including oversized serving forks and spoons.

Navajo master silversmith Kenneth BEGAY (1913–1977) was particularly known for the fine sculpted metalware goods he made for the WHITE HOGAN (Scottsdale, Arizona) during the 1950s. A number of metalware items, crafted by both anonymous and known artisans, are on display in museum collections, such as the Heard Museum (Phoenix, Arizona), and the Millicent Rogers Museum (Taos, New Mexico). Pieces in REVIVAL STYLES and modern, streamlined design continue to be made by contemporary native artists, often on commission; however, the number of such metalware items is limited when compared to the actual range of jewelry pieces produced by these same artists. Sometimes a native silversmith and jeweler may become known for a particular type of artistic metalware object; for example, Navajo artist Norbert PESHLAKAI (b. 1953) has achieved acclaim for his miniature silver pots. For Peshlakai and other artists, hand-hammered silver is a frequently chosen mode, and preferred decoration can range from STAMPING

to the addition of carved or inlaid objects (*see* INLAY) on the lids of boxes or handles of flatware. Whole SHELL, mosaic stonework, and TURQUOISE figurines are popular settings for the tops of boxes and other containers.

Some specific categories of metalware may be classed as "curios" or "novelties" that were made specifically for the non-Indian consumer. The earliest types of objects were made for U.S. Army soldiers at frontier military outposts; these items include tobacco canteens (most commonly made between 1870 and 1920), pistol grips, silver flasks, snuff and pill boxes, and neckerchief slides. Other types of novelty silver goods were produced on demand after 1920: baby rattles, napkin rings, silver table bells and thimbles, cigarette lighter cases, money clips, tie clips, and various hair ornaments (including the "ponytail cone"). Two items devised specifically for Navajo personal use are hair tweezers and the famed "mother-in-law bell" (traditional Navajo men were subject to a taboo that banned them from contact with their mother-in-law, so the bell was worn by these women as a means of announcing their presence). These metal goods appear only rarely on the antique Indian arts market but are keenly sought by collectors.

Further Reading: Branson, Oscar T. *Fetishes and Carvings of the Southwest*. Tucson: Treasure Chest, 1976.

Mikkigak, Qaunak (1932– , Inuit)

Qaunak Mikkigak is famed for being one of the first woman carvers, and for her steady use of traditional themes from native culture. Born and living in the Cape Dorset region, Mikkigak was exposed to carving at an early age. Her jewelry-making began after participation in a jewelry project at Cape Dorset in the mid-1970s. Her pieces combine engraved stone and other natural materials such as sealskin, IVORY, leather, and BONE, sometimes with metal added on. Her pieces are evocative recreations of a genuine indigenous aesthetic, with a human or animal face often appearing as a central design motif. **Museums:** Art Gallery of Ontario, Toronto; Inuit Cultural Institute; Canadian Museum of Civilization, Hull, Quebec. Her work was exhibited in the 1976 "Debut—Cape Dorset Jewelry," Canadian Guild of Crafts, Montreal, and "Things that Make Us Beautiful," Department of Indian and Northern Affairs, Ottawa, 1978. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY.

Further Reading: *Inuit Women Artists: Voices from Cape Dorset*. Edited by Odette Leroux, Marion E. Jackson, and Minnie Aodla Freeman. (Canadian Museum of Civilization). Seattle: University Washington Press, 1994.

Mimbres

Considered a subgroup of the ancient Mogollon culture, the Mimbres were most active around A.D. 900 in a watershed area near the borders of south central Arizona, New Mexico, and northern Mexico. They are best known for their distinctive black-on-white pottery, with characteristic abstract and geometrical patterns, and strongly delineated representations of animals, fish, insects, and humans. Mimbres designs have been adopted into modern native jewelry design repertoires, in honor of their ancestral nature.

Mimbres-derived animals and figures, such as deer, RABBITS, and men, appear on many SOUTHWESTERN INDIAN JEWELRY pieces as central compositions, or other cross-hatched geometrical patterns, often appearing as borders, may be used as decorative motifs. The FRED HARVEY COMPANY popularized Mimbres designs, recreating them for advertisements and even placing them on tableware. Native artists often deliberately chose Mimbres patterns for use on jewelry, as in the case of the Hopi Silvercraft Project, started in the late 1930s. *See also* HOPI JEWELRY.

Monongye, Jesse Lee (8/13/52– , Navajo)

Raised in the Navajo tradition by his mother's family, Jesse Monongye was already an adult when he first met his famous jeweler father, PRESTON MONONGYE (1927–1987, Mission/adopted Hopi). Father and son worked together from 1974 to 1978, and Jesse acknowledges the invaluable training and

Bear pendant with semiprecious-stone inlay by Jesse Monongye (Navajo). *Courtesy of the artist.*

inspiration he received during this time. However, his work also draws deeply from his dual Navajo and Hopi heritage. An example of this is his use of the BEAR as a trademark design motif; this animal's spiritual nature is important to the artist. Monongye's sophisticated INLAY designs are highly regarded, and he makes innovative use of delicate tools, including dental and diamond-drilling equipment to do his painstaking lapidary work. He uses a wide variety of SEMIPRECIOUS and PRECIOUS STONES, GOLD, and SILVER in his designs. The resultant MOSAIC work is intricate, with strong colors, and is carefully polished to a smooth finish.

Father and son were the subject of an exhibition at the Southwest Museum in California in 1976; Jesse had many solo and group exhibitions in the 1980s and 1990s. His awards are extensive as well, including the GALLUP INTER-TRIBAL INDIAN CEREMONIAL (1979, 1991–1993), Heard Museum Guild Fair (1977, 1979), Northern Arizona Museum (1975), and SWAIA INDIAN MARKET (1979, 1992). **Galleries:** Garland's Indian Jewelry, Sedona, Arizona; Packard's, Santa Fe, New Mexico; David Saity, New York City. **Museums:** San Diego Museum of Man, California; Heard Museum, Phoenix, Arizona; Northern Arizona Museum, Flagstaff, Arizona; Denver Art Museum, Denver, Colorado; Cooper-Hewitt Museum, New York City.

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Monongye, Preston (9/26/27–7/13/87, Mission/adopted Hopi)

Preston Monongye is a major figure in the development of Southwestern Native American fine-art jewelry. He learned to work SILVER from his uncle, Gene Pooyouma, in the mid-1930s. Monongye attended Haskell Indian Junior College (Lawrence, Kansas) and Occidental College (Los Angeles). He served in World War II and in Korea, finally turning to art full-time in the mid-1960s. He exhibited in numerous group exhibitions at galleries and Southwestern Indian art shows, and had several one-man exhibitions, including the Heard Museum (Phoenix, Arizona), Gila River Arts & Crafts Center (both 1973), and the Margaret Kilgore Gallery, Scottsdale,

Bracelet, Bisbee turquoise and gold, 1970s, by Preston Monongye (Hopi). *Courtesy of The Heard Museum, Phoenix, AZ.*

Arizona (1980 through 1990). From 1966 onward, he won numerous awards for his work from all the major museum and Indian competitions. Monongye's first love was Hopi OVERLAY, but he also worked with TUFA casting and the addition of MOSAIC inlay.

He gained even greater attention from the Indian art world around 1966, when he began a style of fine-art jewelry-making that he attributed to "The New Indian Jewelry"; Monongye described this development in an article by the same title in a June 1972 issue of *Arizona Highways*. He was also among the first native fine-art jewelers to work with GOLD.

Monongye personified the "designer" in pursuit of artistic innovation, much like Charles LOLOMA (1921–1991, Hopi), and both gained international recognition as a result. Monongye used traditional techniques even as he pioneered innovative forms and styles. His son JESSE MONONGYE (b. 1952, Navajo) is another well-known jeweler who has developed richly colored INLAY and precise, modernistic lapidary skills. *See also* CASTING; SOUTHWESTERN INDIAN JEWELRY.

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mosaic

The process of executing designs, usually geometric patterns or portraits of animals and people, with small pieces of SHELL, SEMIPRECIOUS STONE, or other materials. These fragments are juxtaposed into or onto a piece of metal or natural material jewelry with the aid of adhesive, but without grooves or any distinctive outlines separating the pieces. Pueblo artisans excel at this work and have used mosaic INLAY since pre-contact times. (The Zuni consider their mosaic inlay technique, developed and refined in the early to mid-twentieth century, to be a distinctive style in itself.) Subjects chosen for mosaic work often reflect popular figures or creatures from the artist's culture, including KATSINAS, DANCERS, symbolic BIRDS, and flowers.

Mosaic inlay is distinguished from CHANNEL INLAY in that, with mosaic, no SILVER is permitted to show between the set-in stonework. The resultant composition is completely intact and uninterrupted; when mosaic is skillfully rendered, it is colorfully realistic. Santo Domingo and other Pueblo artists also decorate large whole shells with mosaic patterns, a practice that dates back to HOHOKAM and Salado jewelry-makers of the pre-historical era in the American Southwest. *See* the SANTA DOMINGO JEWELRY entry for an illustration of mosaic.

mudhead

Clowns, also known as "koyemshi," that appear in Hopi and Zuni rituals. Their images appear on various native crafts, including jewelry. According to Zuni migration legend, 10 koyemshi were born of an incestuous union. The figures have misshapen heads with knobby bumps for ears and hair and are depicted as clay-red or mud-colored, wearing a black kilt and bandanna. Supposedly identical in appearance, the 10 clowns actually have distinct individual names and personas. They eat dirt and offer mocking pantomimes (similar to the actions of the KOSHARE) to disrupt the sacred tempo of ceremonials, KATSINA DANCES, and priestly activities. Also like the koshare clowns, the mudheads represent "colorful" characters appreciated by non-Indian observers, and these characters are represented as a kind of folk figure on both fine-art and TOURIST JEWELRY pieces. *See also* PUEBLO JEWELRY.

Muldoe, Earl (5/16/36– , Gitksan; also spelled Muldon)

Earl Muldoe is one of numerous influential Northwest Coast native artists, but he con-

siders his status as a jewelry designer to be primary to his work as a wood carver. While largely self-taught, Muldoe learned from his uncle, Walter HARRIS (b. 1931), and attended an important silversmithing workshop in Vancouver in 1977. He engraves traditional animal and figural designs on GOLD and SILVER, and has taught at the Kitanmax School of Northwest Coast Indian Art, in 'Ksan (near Hazelton, British Columbia). His work appeared in the important "Legacy" exhibition of 1980 at the University of British Columbia. **Museums:** British Columbia Provincial Museum, Victoria; Department of Indian and Northern Affairs, Ottawa; Museum of Anthropology, University of British Columbia, Vancouver. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art.* Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum; Steltzer, Ulli. *Indian Artists at Work.* Seattle: University of Washington Press, 1976.

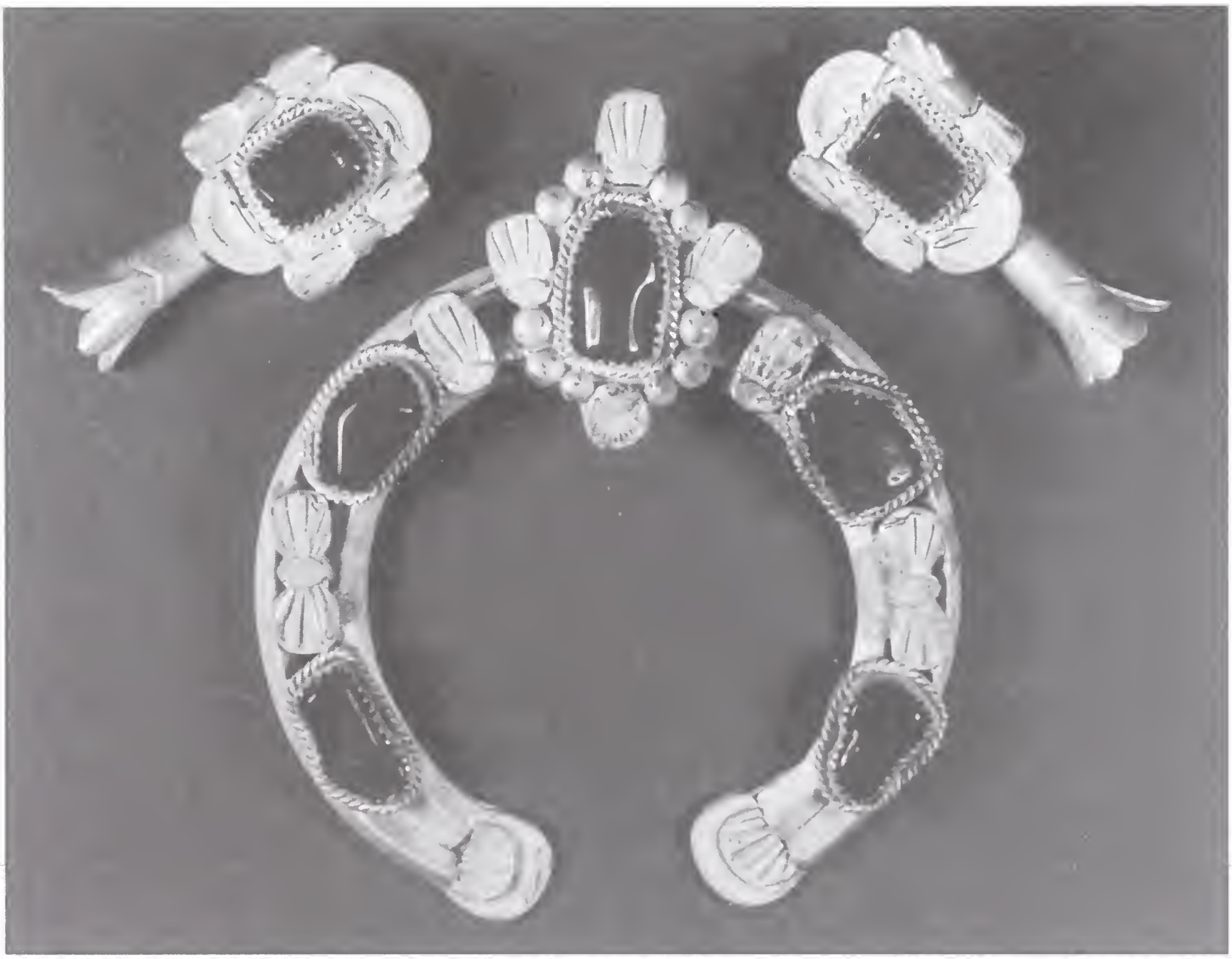
N

naja

A crescent-shaped piece in the form of a three-quarter circle that acts as the centerpiece of a PENDANT ornament. Navajo silversmiths created this form specifically for use in jewelry. The naja design is believed to be of Moorish derivation, and borrowed from Spanish colonial ornamental use on horse bridle headstalls and men's SILVER decorations on trousers. Plains tribes also had access to this form for metal ornament, but it is commonly believed that they obtained the naja design from the Spanish as well. The origin of the term *naja* (with alternative spellings *najahe* or *nazhahi*) comes from the Navajo word for "crescent." Naja ornaments were mostly Navajo-made, but some Pueblo peoples, usually Hopi or Zuni, might produce them as well. The naja became a popular jewelry element, associated specifically with SOUTHWESTERN INDIAN JEWELRY, and eventually this central pendant shape was added to the "classic" silver necklace of Navajo make, the SQUASH BLOSSOM necklace.

Naja designs vary according to their makers' tastes. Early hammered or cast naja pendants were decorated simply. COLD CHISEL engravings or stampwork could be added (*see* STAMPING, STAMPWORK). The setting of stones began after 1880, for the most part. The crescent part of a naja might have double or triple bars. The top section of the crescent would have a loop for suspending the piece and attaching it to the rest of the NECKLACE. The inner center of the naja crescent often had a small suspended bar from which a stone or rounded decorative tip could dangle. Fanciful elaborations appeared throughout the early- to mid-twentieth century. The nineteenth-century predilection for plain and wholly silver decorated pieces gave way to increasing additions of small stones. Eventually, innovations in lapidary techniques, such as CLUSTER WORK, NEEDLEPOINT, and INLAY, were added to the squash blossom necklace and its naja pendant. Sometimes the small dangling objects attached to the naja's loop were multiplied for effect. Small naja disks might even be made and attached to a silver necklace in place of a squash blossom bead. The terminal points of the naja loop and its double or triple bands were another source for decorative effect; pieces might end in circular disks, rounded or domed button-like ornaments, or even small hands. The use of such hands appears frequently; some scholars claim that this particular design could also be a Moorish derivation of the "hands of Fatima." Another variation that appears is a complete closure of the loop into a circle.

The design origins and significance of the naja, even its Spanish and Moorish context, are not clear. One European concept of the crescent was as a device against the "evil eye," but this idea was probably not known to the naja's Native American makers. Thus, the



A detached silver and coral naja pendant and matching squash blossom beads, ca. 1970s, Navajo. *Courtesy of the VanderWagen Trading Company.*

naja followed the various patterns of stylistic elaboration that affected Southwestern native-made jewelry, but it is also a unique form that is truly a product of that region's cultural aesthetics. Individual naja pieces could be detached from a necklace and made into pins. Interestingly, the naja crescent form is not often used for EARRINGS or for other types of jewelry forms. However, najas are still made by contemporary native silversmiths, especially in REVIVAL-STYLE pieces. The squash blossom necklace with its attendant naja has declined in popularity since the boom decade of the 1970s, but the naja is still widely recognized as a viable Southwestern native jewelry form and design.

Further Reading: *American Indian Art Magazine* (Scottsdale, AZ), Spring 1982.

Native American Church. *See* PEYOTE BIRD; PLAINS, PLATEAU, AND OKLAHOMA INDIAN JEWELRY

native-style

A term widely used in scholarly and popular literature, including sales and mail-order catalogues, to denote that an object has been created to resemble, or exactly reproduce, an established Native American art or craft convention, but that the object's creator is not Native American (or not part of the particular native tradition that originated the style).

Consumers have often been misled by the application of "Indian-style" and "native-style," and most native artists believe that non-native-made goods are hurtful to the integrity of the authentic items—particularly in the case of Indian jewelry. The waters have been further muddied by the pan-Indian na-

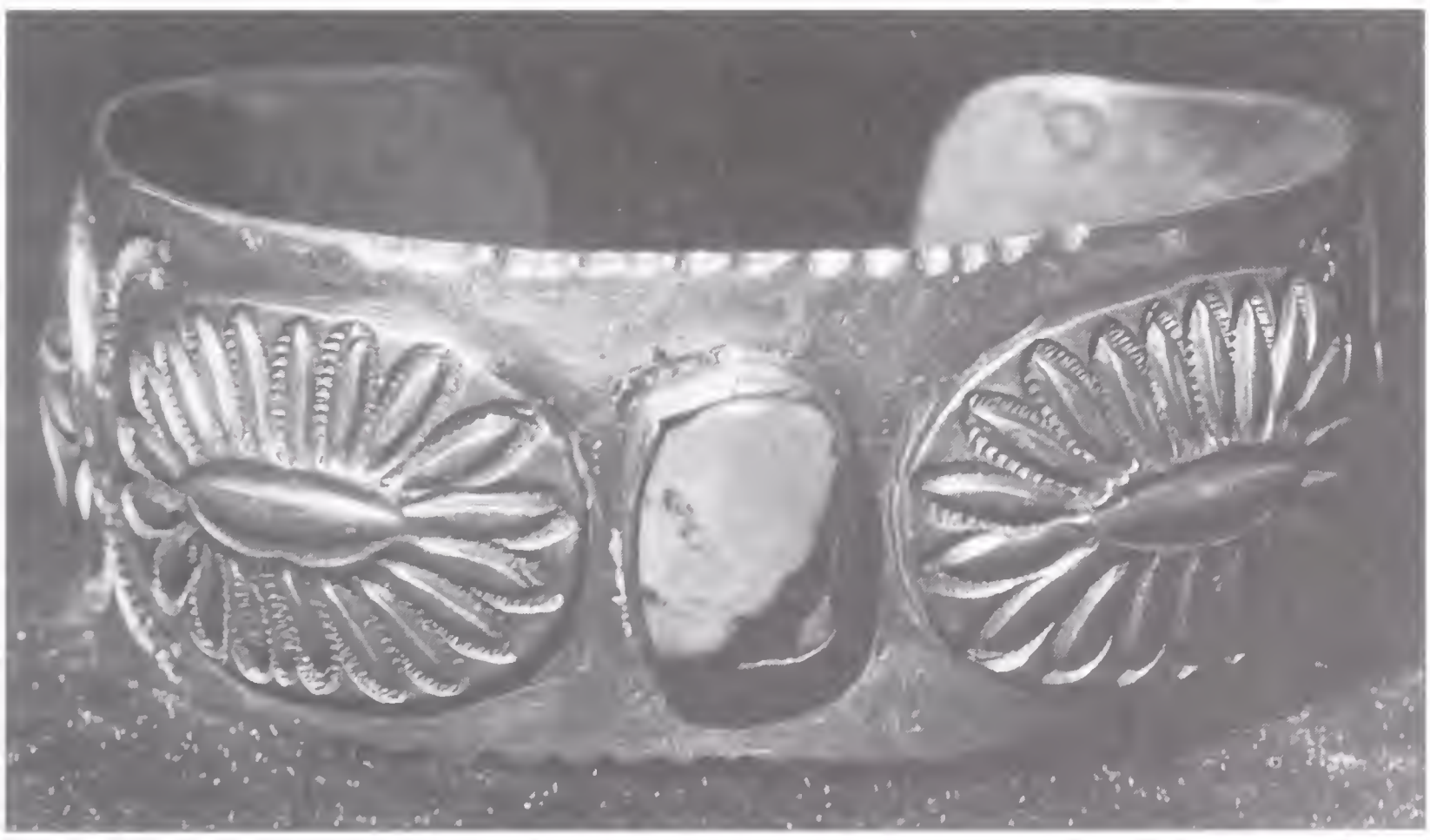
ture of contemporary native art creation, in which tribal stylistic conventions are often used by artists not born into those traditions. A number of serious and thoughtful native jewelers do use techniques and designs from outside their immediate heritage. As one example, a number of Ojibway artists in Canada have migrated to the Pacific Northwest Coast region of British Columbia; there, they have created jewelry pieces that may safely be called Northwest Coast-style, in honor of the area's design traditions that have had influence on their work. For the Indian jewelry industry, however, the use of "native-style" generally is applied to imitation items.

Navajo jewelry

Jewelry made by members of the Navajo Nation (an older spelling is Navaho), who refer to themselves as *Dineh*; representative Navajo styles include sandcast pieces (see CASTING), TURQUOISE on SILVER, die STAMPING on silver (and GOLD), NAJA pendants, SQUASH BLOSSOM BEADS and NECKLACES, hollow SILVER BEADS, and CONCHA belts.

The Navajo Nation is undoubtedly the largest producer of Native American silversmiths and fine-art jewelers in North America. The Navajo Reservation occupies a sizable tract of land (more than 15 million acres) in the adjoining regions of northeast Arizona, northwest New Mexico, and southern Utah. Throughout the twentieth century, the Navajo have been among the largest of the native groups in terms of population (in the 1990 U.S. Census, the Navajo were the second largest tribal group in the country). In addition, more information and literature has been produced on Navajo jewelry-making than on the work of any other native people.

A few Navajo individuals had learned ironmongering from itinerant Mexican blacksmiths in the 1850s. Prior to their incarceration by the U.S. Army at Fort Sumner, New Mexico, from 1864 to 1868, the Navajo had access to iron, BRASS, and COPPER wire material for simple BRACELETS, Plains-style domed concha belt plaques (obtained through trade), ear plugs (*see* EARRINGS), and dress ornaments. There are accounts that while at Fort Sumner, some Navajo men cleverly counterfeited copper food-ration tickets, providing early confirmation of the people's facility with working metal. The Navajo are best known for their silverwork, in part due to a groundbreaking study done by a young anthropologist, John Adair.



Bracelet of coin silver, chiseled, filed, and stamped, ca. 1890s, Navajo. *Collection of Lynn D. Trusdell.*

Field work by Adair in the 1930s, working with Navajo informants with memories dating back to the 1870s and 1880s, provided a clearer picture of developments after 1868. Adair's research, confirmed by others, identifies ATSIDI SANI (active 1860s to 1890s, d. 1918?) as the first Navajo to work silver, and another early smith, ATSIDI CHON (active 1870s to ca. 1900), as the first to set turquoise onto a silver piece. These smiths taught a number of other Navajo men, spreading knowledge of the craft to various Pueblo neighbors, thus moving the impetus for silversmithing throughout the Southwestern region. Atsidi Sani's younger brother, SLENDER MAKER OF SILVER (active 1880s to 1890s, d. 1916), has been credited with numerous innovations in silver and stonework design during the 1880s and 1890s. Early Navajo works from the 1870s are generally clean, plain silver pieces, marked by simple surface decoration (punched and stamped).

Some of the more commonly used designs may have been derived from Spanish colonial HORSE gear and male dress ornamentation. Lapidary work increased during the 1890s; more and more Navajo pieces were set with clusters of turquoise as this material became more available from regional mines, and heavy pieces with well-balanced decoration developed with late nineteenth-century jewelry. One of the Navajo artisans' greatest innovations was in their inventive use of die stamping for decorative effect, with many smiths devising their own handmade stamps, which were often passed down through the generations. Navajo smiths often made silver settings, known as "blanks," that were then set with stones by Zuni (or Pueblo) lapidarists.

The early twentieth century brought improved tools and techniques and introduced commercially produced materials. Commercialism influenced Navajo jewelry-making as early as the 1910s and 1920s, when INDIAN TRADERS and railroad vendors, such as the FRED HARVEY COMPANY, offered incentives for piecework. Most Navajo jewelry of the early to mid-twentieth century was anonymous craft work; some of these early styles and designs, however, were adapted by the Harvey Company and other firms into tourist pieces that eventually were mass produced, made of thinner silver (so they would be easier for tourists to carry), and covered with generic symbols (such as arrows) (*see* TOURIST JEWELRY). But this production work making tourist-type jewelry proved to be an important income incentive for many Navajo.

On the vast Navajo Reservation, many smiths worked in scattered locations, often near railroad towns in New Mexico (such as Gallup) and Arizona (such as Flagstaff); smithing often became a family occupation, with innovative work done by such families as the Plateros, Singers (*see* CHIP INLAY), and the Tahe clan. As for many other native peoples, the Depression years were a struggle, and in the early 1940s, the INDIAN ARTS AND CRAFTS BOARD (IACB) eventually convinced the federal War Production Board to allow Navajo smiths access to silver, at a time when metals were dedicated to the war effort. Several names of significant smiths emerge from the late 1930s and early 1940s: Tom BURNSIDES (active early to mid-twentieth century), whom Adair visited and observed at work, and Ambrose ROANHORSE (active late 1920s–1960s), a noted smith and educator, and the first director of the Navajo Arts and Crafts Guild (*see* GUILDS). Roanhorse represented his people at the landmark exhibition at the Museum of Modern Art in New York City in 1941, "Indian Arts of the United States," organized by the Indian Arts and Crafts Board. Also demonstrating silversmithing at separate times during the exhibition were Dooley Shorty (sometimes written as Shorty Dooley) and Tom Katenay. The Museum of Modern Art exhibition in 1941 was one step in the non-Indian encouragement of Navajo silverwork, and many would-be consumers were exposed to Navajo jewelry designs during the war years. A strong and vocal group of non-native enthusiasts also began their praise of older-style Navajo silverwork as "classical," while lamenting the increasing importance of stonework to jewelry compositions, starting in the 1930s and 1940s. The end of World War II brought

many men back to the reservation ready to pick up their smithing; by this time, however, there were more women silversmiths than previously.

Adair documented the names of a sizable number of older generation smiths who were active as of 1940, and a sampling of notable figures includes Jack Becente; Charles Begay; Charlie Bitsue; Mose Blackgoat; Wilson Charlie; Jim Curley; Hosteen Deel; Billie Goodluck; Charlie Houck; John Hoxie; Rose Jackson; Wilson Jim; Wilfred Jones; Frank Marianito; Herbert Morgan, Sr.; Frank Pinto; Roger Skeet; Austin Wilson; Luke and Tom Yazzie; and Chester Yellowhair. Another influential figure from the early to mid-century was Fred Peshlakai, nephew of Slender Maker of Silver; he worked both on and off the reservation, and also taught silversmithing to Kenneth BEGAY (1913–1977). Peshlakai had a major impact on the training of Navajo silverworkers, and he serves as an important "bridge" between the older generation of smiths—those active in the last quarter of the nineteenth century—and the younger generations of the Depression, war years, and beyond, as personified by Begay himself, among others.

Not until the 1950s did one of the first named and acknowledged innovators of Southwestern jewelry, Kenneth Begay, began to receive due attention. His contributions to Navajo silversmithing, jewelry design, education, and even economic incentive (*see* WHITE HOGAN), influenced a whole new generation. Begay's life and work epitomized the growing appreciation of clean, elegant Navajo silverwork, rendered in smooth, flowing lines and marked with carefully set stonework; this fine hand-wrought decoration, allied with thoughtful design, became emblematic to non-native consumers. By this time, the squash blossom necklace, concha belts, and sandcast bracelets had become known as "typical" Navajo styles. Some smiths active from the 1950s through the 1970s, many making jewelry for the Navajo Arts and Crafts Guild (formerly the Wingate Guild) after its founding in 1941, were LeRoy Benally; Mike Carroll; Philip Coan; Frank Cowboy; John and Rose Elliot; Sadie Etsitty (whose silver squash blossom necklace appeared in the 1958 exhibition, "Southwest Indian Arts," at the California Palace of the Legion of Honor, San Francisco, California); Joe Ike; Rose Jackson; Allan Kee (who worked at the White Hogan in Scottsdale, Arizona, with his cousin Kenneth Begay); Helen and Philip Long, known for their silver KATSINA figurines; Sam Tilden; Richard Yazzie; and Pat Yellowhorse.

Styles in Navajo jewelry remained split between pieces dominated by plain silver with stamped or filed decoration and others with cluster work or arranged stones in settings. The later 1940s were a watershed decade for pieces made with heavy and distinctive, almost "baroque," silver and stonework. The Navajo jewelry-maker's tendency toward experimentation and improvisation created such new technical effects as chip inlay and SHADOW BOX. A solid mastery of materials and forms is evident in contemporary work of the 1980s and 1990s, as can be seen in the jewelry of Ron Bedonie, Jake LIVINGSTON (b. 1945) (whose inlaid BIRD designs, among his other motifs, on silver pay tribute to his Navajo and Zuni heritage), Howard Nelson, and Norbert PESHLAKAI (b. 1953).

Pride in the earlier period of Navajo silver is another theme explored by some artists, such as Thomas Curtis, Sr., Harry Morgan, and Perry SHORTY (b. 1964), who consciously make REVIVAL-STYLE pieces. Facility with "traditional" silver stamping and FILING designs mark the work of Fidel Bahe, Vernon Begaye, Kee Benally, Carson Blackgoat, Edison Cummings, Vernon Haskie, Allison Lee, Thomas Singer, Edison Smith, and Orville Tsinnie, yet most of these individuals also experiment with stonework effects.

From the early twentieth century on, a number of women became gifted silversmiths; their contributions in creating BEADWORK, fine art, and traditional styles are diverse, and have enriched the medium. These include Marie Cowboy (active mid-twentieth century) and contemporary artists Betty Betoney, Brenda Boyd, Louise Clark, Rita Joe Cordalis, Cheyenne Harris, Rain PARRISH (b. 1944),

Deborah Silversmith, Gloria Yellowhorse, and Esther Wood (active 1980s and 1990s). Navajo artists willingly entered the fine-art jewelry field, and many have created fresh designs, often using INLAY work in rich colors, and new approaches to silver OVERLAY. These artists include Victor BECK (b. 1941), Abraham and Paula Begay, Harvey BEGAY (b. 1938), Arland F. Ben, Ric Charlie, Irene and Carl Clark and their son Carl Jr., Jimmie Harrison, James Little, Jesse MONONGYE (b. 1952), Al Nez, Naveek, McKee Platero, and Lynol Yellowhorse (all active from the 1970s to the 1990s).

Individualism is rampant in Navajo jewelry-making. Some jewelers have carved visible design identities for themselves, sometimes through distinctive emphasis on a particular design element. Examples of this include Clarence LEE's (b. 1952) and Russell LEE's (b. 1976) STORY genre vignettes from Navajo country life, Paul Arviso's and Herbert TAYLOR's (1951–1996) use of gold as a contrast to silver or fine stones, Leo Yazzie's strong juxtaposition of colors, the oversized aesthetics of stamped silver pieces by Emerson and Nora Bill, and the union of native motifs onto avant-garde forms that can be seen in the work of Boyd and Richard Tsosie.

Possibly the best-known Navajo jeweler of the 1990s is Ray TRACEY (b. 1953), who has successfully marketed his pieces in a variety of price ranges according to their design specifications and the materials used. Tracey makes pieces that combine native design motifs with mainstream non-native jewelry shapes; his jewelry has become recognizable to a wide audience of consumers. Ingenuity seems to be a hallmark of Navajo jewelry, as artists move freely in and out of native design conventions, using differing techniques and materials at will. These jewelers' ability to look forward is typified in the activities of young silversmith Ben Gorman, who has mounted his own descriptive homepage onto a gallery's Website <http://www.sunshinestudio.com/bgorman.html>, where he shows how he makes an overlay bracelet. Other attention-getting innovators of the 1990s include Allen Aragon, Tom Baldwin, David Chethlahe Paladin, Daniel Sunshine Reeves, Ervin P. Tsosie, and Vernon P. Tsosie. Navajo jewelry-making has quickly matured within its short history, but shows no sign of slowing down or diminishing because its makers continue their creative explorations of the medium.

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necklaces

Jewelry made to be draped around the wearer's neck. Made from one or more strands of natural or metal materials, necklaces are probably the most popular and widely recognized of all Native American jewelry forms, largely because of the distinctiveness of certain native-made styles. When most non-Indians think of native-created jewelry, they tend to recall forms such as SQUASH BLOSSOM necklaces, PENDANTS of SILVER and stonework, silver CROSS necklaces, TURQUOISE shaped-stone and HEISHI necklaces, "FETISH necklaces," glass TRADE BEADS, and traditionally styled compositions of beads, animal claws, SHELL, or BONE. Simple necklaces made from natural materials, such as bone, shell, or stone, were very much part of historical indigenous personal adornment, and many examples have been found by archaeologists. Modern native jewelry-makers often use these early examples as prototypes for their designs. In many cases, the coming of European Americans brought materials and techniques, or even design forms, that steered necklace production into new directions (*see* NAJA).

In the twentieth century, some types of necklaces, such as the beaded pendant on buckskin, underwent a period of decline when inexpensive versions were manufactured for TOURIST JEWELRY. By the 1980s and 1990s, native fine-art jewelry-makers took the opportunity to rescue such work from poor-quality examples and stereotypes. As a result, necklaces with beads on buckskin, or strung alone, were transformed by artistic revivals of BEADWORK. Once prized by native peoples exclusively, beadwork necklaces have become elaborate and imaginative works of art in their own right, with appeal to a wide range of consumers. Increasingly through the 1980s and 1990s, superbly designed necklaces and pendants caught the imagination of admirers at expositions and Indian arts events, such as the Santa Fe INDIAN MARKET. Native fine-art jewelers are creating remarkable pieces that include elements of older existing forms yet also display dazzling combinations of innovative materials and techniques.

Certain types of necklaces with native origins, such as fetish necklaces and stamped SILVER BEADS, have influenced mainstream jewelry production. These creations, once considered costume jewelry or souvenir novelty pieces, are recognizable as unique fine-art work, with designs by named artists. Along with CONCHA belts, older native-made necklaces fetch some of the highest prices for jewelry on the antique Indian arts market. *See* the Ambrose ROANHORSE and SQUASH BLOSSOM BEADS, SQUASH BLOSSOM NECKLACE entries for illustrations of squash blossom necklaces and the FETISH, FETISH CARVING entry for an illustration of the fetish necklace.

A turquoise necklace with stamped silver plaques on a chain, ca. 1960s, Navajo. *Courtesy of the VanderWagen Trading Company.*

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present.* New York: Abrams, 1999; Schiffer, Nancy. *Jewelry by Southwest American Indians: Evolving Designs.* West Chester, PA: Schiffer, 1990.

needlepoint

A Zuni lapidary style in which small narrow elongated stones, pointed at either end, are set into delicate BEZELS and grouped in multiple rows to make circular or rectangular clustered patterns of stonework.

Fine needlepoint calls for well-matched stones and perfectly aligned settings. This technique was believed to be started sometime in the 1930s, and Zuni Indian trader C.G. WALLACE claimed that he encouraged the development of needlepoint as an economic use of small stones left over from other lapidary work. Jewelers create the stones' shape with small-scale grinding equipment and then polishing on an emery stone. Some needlepoint pieces are created as sets of matching work and may include any combination of two or three of the following jewelry forms: NECKLACES, BRACELETS, pins, EARRINGS, and RINGS.

TURQUOISE and CORAL are the most common stones used for needlepoint; quality matched sets are carefully made with stones of equal color and matrix. Edith TSABETSAYE (b. 1940) and Bryant Waatsa, Sr., both of Zuni, are two of the most highly regarded creators of needlepoint jewelry. Most Zuni creators of needlepoint jewelry work consider this technique to be a style as well, and artists in families with a tradition of working in needlepoint are proud of their lapidary facility with this detailed stonework. Even though this technique is not of any great age, needlepoint work is often considered to be a more "traditional" kind of jewelry. *See* also ZUNI JEWELRY.

Further Reading: Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976; Slaney, Deborah C. *Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection*. Phoenix: Heard Museum, 1998.

nephrite

A calcium magnesium iron silicate stone with a long history of use by native peoples in Alaska, Canada, and parts of the northwestern United States. A tough stone, with the translucent green color and durability of jade, nephrite has been made into beads, carvings, and CABOCHONS (polished stones that are cut into a convex form rather than faceted). Many native jewelers use nephrite for PENDANTS and WATCHBANDS. Its color and texture make this material a good substitute for jade, SOAPSTONE, and green TURQUOISE. Nephrite is sometimes called "greenstone" by lapidarists.

Nequatewa, Verma (9/11/49– , Hopi)

A niece of Charles LOLOMA, Nequatewa and her sister Sherian Honhongva were Loloma's apprentices and studio assistants for more than 20 years. Nequatewa learned much from her uncle and in turn contributed many design ideas and lapidary innovations to his work. In 1989, the two sisters launched their own jewelry line under the name "Sonwai" (the Hopi feminine word for beauty). Nequatewa herself began to use the name "Sonwai" by the late 1990s, continuing her uncle's legacy of imaginatively crafted and unique fine-art jewelry. She works mostly with GOLD, but also includes some SILVER and various other materials ranging from CORAL, LAPIS LAZULI, and SUGILITE to ebony, IRONWOOD, and even such precious gems as diamonds. Nequatewa favors TUFA casting and raised INLAY; she avoids mass-production techniques, opting instead for painstaking construction by hand. Like her uncle, Nequatewa often uses the BADGER, or a badger-paw, as a design motif in honor of their Badger Clan membership. **Galleries:** Faust Gallery, Scottsdale, Arizona; Packard's, Santa Fe, New Mexico. She won Best of Show at the 1995 SWAIA INDIAN MARKET.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

Nez, Gibson (1944– , Apache/Navajo)

A self-taught jeweler, Nez's work is prized because, while it is reminiscent of "classic" era Navajo silverwork, it possesses a strong, contemporary design feeling. The artist works

in STERLING SILVER and GOLD and employs CORAL and stonework (mostly LAPIS LAZULI and TURQUOISE). Nez has aided many younger, emerging native jewelers. A veteran of the Indian cowboy circuit, where he achieved important recognition for his riding, Nez's belt BUCKLES and RANGER SETS have won him many awards, including "best of show" at the Heard Museum Guild Fair and the Santa Fe INDIAN MARKET. **Galleries:** Tanner Chaney, Albuquerque, New Mexico; Indian Post, Allentown, Pennsylvania; and various galleries in California and Colorado.

Further Reading: Jacka, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995. For additional background, see <http://tannerchaneygallery.com/1nez-gib.htm>.

nickel silver. *See* GERMAN SILVER

Nighthorse, Ben (4/13/33– , Northern Cheyenne)

Best known as Ben Nighthorse Campbell, congressional legislator and champion of Indian rights, the artist launched his highly successful career as a jewelry designer under the name Nighthorse. He studied at the University of California at San Jose and Stanford University. Nighthorse's intricately fashioned jewelry incorporates INLAY and sandcasting; his work includes both STERLING SILVER and 18-karat GOLD. He favors pink CORAL, LAPIS LAZULI, MALACHITE, SUGILITE, TURQUOISE, and white ONYX for inlay. Nighthorse uses natural and native-made designs, from BEAR claws to petroglyphs, and symbols from his Cheyenne heritage (*see* PETROGLYPHS AND PICTOGRAPHS). He often "hides" additional fine work on the interior of his pieces. His jewelry-making began in 1974, and it turned into a family business in the 1990s as Nighthorse Campbell's political career intensified. His studio is still active; it offers a full-color catalog that features some of his most popular designs, including the reversible bear and running horse PENDANTS.

Nighthorse has won more than 200 awards in major Indian venues, including the GALLUP INTER-TRIBAL INDIAN CEREMONIAL, INDIAN ARTS AND CRAFTS ASSOCIATION (IACA) markets, and Santa Fe INDIAN MARKET. The artist's facility in complex design work, which mixes PRECIOUS STONES and SEMIPRECIOUS STONES, has influenced a younger generation of Western native jewelers. He exhibited his work widely in the 1970s and 1980s, including at the Southern Plains Indian Museum and Crafts Center (1981). Galleries in California and Colorado, and the Indian Craft Shop, Department of the Interior, Washington, D.C., show his work. As an artist of native blood, Nighthorse's legislative career has been concerned with issues of authentication and the protection of native artists' work from copying and appropriation; he has been active in sponsoring bills supporting the recent INDIAN ARTS AND CRAFTS ACT.

Further Reading: Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

Northwest Coast native jewelry

Jewelry created by artists of the Pacific Northwest region (chiefly the coast of Washington State, British Columbia, and parts of southern Alaska). The most active groups in jewelry-making are the Haida, Tlingit, Kwakuitl (including a band known as Kwakwaka'wakw), and Coast Salish. The peoples of the Pacific Northwest Coast are best known for their wood carving; however, their jewelry production is based on aesthetic principles that are an outgrowth of their carving tradition. Northwest Coast native jewelry gained new popularity throughout the 1980s and 1990s because expanded tourism helped increase the international exposure of the region's native arts.

Before the coming of Europeans, the native peoples of the region made adornment for their own use from local materials—BONE, nugget COPPER, GOLD, SHELL, stone, and wood. As with other tribes and nations of North America, the peoples of the Northwest Coast suffered onslaughts against their culture as their region came under British, United

States, and Canadian governmental control. Missionaries and government agents agitated for a ban on many ceremonial and religious practices, including the culturally important potlatches (periodic ceremonial gatherings involving the competitive exchange of gifts between villages, in which the amount of gifts given indicated social rank). In 1884, the Canadian government prohibited the area's native peoples from holding potlatches. Support came only later in the early and mid-twentieth century, when important non-native individuals, such as the Canadian artist Emily Carr (active in the 1930s), became advocates for the restoration of native arts and lifeways. Despite these efforts, the prohibition on potlatch was not lifted until 1951. But many of the objects exchanged at these gatherings—items as diverse as carved boxes, embossed coppers (*see* EMBOSSING), figurines, carved spoons, and incised silver BRACELETS—have been recreated in jewelry form or as designs for modern jewelry pieces; the importance of these objects to the material culture of Northwest Coast groups is represented in their continued reproduction for personal adornment purposes.

The arrival of European traders and settlers in the mid- to late nineteenth century meant an influx of cross-cultural influences, including European tools and techniques. This development allowed metal—especially SILVER and gold—to assume greater importance, where previously cedar wood was the dominant material of choice. There was, however, one important prototype in metal: objects known as house "coppers" (family CRESTS made of tooled copper, a valuable substance in pre-contact time) were engraved for emblematic purposes (*see* ENGRAVING). The shield-like shape of these metal family crests (specifically, a pentagonal top and a rectangular lower portion) remains an important design element for jewelry, and the form is used on pins and PENDANTS. In addition, rolled BRASS and coiled or hammered copper ankle RINGS and bracelets were popular ornaments for personal wear up to the mid-nineteenth century. (Such brass and copper items were often gathered into huge piles in preparation for exchanges and distribution at potlatches.)

Shapes taken from materials that were exchanged at potlatches, such as carved spoons and masks, are used for EARRINGS, rings, and pendants. Some other prominent design motifs of traditional origin are jewelry adorned with BEARS (grizzly, sea, or sun), lovebirds (EAGLE and RAVEN), leaping salmon, scolding ravens, THUNDERBIRDS, whales, and wolves (*see* WOLF). By the 1880s, silver and gold were in high demand by the native people for personal adornment. Building on the strong wood-carving tradition, Northwest Coast metal jewelry was most often decorated by engraving and incising. Most jewelry-makers in the region were trained first in carving, and they then adapted these techniques to work on gold and silver. (This close connection continues to the present day; most Northwest Coast jewelers are also carvers—and carving is often their primary art medium.)

Carving, especially in ARGILLITE (a form of slate-like stone) and in wood, had long been the major artistic tradition of the region (some examples include TOTEM poles and box lids). Jewelry designs exhibit the same distinctive elements of two-dimensional composition and detail that pervade wood carving. Artists decorate both wood and metalwork objects with stylized, symbolic images that use ovoid shapes, U- and S-curved forms and structural variations in the representation of figures (*see* Stewart in the bibliography). Subject matter draws from lineage crests and totemic combinations of supernatural, marine, and BIRD figures, all rendered in symmetrical flat designs. The beauty of these images and how they are rendered has drawn much non-native interest, and the achievement of these characteristics is readily recognized as a regional native-art style.

Tourism has also played a role in the spread of jewelry design. The Haida, and some Tlingit, practiced silversmithing in the late nineteenth century, and they were considered masters of the craft by the 1880s. Silver was obtained by melting coins (which were introduced by American and Russian

First gemstone carving, August 1996, with ring, cat's-eye moonstone, gold, sterling silver, and violet sapphires, by Isaac Tait (Nisga'a). *Collection of Mrs. Deborah Tait.*

traders), and gold was brought in from nearby Alaska. By the early 1900s, a Seattle, Washington, manufacturing company was producing TRADE SILVER bracelets with Tlingit designs, and these pieces quickly became favored gifts to give at potlatches. Native interest in creating such items grew as it became clear that natives and non-Indians alike enjoyed and appreciated this jewelry. A whole subfield of TOURIST JEWELRY—lower priced than fine art pieces and often mass produced—developed in the 1980s and 1990s. Some Northwest Coast tourist jewelry is made from argillite that is carved into attractive pins, pendants, and earrings. In addition, pewter pieces in traditional shapes and designs (rings, pins, pendants, and bracelets) offer a less expensive alternative to silver and gold jewelry. Brightly painted wooden pins, made from the same materials as carved MASKS, boxes, wall hangings, or totem pole figurines (and often shaped to resemble faces or animal figures), are another form of tourist ware; as with the pewter jewelry, these items are less expensive than fine-art gold and silver pieces but still maintain a "traditional" look.

Modern innovations mesh the regional design conventions with mainstream jewelry-making techniques, so Northwest Coast fine-art jewelers, while still masterful at their preferred process of engraving metal, have added CHASING, REPOUSSÉ, and LOST-WAX CASTING. Their experiments have led to the use of contrasting elements, sometimes soldering shell, stone, or a second metal onto the silver or gold base, for further detailing. ABALONE

is a favored material, and is used on metal, wood, or argillite ornaments. Artists have also launched some unique innovations in shaping bracelet forms; while engraved lines follow the curves of an outlined form, they create wraparound or cutout shapes that mimic the lines of a bird or fish. Most designs continue to revolve around stylized figures from crests, coppers, or even totem poles. Finished pieces possess a two-dimensional aspect that emphasizes the distinctive graphic elements of Northwest Coast carving. Interestingly, unlike native artists from other parts of North America, most Northwest Coast jewelers do not mark their silver jewelry as "sterling," although a majority do engrave or stamp their initials or a HALLMARK on their pieces. Some work done in gold is marked on the back with the karat value.

The first Northwest Coast native jeweler and metalworker to achieve extensive individual notice was Haida artist Charles EDENSHAW (1839–1920). Edenshaw was particularly influential through the numerous convex, engraved silver bracelets and pendant pieces he produced; the demand for them was so great among both natives and non-natives that the pieces were traded all along the coast. Before long, artists from other cultural groups had started copying the designs and styles. Some of Edenshaw's contemporaries, the older generation of influential Haida jewelry-makers, include John Cross (1854–1939), Tom Price, and John Robson. Their legacy affected another major artist, Edenshaw's great-great nephew, the carver Bill REID (1920–1998). Reid studied the silver pieces made by this older generation, and he created his own richly embellished works in silver and gold, broadening the design repertoire, and influencing others in turn. Notable contemporary Haida jewelers include Ivan Adams, Richard and Alvin Adkins, Gordon and Nelson Cross, Reg and Robert DAVIDSON (b. 1946), Freda DIESING (b. 1925, known more as a carver, although she taught jewelry-making to native students, and her designs are influential), Pat Dixon, Carmen Goertzen, Jim Hart, Gerry MARKS (b. 1949), Francis Williams, George Yeltatzie, and Don Yeomans. Two other Haida jewelry-makers, Francis Pollard and Lionel Samuels, produce craft designs in pewter that may be found in museum shops and galleries across Canada.

While Haida artists helped to accentuate the fine-art character of contemporary Northwest Coast jewelry-making, a number of artists from other groups have contributed as well. As more and more would-be collectors and enthusiasts have been exposed to Northwest Coast native art aesthetics, the demand for jewelry has boosted some artists' careers, although most of these contemporary artists also work in additional media. These artists include Russell Smith (Awasatlas); Norman Hall (Bella Coola); Charles Harper (Carrier); Gilbert Pat and Susan POINT (b. 1952; Coast Salish), Ed Archie Noisecat (Salish), and Gary Sheena (Interior Salish); John Alexander and Earl MULDOE (b. 1936) (Gitksan); Derek Wilson (Haisla); Mary Anne BARKHOUSE (b. 1961) and Elsie Nelson-Maher (Kwakwaka'wakw), and Kwakiutl artists Faw Ambers, Nancy Dawson, Patty FAWN (b. 1944; adopted/Lelooska family), TONY HUNT (b. 1942) and RICHARD HUNT (b. 1951), Alfred and Patrick Seaweed, Norman Seaweed (Nimpkish Band), Lloyd WADHAMS (1939–1992), and Phil Whonnock; Kevin Daniel Cranmer (Namgis/Kwagiulth), and Jackson Robertson (Kwagiulth); Nisga'a artists Warren Adams and Isaac Tait; Nuu-chah-nulth (formerly Nootka) artists George DAVID (b. 1950), Ron HAMILTON (b. 1948), Tim Paul, and Art Thompson; Fred Edzerza, Fred Moyer (Tahltan) and Dale Campbell (Tahltan/Tlingit); and Tlingits Douglas Chilton, Nathan Jackson, Fred Myra, and Israel Shotridge; Tsimshians Danny Dennis, William Helin, Robert Jackson, Phil JANZE (b. 1950), and Norman TAIT (b. 1941); and Richard Shorty (Tutchone). Several contemporary Ojibway artists working in a Northwest Coast-style have gained recognition. These artists include Val Malescu, Gilbert Okimow, and Kelvin Thompson. The recent establishment of an annual native arts market in Portland, Oregon, devoted to the arts of the Pacific Northwest Coast native peoples, is another example of the growing prominence of jewelry from the region.

Further Reading: Ashwell, Reg. *Coast Salish: Their Art, Culture and Legends*. Seattle: Hancock House, 1978; Barbeau, C. Marius. "Indian Silversmiths of the Pacific Coast." *Proceedings and Transactions of the Royal Society of Canada*. Series 3. Vol. 33 (May 1939): 23–28; Black, Martha. *Bella Bella: A Season of Heiltsuk Art*. Toronto: Royal Ontario Museum; Seattle: University of Washington Press, 1997; Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999; Grumet, Robert S. *Native Americans of the Northwest Coast*. Bloomington: Indiana University Press, 1979; Gunther, E. *Art in the Life of the Northwest Coast Indian*. Portland, OR: Portland Art Museum, 1966; *Indian Art Traditions of the North-West Coast*. Edited by R. Carlson. Burnaby, BC: Archaeology Press, Simon Fraser University, 1976; Lash, Mary Ann. "New Life Is Given to the Craft of Haida Jewelry." *Canadian Art* 14 (Spring 1957): 101–03; *The Legacy: Continuing Traditions of Canadian North-West Coast Indian Art*. Edited by Peter Macnair. Victoria, BC: British Columbia Provincial Museum, 1980; *The Legacy: Continuing Tradition and Innovation in Northwest Coast Indian Art*. Edited by Peter L. Macnair, Alan L. Hoover, and Kevin Neary. (Published in cooperation with the Royal British Columbia Museum). Vancouver/Toronto: Douglas & McIntyre; Seattle: University of Washington Press, 1984. Originally published in 1980 by the British Columbia Provincial Museum; MacDonald, George F. *Haida Art*. Vancouver: Douglas & McIntyre; Hull: Canadian Museum of Civilization, 1996; Orban-Szontagh, Madeleine. *Northwest Coast Indian Designs*. New York: Dover, 1994; Shadbolt, Doris. *Bill Reid*. Vancouver: Douglas & McIntyre; Seattle: University of Washington, 1986; Glenbow Museum. *The Spirit Sings: Artistic Traditions of Canada's First Peoples*. Toronto: McClelland and Stewart; Glenbow Museum, 1987; Stewart, Hilary. *Looking at Indian Art of the Northwest Coast*. Vancouver: Douglas & MacIntyre; Seattle: University of Washington Press, 1979. For additional information on Northwest Coast coppers, see <http://www.cmcc.muse.digital.ca/members/treasure/233eng.html>; <http://www.schoolnet.ca/aboriginal/umistweb/art7-e.html>; and <http://www.civilization.ca/membrs/fph/haida/haacp11e.html>.

nugget style

A style of TURQUOISE or other mineral material that is left in a natural, or free-form, state of finish, without being cut into facets or CABOCHONS. Nugget-style stones, polished and set in metal, became a popular design choice in the late 1960s and early 1970s. Such stones can also be drilled and strung as beads. One such style of roughly shaped nugget setting is known as "seafoam turquoise." Some lapidarists refer to these uncut, rugged-edged stones as "baroque" pieces. Nugget-style stones are usually asymmetrical and resemble the original shape of the natural rock; jewelers can artificially darken the recessed areas of the mineral for greater effect. One benefit of this style is that it does not waste any material through grinding and polishing. Nugget-style pieces should not be confused with carved turquoise work, such as that done by Zuni artists (like the work of Leekya DEYUSE, 1889–1966, and his family). Some carved pieces that feature rough or more abstract outlines may resemble nugget-style work, but the lapidarist's intention when working with a nugget is to accentuate the natural lines of the stone, rather than shape it to a designated form.

Further Reading: Bennett, Edna Mae, and John Bennett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs: Turquoise Books, 1973.

O

obsidian

A natural volcanic glass. Native peoples used obsidian for ceremonial and trade purposes, and its use carried over into jewelry-making as stones for setting, pendant carving, and INLAY material. Archaeologists have discovered LABRETS, PENDANTS, and amulets strung with pieces of obsidian, and have been able to date this ornament to early periods of occupation by native peoples in North America. Obsidian gathered in the western United States is sometimes called "Apache tears." Deposits are located in Arizona, Northern California, Oregon, and Utah. While obsidian is primarily black in color, some nodules possess rose or violet hues, and its tonal value can be either iridescent or opaque. Because obsidian is dense and brittle, and lapidarists must cut it with great care, it is not a popular material for inlay. Contemporary fine-art jewelers do not work extensively with obsidian because it can shatter easily; for dark or black stone, jewelers prefer JET, ONYX, and even plastic SYNTHETICS.

Olanna, Melvin (5/5/41–8/3/91, Inupiaq)

One of Alaska's premier carvers, Olanna was also a jewelry designer of note. He was educated at the Chemewa Indian School, Salem, Oregon; The Institute of American Indian Arts, Santa Fe, New Mexico; and the Native Arts and Crafts Extension Program, University of Alaska in Fairbanks. His own educational experiences gave him a lifelong concern with training for young native artists. In 1988, he set up the Shishmaref Carving Center in Shishmaref, Alaska. Olanna won a prize for his SILVER jewelry in 1969, and he also studied silversmithing with Ronald SENUNGETUK (b. 1933) at the Native Arts Center, University of Alaska. The artist's sculptural tendencies were explored in his jewelry pieces, and their subjects, like his carvings, reflected traditional activities such as hunting as well as arctic forms and light. **Museums:** Amon Carter Museum, Fort Worth, Texas; Indian Arts and Crafts Board, Department of the Interior, Washington, D.C.; University of Alaska, Fairbanks. He has been part of group exhibitions in Alaska, Seattle, Chicago, and at the Smithsonian Institution in 1978 and 1982. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY.

Further Reading: *American Indian Art Magazine* (Scottsdale, AZ), Winter 1995; *St. James Guide to Native North American Artists.* Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

onyx

A calcite or type of calcium carbonate, used for native jewelry-making. There are many forms of onyx; among the most common forms are dyed black CHALCEDONY and banded onyx AGATE. Colors can range from milky

white to gray to tan and—after treatment with heat—deep black. Jewelers use Mexican onyx most often, as beads or for INLAY. Black and white onyx are the most popular colors in use by contemporary fine-art jewelers.

opal

A semi-transparent stone of hydrated silicon dioxide. Opal is a popular gemstone because of its prismatic color range and shimmering effects. While jadeite and black opal are the most exclusively desirable CABOCHON-cut stones, more than 35 varieties are in use. Opals can be faceted and oiled or resin-impregnated; they are used for PENDANTS and stone sets in EARRINGS and BRACELETS. Since the 1980s, synthetic opals have been developed and widely disseminated; they are difficult to distinguish from the genuine article. Starting in the mid- to late 1990s, native jewelers began experimenting with iridescent opal tones for INLAY as a contemporary accent or "look."

overlay

A jewelry technique originated by Hopi artists in the late 1930s and the 1940s, and now widely used by native jewelers of all backgrounds (*see* HOPI JEWELRY). In the overlay process, a design is cut, using a jeweler's saw, on a flat piece of metal (usually STERLING SILVER), and then sweat-soldered onto another piece of the same size through a special heating process. The recessed areas—that is, the parts of the lower piece that show through the cutouts in the top piece—are then oxidized or blackened (*see* OXIDATION). The raised surface—the top piece of metal—is highly polished for contrast. Overlay can give the appearance of a piece carved from a single sheet of silver or gold. TURQUOISE or CORAL stones can also be set in the darkened hollows or onto the polished surfaces.

Well-made overlay is popular for its neatly outlined designs, and its overall simplicity is considered modern in effect. The overlay technique began to be demonstrated in arts courses at Indian schools by the late 1950s. Contemporary jewelers often create a brushed finish to overlay pieces by rubbing them with fine steel-wool pads. Other recent alterations to this technique include STAMPING the recessed areas. While still strongly associated with Hopi jewelry design, this technique is widely popular with native jewelry-makers of all backgrounds, including Navajo artists.

Further Reading: Bahti, Tom and Mark Bahti. *An Introduction to Southwestern Indian Arts and Crafts*. Las Vegas: KC Publications, 1964, new ed. 1997; Wright, Margaret. *Hopi Silver*. Flagstaff, AZ: Northland Press, 1972, rev. ed. 1998.

Owen, Angie Reano (11/10/45– , Santo Domingo)

This artist pays tribute to her Puebloan heritage by creating REVIVAL-STYLE jewelry derived from the ancient MOSAIC work on SHELL done by the HOHOKAM and ANASAZI. Her Santo Domingo background is also important because Owen is part of the noted Reano family of jewelers. She learned HEISHI and mosaic work from them, including instruction in her youth in fashioning one of the pueblo's most distinctive forms of jewelry, THUNDERBIRD pendants of chip TURQUOISE and plastic (a style of tourist work that was developed during the Depression).

Owen began developing her revival-style designs in the 1970s, creating a variety of BRACELETS, CONCHA belts, EARRINGS, and NECKLACES. She starts a piece by selecting a shell or cottonwood base. She then glues stones into the base, grinds the stones' edges to be flush, and then buffs the pieces until they possess lustrous geometric, herringbone, and rectangular patterns. Favored materials include a *Glycymeris* shell base, with JET, CORAL, PIPESTONE, turquoise, and white or spiny oyster shell pieces affixed. (*See* the SANTO DOMINGO JEWELRY entry for an illustration of her work.) **Galleries:** American Indian Contemporary Arts, San Francisco, California; Gallery 10, Santa Fe, New Mexico, and Scottsdale, Arizona; Dewey Galleries, Santa Fe, New Mexico. **Museums:** Millicent Rogers Museum, Taos, New Mexico; and exhibitions at the American Craft Museum, New York City; Heard Museum, Phoenix, Arizona; and Albuquerque (New Mexico) Airport. She ex-

hibits regularly at the SWAIA INDIAN MARKET (awards 1993–1995). *See also* PUEBLO JEWELRY. *See* the SANTA DOMINGO JEWELRY entry for an illustration of work by Owen.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

owl

A nocturnal bird that appears in various legends and creation stories, usually as a link, or messenger between the physical and supernatural worlds. The owl is an ambiguous creature (representing both day and night) and can be associated with dark powers, including witchcraft and sorcery. Thus, owls are not a traditional motif for decoration; they have only recently come into general use because of their popularity with non-Indians. For example, the Zunis have developed colorful owl designs for INLAY jewelry (since the 1930s) that are probably more decorative than meaningful.

oxidation

A natural or artificial process whereby SILVER is darkened or blackened. STERLING SILVER, most commonly used in native silversmithing, contains a substantial amount of COPPER, which promotes surface oxidation through time and exposure to the elements. Moisture from wear can also cause oxidation, and oxidation can occur during the alloying process, but such an effect is not desirable (*see* ALLOY).

Artificially induced oxidation, often through the use of liver of sulfur or potassium sulfide, is a design element used by native jewelers to produce contrast or depth on a piece (specifically, it is almost always used in the OVERLAY technique; *see also* HOPI JEWELRY). Nineteenth-century native silversmiths used mutton blood as a substitute blackening agent. In the mid-twentieth century, Navajo smiths experimented with the use of oxidation for contrast, most notably in the creation of SHADOW BOX jewelry. Deliberately blackened jewelry should not have its oxide finish removed through cleaning.

P

Parrish, Rain (2/8/44– , Navajo)

An accomplished fine art metalsmith who produces jewelry and METALWARE, Parrish celebrates her native heritage in her work. Drawing upon imagery from her Southwestern environment, she chooses motifs from rock art and natural forms, including BEARS and hand prints. She received a B.A. from the University of Arizona in 1967. Parrish also studied jewelry-making with Kenneth BEGAY at Navajo Community College in 1971. In addition, she met and was influenced by Charles LOLOMA. Through most of the 1970s, Parrish made TUFA-cast jewelry. She has since expanded her technical experimentation to include etching, forging, hammering, and roller-printing, and uses her own handmade STAMPING tools. Her works, including BRACELETS, BUCKLES, NECKLACES, and pins, are usually done in SILVER and are set with IRONWOOD, IVORY, LAPIS LAZULI, or TURQUOISE. Parrish exhibited at the Santa Fe INDIAN MARKET in the 1970s and has pursued curatorial and related museum work since then.

Further Reading: Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork.* Phoenix: The Heard Museum, 1997.

paste

An inexpensive substitution for jewelry stonework generally made from SYNTHETIC, or inorganic, substances. Paste can be carved, faceted, molded, and then colored to imitate SEMIPRECIOUS STONES or other natural materials. Native jewelers have usually preferred GLASS over paste, although contemporary artists can and do use paste for stonework, and for repair of cracked or pitted materials.

Patania, Frank, Sr.

An immigrant from Italy, Patania (1899–1964) was a master silversmith with an international reputation. After working on the East Coast, Patania came to the Southwest in the 1920s to heal his tuberculosis, and he eventually established his well-known Thunderbird Shops in Santa Fe, New Mexico (1927), and Tucson, Arizona (1937). Rather than employing the conventions of the INDIAN TRADER, Patania established workshops for custom-made STERLING SILVER jewelry and METALWARE. His work featured pieces in plain SILVER, NUGGET-STYLE silver, and SHADOW BOX settings. Works by Patania carried HALLMARKS, a practice he taught to the various native silversmiths who worked for him.

One of the best-known native smiths in his employ, Julian LOVATO (b. 1925) of Santo Domingo, became a major fine-art jeweler; Lovato inherited Patania's famous THUNDERBIRD hallmark. Patania's working slogan was "sterling silver made to order." This customized approach to jewelry creation was an important influence on the making of SOUTHWESTERN INDIAN JEWELRY; many native silversmiths became studio jewelers by adopt-

ing work practices Patania had introduced to them.

patina

The quality of luster on the surface of a piece of metal or SEMIPRECIOUS STONE jewelry. Patina results from age, exposure to the elements, and general wear. Patina is thus a natural polish that experts scrutinize to determine the age and authenticity of a jewelry piece. Devotees of older native-made jewelry particularly value the patina of pieces made from INGOT and COIN SILVER, which can have a dull, darker tone, but which can often also possess an almost satiny finish. Contemporary SILVER and GOLD jewelry, including machine-made pieces, tourist work, and handcrafted items, usually displays a bright, highly polished shine that is aimed at the mainstream jewelry consumer.

pawn

In relation to jewelry, an economic system that allowed Native Americans to use their personal jewelry as collateral for future payments on loans advanced by INDIAN TRADERS for various goods.

The use of the term "pawn" has been widely misinterpreted over the years. Many natives, such as the Navajo, left their valuable jewelry in safekeeping at TRADING POSTS and pawn shops, with the intention of redeeming those items at a later date. The estimated pawn value of a piece could be redeemed either through one deal or by numerous smaller payments. This practice was not always used by native groups; for example, it was rarely taken up by the Pueblos. The pawn system came under attack in the 1960s and 1970s from native activists, who insisted that native consumers were not receiving appropriate value for the items they were pawning. Strict federal laws were insti-

An array of old pawn jewelry from the U.S. Southwest. *Courtesy of John C. Hill, Antique Indian Art, Scottsdale, AZ.*

tuted to protect native customers from such potential abuses in pawn transactions.

Most traders hold pawn for a year or more, or even indefinitely, because they know the individuals whose jewelry they hold; however, unredeemed pawn items can be offered for sale as *dead pawn* after a certain time limit, such as 30 days under New Mexico state law. Dead pawn has been exploited for its potential sales value to tourists and collectors. Only a small amount of jewelry actually becomes officially "dead," but unscrupulous dealers have misrepresented some pieces as "dead pawn" to attract sales. Pawn jewelry has excited non-native collecting interest because of the intrinsic assumption that these were pieces owned, worn, and valued by Indians. Another term subject to mislabeling is *old pawn*, which has been often applied to native jewelry made before 1930, although this date has been extended at times to 1950. ("Antique" Native American jewelry has also received various cutoff dates, with a general concession that this term can apply to jewelry made before 1940. Many antique Indian arts dealers consider true antique jewelry to be items made before 1899, the last year before commercialized materials, techniques, and styles became pervasive influences on native jewelry-making.)

A widespread perception among consumers is that all old pawn is good quality or valuable. Reliance on a reputable DEALER or trader, and some education by the consumer, are the best defenses against misrepresentation. Pawn tickets of varying sizes and colors can be attached to a piece of jewelry; these items cannot be trusted to be genuine because a pawn ticket could be taken from any source and placed on an object, regardless of its real status. The finest examples of old pawn appear in museums and certain private collections, and only occasionally do such pieces come onto the market through auctions or estate sales. Consumers also need to be aware that some older pieces can be repaired or reconstructed with newer materials, and that there is a small but active business in reproductions, both legitimate (*see* REVIVAL STYLE) and otherwise (*see* FAKES AND FORGERIES).

pectoral

A form of breast ornament favored by natives of the eastern Woodlands and Plains peoples from the northern United States and Canada, but also made by groups from other regions (such as California), and generally worn on the chest through some sort of suspension. Pectorals were used in the pre-contact era, but diminished in use as Native Americans eventually adopted European dress.

A pectoral could be pinned to a garment, but it was more often hung like a PENDANT on a thong around the neck. Traditional pectorals were made from BONE, wood, or stone, and were meant to possess protective powers not unlike amulets; they were influenced by TRADE ORNAMENTS, and thus were often transformed over the years into medallion or disc shapes. Pectorals made of hammered or cast GOLD were known pre-Columbian times, but this use of metal for a pectoral did not become common in native North America until the arrival of Europeans in the sixteenth century, when COPPER and SILVER ornaments became available for trade. The pectoral shape, including the pectoral CROSS and disc forms, has been used by contemporary native jewelers for REVIVAL-STYLE pieces.

pendants

A hanging ornament often suspended from a necklace; the pendant is one of the most ancient of adornment forms. Pendants could possess religious and protective properties similar to those attained from wearing amulets. Many early examples have been found in the archaeological record throughout North America. Early pendants used natural materials, from BONE to shaped stone, and were usually pierced with a hole and hung suspended around the neck on a string of twine or leather. The introduction of metal and other materials from European explorers and settlers starting in the sixteenth century brought new forms into being. TRADE SILVER items and glass TRADE BEADS were added to pendants; silver CROSSES and crescent-

shaped talismans were hung on metal chains or strings of hollow SILVER BEADS.

Much later, pendants achieved new looks from TOURIST JEWELRY explorations, and the experimentation of post-1970s fine-art jewelry FABRICATION. The THUNDERBIRD has remained a popular, almost universally recognized Indian pendant form; the SHELL, INLAY, or even plastic BIRDS fashioned by Santo Domingo artisans are a prime example, along with BEADWORK figures on buckskin or leather. In the 1980s and 1990s, pendants featuring BEARS and FETISH CARVING animals gained popularity in the jewelry market. Many non-Indian consumers prefer to purchase native-made pendants over the larger types of NECKLACES available, such as SQUASH BLOSSOM silver necklaces, or TURQUOISE disk and HEISHI strands. Pendants, along with necklaces, remain a key form for innovative exploration by contemporary native jewelers seeking to merge traditional styles and techniques with updated materials and shapes. *See also* NAJA, PIN PENDANT; SILVER.

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999.

peridot

A magnesium iron silicate found in igneous rock and limestone areas. It has an attractive green color in a variety of tones, from yellow to deep olive, and is usually cut for faceting. Peridot has been used as a gemstone by twentieth-century native jewelers and lapidarists, principally for NECKLACES and mosaic INLAY. Some jewelers may use the tumbling process to create a rougher form of the stone for an alternative effect (*see* TUMBLED STONE). One much-used type of peridot, occurring in small, yellowish-green stones, comes from the San Carlos Reservation in Gila County, Arizona.

Peshlakai, Norbert (5/6/53– , Navajo)

A gifted fine-art silversmith from a family of many silversmiths, Peshlakai makes jewelry and METALWARE. High school art classes led him to take instruction at Haskell Junior College in Lawrence, Kansas. In addition to learning traditional metalsmithing techniques, he experimented regularly with materials and methods to achieve remarkably innovative pieces. Many works possess extraordinary textures and design effects. Peshlakai uses customized stamps and DIES to decorate miniature jars and bowls, as well as distinctive BRACELETS, brooches, and belt BUCKLES (*see also* STAMPING; STAMPWORK). His designs are drawn from various sources, including MIMBRES figures and Navajo weaving patterns. He has won many awards from SWAIA (SOUTHWESTERN ASSOCIATION FOR INDIAN ARTS, INC.), showing annually at the Santa Fe INDIAN MARKET; he also won a Best of Class from the Heard Museum Guild Fair (1994). He has exhibited at other venues as well, including the Art Institute of Chicago and the Universities of Minnesota and Wisconsin. **Galleries:** Hoel's Indian Shop, Sedona, Arizona; Gallery 10, Santa Fe, New Mexico, and Scottsdale, Arizona; Four Winds Gallery, Pittsburgh, Pennsylvania. *See also* NAVAJO JEWELRY.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; *Indian Artist*. (Santa Fe, NM) Spring 1997; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: Heard Museum, 1997.

petitpoint

A Zuni-originated technique in which small stones are cut to be uniformly egg-shaped, oval, or round and placed in a variety of settings. Petitpoint produces a different effect than NEEDLEPOINT, in which the small stones are narrow and pointed on both ends. Petitpoint-shaped stones can be used for both CLUSTER WORK and ROW WORK. The ends of petitpoint are generally rounded and set into serrated BEZELS. Fine-quality petitpoint calls for the stones and their SILVER settings to be uniform and symmetrical; variations in spacing and arrangement depend on the type of piece being made (a large BRACELET or SQUASH BLOSSOM necklace may have a broader pattern of stonework than RINGS or EARRINGS). This technique, usually considered a style by

Zuni practitioners, was devised, like needlepoint, to make effective use of small stones left over in the lapidary process. Even though the petitpoint style of jewelry started by the 1930s, it is considered a "traditional" technique or style. *See also* ZUNI JEWELRY.

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petrified wood

Stone that has the look or grain of wood. Petrified wood began millions of years ago as a tree or other wood; if a fallen log was buried by mud and silt, it would be sealed off from oxygen and would not decay rapidly. Gradually, water with high mineral content seeped into the tree remnants, and the mineral deposits replaced the wood fibers.

Petrified wood was a popular choice for native jewelry settings in the 1930s and 1940s. It then went out of fashion (although it was used again in REVIVAL-STYLE jewelry in the 1980s and 1990s) and is considered valuable as a collectible, especially since the removal of petrified wood from U.S. national parks has been outlawed. Petrified wood's hardness permits an attractive, CHALCEDONY-like high polish, but early native artisans using basic tools found petrified wood difficult to work with. A smooth, flat slice of petrified wood such as that used for setting in a pendant, is usually referred to as a "picture stone," because some people claim to see faces or other figures in the wood's grain. Collectors seek out older jewelry with petrified wood settings in BRACELETS, PENDANTS, and RINGS.

petroglyphs and pictographs

Inscriptions, paintings, or carvings on rock. Known as "rock art," these rock images are some of the most important sources for native design inspiration. Imagery taken from petroglyphs and pictographs have been isolated and translated into motifs for use in Native American decorative arts, including jewelry; one popular figure is that of KOKOPELLI.

Petroglyphs (inscriptions or carvings on rock) are found in rock-art fields throughout the North American continent; etched into the stone, some petroglyphs still have the original paint intact. There is intense speculation about their original purpose. Certain non-Indian scholars, and even some native artists themselves, believe that they are part of an ancient communication system whose original meanings have mostly been lost, with only some of the meanings retained by native descendants. This case has been made again in recent years by ethnologists and native activists who point to visual and linguistic connections between Central and South American tribes and some native North American groups. *Rock art* scenes record successful hunts, make predictions, show historical battles and events, and depict shamanic figures and supernatural beings, all interwoven with imprints of animals and their tracks, human hands, and natural phenomena. *Pictographic* renderings are usually simpler and more primitive in design, using stick figures, outlined animals, and abbreviated drawings of other objects to tell a story in chronological sequence.

Further Reading: Tanner, Clara Lee. *Southwest Indian Craft Arts*. Tucson: University of Arizona Press, 1968. For a related article, see <http://www.seattle-pi.com/pi/getaways/060399/petr03.html>.

peyote bird

A mythic bird known variously as a snake bird or water turkey, probably derived from representations of the anhinga (a fish-eating bird related to the cormorant) depicted by the Southeastern mound builders.

Native artists from the Plains, Oklahoma, and the Southwest use the peyote bird as a design motif, but the bird is most commonly associated with the rituals of peyote use in the Native American Church. Peyote birds are common on GERMAN SILVER tie slides and other dress accessories; these ornaments are

worn by Church members, including the "Road Man" who presides over services (*see* PLAINS, PLATEAU, AND OKLAHOMA INDIAN JEWELRY).

The spread of the Native American Church to other cultural regions since the mid-twentieth century has brought about the use of the peyote bird as a meaningful design by many native artists, regardless of their origins. Specific elements in its appearance have been isolated to denote Native American Church symbols: a head shaped like the rattle used in ceremonies; outspread wings representing the ceremonial altar; and a fanlike lower body resembling the tipi where services are held. The peyote bird's slightly elongated outline shape lends itself to such jewelry forms as PENDANTS, dangling EARRINGS, or watch tips. It is also a popular rendering in incised and OVERLAY silver, and CHIP INLAY. Pawnee silversmiths Julius CAESAR and Bruce CAESAR are especially known for their portrayals of the peyote bird.

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Picasso marble

A fine-grained, crystalline rock with criss-crossed lines of dark brown, gray, orange, tan, and yellow. Picasso marble has become extremely popular with native jewelers and FETISH carvers since the late 1980s. CABOCHONS, beads, EARRINGS, and small carvings for jewelry pieces are cut to emphasize the interplay of color in the stone.

pin pendant

A dual-usage jewelry piece that possesses both a brooch pin and a loop or hook for pendant hanging. The Zunis claim to have devised this dual fitting. The pin pendant was clearly created to enhance the salability of an item to non-Indian tourists and consumers seeking costume jewelry. *See also* PENDANTS.

pipestone

A soft stone, also known as catlinite, that is usually brown in color (and sometimes pink or reddish-hued from iron content), and that can be easily shaped for jewelry-making purposes. Native Americans from a wide range of cultural regions use this stone for carving, and black pipestone inlaid with colored materials has been employed for personal adornment in the Pacific Northwest (*see* ARGILLITE). This material has a long history of being used to make religious and ceremonial objects, including pipes. Twentieth-century native artisans have used pipestone in several capacities for personal adornment. Carved pipestone is made into TOURIST JEWELRY pieces, including EARRINGS and PENDANTS, because they are easy to produce and fairly inexpensive. Brown-toned pipestone is often chosen for making small animal figures (such as BEARS and foxes) for FETISH necklaces.

Plains, Plateau, and Oklahoma Indian jewelry

Jewelry created by native peoples of the Northern and Southern Plains, the Plateau (central and northern Idaho, the eastern parts of Oregon and Washington State, western Montana, and southern British Columbia), and the Oklahoma region. The native inhabitants of this area share some common cultural bonds, including materials and design choices for jewelry creation.

Plains Indians valued their jewelry and chose to wear it in profusion, often from pride of the material wealth it represented. Jewelry was also easy to transport, an issue of importance to people who often had a mobile lifestyle. Jewelry from the era before contact with Europeans was made from natural materials, including seeds, SHELLS, animal claws, and teeth. Elk teeth and bear claws were often strung as NECKLACES (*see* BEAR PAWS, BEAR CLAWS). GORGETS (breast or throat ornaments) and PECTORALS were popular adornment forms, as well as hair ornaments and

Chief Full Moon, Stoney Indians, Alberta, Canada; he is wearing bone-disc ear plugs and gorgets, and strands of dentalium over a beaded garment. *National Archives of Canada/PA-040721.*

armbands that often conformed to certain tribal customs. All these forms of jewelry persisted into historic times (since contact with Europeans), and they continue to serve as visual inspiration for contemporary creations.

The culture of the Plains Indians has long fascinated non-natives, thanks to romantic portrayals in art, literature, and film. Since the 1980s, the ledger drawings of Plains warriors held captive by the U.S. Army have been

displayed and studied through various exhibitions and scholarly studies; pictographic, or ledger-style, figures have reappeared as REVIVAL-STYLE jewelry designs.

For many years, Plains groups resisted the efforts of the U.S. and Canadian governments to settle them onto reservations and reserves. As the BUFFALO diminished in number, and access to broad, untrammeled grassy prairies dwindled, Plains leaders and warriors fought to preserve their way of life. By the last two decades of the nineteenth century, Plains peoples had suffered wars, uprisings, and violent reversals of fortune; once they were conquered and pacified by the federal governments, hopes passed to mystic movements and prophecy about a return to future greatness. The preservation of the Ghost and Sun Dances, along with a growing interest in the Native American Church and its sacraments, mark a basic concern for the maintenance of Plains cultural values. These historical developments are reflected in the choices of design motifs and decorative patterns used by jewelers and metalsmiths of the late twentieth century.

Jewelry-making traditions differ between the various peoples of the Great Plains and Plateau and those in neighboring regions. Metal jewelry came to many Plains Indians through trade, and metalworking for jewelry was taken up only in the mid- to late nineteenth century; the production volume of items made, particularly on the Northern and Central Plains, was always considerably less than that of the Southwestern tribes (*see* SOUTHWESTERN INDIAN JEWELRY). Plains jewelry-makers prized GERMAN SILVER over other metals, especially when it was made into armbands, brooches, hair plates, and wide, round discs (CONCHAS) for belts. Such items are still produced for dress ornamentation purposes. BONE and GLASS beads serve as a strong alternative adornment tradition; many Plains artists have been, and continue to be, masters in creating rich BEADWORK designs. Beaded works are more generally associated with Plains decorative aesthetics. There are, however, regular revivals in metalwork by Plains and Plateau artists.

Plains material culture possesses powerful imagery: a range of figurative designs of HORSES and riders derived from ledger art; tipis (tents); travois (horse-drawn sledges for bearing loads); EAGLES and other symbolic BIRDS; FEATHERS alone or on headgear; and a series of abstract geometric patterns that include circles (often meant to represent the sacred circle or the sacred hoop of life), crosses, and stylized floral motifs. The PEYOTE BIRD and other symbols of the Native American Church appear on various pieces of jewelry from tie slides to EARRINGS. Imagery that refers to the vision quest or aspects of the Ghost Dance are sometimes chosen for symbolic decoration. Neck chokers and PENDANTS made from bones also pay tribute to Plains adornment preferences (*see* BREASTPLATE-DERIVED ORNAMENTATION). Along with intricately beaded items (such as combs, WATCHBANDS, and loop NECKLACES) made for non-native tastes, modern Plains jewelry still celebrates older forms, such as armbands and BRACELETS that were originally made from strips of QUILLWORK. Even after quillwork embroidery ceased to be made from its original materials, designs derived from these earlier decorations appear on revival-style jewelry. Groups of the Plateau region favor loop necklaces (often extending to a very long length), bead chokers, and DENTALIUM shells in profusion. ABALONE hair ornaments and necklace strands were popular with Kutenai and Nez Perce men and women.

The artistic traditions of the native peoples of the American Southeast, many of whom were of Woodlands cultural derivation, were transplanted to Oklahoma with the forced removal of Indians from their home regions (including parts of Georgia and South Carolina). The Trail of Tears, the 800-mile forced march of native peoples from the eastern states to Oklahoma (from October 1838 to late March 1839)—in which more than 20 percent of the deportees perished—greatly reduced the number of potential artists. However, surviving members of the Cherokee, Choctaw, Creek, Muskogee, and Seminole tribes did relocate onto land in Oklahoma. With them came certain jewelry-making con-

ventions. In the early nineteenth century, the Seminole made SILVER jewelry, although the production of such work was limited; some mid-twentieth-century and contemporary jewelers of Seminole heritage still work metal for decoration, and they have received recognition for their creations. Choctaw artists continue to work with shell carving, making fine necklaces and pendants from earlier traditions. The German silver impetus in Oklahoma is largely maintained by Comanche, Kiowa, and Pawnee smiths. The Arapaho, Cheyenne, and Sioux continue strong beadworking affinities, although some fine metalworkers come from these cultures as well. Oklahoma also became the location of various Indian schools and colleges, art programs, and museums with important Indian arts collections, offering local would-be native artists a strong foundation for learning.

Artists of direct or mixed Plains heritages work in a variety of media. Ben NIGHTHORSE Campbell (b. 1933; Northern Cheyenne) is probably the region's best-known jeweler, although his most recent fame is as a politician and defender of Indian rights. Nighthorse has created a distinctive line of fine-art jewelry that draws upon various cultural reference points. Another major figure is Sioux jeweler Mitchell ZEPHIER (b. 1952), who makes revival-style pieces from German silver. A number of other artists make metal, bone, or beaded works that acknowledge Plains values, some noting the influence of Oklahoma native arts as well, since Oklahoma remains a major center for production. Among Oklahoma artists is the highly regarded Julius CAESAR (b. 1952; Pawnee), a master in German silver; Julius's sons Harry and Bruce CAESAR and Arapaho metalworker Homer Lumpmouth. Contemporary artists include Day Lonewolf (Abenaki/Dakota); Robert GRESS (b. 1963; Absaloka Crow); TREE MANY FEATHERS (Richard Mataisz: b. 1940; Blackfeet); Charles Pratt (Cheyenne/Arapaho); Steven Gunnyon (Chippewa/Yakima); Choctaw artists Johnson Bobb, Robert KANIATOBE (b. 1936), Gale Self, and George Shukata WILLIS (b. 1936); White Buffalo (Comanche); Gail Farris LARSON (b. 1947; Creek); David Dewayne Claymore (Hunkpapa); Kiowa artists Byron K. McCurtain, Max SILVERHORN, JR. (b. 1944), and Thomas TOINTIGH (b. 1929); Kevin Pourier and Nelda SCHRUPP (b. 1952) (both Lakota); Elk Woman (Kathy Whitman) of Mandan heritage; Mary Lavalley (Ojibway); Buddy Lightfoot Edmundson (Osage); two Paiute jewelers from the Plateau region, Delmar Adams (Burns Paiute) and Michael Rogers; Dorothy Little Elk, a notable Lakota beadwork artist; Cherokee jewelers Yonah Cone and Thom Munson; John Christensen (Sac and Fox); George W. Courtney, Jr. (Seminole/Cherokee); Woodrow Haney (Seminole); Shawnee jeweler Shawn Bluejacket; BLACK EAGLE (b. 1954) (Shoshone/Yokuts), who reproduces traditional bone jewelry; and popular jeweler Victoria HAMLETT (b. 1950) (Southern Cheyenne/Arapaho).

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plant forms

Plants are a common repetitive motif in Native American jewelry design; their representation is more decorative than meaningful in many cases, although the depiction of CORN and pollen pistils often reflects symbolism.

Local vegetation common to certain geographical regions, such as yucca and cactus in the Southwest, are motifs that often derive from non-Indian influences. Cross-cultural imports, such as the fleur-de-lis (which began to appear in place of NAJAS on some Navajo and Pueblo silver NECKLACES in the 1920s and 1930s), have also served to reanimate plant designs on native arts. However, most plant designs probably derive from motifs used for rock art (*see* PETROGLYPHS AND PICTOGRAPHS), basketry, pottery, and even textile decoration. These images appear on both metal jewelry and BEADWORK; some leaf and floral patterns are particularly important to their creators, as in the case of the Athapaskans (in the Southwest and western Canada) and Metis (also in western Canada).

During the 1950s and 1960s, generic foliate leaf designs (that is, not possessing any cultural significance) proliferated on Southwestern native SILVER jewelry, especially on Navajo work. Pueblo BEADWORKERS and jewelers also favor plant motifs because of the importance of agriculture to their lifeways. Such flower and leaf decoration continues to this day as a viable aspect of modern native jewelry design. Contemporary native jewelers often choose plant designs that possess symbolic context within their own culture, and they use these images for either central motifs or as interval or repetitive patterns for borders.

plastic. *See* SYNTHETICS

plastic block. *See* IMITATION TURQUOISE

Poblano, Leo (1905–1959, Zuni)

A gifted worker in MOSAIC inlay and stone carved jewelry. Self-taught, Poblano mostly used handmade lapidary tools, moving to an electric grinder only in the late 1950s. His technical achievements include the development of a fill-in substance for repairing the pitting in CORAL and dot INLAY for greater effect on carved work. Poblano experimented with nontraditional materials and techniques at a time when many Zuni artists were satisfied with more conventional results. Consequently, he inspired the newer generations of fine-art-oriented Zuni jewelers, including his daughter, Veronica POBLANO, and his grandchildren. With his wife, Ida Vacit, Poblano also made KATSINA-style inlay figures for mounting as pins, PENDANTS, or sets. An experienced firefighter, his career was cut short by a firefighting accident in California. Poblano's jewelry is in great demand with collectors. *See also* ZUNI JEWELRY.

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Poblano, Veronica (1951– , Zuni)

Daughter of master lapidarist and jeweler Leo POBLANO, Veronica began making mosaic jewelry around the age of 14. While some of her unique designs are based on traditional Zuni motifs, she also favors abstract and asymmetrical designs. Poblano refers to much of her work as "conversation pieces," and creates one-of-a-kind fine-art jewelry that she copyrights. She experiments with more than 30 different kinds of stones for inlaying, and she attributes her skill in color combinations to, among others things, her training as a cosmetologist. She makes a variety of objects, including PENDANTS, pins, RINGS, EARRINGS, and BRACELETS. She has exhibited at the Eiteljorg Museum in Indianapolis, Indiana, and in Japan. She was awarded a fellowship by SWAIA

(SOUTHWESTERN ASSOCIATION FOR INDIAN ARTS, INC.) in 1993, and in 1996 was granted "master artist" status by that organization. She shows regularly at the Santa Fe INDIAN MARKET. Her sons and daughter are part of a promising younger generation of artists.

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Point, Susan A. (4/5/52– , Coast Salish)

Point works in a variety of media, with a primary objective being the exploration and revival of Coast Salish design. She studied with various artists in British Columbia. Point's early work centered around GOLD and SILVER jewelry, and she remains a notable jewelry designer, although she is better known as a printmaker and painter. Raised in a traditional environment, Point's works possess stylistic elements from that upbringing, including references to MASKS, spindle whorls, and other objects from Salish material culture. Her jewelry pieces contain forms common to NORTHWEST COAST NATIVE JEWELRY and graphic designs. Throughout the 1980s, she mostly exhibited her graphic art; she has had shows in Canada and the United States. **Museums:** Canadian Museum of Civilization, Hull, Quebec; University of British Columbia, Vancouver.

Further Reading: Gerber, Peter R., and V. Katz-Lahaigue. *Susan A. Point, Joe David, Lawrence Paul: Native Artists from the Northwest Coast*. Zurich: Ethnological Museum of the University of Zurich, 1989; *St. James Guide to Native North American Artists*. Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998. For additional background, see <http://collections.ic.gc.ca/artists/point.html>.

polishing. *See* BUFFING

pomegranate beads, pomegranate necklace. *See* SQUASH BLOSSOM BEADS, SQUASH BLOSSOM NECKLACE

pony beads

A form of small-diameter TRADE BEADS, given the nickname because they were so often transported to native consumers by the pack ponies of traders, particularly in the West.

Imported from Europe, these small glass beads were monochromatic, with a diameter of about 1/8 inch. The French introduced one form of pony bead to the Great Lakes area as early as 1675. Other nicknames developed, such as "Russian blues" or "cobalts" in the Pacific Northwest. A paler blue pony bead, also called "padre beads," had a smooth finish and was less crude than other types; these were incorporated into the native beadwork of southern Arizona. *See also* SEED BEADS.

Further Reading: Dubin, Lois Sherr. *The History of Beads: From 30,000 B.C. to the Present*. New York: Abrams, 1987; Erikson, Joan Mowat. *The Universal Bead*. New York: W.W. Norton, 1969, 1993.

Powless, Arthur (1/8/38– , Onondaga)

One of the most notable Iroquois jewelers working in REVIVAL STYLES, Powless gained recognition when he appeared in the "Covenant Chain" exhibition at the Museum of Man, Ottawa, in 1980. His pieces are made principally through CASTING, and they include BRACELETS, bracelet charms, pins, and RINGS. He creates rolled-silver and sheet-silver belts, BUCKLES, and GORGETS (throat or breast ornaments). Powless is best known for his TRADE SILVER designs, which are intensively researched and recreated for PENDANTS and pins. He works with both geometrical and traditional representational figures from Iroquois lore, including clan animals and the tree of peace. His stickpins are also well-received. Powless is self-taught, and he later received supplemental technical training from Elwood GREEN (b. 1936), an Iroquois silversmith. **Museums:** Cleveland Museum of Natural History; Department of the Interior Museum, Washington, D.C.; Canadian Museum of Civilization, Hull, Quebec; Provincial Museum of Alberta, Edmonton. *See also* COVENANT CHAIN; IROQUOIS JEWELRY.

Further Reading: Fredrickson, N.J., and S. Gibb. *The Covenant Chain: Indian Ceremonial and Trade Silver*. Ottawa: National Museums of Canada, 1980; *Iroquois Arts: A Directory of a People and their Work*. Edited by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983.

powwows

A Native American social gathering, similar to a fair, that usually includes competitive dancing and drumming. This venue grew extremely popular with both Native Americans and non-natives in the last quarter of the twentieth century. Aside from providing an opportunity for native participants and spectators to wear and display their jewelry, many powwows have exhibit areas where native craftspeople, including jewelry-makers, show and sell their creations.

Meant to celebrate native heritage, promote inter-tribal mingling, and display new and traditional conventions of non-ceremonial dancing, powwows have steadily developed their own enthusiasts. The colorful, sometimes exaggerated, costume effects of powwow dancer dress have triggered or revitalized interest in Indian jewelry and BEADWORK. In the 1970s and 1980s, however, powwows gained a reputation as places where unreliable, even bogus, goods were sold as authentic to unwitting consumers. Collector literature of that time generally warned consumers of the dangers of buying possibly specious goods at powwows. Indeed, many non-Indian buyers were turned off by the "sterling" silver-marked ring they bought from a powwow vendor, only to find their fingers marked with green when they removed the ring several hours later.

But since the early 1990s, many powwows have drawn more reputable DEALERS and vendors, as well as native artists, who find the powwow attendees to be steady customers willing to pay good money for value. The growth of popular annual powwows, backed by native economic clout—such as the Schemitzen festival sponsored by the Mashantucket Pequots in Connecticut—has increased the pool of notable artists and dealers. The Schemitzen powwow has recently offered its own marketplace judging and awards for fine native-made decorative arts. A powwow held in Santa Monica, California, for many years during the twentieth century also has served as a good venue for up-and-coming native artists. Many native people, including the powwow participants themselves, buy jewelry, beaded garments, and other types of dress materials from established vendors at various shows, such as the Hunter Mountain (New York) festival held on Labor Day weekend. Some highly regarded native jewelry-makers and beadworkers now return annually to certain powwow events because they are guaranteed a loyal and steady customer following.

Further Reading: Dubin, Lois Sherr. *North American Indian Jewelry and Adornment: From Prehistory to the Present*. New York: Abrams, 1999.

precious stones

A term referring to four specific gemstones—diamonds, emeralds, rubies, and sapphires—and also to pearls. The designation "precious stone" is a traditional lapidary term that is now somewhat in disfavor. Originally, the term was established as a means of emphasizing the materials' value, rarity, size, and workmanship.

Precious stones did not become part of Native American lapidary working until well after World War II, when economic access, mainstream training (*see* TOURAINE, Pierre), and consumer interest made them a viable part of fine-art jewelry-making, particularly as part of the *pave* technique (a form of close-setting for gemstones, similar to INLAY). *See also* SEMIPRECIOUS STONES.

provenance

In fine and decorative arts terminology, the documented history of an object, including its known origins and important owners. Provenance serves as a guarantee of authenticity—a major concern in Indian arts.

Knowing the provenance of every piece of Native American jewelry is impossible, given the quantity and variety of items on the

market. Pieces in museums and major collections have "benchmark value" only when they were acquired with some knowledge about their creation and history. Reputable dealers and appraisers can authenticate a piece when they possess genuine knowledge about the piece's maker and history; some DEALERS, including members of the ANTIQUE TRIBAL ARTS DEALERS ASSOCIATION, are prepared to put this information in writing as part of a sale.

Collectors of older Indian jewelry favor acquisitions that have a known provenance, and this can increase the price of a piece accordingly. When major collections of native arts come up for auction, or have a catalog produced for such a sale, the provenance information contained therein can be highly valuable for scholarly knowledge; this was the case with a sale of jewelry from the collection of Indian trader C.G. WALLACE.

Pueblo jewelry

Jewelry created by the Pueblo peoples of the U.S. Southwest, who live in pueblos (villages) in north central New Mexico (mostly along the upper Rio Grande River and also west of Albuquerque) and northeastern Arizona. Pueblos possess creative jewelry-making traditions that predate the arrival of Europeans to North America; these ornamental traditions, centered around the use of TURQUOISE, have survived and are augmented by skill in working SILVER and GOLD for both traditional and fine-art style jewelry pieces.

Their homes, from which the Pueblos have obtained their popular cultural name, are

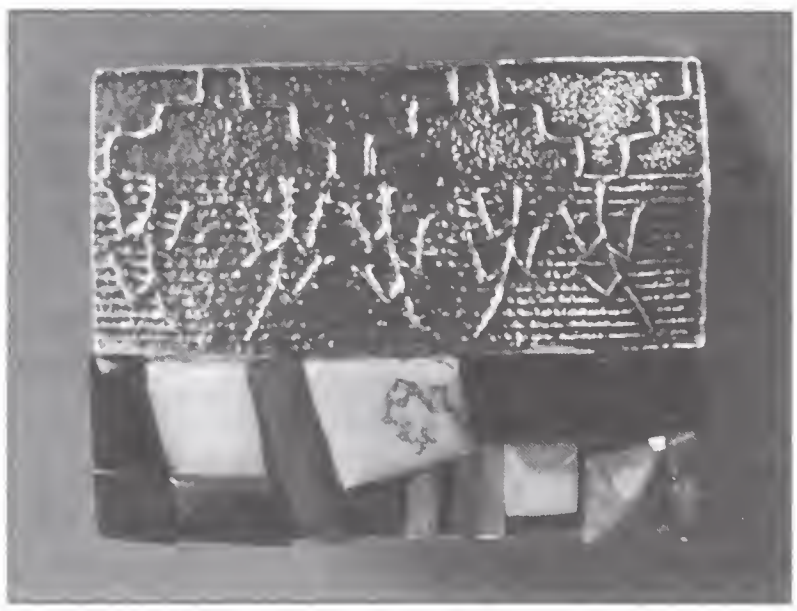
Pueblo Indian vendors under the portal of the Palace of the Governors, Santa Fe, New Mexico, 1958. *Photo by Tyler Dingee. Courtesy Museum of New Mexico. neg. #91932.*

made from adobe brick and stone and usually center around a ceremonial plaza. Because these peoples were settled around communities well in place before the arrival of Europeans, they have developed a way of life that has permitted involvement in sustained artistic activity. Pueblo dances and feast days are a notable aspect of their spiritual life. However, the Spanish conquest, and the arrival of Catholic missionaries, brought attempts to convert the people away from their original religious beliefs; as a result, many practices were driven "underground," and many Pueblo peoples have become conservative in their expression of religious imagery. This hesitation has had a strong impact on artistic conventions. For example, artists from a number of Rio Grande pueblos do not make jewelry with KATSINA figures.

Pueblo arts received strong support from the non-Indian artists and writers who settled in north-central New Mexico. The arrival of the railroad in this region also brought tourist interest; the FRED HARVEY COMPANY, a powerful force in the stimulation of Southwestern native arts and crafts, featured visits to selected pueblos as part of their Harvey "Detours." Pueblo peoples sold their crafts at railroad stops, and they were amenable to certain kinds of alterations in art production that might appeal to non-native consumers, such as the miniaturization of pottery and jewelry pieces.

Although the Pueblos possess many common characteristics, they do have variations in language, religious ceremonies, and group values; the transmission of jewelry-making skills among the various pueblos, especially those located on the Rio Grande and the more western communities, has affected local development of the craft. Two specific western groups, the Hopi and Zuni, are particularly noted for their prolific stone and metalwork jewelry creation (*see* HOPI JEWELRY; ZUNI JEWELRY). Silversmiths and jewelers from the pueblos along the Rio Grande have always been fewer in number, but their contributions have been significant. Santo Domingo Pueblo, in particular, has been noted for its turquoise bead-making in various forms (*see* SANTO DOMINGO JEWELRY). Since the mid-1970s, Pueblo fine-art jewelers have also gained wide recognition in a high proportion to their actual numbers.

Early examples of jewelry-making involved the skilled production of beads, PENDANTS, ear-plugs, and other adornment from BONE, SHELL, and stone. Pueblo facility with working turquoise, including setting turquoise in silver, is well-known. Their introduction to silversmithing came from exposure to Mexican and Navajo metalworkers, beginning around 1870, and spreading from one village to another. Although silversmithing was available to most native people in the Southwest by 1900, there was less activity in the Rio Grande communities than in the western pueblos; although this difference in activity is well documented, the reasons for it are unknown. Nineteenth-century Pueblo silverwork closely resembles that done by the Navajo; however, Pueblo preferences for the DRAGONFLY or CROSS pendant, and various combinations of silver and stonework (such as MOSAIC on shell and fine hand-coiled bead-making), mark their traditional aesthetic interests. Pueblo silversmiths made silver SQUASH BLOSSOM necklaces with NAJA pendants. However, the creation of silver necklaces with small crosses in place of the squash beads, and a larger single-, double-, or triple-barred CROSS as the central piece, is viewed as a jewelry form more characteristic of Pueblo endeavor and taste than that produced by Navajo jewelry-makers. While Pueblo artisans willingly borrowed elements from Spanish, Mexican, Navajo, and Plains jewelry creation, these styles were integrated with existing decorative conventions, including motifs from nature and patterns derived from historic pottery design. Jewelry and dress accessories meant for Pueblo ceremonial and social dances are unique products rooted in tradition; one such example is the whole shells ornamented with mosaic stonework, to be worn as pendants or attached to dance costumes. The painstakingly fine work that goes into making a strand of handmade HEISHI or an original "LIQUID SILVER" necklace is another distinctive aspect of Pueblo work.



"Summer Corn," tufa cast buckle inlaid with shells, turquoise, and wood, 1997, by David Gaussoin (Picuris/Navajo). *Courtesy of the artist.*

Pueblo jewelers have followed both ancestral craft production techniques and fine-art innovations. Many are vendors who display their wares under the portals of the Palace of the Governors in Santa Fe, New Mexico, and in the Old Town section of Albuquerque, New Mexico. Numerous Pueblo jewelers exhibit at the annual SWAIA-sponsored INDIAN MARKET in Santa Fe. Another important venue is the annual Eight Northern Indian Pueblos Artist and Craftsman Show, which started in 1971; although the jewelry of Santa Domingo and Navajo artists is predominant, many Pueblo individuals have gained attention from their work being displayed at this show.

Various Pueblo artists share a common bond of artistic heritage, while pursuing distinctively individualist paths.

At *Acoma*, the smith Juan Luhan was active circa 1891, and author John Adair mentioned Jose Antonio Platero, and Vincente Chavez at work in the late 1930s and early 1940s. Contemporary Acoma jewelers Waya Gary Keene and Maria Salvador have exhibited in the region.

Laguna boasts such early smiths of renown as Marcelino Abeita, Juan Rey Churino, Jose Martin and Paisano, plus such contemporary artists as Paul and Karen Lucario, and leading fine-art jewelers Gail BIRD (b. 1949; Santo Domingo/Laguna), Duane MAKTIMA (b. 1954; Hopi/Laguna), and Ken Romero (Laguna/Taos).

In *Cochiti*, Juan P. and Joe H. Quintana were at work during the mid-twentieth century and current Indian Market figures Cipriano (Cippy) Crazy Horse (son of Joe H. Quintana), Christina EUSTACE (b. 1954; Zuni/Cochiti), and her sisters, Bernadette Carlisle and Jolene Eustace-Hanalt, also hail from this pueblo.

Isleta has been the site of distinguished Pueblo silversmithing (including "Isleta Cross" pendant forms), made by early twentieth-century smiths Diego Abeita, Jose Padilla, and Diego Ramos. Jose Jaramillo's work of the 1940s and 1950s has been followed by the fine-art creations of Ted Charveze, who achieved critical acclaim in the 1970s and 1980s; sculptor Andy Abeita's carved FETISH pendants (1980s and 1990s); and the contemporary award-winning work in gold, silver, and PRECIOUS STONES of Andy Lec Kirk and Michael Kirk, and work by Joseph Jojola.

At *San Juan*, Antonio Duran was active in the early twentieth century; contemporary fine-art jewelers Dennis Bird and Mike BIRD-ROMERO (active since the 1970s) make popular pieces, as does Bobbie TEWA (b. 1948; San Juan/Hopi), whose OVERLAY work is in great demand at Indian Market.

Other contemporary Pueblo artists include Dorothy Emery and Phillip LORETTO (b. 1951; Jemez); Roderick Kaskella (Nambe/Zuni); Connie Tsosie Gaussoin (Picuris/Navajo) and her sons David and Wayne Nez; Peter A. Roybal (Pojoaque), Richard Chavez, and Frank Ortiz and Louise Padille (all of San Felipe); and Jose Rey Leon (Santa Ana). Silversmith Candido Romero of Taos was active in the mid-twentieth century. *See also* NAVAJO JEWELRY; SOUTHWESTERN INDIAN JEWELRY.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973; Bennett, Edna Mae and John Bennett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs: Turquoise Books, 1973; Bird, Allison. *Heart of the Dragonfly: The Historical Development of the Cross Necklaces of the Pueblo and Navajo Peoples*. Albuquerque: Avanyu Publishing, 1992; Cirillo,

Zuni Dick using a pump drill at Zuni Pueblo, ca. 1935. *Photo by Frasher. Courtesy of the Museum of New Mexico, neg. #134772.*

Dexter. "Back to the Past: Tradition and Change in Contemporary Pueblo Jewelry." *American Indian Art Magazine* 13 (Spring 1988): 46–55+; Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Fox, Nancy. "Southwest Indian Jewelry." *El Palacio* 93 (Summer–Fall 1987): 32–34; Frank, Larry, and Millard Holbrook. *Indian Silver Jewelry of the Southwest 1869–1930*. West Chester, PA: Schiffer, 1990; King, Dale Stuart. *Indian Silverwork of the Southwest*. Vol. 2. Tucson: Dale Stuart King, 1976; Mera, H.P. *Indian Silverwork of the Southwest*.

Vol. 1. Tucson: Dale Stuart King, 1960; Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry.* Englewood, NJ: Prentice-Hall, 1976; Turnbaugh, W.A., and S. Turnbaugh. *Indian Jewelry of the American Southwest.* West Chester, PA: Schiffer, 1988; Wadsworth, Beula. *Design Motifs of the Pueblo Indians: With Applications in Modern Decorative Arts.* San Antonio: Naylor Co., 1957.

pump drill

A hand tool used for drilling holes in beads for stringing, also known as a "bow drill." The pump drill dates back to pre-European contact times. A typical pump drill consisted of the main drill piece (the vertical spindle) and a horizontal cross-piece. The spindle had a nail forced into one end (to act as the "drill bit"), and was then fitted through a hole in the cross-piece. Leather thongs (or short lengths of rope) were attached to either end of the cross-piece and then attached to the spindle (at the end opposite from the drill bit).

To use the pump drill, the jewelry-maker would turn the cross-piece a few times around the spindle, just enough to start wrapping the thongs around the spindle; then, by pushing down on the cross-piece and letting up, making the thongs alternately unwrap and then wrap around the spindle—somewhat like a yo-yo action—the spindle would spin freely, making the drill bit cut into the material being drilled. A wooden or pottery disc was usually slid onto the spindle and glued into place about two-thirds of the way down toward the drill bit; the disc's purpose was to keep the cross-piece from being pulled off the end of the spindle and also to help balance the drill itself.

punch

A steel or iron tool for making perforated or imprinted decorative designs on metal jewelry. Important for metalworking purposes, a smith uses a hammer to strike the punch against the metal surface, thus imprinting or incising the metal.

The *dapping* process, whereby metal can be forced into a domelike shape, is done with a combination of punches and a dapping block. Punches were made in a variety of shapes and thicknesses for a wide range of decorative tasks, including CHASING, cutting, FILING, repoussage (*see* REPOUSSÉ, REPOUSSAGE), and sawing. Native smiths originally made punches out of scrap pieces of metal, such as old track rail. Modern punches are made from tooled steel and are highly polished instruments for patterning and other forms of incision work.

Q

Quam, Alice (3/23/29– , Zuni) and **Quam, Duane** (8/15/19– , Zuni)

Highly regarded traditional jewelers, the Quams are known for their superlative CLUSTER WORK pieces. Their stones are usually large, finely polished, and carefully matched for uniform color and size. Alice learned from her parents, Wayne and Doris Ondelacy, noted for their own cluster work jewelry of the 1930s through the 1950s. She began jewelry-making in earnest in 1945, after her husband Duane returned from service in World War II; she sets the stones and he makes the SILVER housing. Pieces have plain wire BEZELS, twisted wire borders, and often end in RAINDROPS. The Quams make round, oval, and pointed cluster stones. Alice favors fine-grade TURQUOISE, such as Sleeping Beauty, or CORAL for her stonework pieces and matched sets. The Quams' jewelry has been exhibited most frequently at the GALLUP INTER-TRIBAL INDIAN CEREMONIAL and has won many awards there, including in 1987, 1988, 1992, and 1993. **Galleries:** Turquoise Village, Zuni, New Mexico. **Museums:** Heard Museum, Phoenix, Arizona.

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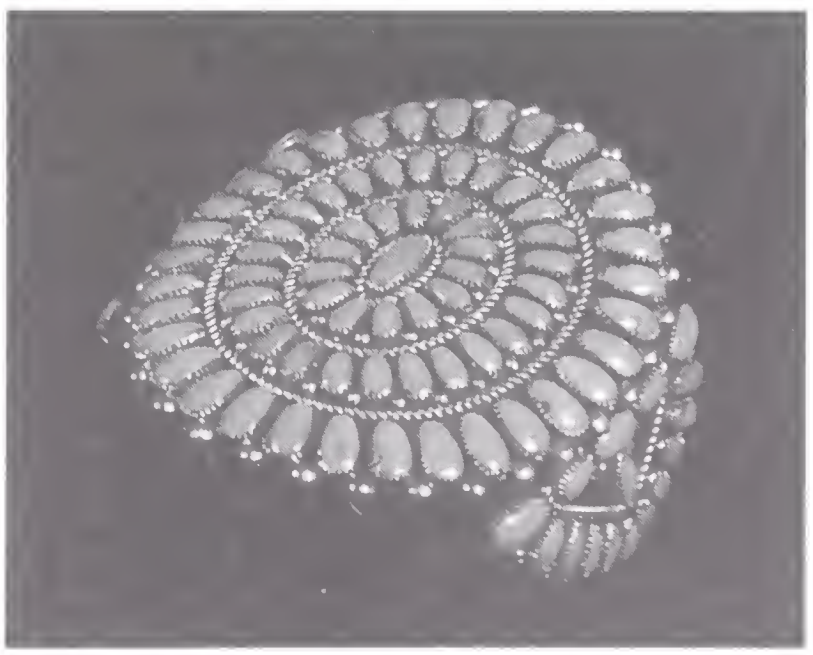

Bracelet, silver and turquoise cluster work, no date, by Alice Quam (Zuni). *Courtesy of The Heard Museum, Phoenix, AZ.*

quillwork-derived design

Quillwork is a traditional form of decorative embroidery for clothing, using porcupine quills and bird feathers. Quillwork was a chief art of Woodlands and Plains peoples as well as the Inuit, who used split feather quills. Some historic-era Plains and Plateau groups used rolled cloth decorated with quillwork to make decorative adornment that could be wrapped or tied around their arms and legs (*see* PLAINS, PLATEAU, AND OKLAHOMA INDIAN JEWELRY). Quills were dressed with BONE tools and dye; eventually, this technique was replaced almost totally by BEADWORK. However,

quillwork-derived designs have endured, even with the addition of beads and other fibers, because of native pride in this indigenous form of material culture. A specific set of designs—largely abstract and geometric in nature—that springs from quilled patterns has been translated to modern twentieth-century native beadworking, and onto some contemporary metal jewelry, especially by artists from cultures that were known for their quillwork abilities.

Further Reading: Lyford, Cary Alberta. *Quill and Beadwork of the Western Sioux.* Stevens Point, WI: R. Schneider, 1940, reprinted 1983; Monture, Joel. *The Complete Guide to Traditional Native American Beadwork.* New York: Macmillan, 1993.

R

rabbit, hare

The four-legged, rapidly moving rabbit (or hare) is a trickster figure and culture hero to some native peoples, such as the Ojibway, Ute, and certain Northwest Coast tribes. In addition, rabbits (and hares) are a source of food and pelts.

However, the animal's great popularity as a design motif for non-Indians—and among children of all races—has made it mainly a decorative image. Many Southwestern native jewelers use rabbit images from MIMBRES and Pueblo pottery designs; the animals are usually in full side profile and are often shown running.

rain symbols

Representing renewal and life, rain is a significant natural phenomenon to virtually all indigenous cultures, and is especially precious to those who live in arid lands. Rain symbols appear in various forms in native design, ranging from geometric cross-hatches, to animals closely associated with rain, to specific supernatural beings and "rain birds." For example, in Pueblo belief, doves and swallows are associated with rain, along with hummingbirds (which also have a connection to rainbows). Some jewelry motifs derive directly from basket, pottery, and weaving designs with rain symbols. Rain symbols and CLOUD SYMBOLS are related and often interchangeable. Tourist-era improvisations, which are still in wide use, show rain in various forms as clouds with stepped lines, as a straight line with vertical lines descending, or even as a crescent arc terminating in a small circle, signifying clouds and RAINDROPS; the tourist meanings assigned to rain symbols by Anglo Indian traders include "good prospects" for rain clouds, and "plentiful crops" for a lined symbol. *See also* LIGHTNING; RAINBOW FIGURE.

Rainbow figure

Known variously as a male or female supernatural figure, and identified in some anthropological and sociological literature as a deity, the Rainbow figure is a popular Zuni guardian spirit; the image is used as a design motif by both the Zuni and Navajo.

This being is depicted with a curved back, bent to resemble a rainbow's shape, and wearing a terraced cloud cap (*see* TABLITA DESIGN). Most Rainbow figures are rendered in MOSAIC and INLAY on SILVER; they appear on RINGS, pins, PENDANTS, and EARRINGS. Horizontal figures are placed on BRACELETS, and the figures are used in multiple form on SQUASH BLOSSOM necklace sets. The earliest of these figures, like the KNIFE-WING and the THUNDERBIRD designs, developed from the 1920s to the 1940s and were common motifs by the 1950s. *See also* RAIN SYMBOLS.

raindrops

Small rounded balls of melted silver soldered onto a piece of jewelry for decorative effect. Some native smiths also refer to them as "drops" or "shots." Another term, used mainly by non-Indian collectors and DEALERS, is "teardrops." These raindrops could be added onto APPLIQUÉ or FILIGREE work, and they appeared on Navajo and Pueblo SILVER jewelry as a regular design element, most commonly from the 1920s through the 1940s. Raindrops are still made and used on jewelry.

ranger set

Native-designed BUCKLE sets, with matching decorated loops (known as "keepers") and belt tip. Ranger sets have been made since the early to mid-twentieth century. The fashion for ranger buckle sets as dress accessories springs from the growth of Western-style clothing for leisure and fancy wear. Native silversmiths have created numerous variations on the squared buckle with crossbar, and, in the Southwest, these pieces are ornamented in every extant jewelry technique, from OVERLAY to MOSAIC and CHANNEL INLAY. There is a strong market for older, more ornate ranger sets as well as sleek, contemporary-styled pieces. Many men (and some women) choose ranger sets and BOLAS with complementary SILVER and stone work.

raven

This black-hued bird, considered a trickster and personified as the character "Raven," is a powerful figure in the legends of Pacific Northwest Coast and Arctic peoples. Raven's role in creation stories, whether as a hero or a scapegoat, makes him a viable central figure on interwoven SILVER incised designs for BRACELETS and PENDANTS. In Haida beliefs (in western Canada), Raven is also associated with ghosts and possesses transformational powers; in addition, the bird serves as one of two major CRESTS for the Haida of the Queen Charlotte Islands. Raven is responsible for bringing fire and water to humans, manipulating the tides, and placing salmon in rivers for nurture. Haida artists, such as Robert DAVIDSON (b. 1946), Freda DIESING (b. 1925), and Bill REID (1920–1998) have made powerful designs from the raven as cultural hero and CLAN EMBLEM, stressing its powerful re-
curved (or stylized) beak and outstretched

Incised silver bracelet with raven design, late nineteenth century, Northwest Coast. *Art Price Collection/National Archives of Canada/PA-201444.*

wings. Some designs stress his upright figure (in poses that reproduce those carved on TOTEM poles) or represent him as diving. *See also* NORTHWEST COAST NATIVE JEWELRY.

Reid, Bill (1/12/20–3/13/98, Haida)

Over time, and despite his Haida mother's eventual disconnection from her family, Reid developed a deep respect for his native heritage. His best-known works are sculptures and traditional wood carvings, and many of these are centerpieces in major museum collections; however, the artist also became a dedicated jewelry designer after taking a jewelry-making course from the Ryerson Technical Institute in Toronto in 1948. Reid also studied the work of his grand-uncle, Charles EDENSHAW (1837–1920), after viewing two of Edenshaw's GOLD bracelets in the 1950s.

Reid's interest in art creation grew slowly. In his early years, he followed a career as a radio announcer, and had little affiliation with his Haida heritage. But by 1958, he had begun working on art projects that attempted to reclaim Haida artistic traditions, starting with the salvaging of historic TOTEM poles from abandoned villages. Reid used Edenshaw's BRACELETS as points of departure for his own creations, making both cuff and hinged bracelet forms. He consciously employed European jewelry techniques, such as CASTING, OVERLAY, REPOUSSÉ, and surface-stippling (ENGRAVING with dots). A favorite design motif for him was the RAVEN, the symbol of his mother's clan. The artist's intentions were no less than a tribute to the strength of Haida design, and he regarded his work as part of a sustained modernist revival. Reid has become a revered figure in Canada and elsewhere, and his jewelry continues to be a powerful source of inspiration for younger native artists.

Gold bracelet with incised frog design by Bill Reid (Haida), acquired 1984. *Canadian Museum of Civilization, Image #S95-7815.*

Reid is best known and celebrated for his carving and sculptural works, including the famous "Spirit of Haida Gwaii" pieces. He also collaborated on four important scholarly publications on the arts of the Pacific Northwest; through these works, among others, Reid made points about design theory and applications that are now fundamental principals for contemporary native artists. His works can be found in museums throughout Canada, including the Canadian Museum of Civilization, Hull, Quebec, and the British Columbia Provincial Museum, Victoria. Reid's value to his country was acknowledged by the nine honorary degrees he received from Canadian universities. He also received many awards, including the National Aboriginal Lifetime Achievement Award (1994). *See also* NORTHWEST COAST NATIVE JEWELRY.

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repoussé, repoussage

A metalworking technique of creating decoration in relief form, in which the back of a metal article is hammered or pushed through to create raised, domed, or embossed designs (compare with DOMING and EMBOSSING).

Repoussé, normally done with male and female dies, is a jewelry and silver-working method used around the world. The designs can be further enhanced by the application of STAMPING to make the relief more prominent. This action is usually done freehand, using a hammer and punches (*see* PUNCH).

The earliest native silversmiths proved adept at repoussage, particularly when they started using DIES and punches made from scrap metal (such as old railroad track rails) to create stampwork; many authorities believe that the evolution of stamping led naturally to the repoussé process in Southwestern native silversmithing. Fine examples of repoussé can be seen on Navajo BRACELETS and BOWGUARDS made in the 1890s, and the technique is still much in use today.

reticulation

A metalworking process that permits silver ALLOY to be textured through the creation of a "fire skin" that melts the top layer of the metal into irregular shapes on the surface. Because the resultant texturing is more random than the patterns created by etching or REPOUSSÉ, reticulation has been used by late twentieth-century native jewelers as an experimental fine-art effect.

Most jewelers use 22-gauge sterling sheets or an alloy of mixed SILVER and COPPER parts. The metal is ANNEALED a number of times before a fine silver skin appears on the surface, and once the sterling melting point is reached, the surface will begin to wrinkle and contract, that is, reticulate. The application of a torch provides additional heating to strengthen the reticulation of the metal. Contemporary artists, such as Edison Cummings (Navajo) and Anthony Lovato (Santo Domingo), have used this technique to create an updated, avant-garde look on their pieces. The modern mainstream jewelry technique known as *granulation*, in which grains of silver or GOLD are adhered to the surface for decorative effect, has often been confused with the reticulation process; some contemporary fine-art native jewelers have done experimental work with granulation as an outgrowth of their use of reticulation.

revival style

In Native American jewelry, the deliberate reproduction and imitation of older designs, motifs, and forms to create a modern jewelry piece that looks like (or is reminiscent of) much older pieces.

As native jewelers and silversmiths have progressed in their art, they have been drawn to the revival of earlier jewelry techniques, styles, or effects, usually as a form of tribute to their artistic heritage. These revivals provide the opportunity of recapturing the spirit or look of earlier jewelry pieces—and to satisfy consumer demand for older styles that were made only in limited quantities and may now be scarce in the antique Indian arts marketplace. Native jewelry-making techniques are such that surprisingly masterful reproduction pieces can be created; unfortunately, sometimes such items have been misrepresented as originals. Many artists who work deliberately with revival styles, however, are very articulate about their intentions, stressing the renewed and revitalizing aspect of their creations.

A number of contemporary Navajo and Pueblo fine-art jewelers pay homage to the "classical" SILVER works of the 1930s and 1940s, and recreate early styles in beads, nineteenth-century Pueblo-style cross PENDANTS and NECKLACES, or elaborately handcrafted stone and SHELL necklaces like those made by Southeastern Woodlands peoples in the era before the arrival of Europeans in North America. Some Iroquois silversmiths are now reproducing the silver brooches their ancestors wore in the eighteenth and nineteenth centuries—pieces that came to them in trade with the European newcomers. Contemporary artists on the Pacific Northwest Coast, many of them students and admirers of Haida artist Bill REID (1920–1998) are recreating the designs on the incised silver and GOLD work pioneered by late-nineteenth–century Haida carver Charles EDENSHAW (1837–1920), among others.

rings

Finger rings have long been popular with native wearers. Early creations were fashioned from natural materials such as BONE, SHELL, stone, and wood; styles were essentially plain, with bands as the most common form. The earliest metal rings, including those in IRON, BRASS, COPPER, GERMAN SILVER, and SILVER, were simply decorated by incising or ENGRAVING marks. As metalsmithing skills increased, additional elements could be incorporated, from APPLIQUÉ to CLUSTER WORK settings. BEZELS were constructed to take the setting of one or more stones; this became part of the jewelry-making repertoire of Southwestern native artisans by 1890. The setting of TURQUOISE or other SEMIPRECIOUS STONES soon became the HALLMARK of an Indian-made ring.

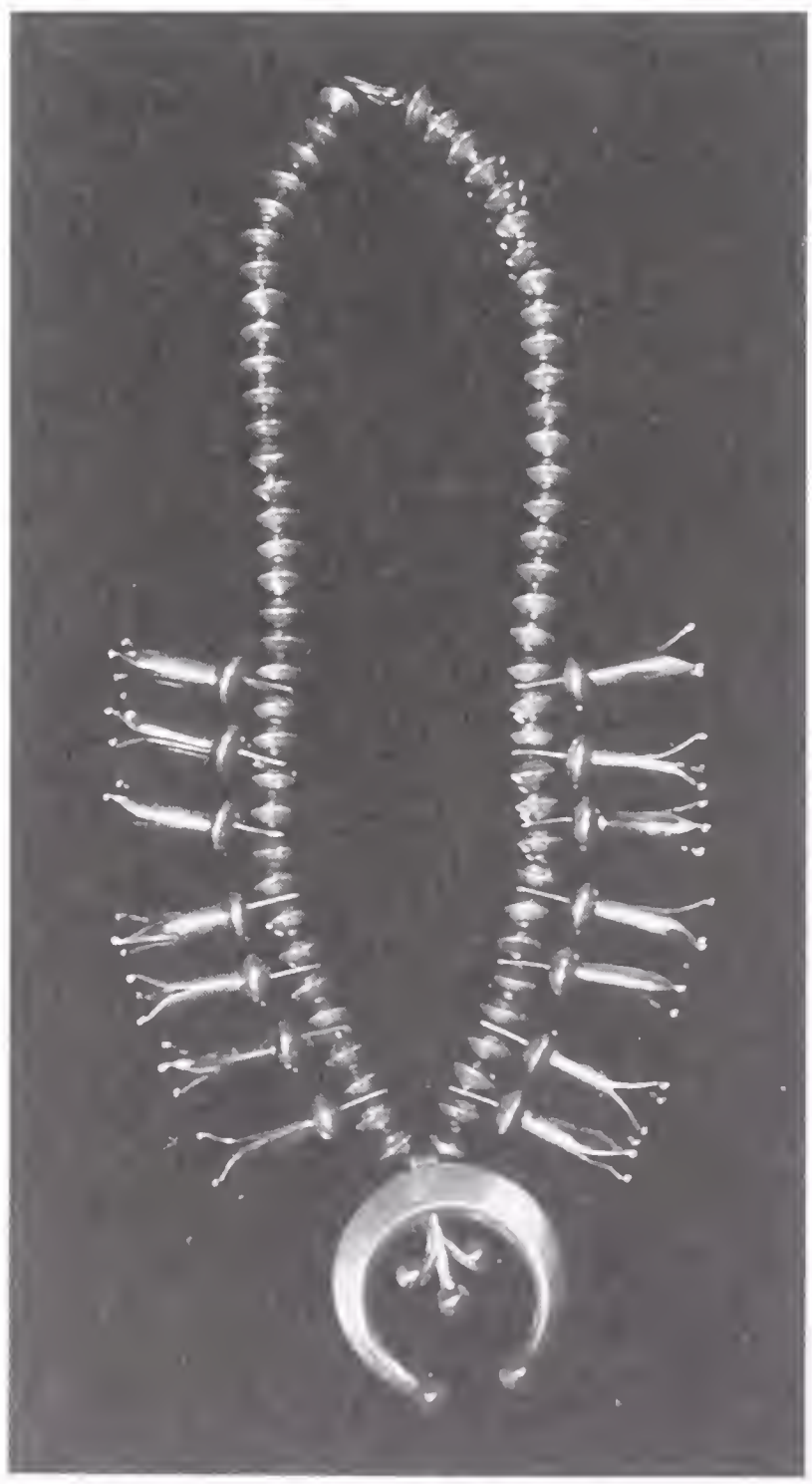
Native North Americans from a wide variety of cultural regions prized rings. Even peoples of the Plains and Plateau regions, who usually wore a profusion of jewelry made from natural materials, often sported several metal rings. Native-made rings quickly became popular with non-native tourists and collectors because they were inexpensive, portable, and could be produced in a wide variety of decorative styles and techniques, with particular "looks" associated with their makers.

The two most predominant types of finger rings continue to be wraparound bands and rings made with bezels and split shanks that support a decorative setting. Rings are made in all price ranges, and a large volume of such items is available on the market, usually for costume jewelry sale. Machine-made generic Indian-style finger rings can also be found. However, a market for handmade, high-quality rings has steadily developed since the 1970s. While silver is still the material of choice among most native artists, GOLD and silver combinations are popular; some Native American fine-art jewelers are now fitting gold rings with unusual gems, thus bringing the form a new reputation for artistic versatility.

Roanhorse, Ambrose (active late 1920s–1960s, Navajo)

Ambrose Roanhorse, a major figure in the revival of "classical" Navajo silverwork from the 1930s through the 1950s, was inspired by the aesthetics of the first-generation silversmiths of the nineteenth century. His pieces were characterized by clean, broad surfaces of SILVER, were deeply stamped, and had simple, rather severe designs. Roanhorse is best known for stamped silver jewelry and METALWARE, including BOWGUARDS, SQUASH BLOSSOM necklaces, and cuff bracelets (*see also* STAMPING).

Roanhorse was the instructor of many important Navajo silversmiths at the Santa Fe (New Mexico) Indian School, and later on, at the Fort Wingate Guild government school



Necklace, with silver squash blossom beads and naja, no date, by Ambrose Roanhorse (Navajo). *Courtesy of The Heard Museum, Phoenix, AZ.*

(also in New Mexico), in about 1939–1940. The program at the Fort Wingate school became the impetus for the establishment of the Navajo Arts and Crafts Guild (*see* GUILDS), started in 1941. He became a spokesman of sorts for Navajo silverworkers; through the INDIAN ARTS AND CRAFTS BOARD (IACB), he attended the "Indian Arts of the United States" exhibition in 1941 at the Museum of Modern Art in New York City, where his jewelry was on display. He met Eleanor Roosevelt there and spoke to her about native arts. Roanhorse won an award from the French government in the mid-1950s; his work was also reproduced in the September 1964 issue of *Arizona Highways*. He has sometimes been alternately named, or possibly confused with, Ambrose Lincoln. His HALLMARK is an "A" enclosed within an arrow-pointed shape. **Museums:** Heard Museum, Phoenix, Arizona; Elkus Collection, California Academy of Sciences, San Francisco; Museum of New Mexico, Santa Fe, New Mexico.

Further Reading: Baxter, Paula A. "Native North American Art; Tourist Art." In *The Dictionary of Art*. Edited by Jane Turner. London: Grove, 1996. Vol. 22, pp. 667–70; Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973; *The Elkus Collection: Southwestern Indian Art*. Edited by Dorothy K. Washburn. San Francisco: California Academy of Sciences; distributed by University of Washington Press, 1984.

rock art. *See* PETROGLYPHS AND PICTOGRAPHS

Rogers, Millicent

A Standard Oil Company heiress and a social leader from the 1920s through the 1940s, Millicent Rogers (1902–1952) helped to popularize SOUTHWESTERN INDIAN JEWELRY, particularly through the establishment of a museum based on her collection of Indian arts.

Rogers's glamorous lifestyle and vivid personality made her a popular figure in high society, where her flair for fashion was appreciated. Drawn to designing, Rogers studied jewelry-making and crafted her own creations in SILVER and GOLD. In 1947, Rogers discovered a passion for Taos, New Mexico, and for Southwestern culture that consumed her for the rest of her life. She helped popularize the "Southwestern look" in her dress, but of greater importance, she began collecting well-made, high-quality Navajo and Pueblo silver and stonework jewelry. Her collection, shaped by expert advice, is on permanent display at the Millicent Rogers Museum in Taos. Here, viewers can study a wide range of pre-1950 pieces, featuring many BRACELETS, NECKLACES, CONCHA belts, and strings of fine HEISHI and TURQUOISE beads. The collection is notable for its variety of styles and techniques, and it has served as a source of inspiration for REVIVAL-STYLE works by contemporary Southwestern Indian jewelers.

Further Reading: For additional information, *see* <http://www.millicentrogers.org/millicent.html>.

rolling mill

A metal, usually hand-cranked (sometimes motor-driven) machine consisting of two hardened steel rollers and a crank attached to one roller. The rollers move by means of gears that are turned by the crank. The rolling mill is an invaluable tool for reducing the thickness (gauge) of sheet metal and wire. Available through jewelry supply houses since the 1920s and 1930s, the rolling mill was useful to studio jewelers both for creating specific metal and wire gauges, and for printing onto metal.

Native studio jewelers, including many contemporary fine artists active since the 1970s, depend on a rolling mill for FABRICATION purposes, even though many varieties of sheet metal and wire gauges are sold commercially. In earlier decades, native jewelers without ready access to supply houses used rolling mills to create the materials they required.

A piece of sheet metal is placed between the two rollers, and the metal is cranked through the rollers one or several times, until the desired thickness is achieved. Wire is reduced to a specific gauge through its place-

ment in a roller with V-shaped grooves; these grooves—in decreasing sizes—gradually reduce the wire's diameter (compare with DRAW PLATE). Most studio jewelers use a "combination mill" that has split-sided rollers for both sheet metal and wire reduction purposes. By using rollers with a design etched or embossed onto it, the rolling mill can be used for printing or EMBOSSING on metal, and it can be used in conjunction with other tools to make repetitive metal patterns, textures, and pierced designs. Native jewelers also employ this machine for solder INLAY, fold forming, and other types of metal shaping. *See also* SOLDER.

Rosetta, Ray and **Rosetta, Mary** (both b. ca.1930– , Santo Domingo)

The Rosettas are one of Santo Domingo's most prolific families of jewelers. Ray returned from army service in the 1940s to learn how to fashion SILVER tubing from his uncle, Santiago Coriz. He went on to refine this process by the early 1950s, through polishing and reducing the size of the SILVER BEADS. By 1957, the resulting strands of beads were called LIQUID SILVER (the name was taken from the praise of a local trader's wife). This new metal bead, or HEISHI, form quickly became a popular innovation among Santo Domingo jewelers, and the Rosettas' son, Johnny, and his wife, Marlene, developed liquid GOLD bead jewelry as well. Ray and Mary, with the help of their family, also make more traditional stonework and SHELL heishi jewelry. Rosetta pieces are usually marked with a "signature" single CORAL bead or have small initials on the cones of necklaces inscribed "RMR" or "JMR." Despite the competition of manufactured liquid silver jewelry, work by the Rosetta family maintains a high standard, and it is prized in Santa Fe galleries, at the SWAIA INDIAN MARKET, and in local Santo Domingo arts and crafts shows.

Further Reading: *Indian Market Magazine*, 1991 issue; Rosnek, Carl and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry.* Englewood, NJ: Prentice-Hall, 1976.

row work

A form of CLUSTER WORK in its use of small, symmetrical stones, row work consists of a straight line of small rounded stones, usually TURQUOISE or another form of gemstone, used to decorate a piece of metal jewelry. Like NEEDLEPOINT and PETITPOINT, this technique is often considered a style by Zuni creators, although Navajo and other Southwestern native artists also make this type of lapidary work. Row work is most commonly found on BRACELETS; these were often thin bangles, popular as early turquoise Indian TOURIST JEWELRY in the 1930s and 1940s, but these thin bracelets could be soldered together to form a larger cuff piece. Today, such bracelets are highly collectible items. Row work jewelry was frequently imitated by producers of manufactured Indian-style adornment, and PASTE or treated turquoise could be substituted for genuine stones. Fine-art jewelers occasionally return to the row-work technique to evoke pieces from earlier decades; contemporary pieces made in the form of row work are deliberate REVIVAL-STYLE tributes. *See also* SOUTHWESTERN INDIAN JEWELRY.

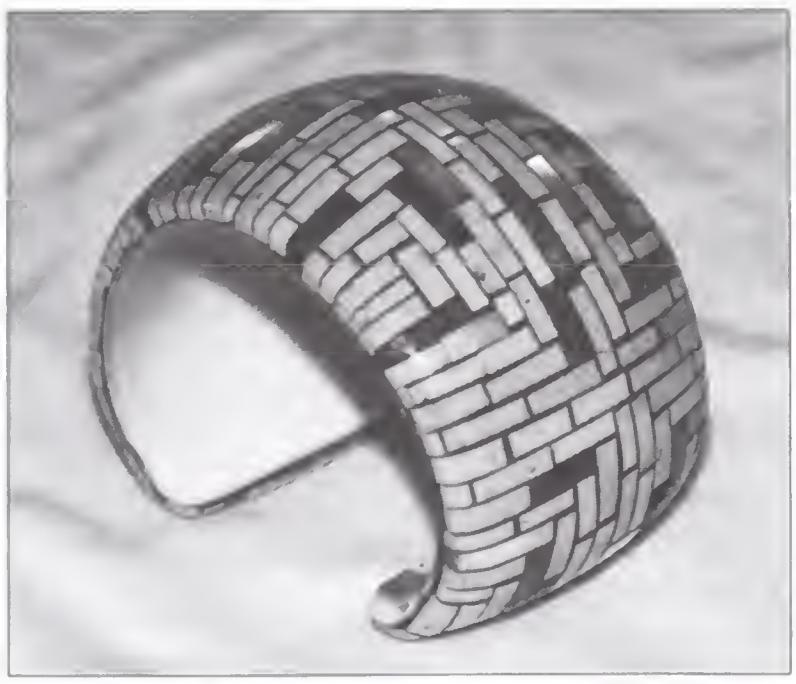
S

sandcast. *See* CASTING

Santa Fe Indian Market. *See* INDIAN MARKET

Santo Domingo jewelry

Jewelry created by the people of Santo Domingo Pueblo, which is located in the middle Rio Grande region of New Mexico, north of Albuquerque and south of Santa Fe. The Pueblo people of Santo Domingo are noted as traders and jewelry-makers; true to long-standing traditions, Santo Domingo artisans are best known for their skill at grinding, drilling, and stringing beads of SHELL and TURQUOISE (HEISHI).



Cuff bracelet, turquoise mosaic on shell, 1990s, by Angie Reano Owen (Santo Domingo). *Courtesy of Gallery 10, Santa Fe, NM.*

One of the more conservative pueblo communities, Santo Domingo is home to a sizable population of individuals involved in the Indian jewelry industry. Over the centuries, many men from the pueblo worked the nearby Cerrillos mines. Santo Domingo facility with turquoise can be seen in hand-rubbed or hand-rolled strands of fine beads; contemporary Santo Domingo artists have elevated stone and metal bead-making to an art (*see* LIQUID SILVER). MOSAIC jewelry, overlaid onto BONE bases or whole shells, is another distinctive trademark of Santo Domingo workmanship.

Between 1920 and 1950, not all Santo Domingo jewelry-making was of good quality, and pieces from this period betray inventive uses of substitute materials—especially when the traditional materials were not available (such as using pieces of phonograph records or automotive battery cases in place of JET or ONYX). But the jewelry created during the 1930s brought particular attention to Santo Domingo; adornment from this period, especially the improvised and substituted materials used for mosaic THUNDERBIRD pendants, is now sometimes referred to as "Depression jewelry" by DEALERS and collectors. Many of the finest contemporary artists of the pueblo started working as children with this type of TOURIST JEWELRY creation.

The NECKLACE is the predominant form of jewelry at Santo Domingo. Necklaces range from the pueblo's signature thunderbird

necklaces to tab-shaped (elongated and slightly flattened tabular) or tear-shaped PENDANTS made from turquoise, PIPESTONE, or a combination of materials; mosaic inlaid SHELL pendants; and long, looped strands of heishi, made in a wide variety of materials ranging from turquoise to olive (or olivella) shell. Silversmithing is also practiced.

John Adair's study mentions Ralph Atencio as one of the first Santo Domingo artisans to learn smithing in 1893. Adair also refers to Francisco Teyano as the leading silversmith in the pueblo in the late 1930s to early 1940s. Vidal Aragon (active since the 1950s), Charlie Bird (known for work since the 1970s), Julian LOVATO (b. 1925), and Angie Reano OWEN (b. 1945) are innovative and influential contemporary fine-art jewelers whose designs borrow from traditional and avant-garde sources. Husband and wife jewelry-making teams are notable, including the work produced by Tony and Ernestine Aguilar and Joe and Mary Calabaza.

Santo Domingo is home to many talented contemporary individuals and artist families, most active since the 1960s and 1970s. These artists include Domingo Atencio, Jolene Bird, Joe Cate, Lydia Chama, Cipriana Chavez, Joe and Eliza Chavez, Reyes Chavez, Ronald and Petra Chavez, Albert and Mary Coriz, Alonzo Coriz, Joseph and Helen Coriz, Leo Coriz, Lorenzo Coriz, Santiago Coriz, Emily Garcia, Juan P. Garcia, Ramon and Lorencita Garcia, Anthony Lovato, Augustine Lovato, Charles Lovato, Ray and Peggy Lovato, Jimmy and Margaret Moquino, Joe and Clara Reano, Percy Reano, Paul and Jesse Rosetta, RAY AND MARY ROSETTA (b. ca. 1930) (of liquid silver fame), Johnny and Marlene Rosetta, Howard and Veronica Tenorio, Joseph and Flora Tenorio, Margaret A. Tenorio, Ed and Florence Tortalita, Mary Tortalita, and Alois Wagner. In the 1990s, Santo Domingo began to host various arts and crafts shows; a rich variety of traditional and fine-art jewelry can be seen as such events. *See also* PUEBLO JEWELRY.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Bedinger, Margery. *Indian Silver: Navajo and Pueblo Jewelers*. Albuquerque: University of New Mexico Press, 1973; Bennett, Edna Mae, and John Bernett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs: Turquoise Books, 1973; Bird, Allison. *Heart of the Dragonfly: The Historical Development of the Cross Necklaces of the Pueblo and Navajo Peoples*. Albuquerque: Avanyu Publishing, 1992. For additional information, *see* <http://www.indianpueblo.org/santodom.html>.

Saufkie, Paul (ca. 1910–1998, Hopi)

Saufkie was taught silversmithing by his father in the 1920s. With his cousin Fred KABOTIE (1900–1986), an already noted Hopi artist, Saufkie taught SILVER jewelry-making to Hopi veterans of World War II and stimulated the design and production of the distinctive Hopi OVERLAY style. Saufkie's silverwork inspired many other artists and also sparked critical non-native interest in HOPI JEWELRY. A native of Shungopavi, Second Mesa, Saufkie used a Snow Cloud HALLMARK. He interrupted his silversmithing for a period of 15 years to work on other projects, but resumed production thereafter. He was also known for his weaving. His son, Lawrence (b. 1935), is also a celebrated jeweler who has exhibited widely, won many awards, and contributed greatly to the fine-art aspect of overlay jewelry design. Paul Saufkie was presented with the Arizona Indian Living Treasures Award in 1991.

Further Reading: *American Indian Art Magazine*, Spring 1984; *The Elkus Collection: Southwestern Indian Art*. Edited by Dorothy K. Washburn. San Francisco: California Academy of Sciences; distributed by University of Washington Press, 1984.

Schrupp, Nelda (1952– , Pheasant Rump Nakota)

Nelda Schrupp creates jewelry based on the sacred material culture of the Northern Plains peoples. Many of her finely crafted pieces are variations of the ceremonial rattle. Schrupp uses a wide range of traditional and unusual materials, including BRASS, GOLD, SILVER, BONE, antler, and horsehair, plus stones representing the colors of the four DIRECTIONS. Schrupp received a B.F.A. and M.F.A. from the University of North Dakota. She has exhibited

at the Denver Art Museum, Colorado. **Galleries:** Gallery 10, Santa Fe, New Mexico.

Further Reading: *Indian Artist*. (Santa Fe, NM), Fall 1997.

Schuyler, Raeburn (6/23/44– , Oneida)

Versatile in both silverwork and BEADWORK, Raeburn Schuyler crafts handmade jewelry with a strong sense of traditional Iroquois design. He favors THUNDERBIRD motifs on his SILVER pieces, and he uses Indian-head nickel coins as the basis for a variety of adornment forms. Schuyler sometimes uses antler and SEMIPRECIOUS STONES, such as amethyst, MALACHITE, and TURQUOISE, with his silverwork. His beading work includes freehand and loom techniques, and he adds porcupine QUILLWORK and BONE into some beaded pieces. Schuyler trained at, and has also been employed with, the N'Amerind Centre in London, Ontario, Canada. He has also exhibited at POWWOWS and Indian fairs in Ontario. The artist describes and writes statements about his design motifs for customers. *See also* IROQUOIS JEWELRY.

Further Reading: *Iroquois Arts: A Directory of a People and Their Work*. Edited by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983.

scrimshaw

A type of carving or engraving on IVORY. Artists often augment the carved surfaces and engraved lines with inks or dyes for effect. (Scrimshaw done by non-native whalers may be better known to the general public than that done by natives.)

Northern native peoples have used scrimshaw to make objects of personal adornment, with more recent pieces primarily made for the tourist trade. The ivory used is traditionally from narwhals or walruses, although fossil ivory and vegetable ivory (such as the hard, white seeds from the ivory palm plant) can be substituted. Jewelry items made from scrimshaw include pins, PENDANTS, and even some RINGS. This technique is employed by artists from Inuit areas, southern Alaska, and some Northwest Coast peoples. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY; NORTHWEST COAST NATIVE JEWELRY.

Further Reading: Burack, Benjamin. *Ivory and Its Uses*. Rutland, VT: Charles E. Tuttle, 1984; Smith, J.G.E. *Arctic Art: Eskimo Ivory*. New York: Museum of the American Indian, Heye Foundation, 1980.

seed beads

The most numerous type of all TRADE BEADS because of their size and practical uses; the small GLASS seed bead is globular, and often slightly flattened in form, with a diameter that ranges from 1/8 to 1/10 (even 1/16) of an inch.

Seed beads were made mainly in Czechoslovakia and Venice. They were first introduced to native peoples in eastern North American by traders in the early 1700s, and large quantities of the beads had reached the Western regions by the mid-nineteenth century. By around 1840, seed beads were usually traded in bulk. The impact of these beads on BEADWORK was enormous because they were eagerly adopted by Indians; seed beads virtually replaced Plains Indian traditional decorations, such as porcupine QUILLWORK. Many museums, such as those devoted to Plains culture and administered by the INDIAN ARTS AND CRAFTS BOARD (IACB), possess fine examples of clothing and other ornaments worked with a rich profusion of colorful seed beads. *See also* PONY BEADS.

Further Reading: Dubin, Lois Sherr. *The History of Beads* New York: Abrams, 1987; Erikson, Joan Mowat. *The Universal Bead*. New York: W.W. Norton, 1993. For additional information, see <http://indy4.fdl.cc.mn.us/~isk/art/beads/art_bea2.html>.

semiprecious stones

While no longer a valid term to professional lapidarists, the gemstones mainly used by Native Americans, such as TURQUOISE and MALACHITE, are often called semiprecious in older literature (and the term is still used in some contemporary writings). Only genuine gemstones, not SYNTHETICS or organic mate-

rial such as CORAL and IVORY, were given this designation. *See also* PRECIOUS STONES.

Senungetuk, Ronald (1933– , Inupiaq)
One of the best-known artists and educators from Alaska, Ronald Senungetuk studied at the Rochester Institute of Technology, earning a B.A. degree in 1960. Senungetuk was the recipient of a Fulbright Scholarship to Norway, and he has taught at the University of Alaska at Fairbanks since 1961, becoming Professor Emeritus in 1986. His handmade jewelry was exhibited at the Anchorage Museum in 1976 and 1983. Senungetuk's fine workmanship has influenced many young native artists from the arctic and subarctic regions. His educational emphasis has promoted modern jewelry-making, avant-garde concepts, and respect for native traditional imagery.

Pin by Ronald Senungetuk (Inupiaq). *Courtesy of U.S. Department of the Interior, Indian Arts and Crafts Board, W-83.21.6.*

serpentine
A mineral stone composed mainly of hydrous magnesium silicate, native to the Southwestern region of North America. It is dull green in color, with a mottled or streaked surface. While serpentine has been used regularly as a jewelry material since the 1950s, its hardness precluded its use by early (pre-twentieth-century) native jewelry-makers because they could not work the stone with their hand tools.

shadow box
A silver-and-stone jewelry style originated by Navajo artisans, in which pieces have deep recesses that are blackened through artificial

An early example of a shadow box bracelet, silver with turquoise stone and stamp design, ca. 1930-40, Navajo. *University of Pennsylvania Museum, neg. #S4-142827.*

OXIDATION, with stones set into these areas; the remaining surface portions are usually left plain and are highly polished. Developed by the Navajo sometime in the 1920s or 1930s, shadow box settings became more common in the late 1960s and early 1970s; in fact, such settings were sometimes alluded to as a "hippie" style because they seemed to be especially attractive to young non-native men and women of that era. TURQUOISE or CORAL settings were used, sometimes in BEZELS, to form either a patterned or irregular cluster. The origins of shadow box derived from early experimentation with APPLIQUÉ on an oxidized background, and the application of domed OVERLAY. *See also* NAVAJO JEWELRY.

shell
To Native Americans, shells of freshwater and saltwater mollusks possess sacred properties. Shells and pieces of shell have been used to make both ceremonial and personal adornment, including jewelry. A trade network in shells sprang up early in native North

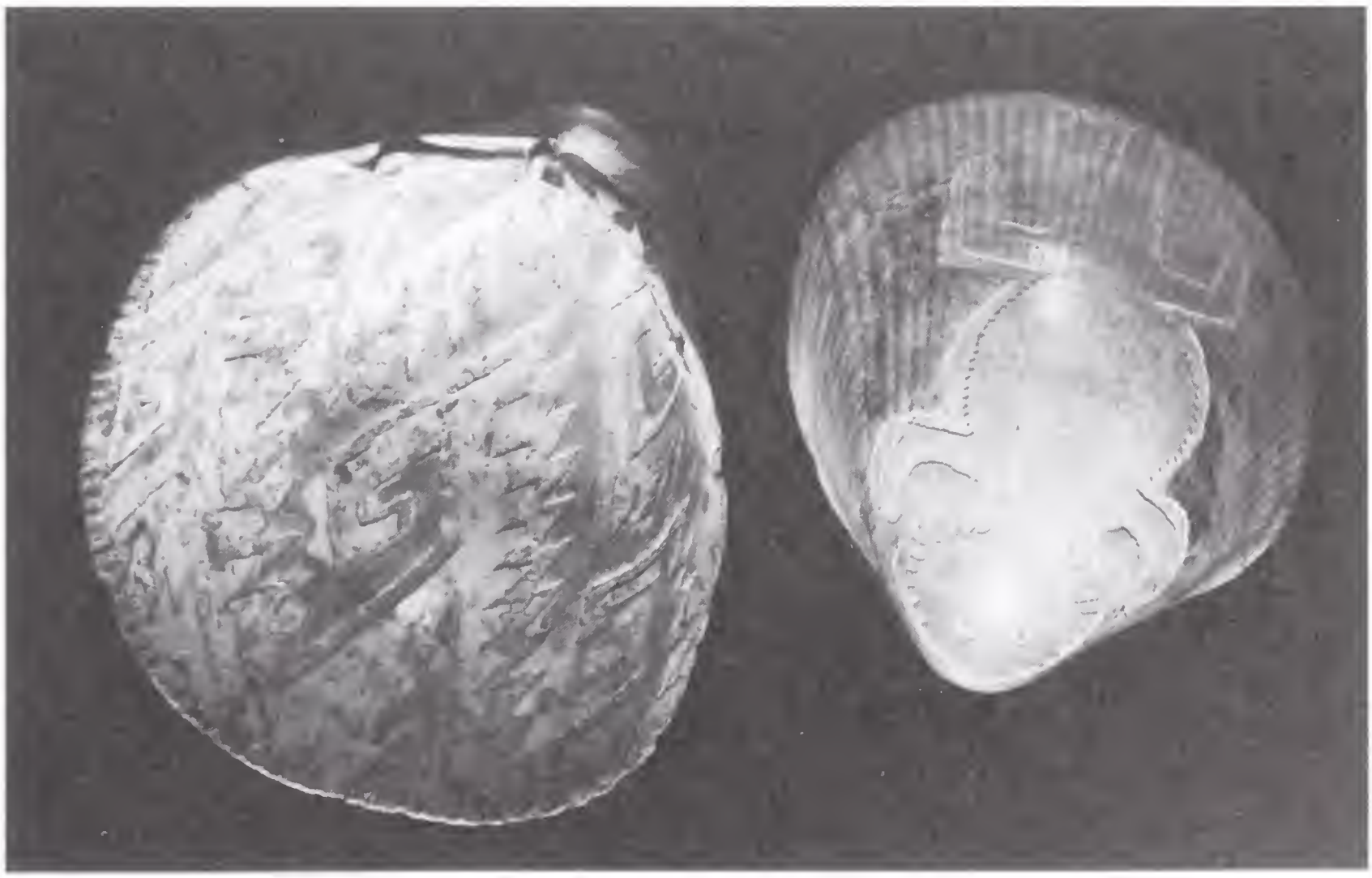
America, with many types of shells brought from the coasts into interior regions. Shells were carved, cut into round discs for beadmaking, made into small pieces for MOSAIC work, or strung with other materials. Early inhabitants, such as the HOHOKAM and Salado, often carved shells into BRACELETS, fashioning a wriggling SNAKE or FROG shape as a decorative outline. Shell was also used for INLAY work, as both a base for mosaic stones to be glued on or as a material for creating inlay (examples survive from the earliest archaeological evidence). Shells were also etched with acid made from fermented cactus.

In addition to ABALONE and mother-of-pearl, shell from cardium, clams, *conus*, *glycymeris* (comb bittersweet), or *spondylus* (spiny oyster) shell (which has a red-orange tone much prized for inlay), olive (or olivella) shell, melon shell, and brown-toned pen shell are popular materials. Pen shell has become an alternative to the use of tortoise shell for inlay. Shell colors of red and white are prized, with red shell a popular substitution for CORAL; most native artists presently obtain this red-dish-hued shell from the California and Gulf of Mexico coasts.

Discs of shell, including loops of DENTALIUM shells, were important adornment for the peoples of the Great Plains, Plateau, and Columbia basin regions. California native artists still use shells for their traditional jewelry and regalia creations. Shells, usually strung like beads with the addition of other materials, were part of Southeastern jewelry-making traditions, and live on in works by Choctaw and other Oklahoma-based artists. While native jewelry-makers from a wide variety of cultural regions have made fine shell necklaces, the Pueblo peoples of the American Southwest are especially noted for their skill in using shell (*see* HEISHI). Pueblo use of whole shells, usually *spondylus* shells, as PENDANTS—also known as dance shells—continues today, and forms the basis for some contemporary artists' fine-art jewelry pieces.

shell beads

Shells and pieces of shells shaped and drilled for stringing as beads. Indigenous people



Etched shells, Hohokam culture, ca. 900-1200 A.D. Shell on the left is painted with ground hematite and probably malachite; shell on the right depicts a horned lizard. *Arizona State Museum, University of Arizona. Helga Teiwes, photographer.*

throughout North America esteemed shell for its use as beads. The raw materials for such beads, including conch, hardshell clam, ABALONE, and olivella, were frequently transported great distances, from the coastal areas to the interior. Among other uses, small rounded beads were included, like those found in WAMPUM stringing, along with the slightly larger disk shape, and all possessing a small hole drilled by hand in the center. Despite the presence of clever imitations, there is still a great demand for native-made jewelry using genuine shell beads such as spiny oyster shell, among others (*see* HEISHI). *See also* SHELL.

Further Reading: Dubin, Lois Sherr. *The History of Beads: From 30,000 B.C. to the Present.* New York: Abrams, 1987.

Shorty, Perry (11/10/64– , Navajo)

Perry Shorty has become noted for his REVIVAL-STYLE work that pays tribute to his study of "classical" era jewelry of the 1930s and 1940s. Shorty apprenticed with his brother-in-law from 1986 to 1990. His pieces feature large TURQUOISE stones set in silverwork decorated in older styles, marked by APPLIQUÉ, REPOUSSÉ, TUFA casting, twisted wire, and strongly defined decorative FILING and STAMPING; he makes CONCHA belts, SQUASH BLOSSOM necklaces, BOWGUARDS (ketohs), BRACELETS, RINGS and some METALWARE. Shorty's jewelry is marked by carefully matched high-quality stones, often with strong MATRIX markings, such as that found in Morenci and Blue Gem turquoise; he chooses these materials because he feels they balance well with stamped SILVER. He has exhibited at the Heard Museum Guild Fair in Phoenix, the GALLUP INTERTRIBAL INDIAN CEREMONIAL (award 1988), and the SWAIA INDIAN MARKET (award 1995). **Galleries:** Morning Star Traders, Tucson, Arizona. *See also* NAVAJO JEWELRY.

Further Reading: *Arizona Highways*, November 1992; Jacka, Lois, and Jerry Jacka. *Enduring Traditions: Art of the Navajo.* Flagstaff, AZ: Northland Press, 1994; Jacka, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995. For additional background, see <http://www.nativehands.com/html/artists/shorty.html>.

silver

Lustrous and white-toned, silver is the metal of most frequent choice for Native American jewelry-makers. Unlike in the Old World, the use of silver adornment in North America is a relatively recent phenomenon. The Eastern Woodlands peoples, particularly the Iroquois, Delaware, and Seminole, were making silver jewelry (derived from TRADE ORNAMENTS) as early as 1800. But in the American Southwest and the Pacific Northwest, native smithing did not develop until the last quarter of the nineteenth century. Early silver was created by beating the metal into thin sheets, and often by hammering coins (usually .900 fineness). Commercialized sheet silver for jewelry FABRICATION was available as early as the 1910s, but it became more readily available after World War II.

Sheet silver and silver wire comes in a large variety of gauges (thicknesses). Before these different gauges were available in remote areas (and even once supply houses were stocking sheet metal and wire in a range of gauges), native artists often used a metal ROLLING MILL machine to press silver into a desired thickness; a "combination mill" (a rolling mill with one-half of the roller width made for pressing sheet silver and the other half for wire) or DRAW PLATES could be used to reduce silver wire to a specific size. Some native artists still use rolling mills to adjust the gauge of sheet silver and wire.

As a metal, silver has a medium density; while silver is quite ductile, a copper ALLOY is usually added to improve its hardness, since "pure" silver is too soft for use in jewelry. The color, or hue, of silver varies, and depends on the melting and mixing of the metal from coins, slugs, or sterling sheets. While silver easily takes a high polish, it can just as easily tarnish from exposure to the elements; the nature of a desirable PATINA, whether dark-toned, as in "antiquing," or more brightly polished, is a matter of taste. Native-made silver jewelry should be cleaned with a jeweler's rouge polishing cloth because liquid polishes can remove OXIDATION that should remain in place (*see also* TRADE SILVER).

Most native artists, whether they work in traditional or fine art modes, choose STERLING SILVER for their pieces, and the word "sterling" is often stamped into the underside of such work, many times accompanied by the artist's HALLMARK. *See also* LIQUID SILVER; SILVER BEADS.

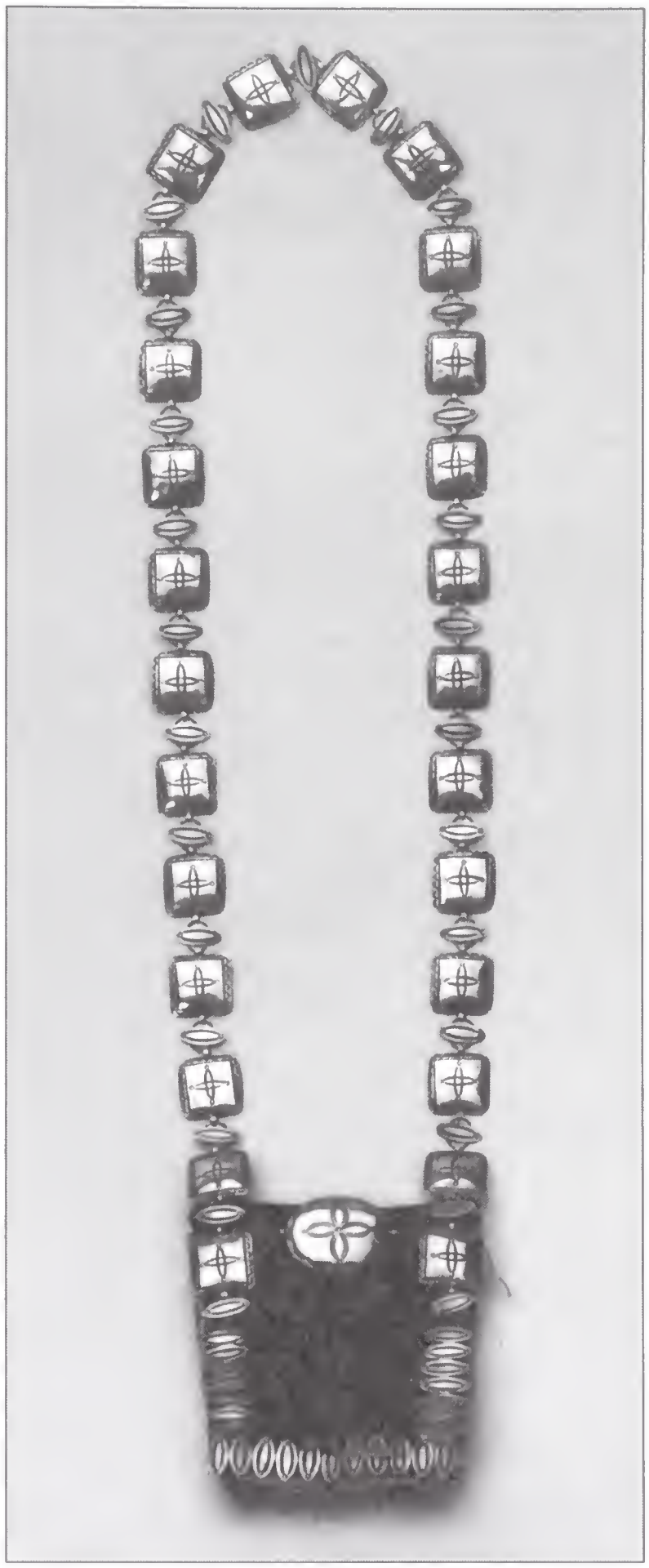
Further Reading: Hunt, Walter Ben. *Indian Silversmithing*. New York: Bruce Publishers, 1960; Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976.

silver beads

Beads made from SILVER. Originally, silver beads were made by hand and spherical; by the mid-twentieth century, silver beads were also made either wholly or partly by machine and were in cylindrical and other shapes.

The most extensive development of silver beads was realized by native peoples in the American Southwest, particularly the Navajo, who experimented with the formulation of various shapes, sizes, weights, and decorative elements in the late nineteenth century. The earliest Southwest native handmade beads were large and round, with incised or stamped decoration added as desired. Eventually, as native smiths gained additional tools and techniques, they began to devise new forms and styles. By the 1920s, barrel and bi-conical bead shapes were created. Other processes, such as INLAY, could be added to the bead form.

Contemporary silversmiths still fabricate strands of handmade silver beads, for use alone or as part of a PENDANT, SQUASH BLOSSOM, or CROSS necklace. Single strands of such beads, often stamped for decorative contrast effect, are known informally in the Indian jewelry industry as "Navajo pearls." Silver beads are also used as alternate pieces in necklaces composed of glass TRADE BEADS and other materials, such as small carvings from SEMIPRECIOUS STONE or shell. *See also* BENCH BEADS; FLUTED BEADS; HOLLOW BEADS; LIQUID SILVER; MELON BEADS.



Medicine pouch with large silver beads, ca. 1900, Navajo. *Courtesy of Deborah and Alston Neal, The Old Territorial Shop, Scottsdale, AZ.*

Silverhorn, Max, Jr. (4/9/44– , Kiowa)

Max Silverhorn, Jr. is an accomplished Plains Indian metalsmith, well known for his creative work in GERMAN SILVER. He learned his craft from his uncle, George Silverhorn, and inherited tools, stamps, and equipment when his uncle died in 1969. Silverhorn, Jr. carefully evolved his own style, and by 1972 he

was creating items that mixed both unique and REVIVAL-STYLE characteristics. His jewelry forms include armbands, BOLA ties, BUCKLES, and EARRINGS. He is a leader among Oklahoma-based native jewelers, and he has exhibited widely in the Southwest. He appeared in a group exhibition that was held at the Southern Plains Indian Museum and Crafts Center in 1977. **Museums:** Museum of Anthropology, Columbia, Missouri; Southern Plains Indian Museum and Crafts Center, Anadarko, Oklahoma.

Sioui, Guy (1950–1983, Abenaki)

Considered one of Quebec's greatest native artists, Guy Sioui carved in stone and wood, and crafted silver jewelry. He was educated at the École des Beaux Arts, Montreal, and the Université de Laval. Sioui's career began around 1971; his work is notable for carved SOAPSTONE peace pipes and more than 1,000 pieces of hand-chiseled SILVER and GOLD jewelry, decorated with designs from Abenaki, Huron, and Iroquois cultures. Favored motifs included ARROWHEADS, EAGLES, and TURTLES, with SEMIPRECIOUS STONES or PRECIOUS STONES added to the metalwork for effect. His works were exhibited extensively in galleries and museums in Quebec and Ontario. **Museums:** Canadian Museum of Civilization, Hull, Quebec; Royal Ontario Museum, Toronto; Department of Indian and Northern Affairs, Ottawa.

Further Reading: *Native Peoples of Canada*. Quebec: Gouvernement du Quebec, 1984.

Slender Maker of Silver (Navajo, active 1880s-1890s, d. 1916)

Slender Maker of Silver, a prominent Navajo silversmith, was the younger brother of ATSIDI SANI (active 1860s to 1890s, d. 1918?), who was reputed to be the first Navajo to take up silversmithing. Slender Maker of Silver lived near Crystal, New Mexico. His work was praised by Navajo leader Chee Dodge, and he was mentioned by Franciscan brothers living on the reservation in a report from 1909. He is believed to have learned from either his brother or from Mexican smiths (possibly both). His greatest activity seems to date from the 1880s and 1890s. He was praised for his refinements in silverwork and his creation of new forms; this work included BUCKLES; star-shaped BUTTONS; and simple, thin cuff BRACELETS. He reportedly made a ring set with a piece of TURQUOISE for Chee Dodge (date of jewelry pieces unknown). Other works made for Dodge included a bridle, tobacco canteen, and a SQUASH BLOSSOM necklace pictured in Adair's book, *The Navajo and Pueblo Silversmiths* (1944).

This early silversmith is depicted in a famous photograph taken sometime around 1885 by Ben Wittick. Slender Maker of Silver taught the art of silvermithing to his nephew (or possibly his son), Fred Peshlakai, who became an important silversmith and instructor in the craft and who served as a transitional bridge between the first generation of smiths and the men and women described in Adair's study of the late 1930s.

Further Reading: Adair, John. *The Navajo and Pueblo Silversmiths*. Norman: University of Oklahoma Press, 1944; Woodward, Arthur. *Navajo Silver: A Brief History of Navajo Silversmithing*. Flagstaff, AZ: Northland Press, 1971, 1973.

Smith, Russell Samuel (1950– , Kwakiutl)

Largely self-taught, Russell Samuel Smith supplemented his learning by studying with noted West Coast native artists; in 1971, for example, he learned silversmithing techniques from his cousin Lloyd WADHAMS (1939–1992). Studying with Bill REID (1920–1998) in 1977, Smith added REPOUSSÉ techniques on GOLD and SILVER to his repertoire. From these experiences, Smith has emerged as an active jewelry designer of note. Steeped in the cultural traditions of his people, Smith's jewelry follows traditional design motif lines, and he makes pieces that are impressive in their technical rendering. **Museums:** British Columbia Provincial Museum, Victoria; Department of Indian and Northern Affairs, Ottawa; Vancouver Centennial Museum.

Further Reading: Steltzer, Ulli. *Indian Artists at Work*. Seattle: University of Washington Press, 1976.

snake

Snakes are revered among many native cultures, and early depictions of snakes in North America frequently had associations with a Great Serpent spirit. Some native peoples felt that snake representations were inappropriate for decoration; however, the reptile's sinuous form has become a popular design motif.

In the first decades of nineteenth-century silversmithing, Navajo metalworkers followed their people's traditional abhorrence of snakes, and the creatures did not appear in jewelry design. However, non-Indian demand—bolstered by the Victorian predilection for snake imagery on such jewelry as BRACELETS and RINGS—overcame many artists' objections, and, over time, the use of the snake's sinuous form lent itself well to native jewelry subjects. However, other Southwestern native peoples did not hold the snake in antipathy for adornment; in the early twentieth century, for example, the Zunis developed a popular snake motif that framed finger rings (done by such artists as Leekya DEYUSE and Dan Simplicio).

Snakes became associated with native culture, from references to Mesoamerican serpent figures to events popular with early non-native tourists, such as the famous snake dances held on the Hopi mesas. Snakes and serpents represented fertility and rain for crops; they also played cautionary roles with positive or negative meanings for humans according to local legends. The dubious, tourist-era connotation for a snake symbol was of defiance and wisdom.

soapstone

A talc-like material, also known as steatite, that is soft and therefore easy to cut and carve. A fine-grained material, soapstone is enhanced by dying and heating, and its colors range from a pale whitish-tan to shades of green or brown.

Soapstone carvings by the Inuit are the best-known soapstone products on the ethnic art market (*see* INUIT, INUPIAT, AND ALEUT JEWELRY), but soapstone has also been used for amulets, EARRINGS, nose plugs (*see* LABRETS), PENDANTS, and Pins—initially as native wear, but eventually evolving into pieces intended for the tourist trade. California artists (a fine form of steatite was mined on Santa Catalina Island) and tribes from the Plateau region also favor soapstone for personal adornment purposes. *See also* CALIFORNIA AND CENTRAL WEST COAST NATIVE JEWELRY.

sodalite

A sodium aluminum silicate that is often mistaken for, or deliberately substituted for, LAPIS LAZULI in Native American jewelry. Sodalite is found throughout the United States and Canada. Its blue color is not as intense as that of lapis, and it is often found in large pieces that can be cut into CABOCHONS of varying opaque to translucent values.

solder

A specially prepared ALLOY of metal, with a number of possible combinations of ingredients (generally SILVER, COPPER, and zinc), which, when melted, permits two surfaces of a jewelry piece to be joined together. Native metalsmiths proved adept and ingenious in their approaches to combining, heating, and applying such alloy combinations. The processes for making the early forms of solder, such as granular silver solder, were time-consuming. The development of more effective solder (and later in the mid-twentieth century the commercial availability of premixed solder) allowed artists more time to experiment with new types of decorative effect, such as APPLIQUÉ, rope work, and FILIGREE. A clean and unobtrusive solder line on a piece of metal jewelry, such as a ring or bangle, is a sign of good workmanship.

Sonwai. *See* NEQUATEWA, VERMA

Southwestern Indian jewelry

An overarching term referring to native jewelry produced in the Southwestern region of the United States, mostly in the Four Corners states of Arizona, Utah, Colorado, and New Mexico, with some extension into northern Mexico. The Southwestern United States remains the best-known and largest Indian jewelry-making center in North America. Three-quarters of all Indian jewelry is made in this region, and several cities in Arizona and New Mexico serve as major conduits for the distribution of these goods.

This region's prominent jewelry production developed because of several historical factors. First is the sizable concentration of Navajo and Pueblo peoples in that region who embraced jewelry-making. In addition, the Southwest's geographical attractions have drawn many tourists and newcomers since the late nineteenth century. Also, many non-native traders and DEALERS have settled in communities within or adjacent to the native population; this group of purveyors has actively promoted Indian arts and crafts. All these circumstances have helped to impress the concept of Southwestern Indian jewelry into the consciousness of non-native consumers.

These factors certainly helped to create and define the Indian jewelry market that has existed since the 1940s. Many native peoples in the region have turned to jewelry-making as an important economic activity. Tourism was first aided by the railroad in the later nineteenth century and then by the interstate highway system after World War II. The prominence of the GALLUP INTER-TRIBAL INDIAN CEREMONIAL, the Santa Fe INDIAN MARKET, and other similar events has highlighted the region's significance for jewelry creation and sales; the sales and interest shown at these venues has also encouraged the startup of a high-end fine-art jewelry market.

Even contradictory trends have had a galvanizing effect. Southwestern Indian jewelry, more than any of the other regional crafts, has suffered from an unhappy association with commercial manufacturing uses and abuses (*see* MAISEL). Yet, despite this, the

Early to mid-twentieth-century Southwestern Indian jewelry. *Courtesy John C. Hill, Antique Indian Art, Scottsdale, AZ.*

evolving variety of quality and design in Navajo and Pueblo jewelry from the 1940s to the 1960s contributed to the market "boom" of the 1970s, when Indian jewelry achieved international attention.

The Southwest's large population of silversmiths and lapidarists is remarkable (*see* HOPI JEWELRY; NAVAJO JEWELRY; PUEBLO JEWELRY; SANTO DOMINGO JEWELRY; ZUNI JEWELRY). Jewelry-making abilities often run in families, and artistic heritages have mingled through intermarriage among regional peoples. Fine-art jewelers can also be found among other groups in the region. Contemporary jewelers include Apache artists Vera Fragua, Rainey Julian, Jan LOCO (b. 1955), and Allenroy Paquin (Apache/Zuni), who have achieved international recognition since the 1980s. Gibson NEZ (b. 1944; Apache/Navajo) is known for his innovative SILVER, GOLD, and SEMIPRECIOUS stone pieces. Other jewelry-makers of note include Michael David Garcia (Pasqua/Yaqui), Monica KING (b. 1959; Pima/Navajo/Tohono O'odham), Alvin Sosolda (Pima), and Starlie Polacca (Havasupai/Hopi). Southwestern Indian jewelry continues to be viewed as not just a regional, but also as a leading manifestation of Native American creativity, from the work of the ancient peoples of the region to the avant-garde gambits of the 1980s and 1990s.

See also ANASAZI; HOHOKUM; MIMBRES; SOUTHWESTERN STYLE.

Further Reading: Bahti, Tom, and Mark Bahti. *An Introduction to Southwestern Indian Arts and Crafts*. Las Vegas: KC Publications, 1964, new edition 1997; Bennett, Edna Mae, and John Bennett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs: Turquoise Books, 1973; Cirillo, Dexter. "Back to the Past: Tradition and Change in Contemporary Pueblo Jewelry." *American Indian Art Magazine* 13 (Spring 1988): 46–55+; Fox, Nancy. "Southwest Indian Jewelry." *El Palacio* 93 (Summer–Fall 1987): 32–34; Frank, Larry, and Millard Holbrook. *Indian Silver Jewelry of the Southwest 1869–1930*. West Chester, PA: Schiffer, 1990; Hammack, Nancy S., and Jerry Jacka. *Indian Jewelry of the Prehistoric Southwest*. Tucson: University of Arizona Press, 1975; Hodge, F.W. "How Old is Southwestern Indian Silverwork?" *El Palacio* 25 (October 1928): 224–32; Jernigan, E.W. *Jewelry of the Prehistoric Southwest*. Santa Fe: School of American Research, 1978; Kirk, Ruth Falkenburg. *Southwestern Indian Jewelry*. [School of American Research. Papers. No. 38.] Santa Fe: School of American Research, 1945; McGreevy, S.B. "Indian Jewelry of the Southwest: Finished in Beauty." *Art and Antiques* 3 (May–June 1980): 110–17; Monongye, Preston. "The New Indian Jewelry Art of the Southwest." *Arizona Highways* 47 (June 1972): 6–11, 46–47; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976; Schiffer, Nancy. *Jewelry by Southwest American Indians: Evolving Designs*. West Chester, PA: Schiffer, 1990; Tanner, Clara Lee. "Contemporary Southwest Indian silver." *The Kiva* 25 (February 1960): 1–22; Tanner, Clara Lee. *Prehistoric Southwestern Craft Arts*. Tucson: University of Arizona Press, 1976; Tanner, Clara Lee. *Southwest Indian Craft Arts*. Tucson: University of Arizona Press, 1968; Turnbaugh, W.A. and S. Turnbaugh *Indian Jewelry of the American Southwest*. West Chester, PA: Schiffer, 1988; Wright, Margaret. *Hopi Silver*. Flagstaff, AZ: Northland Press, 1972. rev. ed., 1998.

Southwestern style

When used in reference to a piece of jewelry, a term indicating that the item in question has been made to look like Southwestern native, or Western, ornament, but was not actually made by a Native American. The label "Southwestern style" is frequently used by mail-order catalogs; unless the product description states otherwise, consumers should be alert to the fact that the product in question may not be native-made. In fact, a number of popular non-Indian jewelers (located in the Southwestern United States and elsewhere) work in styles and techniques that closely resemble those of notable native artists. "Southwestern style" is a popular consumer "code" term, used because of the immediate associations that this style (which can include *Santa Fe style*) brings to the general public.

spiderweb. *See* MATRIX

spiny oyster shell. *See* SHELL

squash blossom beads, squash blossom necklace

The "squash blossom" bead is composed of three main elements: the shank, the bulb, and outwardly curved petals. The bead and the necklace devised from its form, with the beads attached to other rounded beads and anchored by a central NAJA pendant, are among the most unique products of Southwestern native jewelry creation, and specifically of Navajo origin.

In the 1870s and 1880s, Navajo silversmiths shaped trifoil SILVER petals that were soldered onto a bead or necklace shank. Most scholars of Navajo silverwork believe this squash blossom bead was based on the "pomegranate" design of Spanish colonial and Moorish derivation. While the concept for the squash blossom shape undoubtedly came from Spanish ornament, it is less likely that the native adopters of the bead knew about, or cared about, its origins. Non-native INDIAN TRADERS brought the terms "squash blossom" and "squash blossom necklace" into general usage, and the fact that these beads did not originally represent squash blossoms was mostly forgotten. When the Navajo smiths attached the trifoil beads to a

Silver squash blossom necklace, 1890s-1900, Navajo. *Collection of Lynn D. Trusdell.*

necklace of rounded beads, and then added the naja pendant, this new type of necklace was given the same name as the beads.

Over time, variations appeared in the length, shape, and number (from two to five) of petals, and the number of actual squash blossom beads that could be attached to a necklace increased. Often, the squash blossom bead was strung between plain beads at intervals. The earliest squash blossom necklaces, created from 1870 onward, were usually large in size and length, and worn by Navajo and Pueblo men and women. These first necklaces were created in plain silver, with rounded beads and short petals; the beads were sometimes augmented with decorative STAMPING and file work. At the start of the twentieth century, stone settings became more viable and popular with native people, and after 1920, squash blossom NECKLACES were increasingly made of TURQUOISE or CORAL, or combinations thereof, set on silver. These necklaces often had ornate compositions; as new styles of stonework (such as CLUSTER WORK, NEEDLEPOINT, and MOSAIC) developed in the 1920s and 1930s, these styles were adapted onto the squash blossom necklace form and its overall design. Machine-made imitations invariably followed, and as squash blossom necklaces were designed for non-native tastes, the size of the whole composition was often reduced. Small-scale necklaces for native children were created as well (*see* CHILDREN'S JEWELRY).

The squash blossom necklace reached its creative peak for design by the 1970s, and it has become less fashionable since then with both native and non-Indian consumers. While these necklaces are most closely associated with Navajo jewelry-making, Navajos are no longer the exclusive creators of such pieces. Many contemporary fine-art jewelers eschew the "squash blossom" form as too traditional, but occasional tributes to the original bead appear in some fine silverwork. The shortened name "squash" is used in the Indian jewelry industry to identify this style of necklace. *See also* NAVAJO JEWELRY.

Further Reading: *American Indian Art Magazine*, Summer 1978.

squaw wrap. *See* COTTON WRAP

stabilizing

The chemical treatment of stones, such as TURQUOISE, to enhance their natural appearance. This artificial enhancement often involves the application of plastic, or other resin-like substances, onto the natural stone as a means of heightening the stone's color, increasing the stone's durability, or giving the stone a better shine. Good business practice and ethics (including the regulations of the INDIAN ARTS AND CRAFTS ASSOCIATION [IACA]) require that the artist using this treatment on stones, or DEALERS selling the piece, represent the material as having been treated.

The majority of Indian jewelry on the market today contains stabilized turquoise; however, it can be extremely difficult to tell if a stone has been stabilized or is natural. The consumer is often at the mercy of the seller, and that individual's honesty in portraying the materials used for a piece of jewelry. However, because good-quality natural turquoise is more difficult to find and more expensive, stabilized pieces have become a fact of life for the industry. Stabilizing is therefore regarded with some suspicion precisely because of the ease with which it has been ignored or misrepresented; it was not until 1993 that the IACA permitted its members to use and display stabilized turquoise.

stamping, stampwork

The act of hammering or punching a relief pattern onto a metal sheet for use as a design element; a DIE or PUNCH tool is held stationary so that repetitive blows create a number of identical patterns. The method of stamping led naturally to the REPOUSSÉ technique to create raised relief for metal jewelry surfaces. Much native-made SILVER is decorated by stamping, and native artists prize older tools that they have inherited as much as those stamps that they create themselves. The first native silversmiths created their dies for stampwork from scrap iron and other discarded metal, salvaging these from pieces of old railroad track or from wagon or automobile parts.

Silver jewelry decorated with stamps appeared in the last two decades of the nineteenth century, and stamping has been used ever since. Many stamped designs are distinctive, ranging from the abstract and geometrical to figurative motifs such as arrows, sunbursts, and small animals; the designs generally complement the lines and decorative effect of the silver piece. Since World War II, stamped SILVER BEADS have been popular with both native and non-Indian consumers. Hand stamping is a HALLMARK of both the fine-art and REVIVAL-STYLE jewelry-making processes, but much other stamping is now done by production-line die tools or machines.

steatite. *See* SOAPSTONE

sterling silver

A grade of silver that ranges from .925 to .921 fineness (that is, an ALLOY of 92.5 per-

Heavy coin silver bracelet with an excellent example of early stampwork decoration and split band, ca. 1890, Navajo. *Collection of Lynn D. Trusdell.*

cent to 92.1 percent pure SILVER with 7.5 percent to 7.9 percent COPPER). The copper makes the metal more durable. By the late twentieth century, most native-made metal jewelry was made with sterling silver. Although sterling silver does not have an official stamp to attest to its purity in the United States (unlike in Great Britain and some other European countries), since the 1970s it has been a widespread practice for native jewelers to mark the word "sterling" on the back of their pieces. This practice has become particularly necessary as a means of countering the use of "white metal" (a base metal) in inexpensive, imitative Indian jewelry; this inferior metal has been frequently passed off as silver, thus compromising the integrity of native-made ornament in consumers' eyes.

story, storyteller

In contemporary native jewelry, a design based on a narrative scene. Story or storyteller jewelry is an emerging genre since the 1960s, and the term has not yet gained uniform formal acceptance in the Native American jewelry industry.

The better-known use of the term "storyteller" refers to a specific form of Pueblo ceramics originated by Helen Cordero (1915–1994) of Cochiti Pueblo and well-known by the early 1960s, in which a large central figure, usually a Pueblo woman (but sometimes a man), sits surrounded by smaller figures who are listening to the story being told. This Pueblo storyteller motif has also been borrowed for use on Southwestern Indian pins, PENDANTS, and RINGS since the 1980s.

But the term "story" or "storyteller" has also been applied to the use of a descriptive narrative scene for jewelry design. Such scenes may relate to everyday activities or colorful traditional scenes, such as sheepherding, social dancing, rodeos, or visits to TRADING POSTS. Navajo silversmiths in particular have been leaders in creating storyteller subject matter on jewelry. The type of scene can vary from brief anecdotal vignettes captured on pins or pendants to more elaborate versions that lend themselves to such larger compositional frames as belt BUCKLES, BRACELETS, or CONCHA belt plates. Many of these pieces have been crafted in silver APPLIQUÉ and OVERLAY, and also in GOLD and SILVER overlay, combined to give contrast and texture to the scene.

Story designs have great appeal to Indian jewelry consumers, many of whom hail these motifs as an expressive form of folk art. Three contemporary artists who have gathered acclaim for their story imagery on jewelry are Vidal Aragon (Santo Domingo), Clarence LEE (b. 1952; Navajo), and Thomas (Tommy) Singer (Navajo). The story or storyteller style has also been appropriated for inexpensive, often manufactured, knockoffs of SOUTHWESTERN-STYLE jewelry. *See also* NAVAJO JEWELRY; SOUTHWESTERN INDIAN JEWELRY.

sugilite

An intense reddish-violet or magenta-hued manganese silicate material first introduced into lapidary usage for jewelry around 1979, when it started to be mined in South Africa. Early market names for this stone were Royal Azel and Royal Lavulite. Sugilite's unusual color made it instantly fashionable, especially as a color contrast piece for CABOCHONS, carving, faceting, and INLAY. Like LAPIS LAZULI, jewelry made from sugilite quickly attained a place in native fine-art jewelry work. This material is sometimes stabilized for better color and effect (*see* STABILIZING), and an imitation sugilite has already been developed.

sun face, sun shield

A Pueblo symbol representing the sun deity. The sun face is usually divided into facial portions marked by distinctive and traditional colors; these colors represent aspects of the rising sun as acknowledged in morning prayer ritual.

Zuni jewelers use three specific colors for INLAY work: white (usually from SHELL) for the lower face, and red (CORAL) and blue (TURQUOISE) for the forehead. Since the 1980s, some variations in colors have appeared in the motif, probably as creative variations to

the design, and the availability of different materials that can be used for inlay. The face often has a border, indicating sun rays or symbolic feathers, and the design may be expanded into a rounder sunflower or shield configuration. The sun face or shield is always a round form, most suitable for inlay or incision on silver RINGS, pins, and PENDANTS, or as a central design for a larger piece, such as a BRACELET or a multipart SILVER-and-inlay NECKLACE.

Further Reading: Bahti, Mark. *Southwest Indian Designs, with some Explanations*. Tucson: Treasure Chest, 1994.

Supplee, Charles (10/15/59– , Hopi/French)

Charles Supplee learned metalsmithing at a young age from his father. After graduation from high school in Flagstaff, Arizona, Supplee went to work in an Indian arts shop in Scottsdale. There, he met, and (in the 1970s) apprenticed with, master jeweler Pierre TOURAINE, who was impressed by Supplee's FABRICATION abilities. Among Supplee's most notable artistic achievements are his twig ornament horse designs, based on an ancient artifact found in the Grand Canyon area. Supplee fashions small HORSES from a base of willow branches, and then casts them in SILVER and GOLD. Supplee trained initially in mainstream jewelry techniques. Once he had mastered such conventions, he moved on to works based on "free expression," and like other fine-art jewelers, his designs retain references to his native heritage. **Galleries:** Feathers Gallery, Scottsdale, Arizona; Lovena Ohl Gallery, Scottsdale, Arizona; La Fonda Shop, Santa Fe, New Mexico.

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SWAIA (Southwestern Association for Indian Arts, Inc.)

A not-for-profit membership organization that supports and encourages contemporary and traditional native arts. SWAIA is best known for its annual INDIAN MARKET in Santa Fe, New Mexico. The association originated in 1922, when non-Indian residents of Santa Fe established themselves as the New Mexico Association on Indian Affairs (NMAIA). The organization was committed to championing Indian rights in the face of such threats as the Bursum Bill (first proposed in 1917 and submitted to Congress in 1922, the bill's aim was to open Pueblo lands to non-native settlement, but the bill did not pass). One of the NMAIA's first activities was the sponsorship of an Indian Fair in Santa Fe in 1922, meant to publicize the beauty and quality of Native American arts and crafts. The fair was so successful it became an annual event.

The NMAIA was renamed in 1954 as the Southwestern Association on Indian Affairs, and later on took its current title as the organization gradually dropped other social activism to concentrate on Indian arts exclusively. Since the 1970s, SWAIA has developed a number of educational, promotional, and fellowship programs that highlight concerns about the preservation of quality native artwork.

The Indian Market, with its celebrated award categories for various art forms, and its high standards for participants and their entries, remains SWAIA's central event. Held annually in August, the Market draws a dedicated crowd of collectors and enthusiasts. Jewelers figure strongly in SWAIA's artist constituency. The organization endorses issues related to authenticity and creativity in jewelry-making and provides artist profiles and related information in their publications.

Further Reading: For more information, see the SWAIA Web site at <http://www.swaia.org>.

swastika

A design, with four radiating spokes, that has been found in ancient cultures around the world, including those in North America. The

swastika is a form of CROSS, with both arms of equal length, but with each arm bent at the end. This form can be seen in particular (but not exclusively) in the Southwestern region, on rock art and other early artifacts (*see* PETROGLYPHS AND PICTOGRAPHS).

The swastika appears as a motif on many forms of Navajo, Apache, and Pueblo ceremonial and decorative objects (in the Navajo version, the arms are bent in the opposite direction than in conventional swastikas). The swastika is also found in Navajo sandpainting, often made to accompany the ceremonial "Hail Chant," where it is called "whirling log"; it is reproduced with inverted feet, or even FEATHERS, attached to the ends of the spokes. The swastika form may have some reference to the four DIRECTIONS or the movement of the sun through the heavens. INDIAN TRADERS seized upon any and all local swastika motifs because of their broad recognition factor and appeal, and the traders encouraged the motif's use as interval or repetitive pattern for jewelry decoration, joining such equally popular designs as ANIMAL TRACKS and ARROWSHEADS. In the late 1930s, the swastika motif was abandoned, as artisans and traders joined in their disapproval of Germany's Third Reich and its use of the swastika as a Nazi power symbol. The swastika has reappeared since the 1970s as a REVIVAL-STYLE design, meant to acknowledge an earlier era of native design and decoration; many revivalists use the form that is reversed from the Nazi version.

swedging

A technique used to produce armbands and BRACELETS of ridged SILVER, grooved on both surface and backside, first developed by Southwestern Pueblo and Navajo smiths around 1880.

A piece of flat, hammered silver is pinned down onto a swedging block, while grooves of V- or U-shapes are created by the pressure of a swedging tool. The final effect is stronger and more regular in its lines and proportions than that achieved by repoussage (*see* REPOUSSÉ, REPOUSSAGE). The labor-intensive nature of this process caused swedging to be abandoned during much of the twentieth century, but it was revived in the 1980s and 1990s by some contemporary fine-art jewelers. An excellent example of a late-nineteenth-century Pueblo-made swedged bracelet appears in the permanent collection of jewelry on display at the Millicent Rogers Museum, Taos, New Mexico.

synthetics

Artificial materials that are used as substitutes for gemstones and other SEMIPRECIOUS STONES; synthetic products have chemical and physical properties similar to the stone they simulate. Many synthetic gemstones, replicating alexandrite, corundum, diamond, emerald, sapphire, and ruby, are mass produced. Other forms of synthetics have had historical success as deliberate replacements for materials unavailable to native jewelers. For example, from the 1920s to the 1950s black bakelite (used in 78 RPM phonograph records) was substituted for JET as a black INLAY material; jewelry pieces made with such early plastic from this time period are now prized collectibles.

The first synthetic TURQUOISE was actually a form of blue GLASS, but a more realistic product has been in use since the 1970s. Synthetic material is usually found in inexpensive imitation Indian jewelry, but many jewelers also experiment with synthetics for effect. The use of synthetics should be represented honestly and reflected in the price of a piece that uses this material.

T–V

tab turquoise

Pieces of turquoise cut into an elongated, slightly flattened tabular form. The tab form is an extremely old type of indigenous bead shaping, developed long before the coming of Europeans to North America. The tab shape is one of the oldest forms known to beadmaking because early native miners could extract the stones for tabs fairly easily as natural mineral chunks from thin seams or veins close to the surface. An early form of ear-pendant is made from TURQUOISE tabs. In fact, the tab shape is an adornment form that has survived well into the modern era, and a shape that serves as an important prototype for contemporary earring designs. Along with the disk shape, tab turquoise beads (also referred to as "corn grains") remain a popular form for EARRINGS and NECKLACES; both tab and disk beads are often strung together, and well-shaped, good quality turquoise pieces of jewelry shaped as tabs are considered highly desirable by both natives and non-Indians alike.

tablita design

A motif used in Native American jewelry using outline forms of the ceremonial headdresses worn by Pueblo women. This design has been appropriated by native artists from the Pueblo culture as a shape for certain jewelry pieces, such as chokers, PENDANTS, and EARRINGS. The choice of this design for the shape of a jewelry piece pays tribute to the importance of dance in Pueblo material and spiritual culture.

The tablita outline varies from pueblo to pueblo, in terms of height, width, and positioning, but in its simplest form it is roughly triangular in shape with terraced lines, or "steps" from the wide base to the apex (the steps are reminiscent of the kiva-step motif, that is, the steps leading into a kiva, a below-ground, usually circular, chamber used by Pueblo people for religious ceremonies). Sometimes the tablita form is elongated from top to bottom, and the steps may terminate in FEATHERS. The actual headdress is a thin upright wooden plaque (frequently made from cottonwood) that may be painted in bright colors with various pictographs (*see* PETROGLYPHS AND PICTOGRAPHS) or symbols depicted thereon; these symbols can depict rain (*see* RAIN SYMBOLS), water (*see* WATER SYMBOLS), the wind, clouds (*see* CLOUD SYMBOLS), plants, (*see* PLANT FORMS), and creatures representing fertility.

Mainly for ceremonial (and some social) dances, the headdress is a significant addition to the costumes of women performing steps in the Hopi Butterfly Dance and various Pueblo Corn Dances. The motivation for this design form has also been extracted from non-native appreciation of the more colorful elements of Pueblo dance. The tablita form is most often rendered in its original upright state (with the wide base at the bottom), but

it can also be made in an inverted shape, as can be seen in some contemporary earring and necklace compositions. The form also appears in RINGS, BRACELETS, and BOLAS featuring KOKOPELLI as a KATSINA figure, who often wears a tablita-style headdress. *See also* PUEBLO JEWELRY.

Tait, Norman (5/20/41– , Nisga'a)

Like many other Northwest Coast native artists, Norman Tait is best known as a carver. He is also an influential jewelry designer who devised his own training based on study of Nisga'a and West Coast art, and his experiences working with a variety of notable figures, including Freda DIESING (b. 1925; Haida), Phil JANZE (b. 1950; Tsimshian), and Gerry MARKS (b. 1949; Haida). Tait participated in a master class jewelry workshop at the Vancouver Museum in 1977. Tait's jewelry-making, using GOLD, SILVER, and HORN, started in 1974. His pieces were featured in exhibitions in British Columbia in 1977 and 1982. Tait began teaching carving and jewelry ENGRAVING in the early 1980s, reaching a new generation of native artists. Nisga'a design elements are the HALLMARK of his silverwork, and animals important to his culture are the subject of Tait's many BRACELETS, pins, and PENDANTS. Tait has also crafted EARRINGS, RINGS, and hair clips. **Museums:** British Columbia Provincial Museum, Victoria.

Taylor, Herbert (3/21/51–8/27/96, Navajo)

Herbert Taylor's interest in silverwork began as a child, from watching his grandfather working the metal. He started making jewelry in 1972, and after a brief hiatus later in that decade, he began to exhibit his work at Indian art shows by 1984. Early training as a welder made Taylor adept in working COPPER, GOLD, and SILVER; he also created his own stamps from tempered steel (*see* STAMPING, STAMPWORK). After 1988, he worked extensively, but not exclusively, in gold, and these pieces, often set with PRECIOUS STONES, attracted critical acclaim. Taylor preferred TUFA casting to the LOST-WAX CASTING method (*see also* CASTING), and his handwork and handstamping techniques are strongly decorative.

His designs often are a visual bridge between traditional Navajo styles and fine-art exploration. He won many awards; in 1992, his awards included those from the GALLUP INTER-TRIBAL INDIAN CEREMONIAL, the Heard Museum Guild Fair, and the Southwest Museum Indian Art Show. Taylor was concerned with educational opportunities for young Native American artists. His unexpected passing brought a remarkable career to an untimely end, but he left a rich legacy of fine-art jewelry to inspire future generations. **Galleries:** Cristofs, Santa Fe, New Mexico, and Blue-Eyed Bear, Sedona, Arizona.

Further Reading: Jacka, Lois, and Jerry Jacka. *Navajo Jewelry: A Legacy of Silver and Stone*. Flagstaff, AZ: Northland Press, 1995; Linford, Laurance D. *Ceremonial Indian Art: A Measure*

Bola tie, sheet silver, copper, and leather, 1993, by Herbert Taylor (Navajo). *Courtesy of The Heard Museum, Phoenix, AZ.*

of Excellence. Gallup: Inter-tribal Indian Ceremonial Association, 1995; Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997.

Tchin (8/14/46– , Blackfoot/ Narragansett)

Tchin is an educator and musician, as well as a jewelry designer. He studied at the Institute of American Indian Arts, Santa Fe, New Mexico, and received a B.A. in Fine Arts from the Rhode Island School of Design. He works in STERLING SILVER and 24-karat GOLD, making METALWARE and jewelry pieces that include BRACELETS, ear cuffs, CONCHA belts, and NECKLACES. His pins, in particular, are inspired by antique TRADE SILVER and Northeastern Woodlands design. Favored motifs include the sacred hoop (the hoop of life, a Plains and Woodlands image), medicine shields, and eagle feathers for BOLA and PENDANT designs. Tchin chooses these objects for their powerful spiritual qualities, and he regards his works as not only ornaments but also pieces possessing honor and protection for their wearer. He has exhibited at the School of Visual Arts Museum, New York, 1992, and at the Lower Manhattan Sign Project, 1992–1993. He has also exhibited at Red Earth, Oklahoma (award 1993); the Santa Fe INDIAN MARKET (awards from SWAIA in 1991–1994); and the United Tribes Indian Art Expo, Bismarck, North Dakota, 1991.

Further Reading: Tryk, Sheila. *Santa Fe Indian Market: Showcase of Native American Art*. Santa Fe: Tierra Publishers, 1993.

Tewa, Bobbie (1948- , San Juan/ Hopi)

Bobbie Tewa learned silverwork from a federally funded course held at San Juan Pueblo. Tewa's strong, clean OVERLAY, with designs often drawn from pottery and weaving motifs, is especially popular with collectors at the Santa Fe INDIAN MARKET, where he has exhibited regularly since 1976. He won two awards from SWAIA in 1982, and makes both jewelry (CONCHA belts, BOLA ties, BUCKLES, RINGS, and BRACELETS) and fine METALWARE such as wine goblets. He frequently sets a TURQUOISE stone onto his carefully articulated overlay designs. **Galleries:** Squash Blossom, Aspen, Denver, and Vail, Colorado; Santa Fe East, Santa Fe, New Mexico; Four Winds Gallery, Pittsburgh, Pennsylvania.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; Cirillo, Dexter. "Back to the Past: Tradition and Change in Contemporary Pueblo Jewelry." *American Indian Art Magazine* 13 (Spring 1988): 46–55+; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

thunderbird

A supernatural being usually depicted as a legendary BIRD of great size, capable of creating LIGHTNING and thunder. One of the most frequently used designs on older SOUTHWESTERN INDIAN JEWELRY, the thunderbird is still commonly featured on TOURIST JEWELRY and even contemporary fine-art work from a wide range of cultural regions.

The origins of the figure are unclear, but its portrayal occurs throughout native North America, particularly on burial mounds and rock art (*see* PETROGLYPHS AND PICTOGRAPHS). Most beliefs place the thunderbird as a protective spirit living in the high mountains, or on rocky slopes or remote cliffs. The thunderbird appears in a variety of poses according to regional conventions, but most often it is seen with outstretched wings. The thunderbird may appear with its talons grasping arrows, and sometimes with abstract zigzag "lightning bolts" that emerge from its eyes, wings, or talons.

On the Plateau and in the Great Basin areas, the thunderbird is a great supernatural chief with the power of sorcery and the ability to meddle in human affairs. Plains peoples respected a similar force, causing thunder, lightning, and life-giving rain; he would live high in a remote mountain aerie, and often was depicted with two horns on his head. He might appear to Ghost Dancers while they were in a trance; his ability to provoke creative and natural forces was abso-

lute. To the ancient Sioux, the thunderbird (known as *Joaquii*) was rendered as a decorative motif that refers to him as one of the 16 original creators of the world. The thunderbird still appears on both metal and BEADWORK personal adornment.

On the Pacific Northwest Coast, the thunderbird (widely known as *Tatooch*, from the Squamish word) was revered as the creator of the world and all natural elements. The flapping of his great wings brought thunder, and lightning would dart from his eyes, or from sticks under his wings. He might swoop down from his mountain refuge to hunt and kill whales. Only the most powerful of tribal chiefs could take a thunderbird for his family or clan CREST. The thunderbird is a popular design motif in both late-nineteenth- and twentieth-century incised SILVER and carved ARGILLITE jewelry.

In the American Southwest, the thunderbird became a symbol with broader associations, slipping into the popular nonnative imagination through a series of historical developments. Ethnologists had recorded various bird figures, ranging from the Zuni nighthawk or KNIFE-WING FIGURE to the Navajo half-human–half-bird deity "Big Thunder." Herman Schweizer, Indian arts buyer for the FRED HARVEY COMPANY, viewed a pictograph of a thunderbird at the Abo ruins (now part of the Salinas National Monument, near Mountainair, New Mexico), and had a reproduction of its image made into a Harvey Company logo that appeared on company stationery, brochures, and other items. The company eventually copyrighted its version in 1909. Through these efforts, the thunderbird image became widely disseminated, and the Harvey rendition influenced subsequent renditions of the motif.

The generic nature of this Southwest form of the thunderbird was solidified when jewelry-supply companies began producing commercial STAMPING dies with the figure. The thunderbird, usually represented with extended wings, was transformed into an enduring pattern for repetitive and interval decoration, and it remains an important central design subject. The general tourist connotation hails the thunderbird's role in generating abundant harvests, and as a harbinger of good luck.

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Tointigh, Thomas (6/20/29– , Kiowa)

Also a worker in GERMAN SILVER, metalsmith Thomas Tointigh is best known for his strongly rendered jewelry pieces that possess design meanings from the Native American Church (*see* PLAINS, PLATEAU, AND OKLAHOMA INDIAN JEWELRY). He makes forms that include EARRINGS, RINGS, tie pins, CONCHA belts, neckerchief slides, and stickpins. The PEYOTE BIRD is a frequent theme. His works have been widely exhibited throughout Oklahoma, and he was part of a group exhibition on metalwork at the Southern Plains Indian Museum and Crafts Center in 1977. **Museums:** Museum of Anthropology, University of Missouri, Columbia; Museum of the Great Plains, Lawton, Oklahoma; Stovall Museum of Science and History, Norman, Oklahoma; and Southern Plains Indian Museum and Craft Center, Anadarko, Oklahoma.

Further Reading: Ellison, Rosemary. *Contemporary Southern Plains Indian Metalwork* (exhibition catalog). Anadarko, OK: Indian Arts and Crafts Board, Department of the Interior; Oklahoma Indian Arts and Crafts Cooperative, 1976.

totem

A natural object, usually an animal or animate spirit, that served as a patron or spiritual guardian for a tribal group, family, or individual. Totems in physical form are perpetuated throughout a wide area of native North America, including Woodlands cultures and peoples of the northern Plains and Pacific Northwest Coast. Representations of totems, or *totemic symbols*, are used for jewelry design and other ornament. The best-known use of these symbols appears on totem poles (large carved wooden poles with these

symbols and other representations of a clan's history and lineage), but totemic symbols are used elsewhere as well.

A totemic symbol could be used for a tattoo or for reproduction onto an amulet or protective pendant. In areas of the Pacific Northwest, a family CLAN EMBLEM might be translated artistically onto carved and painted wooden posts; designs and art work taken from totem carving have been used in those regions as inspiration for jewelry decoration. Often, one figure or group may be isolated as a decorative element and so transferred onto a piece of jewelry. One example of this is the borrowing from the Squamish Talking Stick, a symbol of territorial privilege shown at potlatches (periodic gatherings of clans and villages, with ritual gift-giving and exchange being an essential element) and other ceremonies· e.g., the THUNDERBIRD, BEAR, or sea serpent figures (*see* WATER SERPENT) of legend can be used as decorative motifs. As a tourist item, miniature totem poles are used regularly for PENDANTS, dangling EARRINGS, and brooches. Totemic representations are appropriate jewelry designs because they honor an important aspect of native peoples' material culture. *See also* NORTHWEST COAST NATIVE JEWELRY.

Further Reading: Stewart, Hilary. *Looking at Indian Art of the Northwest Coast*. Vancouver: Douglas & MacIntyre; Seattle: University of Washington Press, 1979.

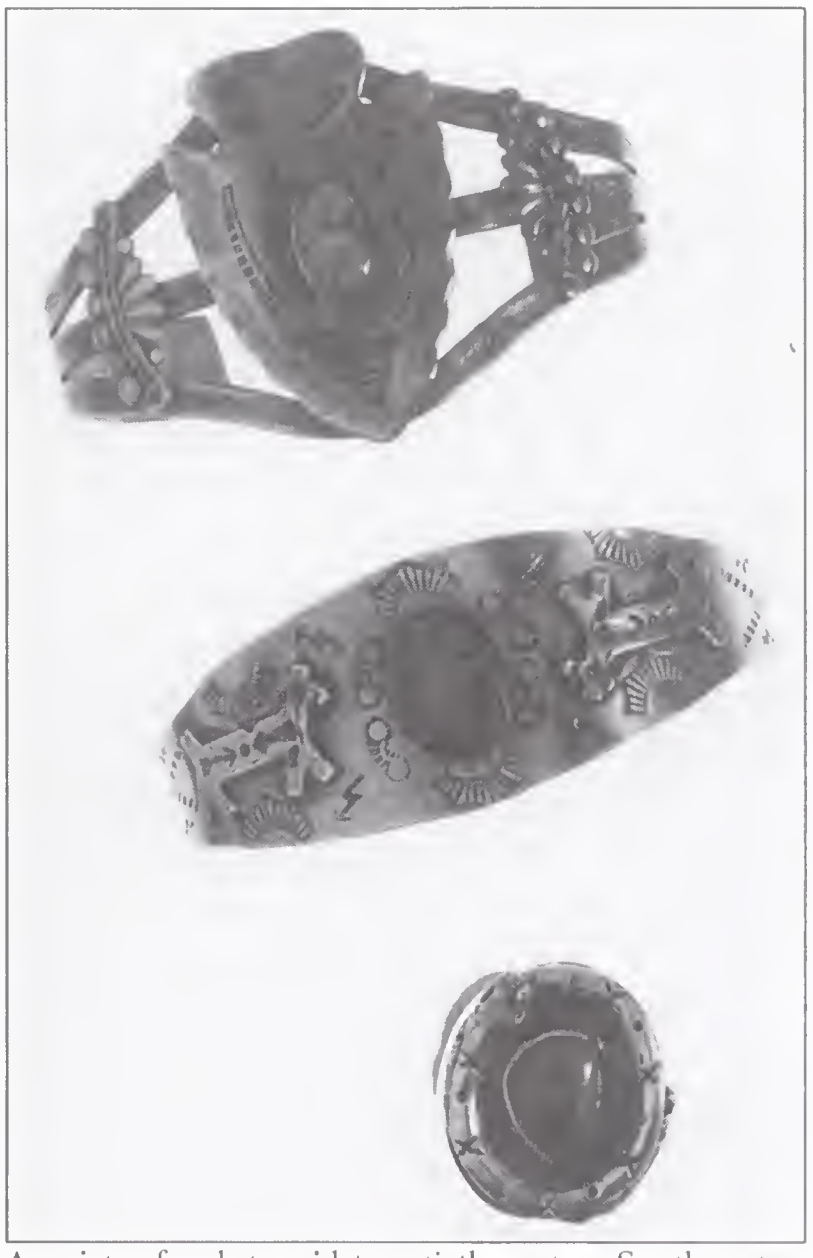
Touraine, Pierre

An immigrant from France to the United States in 1938, Touraine, a master jeweler, established a workshop/studio in Scottsdale, Arizona, in 1960. Considered an international fine-art jeweler of the highest caliber, Touraine took an active role in teaching promising Native American jewelers to work with the intricacies of GOLD and PRECIOUS STONES. His unique apprenticeship program, active in the 1970s and 1980s, stimulated the development of fine-art jewelry-making among Southwestern Indian artists, including Harvey BEGAY (b. 1938; Navajo), Larry GOLSH (b. 1942; Pala Mission/Cherokee), Charles LOLOMA (1921–1991; Hopi), and Charles SUPPLEE (b. 1959; Hopi/French). Touraine's teaching of design, gemology, FABRICATION, and lapidary skills has proved one of the most valuable examples of cross-cultural training and cooperation in the history of modern Native American jewelry.

tourist jewelry

Jewelry made from either genuine or imitation materials and meant expressly for sale to non-native consumers. Tourist jewelry, also known as *souvenir* or *curio* jewelry, has had a tremendous impact on the Native American jewelry market. It is important to remember, however, that the development of the Native American art market overall was initially guided by non-Indian INDIAN TRADERS and DEALERS. By 1899, native jewelry-makers were offered various incentives to alter their work to please their predominantly non-native customers. The North American Indian tourist jewelry industry began on a small scale in the late nineteenth century; its growth was soon accelerated in the first two decades of the 1900s, especially after the advent of commercial materials and production techniques. Manufacturers were able to mass produce imitation pieces, substituting base metals (often called "white metal") for genuine SILVER, and using bogus materials and designs, while hailing them as "INDIAN MAID" and "Indian style." Some important research on the Indian curio manufacturing trade began in the 1990s; much more investigation is needed.

A number of curio manufacturers created Indian jewelry and other goods from the 1910s to the 1940s; the following list of some of the more active companies reflects the wide geographical spread: H.H. Tammen (Denver and Providence), Arrow Novelty Company, Inc. and Goldfarb (New York City), Pawnee Bill's (Oklahoma), MAISEL and Sun Bell (New Mexico), Leroy Shane (Midwest), and Mayer's (Seattle). Some tourist work had its advantages, as in FRED HARVEY COMPANY-inspired jewelry pieces made from lighter materials that were smaller in scale, and thus more portable; equally attractive was the fact



A variety of early to mid-twentieth-century Southwestern Indian tourist jewelry, native-made and "Indian style." *Private collection. Photograph by Robert D. Rubic.*

that these new styles were more desirable as costume jewelry souvenirs. Early tourist jewelry pieces have their own market value as collectors' items.

Tourist influence on native-made jewelry was both positive and negative. In some cases, local arts were transformed, revived, or even revitalized, even as they were altered to suit tourist tastes and expectations. The income created from tourist sales was essential for many native peoples; they could even afford to work on further experiments in design and technique as a result of this economic incentive. At the same time, the confusing nature of imitation and lower-quality Indian jewelry invariably hurt the authentic item.

Nevertheless, the power of tourist demand created the impetus to make jewelry among native peoples who might have otherwise avoided that medium. Attractive works with unique designs now come from areas of the far northern and Pacific coastal areas of North America. One example is the rendering of NORTHWEST COAST NATIVE JEWELRY since the 1980s into less expensive (and more durable) pewter and wood; the choice of these materials has aided the production of tourist jewelry in that region and has given consumers an alternative to the higher-priced pieces made in GOLD and silver. Northwest Coast artists have also had a tradition of making tourist works from ARGILLITE, including small jewelry pieces.

Aided by pan-Indianism, tourist goods have in large part been responsible for the growth and steady nurture of native-made works, for the creation of a special category of collectible, and as a means of diverting the discerning consumer into a taste for finer handmade, or more artfully designed, Indian jewelry. The playful sense of humor apparent in some mid-twentieth century tourist jewelry has even found its way into more serious contemporary native jewelry creation, thereby enriching its design vocabulary.

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tourmaline

A multicolored faceted mineral, with hues that range from a pinkish-green watermelon tone to tricolored variations of blue, green, and yellow. Tourmaline is a fashionable gemstone used since the 1980s. Cutting the stone, slicing it into crystals, or tumbling it enhances the color (*see* TUMBLED STONE). Native jewelers use tourmaline for EARRINGS and PENDANTS because of its crystalline content and rich color.

Tracey, Ray (6/11/53– , Navajo)

Ray Tracey produces jewelry that has become widely known; as a consequence, he has a

tremendous name recognition beyond that of many other native jewelers. This recognition results from Tracey's highly successful marketing and distribution techniques, as well as his artistic talent. A silversmith since he was 10, Tracey has organized his business practices with great attention to those used by successful non-native business organizations.

Tracey produces Indian jewelry that appeals to the various types of contemporary native jewelry consumers; his fabricated pieces, many in GOLD with gems, are one-of-a-kind creations that fetch high prices in upscale galleries and at the SWAIA INDIAN MARKET. In addition, his company, Tracey Ltd., (based in Gallup, New Mexico), employs numerous native artists, who make moderately priced pieces based on his designs.

Tracey's jewelry consists of colorful INLAY and sandcast pieces, all with a modern look, as in his double-sided PENDANTS. Tracey uses HEARTLINES on some animals, such as the BEAR and the HORSE, and also employs eagle FEATHER and arrow motifs (*see* ARROWHEADS, ARROWS; EAGLE). His jewelry line, Tracey Knifewing, is popular because it balances native designs with mainstream jewelry conventions, relying on contemporarily styled geometric shapes and strongly colored inlaid stones. Tracey's jewelry has been widely imitated, a sincere form of flattery and a clear-cut recognition of his designs' appeal. His jewelry became visible through the 1980s, and he has won numerous awards. He began by exhibiting at the GALLUP INTER-TRIBAL INDIAN CEREMONIAL and gained more visibility through a number of exhibitions, from California to Pennsylvania. **Galleries:** Ray Tracey Galleries, Santa Fe, New Mexico, and numerous other venues.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; *Lapidary Journal*, April 1992. For further information, see Ray Tracey's Web site at <http://www.raytracey.com>.

Tomahawk and feathers pendant on multistrand beads by Ray Tracey (Navajo). *Courtesy of Ray Tracey Galleries, Santa Fe, NM.*

trade beads

Small opaque GLASS beads, solid colored or marked with variable patterns, made for centuries in Europe and exported for trade purposes with indigenous cultures. One of the most valued trade goods brought to North America by European explorers and settlers was the glass trade bead; the making of glass was unknown to the indigenous population, and native peoples readily adopted these beads for personal adornment purposes. Trade beads, most of which were made in Bohemia, Czechoslovakia, and Venice and then sold to trading companies in France, Great Britain, the Netherlands, and Belgium, were used for gift-giving, and ultimately, as exchange for other local commodities. While beads made from BONE, COPPER, SHELL, and stone were already made by native peoples, they quickly found these new imports attractive and more facile. As a result, glass trade beads eventually replaced previously used materials, including traditional porcupine QUILLWORK. Trade beads of the seventeenth and eighteenth centuries were made in solid colors of black, blue, or white; when polychrome beads began to be imported (around

the start of the nineteenth century), they soon gained popularity also. The desirability of glass beads meant such items had a trade value that could be calculated in terms of fur pelts, livestock, provisions, and other goods. Although the use of trade beads spread throughout the continent, the beads were more actively traded and incorporated into native jewelry designs in such areas as the Northeast, Northwest Coast, and Arctic, and less so in the Southwest.

The most problematic element in tracking the development and spread of native-used glass trade beads has been the great variations in what the beads were called. Names were derived from where certain beads originated, the peoples that traded them, the geographical locations from which they were shipped, and even the methods of transporting them (as in PONY BEADS). Some names gained widespread usage despite uncertain applications, as in the case of HUBBELL GLASS beads, which have hues resembling shades of TURQUOISE. Some widely circulated types of beads had short bugle- or cane-shaped forms with multiple facets and were called "Russians." "Canton" or "Peking" beads were popular on the western coast. "Padre" beads were used in the land of Catholic missions, mostly Texas, New Mexico, and Arizona. Pony beads and SEED BEADS were smaller and more adaptable for BEADWORK on garments. A red bead edged with white was known variously as a "Hudson Bay bead" or a "Cornaline D'Aleppo." "White hearts" were also popular, with opaque white interiors and outer layers of translucent red, pink, or orange-yellow. Fancy, highly colored and decorated, these beads were accompanied by others, such as the "chevron" and "flower," containing MOSAIC polychrome designs that appealed to many native peoples.

Original glass trade beads are now somewhat rare, quite expensive, and very collectible. Scholarly research has been conducted on the history of beads, including trade beads, and the authenticity of any suspected trade beads is best determined by experts, and even laboratory analysis. Native jewelry-makers have used both original and reproduction pieces to create NECKLACES. Plastic has been used to create imitation trade beads, and solid-colored glass tube beads, especially in CORAL and shell hues, have joined contemporary fine-art jewelry. Such modern pieces attempt to recreate the effects of earlier, original trade bead necklaces. Sometimes glass trade beads, old or new, are interspersed with SILVER-BEADS and small charms or carved beads; these creations, including EARRINGS and beaded PENDANTS, are very much part of current Native American jewelry design.

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trade silver, trade ornaments

Objects of personal adornment, originally produced by European-American settlers for trade or presentation to native inhabitants. Trade ornaments, often made of low-grade SILVER or other metals, were first produced during the FUR TRADE in the sixteenth century, and soon extended to many other kinds of cultural exchanges (*see* COVENANT CHAIN). Such ornaments constituted an important part of the trade goods exchanged between native inhabitants and European Americans.

Early trade silver ornaments were made by relatively inexpensive means, often by processes that allowed metal to be hammered from coins and made into thin sheets; COPPER was added to the ALLOY to make the silver stronger, but the amounts added were variable. From these materials, pieces such as armbands, CROSS pendants, EARRINGS, GORGETS (throat or breast ornaments), hair-pipes, large medals and brooches, and RINGS were made and worn according to native tastes. While many silver ornaments were imported from Europe, a small silversmithing industry began around Montreal, Canada, and near settlements in New England. A number of Iroquois learned to make silver goods around

1800, but little is known about the identities of these native smiths.

During the first two centuries of European colonization, Indian allies were rewarded with various silver decorations, including "peace medals," and they became significant symbols of status and prestige in native dress. Such items of *presentation silver*, along with more everyday items, were most in demand between 1760 and 1821. Some native groups, such as the Plains Indians, showed a preference for GERMAN SILVER. Therefore, silver jewelry was well established as a desirable commodity for native use by the early to mid-nineteenth century, largely due to the influence of early trade practices. Since the 1930s, starting under the sponsorship of several (U.S.) Works Progress Administration programs, a small number of Iroquois silversmiths have made REVIVAL-STYLE pieces based on early trade ornament forms. Iroquois artists working in Canada also received some support, and a few were featured in the "Covenant Chain" exhibition at the former Museum of Man in Ottawa (now the Canadian Museum of Civilization in Hull, Quebec). Some pieces may be seen for sale at Iroquois festivals. At the same time, a few contemporary Iroquois jewelers deliberately do not recreate trade ornament-style items because these pieces are not native in origin. *See also* Covenant Chain; Iroquois Jewelry.

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traders. *See* FUR TRADE; INDIAN TRADERS

trading posts

In a North American context, establishments run by traders or by trading companies, originally to trade and pursue commerce with the native populations. Trading posts were built in remote regions throughout Canada and the United States by European-American INDIAN TRADERS, and each post served as a local center for trade between non-Indians and natives of the area. Trading posts date back to the early years of exploration and colonization in the seventeenth century, but their heyday came in the late nineteenth and early twentieth centuries, especially in the American Southwest, when the transportation of goods was a difficult and often risky business.

The Hudson's Bay Company obtained a charter from the British Crown in 1670 that permitted the exclusive establishment of company trading posts throughout northern Canada during the eighteenth century. Most of these posts were strategically placed by rivers and the outlets of large lakes; in the United States, independently run posts multiplied with the migration of settlers into Western and Northwestern regions. Other trading posts came into existence with the formation of reserves (in Canada) and reservations (in the United States), where native peoples were settled and where traders could benefit from holding a monopoly in the area.

In the United States, Indian reservations (specifically, the "Indian Territory" in Oklahoma) were created in the Indian Removal Act of 1830; boundaries of specific U.S. reservations were drawn starting in the 1850s. In Canada, the Indian Act of 1876 developed a system of reserves for indigenous peoples; such reserves had developed out of treaties as early as the 1760s in the East, but not until 1871 in the West.

Trading posts were active centers for the accumulation of Indian trade goods, and non-Indian visitors were exposed there to local native-made arts. These visitors might view pawn jewelry, both active and dead (*see* PAWN), and acquire an interest in traditionally styled adornment. The non-native taste for Indian jewelry, among other decorative

Interior of a trading post in the Gallup, New Mexico, area, 1970s. *Courtesy VanderWagen Trading Company.*

arts, was fostered by the mercantile efforts of Indian traders.

By the late 1990s, only a small number of trading posts were still in operation. A few have been preserved as historic sites, mainly in the American Southwest, especially in and around the large Navajo reservation. However, tourists and visitors to that region often still develop a great interest in native-made jewelry from their exposure to these trading posts. The "romantic" nature of the traditional trading post, with its bull-pen layout and shelves stacked with goods, has even affected Western interior design and displays of authentic "Americana." Trading post decor effects have been recreated for special circumstances, such as backdrops for native arts venues and museum gift shops.

Further Reading: For additional information, see the Hubbell Trading Post National Historic Site at <http://www.nps.gov/hutr/>; the history of the Two Grey Hills Trading Post at <http://www.twogreyhills.com/>; the history of Tobe Turpen's Trading Post (Gallup, New Mexico) at <http://www.tobeturpens.com/history.html>; background on Joe Milo's Trading Post (near Gallup, New Mexico) at <http://www.joemilo.com/trader.com>; Fort Langley National Historic Site at <http://www.harbour.com/parkscan/fl/historye.htm>; Fort Vancouver at <http://www.halcyon.com/rdpayne/fvnhs-history.html>; for information on trade goods at trading posts, see <http://www.gov.edmonton.ab.ca/parkrec/fort/1846/goodstrd.html>.

transitional period. *See* FIRST PHASE

Tree Many Feathers/Richard Mataisz
(3/10/40– , Blackfeet)

Tree Many Feathers studied Plains crafts under the well-known Blackfeet artist Albert Racine; the young artist became adept in silversmithing and leatherworking. After a period of extensive travel, when he studied the crafts of various indigenous peoples, Tree Many Feathers returned to the Blackfeet reservation in Montana. His experiences are reflected in the inventive uses of natural materials for jewelry, but he works mainly in

a REVIVAL STYLE that explores Plains decorative arts through combinations of elk ivory, SILVER, and BEADWORK. His pieces are carefully detailed, and the BOLA ties, BRACELETS, and pouches pay tribute to other cultures while retaining design features important to Blackfeet belief. The artist was the subject of a solo exhibition at the Museum of the Plains Indians and Crafts Center, Browning, Montana, in 1994.

Tsabetsaye, Edith (1940– , Zuni)

From a family of noted silversmiths, including her famous brother Roger (a painter, educator, and designer), Edith Tsabetsaye is self-taught. She began producing her well-known NEEDLEPOINT turquoise jewelry in 1958, and started jewelry-making on a full-time basis around 1973. She made her first necklace in 1967, and NECKLACES are the most prized form of her creations in terms of collector demand. She uses CLUSTER WORK and PETITPOINT, cutting and grinding the materials to achieve a flawless lapidary effect; her stones are shaped in rounded forms and rise above their serrated BEZELS. Her innovative work in needlepoint can be seen in her crescent-shaped curved stones. She has made CONCHA belts but now concentrates on necklaces, BRACELETS, and RINGS. Tsabetsaye's jewelry looks delicate but is actually sturdy in its settings. She has won many awards at the GALLUP INTER-TRIBAL INDIAN CEREMONIAL competitions, where she has entered regularly since 1962, and a Best of Show at SWAIA INDIAN MARKET (1980). **Galleries:** Turquoise Village, Zuni, New Mexico.

Further Reading: Cirillo, Dexter. *Southwestern Indian Jewelry*. New York: Abbeville Press, 1992; *New Mexico Magazine*, August 1997; Ostler, James, Marian Rodee, and Milford Nahohai. *Zuni, A Village of Silversmiths*. Zuni: A:Shiwi Publishing, 1996; Reno, Dawn E. *Contemporary Native American Artists*. Brooklyn, NY: Alliance Publishing, 1995.

tufa

A specific form of soft volcanic ash, or pumice, found in abundance around the Navajo reservation, and particularly in the Ganado, Arizona, area. Tufa is lightweight; it can be easily extracted in chunks from the ground and carved into molds for casting SILVER (*see* CASTING). Sometimes the porous quality of the tufa mold can create a slightly different texture and sheen on a cast piece. Early silversmiths abandoned other casting techniques, such as the use of cuttlefish bone (the hard calcified shell of the cuttlefish mollusk) in favor of tufa and the facility with which it can be worked.

tumbled stone

Stone tumbling is a process whereby rough or inferior quality gemstones can be shaped and polished into unusual but attractive forms through the action of abrasion. Tumbling originated as a hand process, and later a mechanized tumbler vessel was developed. Stones are tumbled by spinning them (by hand or by machine) in a barrel with water or abrasive finishing powder. Many native-made NECKLACES have been strung with tumbled stones; tumbling is particularly effective with TURQUOISE because otherwise poorer-quality pieces can be made into beads or nuggets that are acceptable for use.

Tunnillie, Ovilu (1949– , Cape Dorset Inuit)

A celebrated carver, Ovilu Tunnillie began making jewelry during the 1970s. While her sculptural creations have brought her commissions and renown—many of her sculptures are on exhibit in Canadian museums—Tunnillie's jewelry-making has been a particular source of inspiration for young Inuit artists, especially women. She creates masks and figures charged with spiritual connotations as the centerpiece imagery of her jewelry pieces. Her work appeared in the "Debut—Cape Dorset Jewellery" exhibition, Canadian Guild of Crafts, Quebec, 1976. **Museums:** Canadian Museum of Civilization, Hull, Quebec; National Gallery of Canada, Ottawa; University of British Columbia, Vancouver; Winnipeg Art Gallery. *See also* INUIT, INUPIAT, AND ALEUT JEWELRY.

Further Reading: *Arctic Vision: Art of the Canadian Inuit*. Ottawa: Canadian Arctic Producers, 1984; *Inuit Art Quarterly*. (Toronto, Ontario). Winter 1994; *Inuit Women Artists: Voices from Cape Dorset*. Edited by Christina B. Johannsen and John P. Ferguson. Warnerville, NY: Association for the Advancement of Native North American Arts and Crafts, 1983; *St. James Guide to Native North American Artists*. Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

turquoise

A blue, blue-green, or green mineral (a hydrous phosphate of aluminum and COPPER) used as a gemstone. The color of a particular piece of turquoise depends upon the amount of copper present in the stone. Turquoise is found in a host rock that may be either igneous, sedimentary, or metamorphic; evidence of this host, or mother, rock is found in the MATRIX that marks the stone. The raw material of turquoise can occur in crusts, nuggets, or veins. Turquoise is often located with large copper deposits, and it is usually found in the upper sections of such deposits. The color of turquoise is variable depending on the amounts of apatite and copper that permeated the material. Its blue colors are caused by copper concentrations, and its green tones by iron. Turquoise is porous and easily affected by outside elements, such as chemicals, skin oils, sunshine, and polluted air.

Turquoise continues to be one of the most highly prized materials for adornment in native North America. Native peoples of the American Southwest called it the "sky stone" and found it to be charged with spiritual significance. According to the beliefs, turquoise possesses sacred healing properties, and it was (and still is) used as part of purification rites and as a talisman against evil. The possession of turquoise brings life-giving power to its wearer, and its usage in ornament often denotes wealth and social prestige. Early indigenous peoples made amulets, PENDANTS, EARRINGS, and NECKLACES from hand-mined turquoise.

While turquoise artifacts have been found in South America dating back to 900 B.C., evidence of ancient mines has also been found in Mexico and the American Southwest. Archaeologists, on a variety of exploratory excavations in the late nineteenth century, discovered many pieces of turquoise once shaped and used by early native peoples in those regions. The most extensively worked pre-contact mining operation was found at Mount Chalchihuitl, near present-day Cerrillos, New Mexico, in operation several centuries before the coming of European explorers.

Most of the turquoise mines in the United States are in Arizona, desert California, Colorado, Nevada, and New Mexico. Turquoise is usually identified by the name of the mine where it was quarried. In Arizona the famous mines are Bisbee, Kingman, Morenci, and Sleeping Beauty. Notable Colorado stones and mines are King's Manassa, Leadville, and Villagrove. Nevada has the largest concentration of mines, including Blue Gem, Godber's Dry Mine, Fox, Lone Mountain, Royston, Royal Blue, and Spider Web #8. These mines have been worked on an irregular basis, with many playing out and being periodically closed, and then reopened upon discovery of a new vein of mineral. Mining costs have increased and high quality natural (or "true") turquoise has become scarce. As a result, INDIAN TRADERS began to import turquoise from abroad, chiefly from China, India, and Persia (now Iran), as early as the late nineteenth century. While both local and imported turquoise is prized if it is of good quality, Native American jewelry set with pieces from older, or defunct, mines has become quite fashionable; collectors vie for such hard-to-find objects, and this commodity is an important part of both the antique and contemporary Indian jewelry trade.

The use of turquoise in native-made jewelry is generally as beads, CABOCHONS, or carvings. Color is a major consideration, with favored hues that range from pale blue to dark green. Hardness and matrix markings are other determinations of value. True turquoise is porous and highly polishable, and possesses a waxy luster; this also means that the

mineral can easily discolor from mishandling. Many jewelers have developed a form of plastic-film coating for protecting the stone. Turquoise can fade with increasing exposure to the elements and foreign materials. Blue-hued stones often fade to a greenish color. Lapidarists look for four key factors in determining turquoise quality: color, carat weight, cut, and matrix clarity.

Top-grade turquoise material, as defined by the industry, amounts to only around 10 percent of the turquoise on the market. The remainder has less quality and has to be enhanced. These processes vary from STABILIZING, to dyeing, to substituting with SYNTHETICS (such as plastic block) or imitations (*see* IMITATION TURQUOISE). Another procedure creates *reconstructed turquoise* from the artificial bonding of small pieces of natural turquoise. Reconstituted turquoise is created by pulverizing low-grade turquoise; the resultant powder is mixed with a colored resin or other hardening substance. These alternative processes, led by the use of plastic block, account for the majority of *treated turquoise* available to native lapidarists. Contemporary jewelry-makers use many hues of turquoise, but the most widely esteemed color is a hard and shiny deep blue stone marked by a well-defined black matrix. Sources for more detailed descriptions and good color-value illustrations on turquoise can be found in the Bibliography.

Further Reading: *The Allure of Turquoise*. Edited by Arnold Vigil. Santa Fe: New Mexico Magazine, 1995; Bennett, Edna Mae and John Bennett. *Turquoise Jewelry of the Indians of the Southwest*. Colorado Springs: Turquoise Books, 1973; Branson, Oscar T. *Fetishes and Carvings of the Southwest*. Tucson: Treasure Chest, 1976; Fox, Nancy. "Southwest Indian Jewelry." *El Palacio* 93 (Summer–Fall 1987): 32–34; Hammons, Lee. *Southwestern Turquoise: The Indians' Skystone*. Glendale: Arizona Maps and Books, 1976; Karasik, Carol. *The Turquoise Trail: Native American Jewelry and Culture of the Southwest*. New York: Abrams, 1993; Rosnek, Carl, and J. Stacey. *Skystone and Silver: The Collector's Book of Southwest Indian Jewelry*. Englewood, NJ: Prentice-Hall, 1976; *Turquoise Blue Book and Indian Jewelry Digest*. Edited by Joseph Stacey. Phoenix: Arizona Highways, 1975. For additional information, see "Turquoise. Blue Sky . . . Blue Stone," by Bob Jones, Senior Editor, *Rock & Gem* magazine at <http://www.rockhounds.com/rockgem/articles/turquoise.html>; also Web sites at <http://www.americanet/tourq.html>; <http://indy4.fdl.cc.mn.us/~isk/art/beads/turquois.html>; and <http://www.cowboysindians.com/content/issue/july97/turquoise.html>.

turtle

A deeply significant figure often representing Mother Earth, the turtle is depicted as a motif in the decorative work of many native peoples. In the creation legends of the eastern Woodlands peoples, the turtle dove into primeval waters to retrieve mud for the making of the earth. Thus, the turtle's role as a creator makes the turtle a powerful symbol. The turtle's hard shell can also symbolize longevity. In addition, the turtle is a culture hero described in Iroquois lore. To the Lakota, the turtle is a spirit that brings health. When depicted in designs from the Southwest, turtles are water symbols.

The turtle is a popular subject for BEADWORK, used on shield and pouch designs in Plains artistry, and as a pendant motif on beaded NECKLACES and metalwork among the Iroquois. Traditionally, turtle-shell had been used for INLAY, but this use is now discouraged; in fact, goods made from turtle-shell are banned in many regions, including throughout Arizona. Most artists now substitute brown-toned pen shell for turtle shell. The use of the turtle on jewelry is meaningful according to its maker's heritage. *See* the Julius M. COOK and Kenneth JOHNSON entries for illustrations of turtle motifs.

United Indian Traders Association.

See INDIAN TRADERS

variscite

A mineral closely resembling TURQUOISE that possesses a rich green color, not unlike aged turquoise. Variscite's color derives from a

lesser amount of COPPER composite than that found in turquoise, and it is also less porous than turquoise. Because the stone's hue resembles the valued green of turquoise from older, defunct mines, many native lapidarists and jewelers use variscite in their pieces; they also use variscite as an alternative for MALACHITE and SERPENTINE.

W

Wadhams, Lloyd (9/3/39–10/10/92, Kwakiutl)

A carver in GOLD, SILVER, stone, and wood, Lloyd Wadhams's largest output is silverwork. He developed a strong sculptural style, some of which is attributable to his study of painting and carving with Kwakiutl artist Chief Henry Speck, who was an informal educator with great influence on young native artists. Wadhams retained and reused favorite designs; most notable among these was the THUNDERBIRD—his family CREST figure—but he also used EAGLE, loon, and whale motifs. His jewelry design used strong, cleanly incised lines. He exhibited at various venues in Vancouver. **Museums:** Museum of Anthropology, University of British Columbia, Vancouver.

Further Reading: *St. James Guide to Native North American Artists.* Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

Wallace, Alan (1951– , Maidu/Washoe)

Alan Wallace is one of the new generation of fine-art jewelers; he is adept in SILVER, 14-karat GOLD, and the INLAY of such materials

Inlay bracelets by Alan Wallace (Maidu/Washoe). *Courtesy of the Elkhart Collection, Santa Fe, NM.*

as CORAL, LAPIS LAZULI, TURQUOISE, SERPENTINE, and spiny oyster SHELL. Works such as his raised inlay BRACELETS and PENDANTS are highly colored and possess contemporary shapes. While of California native origin, his jewelry pieces owe more of their conceptual design nature to fine-art jewelry work from the American Southwest, where he resides. Wallace exhibits at the Heard Museum Guild Fair, Phoenix, and at the Santa Fe INDIAN MARKET, and he has won various awards at these venues during the last 10 years. **Galleries:** Elkhart Collection, Santa Fe, New Mexico; Feathers Gallery, Scottsdale, Arizona.

Wallace, C.G.

One of the best-known Indian traders based at Zuni Pueblo, C.G. Wallace (1898–1993) ran a store there from 1927 to 1958. He encouraged a large number of talented Zuni (*see* ZUNI JEWELRY) and Navajo artisans, providing them with designs, materials, and improved equipment; he actively marketed their works as well. He obtained both traditional and new lapidary materials, and he promoted a variety of appealing Zuni jewelry styles and design motifs.

Wallace greatly helped to broaden the customer base for SOUTHWESTERN INDIAN JEWELRY and craft arts. He was an articulate advocate for Zuni arts, and one of the various factors in that pueblo's artistic development. Wallace also became noted for the sale of his personal collection of Indian jewelry which grossed more than $1 million when auctioned by Sotheby Parke Bernet in Phoenix, Arizona, on November 14–16, 1975 (Sale #3806). The sale produced a catalog that has served as an invaluable provenance source and illustrated record of early- to mid-twentieth-century Navajo and Zuni silver and stone jewelry. In 1998, the Heard Museum (Phoenix, Arizona) mounted an exhibition, "Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection," that covered his accomplishments and relationships with important native artists. Wallace's achievements have been better documented than those of many other influential traders, but his ability to promote and market Indian jewelry has been invaluable to the industry of the American Southwest. *See also* INDIAN TRADERS; NAVAJO JEWELRY.

Further Reading: *The C.G. Wallace Collection of American Indian Art, November 14, 15, and 16, 1975* (sale catalog). New York: Sotheby Parke Bernet, 1975; Slaney, Deborah C. *Blue Gem, White Metal: Carvings and Jewelry from the C.G. Wallace Collection*. Phoenix: Heard Museum, 1998. For additional information, see <http://www.heard.org/exhibits/bluegem/index.html>.

Wallace, Denise (3/6/57– , Sugpiaq [Aleut])

Denise Wallace's detailed jewelry pieces have brought her wide acclaim. While she resides in the American Southwest, Wallace's work celebrates her Alaskan native heritage. She

Figural pendant, silver, gold, ivory, semiprecious and gemstones, with movable parts, by Denise Wallace (Aleut). *Courtesy of the artist.*

combines contemporary design with indigenous imagery from the arctic regions. She attended the Institute of American Indian Art (Santa Fe, New Mexico), and she works in partnership with her husband, Samuel, who is a skilled lapidarist. Wallace's jewelry pieces are often intricate, and many contain small movable portions or can hinge open to reveal interior views.

Many of her works are figurative, of faces or bodies (such as her series of native women DANCERS), or possess shamanic references. Favored materials are walrus IVORY, GOLD, and SILVER, as well as SEMIPRECIOUS STONES, which are used for detailing. She devised a series of figural belts, depicting native dancers, that pay tribute to Southwestern and northern native cultures. She has had numerous group and solo exhibitions, including a retrospective show in 1996 at the Graythorne Gallery in Santa Fe, New Mexico. She has won awards from venues as varied as the Heard Museum Guild Fair, the Eight Northern Pueblos Arts and Crafts Exhibition, and INDIAN MARKET. **Museums:** Anchorage Museum of History and Art, Alaska; Institute of American Indian Art Museum, Santa Fe, New Mexico; Wheelwright Museum, Santa Fe, New Mexico.

Further Reading: *Lapidary Journal*, September 1992; *Southwest Art*, November 1988; *St. James Guide to Native North American Artists*. Preface by Rick Hill; Edited by Roger Matuz. Detroit: St. James Press, 1998.

wampum

A shell-bead currency widely used by the native peoples of the eastern Woodlands and Great Lakes in the pre-contact and colonial eras. Wampum also served as a major communication tool, surviving into the era of European colonization and settlement as a herald of peace treaties and other major messages between leaders. Wampum beads were usually strung on lines or woven into belts.

With the revival of BEADWORK as a popular native-made form of ornamentation in the mid- to late twentieth century, traditional wampum patterns and colors have been honored by being translated into adornment, among other things. Most wampum-style beadwork is made in the colors of its original shellwork, with the white to dark purple tones found in hardshell clam and periwinkle. Wampum-derived beadwork is used for BRACELETS, chokers on leather, EARRINGS, NECKLACES, belts, and WATCHBANDS. These beads are usually fairly small, ranging from one-half to one-eighth of an inch in length, and cylindrical in shape. As a design choice, wampum-like patterns are deliberately chosen to pay tribute to a historically important aspect of native material culture.

Further Reading: Tehanetorens, Ray Faffen. *Wampum Belts*. Onchiota, NY; Ontario: Six Nations Indian Museum; Iroqcrafts, 1983. For additional information, see <http://www.nativeweb.org/NativeTech/wampum/wamphist.htm>.

watchbands

Decorative bands for wristwatches, either in the form of tips that attach to both sides of the watch and to an expansion band, or as a solid bracelet into which the watch is fitted. Watchbands made by native artisans are essentially a TOURIST JEWELRY development because watches were not "traditional" Indian accessories. However, watchbands have become an important fashion statement in their own right, and they are desired by non-native male consumers who might otherwise eschew Indian jewelry.

Most native-made watchbands are actually *watch tips*, also known as expanding *watch bracelets*, which are made for both male and female wrists; the tips are attached to a watch face and closed by metal expansion bands. In the early to mid-twentieth century, and more regularly after 1940, Navajo and other Southwestern artisans created watchband BRACELETS, which were solid SILVER cuffs with an attachment in the center to place a separate watch face onto the bracelet. These watchband bracelets stylistically paralleled other types of native-made bracelets, often with stonework set onto the surface.

Further Reading: Branson, Oscar T. *Indian Jewelry Making*. 2 vols. Tucson: Treasure Chest, 1977.

water serpent

A mythic being that possesses a complex symbolism throughout North America. The water serpent appears on ancient artifacts, from those of the Mound Builders of the Midwest to remains of the Hohokam and Anasazi of the Southwestern regions. A clear influence from Mesoamerica can be found in designs from Casas Grandes, Mexico.

Ancestral and modern Puebloans used the water serpent on their pottery, and in the Tewa language the serpent's name is Avanyu; this figure may be depicted with LIGHTNING issuing from its mouth and CLOUD SYMBOLS above its back. The Pueblo water serpent guards springs and other water sources. On the Northwest Coast, the water serpent may be a stylized variation of other sea monsters evoked by shamans, and it may possibly represent the spirits of the drowned. Like the SNAKE, the water serpent's sinuous form lends itself to jewelry forms as an elongated, wavy pattern. *See also* WATER SYMBOLS.

water symbols

The life-giving force of water, a natural element, appears in native designs from the earliest times, particularly on pottery and in rock art, and water motifs have been extended to jewelry decoration. The significance of water depictions varies according to how native peoples depended on water in their environment. Cultures living along coastal areas, large rivers, and lakes might use water symbols differently from those in more arid landscapes. Water symbols used on jewelry are most likely to be either geometrically abstract or realistic, showing continuous or curved lines to represent waves, rivers, springs, or other water sources. Related symbols are aquatic animals and reptiles, and even BIRDS (such as the HOHOKAM water bird); thus, TURTLES, FROGS, tadpoles or pollywogs, fish, and WATER SERPENTS are used because of their relationship to water.

On the Northwest Coast, larger water-dwelling beasts such as sharks and killer whales also have importance as symbolic designs; smaller animals possess attributes associated with water as well, including salmon, otters, and beavers. Natural materials, like SHELL, that derive from a watery environment can also be water symbols. A tourist-era design of short vertical lines was devised and labeled as representing running water; an equally inventive meaning of "constant life" was attached to its depiction. *See also* PETROGLYPHS AND PICTOGRAPHS.

white brass. *See* GERMAN SILVER

White Hogan

A SOUTHWESTERN INDIAN JEWELRY and crafts store in the Old Town section of Scottsdale, Arizona. Originally located in Flagstaff, Arizona, during the 1940s, the store relocated to Scottsdale in the 1950s and is still active. This landmark shop was the impetus for an important change in the way that Southwestern Indian jewelers and INDIAN TRADERS, or DEALERS, do business.

In 1947, John and Virginia Bonnell, owners of the White Hogan, went into a form of partnership with their lead silversmith, Navajo Kenneth BEGAY (1913–1977). By the early 1950s, Begay received a regular salary and was allotted a percentage of company profits; this financial inducement allowed Begay the freedom to experiment with, and enhance, his artistic abilities. Such arrangements soon became more common in the region and provided native silversmiths—especially those producing Southwestern Indian jewelry—with the means to advance economically and artistically. Over the years, much commercially prized flatware and METALWARE has been produced by native smiths under the shop HALLMARK of the White Hogan.

white metal. *See* INDIAN MAID; TOURIST JEWELRY

Willis, George Shukata (6/23/36– , Choctaw)

George Shukata Willis holds a degree in art from the University of Texas. Willis has made jewelry since 1964, using both GOLD and SILVER. His designs range from traditional to contemporary, and they primarily reflect his Choctaw heritage. Favored motifs include designs found on native textiles of the region, such as a diamond pattern, a geometric design representing the historical Trail of Tears, running HORSES, and more abstract patterns that recreate Oklahoma native materials. Willis's NECKLACES and EARRINGS are the forms most popular with his consumers. He teaches jewelry-making to disabled veterans, and he is greatly concerned with educational opportunities for young Native American artists. He exhibits at major Indian arts venues, and has received awards at the Heard Museum Guild Fair (1995), GALLUP INTER-TRIBAL INDIAN CEREMONIAL (1994, 1995), and Red Earth Festival (1992). **Galleries:** Four Winds Gallery, Naples, Florida.

wolf

A ruthless hunter in many native legends, the wolf is not a common motif for jewelry, but it does appear on some twentieth-century pieces. Effigies of wolf heads can be found in the artifacts of ancient cultures. The wolf plays various roles as a supernatural figure in creation legends of Plains Indians, and in the induction ceremonies of some Northwest Coast tribes. The wolf is also a guardian of the East for the six DIRECTIONS of the Zuni. *See* the Mary Anne BARKHOUSE entry for an illustration of a wolf motif.

wrought

Literally, "done by hand"; in metalsmithing, a term indicating that only hand tools were used in creating a piece of jewelry. Hand-wrought metal jewelry can be beaten, hammered, or twisted. Cast pieces are an exception to this list of FABRICATION techniques, although they can have some aspects of being wrought, especially if elements such as hand-drawn wire, or hammered shaping, are employed to make the final form. *See also* CASTING.

Y

Yei, Yei figures

In Navajo belief, deities, or Holy People, who emerged from the lower worlds before humans were created, and served as mentors to humans after their creation. The Yei are represented at major religious events, particularly in the nine-day Yeibichai ceremonial dance, through figures wearing sacred buckskin Yeibichai masks. These masks show the designated face prints of the Yei and are painted white, blue, red, and black. Because Yei are religious figures of great power, meant to be recreated only through ceremonies or in ritual sandpainting, their use on decorative objects is not officially sanctioned. However, stylized and loosely interpreted versions of the Yei figure do appear on Indian jewelry, but this was rarely done before the 1950s. Their use as motifs may be derived from the similar treatment of KATSINA figures. When Yei are depicted, they are made to resemble dancing figures wearing the Yeibichai mask and carrying ceremonial objects, such as arrows and gourds, and their bodies may be stretched arc-like to approximate sandpainting design shapes.

Yoyokie, Gary (9/24/53– , Hopi) and **Yoyokie, Elsie** (11/8/51– , Navajo)

This husband-and-wife team met at Phoenix (Arizona) Indian High School. Gary is the principal designer, and the pair's designs take shape as drawings on cutout aluminum templates, including such motifs as clouds, DANCERS, MASKS, RABBITS, and rain or WATER SYMBOLS important to Hopi lifeways (*see* CLOUD SYMBOLS; RAIN SYMBOLS). The Yoyokies work mainly in the traditional Hopi OVERLAY technique, in both SILVER and GOLD, but they do experiment with a more contemporary look to their pieces, sometimes adding PRECIOUS STONES for effect. The artists won a variety of awards through the 1990s, including the Charles Loloma Award from the Museum of Northern Arizona (1992). They also exhibit at the SWAIA INDIAN MARKET. **Galleries**: Gallery 10, Santa Fe, New Mexico, and Scottsdale, Arizona. *See also* Hopi Jewelry.

Further Reading: Pardue, Diana. *The Cutting Edge: Contemporary Southwestern Jewelry and Metalwork*. Phoenix: The Heard Museum, 1997; Wright, Margaret. *Hopi Silver*. Flagstaff, AZ: Northland Press, 1972; rev. ed. 1998.

Z

Zephier, Mitchell (7/5/52– , Sioux)
A highly regarded artist who works with traditional Plains jewelry styles and adds his own innovative touches, Mitchell Zephier is a self-taught metalsmith. He is proud of his Lakota heritage and favors materials for INLAY used by his people, such as ABALONE, BONE, PIPESTONE, and QUILLWORK. He works with GERMAN SILVER, STERLING SILVER, and BRASS; pieces range from armbands to chokers, and his repertoire of forms includes BUCKLES, CONCHA belts, EARRINGS, and hair ties. PENDANTS, RINGS, and hatpins are decorated with Plains REVIVAL-STYLE designs. Other motifs of choice include BUFFALO, EAGLES, HORSES—all animals important to the Sioux. Zephier has taught and demonstrated his work to interested young native artists. He had a solo exhibition at the Sioux Indian Museum and Crafts Center (Rapid City, South Dakota) in 1977, which also holds his work in its permanent collection. He signs his work as "PVH"; this represents a shortening of his Indian family name, Pretty Voice Hawk.

Further Reading: For additional background, see <http://visions.indian.com/at/mzephier.htm>.

"Lakota Courtship," lapel pins, sterling silver, and jeweler's gold (brass and copper alloy), 1997, by Mitchell Zephier (Sioux). *Courtesy of the artist.*

Zuni jewelry

Jewelry created by members of the Zuni pueblo, or descendants of Zuni residents. Zuni jewelry styles feature skilled lapidary work, including carved stone and carved FETISH pieces, CLUSTER WORK, channel and mosaic INLAY, NEEDLEPOINT, PETITPOINT, and ROW WORK.

The pueblo of Zuni is located in western New Mexico (south of Gallup) near the Arizona border. Jewelry-making is the major craft industry of the village. Like other Pueblo peoples, Zuni artisans possess a true talent for lapidary work. In the last quarter of the nineteenth century, many Zuni craftspeople learned silversmithing as well. Evidence points to LANYADE as the first Zuni to learn to work SILVER, sometime around 1872. He instructed other village men, and later traveled to Hopi where he taught their first smiths (see HOPI JEWELRY). The number of Zuni men and women engaged in silversmithing and lapidary work steadily increased as the twentieth century progressed. There is documentation to support the belief that one silversmith, Keneshde, was the first Zuni to set TURQUOISE on a piece of silver jewelry around 1890. However, early Zuni jewelry-making efforts often took the form of collaborations between Navajos and Zunis, in which a Navajo smith would cast a silver piece—by sandcasting (see CASTING) or another method—and a Zuni lapidarist would set in the stones. Zuni was also the site of much INDIAN TRADER activity; the best documented of these individuals was C.G. WALLACE, who stimulated sales and new directions for Zuni jewelry.

At the start of the twentieth century, beadmaker Zuni Dick was well known for teaching turquoise grinding and shaping for personal adornment, and he often appears in the photographs of visiting ethnographers and recorders of life in Zuni Pueblo. By the 1930s and 1940s, various individuals were making notable jewelry, including Juan Dedios (or de Dios), Emerson Dickson, Frank Dishta, Lee and Theodore Edaakie, Horace IULE (1901–1978), Scotty Kaskalla, Bruce Lasalu, Chester Mahooty, Dennis Natachu, Warren Ondelacy, Dixon Shebola, Charlie Tucson, Harold Tucson, Simon Wallace, and Willy Zuni. Leekya DEYUSE (1889–1966) and his contemporary, David Tsikewa, were particularly known for their carved jewelry work. Skill in designs and technical execution mark the creations of a number of artists active in the middle decades of the twentieth century, including Bernard and Lambert Homer, Alonso Hustito, Kemp Kushena, John Gordon Leak, Leo POBLANO (1905–1959), Juan Setimo, Dan and Mike Simplicio, Frank Vacit, Bryant Waatsa, Sr., and Teddy and Tom Weahkee.

The accomplishments of these and other artists were aided by various factors. Many Zuni were skilled in creating small stone jewelry, and they originated fine work in such new techniques as needlepoint and petitpoint. Facility with small stones also led to innovative developments in channel and MOSAIC inlay, which replaced early Zuni large-stone compositions like those made by their Navajo counterparts (*see* CHANNEL WORK, CHANNEL INLAY). The Zuni ability to devise styles and design motifs based on natural forms has given rise to some of the most popular types of Indian jewelry available today, from carved fetish stones set in silver or strung on NECKLACES to colorful representations of animals, BIRDS, plants and Pueblo DANCERS. Zuni depictions of the RAINBOW and KNIFE-WING deities were popular by the 1940s, and these figures were followed by folk recreations of KATSINA FIGURES, SUN FACES, and other supernatural figures. Zuni jewelry quickly became popular with collectors and non-Indian enthusiasts because of its vivid connotations of Pueblo life. Most Zuni artists associate their development of specific techniques, such as nugget style, cluster work, row work, needlepoint, petitpoint, and mosaic or channel inlay, as "styles" per se, and a number of noted families have excelled in such work over the course of the twentieth century.

Women at Zuni were also accomplished stone carvers and jewelers. Della CASA APPA (1889–ca. 1963) is recognized as the first woman to make jewelry in the village. Her efforts were followed by a number of other female jewelry makers, including Lena Boone,

Bowguard, silver, leather, jet, Nevada turquoise, and coral, 1948, by Leekya Deyuse and Dan Simplicio (Zuni). *Courtesy of The Heard Museum, Phoenix, AZ.*

Adaline Bowannie, Winnie and Rosalie Jamon, Sarah Leekya, Rosemary Panteah, Ida Vacit Poblano, Abby Quam, Faye Quandelacy, Myra Tucson, Rosita Wallace, Amy Wesley, and Albenita Yunie. Other women who have gained considerable reputations for both traditional styles and fine-art innovations (including award-winning pieces) include Caroline BOBELU (b. 1946), Annie Gasper, Rolanda Haloo, Juanita Homer, Alice QUAM (b. 1929), VERONICA POBLANO (b. 1951) and her daughter Jovanna, Edith TSABETSAYE (b. 1940), Lorraine Waatsa, and Linda Hustito Wheeler.

The repetition of various last names at Zuni points to the prevalence of husband and wife teams, as well as talented family groups. Two of the best-known couples are Dennis and Nancy Edaakie and Peter and Dinah Gasper (all still active). Others who have achieved acclaim in the second half of the twentieth century are Virgil and Shirley Benn, Alex and Marylita Boone, Hugh and Agnes Bowekaty, Roger and Lela Cellicion, TONY (b. 1955) and OLA (b. 1949) ERIACHO, Jimmie and Bev Etsate, Lopel and Mary Kallestewa, Ruddell and Nancy Lasconsello, Robert and Bernice Leekya, Pete and Pansy Natachu, Wayne and Doris Ondelacy, Al and Dolly Panteah, Augustine and Rosalie Pinto, Ed and Jennie Vicenti, Mary and Lee Weebothee, and Sheldon and Nancy Westika.

By the late twentieth century, Zuni jewelry had become one of the most recognizable Native American craft and art forms in North America. Many artist families retain traditional designs and technical styles that are passed down through the generations. While fine examples of Zuni jewelry and METALWARE have made their way into American museum collections, one such collection is of particular note. The Clara and Peter Gonzales Collection of the Maxwell Museum of Anthropology, University of New Mexico, Albuquerque, New Mexico, gathered by a couple that lived and worked near Zuni, spans the 1940s through the 1970s. Pieces from this collection illustrate the rich diversity of Zuni styles and subject matter; some artists with distinctive pieces include Austin Bitsue,

Elizabeth Kushi, Charlie Tsanute, and Bruce Zunie.

As with many of the works in this collection, much Zuni-made jewelry is clearly for tourist and costume jewelry sale. At the same time, a strong propensity for using the Zuni decorative vocabulary has merged with fine-art jeweler intentions. Artists from Zuni today follow either of two creative paths: They work within a traditional jewelry design mode (such as cluster work or needlepoint) or turn to more unique fine-art jewelry creation.

So talented are Zuni's inhabitants that the number of creative jewelers could fill its own dictionary; of the limited number to be reported here, an older generation includes Ed Beyuka, Virgil Dishta, Ben Eustace, Leonard Martza, Fred Natachu, Duane Quam, and Roger Tsabetsaye. Others active since the 1970s and 1980s are Harlan Coonsis, Andrew and Don Dewa, Duran Gasper, Smokey Gchachu, Carlton JAMON (b. 1962), Edwin Lalacita, and Clayton and Myron Panteah. By the end of the twentieth century, jewelry-making at Zuni was a well-established industry in its own right, and a source of great pride to its people. *See also* PUEBLO JEWELRY. *See* the PUEBLO JEWELRY entry for a photo of Zuni Dick.

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APPENDIX 1
COLLECTIONS AND EXHIBITIONS OF NATIVE AMERICAN JEWELRY

Listed below are museums and cultural institutions in Canada and the United States that hold significant permanent collections or temporary exhibitions on Native American jewelry.

CANADA

Alberta

Glenbow Museum
130 Ninth Avenue SE
Calgary, Alberta T2G OP3
http://www.glenbow.org

High Prairie & Distriet Museum and Historical Soeiety
P.O. Box 1442
High Prairie, Alberta T0G 1E0
http://www.inetnorth.ab.ca/org/museum/

British Columbia

'Ksan Indian Village and Museum
Box 326
Hazelton, British Columbia V0J 1Y0
http://www.ksan.org

Quesnel & District Museum and Archives
405 Barlow Avenue
Quesnel, British Columbia V2J 2C3
http://www.sd28.bc.ca/museum/

Royal British Columbia Museum
675 Belleville Street
Victoria, British Columbia V8W 9W2
http://rbcm1.rbcm.gov.bc.ca

Museum of Anthropology
University of British Columbia
6393 N.W. Marine Drive NW
Vancouver, British Columbia V6T 1Z2
http://www.moa.ubc.ca

Nunavut

Nunatta Sunakkutaangit Museum
P.O. Box 605
Iqaluit, Nunavut X0A 0H0
e-mail: museum@nunanet.com

Ontario

Guild Shop of Ontario
140 Cumberland Street
Toronto, Ontario M5R 0P3

McMichael Canadian Art Collection
Islington Avenue
Kleinburg, Ontario L0J 1C0
http://www.mcmichael.com

Royal Ontario Museum
100 Queen's Park
Toronto, Ontario M5S 2C6
http://www.rom.on.ca

Woodland Indian Cultural Centre
184 Mohawk Street
Box 1506
Brantford, Ontario N3T 5V6
http://www.woodland-centre.on.ca/museum/main.html

Quebec

Canadian Guild of Crafts Quebec
2025 Peel Street
Montreal, Quebec H3A 1T6
http://www.dsuper.net/~cdnguild

Canadian Museum of Civilization
100 Rue Laurier
Hull, Quebec
http://www.civilization.ca

McCord Museum of Canadian History
690 Sherbrooke Street West
Montreal, Quebec H3A 1E9
http://www.musee-mccord.qc.ca

Musée de la Civilisation
85, rue Dalhousie
C.P. 155, succ. B
Quebec, Quebec G1K 7A6
http://www.mcq.org/english/index.html

Musee Kio-Warini
Village Huron
Loretteville, Quebec G2B 3W5

Yukon Territory

George Johnston Tlingit Indian Museum
Mile 804, Alaska Highway
P.O. Box 146
Teslin, Yukon Y0A 1B0
http://www.yukonweb.com/community/teslin/museum

UNITED STATES

Alaska

Anchorage Museum of History and Art
121 W. Seventh Avenue
Anchorage, AK 99501
http://www.ci.anchorage.ak.us/Services/Departments/Culture/Museum

University of Alaska Museum
907 Yukon Drive
P.O. Box 756960
Fairbanks, AK 99775-6960
http://zorba.uafadm.alaska.edu/museum/

Arizona

Amerind Foundation
2100 N. Amerind Road
P.O. Box 400
Dragoon, AZ 85609
http://www.amerind.org

Museum of Northern Arizona
3101 North Fort Valley Road
Flagstaff, AZ 86001
http://www.musnaz.org

The Heard Museum
22 E. Monte Vista Road
Phoenix, AZ 85004-1480
http://www.heard.org

The Bead Museum
5754 Glenn Drive
Glendale, AZ 85301
http://www.The BeadMuseum.com

The Arizona State Museum
University of Arizona
Tucson, AZ 85721-0026
http://w3fp.arizona.edu/asm/

Navajo Nation Museum
Highway 264
P.O. Box 4950
Window Rock, AZ 86515

California

Phoebe Apperson Hearst Museum of Anthropology
103 Kroeber Hall
University of California at Berkeley
Berkeley, CA 94720-3712
http://www.qal.berkeley.edu/~hearst/

Southwest Museum
234 Museum Drive
P.O. Box 41558
Los Angeles, CA 90041-0558
http://www.southwestmuseum.org

California State Indian Museum
2618 K Street
Sacramento, CA 95816
http://cal-parks.ca.gov/DISTRICTS/goldrush/csim.htm

San Diego Museum of Man
1350 El Prado
Balboa Park
San Diego, CA 92101
http://www.museumofman.org

California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118-4599
http://www.calacademy.org

Colorado

Colorado Springs Fine Art Center
30 W. Dale Street
Colorado Springs, CO 80903
http://www.pikes-peak.com/atttractions/finearts.htm

Denver Art Museum
100 W. 14th Avenue Parkway
Denver, CO 80204
http://www.denverartmuseum.org

Denver Museum of Natural History
2001 Colorado Blvd
Denver, CO 80205
http://www.dmnh.org

District of Columbia

Indian Craft Shop
U.S. Department of the Interior
Room 1023
1849 C Street N.W.
Washington, DC 20240

National Museum of American History
Smithsonian Institution
10th Street at Constitution Avenue
Washington, DC 20560
http://www.si.edu/organiza/museums/nmah/index.htm

National Museum of the American Indian
(to be built on Smithsonian Mall ca. 2003)
Cultural Resources Center, Suitland, MD
Mailing address: 470 L'Enfant Plaza
Suite 7103, Washington, DC 20560
http://www.si.edu/cgi-bin/nav.cgi

Florida

Lowe Art Museum
University of Miami
1301 Stanford Drive
Coral Gables, FL 33124-6310
http://www.lowemuseum.org

Illinois

Field Museum of Natural History
Roosevelt Road at Lake Shore Drive
Chicago, IL 60605
http://www.fmnh.org

Indiana

Eiteljorg Museum of American Indians and Western Art
500 W. Washington
Indianapolis, IN 46204
http://www.eiteljorg.org

Kansas

Museum of Anthropology
University of Kansas
Lawrence, KS 66045
http://www.ukans.edu/~kuma/

Massachusetts

Robert S. Peabody Museum of Archaeology
Phillips Academy
175 Main Street
Andover, MA 01810
http://www.andover.edu/rspeabody/home.html

Peabody Museum of Archaeology and Ethnology
Harvard University
11 Divinity Street
Cambridge, MA 02138
http://www.peabody.harvard.edu

Peabody Essex Museum
E. India Square
Salem, MA 01970
http://www.pem.org/col_native_am.html

Missouri

Museum of Anthropology
University of Missouri
104 Swallow Hall
Columbia, MO 65211
http://www.missouri.edu/~anthmjo

Montana

Museum of the Plains Indian and Crafts Center
U.S. Highway 89 & 2
P.O. Box 400
Browning, MT 59417
http://fcva.org/html/art.html

New Jersey

Montclair Art Museum
3 S. Mountain Road
Montclair, NJ 07042
http://www.montclair-art.com

New Mexico

Indian Pueblo Cultural Center
2401 12th Street NW
Albuquerque, NM 87104
http://www.indianpueblo.org

Maxwell Museum of Anthropology
University & Ash N.E.
Albuquerque, NM 87131-1201
http://www.unm.edu/~maxwell

Turquoise Museum
2107 Central NW
P.O. Box 7598
Albuquerque, NM 87194

Institute of American Indian Arts Museum
108 Cathedral Place
P.O. Box 20007
Santa Fe, NM 87501
http://www.iaiancad.org/museum/home.html

Museum of Indian Arts & Culture/ Laboratory of Anthropology
710 Camino Lejo
P.O. Box 2087
Santa Fe, NM 87505
http://www.miaclab.org

Museum of New Mexico
113 Lincoln Avenue
P.O. Box 2087
Santa Fe, NM 87504
http://www.nmmnh-abq.mus.nm.us/mnm/mnm.html

School of American Research
660 Garcia Street
P.O. Box 2188
Santa Fe, NM 87501
http://www.sarweb.org/iarc/iarc.htm

Wheelwright Museum of the American Indian
704 Camino Lejo
P.O. Box 5153
Santa Fe, NM 87505
http://collectorsguide.com/sf/m001.html

Millicent Rogers Museum of Northern New Mexico
1504 Museum Road
P.O. Box A
Taos, NM 87571
http://www.millicentrogers.org

New York

Brooklyn Museum of Art
200 Eastern Parkway
Brooklyn, NY 11238-6052
http://www.brooklynart.org

Fenimore House Museum
American Indian Wing/Thaw Collection
P.O. Box 800
Cooperstown, NY 13326
http://www.nysha.org/thaw.htm

Iroquois Indian Museum
Caverns Road
P.O. Box 7
Howes Caves, NY 12092
http://www.iroquoismuseum.org

National Museum of the American Indian/Smithsonian Institution
George Gustav Heye Center
1 Bowling Green, New York, NY 10004
[Washington, DC, mailing address:
470 L'Enfant Plaza S.W.
Suite 7103
Washington, DC 20560]
http://www.si.edu/cgi-bin/nav.cgi

Rochester Museum and Science Center
657 East Avenue
Rochester, NY 14607-2177
http://www.rmsc.edu

Ohio

Cleveland Museum of Art
11150 East Blvd
Cleveland, OH 44106
http://www.clemusart.com

Oklahoma

Southern Plains Indian Museum and Crafts Center
Highway 62 East
P.O. Box 749
Anadarko, OK 73005
http://www.tanet.net/spmuseum

Gilcrease Museum
1400 Gilcrease Museum Road
Tulsa, OK 74127-2100
http://www.gilcrease.org

Philbrook Museum of Art
2727 S. Rockford Road
P.O. Box 52510
Tulsa, OK 74152-0510
http://www.philbrook.org

Oregon

Favell Museum of Western Art and Indian Artifacts
125 W. Main Street
P.O. Box 165
Klamath Falls, OR 97601

Portland Art Museums
1219 S.W. Park Avenue
Portland, OR 97205
http://www.pam.org

Pennsylvania

University of Pennsylvania
Museum of Archaeology and Anthropology
33rd & Spruce Streets
Philadelphia, PA 19104-6324
http://www.upenn.edu/museum/

Carnegie Museum of Natural History
4400 Forbes Avenue
Pittsburgh, PA 15213-4080
http://www.clpgh.org/cmnh

Rhode Island

Haffenreffer Museum of Anthropology
Brown University
Mt. Hope Grant
300 Tower Street
Bristol, RI 02809-4050
http://www.brown.edu/Facilities/Haffenreffer

Museum of Natural History
Roger William Park
Providence, RI 02905
http://www.osfn.org/museum

South Dakota

Sioux Indian Museum and Crafts Center
222 New York Street
P.O. Box 1504
Rapid City, SD 57709
http://www.journeymuseum.com/sioux.html

Washington

Seattle Art Museum
100 University Street
P.O. Box 22000
Seattle, WA 98122-9700
http://www.seattleartmuseum.org

Yakama Nation Museum
Yakama Nation Cultural Heritage Center
P.O. Box 151
U.S. 97
Toppenish, WA 98948
http://www.wolfenet.com/~yingis/spilyay.html

Note: A sizable number of established private art galleries in the United States and Canada feature Native American jewelry for exhibition and sales. Because these galleries change ownership, location, and emphasis more frequently than museums, the best practice is to check periodical literature, which is more timely in publication. The Bibliography notes these periodicals; a few likely titles are *American Indian Art Magazine* (which has a section on current museum and gallery exhibitions), *Native Peoples*, and *The Indian Trader*.

APPENDIX 2
A NOTE ON THE WEAR, CARE, AND SELECTION OF NATIVE AMERICAN JEWELRY

Since the 1970s, the "boom" decade, little has been written about the maintenance of Native American jewelry; what has been written is general and slanted toward collectors. However, it is important to remember that there are some considerations about this jewelry that distinguish it from other types of personal adornment. Some of these points may seem self-evident, others are less so.

A first note concerns the materials used for Indian jewelry. Older pieces may be more fragile precisely because the metals, stones, and binders have or have not been treated. Genuine pre-1900 objects often require restoration because certain materials have worn away or are damaged. Signs of metal stress, incipient cracks, and pits in stonework may add charm to a piece, but they also signal that care must be taken in wear and storage. Native artists used the materials that were available to them, and improvements in solder, epoxies, and finishes were seized upon only when these items became commercially viable. A jewelry repair shop, with staff unused to working with Indian jewelry, can inadvertently damage a piece through a simple lack of knowledge. Older turquoise or coral jewelry, exposed regularly to urban pollution, can develop pits and cracks; stones with matrix and small inlay fragments can chip at corners. Liquid-based cleaners for silver and other metals may be injurious to native-made pieces, especially those with channels or oxidated recesses: a jeweler's rouge cloth is preferable.

Owners of native-made jewelry that plan to wear these items regularly must make decisions about their care. First, repair and restoration must be done by professionals familiar with the materials and techniques used by Native American jewelry-makers. Individuals who purchase jewelry from reputable dealers, traders, and gallery personnel should consult these individuals for advice about repair, restoration, and general care. Some trade publications, such as *The Indian Trader*, carry advertisements for repair and restoration services. Native-made jewelry can be divided into three main categories: beadwork, metalwork, and combination pieces utilizing semiprecious or precious stones and other natural materials such as ivory, horn, bone, wood, and so on. Necklaces and pendants should be strung on sturdy cords or wire chains, and restringing older pieces is a sensible solution for items that will be worn regularly, or even for special occasions. When purchasing a piece directly from a native artist, the would-be owner may wish to ask questions about care at that time or

retain the artist's address for future consultation.

Much Native American jewelry is surprisingly sturdy. However, this determination cannot always be made by a consumer until that person has spent some time with native-made objects. Self-education is an appropriate activity because the more that can be learned about native jewelry, the better a consumer will be able to discern quality materials and workmanship. Attendance at important Indian art exhibitions and shows is helpful, along with the purchase of scholarly and pictorial publications on the subject. Since Native American jewelry is rife with items of questionable quality, this educational process will assist the would-be collector or enthusiast. However, there are few substitutions for sustained physical examination of actual jewelry pieces. The age-old adage of "buyer beware" is particularly relevant here, along with the advice of Indian art professionals that one should buy from reputable sources. Yet those who persevere will reap great advantages: as demonstrated in this reference work, native-made jewelry is among the finest, most creative decorative arts available in North America. Consumer guides have been devised by several organizations described in this book:

- Antique Tribal Art Dealers Association <http://www.atada.org>
- Indian Arts and Crafts Association <http://www.iaca.com>
- Indian Arts and Crafts Board <http://www.citation.com/hpage/iacb.html>

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