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**OLD PASTE**

*UNIFORM WITH THIS VOLUME*

THE ARMOURER AND HIS CRAFT . CHARLES FFOULKES  
DECORATIVE IRONWORK . . . CHARLES FFOULKES





THE BONUS EVENTUS PANEL  
LAPIS LAZULI PASTE  
BRITISH MUSEUM

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# OLD PASTE

BY

A. BERESFORD RYLEY

WITH TWENTY-EIGHT PLATES

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**OLD PASTE**





# OLD PASTE

## CHAPTER I

**A**PART from historical sentiment, a *chef d'œuvre* of antique jewellery rouses emotion, much as does a masterpiece of music or of painting. Its sheer beauty of design and feeling stimulates, if in a minor degree, a similar sense of sudden pleasure and excitement. An eighteenth-century Spanish brooch does it by the extraordinary richness and dignity that it conveys; an early Etruscan necklace does it by its exquisite technique. To the ordinary person paste is a colourless compound entirely confined to the imitation of diamonds. On the contrary, thousands of years before the utilization of diamonds in the jeweller's art paste had been employed to reproduce all the precious stones (most of which were opaque) that were known to the ancients. Colourless paste is practically a modern invention.

From the earliest times paste has been associated with jewellery, and has never—until perhaps in Roman and in quite modern days—intruded a discordant note into the harmony of a production that it has enriched. It has been worn by every class, princes and peasants alike, rather as a

substitute for precious stones than as an imitation of them. For paste at its best has a very marked intrinsic fascination of its own.

Vitreous paste has been found in connection with the earliest civilizations, notably with that of Egypt. Its invention, like that of glass, to which it is so intimately allied, was probably the result of an accident. According to the elder Pliny, some Phœnician *natron* merchants, having landed on the sandy shores of the sacred river of Belus, in Phœnicia, collected sticks to light a fire. They spent some hours in looking for stones to support their cooking utensils, but finding none, they eventually returned to the ship, which was loaded with a cargo of *natron* (carbonate of soda), used for making soap, and brought back from it some of these alkali blocks. The fire had only been lit a short time when the nitre supports fusing with the sand, which was white and therefore pure, they saw, to their astonishment, a little stream of transparent liquid issuing from the edge of the fire. This stream was glass. It is quite possible that this may have been the origin of transparent colourless glass, though other authorities maintain that the Phœnicians learnt the art of glass-making on the banks of the Nile. However, long before the Egyptians had any relations with the Phœnicians, a vitreous paste was largely used in Egypt for ornamental purposes. This paste was for the most part opaque, due probably to the fact that the crude potash, obtained by leaching wood-ashes, and perhaps not entirely free from bone-ash, which in itself produces opacity, was used as a flux, whereas the Phœnicians substituted nitre for the less pure

alkali. Besides, the Egyptians had no incentive to manufacture a translucent paste, for their natural stones (turquoise, lapis lazuli, and malachite) of predynastic times are all opaque.

History throws no light on the origin of paste. In Sanskrit glass is called *kâtcha*, meaning a shiny, transparent substance, or *kshâra*, something that has melted. But these terms would apply with equal significance to paste and to precious stones. Herodotus, when referring to the paste drop ear-rings with which the Egyptians decorated their tamed and sacred crocodiles, calls the material of which they were made *λίθος χυτή* (melted stone). Still no further elucidation; for paste and natural stones are fundamentally nothing else than *λίθος χυτή* in the strictest sense of the expression. The Egyptians themselves used the word *khesbet* in reference to anything blue, whether it was turquoise, lapis lazuli, or even crystals of copper sulphate. With an equal lack of discrimination malachite and green paste were both called *mafek*. One thing is certain: both the early Greeks and the Oriental nations ranked paste with precious stones, and this is not surprising. The two would have an equally decorative value, since facetting, the art of displaying the real beauty of a translucent stone, is a discovery of comparatively recent times.

The oldest examples of paste are the Egyptian light blue opaque necklace beads referred to predynastic times, at least five thousand years before the Christian era. Later on paste played an important part in the jewellery collection of Queen Aâh-hotep, the mother, or grandmother, of the famous Aahmes I, who expelled the shepherd kings from Egypt, and

founded the eighteenth dynasty. At an equally remote period the primitive inhabitants of Greece, the Mycenæans, appeared to have confined themselves almost entirely to paste for the jewelled embroidery of their clothes. The Goths, the Gauls, and the Saxons certainly included paste, whether imported or of native make, among their most valued gems. In fact, from the fifth to the eighth or ninth centuries there was an actual age of paste in Britain and in Western Europe. Even in mediæval times a confusion existed between paste and natural stones, and numerous reproductions in the former have been inventoried as garnets, emeralds, and sapphires.

Vitreous paste, glass, and enamel have fundamentally the same composition. The material is referred to as paste when it is confined to the reproduction of precious stones; as enamel when it is "fired" in *cloisons*, or hollows; as glass when it is extended to more economic purposes. The essential constituents of the three are silica, in the shape of rock crystal, or quartz; sand (free from iron), an alkali usually in the form of nitrate or carbonate of potash, and an oxide of lead in varying proportions. This mixture, when fused, results in a colourless transparent paste if the ingredients are quite pure. Its colouring is effected by the addition of very small quantities of various metallic oxides. Thus to produce their exquisite *khesbet* the earlier Egyptians used oxide of copper, the later ones a similar compound of cobalt. Chromium oxide, for instance, gives an emerald, manganese dioxide an amethyst tint to colourless paste, whilst opaque white is obtained by the addition of tin dioxide and occasionally calcium phosphate (bone-ash). From the

sixth dynasty, at any rate, the Egyptians were acquainted with the ores of tin. As a rule only minute quantities of these oxides are necessary to produce the desired colour, the actual amounts varying according to the compound used. The intense colouring power possessed by these oxides may be illustrated by the fact that one part of *purple of Cassius* (chloride of gold) gives a ruby-red colour to ten thousand parts of colourless paste, the same amount of metallic salt producing a rose-red tint with twenty thousand parts of paste. An antique paste emerald was found on analysis to contain less than one part of chromic oxide in five thousand of the colourless material. Lead, usually in the form of the red oxide, was, and is still employed, to give paste an adamantine lustre, possessed to such a superlative degree by diamonds, and to increase at the same time its specific gravity, its refractive index, and its dispersive power.

The following analysis of an ancient Egyptian blue paste obtained from various early tombs will give a general idea of its composition :—

Silica	.	.	.	71·0	per cent
Red lead	.	.	.	14·0	„
Copper oxide	.	.	.	12·5	„
Alumina	.	.	.	1·0	„
Lime	.	.	.	1·5	„

The presence of alumina and lime suggests a certain amount of impurity in the materials. The alkali used as a flux does not appear in the composition, as it is volatilized in the process of fusion. The analysis of paste belonging to a much later period, such as that found at Thebes, in Egypt,

and at Pompeii, shows that cobalt replaced copper as the colouring agent.

The composition of paste varies considerably according to the nature of the stone to be reproduced, a rise in the percentage of silica producing an increased hardness. Diamond is the hardest stone that is known, and is represented in Moh's scale of hardness by the number 10, ruby and sapphire by 9, topaz 8, emeralds and garnets by 7.5, and turquoise by 6. Quartz or silica, the predominant constituent of antique paste, has a hardness of 7. Now the hardness of the paste whose composition is given above is approximately that of natural turquoise. On account of the latter's opacity and comparative softness, its reproduction is more or less easy, and unless chemical analysis is utilized it is difficult to distinguish between a natural turquoise and a paste one. This is especially so when neither stone has been exposed to the disintegrating effects of damp air or soil. In the case of valuable antique jewellery chemical analysis can seldom be resorted to. An interesting instance of this difficulty is afforded by the four wonderful gold bracelets set with blue turquoises found by Professor Flinders Petrie at Omm-el-gaab (Abydos) on the arm of a princess, in a tomb which goes back to the first dynasty. A French authority, writing on Egyptian jewellery, declares that, at any rate, some of these turquoises are paste.

Then, again, it is difficult to distinguish between paste and enamel. There is a gold Egyptian bracelet in the Munich Museum, and experts differ in their views as to whether the paste was poured into the partitions in a molten

condition, or whether these *cloisons* were filled with enamel powder and “fired.” The celebrated Alfred jewel is another case in point.

No paste can approach diamonds, rubies, or sapphires in hardness; the beauty, however, of these stones does not depend on their adamantine properties, but on their colour and “fire.” This “fire,” a beautiful display of prismatic colours, especially remarkable in the diamond when faceted, is due to the dispersive power of the crystal. A ray of light passing through the outer air, on striking the stone has its direction changed (the amount of the change being the refractive index) and the ray itself is decomposed into its elementary colours, ranging from red to violet. This refracted and dispersed ray, instead of passing out on the under surface of the stone, as it does through a piece of glass, is totally reflected, as will be explained later on when dealing with *stras*, and emerges from the upper surface of the diamond. This process is practically instantaneous.

Now to produce a paste which has a dispersive power comparable with that of a diamond, a large amount—some fifty per cent—of red oxide of lead must be added, whilst the total reflection is assisted by a backing of some metallic foil, which, as regards the refracted ray, acts like a plane mirror. The addition of lead oxide also increases its specific gravity. The specific gravity or density of a body is the weight of that body in air as compared with an equal volume of water, which is taken as the unit. The density of paste can by this means be raised as high as 3·8, which is slightly higher than that of diamond—ordinary quartz being 2·65. On the other hand,

this excess of lead considerably diminishes the hardness of the material. Paste used for reproducing diamonds, being softer than window glass (hardness 5), is therefore unable to scratch it, as diamonds do.

Returning to the actual manufacture, the ingredients (which must be pure), after being very finely powdered, are intimately mixed in their proper proportions, and introduced into a crucible, or a similar vessel, and are heated until they are fused together. The temperature of the mixture should be very little higher than that required to produce complete fusion. The molten paste is then allowed to cool down very slowly—twenty-four hours being the minimum time—and on no account must it be disturbed during this period, otherwise air bubbles and other impurities, which cannot be afterwards got rid of, are introduced. It is then cut, ground and polished, even faceted, like any ordinary precious stone. In early days the fused mass must have been poured, while still in a liquid condition, into moulds, a great number of which have been found in excavations at Mycenæ and elsewhere.

Genuine translucent stones, such as diamond, topaz, ruby, and sapphire, can easily be distinguished from paste by their superior hardness. Paste can usually be scratched with a hard steel point. But this test with garnets and emeralds cannot be absolutely relied on, as they are only slightly harder than a paste containing a high percentage of silica, whilst turquoise and opal have approximately the same hardness as such a paste. Then the majority of precious stones, diamond excepted, are good conductors of heat; paste is a poor one. For this reason the moisture from the breath condenses with



more difficulty on natural stones than on paste, and when condensed it disappears more rapidly in the former case. Again, ruby, sapphire, topaz, and emerald are doubly refracting—that is to say, two images of any object are formed when using any of these stones as a sort of lens. Diamond and paste are singly refracting. Lastly, most precious stones are dichroïc. Dichroïsm is the property a stone has of showing different shades of colour when viewed in different directions by means of a dichroïscope, which consists essentially of a rhombohedron of Iceland spar, fitted at its oblique ends with two glass prisms, to one of which is attached a lens. Diamond, garnet, and paste are not dichroïc. Recently a test, supposed to be infallible, has been discovered in the shape of an aluminium pencil, the point of which when drawn across paste leaves a shiny, silvery line on the surface, while no similar effect occurs with a natural stone.

Before degenerate Roman days, paste, as far as can be gathered, was never associated with deception. Artificers produced it just as they did works in gold, silver, and bronze. Jewellers set it in their creations with the same appreciation as they bestowed on emeralds or turquoises. Queens wore it with their most precious gems. Emperors accepted it as an essential part of a tribute or a war indemnity. Job himself classes gold with paste. The secret of its manufacture lay in the first instance with the Egyptians, who may possibly have obtained it from the farther East. The annals of Thothmes III show that there was a regular trade in paste between Babylon and Egypt in his reign, fifteen centuries before the Christian era. Later on, perhaps, the Phœnicians

may have learned the secret from the Egyptians ; at any rate Phœnician ships introduced paste into Greece and distributed it among the Mediterranean ports and islands. They carried it along the western coasts of Europe, where it has played no inconspicuous *rôle* in the development of the jeweller's and the goldsmith's art.

## CHAPTER II

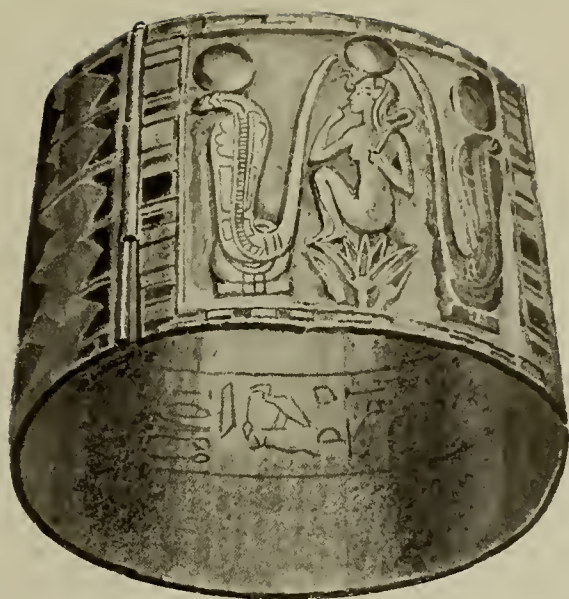
### EGYPTIAN

**I**T is almost a platitude to say that, apart from being emblematic of a primitive religion, jewellery is an important factor in the process of civilization. In the early days of Egyptian civilization the craving for personal ornament appears to have been satisfied by necklaces and bracelets of pierced cowry-shells, interspersed sometimes with seeds and sparkling pebbles. For from the predynastic tombs of Abydos, Thebes, and Gebelen, dating from a period at least 5000 years B.C., thousands of shells and seeds pierced and threaded as necklaces have been recovered. The stones selected were of unusual shape or of a curious sparkling colour. Maspero thinks they must have been regarded as amulets or fetiches by their Egyptian owners. Shells and beads were subsequently replaced by replicas in terra-cotta, which later on developed into rounded pear-shaped or cylindrical beads covered with a layer of vitreous paste. Ultimately many of the beads were composed entirely of paste, which henceforward played a conspicuous part in the evolution of Egyptian jewellery.

The predynastic beads, such as those preserved in the

Ashmolean Museum at Oxford, are light blue and opaque, evidently reproducing turquoise, but those obtained from the tombs of the first to the fourth dynasties are darker in colour and slightly translucent, showing a progress made in the actual manufacture. Even in these remote times the arrangement of the beads was by no means fortuitous. A definite scheme was obviously followed; slips of wood, bone, and ivory, etc., maintained a uniform distance between the individual rows. This suggests an initial attempt to produce the impressive "repetition" effect, afterwards so closely identified with the finest specimens of Greek and Etruscan jewellery.

The treasure of Dahshûr reveals the fact that the Princess Hathor Sat of the XIIth dynasty by no means disdained the use of paste, for beads of that material, as well as a scarab bearing her own name, were brought to light by M. de Morgan. This treasure has a peculiar interest, as one of the necklaces is formed by a row of lotus flowers, and some of the beads coloured like malachite are gilded. Both of these appear to be an innovation in the personal ornament of that period—an innovation which became a vogue in later Mycenæan times. She had also a gold bracelet so wonderfully decorated in the granular style, only with minute stones instead of gold globules, that it might have served as a model for an Etruscan goldsmith. In a large number of necklaces referred to this same dynasty, light blue paste pendants, usually representing deities, were associated with carnelian beads, possibly to add a note of gaiety to the more sombre stone. Though there is a hint of "progression" in the greater part of the jewellery of this period, it is evident that the Egyptians



1



2

1. ONE OF A PAIR OF GOLD BRACELETS INLAID WITH LAPIS LAZULI AND BLUE PASTE, REPRESENTING HARPOCRATES SITTING ON A LOTUS FLOWER—MADE FOR THE DAUGHTER OF THE CHIEF BOWMAN NEMAROTH, FATHER OF SHASHANG I

CIRCA 1000 B.C.

2. A BLUE SCARAB FROM THE TOMB OF AMENHETEP II

1500 B.C.



clung pertinaciously to old ideals, for gasteropod shells were still strung with dark blue paste beads.

Until the Dahshûr find, the exquisite jewellery of Aāh-hotep, one of the greatest of Egyptian queens, was an unique treasure. A very beautiful specimen in this wonderful collection formerly preserved in the museum at Ghizeh (now in Cairo), is a double-hinged gold bracelet. On a background of blue paste, reproducing lapis lazuli, are finely engraved gold figures, representing Amosis on his knees with the god Seb and the genii of the earth in various attitudes of adoration. On the head of this queen was found an oval-shaped crown, clinging to which was some of her hair. The sides of the crown are formed by two gold sphinxes facing one another; the top represents the cartouche of Amosis in gold on a background of a lapis lazuli blue paste. Small as are the sphinxes' eyes, the pupils are of black paste, the whites of rock crystal wonderfully inlaid with gold. That these tiny pupils should be made of black paste is significant; it is a further proof of the value attached by royalty to that variety of ornament. In the same sarcophagus was also found a statue of the goddess Mât in different coloured pastes, as well as a great number of blue paste figurines and amulets.

A very handsome pair of gold bracelets inlaid with lapis lazuli and blue paste, representing Harpocrates sitting on a lotus flower between two uræi wearing discs (in the Fourth Egyptian Room of the British Museum), one of which is sketched in Plate I, further illustrates the vogue that paste enjoyed among royalty. A hieroglyphic inscription inside the bracelets states that they were made for "the princess, the daughter

of the chief of all the bowmen Nemaroth, whose mother was a daughter of the prince of the land of Reshmes." Nemaroth was the father of Shashanq I—the Shishak mentioned in the Book of Kings. His reign began about 1000 B.C.

Probably no nation of historic antiquity was so deeply imbued with religious sensibility as the Egyptians, and it is for this reason that their tombs have been the main factors in the revelation of their native art. Funeral ceremonies played a very important part in their daily life; for the early Egyptians believed that the Ka, a sort of ethereal replica of the corporeal body, survived after death. Diodorus tells us that the Egyptians alluded to the houses of the living as "hostelries," seeing that they lived in them for comparatively so short a time, but they spoke of the tombs as the "eternal dwellings." The dead were not only provided by their descendants with suitable food, but were surrounded with objects intimately connected with their earthly life. A son failing in such piety dreaded the vengeance of his father's Ka. Many of the souls in Amentet—the region of darkness—were destined to remain there because their relatives had neglected to provide them with the necessary amulets. Under these circumstances then, the jewellery and other personal objects recovered from the sarcophagi were the actual ones worn or used by the dead person, and not flimsy replicas, as are sometimes found in Etruscan tombs.

In the Third Egyptian Room at the same museum there are a large number of paste scarabs, conspicuous among them being a beautiful blue one shown in Plate I. It was taken from the tomb of Amenhetep II (1500 B.C.). The



majority of the body of the scarab is opaque, but towards the edges it is somewhat translucent. The scarab—*scarabæus*, a beetle—is the symbol of the sun god Ra, the fertilizer. In the same case is an opaque blue paste head-dress from the statue of the god Bes, it being not an uncommon practice among the Egyptian artists to indicate hair and eyes in their portraits by some material different from that constituting the bulk of the face. At the sale of M. Hoffmann's collection at the Hôtel Drouet in Paris in 1886, among the Egyptian antiquities sold was a blue paste mask of a god or a royal personage, the eyes, the eyebrows and the beard being denoted by little hollows, which, it is supposed, originally contained paste of a different colour.

The images of gods were often produced in paste. The blue composite figure of Ptah Seker Asar, the god of night, preserved in the Third Egyptian Room at the British Museum, is an excellent example of this. Amulets, though worn by the living to protect them from pernicious influences and from earthly and supernatural enemies, necessarily played an important part in the burial of the dead. The same museum possesses several specimens of red paste amulets of the *Buckle of the girdle of Isis*, which symbolizes "the blood of Isis, the strength of Isis, and the power of Isis." The wearer of these was considered immune from everything evil. The funeral amulets were hung round the neck of the mummy or placed between the mummy swathings, for without such passports the souls of the dead had little hope of passing successfully through the purgatorial Amentet, and of reaching Tuat, where they could step into the "Boat of a million years."

Many other amulets, such as those of the Utchat, were either entirely made of or inlaid with paste. These utchats symbolized the eyes of the sun god or moon god, and were worn with the object of bringing upon the wearer, primarily, strength and good health.

In the British Museum, as in the Ashmolean, there is a great variety of necklaces made partly of paste, as well as others entirely composed of that material. They belong to almost every period, from predynastic times down to 100 A.D. The majority of the beads are blue, varying from a light to quite a dark shade, though one comes across a large number of lightish green. The individual ones are very varied in form—circular, disc-like, tapering cylinders, and even rectangular. An especially fine example of the last-named is in the Louvre. It consists of alternate blue and green rectangles, representing, as it were, a flat girdle of lapis lazuli and malachite. These stones were easily reproduced, both being opaque, the former only a little harder, and the latter much softer, than window glass. Another remarkable necklace in the same collection is formed of a dozen little jackals in a squatting position, alternate groups of yellow and blue flat beads separating them. In each of these groups is a little animal of the sacred ichneumon type. Some of these necklaces have carnelian, others paste *nefer* pendants, the latter usually in the form of small *simulacra* of deities (Thoth being a special favourite), of animals, fish, insects, and even shells, a reversion to predynastic models.

The majority show that in the arrangement of their beads the Egyptians preferred the "repetition" manner to

that of "alternation," though the former style is relieved by the interposition of larger ornaments in the shape of pendants, which ultimately developed into the masks so typical of Phœnician and Græco-Phœnician necklaces. Sometimes the design is "progressive," a gradual diminution in the size of the bead giving an impressive importance to the central one. The most beautiful paste beads belong to the eighteenth dynasty. Apart from superior workmanship and colour they emit a subtle individuality not usually associated with such elementary forms of ornament. The Ashmolean Museum possesses a very handsome olive-green translucent bead with the throne name of Amenhetep I of that dynasty engraved on it in hieroglyphics.

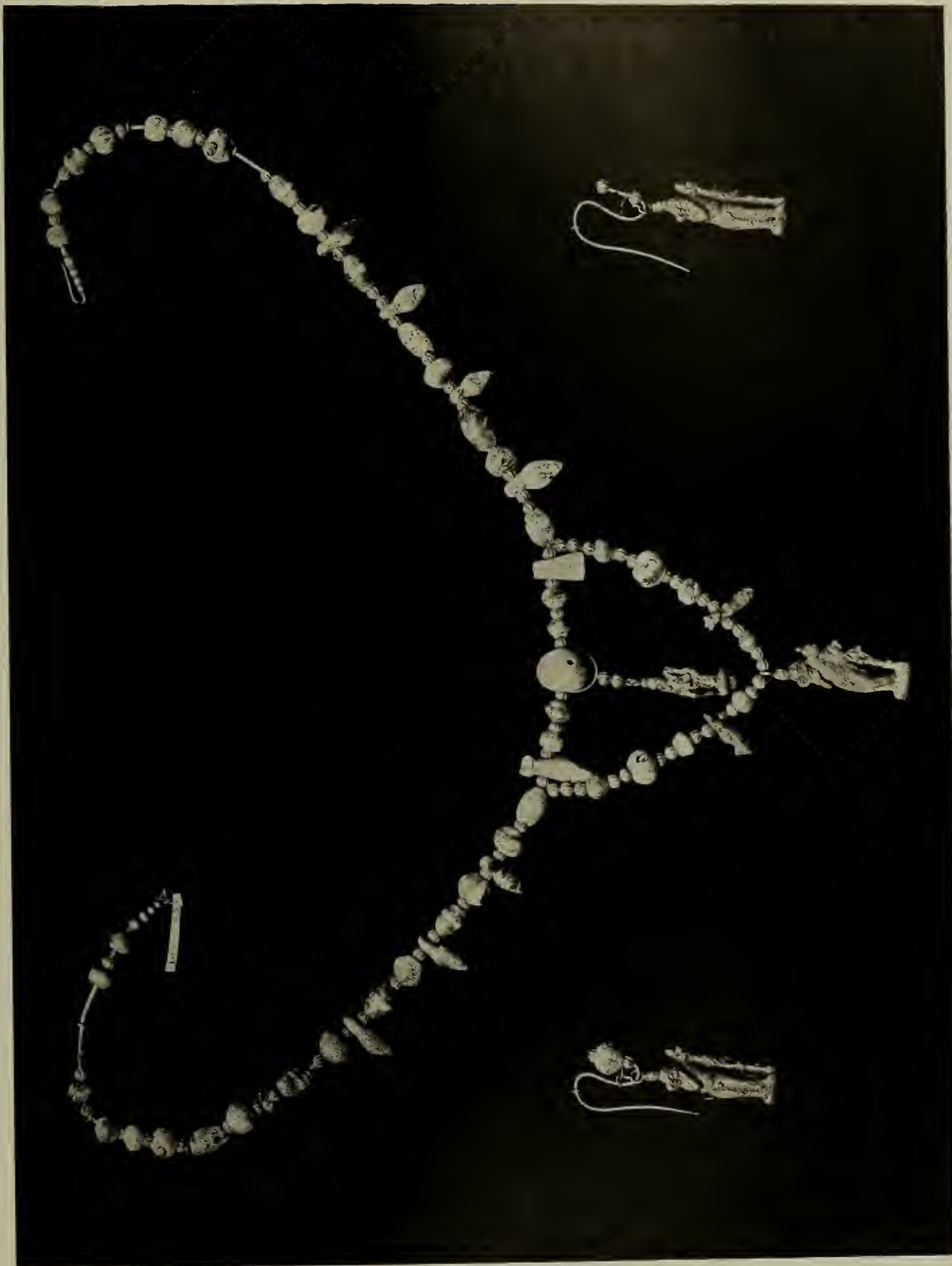
The numerous necklaces of later Ptolemaic and Roman periods show that paste, which had become much more fashionable than in dynastic times, had maintained the same high standard it had reached in the eighteenth dynasty. There was a great trade in paste between Alexandria and Rome. Plate II represents a very effective Egypto-Roman necklace with a pair of ear-rings in the Victoria and Albert Museum. It is composed of blue paste and gold beads strung on a plaited gold chain. The central pendant is a bronze figure, presumably of a god, which is attached to the necklace by a chain. Every third or fourth bead is shaped like an *amphora*, to produce an effect of contrast.

Rings, which appear to be a symbol of a more or less advanced civilization, date from the middle of the twelfth dynasty, some three thousand years before the Christian era. The earliest Egyptian were of the swivel type—that is to say,

the goldsmith hammered a piece of thick gold wire in the shape of a stirrup, so that its extremities became spindle-shaped, the actual ends themselves being spatular. The metal was then bent until the terminal points had sufficiently approached one another to allow the scarab to fit in between them. Holes were then drilled through the spatulæ and the scarab, and a gold thread attached the latter to each extremity, the loose ends of the wire being wound round the hoop just under the holes which had been pierced in it. The scarabs are usually made of carnelian, jasper, onyx, or paste. On the side opposite to that on which the scarab is actually figured are inscriptions in hieroglyphics, which do not suggest that these rings were used as signets.\* The Hermitage Museum at St. Petersburg has one ring in which the paste scarab has an intaglio of a Babylonian warrior. The fact that there was a large trade in paste between Babylon and Egypt has been previously mentioned. When the Egyptians learnt the use of soldering, the scarab was sometimes surrounded by a setting, which later on developed into a regular bezel, still revolving on its axis. Eventually the bezel was fixed and in its turn inscribed with the figures of goddesses and the prenomina of kings.

On account of its decorative value the species of paste mosaic work of the Egyptians, called in later times *millefiori* glass, must not be omitted. It was made by arranging a number of fine glass or paste rods of different colours, so that on being pressed tightly together with their ends level they

\* In the late Sir John Evans's collection, now unfortunately dispersed, were several remarkable specimens of Egyptian paste rings.



AN EGYPTO-ROMAN NECKLACE OF BLUE PASTE AND GOLD BEADS, WITH A CENTRAL BRONZE PENDANT; ALSO A PAIR OF EAR-RINGS OF SIMILAR TYPE



represented the outline of a flower or a figure. They were then covered with a thick layer of glass of a lapis lazuli colour, and the rods and the surrounding glass were heated until they became soft, when the fused mass was drawn out until it was thinned down to the required diameter. By very careful heating each of these rods was equally attenuated when it was pulled out, and therefore the original pattern remained intact when the mass was cooled down. Sections were then cut across it, each being of identically the same pattern, and were mounted in rings, or in pendants for necklaces. The gentle fusion appears to produce a very subtle blending of colour, and suggests rather a finely-painted miniature than a piece of mosaic work. The finest example of this work is a square section in the British Museum, in which there is a kneeling figure of the winged goddess Sate on a background of brilliant blue.

One remarkable point about Egyptian paste is the preservation of its wonderful colour. This is notably so in the scarab recovered from the tomb of Amenhetep II as shown in Plate I. Unlike barbarian specimens from Western Europe, which have been for ages subjected to the disintegrating influence of a damp soil, the Egyptians' mode of burial and an abnormally dry climate and soil have bequeathed to us a paste that shows little or no evidence of deterioration.

### CHAPTER III

## PHŒNICIAN AND GREEK

**T**HE Phœnicians were probably the most important distributors of paste in the history of that material. Some authorities are inclined to think that they filched their art, as they did their gods, from foreign sources. The fact that much of their jewellery, obtained from their colonies rather than Phœnicia itself, shows at first strong evidence of Egyptian and Assyrian, and in later times of Greek influence, seems to justify the indictment. But how could it be otherwise? Phœnicia was in turn a tributary of Assyria, Babylon, and Persia, and there appears to have been no deep-rooted antagonism between her and her various sovereignties. The Phœnicians, too, were on very friendly terms with the Egyptians, who, on the whole, resented the presence of foreigners; they were allowed a settlement in the capital of Egypt, where they could worship their own gods. All this must have necessitated a certain amount of assimilation—an adoption, to a large extent, of outside ideals. Their success as colonizers was largely due to their adaptability.

But they must have actually manufactured paste themselves; for Herodotus, in his description of the temple of



Hercules at Tyre, refers to a wonderful emerald *stelē* (a memorial stone) there, which glowed at night. This was obviously of translucent green paste, in the interior of which was a cavity with a current of air passing through it, so that a lamp could burn there. Theophrastus also mentions an emerald *stelē*—he was certainly under the impression that it was made of precious stone—four cubits high and three wide (six and a half feet by four and a half) that a king of Babylon sent as a present to an Egyptian Pharaoh.

There are many other colossal productions alluded to by old writers, and Froehner refers to a legend, possibly of mediæval origin, that St. Peter himself journeyed to the island of Andros to admire one of these prodigies. All these must certainly have been made of paste, and were probably of Phœnician origin. Such marvels, however, are by no means confined to this nation, for Buschenberger in his voyage round the world came across in a Buddhist temple in Siam the figure of a god, presumably of Buddha himself, two feet high, said to have been cut out of a single emerald. This, too, was obviously of paste. The eyes of the Buddha were indicated by two brilliants worth five thousand pounds.

Then there is the celebrated vase of Sargon the Semitic king of Assyria (722 to 705 B.C.), the father of Sennacherib, discovered during excavations on the site of Nineveh and now in the British Museum. The vase was worked out of a solid piece of light green paste. On one side is engraved a lion and on the other a cuneiform inscription, *Ekal Sharru-ukîn*, which means the "Palace of Sargon."

Among the ruins of Assyrian palaces many blue paste

fragments have been unearthed. At the British Museum, in addition to rings and necklace beads, some of the latter having been originally coated with gold leaf, there is a blue paste tube for eye paints preserved intact. These remnants are not necessarily of Assyrian origin, they may have been imported from Phœnicia or from Egypt, where a similar type has been found. Sargon was the first Assyrian king to come into active conflict with Egyptians. From whatever source these remnants came, their association suggests that the commercial value of paste was, in those days at any rate, as great as that of natural stones and precious metals.

Lastly there is the famous *Sacro Catino*, the emerald dish, out of which our Lord is said to have eaten the Last Supper. After the capture of Cæsarea by the Crusaders in the Twelfth Century, this dish, in the division of spoil, fell to the Genoese, by whom it was eventually pledged for 9500 livres. Later on it was redeemed and placed once again in the church of San Lorenzo at Genoa, where it was guarded by knights of honour, the *Clavigeri*, and with great pomp was exhibited once a year to the faithful. Millions must have knelt before it. At the beginning of the last century, during the Napoleonic war with Italy, the French seized it and took it to Paris, where it was submitted to an expert and pronounced to be a green paste. This, however, did not prevent the new Duke of Genoa, Victor Emmanuel, at the Congress of Vienna in 1815 after the war was over, insisting on the restitution of this remarkable dish to the shrine of San Lorenzo.

The manufacturers of Tyre and Sidon in very early days produced coloured and patterned beads of opaque paste, in

the first instance probably as a means of barter with the uncivilized races, with whom on their extended voyages they came into contact. For Phœnician sailors circumnavigated Africa, starting from the Red Sea and returning through the Straits of Gibraltar. These beads have been found all over Europe, in India, and in certain other parts of Asia. In Great Britain we find them in association with the Druids, but they were especially valued by the natives of the Ashantee coast, where they were known as "Aggri" beads. Other tribes adopted the fashion, and the industry in these beads was continued during the Middle Ages, and even at the present time a few are still made at Venice. Scylax, the geographer, called them "Egyptian stones."

The Louvre and the British Museum have several examples of bead necklaces of various coloured paste, some with gold pendants, others with grotesque masks. Frequently carnelian and agate are mixed with the paste. From these necklaces it would appear that there was a tendency on the part of the Phœnician artificers to abandon the simplicity of the Egyptians and to substitute for it a more complex and somewhat meretricious form of ornament. Yet, in contradistinction to this, there is a very fine necklace from Tharros presented to the Louvre by M. Delessert, who acquired it in Sardinia, a Phœnician colony. It is composed of some forty beads of different colours, among which are interspersed two cylinders, and four masks of bulls. A large bearded human mask, with somewhat grotesque features, forms the central pendant. The whole is in paste. This necklace suggests an art which is not a mere reflection of that associated with the

Euphrates or the Nile ; it has a certain character of its own. The interesting statues of the Lady of Elché and others show that Phœnician women wore necklaces of two or three rows of beads, gradually increasing in size as they fell from the throat to the breast.

A still more striking contrast to the early Phœnician manner is a remarkable necklace in the Castellani Collection at the British Museum, shown in Fig. 1 of Plate III. It consists of eight gold beads ornamented with filigree and granulated work, four large plain gold beads, sixteen narrow gold rings, each of which consists of half a dozen gold globules soldered together. With these are fourteen translucent green paste beads with blue and white spots on them. There is a central pendant in the form of a hollow bearded human head made of blue and white opaque paste. On this head is a gold cap with a dentated border, attached to a gold ring decorated with globules by means of which it is suspended. If this necklace is really Phœnician it is evidence of a distinct innovation in their jewellery. At any rate, whether it is pure Phœnician or Græco-Phœnician, it shows not only an intimate acquaintance with granular and filigree work, but a workmanship that was only surpassed by the Etruscans themselves.

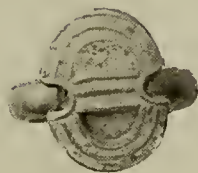
MM. Perrot and Chipiez have in Sardinia come across several paste scarabs of Phœnician manufacture, as well as a large number of paste scraps of the same origin. The material is of a whitish colour tinged with blue. Some of them must have once been pendants in ear-rings or in necklaces and bracelets. The ear-rings worn at this time consisted of a simple metal ring, from which hung various ornaments. But



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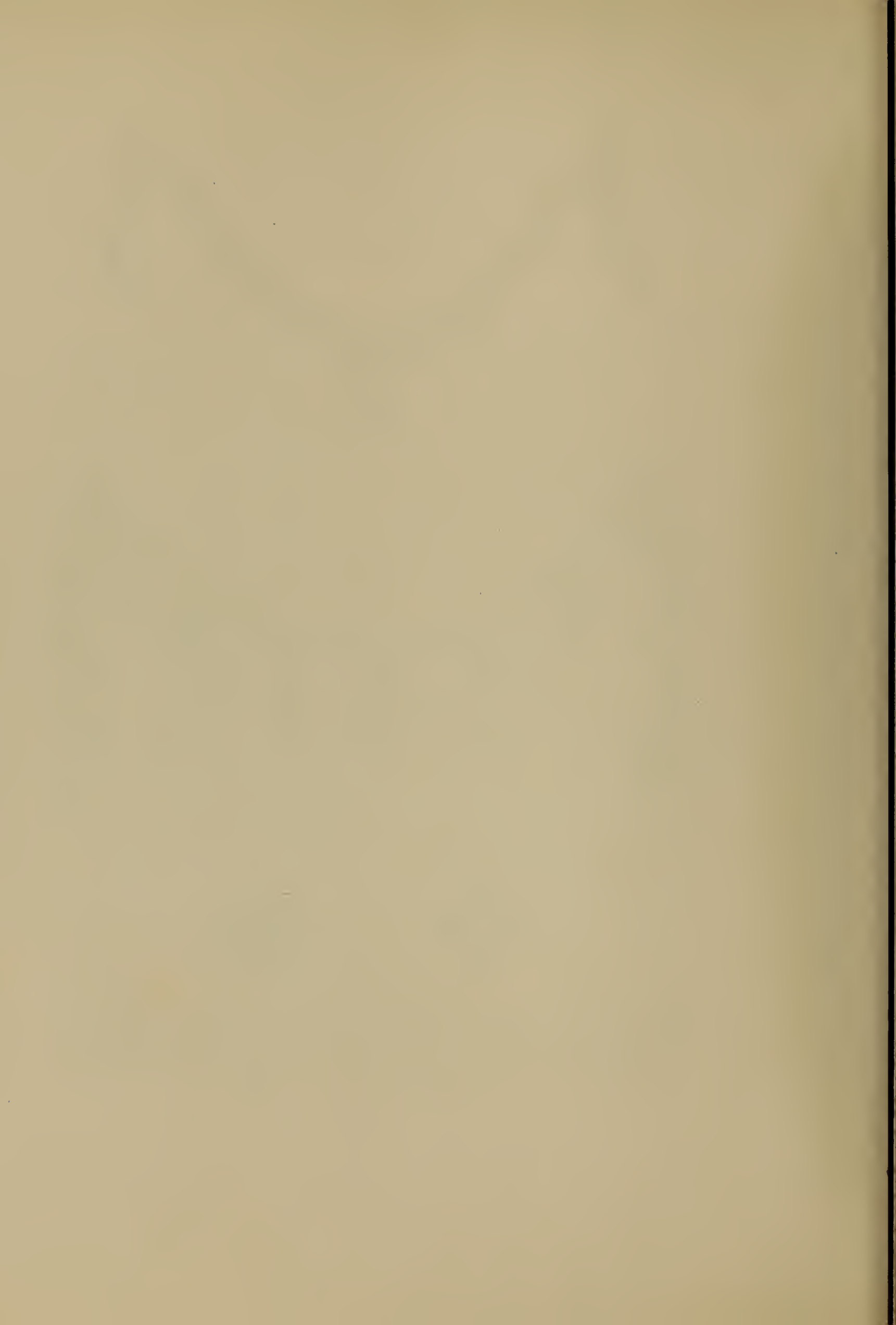


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1. PHOENICIAN NECKLACE CONSISTING OF GOLD BEADS, DECORATED WITH FILIGREE WORK, GOLD RINGS AND TRANSLUCENT GREEN PASTE BEADS WITH BLUE AND WHITE SPOTS ON THEM. THE CENTRAL PENDANT, A HOLLOW BEARDED HUMAN MASK, IS OF BLUE AND WHITE OPAQUE PASTE

2. A GREEK NECKLACE, CONSISTING OF GOLD BEADS, STRUNG IN PAIRS WITH BI-CONICAL CARNELIAN ONES, AND NUMEROUS PENDANTS, AMONG WHICH ARE TWO OF BLUE PASTE PORTRAYING A HAND CLUTCHING AT A WOMAN'S BREAST

3, 4. TWO MYCENÆAN RINGS, SET WITH PASTE REPRODUCING LAPIS LAZULI



the majority of these paste scraps are thin plates pierced by such minute holes that they could only be distinguished when held up to the light. They appear to have been made whilst the paste was soft, and are only large enough to admit the finest of needles (their ultimate destiny), for these plates originally formed part of a jewelled embroidery. They are rarely decorated with any figures, though one, it is true, represents a winged sphinx standing on its hind-quarters and crowned with a low tiara. The majority are ornamented with voluted scrolls, spiral and radiating lines in the shape of a six or eight petalled rosette, and other floral emblems. Similar plates were sewn on to the Mycenæan dresses, a fact which aptly illustrates the Phœnician susceptibility to the stimulation of early Greek art. This is further corroborated by the columnar paste idol in the Louvre, brought from Phœnicia itself by M. Guillaume Rey. It is supported by two curiously-shaped animals and recalls the famous group on the door at Mycenæ. From Tharros and Cameiros have been recovered several rings set with paste intaglios, to which a fuller reference is made later on. One of these has a green paste inset, on which is represented a four-winged figure; another has a winged sphinx delineated in black paste, both designs showing a distinctly Oriental influence.

Presumably introduced by the Phœnicians, paste must have had a considerable vogue in the Mycenæan or Ægean period, for prodigious quantities have been found in spots where the art was practised. The Spata tomb alone yielded thirteen hundred paste ornaments, of which eighty were of exactly the same pattern. This similarity of design is explained by the

fact that these early Greeks cast their paste in moulds incised in such hard rocks as basalt and granite, several different moulds having been found on the same block. The process of reproduction, therefore, was more or less rapid. The paste itself is translucent and invariably white or blue, its chemical composition being practically the same as that of the Egyptian. The style, too, remotely suggests the same origin, though the actual productions show an essentially native inspiration. The old conventional forms were abandoned, and new ideals introduced. The designers went straight to nature for their models. Paste, as a form of ornament, was no longer confined to the decoration of necklaces and bracelets; its possibilities were further exploited. A considerable number of paste squares—the idea was probably adopted by the Phœnicians—with the same fine holes to enable them to be stitched on to a dress—have been found in many tombs. On some of these the features of gods and goddesses are delineated; on others purely human forms. Possibly they served the double purpose of an amulet and a dress trimming. But the majority of these plates suggest that the designs were inspired by naturalistic objects. These Mycenæan artists favoured rosettes representing different flowers, especially palm blossoms and lotus buds; bees and butterflies appealed to them, but marine forms of life appear to have delighted them above everything else. In many of these scraps fishes are seen swimming in the open sea; in others there are various forms of shell-fish, gasteropods like murex, bivalves like the oyster. Several reflect the preference for the inflected and parallel lines, so conspicuous in other branches of Mycenæan art.



The paste plates were found in association with gold ones, and were possibly used as fillets for the hair as well as for the jewelled embroidery, which was apparently worn by both sexes. Paste buttons, too, must have been very fashionable at this time, a very thin gold leaf being often impressed upon them—possibly for some princely parade or public festival—to accentuate the design presumably, or to heighten its general effect. No distinction seems to have been made between the actual gold plates and the paste ones. Curiously enough, in those early days—some 1500 years B.C.—paste was mainly relied on to procure a colour effect, the brighter coloured stones being still practically unknown, though carnelian is frequently used in necklaces. These paste scraps were sometimes strung with beads of gold and carnelian in necklaces and bracelets. A later development of this is illustrated by a handsome necklace (Fig. 2, Plate III) in the Gold Ornament Room in the British Museum. It is composed of twenty-five gold beads, strung in pairs, alternately with the same number of biconical carnelian ones. Hanging from the necklace are twenty-six pendants, the majority of which are hollow pointed oval gold drops, with five hollow pear-shaped gold ornaments, representing a right hand grasping a woman's breast, each of which is topped by a carnelian, whilst below is attached an olive-green acorn. In striking contrast to these gold pendants are two of blue paste also portraying a hand clutching at a woman's breast. In the same case are four finger-rings with vivid blue paste insets reproducing lapis lazuli. They are probably late Mycenæan. In two of them the hoop is composed of a thin gold plate turned up at each end so as to form

a groove, which is filled with blue paste. This is quite an innovation, at any rate as regards Egyptian models. In another (Fig. 4, Plate III) the hoop is doubly grooved, the loops at either end being interlaced in the form of a *nodus Hercules*. The grooves are filled with strips of the characteristic paste, now missing in several places. The fourth (Fig. 3, Plate III) is a somewhat different type of ring. The hoop is plain and rounded on the outside with a bezel in the form of a Bœotian shield, divided into *cloisons*, filled with the same blue paste. These rings were pure ornaments, and were not, as among the early Romans, emblems of rank or office.

To what is called the Græco-Phœnician period belong quite a large number of rings with paste insets that are "engraved," using this term in its widest sense. The knowledge of gem engraving was probably acquired from the Phœnicians, who were undoubtedly acquainted with the glyptic art through their association with their Babylonian and Egyptian masters. The paste of this period is not so restricted in colour as it was in the Mycenæan age; practically all shades of green were used as well as the previously unique blue. The subjects of the intaglios show a felicitous variety, but animals and birds predominate. In Plate IV is shown a typical paste scaraboid in the British Museum collection of engraved gems. The Egyptian scarab was, with the Greeks, replaced by the scaraboid. The intaglio represents an eagle devouring a hare; a second eagle stands watching.

Now these intaglios were moulded, and not engraved with graving tools, though paste is just as suitable a material for engraving as carnelian or lapis lazuli. The intaglio was



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1. GRÆCO-PHŒNICIAN PASTE SCARABOID WITH AN INTAGLIO OF AN EAGLE DEVOURING A HARE, A SECOND EAGLE STANDS WATCHING
2. ANCIENT GREEK GOLD RING WITH EMERALD PASTE INSET. THE HOOP IS FORMED BY TWO FIGURES OF ATYS IN HIGH RELIEF RESTING ON THREE ACANTHUS LEAVES
3. ANCIENT GREEK PENANNULAR *ARMILLA* OF SOLID DARK BLUE PASTE. AT EACH END IS A GOLD RAM'S HEAD



probably produced in this way: A small mould, possibly of stone, was filled with damp, finely-powdered earth, such as that which is known as *Tripoli*, which had been intimately mixed with some plastic clay. The really engraved intaglio was pressed on to the surface of this mixture, and an impression of its design was left there in relief. The matrix was slowly dried and became quite hard; a piece of paste of the required size was then placed over the relief. The mould was heated until the paste just began to melt, when the latter was gently pressed down, with a flat-headed tool coated with a substance like powdered steatite—which was well known to the ancients—to prevent the paste adhering to the pressing instrument. In this way the paste in a molten state received a hollow impression of the matrix in relief—that is to say, it was an exact fac-simile of the original intaglio. It was slowly cooled down, perhaps touched up with a graving tool if the impression was not quite sharp, and then cut and polished like an ordinary natural stone. These pastes obviously contain a high percentage of silica, for all will scratch window glass, which the modern variety will not do.

One remarkable feature of this early Greek paste jewellery is the absence of symbolism and formality. It shows a spontaneity of imagination in striking contrast to the conventional productions of Egypt and the near East. These early Greek artists appear to have evaded the difficulties of foreshortening and perspective by an ingenious disposition of their outlines so that they occupy every bit of available space. There is nothing rigid in their designs; on the contrary, one is conscious of a sense of free movement. The fish in the

paste scrap looks as if it could swim; the eagle in the intaglio could certainly fly.

In later days, when Greek art reached a pre-eminence never afterwards attained by any other nation, paste must have continued to find favour with these unique goldsmiths, who, as Eugene Fontenay says, instead of conforming to the public taste, attempted to elevate it by their personal creations. The Vatican Museum possesses a wonderful laurel crown, with leaves of thin beaten gold tapering off on either side to a single stalk. The laurel berries are made of green paste of slightly different shades. What makes the crown so striking is its perfect form and simplicity. In Plate IV is shown an ancient Greek penannular armilla of solid dark blue paste (in the Victoria and Albert Museum), to each end of which is attached a gold ram's head, with fine filigree work in the shape of honeysuckle ornament. Unfortunately, owing to the continual rifling of tombs, there is very little jewellery preserved belonging to the fifth century B.C. The superb specimens unearthed in the Crimea at the beginning of the last century makes this scarcity all the more deplorable. In the same museum too there is a handsome reproduction by Castellani of one of the necklaces found in the Crimea and now in the Hermitage Museum at St. Petersburg. It is composed of eighteen heads of Io in wrought gold. The strands of the hair of each head parted in the middle end in curious horns. In each ear is a movable ear-ring and round each neck is a band of filigree work, whilst the individual heads are suspended from a broad band by gold rings and beads of mottled blue paste. This necklace is indicative rather of the fine

workmanship of the ancient Greeks than of their sense of form, which is so prominent a feature of the Vatican masterpiece.

Engraved paste rings, as well as paste rings with handsome decoration on the hoop itself, must have had a great vogue among the inhabitants of Greece from Græco-Phœnician times until Græco-Roman times, as is shown by the number of them preserved in almost every collection. In Plate IV is represented a very remarkable later Greek ring, preserved in the British Museum. The hoop is formed by two figures of Atys, in high relief on each side, resting on three acanthus leaves. Atys is seen kneeling down, his right hand raised, and his left hand holding some fruit. He is wearing a Phrygian cap and the typical *chiton* and *chlamys*. Rising in the form of receding steps behind the heads of Atys is the oval bezel, set with a handsome emerald paste. The fact that such beautiful work—and this is only one example among many—is associated with a paste inset, suggests that such rings were not “for the multitude,” which the Roman ones, in the days of Pliny at any rate, appear to have been.

## CHAPTER IV

### ETRUSCAN AND ROMAN

FROM the earliest Etruscan tombs, such as those of Veii and Cervetri, has been recovered a simple Oriental style of jewellery consisting principally of gold and silver necklaces and bracelets with insets of coloured paste. But still more characteristic of this period, presumably contemporaneous with the third invasion of Central Italy by the Tyrseni anterior to the fifth century B.C., are the bronze *fibulae* associated with amber and coloured pastes, some rare specimens of which are in the Palazzo Bentivoglio at Bologna. This primitive jewellery was succeeded by a type quite different in style, and remarkable for its exquisite workmanship. The materials employed in the ornamentation of the metals—gold, silver, and bronze—are confined still to amber and coloured pastes. The jewellery itself is distinguished by the purity of its design and harmonious treatment of its details. These early Etruscans between the fifth and third centuries developed the art of granulation and filigree work to an extraordinary degree. In the opinion of Alessandro Castellani, the great expert in jewellery, their achievements were never afterwards attained by any other nation.





1. EARLY ROMAN *ARMILLA* CONSISTING OF NINETEEN RUSTIC CROWNS, THE ENDS OF THE LIMBS BEING SET WITH OPAQUE BLUE PASTES.  
IT SUGGESTS ETRUSCAN INSPIRATION.

2. AN ETRUSCAN NECKLACE OF BLUE PASTE, PLAIN AND GRANULATED GOLD BEADS WITH AMBER AMULETS



The Princess Canino, in the " 'forties" of the last century, appeared at a reception at one of the Embassies in Rome, in a *parure* of Etruscan jewellery, which was the envy of Society, and quite eclipsed the *chefs d'œuvre* of Paris and Vienna.

The filigree work consists essentially of fine gold threads, plaited into chains and other combinations, or they are worked singly into various patterns and figures and soldered on to a flat surface. The granular method is the utilization of minute grains of gold placed close together over a flat surface, either as a pure form of ornament, or as a means of representing the hair in figures.

The famous mask of Dionysus in the Louvre is a remarkable example of the simultaneous use of the two processes. The curls of the hair over the forehead are in filigree, the hair on the crown of the head is in granulated work. An excellent example of the subtle dignity of the best Etruscan work is illustrated in Plate V, a necklace in the Webb Collection at the Victoria and Albert Museum. This necklace is formed of twenty blue paste beads, separated at equal distances by eleven plain and granulated gold ones, with nine amber amulets, which, with the exception of two, are somewhat damaged.

In Fig. 1 of Plate VI is shown another necklace of this period—about 700 B.C.—preserved in the Gold Ornament Room at the British Museum. It is made up of two gold beads in the form of truncated cones, covered with granulated designs, ten gold pendants, in the form of a woman's head with curly hair falling down on each side, also in granulated work, and a

dozen beads of light blue porcelain. In the centre is a pendant of a ram's head in white, blue, and yellow opaque paste. A lady of quality on an Etruscan sarcophagus is represented as wearing a very similar necklace, also with a ram's-head pendant.

In the same collection are a pair of armlets of gold-plated bronze. The plain massive hoop terminates at each end in a ram's head with finely-chased details. Round the neck of each ram is a wreath of leaves. The eyes are indicated by green paste, and the leaves appear to have been treated in the same way.

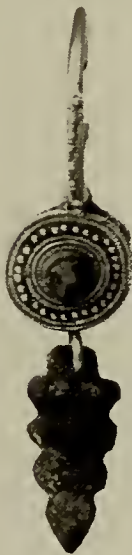
In the Museo Civico at Bologna there are several similar necklaces containing amber and paste beads, the pendants being usually of blue, though there are a few of green paste. The same perfection of workmanship is shown in the somewhat massive Etruscan ear-rings, frequently containing paste. But perhaps the most popular ornaments were the rings—every finger, even the thumb, being loaded with them—a number of excellent specimens of which with paste insets are in the Castellani Collection. Fig. 2 of Plate VI illustrates a typical gold Etruscan swivel ring found at Bolsena. It has a large hollow hoop ending at each end in three concentric circles, with a loop projecting below. The upper part of the outer circle has five little bosses of granulated work. A large paste scarab, reproducing onyx, originally revolved on a wire, attached in the Egyptian fashion to the ends of the hoop, on which it has now slipped. On the scarab itself is a moulded design—Hercules, with drapery thrown over his arm, leaning on his club, and carrying a cornucopia. Speci-



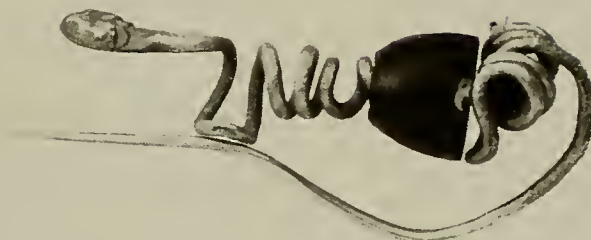
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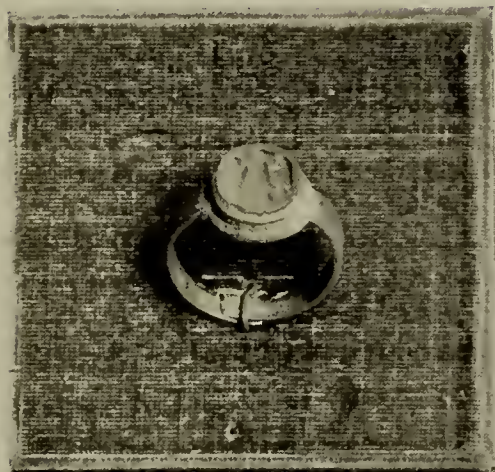
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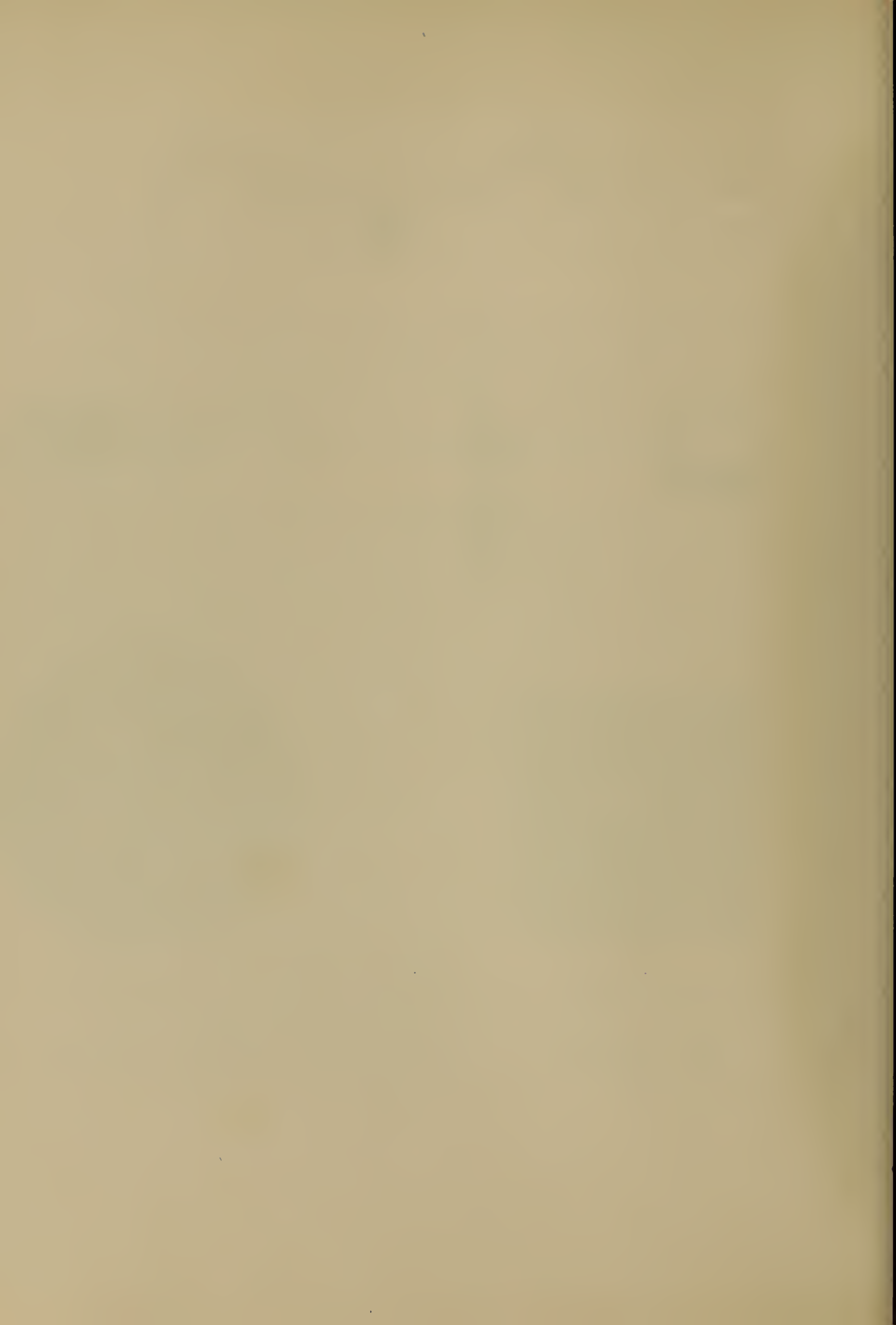


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- 1. ETRUSCAN NECKLACE WITH RAM'S HEAD PENDANT IN WHITE, BLUE AND YELLOW OPAQUE PASTE
- 2. ETRUSCAN SWIVEL RING, WITH PASTE SCARAB REPRODUCING ONYX
- 3. EARLY ROMAN EAR-RING WITH BLUE PASTE PENDANT
- 4. EARLY ROMAN BRONZE GILT *FIBULA*, CONSISTING OF COILED UP SERPENT, IN THE MIDDLE OF WHICH IS A BLUE PASTE BEAD
- 5. ROMAN BRONZE RING SET WITH PASTE REPRODUCING AMETHYST, ON WHICH IS AN INTAGLIO OF AN EAGLE
- 6. ROMAN GOLD BROOCH WITH SETTINGS OF PASTE GARNETS AND SAPPHIRES. (ENLARGED)



mens referred to the days of the later Etruscans, though still reflecting the previous Greek and Oriental influence, show a striking deterioration. They are mainly distinguished by pretentious design and an exaggeration in size.

It is curious that the two eras connected with the finest productions in the history of jewellery—that of the Etruscans and that of Louis XV—should also be both intimately associated with paste. In the one amber and paste were apparently the only jewels known, in the other paste reached its apogee of refinement. In each case the jeweller's actual workmanship was especially notable.

In the early and strenuous days of the Roman Republic the wearing of ornaments was more or less confined to officials, whilst the use of precious stones was, except in rings, absolutely forbidden. Consequently the majority of Roman paste productions belong to the time of the Empire, which is associated with a luxury probably only exceeded by the Persians in the days of Alexander the Great.

The early Romans were undoubtedly inspired by the Etruscans whom they conquered. The bracelet or *armilla* (shown in Plate V) preserved in the Webb Collection at the Victoria and Albert Museum suggests this. It is formed of nineteen rustic crowns, the ends of the limbs being set with opaque blue pastes. At one end of this armilla is a loop decorated with granular work. This same Etruscan influence is further illustrated by a gold ear-ring decorated with coarse filigree and granular work (Fig. 3, Plate VI) among the treasures in the Gem Room at the British Museum. To the ring is attached a disc formed of concentric circles in gold wire

and globules. From this disc hangs a long ribbed pear-shaped piece of blue paste. There is a very interesting bronze-gilt *fibula* in the same collection (Fig. 4, Plate VI), probably of a later date, which suggests, on the other hand, a Greek inspiration. It is formed by a coiled-up serpent, in the middle of which is set a large conical bead of blue paste. At the end of the serpent's body is a two-sided spring where the pin is attached. The pin is caught by a double hook formed by a loop of the snake's body near its head. It was found in the Tiber at Rome.

In Pliny's time, the middle of the first century A.D., all the precious stones then known—sapphire, emerald, ruby, topaz, opal, garnet, etc.—were reproduced in paste, and with such skill that even an expert, without testing the hardness, was embarrassed when asked to distinguish between some of the pastes and natural stones. This applied especially to emeralds, whose hardness is not very much greater than that of a paste rich in silica. The Rev. C. W. King, the well-known connoisseur, referring to these antique paste emeralds, wrote: "One I have seen at Rome that had been re-cut and set in a gold ring that eclipsed in beauty almost every real stone of the kind." Nero himself used to watch the gladiators' struggles through a slab of emerald, presumably to shelter his eyes from the sun. Now this must obviously have been of paste, for the natural emerald is doubly refracting, and he would have seen two dim images of every object he looked at. In the Monza treasure is a pale blue paste cup, which was for a long time regarded as being made of an actual sapphire.



In the simple gold brooch shown in Fig. 6, Plate VI, also to be seen at the British Museum, of the four settings on the broad rim which remain filled out of the original eight, two contain paste garnets and two paste sapphires. During the first three centuries of the Empire there was a great trade in paste between Alexandria and Rome. Part of the tribute paid by Egypt to the Emperor Aurelian was in paste, which consisted principally of reproductions of turquoise and lapis lazuli. To the latter half of the second century A.D. may be referred the famous Bonus Eventus panel in the British Museum. On this thick panel of lapis lazuli paste (shown in the frontispiece) is a three-quarter figure in half relief of a naked youth holding a cornucopia. It has not been cast, but has been worked all over with a wheel, or some such instrument, in the same way as a cameo is handled. For a long time it passed as a precious stone. The workshops of Alexandria, according to M. Froehner, were responsible at this period for many similar masterpieces in paste.

Then there is the well-known and ill-fated Portland Vase, also in the British Museum, which for a very long time had been mistaken, on account of its different coloured layers, for a natural sardonyx. It is in the form of an amphora ten inches high, made of an intensely deep blue paste, decorated with a series of opaque white paste figures in relief. The interpretation of the subject is doubtful. That on the obverse, with a woman seated and approached by a lover led by Eros, is supposed to represent Thetis consenting to be the bride of Peleus in the presence of Poseidon. That on the reverse, with a sleeping figure and two others, is said to be Peleus

watching his bride asleep while Aphrodite presides over the scene.

It must have been made somewhat in this way. The vase itself was moulded or worked from a block of blue paste, then covered with a layer of the white opaque material. The two handles of blue paste were afterwards added, as the base of each handle rests on a layer of white. The white layer was then carved in the manner of a cameo, for in spaces between the reliefs the whole of the white layer and part of the blue was removed, and the surface subsequently polished. In certain places, as, for instance, just above the god Eros, a part of the design that is seen in relief is in deep blue. It was found in a marble sarcophagus of the third century A.D., supposed to have been that of the Emperor Alexander Severus in the Monte del Grano, near Rome. It was formerly in the Barberini palace.

Possibly the celebrated table of Solomon, so called by the Orientals, who attributed any abnormal work of art to that king, may belong to this period, though like the *Sacro Catino* previously mentioned, it may have been of Phœnician origin. This table, of considerable size, and enriched with several rows of fine pearls and much massive gold work, was undoubtedly made of green paste. It was part of the Moors' plunder from the Gothic treasury after the conquest of Spain, and it was considered as having been cut out of a solid emerald, while its value was estimated at five hundred thousand pieces of gold.

The elder Pliny in the first century of the Christian era writes of "paste gems for the rings of the multitude."

Certainly many hundreds of rings with paste insets have been recovered, but fortunately they do not all come under this unfavourable category. On the contrary, there are some of singular distinction and refinement, notably a bronze one in the Waterton Collection at the Victoria and Albert Museum, shown in Fig. 5, Plate VI, set with a paste reproducing amethyst on which is an intaglio of an eagle.

## CHAPTER V

### BARBARIC PASTE IN WESTERN EUROPE

**I**N neolithic times the use of paste for necklaces and bracelets seems to have been more or less general in Western Europe and in Britain. In the latter country it is natural, as the Phœnician trade with the Britons dated from a very remote period; but that the lake-dwellers in Switzerland had paste necklaces and bracelets, very similar to those of ancient Egypt, is more significant. It shows that Egyptian influence, developed by means of Phœnician caravans, penetrated into the very heart of Europe. From Wauwyl, a little reedy moorland lake in the canton of Lucerne, have been obtained bluish-white paste beads, which, when held up to the light, appear a honey-yellow colour. Similar beads have been found in Egypt referred to a very early dynasty.

This was essentially another age of paste. After the Roman conquest the type of bead obtained from the British tombs was necessarily that introduced by the conquerors, which is found in association with the Anglo-Saxon variety. Thousands of semi-translucent and opaque paste beads have been recovered from Saxon burial mounds. Those of medium size, probably of native manufacture, are rounded, conical, flat, square—in fact, of every possible shape and

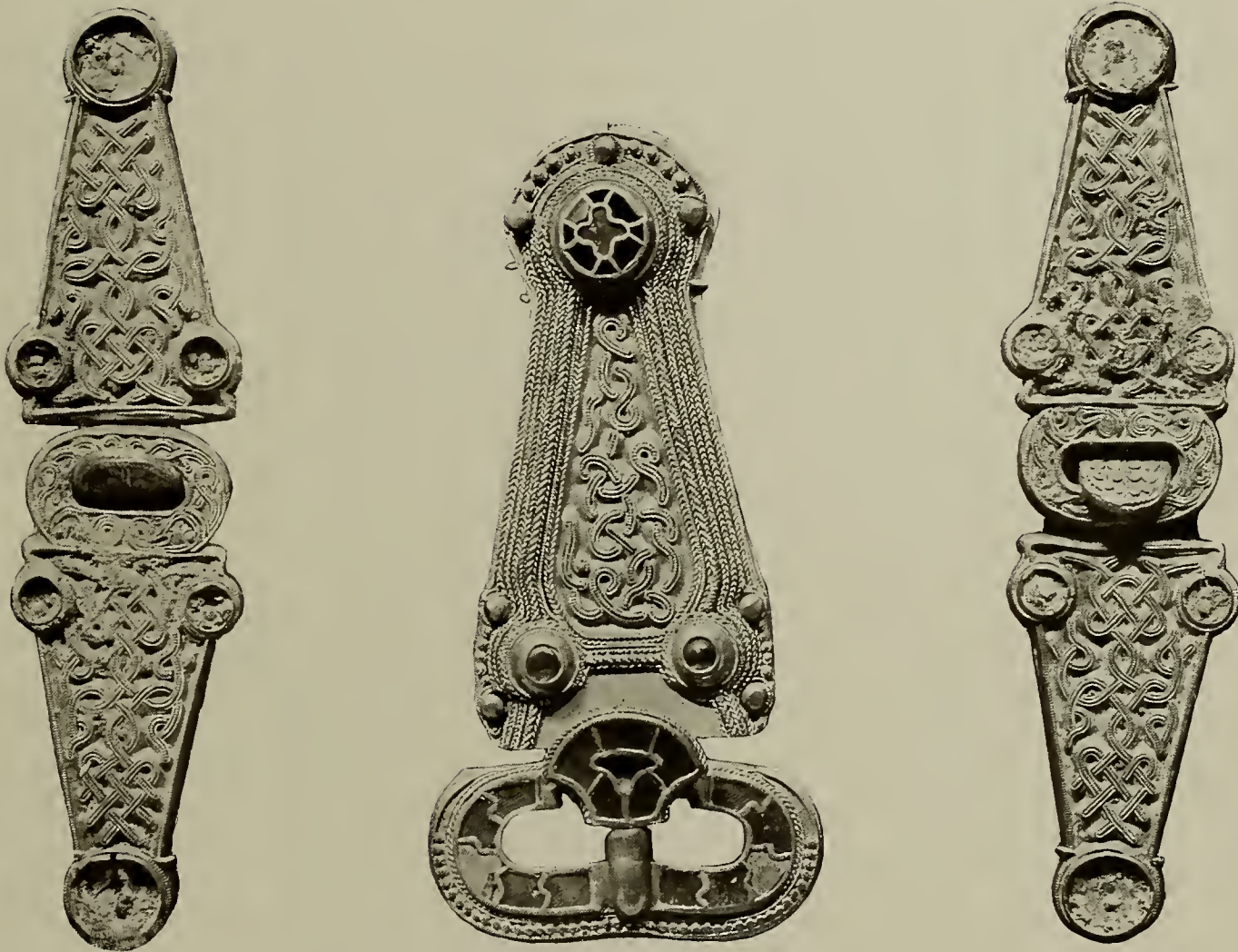
pattern. As regards the pattern, however, the *chevron*, or zigzag, seems to have been very popular, as were the plain blue cylinders. The beads vary as much in colour as in form, the few large specimens found being of foreign origin. Necklaces were apparently worn by both sexes. With the paste were frequently associated beads of amber, brought in the first instance by the invading Jutes in the middle of the fifth century from their northern homes. These paste beads are by no means exclusively English, for similar types have been recovered from many northern graves, notably from those in the Russian Baltic provinces.

Five cowry-shells (*Cypræa Europæa*) were found in one necklace from the Yorkshire wolds, which consisted of more than two hundred beads, one-third of them being paste. This is reminiscent of Egyptian predynastic days. The position of the beads when found suggested that it was originally a three-stringed necklace. The pendants were of bone, jet, paste, and sometimes of thin rounded bronze plates, whilst one of the wold-dwellers' graves yielded a round gold *bullæ*, very similar to the well-known Etruscan type. But the most remarkable and by far the most interesting are the examples of later Anglo-Saxon jewellery; for in these is evident the curious metamorphosis from mere barbaric baubles into genuine works of art. "The force of Anglo-Saxon genius compels recognition," says Baron de Baye, "and constitutes one of the most striking features in the physiognomy of the barbaric nations. In no part of Europe of the fifth or sixth centuries do we find, within so small a limit, so many distinct models or so many perfectly indepen-

dent creations." Undoubtedly the later Anglo-Saxon goldsmith was renowned throughout Europe for the rare beauty of his jewellery. As examples of this, the *fibulae* and the buckles are the most striking. Originally the *fibulae* were quite simple, consisting of a plain ring crossed by the *acus*. They were formed of one piece of metal, and were unadorned with pastes or natural stones. Later on they were covered with decorations, often complicated, occasionally verging on the grotesque, and were frequently set with coloured pastes. So numerous were they and so varied in form, that they have been divided by authorities into different groups bearing such names as radiated, cruciform, bird-shaped, annular, S-shaped, circular, etc. Some of them, such as the radiated and bird-shaped, in which a bird like a dove, set with blue and white pastes, is represented, are said to have been imported from the Continent, whilst others, such as the cruciform and circular, are peculiar to England. The last-mentioned class, prevalent in Kent, is ornamented with cells in stars and circles, bosses and chased work. Many of them are extremely handsome, a striking individuality being the dominant note in all. In Plate VII is represented an excellent example of a silver-gilt circular *fibula*, with an iron *acus*, in the Gibbs Collection at the British Museum. The surface is set with garnets and white pastes, disposed in a triangular fashion round a circular cell containing the same coloured paste. The metals used in these brooches are usually bronze and silver, both generally gilt. Garnets, red and blue pastes, appear to be the only gems employed in their ornamentation. Some of the cruciform *fibulae* are



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1. ANGLO-SAXON SILVER-GILT CIRCULAR *FIBULA*, SET WITH GARNET AND WHITE PASTES (ENLARGED)

2. A GOLD BUCKLE AND TWO PAIRS OF CLASPS SET WITH GARNETS AND GREENISH-TINGED PASTE, WHICH IS MISSING IN MANY PLACES





decorated with grotesque heads of animals and fanciful designs, with an occasional introduction of the cross. Underneath the garnets and coloured pastes--there appears to have been no discrimination at all in the use of them--in some instances "chequered gold foil is laid to heighten the effect." *Fibulae*, which, like the *bullae*, are indicative of high social rank, must have been very fashionable among the later Anglo-Saxons, since as many as five have been associated with a single burial. A curious type of larger paste beads has been recovered from Saxon tombs, which resembles, both as regards the actual material itself and its treatment from a decorative point of view, the necklace variety; its shape, however, is different. It is hemispherical, the rounded side being the only one that is covered with any ornament; the reverse surface is plain. M. de Baye thinks that this arrangement clearly indicates that the bead was intended to be attached to the clothing, in which case the decorated side would be the only one visible. This suggests an unconscious reversion to the use of paste squares of Mycenæan days. In the centre of the bead is a large hole, which would facilitate its attachment to any garment. Others are of the opinion that it is a species of amulet or button, which superseded the *fibula* for fastening clothes. This suggestion is supported by the fact that *fibulae* and this class of bead have never been found in the same grave. The beads themselves are about two inches in diameter; some of them are blue and transparent with opaque white designs, others have a black background radiated with yellow lines. They are exclusively associated with the burial of women.

Almost as numerous as the *fibulæ*, and stamped with an equal individuality, were the buckles worn by the Saxons, Franks, and by most of the Teutonic races. They were used as fastenings for the belts or girdles, from which hung swords, knives, and other weapons. Such a sword-belt was worn by all the troops from the north that invaded the Roman Empire. In England they are found principally in Kent and in the neighbourhood of the coast and rivers. They are made of bronze, silver—both gilt—and occasionally of gold; they are decorated with filigree work and with coloured pastes and precious stones, still indiscriminately mixed. A very handsome one in silver-gilt, with a gold casing, surrounded with two rows of fine gold chain work, was found at Sandwich in the “’thirties.” An excellent, though a somewhat rare, example of a gold buckle and two pairs of clasps set with garnets and pastes, almost colourless save for a faint suggestion of green, found at Taplow, and presented to the British Museum by Mr. Charles Whatley, is shown in Plate VII. In many places the paste is missing.

Anglo-Saxons also wore bronze rings—perhaps once gilt—set with pastes, examples of which are in the Gibbs Collection. Frankish and Saxon tombs too have yielded several types of hairpins, varying in size and in form. The small ones end in rounded heads of coloured paste and stones, whilst the heads of the larger ones, also set with paste, are more ornate, sometimes shaped like a bird, a typical Gothic form of ornament. These pins, frequently silver-gilt, suggest that they were alike objects of adornment and utility. The ear-rings of the period, which are not so numerous, con-

sisted at first of a simple metal ring, to which was attached a fragment of amber or coloured paste. Somewhat later the shank of those worn by Merovingian ladies ended in a species of button, usually set with garnets and red paste, and occasionally with little bits of ivory.

Frankish and Merovingian *fibulae* and buckles are very similar to the Anglo-Saxon, but on the whole their design and workmanship are inferior. With the exception of a gold signet-ring, which had a large bezel of the same metal, every article of jewellery (which included *fibulae*, buckles, and a bracelet) recovered from the Tournai tomb of Chilperic, the founder of the Merovingian dynasty, was ornamented with paste. But the most curious find of all was a bracelet made of one solid piece of black paste, a type of bracelet usually associated with classic or even Celtic times.

The source from which the Anglo-Saxon artists drew their inspiration is somewhat speculative. It was, at any rate, an abrupt rejection of Roman models. It was derived in all probability from the East. The "treasure of the Oxus," found nearly forty years ago in Bactria, proves that a felicitous blending of Oriental and classical ideals existed four centuries before the Christian era. Typical of the artistic value of this treasure are the two penannular gold bracelets, one in the British, the other in the Victoria and Albert Museum. At the ends of the bracelets are Assyrian-like gryphons, the wings and bodies of which abound with *cloisons* originally containing coloured pastes or stones. Then the "Petrossa treasure" shows that the jeweller of Eastern Europe had

achieved great things a hundred years before the Saxons landed in Britain. This treasure was discovered in 1837 by some Roumanian peasants in the Carpathians. They kept it secret for a year, then confided in an Albanian mason. This ruffian, fearing that it would be seized as treasure trove by the Roumanian Government, broke up a large portion of it for the sake of the gold, throwing away the majority of the stones, which he regarded as worthless. Some of these stones, however, found a temporary refuge in a manure heap, from which they were fortunately recovered by some children who handed them over to their parents. The remnant of this treasure was eventually collected and now resides in the Bucharest Museum. It includes three bird-shaped *fibulæ* and a handsome gold gorget or neck-plate, set with garnets *en table* and coloured pastes. One curious point observed is that the garnets and pastes are both backed by a gold foil.

Though a renunciation of Roman ideals is evident with, at any rate, the later Anglo-Saxons, on the Continent this disavowal is not so obvious, since a large number of paste rings recovered from tombs in the Namur districts show a distinct susceptibility to Roman inspiration. Coincident with the decay of Rome, the art of engraving deteriorated, until, about the fifth century, it practically ceased to exist, except perhaps in Constantinople. But the Franks, having succumbed to the fascination of engraved gems from their contact with Romans, attempted to revivify the art in their own particular way. From the fourth century until the time of Charlemagne, M. Babelon says, paste cameos and intaglios replaced

the more difficult glyptic art. The Barbarians must have acquired the knowledge of the manufacture of paste from the Romans, and introduced it into their native country. In the Reichenau monastery above Chur, in the Rhine Valley, is a paste emerald weighing  $28\frac{3}{4}$  lb., said to be a present from Charlemagne. It is quite possible that some of the jewels of the sword of this celebrated Emperor of the West preserved in the Imperial Museum in Vienna are of paste. Their attempts were more or less confined to the reproduction of sapphires, emeralds, and garnets, which were backed by a silver-gilt foil to produce an internal reflection, and hence to increase their brilliancy. As regards the last of these gems they were so successful that experts have the greatest difficulty in distinguishing between the replicas and the natural stones. This can be easily understood, when it is realized that the hardness of garnet is 7.25, that of quartz (the principal constituent of paste) being 7, and at the present moment a paste is made which contains nearly a hundred per cent of quartz. Then as regards colour, paste in this respect is often superior to the natural stone it reproduces. In fact, one suspects that in a large proportion of barbaric jewellery, garnets, especially those with silver-gilt backings, are really paste. In the museum at Namur is a wonderful collection of rings set with different coloured pastes. The Franks and Merovingians not only reproduced gems, but also the art of "engraving." Their cameos and intaglios, however, were not moulded like the Roman and, later on, Tassie's, but were obtained by pressing either a natural cameo or an intaglio on to the paste while it was warm, and therefore soft enough to be capable of

receiving an impression. Thus an intaglio laid on the paste yielded a cameo in the latter, just like the production of a crest in sealing-wax with an ordinary signet-ring; whilst an intaglio under similar conditions resulted in a cameo in the paste. One of the most interesting rings in this collection is from the tomb of a Frankish warrior at Suarlée. The hoop is made of moulded gold, the rim of which is finely granulated. The bezel, which contains a layer of pale blue paste laid on one of a darker blue, has, where it joins the hoop, four gold globules attached to it in the Etruscan fashion. On the top stratum, whilst still warm, an intaglio was pressed, which produced a cameo, the superficial parts of which are light blue, the deeper parts being of the darker shade. The cameo represents a woman making a sacrifice to some god. Close to the body were found eight gold pieces of money coined in the reigns of the Roman emperors Valentinian (364-375) and Honorius (395-423), which more than suggests that the warrior died during the first half of the fifth century. In the same tomb was found a gold ring, which evidently fitted on to the little finger, the bezel containing a small paste, reproducing perfectly a table garnet. This ring, too, had four gold globules where the bezel joined the hoop. From Spontin, also in the Namur district, this time from the tomb of a Frankish lady of rank, was recovered a beautiful ring of hammered gold with granular ornamentation. The same Etruscan-like gold globules are on the square bezel, which encloses a handsome emerald paste. On the neck of the same lady was found a necklace of different coloured pastes. These rings are only examples of many



THE RECCESVINTHUS AND FOUR SMALLER CROWNS, WITH THREE CROSSES





found in Frankish tombs, in association with paste necklaces and bracelets very similar to Anglo-Saxon specimens, suggesting that the contemporaneous continental races drew their inspiration both from Eastern and from Roman models.

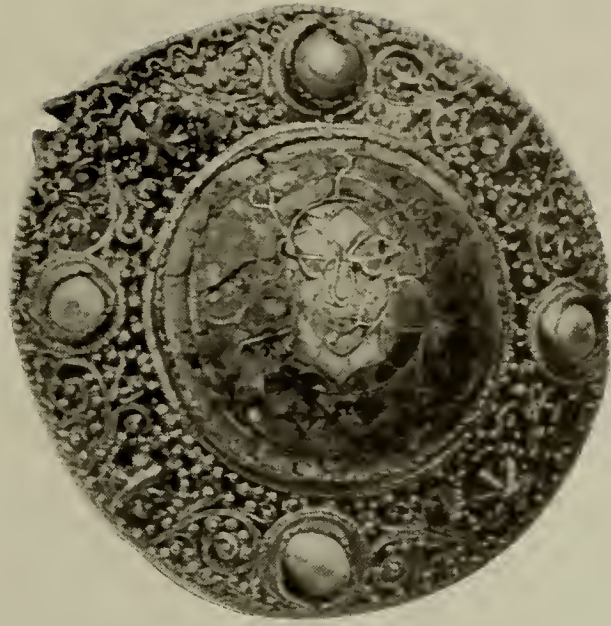
As a matter of historical interest the culminating point of Western pagan art was reached in the middle of the seventh century, as is disclosed by the treasure of Guarrazar. This hoard was brought to light in 1858 by a few peasants digging up a piece of ground at a spot called *la Fuente de Guarrazar*, in the neighbourhood of Toledo, and must have lain there for eleven centuries without any one even suspecting its existence. It consisted of eight gold crowns of various sizes, as well as some crosses, all profusely ornamented with coloured stones and pastes. To both crosses and crowns are attached gold chains to allow of their suspension. Of the crowns the most interesting is that of King Reccesvinthus, now preserved in the Cluny Museum at Paris. It consists of a broad gold diadem fitted with a hinge, its cross-section being about eight inches and its height four. The diadem (shown with four smaller ones and three crosses in Plate VIII) is set with handsome Oriental sapphires *en cabochon* and choice pearls. Between these gems are palm trees in *repoussé* work, the capsules of which are formed of red paste. The diadem, too, is bordered top and bottom with a row of red and green pastes, in which the former predominate. From the diadem, by means of double ringed gold chains, are suspended a series of capital letters, to the bottom of which are

attached as pendants purple pear-shaped sapphires. The inscription when elucidated reads

RECCESVINTHUS REX OFFERT

One curious point about the original lettering is that the Greek  $\theta$  replaces the Latin *th*, intimating a knowledge of Greek on the part of the designer. Reccesvinthus was a distinguished King of the Goths, who occupied the throne in the middle of the seventh century, and this was one of those votive crowns which were suspended in holy places above the altar and under the *ciborium*. Constantine the Great is supposed to have originated the idea, which was adopted by the Barbarian kings, most of them Christians, who invaded Southern and Western Europe in the sixth and seventh centuries. The treasure of Monza—a treasure one can only get a glimpse of on account of the surrounding obscurity—has several similar crowns.

This native crown of the Gothic king, dedicated with much outward display to God, is a typical efflorescence thrown off by a barbaric tree with its graft of Christianity. The indiscriminate association, in almost every find, of paste with natural stones, in the gifts of a king as well as in the personal jewels of a warrior and lady of rank, shows that these Western pagans, like the Greeks, but unlike the Romans, included paste among their most precious gems.



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1. THE DOWGATE HILL BROOCH. (ENLARGED)

2. THE ALFRED JEWEL



## CHAPTER VI

### LATE ANGLO-SAXON AND CELTIC

OUR knowledge of the jewellery of barbaric times is mainly due to the customs practised by the pagans, as by the Egyptians, of burying with the dead those articles actually associated with their daily life, and not flimsy replicas of them as was sometimes the case in Etruscan burials. The Franks and other peoples of Teutonic origin punished with heavy penalties the violation of graves. They therefore remained for the most part a sealed treasure, only accidentally accessible in comparatively recent times. The introduction of Christianity did not at once modify the prevailing views as regards the rites of sepulture. Even in Charlemagne's time, at the end of the eighth century, a rescript was issued forbidding the burial of the dead *more paganorum*. However, as pagan methods were gradually abandoned jewellery eventually lost much of its supernatural associations, and there was a tendency to a more reckless destruction of it. The fact that in times of stress settings were frequently melted down to be converted into actual specie further accounts for the comparative dearth of paste in later Anglo-Saxon and mediæval times.

The barbaric age of paste ended in the eighth century. As a gem it was to a great extent succeeded by enamel, which

belongs rather to the goldsmith's than to the jeweller's art. This was a natural evolution, since in the later Anglo-Saxon creations the actual gems began to play a more subordinate part. The composition of enamel is practically the same as that of paste, only the process of fusion is different. In the case of enamel the ingredients are very finely ground up and put into the various *cloisons*, or compartments, which outline the design of the ornament, which is then heated in a furnace. It is sometimes difficult to distinguish between them, at any rate in the very early stages of the divergence of enamel from paste.

Enamel was used to develop the potentialities of the goldsmith's craft. The gem ceased to be the central pivot of the creation, it became a mere accessory. A jewel in these days appeared to be no longer intended to enhance the beauty of the wearer, it was designed rather to attract attention to itself. This is illustrated by many Saxon *fibulae*, or *nouches*, of which the Dowgate Hill brooch, once belonging to Roach Smith, the well-known antiquary, and now in the British Museum, is an excellent example. This handsome circular *nouche*, shown in Plate IX, contains a full-faced head and bust, possibly of Alfred the Great, in paste or enamel, encircled by a gold rim decorated with fine filigree and granulated work. The outlines of the figures are formed by a thin plate of gold, which formed *cloisons*, into which the paste in a semi-fluid state was poured, and allowed to cool, and then ground down to the required thickness. This is the opinion of some authorities, Bridge, the eminent goldsmith, among them. Others think the material was powdered and melted on



A CELTIC NECKLACE OF DARK OPAQUE BLUE PASTE BEADS, WITH PENDANT DECORATED WITH YELLOW GLOBULES,  
SUGGESTING ETRUSCAN INFLUENCE





exposure to a low temperature. The famous Alfred jewel—also shown in Plate IX—so very much akin to the Dowgate Hill brooch, both in the setting and the curious transparency of the material, which shows characteristics quite distinct from the enamel used in later creations—must have been produced in the same way. This masterpiece of Anglo-Saxon goldsmith's work found in 1693 near Athelney Abbey, Somerset, a county often visited by Alfred, and to which he retired after his defeat by the Danes in 878, is one of the treasures in the Ashmolean Museum at Oxford. The three-quarter figure, which occupies the majority of the obverse side of the jewel, whose shape is reminiscent of a battledore, is made up of a series of *cloisons* filled with paste or enamel of different colours; those for the face and arms are white, and with a faint shade of reddish brown in places, all being semi-transparent. The background is formed of a rich blue paste, the whole is covered by a layer of rock crystal four-tenths of an inch thick. The jewel, which is two inches long, one and one-fifth wide, and half an inch in thickness, terminates in a boar's head, the eyes of which were probably filled in with paste. The paste figure holds a sceptre in each hand, presumably representing Christ, though some authorities have suggested that it might be St. Neot, St. Cuthbert, or Alfred himself. Round the setting, which is a harmonious blending of filigree and granulated work, is the legend

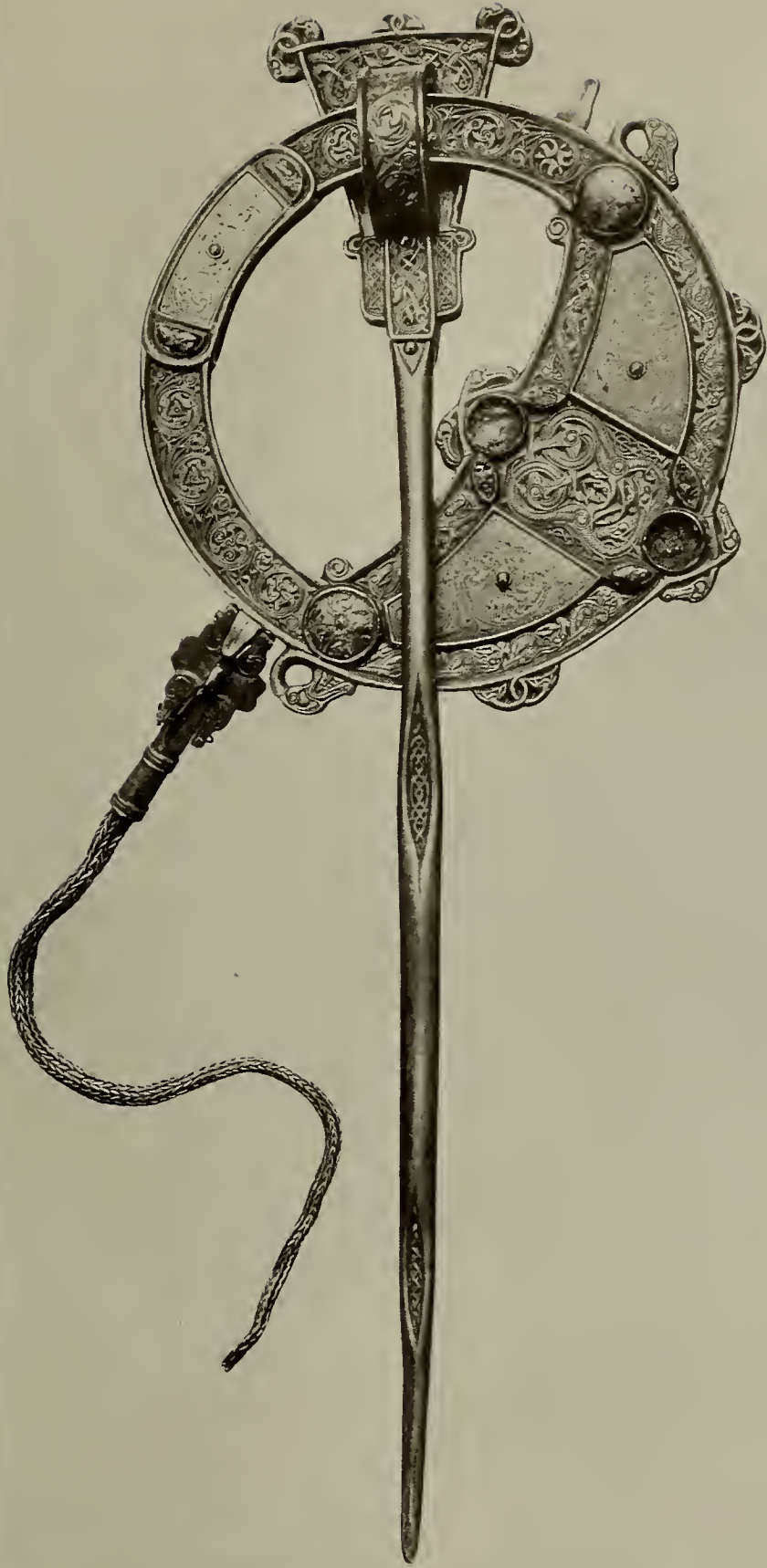
AELFRED MEE HEHT GEWYRCAN

(Alfred ordered me to be wrought) in beautifully-chiselled gold letters. It has been suggested, too, that this jewel was made under the personal supervision of Alfred himself. If this

is so, it shows that the pagan attitude of ranking paste with precious stones must have been maintained by the Christian Saxons. Rings were not so much used among the pagan Anglo-Saxons as they were in the time of Alfred the Great. Some of these must have had paste settings, as is shown by a remarkable specimen belonging to Lord Fitzhardinge and preserved among the jewels at Berkeley Castle. In the centre of the four quarterfoiled (four lobed) ring is a round boss ornamented with a double spiral design in beaded gold. Diverging from this central design are four monsters, whose eyes are indicated by dark blue and dark brown paste. The fact that where the hoop, which is hexagonal in section, joins the bezel, there are three little gold globules with some filigree work, suggests a Merovingian inspiration.

From all parts of Ireland have been obtained a large number of paste beads—fragments of former necklaces and bracelets—showing every variety of colour and shape, from the small blue, dating from the Bronze Age, to the more highly decorated ones of Christian times. In those pagan days the Celts also wore bracelets of solid paste, for several fragments of them have been found in various crannogs (a species of stockaded island), and in the National Museum at Prague there is a wonderful collection of different coloured paste bracelets, once worn by the continental Celts.

This attachment to paste continued throughout late Celtic times, practically running contemporaneously with the barbarian age of paste on the Continent, though unfortunately only a few specimens have been recovered. This is probably due to the fact that while Western Europe and Britain



THE TARA BROOCH



relapsed in the fifth century into paganism, Ireland and the Western Highlands clung to the Christian religion.

These later Celts seemed to have exercised marvellous ingenuity in the production of their paste. Many of their beads were made, Mr. Romilly Allen says, from twisted rods of different coloured paste, such as have been obtained from the crannog of Logore, fused together in one solid cylinder, which was bent into loops, presumably in a semi-molten condition, round a mandril so as to form a bead, very much in the manner of the first stage in the production of *millefiori* glass. A bracelet of green paste "with cable-like ornament in blue and white strands surrounding its outer face" was found not long ago in a Celtic crannog at Hyndford in Lanarkshire.

Plate X shows one of these most interesting of late Celtic necklaces, preserved in the Ashmolean Museum at Oxford. It consists of a dozen dark opaque blue paste beads in the shape of indented cylinders, some of which are decorated with yellow globules of the same material. In the centre is a quadrangular pendant of dark blue paste, on which are superimposed four of these same yellow globules. The beads themselves are arranged in irregular pairs. There is an absence of formality about the necklace which is rather striking. The globular decoration is curious: it possibly may have been an attempt to reproduce the granular Etruscan gold work in paste. Some gold armour of Etruscan workmanship was unearthed at Mold in North Wales, and there is little doubt that similar productions reached Ireland.

In the Londesborough Collection at the British Museum

there is a handsome specimen of a bronze-gilt penannular brooch referred to the eighth century. Its face is engraved and set with amber, and in its reverse side are gilt medallions with blue paste settings. The penannular brooch is a typical Celtic ornament, but it has been found as far east as the Baltic provinces, and, though in pairs, is worn at the present time in Algeria. It consisted originally of a plain ring, with a rather exaggerated split in its circumference, round which worked the pin, which was invariably much longer than the diameter of the brooch. Later on it lost its simplicity owing to a desire for more space for the designs so characteristic of Celtic art, such as the step, key spiral, and even anthropomorphic patterns. The head of the pin was enlarged, and several modifications took place in the two endings of the ring, where the break occurs. The Tara brooch (Plate XI), a masterpiece of Celtic inspiration, is an example of the more ornamental variety. The body of the brooch is made of white bronze (an alloy of copper and tin), and is decorated with panels in beautiful gold filigree work. On the front are settings of amber and blue and purple paste. There are also small purple pastes set in the gold chain attachment of Trichinopoly work. The granular and filigree work of this brooch is reminiscent of the best examples of Greek and Etruscan productions. The fineness of some of the patterns, including spiral, scroll, and interlaced work, requires a magnifying glass to make it evident.

The Tara brooch was found in 1850 by some children playing on the shore near Drogheda, Co. Meath; it was refused by a dealer in metals, but a watchmaker in the town



THE ARDAGH CHALICE





gave a trifle for it, and after changing hands it was eventually purchased for £200 by the Royal Irish Academy, Dublin, where it can now be seen. In the same museum, and belonging to the same period—eighth to tenth century—is another masterpiece, the Ardagh chalice, which was discovered nearly twenty years later in a rath (a kind of ancient fortification), near the village of Ardagh, Co. Limerick.

This two-handled chalice (Plate XII), which has a capacity of three pints, stands seven inches high, with a diameter of nine and a half inches at the top of its hemispherical bowl.

It is made up of 354 different pieces (a large number of them being riveted) in the shape of gold, bronze, lead, enamel, amber, mica, and paste. On the outside of this silver bowl are engraved the names of the twelve apostles in Hiberno-Saxon capitals, and it is profusely but exquisitely ornamented with the typical Celtic patterns and designs. On each side of the chalice is a circular piece of fine gold spiral work, in the centre of which are some *cloisonné* enamels, and on the margin of the circle are two settings of amber and two of blue paste. Between the ornamental panels on the pedestal of the chalice are rectangular settings of the same blue paste, underneath which is a rusticated silver backing which makes them very effective.

The sides of the celebrated shrine of St. Patrick contain settings of blue paste, and the eyes of the interlaced serpents which surround the handle of the shrine are also indicated by blue paste. The Clanmacnois crosier, too, has small settings of this paste. Lastly, there is the handsome Clanmacnois pin mentioned by Mr. Romilly Allen in his attractive book on

Celtic art. The pin which was found in 1883, and is shown in Plate XIII, from a decorative point of view is of a similar style to that of the Tara brooch and the Ardagh chalice. The prominent feature of this silver pin, which is  $7\frac{1}{2}$  inches long and decorated with enamel, niello, and gold filigree work, is the settings of claret-coloured paste. The principal ornament of the kite-shaped pendant is a cross which has a large central setting of the same coloured paste. There are also three smaller rectangular settings of paste of a similar shade, one at the top of the cross, one at each end of the arms, whilst there is a triangular paste setting on the bottom of the shaft itself. Some of the bronze pins of a type less elaborate and probably of an earlier date were set with *millefiori* glass.

There is no doubt that during the early part of the Middle Ages, paste must have played an important *rôle* in the decoration of Celtic jewellery, and have been greatly valued for its colour effects, as in a large proportion of the Irish masterpieces that have been recovered it has been utilized as an ornamentation. This is all the more remarkable as some of the granulated and filigree work, in the creations which paste has enriched, are reminiscent of the finest specimens of Greek and Etruscan times.

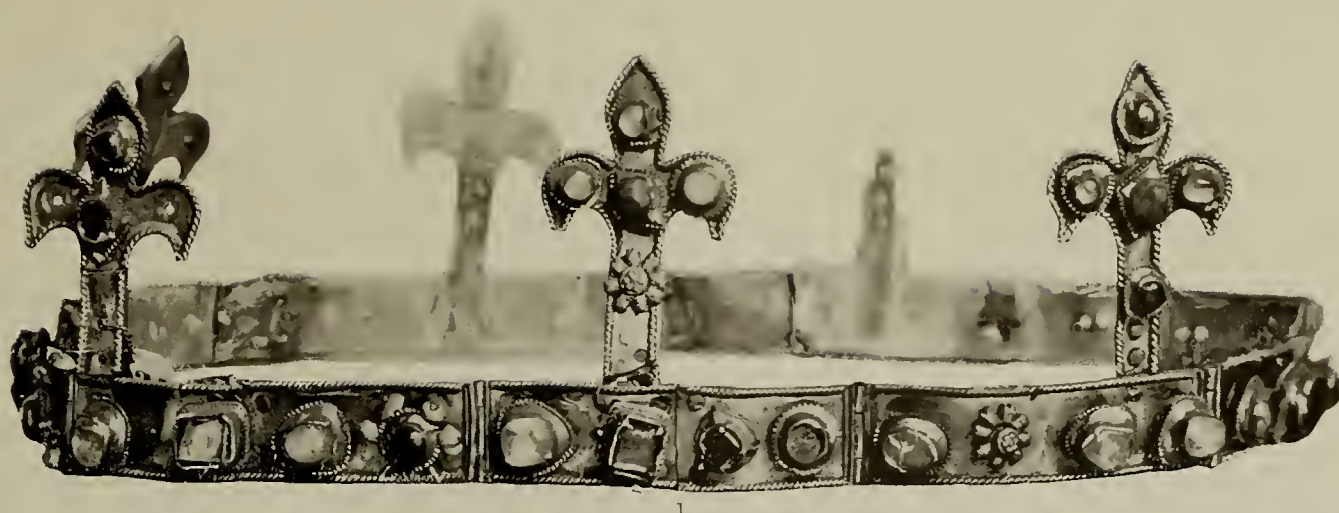
CHAPTER VII  
MEDIÆVAL

**E**VEN in the days of the Christian Anglo-Saxons the jeweller's and goldsmith's art was largely confined to the monastic orders. The Venerable Bede, writing in the eighth century, says that these productions were chiefly of a ruddy or aerial colour—meaning, of course, the familiar garnets and blue pastes—which more than suggests that the monks were still susceptible to the early pagan traditions. That this susceptibility was continued some centuries later is illustrated by the two handsome reliquaries, decorated with garnets and coloured pastes, belonging to the fifteenth or sixteenth centuries, which were exhibited among the *Chefs d'œuvre d'Orfèvrerie* at the Budapest Exhibition of 1884. The remarkable jewels of William of Wykeham, bequeathed in 1404 to New College, Oxford, further corroborate this susceptibility. Among the remnants of his precious mitre are some bands (Fig. 4, Plate XIV) set with dark blue pastes alternating with white crystals. Originally these bands either formed the base of the mitre or went up the middle of the front or the back of it. In either case these blue pastes played a prominent part, and must have been regarded as something precious to have shared thus conspicuously in the ornamentation of the mitre of so revered a prelate. This can

have been no isolated instance of the use of paste in ecclesiastical vestments ; it was probably utilized to a considerable extent in mediæval days. For in some of the rare stoles and mitres of a later period the embroidery is set with pastes reproducing sapphires, emeralds, rubies, and garnets, sometimes with backings of the same coloured silk. There is an interesting example of this in the Victoria and Albert Museum. Paste must also have been used in the Church's holy vessels. The Ardagh chalice was probably made by Irish monks. St. Patrick himself is said to have been a patron of the goldsmith's craft.

The dearth of *objets d'art* containing paste of the Middle Ages in museums and collections by no means implies that paste had gone out of fashion, but is due to the general political and social unrest which is so striking a feature of that period. At that time jewels were more than mere ornaments ; they became, with the exception of actual money, the sole portable property of the individual. Their settings were frequently melted down, and their only chance of preservation lay in the possibility of forming part of a bequest as in the case of that of William of Wykeham. The Crusades were an important factor in the increased vogue for jewellery in Europe. Richard I, for instance, when he took Cyprus, secured many gems as part of the booty.

In the thirteenth century is the first intimation since Roman times that paste was regarded as an imitation and not as a natural gem ; this may be inferred from the laws then made relating to the jeweller's craft in Paris. Two of them are rather curious : " The jeweller was not to dye the amethyst or other



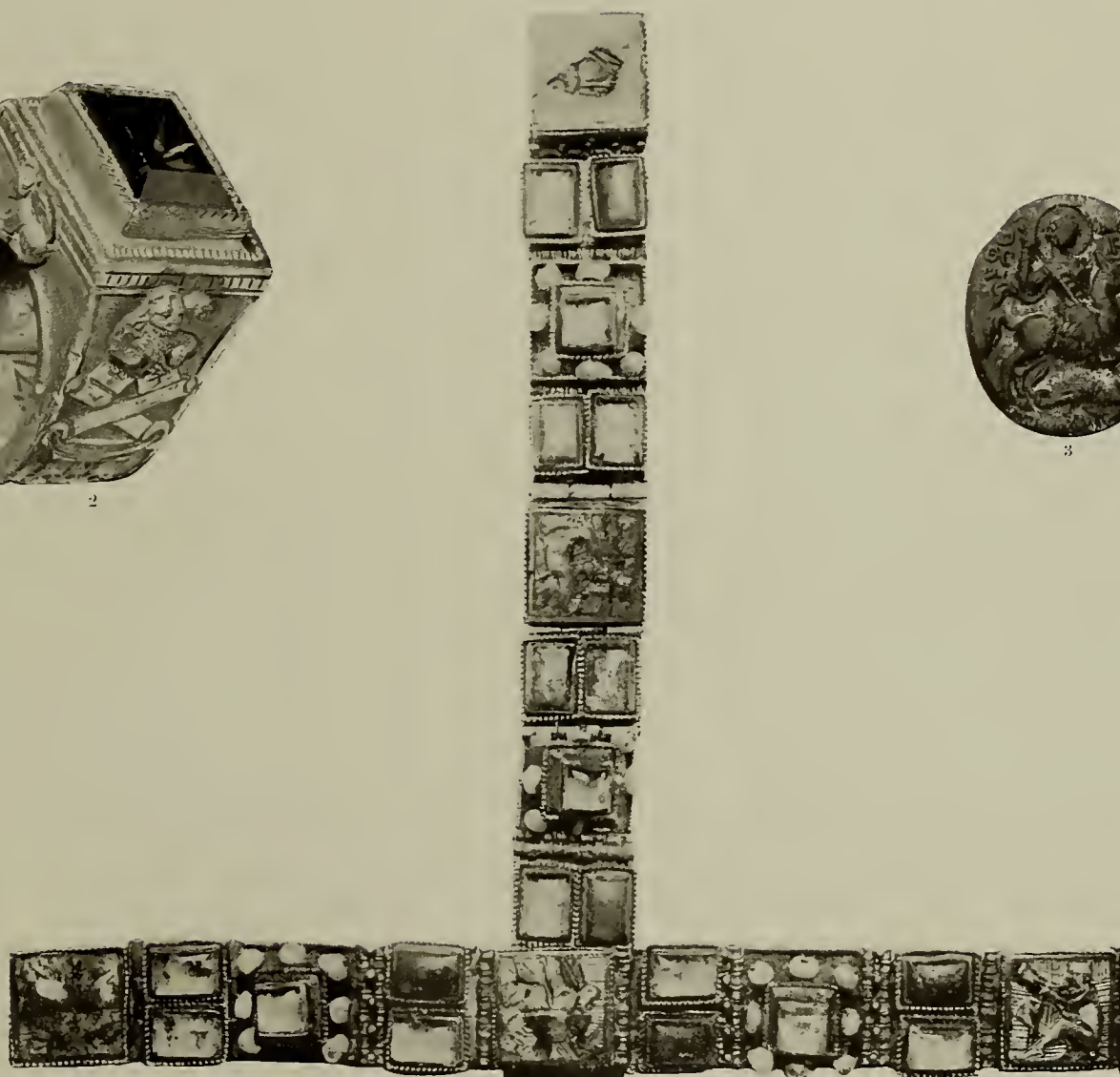
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1. A FOURTEENTH CENTURY SILVER-GILT DIADEM SET WITH PEARLS AND COLOURED PASTES
2. BRONZE GILT EPISCOPAL RING, SET WITH A RUBY PASTE
3. A BYZANTINE PASTE AMULET REPRESENTING THEODORIC SPEARING A DRAGON
4. BANDS OF THE MITRE OF WILLIAM OF WYKEHAM SET WITH DARK BLUE PASTES AND WHITE CRYSTALS  
BEQUEATHED IN 1404 TO NEW COLLEGE, OXFORD



false stones, nor mount them in gold leaf, nor mix them with rubies, emeralds, or other precious stones, excepting as a crystal simply without mounting or dyeing," and "Except for works for the Church, he was not, for even trifling objects, to mix coloured glass or false with precious stones, nor mount in gold or silver fraudulent gems except for the King, the Queen, and their children."

These laws are very significant, and afford evidence not only of the vogue that paste had in the ecclesiastical world, but of its general use. It indicates, too, that a large number of the morses or clasps, brooches, girdles, etc., that were so much worn in that reign contained paste. This is illustrated by the beautiful mediæval clasp set with enamel and coloured paste which was among the masterpieces at this same Budapest Exhibition.

In those days coloured paste must have been quite as effective as natural stones, which were nearly always *en cabochon*—with surfaces rounded and polished but unfaceted—though there were a few *en table*. In jewels which have not been exposed to the disintegrating influence of damp earth it is often difficult to distinguish between paste and precious stones owing to this absence of faceting. Thus in royal or other inventories there are a good many discrepancies. For instance, among the jewels pledged by Henry V in the first few years of the fifteenth century to the Mayor and Commonalty of London is a collar of "gold beasts surcharged with green garnets." Green garnets are a modern discovery: in those days they were probably unknown. "Green garnets" certainly suggest paste. But in the inventory of the jewels of Jean,

duc de Berry, in the early part of the same century, there is a frank declaration of paste. Item 291 refers to a paste representing a sapphire.

The only paste jewels that have come down to us in any quantity are the episcopal rings. These are, in all probability, rings of investiture, sent by the various popes and cardinals when conferring an office or a dignity upon the higher clergy, to whose use they were confined. They are generally made of gilded bronze, and are of enormous size, for they were worn over the glove. On the shoulders are massive decorations in the shape of the triple crown (the papal tiara), crossed keys, the symbols of the four evangelists, and armorial bearings. Fig. 2 of Plate XIV represents a typical one in the Waterton Collection at the Victoria and Albert Museum. Round the oblong bezel of this bronze-gilt ring are the symbols of the four evangelists. Underneath these and one shoulder is the triple crown; on the other the crossed keys and the arms of the Piccolomini. On the hoop is engraved PAPA PI; in the bezel is a rectangular polished paste of crimson tint, backed by a foil of the same colour, representing an immense ruby, which, according to mediæval ideas, was a symbol of purity. In another ring of similar design in the same collection the bezel is set with aventurine paste *en cabochon*. Aventurine paste is one containing gold-coloured spangles. Some of these rings have bezels with paste insets, but never engraved, reproducing sapphires and emeralds, the symbols of peace and happiness. There are also the papal rings in the Octavius Morgan bequest in the same museum. The majority belong to the fifteenth century. The striking



feature of all these rings is their effectiveness, indispensable on account of their ceremonial use. Paste was here obviously not an imitation, it was a substitute; real rubies or sapphires of that size would have been far too costly.

In the Slade bequest at the British Museum there is a curious collection of cameo pastes usually opaque and of a reddish-brown or blue colour, which are said to date from the eleventh to the thirteenth century. Their subjects are for the most part religious. The largest of them is a circular blue one with a diameter of fifteen inches, on which is a full-face bust of our Lord. Round the head is a cruciferous *nimbus*, and with His right hand He makes a gesture of benediction.

In another one St. Demetrius is seen with a spear in one hand and a circular shield covering the other. Fig. 3 of Plate XIV shows a cameo of a rather different subject: Theodoric (the King of the Ostrogoths) spearing a dragon with his lance. Most of these cameos are of Byzantine origin, and were used as amulets or for devotional purposes.

The possibilities of mediæval paste have perhaps never been exploited. Numbers of ecclesiastical vestments which have been preserved must contain paste. Then again in such treasures as those of Monza and of St. Mark's at Venice some of the jewels considered to be precious stones must in reality be paste. M. Emile Molinier asserts that there is a certain amount of paste, possibly of Byzantine origin, in the treasure at St. Mark's. With few exceptions the jewellery of the Middle Ages is associated with the goldsmith's rather than with the jeweller's craft. Like the early Renaissance jewellery, the setting was hardly designed to enhance the

beauty of the gem, it was rather calculated to detract attention from it.

Among the exceptions previously alluded to is a singularly effective silver-gilt diadem or circlet preserved in the Musée Cinquantenaire at Brussels. Fig. 1 of Plate XIV gives quite a good idea of the original referred to the fourteenth century. It is composed of a series of hinged plaques, containing *cloisons*, usually four in number, set with pearls and coloured pastes. Above the circlet itself are *fleurs-de-lis* with similar settings.

The great charm about this diadem is its exquisite simplicity, in striking contrast to the ponderous Gothic productions usually associated with this period. It is so essentially a feminine ornament, adding in a curious subtle way richness and distinction to a woman's natural beauty.

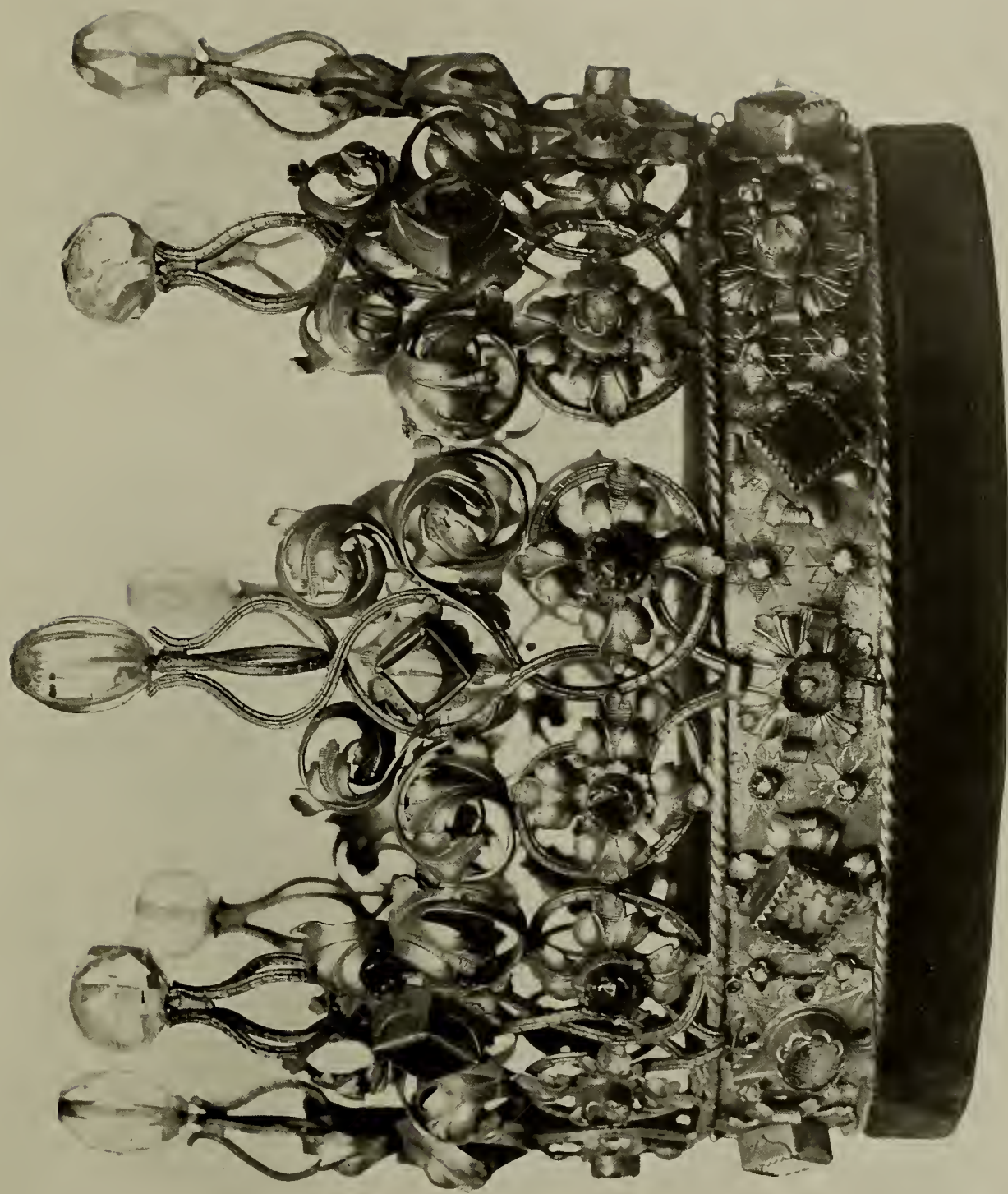
## CHAPTER VIII

### PASTE IN THE SIXTEENTH AND SEVENTEENTH CENTURIES

**D**URING the actual Renaissance, enamel largely replaced paste, though the latter must to a certain extent have been used, as at the Budapest Exhibition, previously alluded to, two beautiful Renaissance brooches were exhibited. In one of them paste is the central and principal jewel; in the other alternate settings of coloured paste and turquoises form the main ornamentation. Paste, too, must still have been used in ecclesiastical jewellery. In Plate XV is shown a German gilt-brass crown for a statue of the Virgin, which is preserved in the Victoria and Albert Museum. It is composed of a series of interlacing stems, leaves, and flowers, set with coloured pastes reproducing emeralds, rubies, and topazes. These are all attached to a circular band, inside which is engraved the maker's name, Hans Smaltz, and the date 1566. Documentary evidence, too, proves the use of paste in this century. In the inventory of the valuables, for instance, at the Château de Pau for the years 1561 to 1562, item 292 refers to a green stone, set in silver-gilt, "to cure the colic," item 322 to another green stone, set in gold, and item 504 to a little gold ship, *le corps faict d'une pierre verte en emeraude*. The last named is certainly paste, and the other two more

than suggest it. The Renaissance, at any rate during its later period, must have had its effect on English jewellery in the reign of Henry VIII, though there are no actual specimens to illustrate it. For Benvenuto Cellini himself tells us how that King bought from an Italian for 9000 golden crowns a beautiful emerald paste under the impression that it was a natural stone. It was only several years after that it was discovered to be a paste. The Tudor love of jewels is proverbial, and it is very unlikely that paste played no part in the pageantry so characteristic of the meetings of Henry and Francis I, or at the court of Queen Elizabeth. Many of the popular *enseignes*, a species of hat-brooch worn by both sexes, as well as the classical cameos worn as pendants, must have been set with paste.

It is, however, to the seventeenth century that we are indebted for so many remarkable paste specimens. Towards the end of the Renaissance there was a growing reaction against the highly enamelled goldsmith's productions, which originated mainly in Italy and in Germany and in which precious stones played so insignificant a *rôle*. From this period, largely due to French initiative, *joaillerie*, in which gems have their due significance, gradually ousted in popular favour *bijouterie*, in which the setting has an inordinate importance. This reaction was indeed the inception of modern jewellery. It was also largely due to the fact that in this century the real intrinsic beauty began to be obtained from stones by elementary faceting, until finally Cardinal Mazarin encouraged the experiments of Dutch lapidaries, which culminated in the genuine "rose" cutting of diamonds. In this



GILT-BRASS CROWN FOR A STATUE OF THE VIRGIN, SET WITH PASTES REPRODUCING EMERALDS, RUBIES AND TOPAZES.  
DATED 1566 AND SIGNED HANS SMALTZ



method one side of the stone is flat, the other cut into sixteen triangular facets (though eventually this arrangement was modified), thus producing a series of internal reflections, which give such "fire" to the diamond. A similar effect, though in a minor degree, was achieved by paste; but faceting doing away with the necessity of a *paillon* or foil at the back of transparent gems, generally marked a distinction for the future between the setting of paste and of natural stones. Paste, however, was sometimes set *à jour*.

Diamonds once finely faceted became, of course, fashionable, and the paste which reproduced them had, later on, a corresponding vogue. But in the early part of the century, coloured paste, in contradistinction to the diamond paste, still held its own. The most characteristic paste of the Louis Quatorze period is one reproducing emeralds and sapphires. This is illustrated by two very interesting pairs of ear-rings in Mr. Wolff Phillips's unique collection, shown in Figs. 1 and 6 of Plate XVI. The first consists of two emeralds in each ear-ring, one above the other, the lower one being in the form of a pendant. In the second pair two sapphires are parallel, one of which, it will be noticed, is smaller than the other. This arrangement is by no means fortuitous; for in those days, when stones were thus arranged, one was generally bigger than the other. The colour of the paste in both ear-rings is perfect; their settings are gilt-brass.

England must have followed very much the same lines as France. Fig. 2 of Plate XVI (the original is in the possession of Mr. Phillips) represents a very beautiful ring made in the days of Charles I. The bezel is in the form of a double trefoil,

which is filled with transparent turquoise enamel. The centre stone is a paste opal, backed by a foil, which gives it a delicious gleam of red. This ring is especially interesting, as it suggests a blending of the Renaissance with more modern ideas. In Fig. 3 of Plate XVI is seen an English attempt—by no means unsuccessful—to produce a diamond paste. It is an ordinary pendant cross, set with faceted pastes, with a circular backing not entirely closed, for it has a round opening set with natural diamonds. This cross, belonging to the time of Charles II, is also in the possession of Mr. Phillips.

During the reign of William and Mary a paste of very fine quality was used to reproduce “rose” diamonds. An exceptionally rare cross of this period, possibly of Flemish origin, in Mr. Phillips’s collection, is shown in Fig. 5 of the same plate. It consists of five diamond “rose”-cut pastes, the largest one in the centre, with a closed cut-down setting which has small openings at the back, also set with natural diamonds. The setting, as well as the colour of the paste, is very remarkable. That two paste crosses of similar periods should both have their backings set with diamonds cannot be mere coincidence. It certainly suggests that in this century paste had, at any rate from a decorative point of view, a value equivalent to that of precious stones.

In this same century some very handsome Spanish paste was produced, as is illustrated by the specimens in the Baron Davillier bequest in the Louvre. Among the most striking is a silver-gilt ear-ring, formed by a closed crown with a cross at the top of it, and with two pendants attached to each side. In the centre of some spiral work is blue paste of fine colour, whilst some of the subsidiary parts are set with





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1. } A LOUIS QUATORZE PAIR OF EMERALD PASTE EAR-RINGS  
 6. } A PAIR OF EAR-RINGS OF SAME PERIOD SET WITH PASTE SAPPHIRES
2. A RING OF THE TIME OF CHARLES I, WITH A BEZEL IN THE FORM OF A DOUBLE TREFOIL, FILLED WITH TURQUOISE ENAMEL. THE CENTRE STONE IS A PASTE OPAL  
 (SLIGHTLY ENLARGED)
3. A PENDANT CROSS SET WITH DIAMOND PASTES, WITH A CIRCULAR BACKING, WHICH HAS A ROUND OPENING SET WITH NATURAL DIAMONDS. PERIOD CHARLES II
4. SPANISH SILVER MARQUISE RING WITH OCTAGONAL BEZEL CONTAINING A DARK BLUE PASTE. THE BASKET OF FLOWERS IS IN NATURAL DIAMONDS  
 17TH CENTURY
5. A "ROSE" CUT DIAMOND PASTE CROSS, THE BACKING OF WHICH IS SET WITH NATURAL DIAMONDS. PERIOD WILLIAM AND MARY



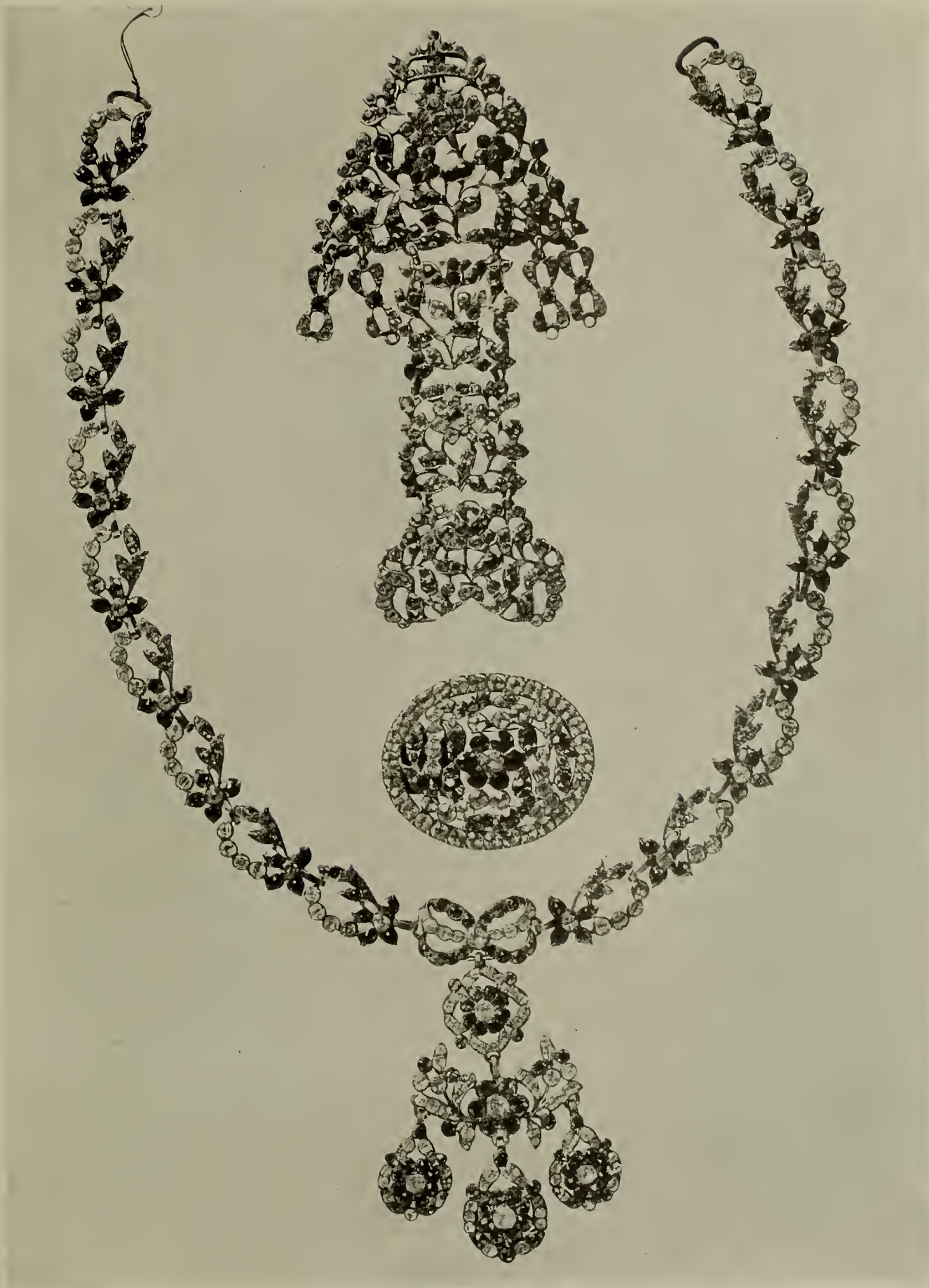
enamel. Then there is a beautiful little gold cross, made up of seven square collets, five forming the shaft and two the arms, containing emerald pastes. The reverse side is covered with black and white enamel. Lastly, there is a gold keeper ring, with a square bezel divided into four parts, viz., blue and white enamelled settings, each containing a diamond paste. Round the edge of the bezel is a fine line of red enamel. These jewels are a further corroboration of the fact that the Renaissance influence was difficult to shake off even after diamonds became so fashionable. Fig. 4 of Plate XVI shows a very handsome Spanish silver *marquise* ring of the seventeenth century, in which paste has actually replaced the much-favoured enamel. This specimen in Mr. Phillips's collection has an octagonal bezel, containing a basket of flowers in diamonds on a background of dark blue paste. Even in these early days Spanish paste radiates some of that dignity and splendid richness of effect which are so characteristic of the best examples of the following century.

From the seventeenth century onwards our knowledge of jewellery—whether it is set with paste or with natural stones—is mainly derived from actual specimens that have been preserved, and not, as in earlier times, from a lucky find, or from inventories and pictures. This is, again, not mere coincidence, but is due to the fact that in the seventeenth and eighteenth centuries a new era of jewellery began whose designs continued to satisfy the demands of subsequent generations. Consequently the settings of these jewels, unlike the massive ones of the Renaissance, were not thrown into the melting-pot. They were kept intact and worn.

## CHAPTER IX

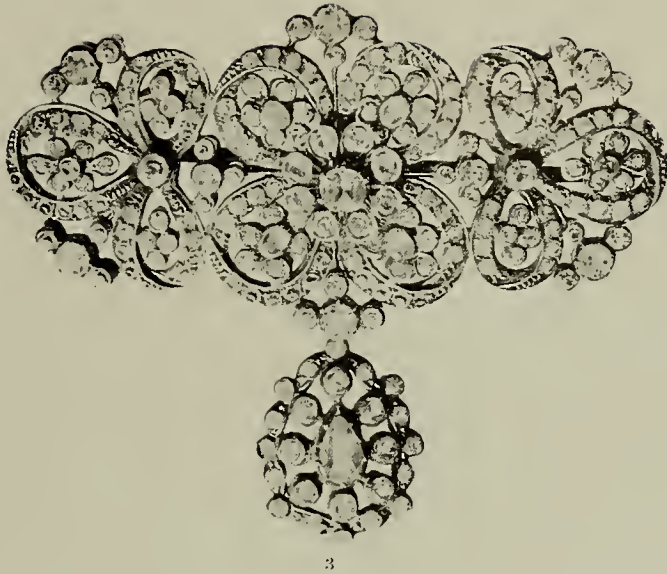
### EIGHTEENTH CENTURY

THE eighteenth century is pre-eminently the golden age of paste, not only on account of its extensive use, but of the quality of the paste itself and the exquisite design and workmanship of its settings. The paste jewellery of the time of Louis XV, hardly affected by the *rococo* movement, does not differ fundamentally from that of the previous century. It is rather an accentuation and a refinement of the models in the days of Louis XIV. In referring to this period Mr. Clifford Smith says: "Unlike the earlier jewels, one cannot help regarding them rather more as accessories to costume than as independent works of art." That is the keynote of the eighteenth-century paste masterpieces, whether they are of French or Spanish origin. The producers of paste, at any rate, had at last grasped the essentials of personal ornament, and during the latter half of this period every variety of jewel on the Continent was set with paste. The demand for it at the beginning of the century resulted in experiments to secure a superior quality. Hence the invention of a paste called *stras*, after its inventor Joseph Strass, a Viennese, who came to Paris, as a jeweller, in the middle of the eighteenth century.



HARLEQUIN SUITE  
FRENCH 18TH CENTURY





1, 2. EAR-RINGS *EN GIRANDOLE*, SET WITH SAPPHIRE AND DIAMOND PASTES, SAID TO HAVE BEEN MADE FOR MADAME DU BARRY

3. LOUIS SEIZE BROOCH, WITH CLEAR SET DIAMOND PASTES

4. LOUIS SEIZE MINIATURE FRAME, SET WITH DIAMOND PASTES

5. LOUIS SEIZE PENDANT WITH GOLD BEADS. THE SETTINGS ARE FILLED WITH DIAMOND PASTE





M. Douanet-Wiellard gives the following formula for the manufacture of this paste :—

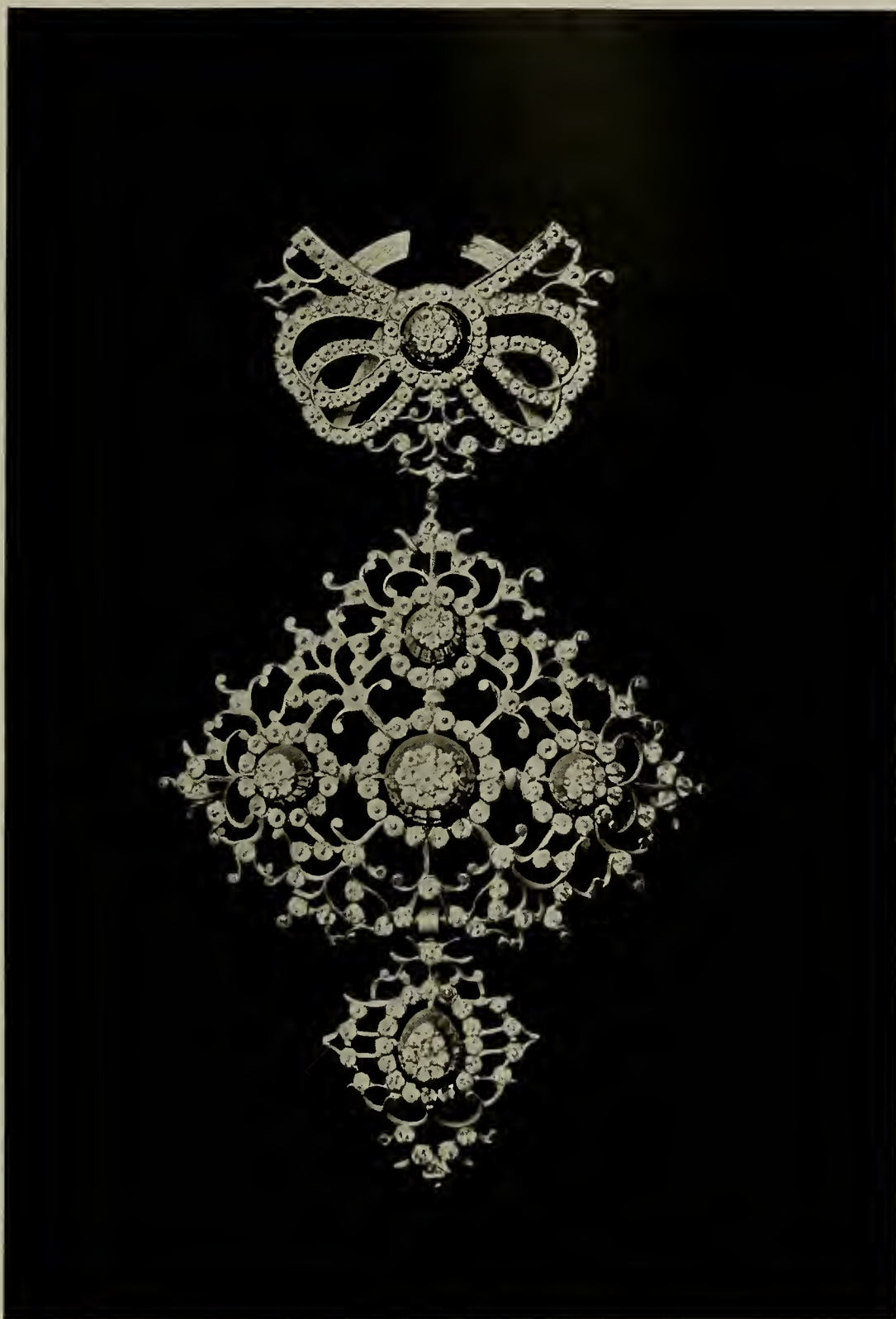
Rock crystal (silica)	.	.	.	100 parts
Red lead	.	.	.	135 „
Potash	.	.	.	53·1 „
Calcined borax	.	.	.	6·8 „
Arsenic	.	.	.	0·3 „

Strass' great innovation in this paste was the very high percentage of lead, which consequently made its action on light approach more closely that of a natural diamond, when faceted. The fire of a stone depends on its dispersive power, that is the splitting up of the incident white light into its variously coloured constituents. Now any two facets, not parallel, of a cut diamond, for instance, make a sort of prism of the stone. Therefore, white light striking one of these facets is decomposed into its coloured rays, just as sunlight with drops of water forms a rainbow. The facets at the back of the stone converge sharply, so that light entering the front, and being resolved into a coloured band, strikes the facets at such angles that it is totally reflected and emerges at the front of the stone in producing the effect of fire. The dispersive power of a diamond is more than twice that of the paste used in mediæval times, but it was considerably increased in the latter by a large addition of oxide of lead, though unfortunately much diminished in hardness. In the actual composition, borax does not appear, as this alkali is used merely as a flux and is entirely volatilized during the process of fusion. Arsenic is added to the mixture to prevent the reduction of the oxide of lead to the metallic state, and this small percentage in the

above formula may possibly account for that mellowness of colour so distinctive of the paste of this century. The necessary total reflection in a faceted paste if not actually effected is assisted by the *paillon* or foil that backs it. In the case of coloured *stras*, various metallic oxides were used, such as those mentioned in the first chapter. Other jewellers, Cheron among them, are supposed to have improved on *stras*. The younger Pouget, also a well-known jeweller, writes in 1762 that for some time "women wore nothing else but *stras*." It was certainly used as the main ornament in aigrettes, *pompons* (knots), butterflies and sprays for the hair, as well as in brooches and necklaces.

A beautiful suite—the Harlequin set, eminently typical of the Louis Quinze period—belonging to Mr. Phillips is shown in Plate XVII. It consists of a necklace with a small pendant, a chatelaine, and one wristlet. The gold settings in the form of a running scroll and leaf work contain paste reproducing pale emeralds, rubies, and diamonds. The gold of the settings is alloyed with copper, which gives it a darker colour and therefore makes an effective contrast to the richly toned paste. It must be borne in mind that the necklaces of this period did not entirely encircle the neck as do the modern *colliers*; they were attached to velvet bands, which completed the circle. The wristlets too, were sewn on to a similar band, which went round the wrist, though occasionally they are fastened to gold braid of a gauzy texture.

Paste was also fashionable in ear-rings, especially in those *en girandole* (branching). A handsome pair, mentioned by Mr. Clifford Smith in his well-known book on *Jewellery*,



A GOLD OPEN-WORK CROSS FROM NORMANDY, SET WITH DIAMOND PASTE  
18TH CENTURY

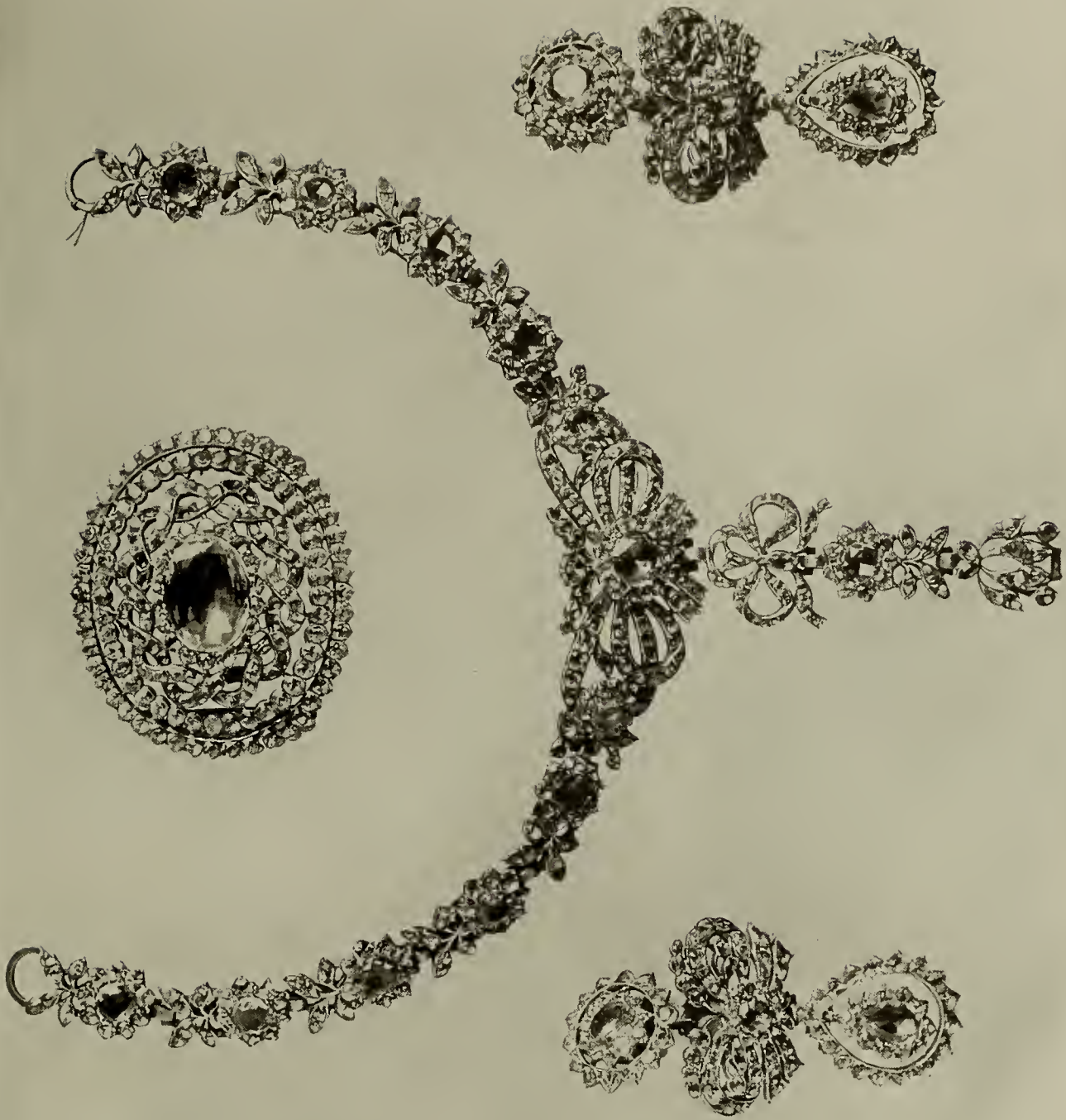


is represented in Figs. 1 and 2 of Plate XVIII. These ear-rings are set with four faceted sapphire pastes of exquisite colour. Between the upper and the three lower ones is some remarkable silver spray work set with diamond pastes. The ear-rings are said to have been made for Madame du Barry, mistress of Louis XV, and are now in the possession of Lady Monckton.

The French paste of the Louis XVI period is similar to that of the previous reign, except that there is a general tendency towards a greater simplicity of design. During the earlier part of the century there seems to have been in this respect a general avoidance of anything approaching the truly geometric, but towards the end regular lines and curves were certainly more accentuated. Fig. 3 of Plate XVIII illustrates a beautiful example of a long Louis Seize brooch, in the possession of Mr. Phillips. It has a pear-shaped drop, and is ornamented with clear-set diamond pastes. This is one of the earliest examples of *stras* being used without a *paillon* or backing, and curiously enough with its open setting it appears to be just as effective as when mounted in the ordinary way. Paste at this time was largely used in the decoration of backs of watches, as well as for miniature frames. In Fig. 4 of the same plate is seen a typical example of the latter, also belonging to Mr. Phillips. The frame is set with a single row of finely faceted paste diamonds, surrounded by a crinkled gold edging. At the top of the frame is a bow, similarly set, and at the back a receptacle for a lock of hair. Fig. 5 of Plate XVIII shows another type of pendant of this period; it is an exceptional example, as are the beads made of gold. The centre of the locket opens at

the back, forming a receptacle for hair or a miniature. From the beginning of this century paste was utilized in masonic, and even in royal orders. A notable example of this is a magnificent order of the Golden Fleece, set with paste, reproducing rubies, sapphires, and diamonds. Paste, too, played an important part in the jewelled embroidery that enriched the costumes of both men and women of those days. Lastly, a large amount of the so-called peasant jewellery set with paste belongs to this century. It is extremely doubtful if such beautiful specimens as these, which come from Normandy as well as from Spain, were solely confined to the use of peasants. However that may be, Plate XIX shows a characteristic example from Normandy preserved in the Victoria and Albert Museum. It is a gold open-work cross, with a locket in the shape of a bow, by means of which it was suspended from a velvet band which went round the neck. The cross, a typically Norman one, is made of five high bosses, one being pear-shaped and the others round, all of them set, as is the bow, with finely-faceted diamond pastes. The *Saint Esprit* or Holy Dove, with a branch as a spray in its beak, is a very favourite design utilized in brooches, pendants, and other paste ornaments of this and the following century.

Some of the most beautiful paste productions of the eighteenth century—and there are many still in existence—are of Spanish origin. Perhaps one of the finest specimens of this period is seen in Plate XX. This suite, in Mr. Phillips's collection, consists of a necklace, a pair of ear-rings, and one wristlet. The main portion of the necklace is composed of a



AQUAMARINE SUITE  
SPANISH 18TH CENTURY

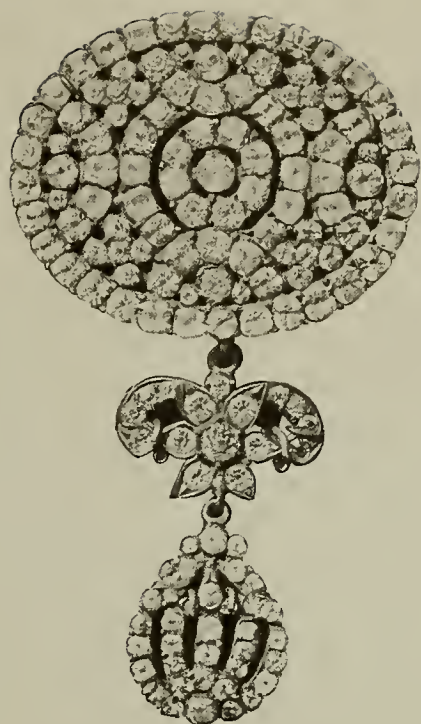




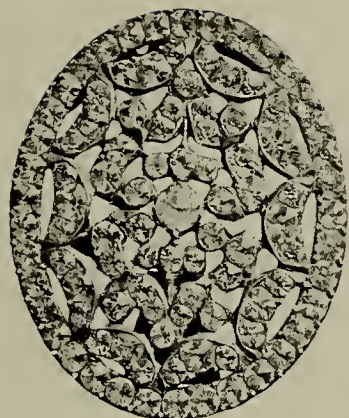
series of rosettes with intervening leaf pattern. In the centre is a typical Louis XIV bow, to which is attached a long tassel pendant, half of which is missing. The large drop ear-rings—they are eight inches long—and the one wristlet, are of similar design. In the centre of the rosettes, and in the centre of the bow and the wristlet, are beautiful aquamarine pastes. The rest of this unique suite is set with faceted diamond pastes. Although the setting on the back is cast, the obverse silver settings exemplify, in a very marked fashion, the marvellous workmanship of that age. Two handsome wristlets (Figs. 2 and 3 of Plate XXI), also belonging to Mr. Phillips, afford further evidence of the striking richness and dignity of Spanish paste in the early part of this century. The design in scroll work is distinctly original. Starting with a central cluster there is an extension of four scroll heads on each side, surrounded by a series of eight obtuse crescents, the whole encircled by an oval border. They are both set with finely faceted diamond pastes. The aquamarine suite suggests French influence, or, at any rate, a sympathy with French models, but there is another type of eighteenth-century Spanish paste which appears to be essentially due to native inspiration. The Spanish jewellers of this age, more than their contemporaries, afford evidence in these paste productions of their complete disavowal of the sixteenth-century goldsmith's ideals. Fig. 1 of the same plate represents a silver neck-ornament, consisting of an oval disc with a pendant, both set with paste diamonds. In this the setting, as an important factor in the jewel, has vanished; on the obverse side it is hardly noticeable. This is further illustrated by a large

silver ear-pendant (Fig. 4 of Plate XXI) of the same period. The disc, as well as the three oval drops which hang from it, are set with diamond pastes. Both these striking jewels can be seen in the Victoria and Albert Museum. In this same collection is a very handsome Spanish spray pendant, set with paste diamonds and rubies. An example of the ecclesiastical paste of this century is shown in Fig. 1, Plate XXII—a remarkable silver-gilt bishop's cross in Mr. Phillips's collection. The cross is outlined in garnet paste, and contains an inner one, set with small paste diamonds. It is suspended from a curiously-shaped ornament, similarly set, in the middle of which is a central collet, containing a red paste. This ornament presumably represents the sun with its emergent rays. To this century also belong a large number of beautiful Spanish *marquise* rings, with diamond and other paste insets, as well as the *Lanzadera* (a species of peasant ring), often set with paste emeralds. Some very fine specimens—all displaying that same note of dignity—are to be seen in the Victoria and Albert Museum.

England, too, had her share in the golden age of paste, though the English models are usually very different from the continental ones. Fig. 2 of Plate XXII illustrates a typically English brooch of the Queen Anne period. This striking ornament (belonging to Mr. Phillips) is in the form of a peacock—two and a half inches long—set with emeralds, sapphires, and topazes, to portray the brilliant colours of that bird. In Georgian paste the stone is, as a rule, larger, and cut squarer than the French or Spanish, as if to reproduce rock crystal. The workmanship associated with the paste of this period is



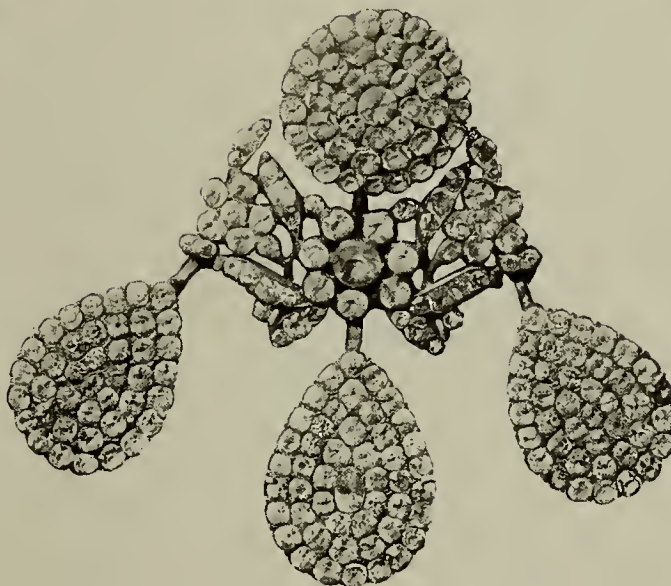
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4

1. SILVER NECK ORNAMENT SET WITH DIAMOND PASTES  
SPANISH 18TH CENTURY

2, 3. A PAIR OF WRISTLETS SET WITH DIAMOND PASTES  
SPANISH 18TH CENTURY

4. SILVER EAR-PENDANT  
SPANISH 18TH CENTURY



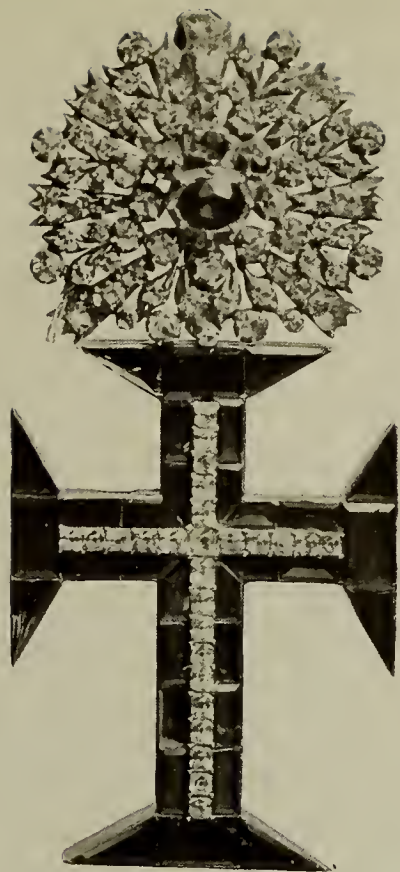
exceptionally fine, notably in miniature frames. It could hardly be surpassed even if the settings were designed for diamonds. There are a large number of necklets, hair combs, buttons, and buckles produced in these days, the last two named being probably the most characteristic. Good Georgian paste was nearly always mounted with gold backings, whereas the French and Spanish were usually silver backed.

In the Victoria and Albert Museum there is a fine collection of eighteenth-century paste shoe-buckles, the majority of which are the gift of the Rev. R. Brooke. Plate XXIII illustrates a very characteristic Georgian steel buckle (one of a pair), with a species of flattened rosette in the centre. The diamond pastes are large, square, and well faceted. But the handsome buckle (also one of a pair) shown in the same plate strongly suggests French influence. In this the inner row of diamond pastes is made up of small stones, whilst into the outer one, containing larger stones, are worked two little rosettes, each made up of six tiny pastes. The stones in the Georgian buckles are not confined to the reproduction of diamonds; very often a fine coloured amethyst paste forms the centre of a rosette, in some cases a considerable portion of the setting is filled with emerald paste. Paste buttons, too, were very fashionable, a large number of them being in the form of rosettes. In Plate XXIII are seen examples of a somewhat unusual type preserved in the Victoria and Albert Museum. These are a pair of buttons linked together, each containing four pastes.

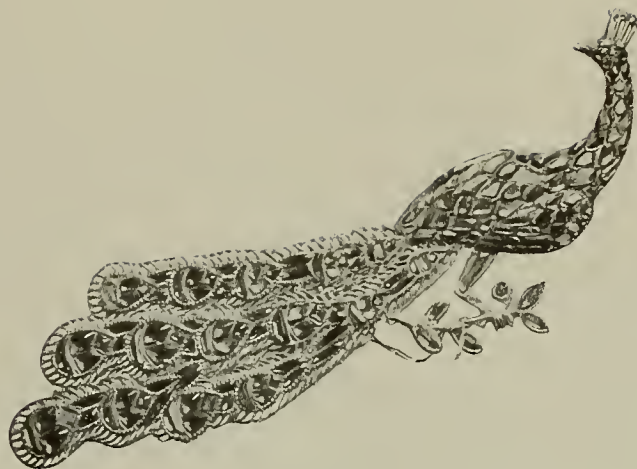
During the latter half of this century a paste of a very different character for the reproduction of engraved gems was

popular in England. This art was apparently lost after the fall of Rome, but was rediscovered during the Renaissance in the time of Lorenzo de' Medici and Pope Leo X. There are several formulas referred to this period concerning its manufacture. The process was perfected in the beginning of the eighteenth century, under the patronage of the Duke of Orleans, Regent of France, by French chemists, who made paste reproductions for his collections and for that of Louis XV. Engraved gems had then a great vogue owing to the enthusiasm of men like Comte de Caylus and Abbé Winckelmann, who gave a new impetus to the study of the antique. Several chemists were at this time producing excellent sulphur and paste impressions of classical cameos and intaglios.

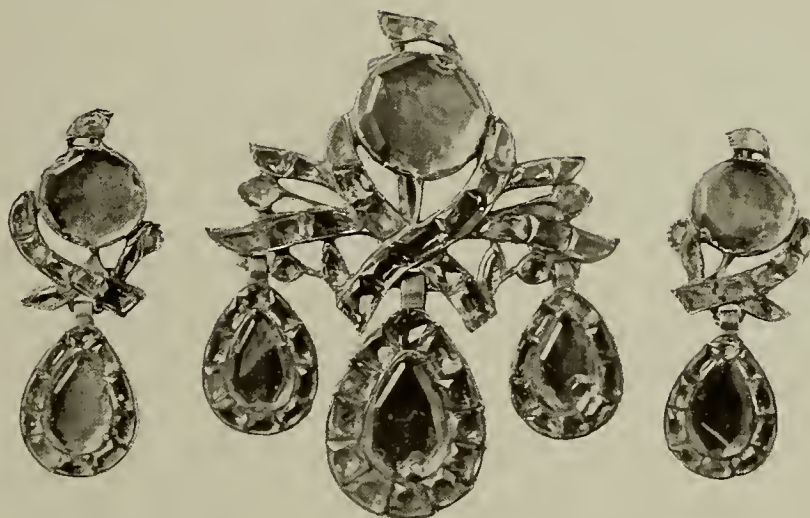
James Tassie, in the first instance a stone-mason, after having studied art at a Glasgow academy, where he learned modelling, moved to Dublin, and there became acquainted with a Dr. Quin, Regius Professor of Physics at the University. The professor, who had been a student at Padua, occupied his leisure time in "casting gems," and with such success that the owner of a fine intaglio mistook the doctor's replica for his own original. Tassie was an assistant to the professor, and he eventually settled in London in 1766, where he became famous for his paste impressions. Until after his death the composition of his paste was a secret; but an analysis of one of his medallions gave the following percentage:—



1



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3



4

1. SILVER-GILT BISHOPS' CROSS OUTLINED IN GARNET PASTE WITH AN INNER ONE SET WITH PASTE DIAMONDS  
SPANISH 18TH CENTURY
2. QUEEN ANNE PEACOCK BROOCH SET WITH PASTES REPRODUCING EMERALD, SAPPHIRE AND TOPAZ
3. A PAIR OF EAR-RINGS AND A BROOCH SET WITH PASTE EMERALDS AND PASTE PINK TOPAZES  
PORTUGUESE 18TH CENTURY
4. AN ITALIAN 18TH CENTURY RING, SET WITH TURQUOISE PASTE CAMEO, REPRESENTING THE RAPE OF PROSERPINE





Silica . . . . .	49·26	per cent
Lead monoxide . . . . .	33·54	„
Ferric oxide and alumina . . . . .	0·5	„
Lime . . . . .	2·17	„
Arsenious anhydride . . . . .	3·08	„
Oxide of potassium . . . . .	10·4	„
Oxide of sodium . . . . .	0·88	„

The great difference between this paste and that of *stras* is the lower percentage of lead. Consequently Tassie's material is much harder, and his opaque white emits fire when struck with steel. On the other hand, the English paste has little of that adamantine lustre so essential for the reproduction of diamonds and other precious stones. His method, somewhat complicated, was as follows:—He started, for example, with an engraved stone in intaglio. He pressed this on to a mould of melting sulphur, which produced an impression in relief on the sulphur. From this sulphur relief he obtained an intaglio in plaster of Paris, and from this he got a paste mould in relief. This was the final mould; by pouring into it molten paste once more he obtained a replica of the original intaglio, the usual precautions being taken in the shape of French chalk to prevent any adhesion between the model and the mould. Hundreds of replicas could be similarly obtained.

Tassie's collection of intaglios and cameos was the greatest of its kind. He had several thousand different impressions in every coloured stone from lapis lazuli to jasper; and every subject was represented, from an Egyptian scarab to a classical masterpiece in the possession of Baron Stosch, one of the

great collectors of antique gems at this period. The reputation of this collection reached the Empress of Russia, and she ordered from Tassie "a complete set in the best and most durable manner." These were executed entirely to her satisfaction, and occupied a prominent position in the Imperial palace of Tsar-skoe-Selo.

From a purely decorative point of view these pastes are not particularly attractive; their colour is somewhat crude; they have none of that mellowness which is the feature of contemporary French or Spanish paste. This may perhaps be due to the large percentage of arsenic in their composition. A large number of them are in a case in the Gold Ornament Room at the British Museum. A typical specimen is illustrated in Plate XXIII. To the archæologist, however, Tassie's pastes are of absorbing interest, for many of the intaglios were so wonderfully reproduced that they could not be distinguished, even by experts, from the originals.

The vogue of paste in this century was by no means confined to England, France, and Spain. It must have been largely used in what is now called Germany; for there are several examples of Bavarian paste in the Victoria and Albert Museum. Among them is an interesting silver-gilt clasp for a neck-band decorated with filigree open-work, with a pearl in the centre, surrounded by garnets and emerald pastes. There is also a silver lozenge-shaped pendant, decorated with open-work and set with pastes reproducing emeralds, sapphires, and garnets. It is, however, somewhat gaudy. But in striking contrast to this are the charming necklaces worn by the women of Munich in this century. Plate XXIV represents



GEORGIAN STEEL SHOE-BUCKLE, SET WITH LARGE SQUARE DIAMOND PASTES

GEORGIAN SHOE-BUCKLE, SET WITH DIAMOND PASTES, SUGGESTING FRENCH INFLUENCE

TWO PAIR OF GEORGIAN PASTE BUTTONS, SET WITH DIAMOND PASTE

A TYPICAL TASSIE PASTE



a characteristic one, consisting of silver filigree links and a pendant set with nine oval ruby-coloured pastes.

Saxony, too, had her paste. Mr. Phillips had at one time in his collection a very interesting specimen—a necklace and pendant set with ruby and diamond pastes. It has a kind of barbaric crudity about it (suggesting Magyar influence) which, curiously enough, makes it very effective. It was a presentation, dated 1709, to a German countess and was made at Dresden. Further east, paste of this period is found in Hungary. The Victoria and Albert Museum possesses a rather handsome Hungarian silver-gilt belt composed of nine links, in the shape of ornamental crosses, which are set with pastes reproducing garnets, sapphires, and rubies in association with enamel work. Portuguese paste is similar to the Georgian as regards the size of the stones, which are all “cut to the mount”—that is, they stand out well beyond their settings, which are usually silver. From a distance this paste is effective, but close to, one is conscious of its garishness. A typical specimen, set with emeralds and pink topazes, is seen in Fig. 3 of Plate XXII. In strong contrast to this is the Italian paste, which even at this late period shows the influence of the Renaissance. Diamonds and rubies were the principal stones reproduced; they were not “cut to the mount,” but were usually set in somewhat ornate filigree work, distinctly reminiscent of the *cinquecento* goldsmith. Engraved rings were fashionable in Italy during this period. This is exemplified by the plainly mounted ring (Fig. 4, Plate XXII)—set with a very fine turquoise paste cameo, representing the Rape of Proserpine—preserved in the Victoria and Albert Museum.

Spanish paste of this period very often illustrates the fact that paste ornaments, from the point of view of design and decorative beauty, are frequently superior to those containing natural stones, for the simple reason that paste, capable of being made to any size, can be subordinated to the setting, whereas with diamonds, for instance, the design has to be modified to a certain extent according to the actual dimensions of the stones. On looking at one of these Spanish masterpieces of the eighteenth century, one is conscious, apart from its splendid richness, of a striking note of dignity that it gives out. It suggests, too, in a curious way, that its original wearer must have had a corresponding serenity of demeanour hardly consonant with modern ideas. To associate such a work of art with deception, or even with imitation, would be almost a sacrilege. It is no exaggeration to say that some of this Spanish paste, even when it is only a question of the stone itself, is more fascinating, on account of its exquisitely mellow tone, than the diamond with all its adamantine brilliance.



AN 18TH CENTURY NECKLACE WORN BY THE WOMEN OF MUNICH. IT IS SET WITH RUBY COLOURED PASTES





CHAPTER X  
NINETEENTH CENTURY

**A** PART from the fact that in France the guillotine had struck off the heads of hundreds that wore aigrettes and diadems, and that the most modest display of jewellery was almost a death warrant, the French Revolution by its suppression of the old guilds, including that of the *Corps des marchands-orfèvres de la ville de Paris*, dealt a death-blow to the jeweller's art in that country. Henceforth any individual, however devoid of skill or taste, could become a *maître*, without having, as under the old *régime*, to create a masterpiece which would justify his pretensions. The Revolution itself inevitably involved a violent reaction against the ideals of the late monarchy; the suppression of the guilds further destroyed that understanding which existed between the designer (who was no longer bound by the traditions of the craft) and the actual producer. This deterioration was accentuated by a spurious return to classical models, under the infelicitous influence of the painter David and his school, who could not realize the incongruity of flinging old reproductions of the antique into an essentially modern environment. A wit once remarked that David had substituted *le style pompier* for *le style Pompadour*. The classical fashion certainly reached a climax of absurdity when Madame Tallien

—and she was not alone in her eccentricity—promenaded the Champs Elysées in flesh-coloured tights, with a simple Greek tunic of lawn as an overdress, with several pairs of bracelets on her arms, species of bangles on her legs, and diamond rings on the toes of her sandalled feet. This plagiarism of the antique was more than a passionate renunciation of the fascinating models of the previous century; it was a subtle compliment to the modern Cæsar. Bonaparte after Marengo redeemed the crown jewels which were pledged abroad, and had them reset by mediocre jewellers, who were obliged to pander to the prevailing fashion. The crown which Napoleon, with his own hands, placed on his head at his coronation, was decorated with engraved stones and antique cameos. All the members of the new Emperor's family wore cameos of antique design in diadems, bracelets, ear-rings, necklaces, especially in the clasps of the jewelled girdles, even in the new popular hair-combs, which were oval, round, and even square, according to the prevailing fashion. In Plate XXV is shown a handsome pinchbeck hair-comb, set *à jour* with diamond pastes, certainly superior in design to the majority of Empire combs. The centre stone is an amethyst paste. The brass prongs, which fit into a groove, are reversible, thus allowing the comb to be worn at the front or at the back of the hair. This comb is of special interest as it further illustrates the fact that paste with an open setting, like that associated with natural diamonds, loses none of its effectiveness.

Lefèvre's portrait of Marie-Pauline Bonaparte, la princesse Borghese, painted in 1806, shows the princess wearing a large frontlet (*bandeau*) of cameos, ear-rings each containing



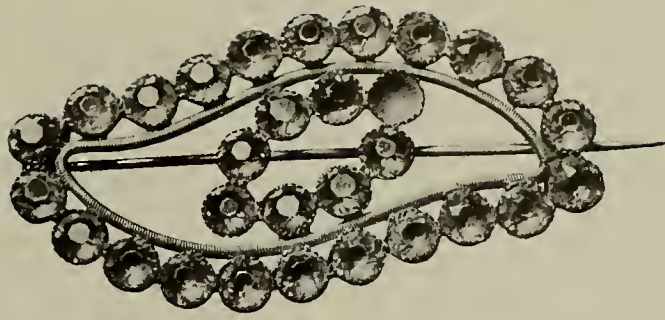
1. PINCHBECK *EMPIRE* COMB SET *À JOUR* WITH PASTE DIAMONDS  
2. GOLD SPRAY HAIR ORNAMENT, SET WITH DIAMOND PASTE. *EMPIRE*



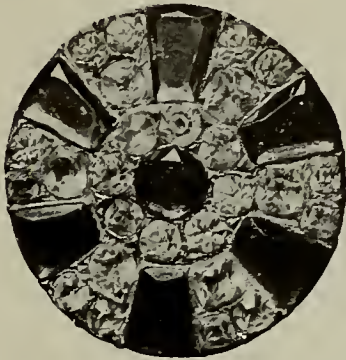
a cameo, and a still larger one in the clasp of her girdle. There were very few really antique cameos used at this time; the majority were manufactured by Italian workmen out of soft shells, or were produced in paste in the manner of Tassie. Paste was also used in the large proportion of the settings of these cameos. The prevailing fashion in jewellery often drew its inspiration from quite extraneous sources. During Napoleon's campaign in Egypt, for instance, scarabs and sphinxes became momentarily the favourite ornament, a very large number of them being made of paste. They had little or no artistic value. Such a fashion is typical of the attitude of the French at this time towards jewellery. A woman would often wear a jewel not necessarily to enhance her attractions but to convey some abstract idea.

Napoleon himself was literally covered with diamonds, from his famous velvet toque, with its eight rows of brilliants, the whole topped by the white ostrich plumes attached to the toque by a buckle, in the centre of which gleamed the celebrated *Régent*, down to the buckles of his garters and his shoes. Josephine, too, in six years spent twenty-five million francs on this uninspired jewellery, whilst the Emperor's *corbeille* to his second wife, Marie Louise, was valued at more than five million francs. Napoleon, who adored every form of showy ceremonial, practically insisted that all those—even state dignitaries—who came to his receptions at the Tuileries, should be sumptuously bejewelled. The diamonds worn by the court ladies, who danced the famous quadrille, *les Péruviens allant au temple du soleil*, were alone worth twenty million francs.

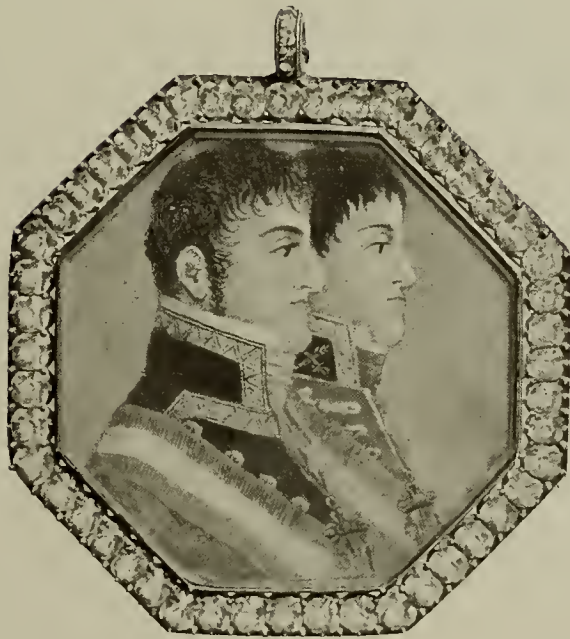
Now after the Revolution, France was so poor in diamonds that the wedding presents offered to the Neapolitan princess when she arrived as the bride of the duc de Berry were in *stras*! The demands of a court not associated with royal or even aristocratic traditions naturally gave rise to a new age of paste, this time not exactly a golden one. Many of those who went to court could not actually afford the indispensable luxury; others preferred not to concentrate their expenditure in this particular direction. To the Empire therefore belongs a large amount of paste jewellery, conspicuous among it being the necklaces of several rows of unequal length called *en esclavage*. But perhaps the most characteristic ornaments of the period are those which were worn in the hair, ranging from the simple frontlet (*bandeau* or *tour de tête*) to the more aristocratic diadem. In Plate XXV is seen an unusually dainty gold spray hair-ornament set with diamond pastes. The flowers are in the form of rosettes, in the centre of which the stones are beautifully faceted. The stalks themselves are in gold. A very large number of Empire paste brooches have been preserved. Fig. 1 of Plate XXVI shows a typical one in the shape of a leaf, the outer edge of which is set with paste amethysts, though in one corner—the left hand looking at the brooch—there is one setting with a sapphire paste to keep away the evil eye. This was not at all an uncommon arrangement. In the centre of the leaf are pastes reproducing Brazilian topazes. Fig. 2 of the same plate represents another Empire brooch ornamented with thickly-cut slabs of sapphire paste. The principal interest attached to this brooch is that it has a lead setting at the



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1. *EMPIRE* BROOCH, SET WITH PASTE AMETHYSTS, WITH A SAPPHIRE PASTE IN ONE CORNER TO KEEP AWAY THE EVIL EYE
2. *EMPIRE* BROOCH, WITH THICK SLABS OF SAPPHIRE PASTE. THE SETTING AT THE BACK IS OF LEAD
3. OCTAGONAL *EMPIRE* MINIATURE FRAME SET WITH DIAMOND PASTES *À JOUR*





back. These last three ornaments, all in the possession of Mr. Phillips, illustrate the fact that the majority of the Empire paste reproduced diamonds, rubies, sapphires, topazes, amethysts, and occasionally aquamarine. As has been previously stated, coloured pastes, as regards actual colour, are superior to precious stones. For this reason, as well as for one of economy, pastes were frequently mixed with natural stones in a *parure*. An example of this is given by the inventory of the jewels of the famous actress Mlle. Mars, who had one of the finest private collections of that time. This inventory was published in 1828, at the time of the notorious robbery, with a view to discovering the thief. No. 8 in that inventory refers to a necklace of pale-coloured emeralds, to the ends of which a few paste emeralds of a slightly deeper colour had been added to lengthen it. No. 33 deals with two large studs of paste rubies, whilst No. 37 describes a little ring set with a paste turquoise, on which was engraved the head of Napoleon. In the Victoria and Albert Museum there is a gold engraved snuffbox, on the lid of which is a striking miniature of Napoleon I, framed with paste brilliants. Inside the lid is an inscription recording the fact that this was a gift from the Emperor to Captain Ussher, of H.M.S. *Undaunted*, at Porto Ferrajo, in the Isle of Elba, May 27, 1814.

To this period also belong many long drop ear-rings, bracelets, and shoe-buckles. It was an age of exaggeration; some of these ear-rings were formed of several stones joined together by a fine chain (so long that they fell right on to the shoulder of the wearer), whilst many of the shoe-buckles

entirely covered the instep. The typical jewellery of the Empire was flat without any modelling or relief, just as if it had been cut straight out of a thick piece of metal. Snuff-boxes, as well as miniatures, were often set with pastes of different colours, but paste diamonds were predominant.

Empire paste, generally speaking, is wanting in that mellowness of colour and especially in that delicacy of design which are the features of the beautiful productions of the eighteenth century. There are, however, notable exceptions, such as those shown in Fig. 3 of Plate XXVI, in which is seen a very refined octagonal miniature frame formed of a single row of clear-set diamond pastes, in Mr. Phillips's possession.

The stones, however, are as a rule large and not too well faceted, the setting is somewhat clumsy, and the association of such bright-coloured pastes with ordinary colourless *stras* offers so striking a contrast in many cases that one is conscious of an almost garish note. Empire paste is cold, lacking that subtle atmosphere so intimately associated with the creations of the previous century. As an isolated work of art it inspires little or no enthusiasm; it evokes rather a picture in which brilliantly coloured uniforms and resplendent women play a prominent part.

With the return of the Bourbons came the inevitable reaction against the classic despotism and luxury of the Empire. David was banished; there was a general execration of all things antique. Chateaubriand's *Génie du Christianisme* and the masterpieces of Schiller evoked an enthusiasm for the Middle Ages. The new taste in jewellery was Gothic,

which was equally as artificial as the superseded classic. An ostentatious display of ornament now received no encouragement. It was no longer etiquette to wear much jewellery, and the new fashions, such as the long "leg-of-mutton" sleeves, which went right over the hand, precluded much display of gems. A large number of bulky topazes, amethysts, and aquamarines, introduced from Brazil, largely took the place of the more precious stones, and they were mounted in heavy Gothic settings, ornamented with a species of crude Etruscan-like granulated work. At this period there was not much paste owing to change of fashion and to the fact that the popular stones were comparatively cheap.

As a striking contrast to this ponderous type of jewellery were the ears of corn and sprays of wild flowers (not unlike that shown in Plate XXV) worn principally in the hair, but occasionally on the bodice of the simple gowns. In Mlle. Mars' collection there were eight sprigs of wheat in diamonds composed of five hundred brilliants. During this vogue many of these sprays were produced in a paste of excellent quality and simple design, recalling the *joie de vivre* of the days of Louis Quinze.

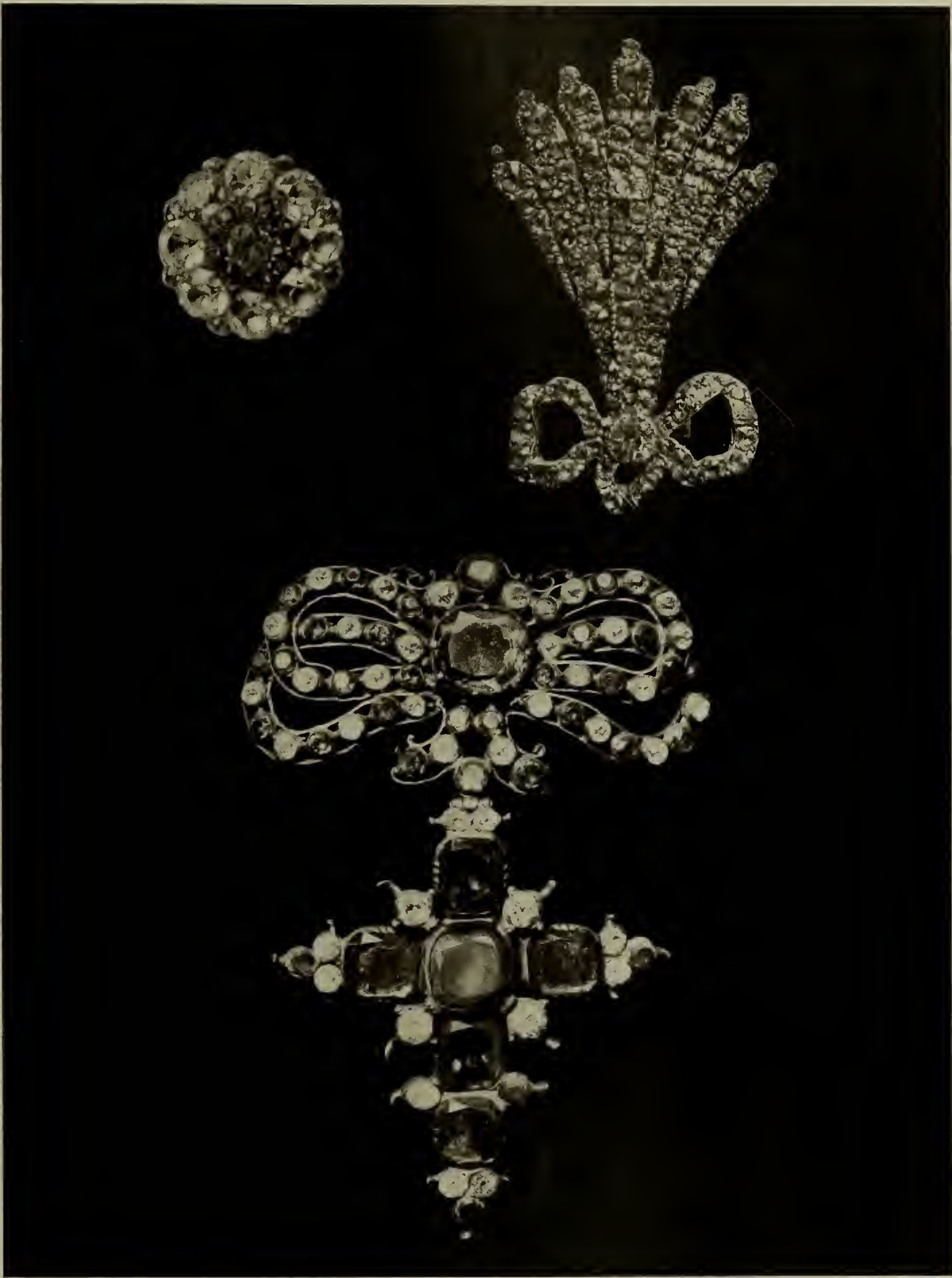
Towards the end of the Restoration, diamonds were once more *de rigueur*. A fashion journal of 1822 proclaimed the fact that all the ladies at that time were wearing diamonds, all actresses *stras*. There was now a general return on the part of the designers to nature; there are a few charming paste butterflies as well as some rather elaborate sprays of flowers belonging to this period that were worn in the hair.

With the advent of Louis Philippe came another Gothic

revival, not admitting of the use of much paste, which was now essentially *bourgeois* and mainly confined to the ornamentation of drop ear-rings and brooches with long pendants, in both cases evoking a reminiscence of some mediæval cathedral. The most unaffected paste jewels of this period were the *flèches* for the hair, several being worn in the same *coiffure*. There was also a charming type of brooch, with a quite simple setting, usually worn "in threes" on the corsage, one under the other, as well as dainty sprays of flowers for the hair. But, with the few exceptions quoted, the jewellery of the age was, to use Théophile Gautier's own expression, of "a retrograde and disconcerting mediocrity."

Meanwhile the Empire models seem to have had but little effect on the English ones. In England the early Georgian traditions were continued, though, perhaps, a little modified by the influence of Louis Seize creations. Paste buckles and buttons were still very popular with men. In Plate XXVII is shown a late Georgian button, consisting of a central cluster of pastes, reproducing the diamond and the topaz, surrounded by eight large diamond pastes and eight small yellow paste "points." Perhaps the most interesting of paste ornaments worn by women at the beginning of the century is the aigrette. A characteristic one, also belonging to the late Georgian period, is seen in the same plate. At the back of it an actual feather was probably worn. In this specimen, also in Mr. Phillips's collection, the stones—all diamond pastes—are finely faceted, but in places where the foil has perished the paste has a yellowy-brown appearance.

About the paste of the Victorian era, either in England or



1. LATE GEORGIAN BUTTON, SET WITH DIAMOND AND TOPAZ PASTES

2. EARLY NINETEENTH CENTURY ENGLISH AIGRETTE, SET WITH DIAMOND PASTES

3. AN ITALIAN PEASANT PENDANT CROSS AND KNOT, SET WITH EMERALD AND DIAMOND PASTES  
EXHIBITED IN THE CASTELLANI COLLECTION AT THE PARIS EXHIBITION OF 1867



on the Continent, there is nothing very distinctive or interesting. The style is essentially uninspired. However, in contradistinction to this there was some very striking Italian peasant paste jewellery (mainly from the Abruzzi district) on view in the Castellani Collection at the Paris Exhibition of 1867. Of these some of the choicest specimens are now in the Victoria and Albert Museum. A characteristic pendant cross and knot—a bridal gift—is the last illustration in Plate XXVII. The large pastes of the cross reproduce emeralds, the smaller one diamonds. The centre stone of the knot is also an emerald, which is surrounded by alternate diamonds and emeralds, all in paste.

To-day—though probably more paste is worn by Society than at any other period—the appreciation of paste by connoisseurs is mainly confined to antique examples. This is due not so much to the fine quality of the stones themselves as to the studied care and incomparable workmanship exercised in the setting of them. Contemporary paste to the vast majority is connected with everything that is tawdry and pretentious—almost counterfeit. This prejudice has naturally arisen from the fact that thousands of paste productions, with the most trumpery of settings, are turned out every year literally for the multitude. Paste deserves a better treatment. A precious stone “is not beautiful because it is large or costly or extraordinary, but because of its colour, of its position in some decorative scheme.” Paste essentially fulfils all these conditions of beauty. Few jewellers of the present day have exploited the possibilities of modern paste; they have mainly confined its use to replicas, which are often superior in colour

to the stones that are reproduced. By long association with emeralds, sapphires, rubies, etc., we have unconsciously come to believe that these colours are the only ones for jewels. The colours of precious stones are limited ; those of paste are unlimited, and as for sheer beauty, some of the intermediate shades between a ruby and a pink topaz, such as are now obtained in quite modern paste, are unsurpassable.

A paste of an original colour—with a high percentage of silica, which means durability—carefully faceted, tastefully set, is worthy, even in these days as in the Mycenæan age, of taking its place among the gems of the world, not as an imitation of them, but as a thing having a distinct and beautiful individuality of its own.



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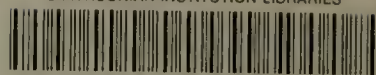






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