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Jewellery in Ancient Times

RENATE ROSENTHAL

Cassell · London

CASELL & COMPANY LTD
35 Red Lion Square, London WC1R 4SG
Sydney, Auckland
Toronto, Johannesburg

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© 1973 BY G.A. The Jerusalem Publishing House,
39, Tchernechovski St., P.O. Box 7147, Jerusalem.

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First published in Great Britain 1973

I.S.B.N. 0 304 29269 9

Printed by Japhet Press, Ltd., Givataim
PRINTED IN ISRAEL

F. 973

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INTRODUCTION

Jewellery is as old as man himself, and it is among the earliest artefacts he produced. In the beginning, the materials man used to make items with which to adorn himself were those immediately available—stones, shells and bones. Later on, precious stones and metals were used, but though the centuries have seen changes in materials, the forms and techniques of jewellery production are comparatively little changed from what they were in ancient times. In fact, most present techniques were familiar to the craftsmen of long ago.

As a means of personal adornment, jewellery was, above all, an expression of the innate desire of both men and women to beautify themselves, an aesthetic conception which has been shaped by time and the dictates of fashion, and which still applies today. At the same time, jewellery was an indication of social standing; persons of high position vied with each other in the precious jewellery they wore, a habit which has changed little over the centuries.

In societies where coinage and banking

systems were unknown, anything made of precious metal was a means to acquire and accumulate wealth. With this in mind, we can understand the significance of the rewards of jewellery given by the pharaohs to persons who distinguished themselves in their military or civil careers. Royal presentations of this type included various objects such as pendants, bracelets and collars, as we shall discuss later.

Another example of how jewellery was prized is from the Bible; the present offered by the suitor to his future wife, a gift of “jewels of silver and jewels of gold” (Genesis, xxiv, 53).

In times of danger, jewellery had the great advantage of being easily portable. Still, there was a tendency to hide it, lest the enemy should discover and appropriate it. This is well illustrated by the numerous treasures of precious metal objects, including jewellery, which were hidden in the ground by their owners and, for reasons unknown to us, were never recovered. One example is the “Great Treasure” of Troy, described in Chap. II.

Burials have provided us with most of the known jewellery from ancient times. And this leads us to another, equally important motivation for the making of jewellery. Since death was believed to be a continuation of life, the deceased was buried with all the objects he had owned during his lifetime. This placing of jewellery in tombs was also considered magical and apotropaic in character, expressing the desire to propitiate the gods, and to ensure protection for the dead in the underworld.

Much can be learned about the amulets worn during a person's lifetime from the many examples which have been found in tombs. (Amulets were charms worn for protection against evil influence.) The use and significance of amulets varied greatly in different periods and among people of different beliefs. Often it is difficult to establish if a particular piece was an amulet or a purely ornamental object, although, at least in early times, much jewellery had some magical significance in any case.

Gold was the most precious metal and the most desirable material for jewellery-making. Since its discovery, it has never ceased to play an important role in the history of mankind. The Greeks associated it with a special era: the "Golden Age", an age of human perfection and harmony corresponding to the Biblical paradise.

The reasons for the love of gold and the preference for its use in jewellery are many. Its primary appeal was the beautiful shiny colour of the metal and its soft texture, which was easy for the goldsmith to work. Above all, it was used by royalty in ancient times with the definite intention of ostentation. We have only to consider the fabulous amount of gold displayed in the contents of Tutankhamon's tomb, or that received by Solomon as yearly tribute and used by him for the embellishment of the Temple in Jerusalem, to understand the high esteem in which gold was held.

The principal, though not the only, sources of gold in ancient times were Nubia in Lower Egypt, where military expeditions for black slaves and gold were sent as far back as the time of the Old Kingdom, and the deserts east of Egypt, where the Egyptians systematically exploited the gold deposits. Thus Egypt was the richest gold-producing country of the ancient world—a fact well substantiated by archaeological finds—until the Romans began to exploit the Spanish gold mines. The Egyptian hieroglyph for gold was a collar of beads, indicating that beads made of gold were considered the most common pieces of jewellery; they would have been technically simple to make as well.

The exploitation of gold was a royal



Goldsmith weighing gold in scales. Egyptian wall painting

monopoly. The pharaohs sent out expeditions, drawing the labour force from prisoners of war or criminals serving time, for which there is a parallel in the Egyptian expeditions for turquoise in Sinai. The gold they brought back was controlled by the royal treasurer, who counted it out in rings and distributed it to the royal workshops in temples and at court.

There was no official sale of gold; the prices for slaves, houses, fields and anything else were fixed in copper rings measured in *debes*, units of 91 grammes, and very seldom in gold rings. However,

gold was an accepted currency for the payment of tribute or taxes. From written records found in Egypt we learn of various classifications of gold; sometimes stating its source or referring to its colour distinctions. There is "gold from Nubia"; "gold from the desert of Coptos", where in fact no gold is found, but through which the route from the Red Sea passed; "white gold"; "purple" or "red gold"; and "green gold". Other descriptions classify the gold into "good", "second quality" and "third quality".

The sites of ancient gold deposits are known either through written sources or

through gold deposits found in modern surveys. We know that Egypt's main source of gold was Nubia, but sources also mention the famous Kush, land of ancient Ethiopia; classical authors such as Herodotus and Strabo mention Meröe as a source; and gold could have come from areas much farther to the south, such as Somaliland and Madagascar. There are also reports of Sinai as a source; however this must refer to gold brought from the west coast of Arabia, Midian and Sabae. Strabo also mentions the east coast of Arabia, the land of the Gerrheans. Other sources referred to by classical authors are India, Persia, Armenia, Thrace, and Macedonia; there was little gold in Asia Minor and Cyprus. And so it is clear that the civilized river valleys of ancient times, in Egypt, Mesopotamia, Syria and Palestine, were devoid of gold deposits. These countries, apart from Egypt, had to import the precious metal, and of course Egypt's gold sources gave her enormous power over those countries trying to acquire gold. In fact, there are numerous records from the archives of royal princes from all over the Fertile Crescent actually begging the pharaoh to send them gold. In this manner, gold provides a means for the study of ancient trade connections. It seems that very little gold jewellery was bought or sold by way of trade, even though there were gold-

smiths in the various countries.

Gold was highly sought by the Israelites. The Bible mentions as sources of gold: Arabia (II Chron. ix, 14); Sheba, i.e. South Arabia (II Chron. ix, 1) and Ophir, King Solomon's famous gold land whose site is not known with certainty; India, Sumatra and Arabia were also suggested (I Kings ix, 28). The metal was used not only for jewellery, but more importantly for the gold vessels of the tabernacle (Exodus xxxvii, 16), the *menorah* (Exodus xxxvii, 23) and the mercy seat (Exodus xxxvii, 6-9). King Solomon is reported to have made "300 shields of beaten gold" (I Kings x, 17) and a "great throne of ivory and overlaid it with best gold" (I Kings x, 18). There are also references to golden jewellery in the Bible; we hear of earrings and bracelets (Genesis xxiv, 22 and 47), of stones, onyx inlaid in gold (Exodus xxxii, 4), and many more instances which will be discussed later.

Paintings found in Egyptian tombs as well as classical sources vividly illustrate the processes used in the working of gold and the making of jewellery. Again, there are also references to this in the Bible. Goldsmiths are mentioned in Nehemiah, iii, 32, and the "refiner and purifier of gold" is mentioned in Malachi, iii, 3. We further hear of the melting of gold in a furnace (Proverbs, xvii, 3); of beating gold and other tech-



Jewellers drilling and polishing beads as depicted in an Egyptian tomb painting

niques: "And they did beat gold into thin plates, and cut it into wires, to work it in the blue, and in the purple, and in the scarlet, and in the fine linen, with cunning work." (Exodus xxxix, 3). The Israelites could have learned these processes while living in Egypt, or later from the Phoenicians.

Before continuing, we shall explain briefly the techniques known and practised in ancient times. The two basic elements of which jewellery was made were sheet metal and wire, each object being made of several separate parts joined together by soldering and then decorated by means of different techniques.

"Sheet metal" is a technical term denoting a layer of metal, made thin by hammering. Since gold is a malleable metal, it can easily be beaten when cold and, even if it cracks or breaks, can be welded together at quite a low temperature. The melting-point of fine gold is 1063°C. With time, of course, standards of beating gold to certain thicknesses began to vary. In general, Egyptian sheet gold was found of a thickness between 0.17 and 0.54 millimetres. Pliny, the Roman historian and savant, tells us that an ounce of gold could be beaten into more than 750 thin leaves, measuring "four fingers each way". This is surpassed today, when technical standards have been so

much improved that the same ounce can be beaten into a sheet covering 100 square feet. The thickness of modern sheet gold is between 0.0008 and 0.0002 millimetres.

Wire was the second basic element required for jewellery making. It was made of very thin strips of sheet metal which were hammered into round-shaped lengths. It was surprisingly economical to work with gold wire: just one ounce of gold could be worked into a fine wire no less than 80 km long! Wire was used for various purposes; its use for filigree decoration has been mentioned, but it was most often used to make chains for necklaces. As well as using one single piece of wire, two pieces could be twisted together to form a continuous spiral or any number of single wires could be twisted together to form the desired thickness.

Among the processes used to decorate jewellery, we must differentiate between those punched into sheet gold, such as *repoussé*; and those added to, or applied to, sheet gold, such as filigree or granulation. The most common example of the first type, used from early times onwards, is the *repoussé* technique, a process in which the decoration is hammered and punched into the sheet metal from the reverse side and finished with a chasing tool on the front. (Hammers and punches were of bronze, copper, wood and horn.) This technique was

not practical however when several objects with the same decoration were required. For this purpose, a related method was used, which was called stamping, best known from the production of Mycenaean relief beads. The preparation of the decoration was in fact done in the same way as described, but once ready it could be used for easy repetition. For stamping it was more convenient to make the punch of a harder material, for example, bronze.

Similar processes were beating over a core and beating into a mould. The first method required a core over which the gold was hammered. When the objects were spherical in shape, the core could not be removed; thus we know that it generally was made of wood and paste. A variation was the use of bronze cores, feasible when a relief decoration was desired, since the core could be removed when the work was completed. Any spherical object had to be made in two halves which then were soldered together.

Beating into a mould was feasible when more than one copy of a particular piece was desired. Moulds found and thought to have been used for this process are mainly of bronze, rarely of stone and terracotta. It is possible that wooden ones were used, though none have been found as yet. The sheet metal was hammered or punched into the

mould and probably a *force* (a strip of lead which was hammered into the mould together with the gold) was sometimes used. With this method, the gold itself was not touched by the hammer.

We turn now to the various processes used to apply decorative elements to a piece of sheet gold. There were four techniques involved: *cloisonné*, filigree, granulation and inlaying. In many cases, the most intricate patterns were achieved by a combination of these processes.

Cloisonné and filigree are similar techniques. For *cloisonné* decoration, the desired design was punched in very lightly on the back of a base-plate. Following the outline of the design, strips of gold were soldered to the front. In this way, many cells (called *cloisons*) of different shape and size were formed. These cells were then filled with a cement-like paste, which provided the bed for a decoration of inlaid semi-precious stones or glass. In the best work of this class, the stones or glass pieces were shaped exactly to fit the *cloison* and were held in position by the gold strips.

In filigree work, wires in the shape of the decorative elements were soldered to the piece of sheet metal.

Granulation involved the application of minute grains of gold directly to the sheet metal; the smaller the grains, the greater the skill involved. The grains were soldered to the background in the

shape of the pattern desired. While simple designs could be made free-hand, more intricate patterns required the so-called transfer method. The design was engraved on a plate of stone or metal on which the grains were laid out in a pattern. Then, by means of a small tube, covered at one end by papyrus or leather spread with adhesive, the grains were picked up from the plate. The next stage involved applying the mixture used in the soldering process and placing the pattern on the sheet metal. After the removal of the papyrus cover, the piece was ready for soldering; altogether a fairly complicated procedure. However, the use of this method meant that the pattern on the plate could be reused as often as desired.

The inlaying technique involved the attaching of coloured stones or glass to a background, achieved by means of cells shaped by pieces of wire, solid strips, or rows of grains.

The finds from such centres as Ur, Troy, and Byblos show us that both filigree and granulation came into use in the ancient Near East in the second half of the 3rd millennium BC. The techniques discussed, including *cloisonné*, were not known before 2000 BC.

There were periods when one certain form of decoration was in vogue: for example, the relief beads of the Mycenaean world; or granulation, which was

tremendously popular in Etruscan jewellery. In fact, the Etruscans were the great masters of granulation work, producing grains as small as 1/100th of an inch (0.25 mm.) and even 1/180th of an inch (0.14 mm.). On the other hand in classical Greece filigree was popular while granulation was rarely used.

The last stage in jewellery production was joining and polishing. The most common method of joining all the elements together was soldering. This is the process of joining two pieces of the same metal by using an alloy (the solder) which has a lower melting-point than the metal. Here, we differentiate between 'hard' and 'soft' soldering according to the higher or lower temperature at which the alloy is fusible. Apparently, in ancient times, soft soldering was not used. There are two forms of hard soldering, both of which were known in antiquity. For normal hard soldering, known in Mesopotamia from the 3rd millennium onwards, gold alloyed with silver or copper, or a mixture of both, was used. Pliny suggests a mixture of six parts of gold to one part silver. Since all metals, except for pure gold, oxidize when heated, thus preventing the solder from covering the joint, a material called *flux* is necessary, named thus because it allows the solder to flow. It is not known exactly which material was used for the

flux in ancient times, possibly natron or, as one classical writer advises, burnt dregs of wine. Today borax is used. Besides this common method of hard soldering, another method, known today as colloid hard soldering, was practised, though its use was restricted to applying decorative elements and it was not used for fusing major joints.

In the 19th century, attempts were made to revive the art of granulation, which had died out in AD 1000. It soon became apparent that while the method commonly used for attaching filigree was hard soldering, this method was not feasible as far as the attachment of grains was concerned. Many experiments were made without success. Finally, in 1933, the Englishman Littledale developed a better method which he termed 'colloid hard soldering'. With this method he managed to make several fair replicas of intricate pieces of ancient granulation and filigree decoration. In fact, no solder is required in this technique. A type of glue is prepared from gum and copper salt, which, when applied to the joints, hardens and does not need additional support. The object is then heated and the final joint is made. This process can be used for silver with equally good results and, in fact, there are descriptions of what seems to be a similar process by certain ancient writers, although the details are not clear.

The final step in the process of making a piece of jewellery is the polishing of the jewel itself. This is done with a rubbing stone; possibly an agate was used in ancient times as, in fact, is often used today.

This book presents an account of the jewellery discovered in the Holy Land: that is, in the areas populated by the various people who lived in the Holy Land from 10,000 BC until the advent of the Crusader period in the late 11th century. In ancient times, this area was situated at the cross-roads between two highly developed cultures — Mesopotamia on one side and Egypt on the other — and was exposed to cultural influences from both of them. And certainly, in the field of jewellery as well as in other arts, the area of the Holy Land was the recipient rather than the donor. As a result we must consider as well the general cultural development in neighbouring countries. We must also keep in mind that, in order to present a historical picture of jewellery development, we must relate cultural developments to political events, about which we obviously have more knowledge. Therefore, the book is arranged chronologically, covering the periods from prehistoric times until the Middle Ages. However, this chronological framework has little or no bearing on style and fashion in the jewellery market.

We shall not attempt to present a catalogued account of Palestinian jewellery. Rather, we shall emphasize the descriptions of the most typical ornaments of certain specific periods of time. Many of the objects described are selected more for their aesthetic value, again the expression of a certain age. We will see, for example, that among

the Canaanite population of Israel the appreciation of beautiful objects of adornment was more developed than among the Israelites, whose religious conceptions forbade such "extravagances", a situation which continued among the pagan Greek and Roman populations on the one hand and the Jews in later periods on the other. And so, let us begin.

I FROM PREHISTORIC TIMES TO THE BRONZE AGE

1. *The Stone Age*

In the Stone Age, man made the tools and other items he needed for everyday use out of the material most easily available to him — stone. He also made his objects of personal adornment from readily available materials such as pebbles, animal bones, and teeth and shells (dentalia). The main forms which these objects took were pendants, necklaces, headdresses, and anklets, many of which have been found in tombs. They had religious significance connected with magic beliefs and practices.

2. *The Natufian Period (10,000–8000 BC)*

In Israel, the earliest extant objects of adornment are dated to the Natufian period, that is, when man started to make his home in caves and huts. During this period, people buried the dead below the living levels of their homes.

In Mount Carmel, near the present-day city of Haifa, in a cemetery near the el-Wad cave, the burial of an adult in a

contracted position was recently unearthed. The head was adorned with seven rows of shell beads. A simply shaped but attractive necklace of twin bone pendants and tubular dentalia beads (*illustrated*) was found on the same site.

Since the material for dentalia beads was plentiful in seashore areas, these beads appear in great quantity in the Mount Carmel caves, which are not far from the Mediterranean coast. Dentalia have also been found on inland sites, such as Eynan in the Huleh Valley and in Wadi Khureitun in the Judaeen Desert.

3. *The Neolithic Period (8000–4000 BC)*

Jewellery similar to that of the Natufian period continued to be produced and worn in the Neolithic period. In Jericho, the world's oldest town, beads of nephrite (jade), a semi-precious translucent stone of white, grey or greenish colour, have been found. Although objects made of a material which may have



Prehistoric necklace of bone and dentalia beads

been jade were identified in Neolithic settlements in Egypt, it is not known for certain that nephrite existed at such an early date in that part of the ancient

world. Jade is found in India and China, but nowhere in Western Asia. Other semi-precious stones can easily be mistaken for nephrite.

4. *The Chalcolithic Period (4000–3200 BC)*

It is in this period that we find the first evidence of contact between Israel and the Nile Valley. This is important not only for the study of jewellery from Israel, but for that of all other aspects of Palestinian culture as well. Copper was used for the first time, although not for objects of everyday use.

Two Chalcolithic settlements, Tuleilat Ghassul to the north-east of the Dead Sea and Tel Abu Matar near Beersheba, have yielded a comparatively large amount of jewellery of a type which indicates increased use of semi-precious stones.

In Tuleilat Ghassul, pendants and bead necklaces seem to have been the two main types of jewellery used, although a fragment of a bracelet made from bone was also found. The pierced, flat pendants of rectangular, trapezoidal or triangular shape were made of mother-of-pearl, bone, or various stones such as limestone, haematite, carnelian, and serpentine. It is difficult to know whether these pendants were used as amulets with symbolic significance, or whether their purpose was merely decorative. The round or tubular beads found at this site were made of shell, bone, and various stones.

A greater variety of objects came to light at Tel Abu Matar and the neigh-

bouring sites of Safadi and Khirbet el-Bitar. Here again pendants are the most popular objects, rectangular or trapezoidal in shape, and made of turquoise, mother-of-pearl, bone, marble, and other stones. Some are decorated with a chevron design. Two holes at the top indicate that these pendants were worn hanging from a necklace. As is the case with the pendants found at Tuleilat Ghassul, we still do not know if these were purely ornamental or whether they served as symbolic amulets. Carnelian, shell, and copper beads, and stone and ivory bracelets were also found; as well as an artistically outstanding bone hair-pin with a head shaped like a pelican, shown here. The preserved fragment of the pin is 4.5 centimetres (about two inches) high.

An incised slab from approximately the same period was found at Megiddo during the large-scale excavations by the Oriental Institute of Chicago (1925–35). The slab shows a man in a praying position, wearing a necklace with a trapezoid-shaped pendant.

The stones mentioned above, as well as ivory, were more abundant in Egypt than in Palestine. Their appearance in the Holy Land naturally suggests that the two countries maintained trade relations even at that early age. Turquoise is found today in the Sinai Peninsula, and carnelian is plentiful in the east desert region of Egypt. Serpen-



tine and haematite are found there as well, although their sources in ancient times are still unknown. Ivory, of course, was brought into Egypt from the south, where it had been in use since Neolithic times. -

Toward the end of the Chalcolithic period, metals and precious and semi-precious stones slowly came into wider use in Egypt. The Chalcolithic Age

corresponded to the pre-Dynastic period in Egyptian history. During this time, silver was used for beads and rings, while gold was beginning to make its appearance on the jewellery scene. The blue stone called *lapis lazuli*, popular in later times for jewellery inlays, was used for the first time in the common Egyptian animal-shaped amulets. None of these has been found so far in Israel.

II THE BRONZE AGE

Israel's Canaanite or Bronze Age corresponds roughly to the Early Dynastic period and the Old, Middle, and New Kingdoms in Egypt. From the time of the Old Kingdom onward, most Egyptian jewellery was made of gold, with frequent use of inlay. This is not surprising, for this was the era of the great Near Eastern high cultures in Mesopotamia and Egypt which saw the development of a highly sophisticated style in the fields of architecture, sculpture, and minor arts such as ceramics, glass, and jewellery-making. The jewellery made then was of a high technical standard and included a great many styles and forms, although not all of these appeared at the beginning of the Old Kingdom. Although styles and tastes often changed rapidly, the superb craftsmanship of the Egyptian goldsmiths remained consistent. While silver and bronze were extensively used, it was their gold jewellery that was especially attractive. The goldsmiths perfected their craft by combining the precious metal with precious and semi-precious stones such as agate, amethyst,

beryl, calcite, cornelian, chalcedony, coral, feldspar, garnet, haematite, jade, jasper, *lapis lazuli*, malachite, onyx, pearl, sard, sardonyx, serpentine, and turquoise. Many of the precious stones of modern times, such as diamond, opal, ruby and sapphire, were not known to the ancient Egyptians.

A famous example of the masterly combination of gold and inlay workmanship is the pectoral (chest-plate) of a noblewoman named Sit-Hathor-int, which was found in 1913 in the pyramid of Sesostris II by the British archaeologist Sir Flinders Petrie. Dated to about 1840 BC, the pectoral (*see colour plates*), amuletic in character and making use of religious symbolism, was worn on a chain. It is executed in *cloisonné* work inlaid with 372 pieces of *lapis lazuli*, cornelian, turquoise, and glass. The *cloisonné* technique was very popular among Egyptian goldsmiths and the pectoral of Sit-Hathor-int is one of the more beautiful examples of this style. In the centre kneels Heh, the god of infinite space. A tadpole is hanging from

Right: Necklace of carved carnelian beads from Beth-Shean



his arm and he is holding two palm branches. Two royal falcons lean against the palm branches with one claw, while their second claws rest on a *shen* sign, the lower part of a cartouche, an oval ring containing hieroglyphic names and titles of the Pharaoh. The falcon was venerated as a deity called Horus. Originally, the falcon Horus was considered to be the sky god, but he became identified with the Pharaoh during the latter's lifetime. Above the palm branches, the cartouche of Sesostri II is represented. It is held by two *Uraei* (cobras), which were used as the headdress of Egyptian divinities and kings. To the Egyptian, the *uraeus* was the emblem of royal rule and power. On this chest-plate, the two *uraei* coil around sun discs on the heads of the falcons, while *ankh* signs, the symbols of life, hang from their necks. This scene is not enclosed in a frame. It is separated by a bar at the bottom and grouped in a sort of opposition to the god Heh and the royal cartouche. The message of this piece is that the sun god, Ra, represented by the falcons and the *uraei* will give thousands of years of life to Sesostri II, in whose pyramid the chest-plate was found.

There were regions outside Egypt which also developed high-quality techniques in gold work. For example, excavations at Troy have shown that Trojan craftsmanship did not fall short of Egp-

tian work. This is even more obvious when we remember that the settlement of Troy II, dated somewhere between 2500 and 2200 BC, was extremely prosperous.

It was here that Heinrich Schliemann, one of the world's first archaeologists, found his "Great Treasure" in the ashes of what was once a large palace. Schliemann was convinced that Homer's stories about the Trojan War were completely true and he set out to find the treasures therein described. Thus, when he found an apparently "royal treasure", Schliemann was certain that he had come upon the treasure of Priam, King of Troy.

The objects among the "Great Treasure" included gold jewellery, gold and silver vessels, and copper and bronze



Sophie Schliemann adorned with jewels from "The Great Treasure"

weapons. All of these had been buried and hidden in the earth by the owner, who presumably never had a chance to recover them. The jewellery consisted of two diadems, a band for the forehead, four earrings, six bracelets, and 8,700 gold beads of different sizes and shapes. The workmanship, especially of the diadems, displays a high degree of skill. The larger of these two pieces is quite intricate. It is formed of a top chain with numerous chains and pendants hanging from it. Altogether, there are 90 chains, in two different lengths, hanging from the piece, which is about 50 centimetres long. The outer hanging chains, four on each side, are about 38 centimetres long and they are decorated at the ends with idol-shaped pendants. The inner chains, only 10 centimetres long, are decorated with leaf-shaped pendants. The chains are made up of a number of fine rings, while the leaf pendants are made of sheet gold with ribs in *repoussé* technique. The other pendants are decorated with rows of dots and bosses crafted in the same manner. The second diadem, though much smaller, is very similar to the larger one and both diadems have matching earrings.

1. *Canaan in the Bronze Age*

We leave the splendour of Egypt and Troy to turn to Canaan, a region from

where pieces of such magnificence as those just described have not yet been unearthed. But Egyptian influence in the jeweller's craft is easily discernible. Politically speaking, Canaan was a province of Egypt during the later part of the Middle and Late Bronze Ages (1900–1200 BC), and this situation manifested itself in jewellery production. Canaan consisted of a number of city-states whose princes were client rulers of the Egyptian empire. The princes, of course, tried to imitate the habits of life and the standard of living of the Egyptian court, and so they ordered their local jewellers to imitate the products of the latter. Among the more prominent of these city-states were Hazor, Beth-Shean, Megiddo, Schechem, Jerusalem, Tell el-Ajjul near Gaza, Lachish, and Ascalon. The material wealth of these places was immense due to the rapidly growing trade connections with Near Eastern countries; especially those of the Eastern Mediterranean.

The fine collection of jewellery unearthed by Sir Flinders Petrie at Tell el-Ajjul vividly illustrates prosperity. The find also displays the level of the Canaanite jewellers' artistic ability, which began as an imitation of court jewellery but ultimately developed its own merits.

2. *The Early Bronze Age (3200–2200 BC)*

The finds dating to the Early Bronze



The gold disc from the tomb near the Sea of Galilee

Age are background for the descriptions of the lavish finds of the Middle and Late Bronze Ages. This was also an age of fortified city-states. Unfortunately, excavators have reached only scattered levels of this civilization, therefore we have comparatively little knowledge of their objects of daily use.

A unique piece was discovered in a tomb near the Sea of Galilee. It is, as illustrated, a small gold disc, 5.8 centimetres in diameter, and is attributed to a later phase of the Early Bronze Age. The object, pierced in the centre, was probably worn as a pendant or used as a belt buckle. Its purely geometrical decoration is in the *repoussé* technique, whereby the decoration is hammered into the reverse side of a thin sheet of gold. The piece is unparalleled; nothing exactly comparable has been discovered to date

in Israel or anywhere else. Generally, however, it can be compared to gold and silver discs with small pierced projections indicating that they were attached to necklaces.

A silver disc found at Gezer and several examples in gold and silver from Anatolia testify that Canaan was linked in some way to the former. Of course, we have no way of establishing whether the Galilean and Gezer pieces were real imports or if local craftsmen were imitating Anatolian prototypes.

The more simple types of jewellery from this period included beads made of various materials: bone from Jericho and Ai, carnelian from Megiddo and Ai, and shell from Jericho. Of special interest are the star-shaped *faience* pendants, each pierced with two holes, from the famous Tomb A at Jericho. *Faience*, invented in Egypt in the pre-Dynastic period, was made of a white paste of powdered quartz. It was first shaped and then covered with a blue, green, or bluish-green glaze. Occasionally, violet, white, or yellow were used, and in rare cases black or red as well. The purpose of the *faience* method was, of course, to imitate precious stones.

Besides beads, amulets, and jewellery inlays, *faience* was used in the production of a variety of objects such as tiles and vessels. The *faience* pieces found in Canaan were of Egyptian origin. Along

with the *faience* beads, a copper finger ring was also found in the tomb at Jericho. It is shaped in the form of a coiled serpent.

The Early Bronze Age came to an end with the destruction of the existing cities in a manner which is still unknown to us.

3. *The Middle Bronze Age (2200–1550 BC)*

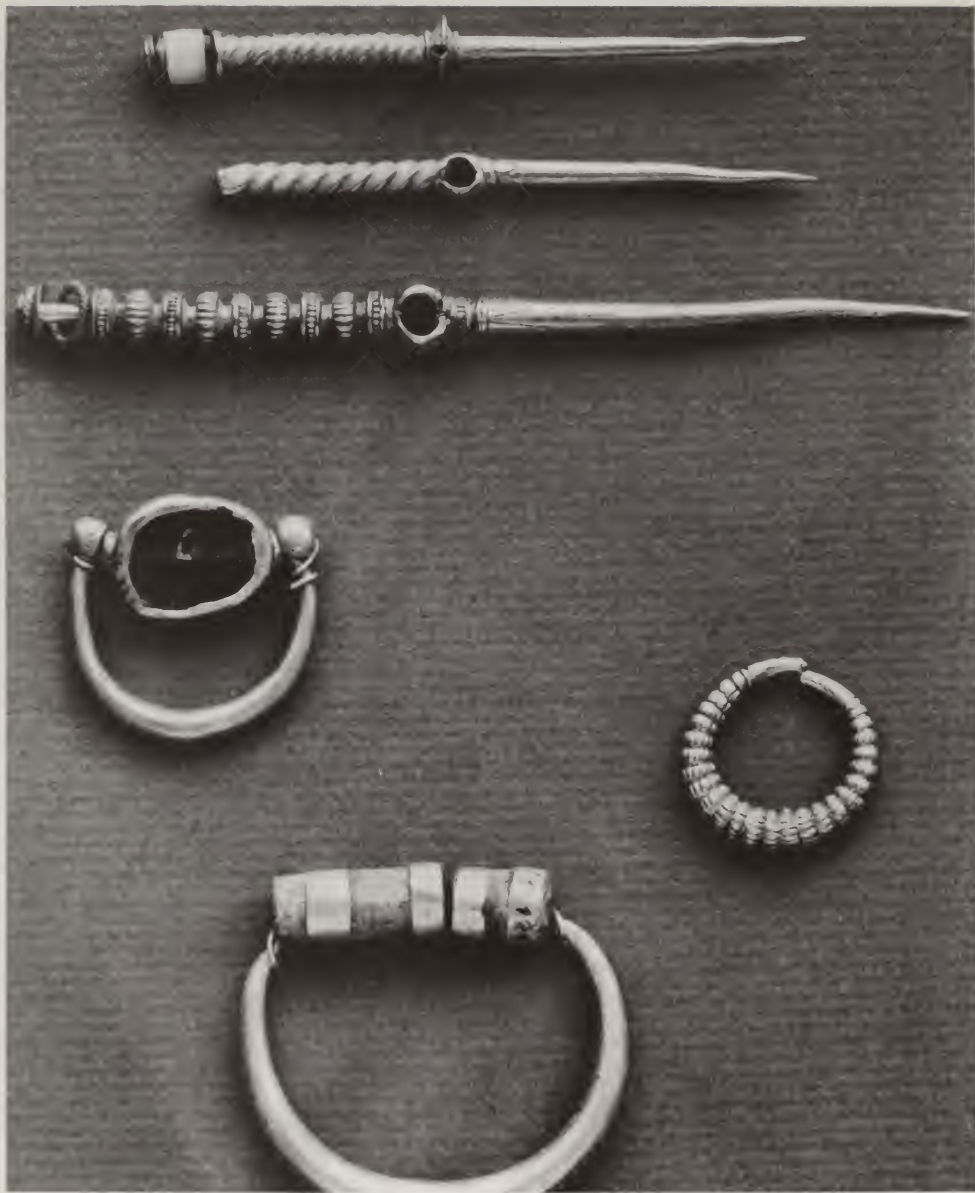
In the early part of this period there were few opportunities for artistic expression. It was a time of invasions and shifts in population, comparable to the Dark Ages in Europe at the time of the migration of the barbarian tribes.

The situation in Egypt improved when the dynasties of the so-called Middle Kingdom came to power at the beginning of the 20th century BC (1991–1786 BC), bringing with them a period of stability. In fact, the pectoral of Sit-Hathor-int, described at the beginning of this chapter, dates to this period. In Canaan, however, objects of personal adornment were still very simply made. This has been proved by the finds amongst the mass burials discovered at Jericho. The picture changed when a new people, called by the Egyptians Hyksos (meaning “Rulers of Foreign Countries”), established themselves as the rulers of Egypt after they took possession of the Canaanite city-states. This period brought a certain

prosperity to Canaan because economic conditions improved under the strong Hyksos rule.

The archaeological remains of Megiddo, Lachish, Tell el-Ajjul, and other sites confirm the changes in economic conditions, although no other ancient site has yielded as much gold jewellery as Tell el-Ajjul near Gaza. One of the finds of this tell, the so-called “Treasure of the Cenotaph”, contained a group of interesting gold pieces. The cenotaph itself, erected for a local queen, stood in the open courtyard of a Middle Bronze Age palace, and was a brick tower containing a single chamber. It was not an actual burial place, but rather a memorial and a repository for the queen’s personal jewellery. The objects were laid on a rough stone floor. They included bracelets, rings, toggle-pins, and pieces of sheet gold which had not yet been worked. There were two sets of five bracelets, each numbered by a series of cuts near one end. It is clear that they were worn in groups of five, for the middle bracelets are flattened where they touch and the outside ones have rounded edges.

The pair of small ribbed earrings (*illustrated*) cannot be paralleled by anything from Egypt. As a matter of fact, earrings from the period of Hyksos domination and before are rarely found in Egypt. For this reason, the pair of earrings from



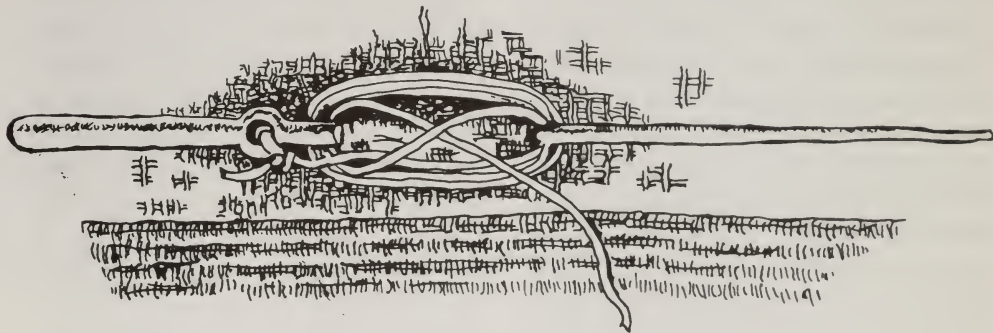
Tell el-Ajjul, fashioned in Western Asiatic style, was probably a product of local workmanship. A pair of large rings was also found, each consisting of a bar of greyish-blue *lapis lazuli* beads set in gold (*illustrated*). These rings are too large to be finger rings; they may have been used as earrings.

We might mention here the importance of jewellery for the study of ancient trade connections. Although *lapis lazuli* is not known to be found in its natural state in Egypt, it was used there from pre-Dynastic times and extensively after the Middle Kingdom. From the trading of this particular stone, we can see that trade connections were widespread in the Ancient World. Egyptian texts from the Old Kingdom onward mention several sources of *lapis lazuli*, mainly various regions in Western Asia as well as Meröe and Punt, to the south of Egypt. It must have originated elsewhere,

therefore, probably in Afghanistan. It was most likely obtained by Egyptian merchants trading in the above-mentioned areas.

Two gold toggle-pins were also found in the "Treasure of the Cenotaph" at Tell el-Ajjul. They were used for fastening garments as illustrated and, as can be seen, the pins are the forerunners of the fibula and the modern safety pin. The toggle-pins consist of a central hole with two stems on either side. The heads of the two pins found in this treasure are broken off, and only part of the twisted upper stem remains. The lower section of pins of this type was always smooth. The pin was stuck through the garment and fixed in place with thread or string. The name "toggle-pin" was chosen by Sir Flinders Petrie; it was by no means a good choice, but it has been used ever since by most archaeologists.

Toggle-pins have been connected with



Above: A drawing showing how the toggle-pin was used

Left: Toggle-pins and rings set with lapis lazuli from the treasure of the Cenotaph

the appearance of the Hyksos, but they continued through the Late Bronze Age and into the Iron Age until the fibula took over their function. Other examples from the same site include a large pin with a tubular cap at the top and a loose ring below which originally held a paste bead. Also found was a pin with an onyx bead at the top.

Two finger rings were found as well among the jewellery at Tell el-Ajjul. One of these has a scarab of grey *lapis lazuli* engraved with a seated, winged dog and scorpions. The second gold ring is surmounted with a haematite scarab showing a figure of the child Horus with a life-sign before him and a papyrus plant behind him.

Finger rings were not particularly common in Egypt from the Early Dynastic period to the time of the Middle Kingdom, but afterwards they were introduced as a means of holding a scarab. In certain Egyptian religious conceptions the scarab beetle was sanctified as a god (Kephri), and it was identified with Ra as a creator-god, when it became the symbol of regeneration. The scarab was therefore worn as an amulet by both the living and the dead. As well as being of magical value, the scarab served as a seal and as such was widely imitated in the Phoenician, and later in the Israelite, cultures. In later periods, it was used by the Greeks, Etruscans,



Scarab showing a winged scarab-beetle —
Lachish 7th–6th century BC

and Romans. Although the scarab is an Egyptian conception, few of the scarabs found in Canaan are of Egyptian origin. Most of them, in fact, were manufactured locally. The Canaanite scarabs imitate their Egyptian prototypes, but there are often serious mistakes in the hieroglyphics on them.

4. *The Late Bronze Age (1550–122 BC)*

The Late Bronze Age ushered in a flourishing period of Canaanite culture.

Local culture changed when the Egyptians expelled the Hyksos in the 16th century BC and established the New Kingdom, beginning with the 18th Dynasty. Due to the development of intensive trade relations among all the countries of the Eastern Mediterranean, a period of great material prosperity began.

Politically, as well as culturally, Canaan was a province of the Egyptian empire. This fact is witnessed in the excavations of such important city-states as Megiddo, Beth-Shean, Hazor and Tell el-Ajjul, among others. A huge amount of jewellery has survived from that time; it has been discovered in hoards and tombs, in public and in private buildings. The objects indicate that the average Canaanite jeweller, although making use of the religious motifs connected with his own gods and beliefs, took his inspiration, technique, and style from Egyptian goldsmiths. The technique of granulation for instance, developed as early as the Middle Kingdom, was widely used by Egyptian goldsmiths and imitated by Canaanite jewellers. In contrast to the Egyptians, the jewellers of Canaan were not yet using this technique in the Middle Bronze Age. However, several Canaanite masterpieces using the technique of granulation have survived from the succeeding Late Bronze Age.

5. *A Jeweller's Hoard of Scrap from Tell el-Ajjul*

An outstanding collection of jewellery was found hoarded in a pottery vessel at Tell el-Ajjul. Since several hoards of gold and silver scraps were found on the site, Sir Flinders Petrie suggests that they belonged to a local jeweller who had intended to melt the gold down and fashion new objects from it. Unfortunately such hoards, by their very nature, consisted of objects of different shapes and dates, and they can very rarely be dated precisely. Not only were these hoards collected over a long period of time, but they also consisted of objects collected at random by traders.

The types of jewellery found at el-Ajjul were plaques worn as pendants; earrings and toggle-pins (all of gold); silver bracelets; rings; pendants; a headband, or diadem, of electrum (an alloy of silver and gold); and a fragment of a gold belt or bracelet.

The plaques are definitely apotropaic in character, depicting the Canaanite goddess of fertility. They are among many representations of the goddess on stone, clay, or metal which were very common in that period. They also strengthen the importance of this particular goddess as the symbol of life, death and creation. From historical sources, especially the Ugarit texts, we

know that the Canaanites worshiped three fertility goddesses: Ashera, the mother goddess, Astarte, and Anat, the sister and consort of Baal. Since all three were venerated alike as goddesses of fertility, any of them could be the one represented on the above-mentioned plaques. Astarte is the Phoenician name of the fertility goddess, known to all Semitic peoples in the Orient. She was called "Ashtoreth" by the Hebrews and "Ishtar" by the Assyrians and Babylonians. In Hellenistic-Roman times, she was identified all over the Greek Orient with the goddess of love, Aphrodite-Venus.

In the Bible, this goddess is frequently mentioned. It is known that the Israelites incurred the wrath of the prophets for worshipping pagan deities. For example, in I Kings, xi, 33, we read: "Because that they have forsaken me, and have worshipping pagan deities. For example, Zidonians. . ." In figures and on plaques, Astarte is depicted nude with emphasis placed on her fertility attributes. However, there was a tendency towards schematization which meant that only the head, the breasts, the navel and the vulva were shown.

Two well-preserved plaques from this diagrammatic group were found at Tell el-Ajjul. The larger plaque (*illustrated*), 9.5 centimetres long, is cut from thin sheet metal with the features of the god-



Gold plaque from Tell el-Ajjul representing a female goddess



Nude goddess from Ugarit

dess punched in. The upper part shows the face of the goddess with an impassive expression. The lower part shows her female attributes. The figure is set within a dotted line following the shape of the pendant. Technically speaking, this piece was worked in the following manner: first the gold was beaten on a flat stone by another stone held in the goldsmith's hand until it reached the desired shape and thickness. The design was worked in the *repoussé* technique; executed with a hand punch on the back and a chasing tool on the front.

The second plaque, 7 centimetres long, is worked in the same technique. The goddess wears the hairstyle of Hathor, the Egyptian goddess of many functions and attributes. (Hathor's coiffure was very often imitated in Canaanite art.) The goddess is represented in a frame of criss-cross decorations 3 millimetres wide. The decoration follows the outline of the plaque. A good parallel to this object was found at Ugarit, a well-known Phoenician port.

Two additional pendants showing the fertility goddess, in poorer states of preservation, were among the finds in the hoard. One shows the face with a Hittite hair style and the other displays the full figure of the goddess.

Also found were two silver crescents with loops. These simply shaped items were worn as pendants. Crescent shapes

were quite common among various peoples in different periods; they probably represented the new moon. The two eight-pointed stars found were also worn as pendants.

A gold plate in its initial planning stages as a star pendant shows how these pendants were made. The first stage was to cut the general shape of the star out of a sheet of gold. Each ray was then embossed separately with a pair of tongs.

Three pairs of large earrings are executed in granulation work: that is, the patterns were executed by soldering minute grains of gold to a larger gold sheet. This technique, which died out in about AD 1000, was common in Egyptian, Near Eastern, Mycenaean, Etruscan, Greek, Hellenistic, and Roman gold work.

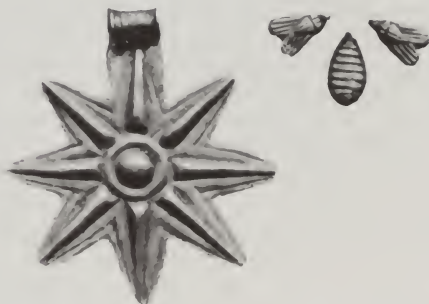
One of these three pairs of earrings shows excellent workmanship. The earrings (*not shown*) are crescent-shaped, with a loop at each end. A fine wire was threaded through the loop, which then pierced the lobe of the ear. The surface is decorated by four lines of grains to which triangles are attached. The edge is decorated with clusters of three grains each and these project above the surface. The diameter of the crescent is 4.2 centimetres.

The second set of earrings, each 3.4 centimetres in diameter, is of inferior workmanship. The surface is

punched up into a boss in order to support the grains. These are grouped in circular patches, and are attached to the surface by means of a wire. This attachment by wire demands much less skill than the application of grains to a flat surface.

The third pair, shaped like the two other pairs, is of very poor quality, with even coarser grains.

Besides these earrings, simpler and smaller ones were found in the hoard, in shapes common all over the Middle East at that time. They include plain round earrings in the shape of a tapered hoop — sometimes decorated with clusters of small grains at the bottom — as well as torque earrings. The round earrings are made of sheet gold which was beaten over a core of paste; while others were made from a hollow tube. The torque earrings consist of two strips



Gold star pendant and fly amulets from Tell el-Ajjul

folded along their length to form a "V"; after being soldered back to back, the strips were twisted around their common axis and coiled into a ring.

The tapered hoop earring was a rather popular type, which continued to be used in later periods. The plentiful examples from Tell el-Ajjul are certainly the work of local craftsmen and, indicating that the type of work was well-known in the Middle East, it seems to have been of Syrian origin. In the area of Tell el-Ajjul, the style is already attested to in the second millennium, while in Egypt its appearance before the New Kingdom is doubtful. It is not found in Cyprus before the Late Bronze Age.

The silver bracelets and rings from the hoard are simple and deserve no special mention. The six toggle-pins, however, are of an elaborate style. One is made of gold and five of electrum. The largest is 9.2 centimetres long.

Only fragments were found of an electrum head-band. A thin band, measuring 1.7 centimetres by 0.7 millimetres, shows seven short sockets which were meant to hold metal rosettes or similar decorations. Diadems used as headdresses were known in Egypt from the Early Dynastic period. At first they were made as simple bands, but gradually they became more and more elaborate. There is no doubt that these were imitated by the local Canaanite

princes during the Late Bronze Age.

One headdress in particular, belonging to one of the wives of Thutmose III, dates to about 1490 BC (*see illustration*). It is very unusual because it is an example of the court dress worn by the rulers of the New Kingdom. The flexible diadem was meant to cover most of the wig, which was then the fashion at court. It is made of inlaid gold rosettes with two sections hanging down; each rosette fits into the ones above and below it and each has two ring-beads at either side. The whole diadem gives the impression that it is made of one piece of gold, so closely do the integral parts of the piece fit together. Other existing examples show that the diadem usually consisted of a band with one, or several, rows of pendants. These help us to reconstruct the fragment from Tell el-Ajjul.

Another headdress of probable Egyptian origin was found at Gezer — it is made of ram's horns surmounted by a crown on either side.

Our description of the contents of just one hoard gives us a good idea of the type of jewellery prevailing in Canaanite Israel. A few more examples from Tell el-Ajjul and other sites will conclude our survey of Canaanite jewellery.

Four amulets shaped like flies, two of which are shown here, and one shaped like a bunch of grapes, were found in a room of a private house at Tell el-



Headdress belonging to one of the wives of Thutmose III

Ajjul. These amulets may be connected with the worship of the Canaanite god, Baal-Zebub, whose name means "Lord of the Flies". However, they may also have been ornamental signs awarded by the Pharaoh to distinguished soldiers. In an inscription from the time of the 18th Dynasty (the first dynasty of the New Kingdom), we are told that a soldier received the following reward from Thutmose I following a campaign against the Hyksos: "Of gold: one bracelet, six flies." These flies were

probably worn as pendants on a necklace. The military importance of Tell el-Ajjul and its proximity to Egypt gives support to the awards-to-soldiers explanation.

Right: Back panel of Tutankhamon's chair

Overleaf left: Mummy portrait

Overleaf right: Necklace with crescent-shaped pendant, ca. 2nd century BC











Gold pendant in the shape of a flying hawk from Tell el-Ajjul

The use of amulets was widespread in Canaanite culture as well as in other cultures of the Near East. These amulets were stone, gold, clay, or *faience* pendants and represented certain animals. Some typical shapes include the hippopotamus, cat, ape, frog, ram, and uraeus (cobra). Other amulets took the shape of an eye or of various gods.

In the jar burial of a child at Tell el-Ajjul, a necklace with two amulets was found. These were made of gold overwound with a finer wire. One of the pendants is a *faience* representation of

the god Horus, mounted in gold. The second is a hippopotamus pendant, made of amethyst.

Another common amulet was the sacred eye, which was believed to have protective powers. It may have been intended to be the eye of Horus, one of the important gods of Egypt. A gold pendant found in the hoard, and shown here, is shaped like a flying hawk. It may also have been intended as an amulet. Three specimens of these amulet pendants were found at Tell el-Ajjul, one of them in a roadway where it had ap-

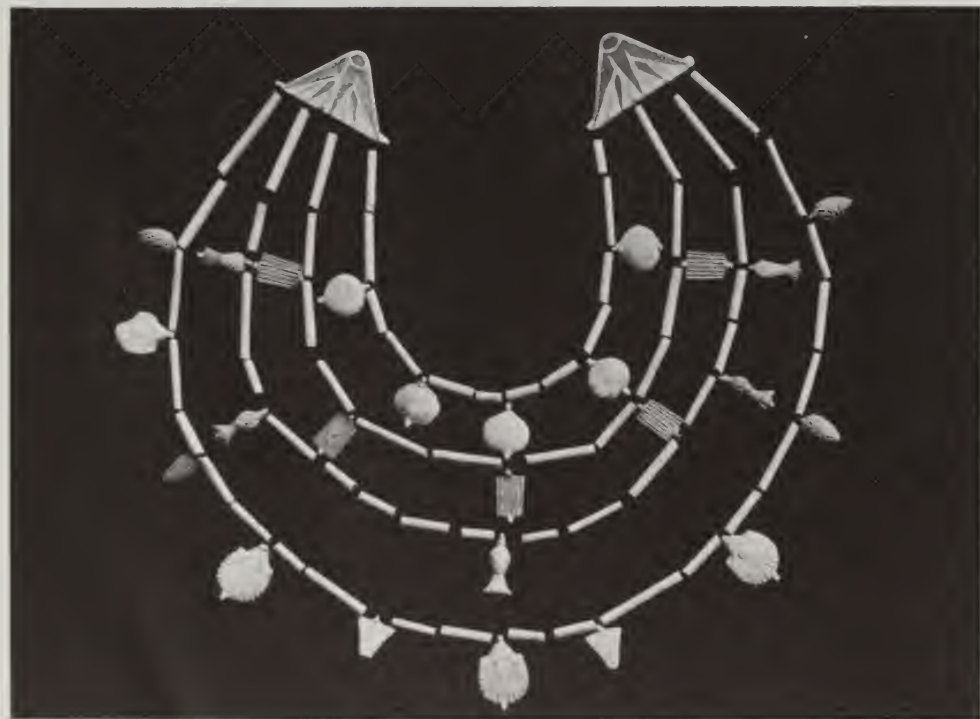
Left: Gold necklace with Emperor Domitian coin pendant

parently been dropped by the wearer. These pieces are closely related in technique to the crescent-shaped earrings with granulated decoration from the same site, described earlier.

Although the jewellery found at Tell el-Ajjul is particularly impressive, there can be no doubt that other Canaanite city-states were producing objects of similar quality. For instance, a pendant found at Beth-Shean shows fine workmanship. It depicts the incised figure of an Egyptian goddess, standing upright in profile,

and wearing a wig. She is holding a *was* (sceptre), the symbol of happiness.

Another example is the *faience* pendants unearthed in the temple of Lachish, where they were brought, together with other objects of worth, as offerings to the gods. The necklace shown here was found in the latest of the Lachish temples, dating to the 13th century BC, and is Egyptian in style and technique. Eighty pieces of *faience* beads and pendants were found scattered over the floor. The pendants are in the form of fruits and



Faience necklace from Lachish

flowers, including bunches of grapes and palmettes.

Scarabs worn on rings, and heavier ones for pendants, were commonplace in the Late Bronze Age. They bear the names of Pharaohs, especially the more powerful rulers, such as Thutmosis III and Amenophis III. In some cases, they show representations of gods and symbolic scenes.

One scarab from Tell el-Ajjul shows Thutmosis III seated in a river barge. The attributes of Osiris, god of the underworld, identify the dead king with the god. Also from this same site came a scarab depicting Amenophis II as a bull trampling an anonymous enemy.

The heart scarab had a special meaning in Egyptian religious beliefs and rituals. It was placed on the breast of the mummy in place of the heart, for the process of mummification required the internal organs to be removed from the body of the deceased. These were stored in four jars called "Canopic" jars which were dedicated to the four sons of Horus, the gods of the dead.

Regulations in the Book of the Dead required that the heart scarab be made of grey stone. On the lower part of the scarab was inscribed a wish to the heart, asking it not to act as a hostile witness against the deceased when called to the Judgement Hall of Osiris. The inscription said: "My heart of my being stand

up not against me as a witness. Do not weigh heavy against me in the presence of the Keeper of the Scales."

In concluding our study of the Canaanite period, we shall examine a few typical examples of jewellery from neighbouring countries. These are the countries with which the Canaanites had trade relations and, at some time or another, they were influenced and inspired by their trading partners in the fields of architecture, the minor arts, and spiritual matters.

6. *Egypt at the Time of the 18th Dynasty*

Few discoveries from antiquity have inspired greater awe and admiration than the finds from the tomb of Tutankhamon, whose name means "Living Image of Amon". Tutankhamon, often known as King Tut, was a son-in-law of Ikhmaton, the Pharaoh who attempted religious reformation in Egypt and introduced the cult of the sun god Aton in place of the Theban god Amon and all the other gods of Egypt.

Tutankhamon's tomb is dated to the second half of the 14th century BC. It is the only tomb of an Egyptian Pharaoh which was not robbed in antiquity and which was therefore found almost intact. Among the many objects found in the tomb was Tutankhamon's ornamental coffin. Its back panel (*see*

colour plates), about 20 inches square, depicts the king and his queen, Anchesenamón, and the scene gives us an idea of the jewellery worn at official court ceremonies. It shows Tutankhamón and his wife under the rays of the sun, Aton. The king is seated at his ease on a chair, with one of his arms resting on its back. The queen is standing before him, anointing Tutankhamón from a jar of unguent.

The panel is made of sheet gold inlaid with silver-coloured glass, *faïence*, and calcite. The flesh is represented by red glass; the ceremonial wigs and the crowns are of blue *faïence*; the royal robes are of silver.

The king and queen wear broad, heavy pectorals, made in *cloisonné* technique. Tutankhamón, moreover, wears a broad girdle and two wide bracelets of gold, inlaid with stones. Anchesenamón wears a girdle hanging from her waist and a bracelet on her right arm.

7. *The Aegean World in the Bronze Age*

In the Aegean Bronze Age cultures three geographical centres are distinguishable: Crete, the Cyclades, and Mainland Greece. Initially, Crete, whose culture is known as Minoan after its legendary king Minos, was the dominant centre. An abundance of finds in the

area demonstrates in particular the wealth and masterly workmanship of Cretan jewellers. When the island was settled by immigrants from the East, Anatolia or Syria, in about 2800 BC, they seem to have brought with them the art of jewellery-making which they had learned from the peoples of Mesopotamia. Although we should assume that the Cretans received their gold from Egypt, no Egyptian influence is discernible in early Cretan jewellery.

A fine group of jewellery, dating from the early part of the second half of the third millennium BC, was discovered in the tombs on the island of Mochlos. The principal objects in this find were diadems, hair ornaments, beads, pendants, and bracelets. The jewellery, although very attractive, is executed in simple techniques, using sheet metal decorated with *repoussé* and filigree work.

The diadems, about 20 to 30 centimetres long, were worn around the forehead. Found in tombs, some of them show signs that they were worn, while others indicate that the dead, as in other eras, were buried with their personal belongings in the form of jewellery. The diadems are decorated with figures, animals, or various patterns executed in raised dots embossed from the back. Diadems of a comparative style have been found in the Royal Tombs at Ur,

thus indicating Mesopotamian influence.

Evidence that hair ornaments were used are the fine hair-pins found in the tombs. These are pins made of wire and decorated with crowns of leaves made from sheet gold. The beads found are not only of gold, but of amethyst, crystal carnelian, steatite, *faience*, and shell. They are globular, disc-shaped, and biconical in shape and some are of a drum-like form. A great number of pendants, shaped like leaves of different sizes, and sprays and axes, worn strung on simple chains, were found as well.

Other sites in the area contributed pendants in animal shapes: for instance, a bird made of chalcedony, a lion of bronze, and a pig of ivory.

Early Cretan jewellery is far surpassed by that of the first half of the 2nd millennium BC, which leads us to the period of the famous royal palaces at Knossos, Phaestos, Mallia, and Hagia Triada. This is also the period of good trade relations between Crete and other countries of the Mediterranean world. Crete received copper from Cyprus, zinc from Anatolia, precious metals from various centres in the area, and ivory and alabaster from Egypt, while the island itself exported oil, wine, wool, and wood.

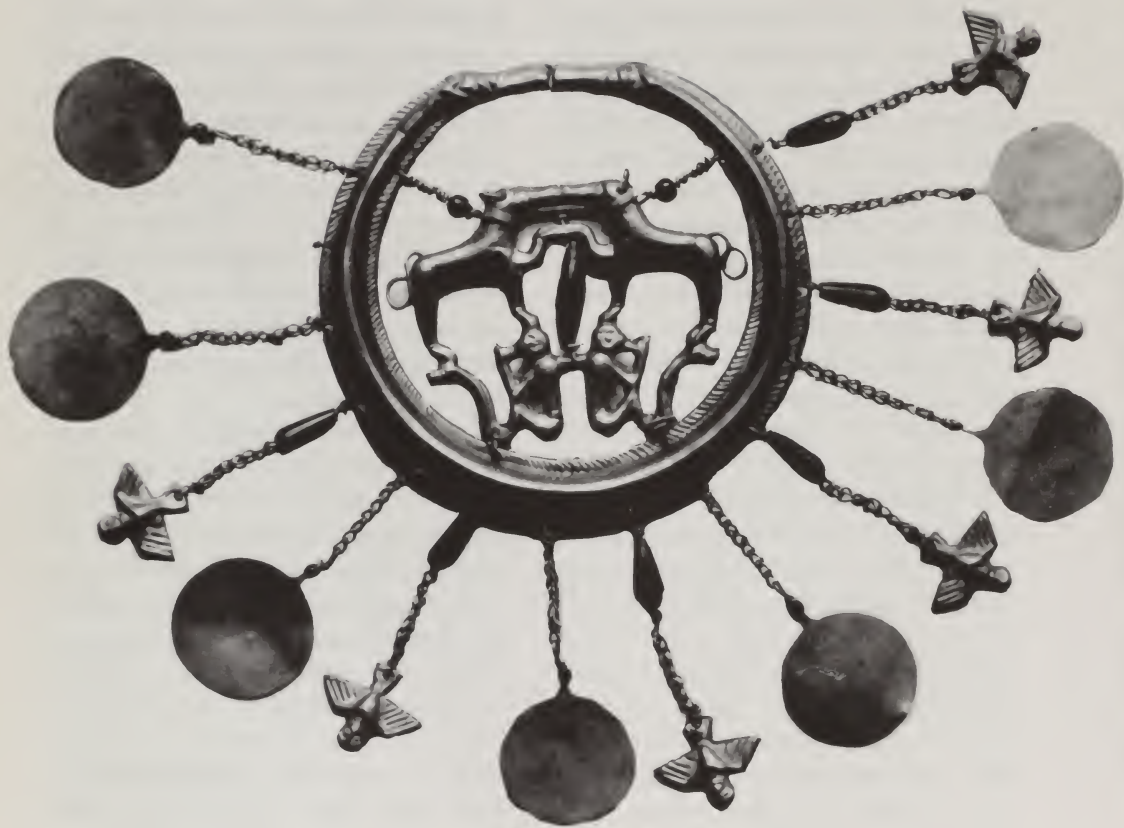
To this period belongs the famous "Aegina Treasure", now in the British Museum. This group of metal objects

was supposedly found in a tomb near Aegina (a town on an island opposite Athens), but has been proved to be of Cretan origin. The bulk of the extant jewellery dates to the 17th century BC.

Western Asiatic and Egyptian artistic influences can now be seen very clearly. While the find indicates that diadems, hair-pins, and beads continued to be used, earrings and finger rings made their appearance as well. In the field of techniques, three important innovations were introduced: granulation, filigree, and *cloisonné*, all of which were previously known in Mesopotamia, Western Asia and Egypt.

By now, gold diadems were less common and were mostly of plain gold sheet metal with occasional *repoussé* decoration. Earrings took the shape of tapered hoops, a widespread style mentioned in the account of the Tell el-Ajjul jewellery. The finger rings have plain or engraved top decorative surfaces or are made of semi-precious stones set in gold.

The technical innovations mentioned before can be seen in the elaborate pendants from that period. A fine pendant from Mallia (*Crete*) shows two hornets in heraldic position over a honeycomb. Three discs are suspended from the bottom, one from the centre and one from each side. The upper part of the pendant, above the heads of the hornets, consists of two beads, one of



Pendant with dogs and monkeys and carnelian beads, from the Aegina treasure

which is set in a larger bead made of wire. The technical processes used in this piece include sheet metal with embossing; granulation used for decorating the borders of the discs and the honeycomb; and filigree, used for the details of the hornets' bodies. The pendant has a flat back, is hollow and is 4.6 centimetres high.

Another exquisite pendant was found in the "Aegina Treasure", depicting a man who is standing in frontal position on lotus flowers, holding two birds arranged in heraldic position. Five discs are suspended from the bottom. The pendant, flat at the back, is made solely of sheet gold. This is also true of the pectoral from the same treasure, which is made of a curved plate terminating at each end in a human head in profile. The inlay of the eyes is missing. Ten discs hang from the jewel in this pectoral.

Another typically Cretan piece is the pendant shown here, in the shape of a recumbent wild goat. It is hammered and embossed from a sheet of gold, and there are three small gold discs hanging from the legs of the goat.

The beginning of the 2nd millennium BC was marked by political changes, namely the destruction, by man and nature, of the Cretan palaces and the arrival of the Mycenaean Greeks on the island. Culturally though, there was no break, and the three Aegean centres were



Pendant in the shape of a wild goat, Aegina treasure

united by the Mycenaean culture.

Now is the time to look briefly at the development of Greece, which was settled at the same time as Crete by Asian immigrants. These people established a culture which lasted until about 1900 BC. Considerable prosperity existed, although little evidence of it has been unearthed. One example is the gold vessels and a group of jewel-



Gold death mask from Mycenaea

lery from Thyreatis, a town in the Eastern Peloponnese.

This group of jewellery gives evidence of Greek relations with Western Asia, especially during the last phase of Troy II (see the finds of Heinrich Schliemann at Troy II discussed at the beginning of this chapter). However, the jewellery is much less developed in technique, using wire and sheet gold only. One necklace is made of round beads of concentric hoops of thin wire, strung on a chain, from which in turn 23 small chains are hanging, with a small wedged-shaped pendant at the end. There were also hair-pins with heads in the form of bulls' heads, a minute jug, and beads of various forms. At other sites in the Aegean, silver diadems imitating the golden ones from Crete were found.

The next three centuries in Greece were marked by a period of considerable poverty, which lasted until about 1600 BC, when a renewal of cultural connections with Crete and the Eastern Mediterranean brought about a revival. This leads us to the time when Greek culture was epitomized by the city of Mycenae in the Argolis, a culture which, in the course of the 15th century BC, spread all over Greece. The reasons which contributed to the sudden primacy of Mycenae in architecture and art are still shrouded in mystery.

The discovery of the famous Shaft-

Graves of Mycenae is due to Heinrich Schliemann. Just as he believed in the authenticity of Homer's stories of Troy, Schliemann was determined to verify Homer's description of Mycenae as a city rich in gold. In seventeen tombs he discovered 13.5 kilogrammes of precious metal, mostly gold. Some of the grave objects, such as the gold vessels, seem to be of Cretan origin, while the jewellery was most probably made in Peloponnese workshops employing local workmen but established and supervised by Cretans. This would explain the scarcity of filigree and granulation work, which by that time were so typical of Cretan craftsmanship. The jewellery types represented in the Shaft-Graves are diadems, bracelets, earrings, finger rings, pendants and beads, clothing ornaments and pins.

The diadems are oval-shaped, of thin sheet gold, with delicate decorations in the form of circles or spirals punched from the back, sometimes with additional leaves or rosettes attached to the top. A simpler type is represented by a diadem consisting of a narrow strip of sheet gold, ornamented in dot-*repoussé* with floral motifs and geometric patterns. Three chains terminating in three plaques hang from the diadem. The bracelets are also made of thin strips of sheet gold, decorated with rosettes.

Earrings are made of gold and silver

wire of the simple hoop-shaped type. Another type of earring is made of several hoops of wire ending in two spirals. One pair of elaborate earrings provides the only instance of granulation among the jewellery from the Shaft-Graves. The surface of the earring is ornamented with four-petalled flowers with granulated grains in the centre and on the four edges.

Pendants in the shape of a crouching lion were found as well.

The clothing ornaments are of special interest. These are cut out of gold sheet metal with decoration in *repoussé* and they were apparently worn attached to garments. They display a number of motifs and show a variety of influences from Syria, Anatolia, and Crete. The naked goddess with three doves above her head on one such ornament is rather unusual and seems Oriental in conception. Another shows a goddess in typical Minoan dress, so well known from the Cretan frescoes and other descriptions, showing the woman in a long flounced skirt and a jacket cut to the waist, cut in a way which leaves the breasts exposed. There are also ornaments with animal decorations such as cats, deer, birds arranged in heraldic position, a butterfly, an octopus, sphinxes and griffins.

The octopus is a typically Cretan motif, represented on pottery vessels and

adopted by the Mycenaean repertoire of painted vases. The sphinx, a hybrid figure with a lion's body and a human head, originated in Egypt and reached Crete and Mycenae by way of the Near East, especially through Crete's Syrian connections. The griffin, a fabulous creature with a lion's body and an eagle's head and wings, reached Crete and Mycenae through Syria. In fact, the representation of the griffin on the ornament from the Shaft-Graves is amongst the earliest known in this area.

The finest piece of jewellery found in the Shaft-Graves is a silver pin in the shape of a shepherd's crook, 21.5 centimetres long, with a gold pendant head. The pendant depicts a goddess in Cretan dress, her outstretched hands holding two garlands. Above her head are two pairs of incurved volutes, out of which grow three branches ending in papyrus flowers and fruits. Above the branches are three more papyrus flowers. This piece displays Cretan and Egyptian motifs, but the workmanship indicates local Mycenaean craft.

Although the jewellery finds from the Shaft-Graves at Mycenae mark the beginning of the Mycenaean jewellers' craft, there is little further development in the following centuries. The Mycenaean culture continued into the 12th century, when major political changes occurred in the Eastern Mediterranean.

The Mycenaean civilization was destroyed by Hellenic tribes. Parallel to this event, the so-called "Sea Peoples" overran the great centres of Canaanite civilization and attacked Egypt. Upon being forced to retreat, some of their tribes settled along the south-western coast of Israel. One of these tribes was the Philistines, known to us from the Bible. At the same time, the Israelite tribes, having already settled the country east of the Jordan, took possession of the hill country and the Shephelah, the hilly region between the Central Mountain Ridge and the coastal plain. These events usher us into the Iron Age, so called because it was at this time that iron was introduced as a metal for the production of tools and weapons.

Politically, the last phase of the Bronze Age of the Aegean was marked by two events: the conquest of Knossos about 1475 BC, and the settlement of Cyprus by Mycenaean Greeks in 1400 BC. From this time onwards, we can speak of a homogeneous Minoan-Mycenaean culture, brought about by further increase of trade relations between Egypt, the Palestinian-Phoenician coast, Syria, Anatolia, Cyprus, and mainland Greece. All existing aspects of cultural life prove that these relations were enormously fruitful.

Let us return to the jeweller's craft. It has previously been noted that there

had been little development of types of adornment. However, workmanship and technique greatly improved. Granulation made use of finer grains; enamel was introduced around 1450 BC; and in the 13th century, glass became increasingly popular for inlay and beads. Several forms of jewellery found in the Shaft-Graves apparently went out of fashion. Diadems were no longer found in Greece and Crete, but only in Cyprus; clothing ornaments became rare; and earrings were not found in Greece until the 9th century BC, except for Cypriot imports.

The object typical of Mycenaean jewellery is the so-called relief bead, a gold bead made out of sheet metal which was then stamped, thus forming a shallow relief decoration on the outside. From the back, a flat piece of gold was soldered on and the hollow space was filled in to strengthen the object. Each bead was pierced with one or more holes for attachment to a chain. Some were made more elaborate by stressing certain details in granulation.

The earliest examples of these beads were found in Crete, in burials dating from the 17th century BC. In the course of the 15th century, they became the standard object of adornment and were produced in large numbers — one of the first examples of mass-production in ancient jewellery. The standard reper-

toire, of great variety, was taken from marine life, animals and plants — motifs known from the contemporary Minoan and Mycenaean vase painting. Common representations were argonauts and shells, papyrus flowers, ivy-leaves, lilies, buds, rosettes, curled leaves, an altar or shrine. The following example from Mycenae, dated to ca. 1400 BC, shows beads in the form of a rosette with a curled pendant. The hollows of the rosettes were originally filled with blue enamel, a common practice.

Cyprus, because of its unique geographical position between East and West — the Near East and Greece — developed a style of its own. It was exposed to a variety of influences, both Aegean and Oriental, which gave this island its special cultural features. Jewellery finds from the period between 1400 BC and 1050 BC are plentiful and of very good quality. In fact, this period could be described as the “Golden Age” of the island. Another important reason for the special position enjoyed by Cyprus is that when the Mycenaean world collapsed many of its artistic forms were preserved in Cyprus in the period of the Dark Ages, ca. 1100–800 BC, and later were reintroduced into Greece.

The variety of influences upon Cypriot culture can be observed in the diadems of the 14th and 13th centuries BC. It is interesting to note that the diadem



Diadem found in a tomb near Larnaka

had disappeared from Greece and Crete a century before it appeared in Cyprus, and it seems that the Cypriot goldsmiths were copying an existing Western Asiatic form. However, the technique of stamped impression, actually intended for making relief beads, is clearly of Mycenaean origin.

The example presented here was found in a tomb near Larnaka on the south-east coast of Cyprus, and is 16.1 centimetres long. The diadem is decorated with both small and large rosettes, the commonest variety of relief beads. There are also lilies with a small projection in the centre. Above each is an altar with flying goats, crouched goats, wild cats' heads and a mask depicting a human face.

The pendant in the shape of a pomegranate found at Enkomi (*illustrated*) is typically Mycenaean, especially the fine granulation arranged in rows of inverted triangles which hang from it. It is possible that it was made by a Mycenaean jeweller, and it is exemplary for its



Pendant in the shape of a pomegranate, from Enkomi

superb mastery of the granulation technique, achieved by Mycenaean jewellers in the 14th century BC.

III THE ISRAELITE AND PERSIAN PERIODS

1. *The Israelite Period*

The departure of the Israelite tribes from Egypt came to an end with the last emigration, the "Exodus" proper and, as a result, the Israelites became the dominant element in the population of Palestine.

At the beginning of the Iron Age (1200 BC), Israelite culture still reflected the Canaanite tradition of the preceding Bronze Age. Material culture was at its peak during the period of the United and then the Divided Monarchy (1000–587 BC). Yet even then, jewellery seems to have been a neglected field of art. A relatively small amount of jewellery has been found from the Israelite period and what has been discovered is of little artistic or aesthetic value. Indeed, it compares poorly with the diversity of shapes and decorative elements of Canaanite jewellery.

One of the reasons which explains this decline in the jeweller's art is the prevailing prohibition against making graven images, as written in the Pentateuch. There is no doubt, however, that this

injunction was not strictly observed, for the Bible mentions several instances in which the prophets denounced the Israelite women for their love of personal adornment. In Isaiah, iii, 16, for example, we read: "Moreover the Lord saith, Because the daughters of Zion are haughty, and walk with stretched forth necks and wanton eyes, walking and mincing as they go, and making a tinkling with their feet." The prophet announces the wrath of God: "In that day the Lord will take away the bravery of their tinkling ornaments about their feet, and their cauls, and their round tires like the moon. The chains, and the bracelets, and the mufflers, the bonnets, and the ornaments of the legs and the headbands, and the tablets, and the earrings, the rings and nose jewels." In this passage, the main types of jewellery are enumerated one after the other: necklaces, bracelets, anklets which caused the tinkling of the feet, finger rings, nose rings, earrings and adornments worn in the hair. There is no reference to the metals of which the jewellery was made, although we know

from archaeological finds that silver, bronze, and iron were used in combination with semi-precious stones. Gold seems to have been used rarely, though we do know that it was lavishly employed in the decoration of Solomon's Temple.

2. *The Beth Shemesh Hoard*

A jewellery hoard of 200 pieces found in a pottery vessel belongs to the early period of Israelite settlement at Beth Shemesh. Most of the pieces are beads of cornelian, jasper and gold, of various sizes and shapes. These were worn in necklaces and bracelets. The gold and silver earrings from the find are all of simple shape: a small tapered hoop — an unimaginative and timeless design. Several scarab finger rings, a cylinder seal, and eight small square plaques of gold decorated in *repoussé* technique were also found. The plaques could have been worn in a necklace or girdle. In general, these pieces are of no particular aesthetic value and still reflect Canaanite workmanship.

A hoard from Canaanite Megiddo, found below the floor level of a house, is dated to the second half of the 11th century BC. Wrapped in cloth and covered with a few pottery sherds, it was hidden by its owner and never recovered. The hoard consisted of nine ivory loom-

weights, two bronze animal-shaped weights, two bronze pendants in the shape of pomegranates, iron bracelets, a ring, and hundreds of beads.

From an artistic point of view, the contents of these two hoards do not deserve special mention. However, they give us an idea of the kind of personal adornment worn by women in Israelite Beth Shemesh and Canaanite Megiddo.

During the Bronze Age, the toggle-pin was used for fastening garments. But during the Iron Age, the fibula came into fashion. Most of them were made of bronze and iron, and only a few were made of the more precious metals. One example found at Tell Abu Hauwam, on the coast near Haifa, takes the shape of a symmetrical fiddlebow, which shape was also found in jewellery from the Aegean world in the 11th and 13th centuries BC.

There is no need to dwell on the finds of standard, unimaginative objects of adornment from various Israelite sites. There are, however, two groups of items which deserve special mention: amulets and seals. The religious importance of these objects has been mentioned before, and we know that these same types appeared earlier in the Bronze Age. The amulets and seals combine Egyptian religious and mythological motifs and Phoenician workmanship, a blend which reflects the mixture of cultures in the





A blue glazed figure of a baboon

Near East at that time. They take the shape of Egyptian deities and religious symbols such as Hathor, Isis, Bes (the Baboon god) and the "sacred eye". Pieces of this sort were not restricted to Israel, but were widespread all over the Eastern Mediterranean. The blue-glazed figure of a baboon (*illustrated*) from Egypt is an especially attractive example.

A large number of amulets was found in Beth Shemesh and Lachish. These *faience* amulets are of Phoenician origin — they reached many sites in Israel by way of trade connections. The height of the baboon amulet found in Beth Shemesh is 4.5 centimetres and the hook for the chain is clearly visible on the piece.

The same mixture of Egyptian religious and mythological motifs and

Left: A jewellery hoard from the early Israelite period — Beth Shemesh



Faience baboon amulet from Beth Shemesh



Seal from Megiddo with a griffin and an ankh

Phoenician workmanship holds true for the seals which have been discovered. Although it is not known where these seals are from, they date roughly from the 9th to 6th centuries BC. Though strictly speaking they should not be included in a description of jewellery, we are justified in including those which take the shape of a scarab. While the scarab served primarily as an amulet, worn by both the living and the dead, it also served as a seal.

Most of these seals were pierced and could thus be fitted on a finger ring or worn on a string. When not pierced, they could be used as the bezel of a ring. As was the case with the amulets,

Egyptian religious symbols were widely used in the decoration of seals. The names, or less frequently the titles, of the owner were inscribed in Hebrew or Phoenician. The seal shown here from Megiddo is dated to the 8th century BC. It is made of serpentine and is decorated with a locust, a griffin wearing the double cross of Upper and Lower Egypt, and an *ankh* (life) sign. The name HMN (Hamman) is inscribed in Hebrew.

A second example (*illustrated*) is a seal made of quartzite and incised with several symbols: a sphinx and an *ankh* sign in the upper half, with a winged sun below, and a falcon flanked by two *uraei* (cobra), The seal is inscribed in



Quartzite seal with a sphinx and ankh, inscribed JZBL

Phoenician: JZBL (Jezebel) known to us from the Bible as the name of King Ahab's Phoenician wife.

With the conquest of Jerusalem by Nebuchadnezzar in 587 BC, and the subsequent disintegration of the Kingdom of Judah, Israelite independence came to an end. The short-lived neo-Babylonian kingdom ended in 539 BC when Cyrus, king of Anshan, conquered Babylon and established the Persian Empire which was to last until the campaigns of Alexander the Great. The huge Persian Empire was divided into provinces (satrapies). In the 5th Satrapy, called "Beyond the River" i.e., the Euphrates, there was a smaller unit called *Yahud*—Judah. Tiny Judah was part of the Graeco-Persian sphere of culture, characterized by mutual influences in the Eastern Greek cities of Asia Minor, Persia proper, Phoenicia, and Egypt. But by no means can we speak of a uniform culture, for the diversity of regional styles was immense. The jewellery found in Israel dating to this period can be grouped according to three styles: Achaemenid, Phoenician, and Cypriot.

3. Achaemenid Style

Just as the Canaanites imitated Egyptian fashion in the Late Bronze Age, People now copied the "palace style" of



A gold Persian earring depicting a goat

the Achaemenid Empire. A characteristic element of this style is the use of animal heads as decoration. The pieces of jewellery found in Israel consist mostly of earrings and anklets.

An earring (*illustrated*) found recently in the Ashdod excavations is rather small—2.0 × 1.5 centimetres—but of fine workmanship. It is in the shape of a wild goat. The hoop, normally made of coiled wires or a twisted metal band, and the spacer, are broken off. When worn, the animal head would have been upside down. The Ashdod piece dates to the 4th century BC. An almost identical piece found in Enkomi in Cyprus belongs to the same period. This type of earring was widespread and has

been found in many parts of the Persian Empire, including Persia proper, Phoenicia, Palestine, Cyprus, Greece, Etruria, and South Italy. Appearing in the 5th century BC, it was extremely popular in the Hellenistic period and continued into the 1st and 2nd centuries AD.

The origin of this style is still disputed. While resembling Achaemenid work because of its decoration, the Hellenistic type seems to have been developed independently in Greece during the second half of the 4th century BC.

We do not know whether the Ashdod earring is an import or a local imitation. Moulds for such objects have been discovered both in Egypt and Byblos and thus it is possible that goldsmiths working there could have made copies of Persian work.

A second example of this earring type can be seen at the Rockefeller Museum in Jerusalem. The earring, from an unknown site in Israel, shows a lion's head. Besides lion and goat heads, there were many other animals represented on earrings of this type including rams, bulls, sphinxes, and dolphins. Human or grotesque heads were less commonly used.

Bracelets and anklets of larger hoops terminating in animal heads are also typical of Achaemenid style. In a tomb at Gezer, dated to the late 6th or early 5th century BC, the skeleton of a

woman was found with two silver anklets made of rounded bars terminating in ibex heads. The anklets were rather narrow in diameter, indicating that they were probably given to her in her youth. They are another example of a type of jewellery commonly found all over the Near East, and especially in Persia. Many were made of gold, and are related, of course, to the bracelets decorated with animal heads. Neither anklets made of gold nor silver and gold bracelets of this type have been found so far in Israel.

Few of the anklets found are of the artistic quality of the gold armlet from the famous Oxus Treasure, now in the British Museum. This armlet is made in the shape of a broad hoop ending in the forms of winged monsters. As the photograph shows, the features of the monsters are indicated by cloisons and chiselled settings which were originally filled with inlaid stones.

4. *Phoenician Style*

Phoenician influence is found in glass pendants and amulets in blue, white, and yellow. One group consists of male and female heads, sometimes with grotesque expressions, which were worn as armlets on a string or a chain. The other type are small and larger pendants in geometrical shapes, worn strung together as



Armlet from the Oxus Treasure

a necklace, with the larger ones arranged in the centre. Common from the 6th to the 4th centuries BC, these have been found in Israel in larger numbers only along the coast, for example at Tell

Gemmeh and Atlit. Two grotesque heads from En Geddi are the result of trade connections between Phoenicia and Israel.

On the basis of their distribution, it has been concluded that the pendants



A pair of hair spirals from Cyprus

are of Phoenician manufacture. They are found principally in places where the Phoenicians either settled or traded, that is, along the Syro-Palestinian coast, in Cyprus, Egypt, Carthage, and Sardinia. Furthermore, the human portraits are of definitely Oriental character.

5. *Cyriot Style*

Earrings and hair of Cyriot origin were found in the tombs at Athlit and Tell Gemmeh. They date to the 5th and 4th centuries BC. The earrings, made of plain or gilded bronze and of silver, were fashioned by bending a hoop one and half times around. Judging from stone and terracotta statues found at Cyriot and other sites, these ornaments were worn in the hair or as earrings, with the upper part looped around the upper part of the ear.

The second type consists of four helixes (corkscrew shapes) of four turns, and could have been used either as ear-

rings or as hair-rings. The pair of hair spirals illustrated, which was found in Cyprus, is of a more elaborate style, made of bronze and plated with gold. One end terminates in a rosette, the other in a female head.

Spirals worn in the hair have a long history in the Near East. They appear in the Aegean world and in Western Asia in the 2nd millennium and are common in Cypro-Mycenaean jewellery. Since they were still common in Cyprus in the later periods and were found as well in Rhodes, Western Asia Minor, and along the Syro-Palestinian coast, their Cyriot origin seems plausible.

From the numerous tombs of the Persian period unearthed in the cemetery at Athlit, we gain a fairly good idea of the type of jewellery worn by the common people. The minimum "treasure" in a woman's tomb consisted of a bronze anklet, a pair of silver earrings, a finger ring (most of which were made of iron), and a necklace of glass or *faience* beads, the latter imported from Egypt. Many so-called sacred eye-beads were found among the beads. These were popular all over the Mediterranean area.

The prevalence of gold jewellery had diminished by the time of the Persian period, as it had in the Israelite period (and as opposed to the Bronze Age). Such a development surely did not take place because of a change in attitude

toward this precious metal. Gold was always greedily sought, however the frequency of its use reflects differences in standards of wealth. Moreover, we must take into consideration the fact that archæological research has con-

centrated on particular periods and neglected others. The result is a rather patchy state of information. We must remember that tomb robbers in ancient and modern times took a more than ample share of the more precious metals.

IV THE HELLENISTIC AND ROMAN PERIODS

1. *The Hellenistic Period (323–63 BC)*

Following the death of Alexander the Great, Judaea was first governed by the Ptolemies of Egypt and then became part of the Seleucids' Syrian Empire (198 BC). The population was made up of native Greek colonists who had adopted the Hellenistic culture and who lived in semi-autonomous towns, and of Jews who lived apart from them around the city of Jerusalem.

The material culture of Palestine during the Hellenistic period should be viewed in light of the clash between Judaism and Hellenism. One section of the population readily received and imitated Greek culture, while the other section fought its acceptance. In most of the arts — architecture, art, pottery, terracotta work, and coinage — we can see an amalgamation of Hellenistic forms with local elements, which were not necessarily Jewish but definitely Oriental.

In the field of jewellery, however, we are left completely in the dark. This is almost surely due to a lack of archaeo-

logical finds, because it is nearly certain that in the Greek cities — Gaza, Strato's Tower (later called Caesarea), Ptolemais (Acco), Scythopolis (Beth Shean), Samaria — the citizens acquired and wore the types of personal adornment then in vogue all over the Hellenistic world. However, settlement has continued for many centuries, in some cases without interruption, at these sites. For this reason, few remains can be expected to be found. Jewellery was certainly in fashion among the Hellenized Jews in Palestine, but again no remains have yet been uncovered. To be precise, what is still lacking in archaeological finds is the attractive gold jewellery which has survived in great quantities in other parts of the former Hellenistic world.

On the other hand, simpler objects of ornamentation such as pins of silver, bronze or ivory, small earrings of the tapered hook type in gold and silver and beads of all shapes and materials turn up fairly frequently in archaeological contexts. Therefore, in order to form an idea of the more elaborate types

of jewellery, we must consider the art of the goldsmiths in the Hellenistic world in general.

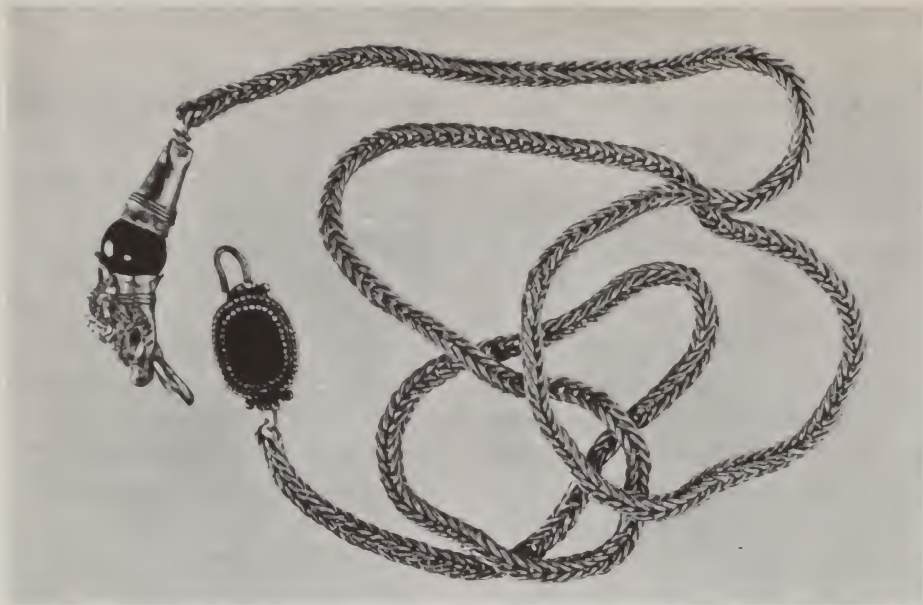
Gold jewellery from the Hellenistic period is surprisingly plentiful, for in the beginning of this era gold became more easily available and goldsmiths were very creative, introducing new techniques, forms, and motifs. More gold was available due to the exploitation of the Thracian gold mines, started under the rule of Alexander's father, Philip of Macedonia, and the seizure of the Persian mines and gold treasures by Alexander himself.

An important technical innovation was the introduction of the polychrome style — the use of stones and glass in jewellery in the form of inlays or by other techniques. The inlaying of jewellery in itself was not a new technique. It had been practised in Mesopotamia as early as the 3rd millennium BC and subsequently in Syria and Egypt. In Greece, the inlay method had been used since 700 BC, though it was quite rare as late as the 4th century. It has been suggested that the Greeks derived the technique from South Russia, because of the great amount of inlaid jewellery found in that area. Their motivation most likely came from one or several of the countries in which this technique was common before and during Alexander's time, such as Egypt,

Persia, or even Syria and Asia Minor.

Alexandria and Antiochia were the two centres of Hellenistic jewellery and it was exported from these cities to all parts of the Hellenistic world. Alexandrian jewellery was especially famous and admired. None of the workshops belonging to Alexandrian goldsmiths have been found so far. We may assume, however, that all the jewellery unearthed in and around Alexandria is of local workmanship. The high technical skill and the beauty of the gold ornaments made at that time is amply demonstrated by the abundance of jewellery discovered by the Sieglin Expedition in the early 20th century. They unearthed most of their discoveries in the numerous necropoli (cities of the dead) of ancient Alexandria. In addition, there were numerous local workshops in Asia Minor, Syria, Greece, South Russia, and South Italy.

Let us now look at some of the prevailing types of Hellenistic jewellery, with special emphasis on new forms and motifs. Necklaces were popular and appeared in several forms. A new and common style was the necklace consisting of a chain and ending in animal heads. This brings to mind the bracelet and earrings described in the preceding chapter. The example shown here is said to be from Syria and ends in two gazelle heads (one of which is missing),



Necklace consisting of a chain ending in animal heads

each is connected to a garnet set into a rounded gold strip which is decorated with granulation. The cast head of the gazelle is attached to a garnet and a funnel-shaped spacer, and then attached to the chain. The necklace is 41.9 centimetres long.

Like the necklaces with animal-head finials, the other common type — the strap-necklace with pendants — appeared first at about 330 BC. Straps, in themselves not an innovation of the Hellenistic period, were decorated with many tiny pendants in the shape of jars or spearheads. These were attached either directly to the strap or by means of small chains. There were usually one to three rows suspended from the piece.

This type of necklace is apparently mentioned in the records of the Temple treasure from Delos, dating to 279 BC; they were placed in the Temple as votive offerings. The necklace (*see colour plates*) with a crescent-shaped pendant from the vicinity of Damascus is dated to approximately the 2nd century BC. The piece consists of 54 double-conic beads with a hook to fasten it, which is also decorated with granulation. In the centre there is a crescent-shaped pendant also decorated with granulation; the middle is worked with two stones, a garnet and an emerald, set into a bezel.

The crescent was a newly introduced motif in Hellenistic jewellery, although it had been previously found in the



Left: Roman earring with a goat's head. *Right:* Hellenistic earring with dolphin's head

Near East in the 2nd millennium. The crescent shape was popular as a pendant of amuletic character, representing the new moon. (See Chapter II, the two silver crescents from Tell el-Ajjul.) Its use once again in the Hellenistic and Roman periods seems to have been for purely decorative purposes.

Another very popular jewellery style was earrings with animal-head finials. These have been described in the Persian period. The earring illustrated terminates in a goat's head, and is similar to the tiny fragment found in Ashdod. Acquired on the local antiquity market, it is 3.7 centimetres high and of rather inferior workmanship. An apparently

later type, wherein the hoop was decorated with heads of stone, glass, or gold, is shown here. This example, of unknown provenance, terminates in a dolphin head, a common motif. The hoop is made of two twisted wires and threaded with an onyx close to the dolphin's head. On either side of the stone are two thin disc-shaped gold beads decorated with granulation. R. A. Higgins, Assistant Keeper of Greek and Roman Antiquities at the British Museum, believes that this particular type was restricted to Egypt, Syria, and Cyprus, developed in the 2nd century BC and remained in fashion until Roman times.

Earrings with pendants, already in

existence by the time of the Greek classical period, were very much in fashion in the Hellenistic period. Generally, the earring consisted of two main parts: an upper disc and a pendant. The disc, or in rarer instances a small plate, covered the fastening hook. It was decorated with a rosette, a bust of Helios, an inlaid stone, or a design executed in gold wire, or granulation. The pendant, or sometimes several pendants, took the shape of an Eros or Victory — both typically Greek motifs. They were also often given the shape of an *amphora* (two-handled vase), a bird or other animal, or a bunch of grapes.

To this type belongs the pair of earrings illustrated here, said to be from a tomb in the Judaeen Desert. The disc is shaped like a rosette, from which hangs a stone set in gold and an *amphora*. A bead seems to be missing from the lower end. The *amphora*-pendant was particularly common in the 2nd and 1st centuries BC.

An especially elaborate variation of this type is a piece from Perugia (*illustrated*), dated to the 4th or 3rd century BC. It is of Etruscan workmanship, but nevertheless imitates Greek style. The earring is 10.7 centimetres high. Instead of the disc, we find here an oblong shield richly decorated with vertical lines of granulation which hides the hook entirely when seen from the



Hellenistic earring with a rosette and amphora

front. At the bottom of the shield are two rosettes and seven small hooks. A female head is suspended from the central hook. Several small pendants are attached to the bottom of the neck. A pendant shaped like a long jar hangs from the shields of each side of the head.

Besides the types described above, many more objects were common to the



Etruscan earring from Perugia

rich repertoire of Hellenistic jewellery. There were diadems which often had matching bracelets, wreaths, finger rings, belts, buttons, fibulae and pins.

2. *The Roman Period (63 BC–AD 330)*

For historical purposes, the end of the Hellenistic period has been set at the moment Pompey appeared in the East. There was no break, however, in material culture at that time. The same jewellery types and motifs continued into the Roman period although, of course, new techniques and combinations were being developed continuously. In fact, Pliny states that in his opinion, the Roman love of jewellery came about as a result of Pompey's victories in the East.

The main event in the transition from the Hellenistic to the Roman period was the annexation of Egypt in 30 BC, when Rome and Italy became exposed to Eastern culture and fashions. In the field of jewellery as well as in the other arts, it can be clearly seen that Rome became the heir to Hellenistic culture. The two centres of Hellenistic jewellery production — Alexandria and Antioch— continued work without interruption, but many Greek craftsmen were attracted by the lure of the new capital, and moved to Rome to open workshops. As we have witnessed in earlier periods,

it did not take long for the fashion of the imperial court to be copied elsewhere. In the East, however, jewellery continued to develop quite independently of the imperial style. Following the artistic trends of Greek and Hellenistic jewellery, jewellery in the East should be termed Graeco-Roman jewellery.

A great quantity of jewellery has survived from Roman Egypt, especially from Alexandria. In addition to the actual objects, there are the numerous mummy-portraits depicting men, women, and children. These wooden plaques, bearing the portrait of the deceased, were placed on the upper part of the mummy, above the head.

Mummy-portraits are an excellent source for the study of jewellery fashions in the 1st to 4th centuries AD because the deceased was nearly always shown with objects of personal adornment.

The present example (*see colour plates*), a plaque 27 × 22 centimetres in size, was found in Rubeyat, the ancient Philadelphia, in the Fayum Oasis. It depicts a woman with her gold jewellery — a pair of earrings and two necklaces.

The earrings are of a type which was popular then; each consisting of a stone or glass bezel with a hook for the ear lobe. Below the bezel, a horizontal bar is attached from which three bars are suspended. These are threaded at their lower ends with a stone or glass. This

fashion lasted from the 1st to the 3rd centuries AD and a variation of it continued on into the Byzantine period.

The larger of the two necklaces shown on the mummy-portrait consists of a gold chain with a medallion in the centre, showing what is possibly a Medusa-head in relief. The small necklace is made of gold spacer beads set alternately between a pair of two stones, one green and one blue. This type of necklace, made of linked stones which were often set in bezels, continued from the Hellenistic period onwards. Other mummy-portraits are decorated with the same kind of jewellery, depicting different types of earrings and necklaces. Additional jewellery is rarely shown, although there are portraits of women wearing hair ornaments, and women and men with gold wreaths.

These wreaths are found in the Greek world from the 7th century BC onwards and were originally given as prizes. The gold wreaths, which replaced the original crowns of oak or laurel leaves, were worn in processions, dedicated to the gods in the temples and sanctuaries, and placed on the heads of the deceased at the time of their burial. This custom continued throughout the Roman period.

The necklace shown here, which was found in Egypt, represents one of the most common types of Roman necklaces:



Roman necklace with an Emperor Domitian coin pendant

those with a coin or medallion as a pendant. The pendant, a coin of the Emperor Domitian, is set in a ring and attached to a bead threaded on the chain. The necklace is also decorated on the back. At each end there is a small oval-shaped plaque and a disc a little larger than the coin. Both are decorated in filigree technique; a pattern of twisted wire soldered to the background. The disc has a small *umbo* (rounded projection) in the centre and is surrounded

by a twisted wire with filigree spirals over the surface made of a single wire. Gold grains are soldered onto the spirals. A rather long hoop for fastening the necklace is attached to the back.

3. *Jewellery from the Province of Judaea*

In order to learn about the jewellery of the Hellenistic period, we had to resort to jewellery finds from outside Judaea, so that we could describe what might



Magical gold plaques from a tomb in Jaffa

have been worn by the local population. But for the Roman period, there is sufficient local material.

The fifteen small gold plaques shown here, said to be from a tomb in Jaffa, were used during the process of mummification. They had magical and religious significance and were placed on certain parts of the body before it was bandaged. These pieces include four eye plaques, nine oval or trapezoidal plaques for the tongue, and two of unknown purpose.

Right: Licinia Eudoxia medallion

Overleaf left: Arab jewellery hoard from Caesarea AD 969–1171

Overleaf right: Pectoral of Sit-Hathor-int









The custom of covering certain parts of the dead body with thin gold sheets was practised all over the East. Examples are known from Egypt, Cyprus, the Palestinian-Phoenician coast, and the Black Sea region. They include small plaques for the eyes, lips, tongue, ears, breasts, navel, pudenda, and nails. Many of them imitate the part of the body they were meant to cover. As a magical conception, this custom is analogous to that of closing the mouth of the deceased with a gold plaque, as was practised in the Canaanite and Israelite periods.

To this same group of burial rituals belongs the custom of burying the deceased with a gold mask covering the face. Death masks have been found all over the Mediterranean, from the Egyptian, Phoenician, Mycenaean, and Etruscan cultures. They were not used in classical Greece. The masks were an expression of the people's desire to preserve the image of the deceased in its most characteristic feature, the face. The general development of this custom seems to have begun with a schematic representation (we recall the famous mask of Agamemnon from Mycenae or the elaborate mask of Tutankhamon) and ended with the realistic wax death masks of the Romans, which were taken directly from the face of the deceased.

Most Roman jewellery was a continuation of previous forms with certain

stylistic changes. The pair shown here, about 6 centimetres long, are said to be from a tomb in the Judaeen Desert. The shield and the pendant are equal in length. The hoop is covered by shield, although its attachment to a loop on the upper part of the shield is visible. The oval shield is made of sheet gold; a double spiral is soldered to the lower part, and several granulated grains decorate its lower edge. A cylinder connects the shield with the fixed pendant, which is made of four globules; three in front, and one at the back. These globules are decorated with granulation and connected by grains as well. Strings with four rows of granulation each hang from the three front globules.



A pair of Roman earrings

Left: Forehead ornament from Uzbekistan

These earrings belong to the Syro-Palestinian group of pendant-ear-rings. These are known to have been common in the Roman period, since they have been found in this area and have few parallels elsewhere. Comparisons can be found in the museums of Damascus and Beirut and in the Rockefeller Museum in Jerusalem, as well as in private collections.

In the late Roman period, certain innovations occurred in the technique and style of Roman jewellery. A new polychrome method was discovered, as well as a kind of fretwork or openwork technique and the *niello* decoration as well. All of these continued and were developed in the Byzantine period.

The diadem from a tomb at Kfar Giladi (northern Israel) is a good example of the Roman polychrome style which became popular in the 3rd century AD. In contrast to the earlier polychrome method, which had never died out and in which the stones and glass were used sparingly, the stones were now displayed lavishly in large numbers. They were definitely more important than the background to which they were attached. Furthermore, there was a tendency to use materials of strong colour contrasts.

The diadem from Kfar Giladi shown here is 29 × 3 centimetres in size and consists of a band of thin ribbed gold foil, decorated with nine bezel-set gems

of stone, glass, and mother-of-pearl.

Another technique which became popular in the 2nd century AD was the openwork method of decoration, made by cutting out parts of the sheet gold in a manner which resembled fretwork. This method has been found occasionally from earlier periods, but it became common only in the Late Roman and Byzantine periods.



Openwork technique earrings from Syria



Gold diadem from Kfar Giladi

The pair of earrings illustrated, from a 3rd-century tomb in Jerusalem, shows the use of both polychrome and fretwork technique. The upper part of the earring consists of a female head made of chalcidony, surrounded by an ornamental border of openwork. A horizontal bar with three loops is attached to the lower part and three pendants hang from it. Each pendant is made of a small ring with two beads of pearl and glass. This earring style was depicted on the mummy-portrait from Egypt, described at the beginning of this section.

A third technical innovation, *niello* decoration, was not used for jewellery before the 4th century AD, although it has been found on metal-ware, mainly plates, from the Hellenistic and Roman periods. *Niello*, a black matt material, was used for the decoration of silver and gold objects. The material, in a powdered state, was put into a decorative pattern which had previously been cut into a piece of metal. After heating the object slightly, the powder melted and could then be smoothed and levelled out.



Earrings illustrating polychrome and fretwork technique

A change in fashion which occurred in the 2nd century AD was the custom of attaching imperial gold coins or medallions to certain types of jewellery. The coins or medallions were also used as bezels for finger rings, pendants for necklaces and earrings, and on brooches. The necklace from Egypt, illustrated and described earlier in this chapter, with a coin of Domitian as the pendant, belongs to this group. Another example is an earring from the collection presented by Miss Newton to the Rockefeller Museum in Jerusalem. The earring consists of a medallion depicting Julia Domna, the Syrian wife of the Emperor Septimius Severus. The medallion is surrounded by a crescent-shaped frame, made of gold wire.

4. *Jewellery from a Nabataean Cemetery*

The jewellery found in the cemetery of Mampsis, in the Eastern Negev, is of special interest. Mampsis was an important Nabataean settlement and caravan stop. The Nabataeans, a Semitic people, had their kingdom in Transjordan and the Negev with their capital at Petra. They were engaged in the caravan trade and brought goods from the east, which were then carried from South Arabia to Mediterranean ports.

The cemetery of Mampsis, dated with certainty by the coins, seal-impressions,

and pottery vessels found at the site, was in use from the 1st to the late 3rd centuries AD, while the date of the tombs containing jewellery could be further restricted to the early 1st century AD until the middle of the 2nd century AD. This spans approximately five generations.

Most of the excavated tombs contained jewellery. The women were buried with two pairs of earrings, one small, simple pair and one larger, more elaborate pair; and occasionally a nose-ring and pendant, all made of gold. There was sometimes a silver, iron, or bronze bracelet as well. Since all the jewellery pieces were found in their appropriate places, there can be no doubt that the deceased were buried wearing their jewellery. It seems that smaller earrings were received by a woman when she was a child, while the more precious ones were given to her when she was older.

The men were buried with a pendant or a coin. Greek religious belief, apparently adopted by the Nabataeans, required that the coin was put into the mouth of the deceased and was the payment to Charon the ferryman for crossing the legendary river Styx, the entrance to the underworld.

Small hoop-type earrings were common in the Near East from the 2nd millennium BC onwards. They consisted of a round tube on which no decoration

was applied. The earring was usually closed by a sliding knot made of two wires fastened together. The wires could not bear much manipulation because they were so thin, so it seems that the earrings were worn continuously. The second variation was earrings with no means of fastening them to the ear. The lobe of the ear was simply clutched between the thin ends of the tube.



Earrings with sliding knot



Boat-shaped earrings with semi-precious stones

These earrings were made by beating sheet gold over a core made of paste which is clearly visible in the photograph. The core was probably used to strengthen the object, since it was made of very thin gold.

A larger variation of the same type is the pair of boat-shaped earrings, shown here. Made in the same technique, the earrings are broader and are decorated with a semi-precious stone of reddish-white colour.

The large earrings show a great richness of form and technique. The most

interesting example (*illustrated*), of which only one earring was found, is made of a disc which is decorated on one side only. The centre part depicts a goddess within a shrine. The figure of the goddess was cut out of sheet gold and her features were reproduced in *repoussé* technique. She is fixed to the disc by granulation grains, whose shape gives the impression of a shrine. There is a bezel-set red stone on either side of the goddess. In one the narrower end points down and in the second it points up. There are nine clusters of granulated grains over the surface. On the edge, there is a plaited wreath applied in filigree technique. Six bunches of granulation grains are hanging from it. The upper part of the earring is made of a hoop of thin wire with a loop on the lower left side for closing.

The goddess on this piece stands upright in a frontal position. The lower part of her body is wrapped in drapery, and the upper half of her body is nude. Her hands are raised to her tresses. This is the representation of Venus-Aphrodite, the goddess of love, identified by the Nabataeans with their goddess Allat. This same depiction of the goddess was common all over the Roman world. Representations have been found in many forms, in gold and in bronze statuettes, in paintings, and in mosaics.

The pair of earrings illustrated here is



Earring with a disc of gold representing a goddess within a shrine

quite similar in conception to the earring representing the goddess Allat. They are another example of the large earring style, recalling also the back part of the necklace with the coin of Domitian



Earrings with two bezel-set red stones

from Egypt which is described and illustrated earlier in this chapter. In the centre of the stone are two bezel-set red stones. Below them, in the centre, is an *umbo* covered with clusters of granulated grains. The surface is covered with numerous clusters each containing two or three grains.

The pair of crescent-shaped earrings shown here is the most intricate set found at Mampsis; it has several parallels said to have come from Alexandria. The

earrings were made in the following way: two crescents cut out of sheet gold were soldered together. The upper, and smaller, one is decorated with fifteen small *umbos*, each of which is decorated with seven minute grains. The lower, and larger, crescent is decorated with triangles and bars on which minute grains are applied. The wire which forms the hook of the earring is soldered within a bar of thin gold to the upper crescent. This bar is decorated with a row of twenty clusters,



Crescent-shaped Nabataean earrings

each containing four tiny grains. The earring is closed by means of a curved wire which is fastened into a loop. All around the crescent, hollow globules are applied, many of which are broken. A double row of globules, therefore, appears on each side. On the back of the earrings there is little granulation, as can be seen in the photograph. Over 800 minute grains were used on each earring.

This pair of earrings (*illustrated*) belongs to the Hellenistic shield-and-

pendant type. The earring consists of a convex shield with a globule in the centre and a twisted wire border with a pendant of cylindrical, ribbed shape. A wire with a knot at the bottom hangs from the pendant.

Another pendant earring, shown here, is made of a hoop of thin wire from which a bell-shaped pendant decorated with horizontal rows of wire and granulation is suspended. At the bottom, a wire thread holds a pale greyish coloured bead.



Hellenistic shield and pendant type earrings from Mampsis

The nose-rings are quite small and are made basically of a hoop of thin wire with little granulation. The common type with the most decoration consists of the hoop with hollow grains soldered to its lower part. In the centre, there is a large globule with clusters of grains and a tube-like part with more clusters hangs from the lower section.

The pendants, three of which were found in different tombs, are of the same shape but of varying sizes. Each has the shape of a dolphin, and is made

of gold sheet metal over a whitish coloured paste core, the same technique that was used for the smaller earrings. A broad hook is soldered to the back of the dolphin, which is decorated with three grains. The pendant was obviously meant to be worn on a chain, but it seems as though these chains were not made of gold wire, since no remains were found in the tombs.



Bell-shaped pendant earring from Mampsis



A nose-ring from a Nabataean tomb

All these pendants served as amulets. Their religious significance is sufficiently explained by the late Dr Nelson Glueck's conclusion that the dolphin was venerated by the Nabataeans as a merchant god and guardian of desert routes, and as a guide of the deceased into the other world. There is some question as to how a desert people happened to adopt a fish as a religious symbol, but Nabataean merchants are mentioned in a Nabataean inscription from ancient Puteoli near

Naples. Apparently they encountered dolphins during their voyages across the sea and, of course, came into contact with Western culture. Pliny relates instances of friendly relations between human beings and dolphins. Human beings had an image of dolphins being entirely human, clever, and friendly. They were also thought to foretell good or bad weather by their movements in the sea.

The jewellery found in the cemetery of Mampsis has two-fold importance. First, there is the variety of forms and motifs which is a good indication of the standard of living and conception of fashion in a small provincial settlement. Second, these pieces were found in a dated archaeological context and were not, like many other jewellery examples, acquired on the antiquities market.

The closest affinity in technique, shape, and motif is to Alexandrian jewellery in particular and to Oriental jewellery in general. Nothing characteristically Roman was found at Mampsis. Furthermore, certain motifs can be identified as distinctly Nabataean, such as the representation of Allat, the dolphin-pendant, and the use of a wreath as an ornamental border on the disc earrings, a common element on Nabataean painted pottery. This of course, is insufficient evidence to show that Nabataean goldsmiths did indeed make this jewellery. However, it must

also be considered that the Nabataeans were extremely talented artistically and technically, judging from their outstanding painted pottery. Moreover, we know from inscriptions and sculpture that the people of Palmyra, another caravan city

in the desert, had their own goldsmiths who apparently worked solely for the local market. In many ways, the Palmyrans were the successors of the Nabataeans, and their cultures show many similarities.

V THE BYZANTINE AND EARLY ISLAMIC PERIODS

In AD 313, when Christianity was declared the sole religion of the Roman Empire, a new spirit began to pervade the arts. Christian subjects and symbols became common motifs in the field of jewellery. Bearing in mind the jewellery of preceding periods, no new types of adornment seemed to appear. But one new concept did appear and that was the unlimited use of stones and glass of all colours and shapes in objects made of gold. Thus was achieved the sumptuous polychromy which was so very artistically attractive. This, however, was a continuation of the Late Roman polychrome style, rather than an innovation.

We shall not describe the ordinary types of jewellery common to the period, rather, we shall look at a few examples which give evidence of the basically religious background of Byzantine life.

The specifically Christian *enkolpions* — medallions or relics — were worn as amulets in the tradition and spirit of the ancient world, although their use was actually forbidden by the Church. The gold necklet illustrated bears a medal-

lion representing the Annunciation and dates to the 5th–6th centuries AD. The centre of the medallion depicts Mary with a halo over her head, sitting on a high-backed chair while the angel, Gabriel, stands opposite her and greets her. This section is a relief worked in *repoussé*. It is surrounded by a broad band of floral decoration in openwork technique, set in a frame of grains. Above the medallion there is a smaller medallion, showing an emperor's bust in profile with the Greek inscription: "Lord, Help the Bearer." This medallion is flanked by a pattern of eight smaller medallions.

The gold medallion of the Empress Licinia Eudoxia (*see colour plates*) gives us a fair idea of the sumptuous polychrome style of this period. In the centre, the bust of the Empress is represented in strict frontality, again in *repoussé*. This bust is set within a wide border of two wreaths separated by a band of stones. Executed in *cloisonné* work, each wreath consists of stones in various shades of grey, blue, yellow, and pink; with a single red stone at the top. The compo-



Gold enkolpion from the Jordan valley
sition is striking since the bust seems to be lost in the wide and prominent border which immediately catches the eye.

The gold enkolpion (*illustrated*), said to be from the Jordan Valley, is of inferior workmanship to the objects just described. It is made of two discs, one for the obverse and one for the reverse, so that a relic could be enclosed between the two. The piece has two loops for attachment to a necklace or chain.

The obverse shows the Annunciation: Mary seated on a chair with the angel appearing before her, each of their heads surrounded by a halo. The Greek inscription reads: "Hail, Thou that art highly favoured," a section from Luke, i, 28 which says: "And the angel came in unto her, and said, Hail, Thou that art highly favoured, the Lord is with Thee: blessed art thou among women."

The reverse (*not shown*) has a representation of the baptism of Jesus in the River Jordan. The central figure, which is damaged, is surrounded by the figures of John the Baptist, an angel, and a dove — representing the Holy Spirit.

Compared to the immense amount of jewellery decorated with Christian themes, relatively few objects bearing Jewish motifs have been found.

In Israel, Byzantine rule came to an end with the Arab conquest in AD 640. This inaugurated the Arab period which lasted until the Crusader conquest in AD 1099. To the late phase of this period belongs the treasure of fine gold jewellery, found in a jar hidden in the Arabic occupation layer of the Roman Vault at Caesarea. This hoard which was buried possibly at the time of the Crusader attack on the city in AD 1101, and which was never recovered by its owners, bears witness to the high quality of craftsmanship of jewellers in the Arab period.

The photograph (*see colour plates*) shows several pieces from the find. One is a necklace which consists of three rows of small beads; some made of filigree work, others of sheet gold. Six globular beads are of fine workmanship, made of sheet gold, they are ornamented with granulation arranged in geometric forms; double cones and lines. Of an even higher artistic standard are the beads made in filigree work; a large biconical bead, two

round beads, and three biconical beads linked together.

The advent of the Crusaders brings us to the end of our short survey of ancient jewellery. It is clear that the traditions and methods devised by the craftsmen of ancient times for creating gold ornaments continued until modern times. Indeed, many of the shapes and decorative techniques employed and created by modern goldsmiths copy ancient styles and models. Traditions have also been preserved due to other causes. Certain communities, for example, were located in secluded areas untouched by the world around them. Since they were not affected

by outside influences, they preserved their jewellery shapes and forms from generation to generation and from century to century.

We can see these traditional forms in Bedouin jewellery made today, as well as in the example (*see colour plates*) of a forehead ornament and a pair of earrings made by the Bokharian Jewish community in Uzbekistan. The combination of gold with the rich inlay of coloured stones is similar to the ancient Byzantine multicoloured style. Although these pieces were made only 200 years ago, they show the influence of a much older tradition.

Right: Byzantine necklace with a medallion representing the Annunciation



ILLUSTRATION SOURCES

The British Museum P. 9; 11; 39; 40; 46; 47; 52; 53; 61; 67; 69; 71. Department of Antiquities and Museums, State of Israel P. 18; 20; 23; 26; 28; 29; 32; 34; 41; 42; 56–59; 67; 74; 76; 79; 89. Ofra Kamar P. 29. Maurice Chuzeville, Vanves P. 33. The Metropolitan Museum of Art P. 36, 75. Hirmer Fotoarchiv, Munich P. 37. Kunsthistorisches Museum, Vienna P. 38. Ministry of Culture and Science, Greece P. 48. The Brooklyn Museum P. 57. Benaki Museum P. 62. Museum für Kunst u. Gewerbe, Hamburg P. 66; 72; 78. Atzmon Collection P. 68; 77. Bibliothèque Nationale, Paris P. 73. Dr. Avraham Negev P. 81–86. Staatsbibliothek, Berlin P. 91.

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