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LAHUN I

THE TREASURE

BY
GUY BRUNTON

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THE TREASURE OF LAHUN

CHAPTER I

THE WORK AND THE SITE

1. THE work of the British School of Archaeology in Egypt during the winter of 1913–14 was carried on at two different localities. Professor Petrie, on 6th Dec. 1913, began operations round the pyramid of Lahun, near the entrance to the Fayûm; this work closed on 9th April. Mr. Engelbach's camp was at Harageh, five miles away.

Pyramid work in 1889–90 had proved the builder to be Senusert II, and had disclosed an entrance into the pyramid on the S.E. (see plan, Petrie, *Illahun*, pl. ii); this, however, was too small to admit the sarcophagus, which is still in position in the burial chamber. A passage running south led to the foot of another shaft which required investigation, as well as a pit filled with water close to the foot of the entrance shaft (see Well, pl. xxiii). In view of subsequent discoveries round the xiith dynasty pyramids at Dahshur and Lisht, it was obviously most desirable to move all the débris which encumbered the site, and search every foot of rock surface within the brick enclosure wall for possible royal tombs.

This programme was carried out, and the pyramid with its surrounding constructions completely planned, while a considerable number of tombs in the adjoining cemeteries were examined, though with poor results. The delay in the publication of the season's work, owing to the war, has been so great, that it was considered advisable to place an account of the discovery of the princesses' tombs with the great find of jewellery, in the hands of students as quickly as possible after the cessation of hostilities, and to hold back the record of the rest of the work for next year's volume.

My thanks are due to Professor Petrie for his unfailing help in the preparation and revision of this work; to Miss M. A. Murray, Mr. H. E. Winlock, and Mr. Battiscombe Gunn for many suggestions; and to my wife, who has done much of the drawing, and all the inking in of the plates.

2. The party of workers at the Pyramid comprised Professor and Mrs. Flinders Petrie, Mr. C. T. Campion, and Mr. and Mrs. Guy Brunton; while Dr. Walter Amsden, Mr. R. Engelbach, Mr. F. Frost, Mr. Battiscombe Gunn, and the late Mr. D. Willey divided their work between Harageh and Lahun.

Beside the nucleus of men and boys from Quft, a large gang of natives was engaged from the neighbouring villages of Lahun, Hawara, and Hammam. The clearing of the pyramid site lasted from 6th Jan. to 31st March 1914, and a further three weeks were spent on tombs in the vicinity.

The tomb-planning was largely the work of Mrs. Petrie, while Mrs. Brunton did the greater part of the drawing. Mr. Campion's share consisted in supervision of the workmen, and in care of the antiquities discovered. Professor Petrie, in addition to the general direction of the work, surveyed and planned the whole site. He also took most of the photographs. The general management and recording fell to me. Mr. Engelbach helped us with his engineering skill when the water in the pyramid well had to be dealt with, and in other matters.

3. The rock formation of the site consists of a soft marl, with veins of sulphate of lime. This is in places overlaid with a hard compact limestone. The ground on the S.E. of the pyramid is of this hard rock, while the marl outcrops all over the S.W. of the pyramid enclosure, and also on the east. The site was originally a rocky slope, high on north and east; this slope was levelled by cutting down into the rock, and building up the wide area of the temenos around the pyramid with chips on the S.E. The full details of the construction will be given in a subsequent volume, but some description is necessary in order to understand the relation of the tombs of the princesses to the pyramid itself.

The plan of the southern part of the area is given

in pl. xxiii. The pyramid was immediately surrounded by a wide and shallow trench filled anciently with clean sand and enclosed by a stone wall. This, again, was encompassed by a brick wall 16 feet thick and some 30 feet high at the N.W., while only a course or two at best remained on the south. Outside this, a single line of trees had been planted in circular pits sunk in the rock and filled with soil. In the space between the stone and brick walls, on the south, lay the four shaft tombs for members of the royal family.

These tombs, with the pyramid shaft opened in the previous excavations, are the only pits that have been found in the enclosure. Reference to the general plan in pl. xxiii will show the position of these tombs, where they are numbered 9, 7, 10, and 8. The pyramid shaft appears just inside the stone wall. The "trench" marked on the plan to the east of the shaft is for the foundation of the stone wall, not the sand-filled trench referred to above.

CHAPTER II

DESCRIPTION OF THE TOMBS

Tomb 9. *The Stairway Tomb*

4. THE construction of this tomb is very curious in more than one respect, there being two distinct sets of chambers, and two modes of entrance. The plans and sections are given on pl. xxii. There are no remains whatever of any buildings on the surface, which is here soft marl, neither stone chippings nor signs of brickwork. There still remains a course or two of the pyramid enclosure wall close by to the south, though it has entirely disappeared further westward. It seems possible, therefore, that no mastabas in connection with these tombs ever existed here, a point which is strengthened by the irregularity in the position of the four shafts with regard to each other. There is no sign of a system in their arrangement.

All the shafts are of the usual type, rectangular in plan to allow of the sarcophagus and coffins being lowered horizontally. They show no traces of a brick lining, the rock for the upper portion being of good quality. There is no evidence as to how the shafts were closed, whether they were filled in or were roofed over. The débris at the mouth of the shaft of Tomb 9 contained animal bones, but too fragmentary for identification; and it was impossible to determine the reason of their presence there.

The shaft is sunk into soft marl, and is 36 ft. 5 in. deep. The unusual feature of this tomb is the long stairway of forty-four steps, descending to the east until it reaches the foot of the shaft, where it turns to the north with a further five steps. The steps are roughly cut in the rock, and some 75 inches in width (pl. xvii). The shaft was sunk first, and the steps later, as they curve somewhat to the south so as to strike the foot of the shaft. Near the surface in the rubbish at the head of the stairway, some fragments of wood were found, which Professor Petrie considered might conceivably have come from a trap-door. A view looking up the steps is given in pl. xvii, 3. The stairway was apparently intended to descend in a tunnel, but the rock for the first half seems to have fallen in, and left the passage open to the air. Pl. xvii, 2, shows the bottom of the shaft looking down eastward through what is left of the tunnel. The poor nature of the rock is well shown here and in 4.

5. The two tombs to which these entrances led may be referred to as the upper and lower tombs. The upper tomb (see pl. xxii for plan and sections), which was at the level of the foot of the shaft, is separated from it by a secondary shaft H descending for a further 13 feet. It consists of a main chamber D′, with the canopic recess C, and offering chamber E, opening out of it to the east. It has been prepared to receive its fine limestone walls and floor, and possibly roof as well, but there are no traces of demolition, and it would seem that the masons had never completed their work.

Underneath the main chamber D′ is another one, D″, which has only been roughly hollowed out, and the purpose of this is unknown. It may be noted here that the slope of the stairway, when it turns north, is roughly such that it would have reached the floor level of chamber D″ at its entrance if the secondary shaft had not been sunk.

A rather distorted view into this upper tomb, showing the canopic recess C with the ledges and cuttings made to receive the limestone casing and flooring, was taken from the south edge of the secondary shaft, and is given in pl. xvii, 4.

The secondary shaft drops down from the edge of the last stair. The rock above has all fallen in (see section pl. xxii); originally it would have been more or less level with the roof of D′. Opening

out of the shaft on the west is a rather roughly-cut chamber, the walls of which are not smoothed. Out of it leads a long corridor, J′, running north for 40 feet, leading to the lower tomb. The walls of the corridor are slightly smoothed, but not prepared to receive a stone facing.

6. In the lower tomb itself the usual parts are all present (see pl. xxii for plan and 3 sections); but the plan differs from that of the upper one. The end of the corridor forms what may be called the antechamber J″. This feature is absent in the first tomb, owing to the sinking of the secondary shaft. To the north of J″, and opening out of it, lies the main chamber M, with the two recesses, that for the canopics, K, being on the south instead of on the east, while the offering chamber, N, is in the same relative position and of the same shape as that above, E.

The antechamber and the main chamber have been walled and roofed with fine white limestone slabs, unsculptured and uninscribed; the two recesses are not lined, the rock walls being only roughly smoothed. The ceiling of J″ is flat, that of M has a slight vault, the roofing slabs being hollowed as shown in the sections. The main chamber had also been carefully paved with limestone slabs resting on the marl. These have been mostly broken up, leaving a ledge all round as shown in the plan. In the S.W. corner is a curious trench cut through the floor and into the rock, as shown in the plan and section.

This would appear to be the work of the spoilers, who have pulled up most of the flooring, and also amused themselves by scrawling on the white ceiling with their sooty lamp flames. More elaborate drawings of apparently the same class were found on the walls of the chamber in the pyramid of Senusert III (De Morgan, *Dahchour* II, p. 95).

The present water level is 7 inches or so below the floor, and the work which had to be done here, to determine whether any further shafts had been sunk, was a messy business.

The filling of this tomb, consisting of the usual rubbish, chiefly fallen rock faces, extended almost as far as the lower tomb; but the débris in the corridor was entirely fallen roof, while the lower chambers, thanks to their limestone linings, were practically clear.

7. The story of its construction seems to be that it was originally intended for a tomb such as Tombs 7 and 8 with shaft, antechambers, main room, and two recesses. Then the excavation of the main stairway was made connecting with the shaft at the level of chamber D′. Before the upper tomb was completed it was decided to construct a second tomb on a lower level, the entrance to which would be *through* the floor of D′, and the stairway was turned north and continued down to the level of D.″ Desire for secrecy perhaps caused final alteration to be made: viz. the sinking of the secondary shaft H, down to the level of the corridor J′, and the running of that corridor to the northward. The only reason I can offer for the length of it is that the lower tomb was intended to be below the inner temenos, the area on the surface which was enclosed by the stone wall round the pyramid. It will be seen in the general plan that the tomb actually comes under the wall itself.

With the exception of some objects of the xxiind (?) dynasty found in the débris near the head of the stairway, not a single object of any kind whatever was found in any part of either upper or lower tombs, and it is highly improbable that a sarcophagus could ever have been placed in the main chamber M. No chips of granite or other stone (except limestone) were found, and the limestone walls showed no signs of damage. Had any later builders desired stone they would most certainly have helped themselves to the limestone walling blocks, as well as, if not sooner than, a tough sarcophagus. It seems quite evident that the tomb was prepared, but never used, in the xiith dynasty.

The tomb of Senusert III at Abydos (Ayrton, Currelly, Weigall, *Abydos* III, pl. xli) was constructed with a shaft and a sloping stairway somewhat similar to this. It is considered that the stairway was here used to facilitate the removal of débris during the construction of the tomb. This type of tomb may also be compared with the tomb of Adu (Petrie, *Dendereh*).

Tomb 10. *The Pyramid Entrance Tomb*

8. This tomb, of which plans and a section are given in pl. xxi, is the most interesting of the four. We have again the unusual state of affairs where an upper tomb gives access to a second one at a lower level. Here, however, there is no sign of change of plan, except as regards the final use to which the main tomb was put. The upper part, which was finished, as far as can be seen, consists of a wide shaft 28 ft. 4 in. deep, with the usual ante-

chamber, A, leading to the sarcophagus chamber, D, out of which on the east open the canopic recess, C, and the offering chamber, E. In the floor of the shaft is a small pit, G, which contained offerings (see Sect. 15), a feature not found elsewhere.

The sarcophagus chamber, with its approaches, are all lined with blocks of fine white limestone, uninscribed. Blocks of the same stone were used to close the tomb at the foot of the shaft, two of them being still in position. The antechamber A is only partly lined with the limestone, the upper part of the walls being of plain smoothed rock, and it may have been intended to roof it with slabs, resting on the walling blocks. In the west wall high up is a recess (marked B on the plan) of irregular shape (for a statue ?). One of the paving slabs has been broken in two, and has fallen through into the secondary shaft H, which underlies A. The sarcophagus chamber shows no signs of spoilers' work; it was half filled with débris, which contained nothing except a scrap of a late wooden anthropoid coffin, and a green felspar scarab of poor work with a plain base.

9. The long corridor, J, running north, connects at its southern end with the bottom of the secondary shaft H, out of which it opens on the east. It differs in this way from tomb 9, where the corridor runs from the west side of the shaft. All access was prevented by blocking up the southern end of the corridor with limestone blocks of various shapes and sizes. The robbers, however, have easily overcome this resistance by outflanking, *i.e.* breaking away the corner of the rock formed by the west wall of the corridor and the south wall of the shaft, as shown on the plan. The corridor J has a vaulted roof, and there are indications that the walls were whitened. It leads to the lower tomb, which is of the same type and arrangement as Tomb 9 (lower), though the dimensions vary somewhat. No attempt has been made to line the walls with cut stone, and hence there is no counterpart to the antechamber E in Tomb 9, which was formed by merely lining part of the corridor. The barrel roofs are exactly the same in arrangement as those of Tomb 9, but cut in the rock instead of in the limestone roofing beams.

These lower chambers were opened in 1889, when the shaft, O, was discovered, and it was through them that the pyramid passages were entered by means of the corridor, the commencement of which is marked L in the plan and section. But it was not seen at the time that they formed a complete tomb in themselves, nor was it possible to discover what the corridor J and the shaft H led to on the south. This was one of our objects in working again at Lahun, but it was a considerable time before the mouth of the shaft of Tomb 10 was discovered. There was no clue at all as to what this mysterious chamber by the blocking stones led to; and day after day we squeezed through the robbers' hole, and tried to devise some safe means of exploring the small black hollow which showed through the gap in the roofing blocks above our heads. Half of the broken beam was still in position, but tilted over at a perilous angle; and we could see the mass of loose rubble above, apparently only needing a small amount of coaxing to descend on us with most unpleasant results.

Even the clearing of the space alongside the blocking stones was a difficult matter, but this arose from quite another cause. Ventilation was so bad at this dead-end that, soon after we began work there, candles ceased to burn, and matches even refused to strike. The men were anxious to use a hurricane lamp, which they knew we had in camp; they thought the candles were extinguished in the same way as a lamp is blown out by the wind, although they could feel no draught. We managed to carry on very well with my electric torch, however; and it was extraordinary to find that men could work, work hard and work happily, in such an atmosphere.

10. Another matter we had come to investigate was the well or pit, P, in the lower tomb. It had been sunk in what had originally been intended for an offering chamber, N. It was full of mud and water (the water level being shown in the section); and it was a problem to discover the best way to deal with this.

First, we tried a chain of men from the pit to some way along the corridor, where the buckets were emptied, but the water percolated so rapidly through the rock that no permanent result could be obtained. It was a difficult, if not impossible, matter to rig pumps, owing to the depth and narrowness of the shaft O; and to pull up buckets of water to the surface would have been a hopeless proceeding. Finally we stationed seven or eight pairs of men on wooden platforms which Mr. Engelbach fixed in the shaft, and had a continuous stream of buckets going up to be emptied on the hard, impervious rock at the surface. In the course of

the first day the water had fallen 18 feet; and we were glad to find that it did not rise appreciably during the night.

Towards the bottom, the sides of the shaft had all fallen in, forming an irregularly-shaped cave, somewhat as shown in the section. The rock had broken away from the dome-like sides of this hollow in large, hard, laminated masses; in fact they continued to fall in as the work progressed. The marks of tooling on the shaft walls do not reach to the lowest edge on all four sides, and I think it is evident that the Egyptians abandoned the shaft owing to the danger of the work. We cannot say for certain that we reached native rock at the foot. The workmen were positive, but they may have been deceived by a fallen mass of rock. Both Mr. Engelbach and I thought it inadvisable to continue what seemed a fruitless and dangerous work.

11. My own impression is that the well was intended by the Egyptians as a drain for any storm water which might find its way down the shaft O, close by, and flood the pyramid passages; and they sank it as deep as was practicable. If it is a consequence of the sinking of the shaft O, then the shaft O must date from the time when it was decided to abandon the lower tomb (10) as a burial place; and the shaft is therefore not part of the original plan. That heavy rain-storms were expected in the time of the Middle Kingdom, we know from the careful arrangements made to deal with any water which might fall on the pyramid area and flood it.

There is nothing further to indicate whether the shaft O was sunk before or after excavation of the lower chambers and corridor. The corridor does not run due north and south, and at first sight it might be thought that the skewness was caused by the desire to connect with the shaft O. But the orientation of all these tombs is irregular, and I am inclined to think that the shaft O was only sunk when it was decided to use Tomb 10 as the pyramid entrance. It is certainly an afterthought, and no integral part of the plan of Tomb 10, as it does not go down to the same level, and access from the shaft is through a rough hole in its northern wall, with a small drop into the main chamber. Its purpose seems to have been to admit workmen and materials to the pyramid by the nearest possible route. The king's sarcophagus, which is still in his burial chamber, was lowered down the main entrance shaft on the south, and dragged along the corridor J.

One point about chamber N in the lower tomb is obscure. In the north wall near the roof are two small squared holes or recesses. If there had been others to correspond in the south wall, it might have been supposed they were for supporting ends of poles for hauling rock out of the pit P.

Tomb 7

12. This tomb had been used for a royal burial of the xiith dynasty, but robbed anciently. Its essential features (see pl. xxii) are the same as those of Tombs 9 and 10, without the secondary shafts and system of lower chambers. The shaft, which is 26 ft. 8 in. in depth, is well cut in good hard rock; close to the bottom, the south side is cut away to form a recess for the whole width of the shaft, as shown in the plan. It may be compared with the offering pit in the floor of the shaft of Tomb 10; but this recess contained eight mud bricks placed in a close row side by side on their long edges and slanted over sideways.

On the north of the shaft are the blocking stones, three still in position, leaving just enough room to crawl in sideways over the top of the blocks.

The antechamber A, again, consists of an upper and lower part, cut in the rock and unlined. The roof, which has not fallen in as in the other tombs, is vaulted; and, half-way down, the walls jut out to form a shelf as in Tomb 10. If this was to support stone slabs, they could not have been placed in position until after the burial; and as there is no sign of them in the tomb, and they could not have been taken out without moving the blocking stones, it would seem these are the ramps usual in tombs of this period. The west wall of the upper part of the antechamber (see view on pl. xxii) contains a niche, B, as in Tomb 10, but more regularly cut, with what was apparently intended for an arched roof. The lower part of the west wall has a shallow recess or loculus, roughly cut, with two grooves for skid poles, showing that it has contained a subsidiary burial, probably of a servant. The east wall, as shown in the main section on the plate, has other shallow cuttings, a rectangle with a step at the bottom, and four rounded holes none of which can be explained. The floor of the antechamber had been paved, but the blocks have been pulled up. They show the three grooves which were cut in them for the skid poles used when the sarcophagus was placed in position. (Cf. Mace & Winlock, *Senebtisi*, p. 14.)

Another pile of four limestone blocks remains against the jambs of the sarcophagus chamber D. There were doubtless two more to complete the obstruction, and these have been pulled down by the robbers. The sarcophagus chamber is entirely lined with fine white limestone, perfectly plain; it has been constructed of just sufficient size to contain the sarcophagus, and leave room to move past it, in order to enter the canopic recess C, and the offering chamber D. The recess which is lined with stone (somewhat unusually) contains the granite chest with a wooden box inside.

The offering chamber, E, was of the usual shape, with a widening out to the north. It was unlined, and when entered, found clear of débris. On the floor lay broken pottery scattered about, with bones from the funeral offerings.

Tomb 8

13. (Plan and section, pl. xxii). This tomb, which is the most easterly of the four, is the roughest in construction. It was used for the burial of a princess under Amenemhat III, at least thirty-eight years after the death of Senusert II, and this will sufficiently account for the want of care taken in its preparation. The shaft is the shallowest of the four, being only 21 ft. 8 in. deep; the bottom of it has been left quite rough, and there is no pit for offerings nor recess. Some fragments of bone were found in the rubbish near the mouth of the shaft, but there was nothing to show where they had come from.

The antechamber A has been left in the rough; the rock walls are cut back in the upper part, leaving a shelf as usual; and above this there are some shallow cuttings on the west wall (shown in the section) and a niche. The roof throughout the tomb has fallen away, and is in bad condition everywhere. In the west wall at floor level is the recess E; 40 inches high, north side 62 inches, south 64 inches, and width 40 inches. The walls are hard *tafl* showing tool marks everywhere, and no smooth surfaces, though the faces are fairly flat. The whole is roughly cut, and off the square. The roof slopes from front to back and from north to south. In our later work in 1920 an offering chamber was found, which will be described in the next volume. The chamber contained common pottery, animal bones, a few beads, and a large alabaster jar with magical inscription.

The canopic recess was built in its usual position opening out of the sarcophagus chamber, which is partly lined with limestone slabs. The work was left uncompleted, no blocks having been placed in position between the entrance and the canopic recess.

Mr. Campion's photograph (pl. xvi), which is taken looking north from the antechamber, shows how nearly the sarcophagus fills the chamber. The stones packed between the lid and the roof were placed there by us when the roof threatened to cave in. The rock to the right has been partly cut away by us so that the canopic chest might be removed. The recess E is shown in the photograph (pl. xvi, B). We found no blocking stones in position, but a few rough limestone blocks lay in the antechamber, and these had doubtless once closed the entrance to the burial chamber.

CHAPTER III

THE CONTENTS OF THE TOMBS

Tomb 9

14. THE only objects of any kind whatever found here were a group of pots, with a few poor blue glazed cat amulets. These were lying in the rubbish at the mouth of the stairway tunnel, and probably belonged to a disturbed secondary burial, but no coffin or bones were found with them. During the xxiind to the xxvth dynasties the M.K. tombs in the neighbourhood were largely re-used (Petrie, *Illahun*, p. 25), and fresh tombs made; this interment, judging from the amulets, would belong, then, to the same period. The pottery (pl. xviii, 22–30) is of very varied types; and though most of them agree well with the suggested date, it is surprising to see the form 25, which is not generally found after the xixth dynasty, and is unusual then. As this type is well known in the Middle Kingdom, and as several examples have been found on the site, a re-use in later times would quite possibly explain its presence here. 23 and 24 resemble the xixth dynasty forms (Engelbach, *Riqqeh*, xxxviii, 75n and 75p); the modified outline agrees with the somewhat later date.

Tomb 10

15. *Upper tomb.*—In the rubbish which partially filled chamber D (pl. xxi) there were found a piece of

a wooden coffin with part of the face, of characteristically late work, and a small plain scarab of poor green felspar. There was no clue as to where they had come from.

A more interesting find was in the small pit G (pl. xxi), where a xiith dynasty deposit lay. This contained:—(i) a perfect deep dish (pl. xix, 54) of fine pottery with a very smooth surface covered with a dark red wash. There was no trace of its contents. This ware, which is not otherwise known to me, was only found in the pyramid, and the passages and shafts belonging to it. None was found in the surrounding tombs, nor in the pyramid enclosure, nor in the whole of the xiith dynasty cemetery at Harageh close by. Weigall's "red polished" ware found at Abydos, of the time of Senusert III (*Abydos* III, 19, xxxix) may be of the same class. Otherwise its use would seem to be confined to the king's burial equipment or offerings.

(ii) Bones from the four legs and feet of a calf (?). A calf's jaw-bone was found lying out on the floor of the shaft, and may have come from this little pit, as the foundation deposits found on this pyramid site regularly contain a calf's skull as well as other bones.

16. *Lower tomb.*—Along the corridor J (pl. xxi), various scraps of pottery were found, some of the special deep red ware referred to above; a pottery stopper (65, pl. xix), pan, and two dish stands; also a small piece of an alabaster[1] vase or dish.

In clearing out the chambers K and M, a considerable quantity of pottery was found, the types being Nos. 55–69 (pl. xix). 55 is of the deep red ware, so is 64 and the stopper 65. There were two examples of 56, 64, and 68, four of 62, and six of 61, while two more broken jars may be of type 64 or 67. All these forms are regularly of the xiith dynasty, with the exception of 66 and 68, which are usually found in the xviiith and xixth. 58 shows the thumb or finger marks which were probably impressed when the pot was lifted from the wheel (Mace and Winlock, *Tomb of Senebtisi*, p. 112). The rough edges of 69 have been worn down in a secondary use, subsequent to the breaking.

Two other groups of pottery on pl. xviii, 1–4 and 5–21, are included in this volume, as they complete the types found in the royal tombs and pyramid passages. The first 1–4 (pl. xviii) come from the "limestone chamber," close to the king's "granite sepulchre," and the second 5–21 (pl. xviii) from the "passage chamber" (Petrie, *Illahun*, pl. ii) and main passage. 1–4 are all well-known Middle Kingdom forms. 2 is of the deep red ware. 3 has a string pattern round the edge.

The second group is a very miscellaneous collection of various dates. There are two of each of the following: 5, 7, 12, 13, 16, 19, 20. 5 and 7 are of the fine red class. 6, 11, 12, 14, and 16 are also Middle Kingdom types. 13, 15, 17, 18, 19, and 20 are xviiith—xixth, or later. 9 and 10 are of Roman age: 8, with its rope sling, is doubtful; it can hardly be Middle Kingdom with the curious little projection at the bottom, and with the rope so well preserved. A late date, probably Roman, seems to be indicated. There was also a pottery ring-stand (not drawn) of Middle Kingdom date.

17. In turning over the débris in corridor J (pl. xxi), two limestone lamps were found in position, one simple, and one on a stand. Each contained a disk of pottery with a central hole for the wick, let into a cup-shaped hollow in the stone. A separate pottery disk was also found. Traces of the charred wick were still in place. The height of the tall lamp is 17 inches, diameter of base 9·2 inches, diameter of top 8 inches. Photographs of these are given on pl. xx (two views): the plate also shows masons' tools which will be described in the forthcoming volume dealing with the pyramid. The form of the lamp and stand is that of the reliefs in Petrie, *Labyrinth*, xxviii; while the simple lamp is as figured in *Dahchour* I, p. 74, fig. 173. They are now at University College, London, and at New York.

Professor Petrie considers that the shallow trough surrounding the central hollow was intended to hold water in order to keep the stone moist, and prevent the oil from soaking into it, and that this explains the reference in Herodotus ii, 62, as to the use of salt (*i.e.* salt water) and oil in Egyptian lamps.

18. In emptying the water well we found some pieces of bones, and wood with iron nails in it, no doubt modern.

A curious discovery which was made in the corridor J well illustrates the careful way in which a trained native will examine every possible nook and cranny to make sure that nothing of interest or value may escape him. In the crack between the rock floor and one of the blocking stones, a

[1] Alabaster is the original name of this carbonate of lime, although mineralogists have changed it to aragonite.

little collection of sixteen beads, tiny scraps of copper (?), and pieces of gold foil were found. The spot is marked " Beads " in the plan (pl. xxi). There were five different types of beads, all of which are drawn on pl. xiii, *a–e*. Of *a*, three were of green felspar, one of lazuli, and two of carnelian; of *b*, one was of felspar and five carnelian; *c* was of carnelian; *d*, two carnelian; *e*, lazuli. These are all now at University College, London. Type *a*, I believe, is new. The pendant bead, type *e*, is interesting, having two thread holes at the top, and one only at the bottom. The string or wire would be passed in at the top through one, and passed up again and out through the other, thus leaving no unsightly thread showing at the bottom. Where these pendant beads have one hole only, there would have to be a line of small beads joining up the lower ends, thus keeping them properly spaced all round the collar; or else a small bead would have to serve the purpose of a knot. This method has been made use of in threading up the pendants from Tomb 8 (see pl. vii).

One little strip of gold leaf shows a succession of tiny grooves 5 mm. apart, and at right angles to its length. This must have come from a coffin or canopic box, such parallel lines being a usual decoration. The fragments of copper come from some kind of wide pan or dish with a rolled edge. All these beads appear to be from collars or necklaces of a very rich burial, of the xiith dynasty, and the question immediately arises, whose? It will be noticed that the spot at which they were found is just at the point where the robbers anciently broke through the rock to get past the blocking stones. Of course they may have entered the pyramid from the workmen's shaft O, and been working south away from the pyramid, as in fact we ourselves did. But it seems more reasonable to suppose that it was they who found their way in through the main shaft, and broke the flooring slab in the antechamber A. It would follow from this that they did not use the shaft O. It would further follow that the beads which were dropped as they squeezed through the broken passage-way were being taken *south* to the main shaft and must have come from the pyramid. This source of origin is also indicated by the probability that no interment ever took place in the upper tomb; and it would establish that a royal burial had been made in the pyramid, a point which has hitherto been in doubt (Petrie, *Ten Years' Digging*, p. 109).

Tomb 7

19. This tomb had been used for a burial in the xiith dynasty; and though no inscriptions were found, and the sepulchre had been pretty thoroughly cleared, still we found sufficient remains to allow us to assume that a princess of the royal family had been buried here in the reign of Senusert II. No later interment took place here, everything found being of xiith dynasty date.

The objects in the tomb and shaft were:

(i) Sarcophagus and lid.
(ii) Wood with glaze inlaid, and pieces of glazed inlay.
(iii) Pieces of painted wood.
(iv) Part of a human skull, and sacrum.
(v) A few beads.
(vi) Pieces of gold leaf.
(vii) Canopic chest with lid and inner wooden case.
(viii) Fragments of the canopic jars, and the contents of one.
(ix) Piece of dark grey granite.
(x) Animal bones.
(xi) Pottery.
(xii) Flint object.

(i) The sarcophagus and lid were found in perfect condition. The sarcophagus itself is placed slightly skew in the chamber (see plan, pl. xxi). The spoilers have lifted the lid at the front, and also slewed it over to the left, so that it partially rests against the west wall. (See dotted lines in plan, and the small section, where the lid is shown above the blocking stones. In the main section the lid is drawn as if in its original position.)

The sarcophagus is of pale red granite, finely wrought, with a plinth projecting $3\frac{1}{2}$ inches and a footing $\frac{1}{4}$ inch more. The actual sarcophagus measures 92 by $32\frac{1}{2}$ inches, height 33 inches (including the plinth and footing of $12\frac{1}{4}$ inches). The thickness of the stone at the top is $7\frac{1}{2}$ inches at the ends, and $5\frac{1}{2}$ at the sides, while the base is $7\frac{1}{4}$ inches thick. The whole surface is perfectly plain, without inscriptions or decoration of any kind, with the exception of the plinth, which is ornamented with panelling, reminding one of that on the sarcophagus of Senusert III at Dahshur (De Morgan, *Dahchour*, II, p. 88).

The lid is of the usual pattern, so frequently found from the iiird to the xiith dynasties, with curved top, and flat raised ends. Its height is $12\frac{1}{2}$ inches,

while the raised portions are 9 inches broad. At the south end is an octagonal boss which is 6 inches across, and placed 3 inches east of the actual centre. On the underside of the lid is a middle projection, which fits into a recess, ½ inch deep, cut into the inside of the rim of the sarcophagus, at the foot and also at the head.

(ii) We found no sign of the coffins, either in the sarcophagus, or in any of the tomb chambers. But high up in the filling of the shaft were found some fragments of wood, with pieces of blue glaze inlay still in position. Scraps of inlay were also found in clearing the tomb, and they came either from a casket, or more likely, judging from the thickness of the wood, from the destroyed coffins.

The glaze is a bright pale blue, but is generally decomposed or completely gone. The base is a white chalky paste. The pieces found were all rectangles, all but one broken at one end. The edges are bevelled. The sizes are 16 × 31 +, 15 × 27 +, 14 × 25, 6 × 19+, and 6 × 17 + mm.

The fashion of painting plain wooden coffins with hieroglyphs in blue is well known; and these pieces would suggest that the effect was copied from glazed inlaying in use for royal burials.

(iii) A piece of wooden board, with traces of painting, which seemed to have come from a xiith dynasty coffin, was also found in the shaft filling. Perhaps the inner coffin was of the usual painted type.

20. (iv) Two portions remained of what may be considered the actual body. In the antechamber were parts of a female skull, and in the sarcophagus lay a sacrum, in good condition, but dark yellow-brown in colour.

(v) The dust inside the sarcophagus, when carefully sorted out, was found to contain several tiny beads of glaze, together with a few of the fine stones usual at this period. The types of these are drawn (pl. xiii, *f*—*m*). The materials and numbers found of each type are as follows:

Type	*f*.	1	carnelian.
		1	pale blue glaze.
,,	*g*.	1	grey-green glaze.
,,	*h*.	1	carnelian
,,	*i*.	2	garnet.
,,	*j*.	1	greenish felspar.
,,	*k*.	1	grey-green glaze.
,,	*l*.	464	light green glaze.
Type	*l*.	171	dark green glaze.
		192	light brown glaze (once blue ?).
		103	black glaze.
		3	carnelian.
,,	*m*.	1	,,
		1	lazuli.
		1	green limestone.

One other bead is not drawn; it is a "flail" bead of decomposed grey-green glaze, 54 mm. long, and 5.5 mm. across at its widest end. A certain amount of information may be gleaned from these scanty materials. As to the stones used, garnet and green limestone were not found with the jewellery from Tomb 8; neither were small fine beads of lazuli. This points to the greater richness of this outfit, agreeing with the difference in style and work of the sarcophagi and canopic chests, as will be seen later. The fluted beads, *i*, with the double thread holes, are very like type *a*, from the burial of Senusert II (see above, Sect. 18), and help to date the tomb.

The curious eight-rayed type, *k*, is well known from the Dahshur finds, and its use has now been shown from the practically untouched tomb of Senebtisi at Lisht (about the time of Senusert I). It was strung at intervals on the fringe hanging from the bead-work girdle (Mace & Winlock, *Tomb of Senebtisi*, p. 71 and pl. xxxi). This specimen agrees in colour with those from Lisht; but it is only half the size, and is only perforated one way, instead of two ways. Mr. Mace has agreed that this bead must have come from a similar girdle, but of a finer make. The small glazed beads (type *l*) are identical in colour with those found by Mr. Mace, with the addition of the light brown. The barrel beads (types *h* and *j*), however, though the grey-green glaze matches the small beads already described, and though carnelian barrel beads were used in the Dahshur girdles (op. cit., p. 72), do not seem to have formed part of the Lahun girdle, as they are too large in proportion to the eight-rayed beads, and would, rather, have come from a necklace. The cylinder beads, *i* and *j*, are of the usual type used in the broad collars.

To account for the miscellaneous assortment of beads left in the sarcophagus, we must suppose the threads of the jewellery to have been rotten when it was pillaged. As the wooden coffins were still sufficiently firm to be broken up and removed without leaving any traces, we can get some idea

of the length of time that elapsed between the interment and the looting.

(vi) A few scraps of gold leaf found in the débris in the antechamber may have come from the coffins or canopic-box lid, or from the parure of the princess. One is marked with fine parallel straight lines 6 mm. apart, very like that described in Sect. 18 from the pyramid.

21. (vii) The canopic chest was standing in its recess somewhat askew, with its lid lifted to touch the roof, leaving just enough room for me to reach down inside and feel the bottom of the box with my fingers, though I could not get my head in to see. As usual, the chest is similar to its companion sarcophagus, of red granite, the lid curved, with raised ends. Under the lid are the projections, $5\frac{1}{2}$ inches wide and $\frac{1}{2}$ inch deep, which fit into recesses on the inner side of the rim of the chest. As in the sarcophagus, the projections are under the raised ends of the lid; and on the west end of the lid, in the middle, was a rough round knob 3 inches in diameter, corresponding with the octagonal boss on the sarcophagus. The chest itself measures 31 inches square and $30\frac{1}{2}$ inches high, with a thickness on all sides of $5\frac{1}{4}$ inches. The lid is $6\frac{1}{4}$ inches thick at the raised ends. All the surfaces that are visible are perfectly plain.

Inside the chest stands the wooden box with its four compartments. The lid, if there ever was one, is absent—it would have been taken out and thrown on one side by the plunderers. This box was left in position in 1914; in 1920 the lid of the sarcophagus was raised to liberate the lid of the chest, and so remove the wooden box, which is in excellent preservation, the wood being quite sound, except the bottom, which is partly decayed. The outer width is 19·32 inches (mean diff. ·05); the outer height is 15·42 (m.d. ·04); the thickness varies between ·6 and ·7. The depth, slightly increased by decay, is 14·3 to 14·8. The interior is divided by cross-pieces of wood, each halved out to insert the other. The depth from the top to the cross-pieces is 5·5 to 8·8. The partitions vary in width between 8·0 and 8·4 inches. The corners are all mitre joints; the base is inserted between the sides, and all joints secured by wooden pegs. The top of the sides was 2 inches below the rim of the granite, thus leaving room for a flat lid. There was a clearance of from $\frac{1}{4}$ inch to $\frac{3}{4}$ inch between the wood and the stone at the sides.

When it is considered that the height of the canopic recess was $45\frac{1}{4}$ inches, thus leaving only $14\frac{3}{4}$ inches between the top of the chest (without its lid) and the roof: and when the small space between the sarcophagus and the chest is realised (see plan pl. xxii), it is quite obvious that the granite chest *and* its wooden box were placed in position before the sarcophagus, and that therefore the canopic jars were brought down and placed in position one by one at the time of the interment.

(viii) The robbers, not being able to remove the jars without taking the granite lid out of the recess, had to examine them where they were. From the fragments of alabaster which I took out of the compartments, it would seem that pitch had been poured in on the vases, as they were firmly glued with it to the bottom of the box; and it was only by continued assaults with my finger-tips that I was able to loosen them and get them out. The robbers had smashed them *in situ* and cleared out the bulk. Two pieces were found lying out in the antechamber, but, unfortunately, none of the scraps showed any signs of hieroglyphics. Part of the base and side of one vase indicate that it had the usual shape. The question arises, Why were the jars smashed? It seems strange that the spoilers did not know that valuables were not to be expected there. Does it indicate a late date for the robbing? Or were the robbers contemporary but ignorant? Or was there spite?

In one compartment, the S.W. one, if my memory is not at fault (unfortunately I did not note it at the time), lay a small package, which was sent to the late Sir Armand Ruffer at Alexandria for examination. He was so good as to report as follows on 7th May 1914: "The last parcel you forwarded to me, which I told you was wrapped up in many bandages, turned out to be lung. There were three pieces of one lung, corresponding to about one-half of the whole organ. It was fairly well preserved, and had been soaked for a long time in pitch, which had penetrated in the small alveoli, and I had the greatest difficulty in getting rid of it, but succeeded to some extent by soaking it for a long time in chloroform and spirit. Even now, after two months' soaking, some black pitchy stuff is dissolving out still."

If this parcel was found in the S.W. compartment, it would agree with the lung found in the Amseti jar at Riqqeh (Engelbach, *Riqqeh*, p. 14), and with the "small viscus" found in the S.W. jar at Lisht (Mace & Winlock, *Senebtisi*, p. 120), the

usual position for the Amseti jar being S.W. (as below, Tomb 8.).

22. (ix) A fragment of dark grey granite (pl. xiii) also came from this tomb. On the worked surface, which is flat, are cut two grooves, one straight and parallel to a scrap of original edge still remaining, the other slightly curved, rather narrower, and its general direction at right angles to the first. The suggestion that this may be the side of a throne of a seated statue is not satisfactory.

(x) Among the scattered remnants on the floor of the offering chamber were fragments of bones, some perhaps from legs of a quadruped (calf ?), and others of birds, a wish-bone of some kind of duck being easily recognised. It may be noted here that, though offerings were found several times in position on the pyramid site, in no case was there any indication that they had been wrapped up in bandages, or preserved in any way.

(xi) The pottery, which is all drawn on pl. xix, 31–52, is of a pale reddish or yellowish brown colour, and coarse in texture. The surface is worked to a considerable degree of smoothness, but without any sign of polish. Some of the types are of frequent occurrence on the site, such as the dishes 37 and 45, the flask 39, the deep little bowls 43, 46–48, the pot 44, and the very common saucers 49–52; while the jar 42 recurs over and over again in tombs of the period. 35 is part of a wine (?) jar of common type generally sealed with clay. The cord pattern on the dish 37 is like that on type 3 (pl. xviii), found in the pyramid, and is similar to the dish from Lisht (*Senebtisi*, p. 110, fig. 1). 33 and 34 are of the same family as *Riqqeh* 35*y*: 32 and 36 are probably to be restored as *Riqqeh* 12*r*: spouts, type 41, also occur occasionally in *Riqqeh*, but with different forms, 70*c–y*, 70*r* giving the nearest resemblance to our 41 (cp. also Petrie, *Illahun*, IV. p. 21). The nearest parallel to 40 that I have noticed is in Petrie, *Labyrinth*, pl. xxxv, 111. It is of a rough ware, pinkish red in colour. Every type of pot referred to in this section, from Lahun and elsewhere, is dated to the xiith dynasty.

(xii) The remaining object found in this tomb was a piece of worked flint, flat and roughly triangular in shape, ½ inch thick, and 5 inches along each side. Its purpose is unknown.

Tomb 8

23. We now come to the tomb in which the royal jewellery was discovered, in the recess E (pl. xxii). But it will be necessary to describe the other contents first, and also the way in which the clearance of the tomb was carried out.

The objects were:

(i) Sarcophagus and lid.
(ii) Pieces of wooden board.
(iii) Scraps of gold foil.
(iv) Canopic chest with lid.
(v) Wooden box.
(vi) Canopic vases and contents.
(vii) Piece of inscribed black granite.
(viii) Pottery.
(ix) Bead in filling of shaft.
(x) Jewellery and jewel caskets, etc.

The mouth of this pit was found on 5th Feb., and its clearance occupied the men most of five days. This part of the work calls for no comment: the filling was of the usual kind, a mixture of sand and stones, such as is found in all pits which have been emptied, and left to fill up again by chance. One item of interest, however, was the finding of a small cylindrical bead of green felspar (pl. xiii, type *j*) loose in the filling, some 6 feet from the surface. This type of beads is well known in the Middle Kingdom, when they were largely used in the broad bead collars.

On the 7th Feb. the antechamber became apparent, and, soon after, the burial chamber was reached, where the condition of the granite sarcophagus plainly showed the work of the ancient spoilers. We cleared it out, and found scraps of gold foil only. Among the débris surrounding the sarcophagus, the scrap of inscribed black granite turned up. The canopic chest of white limestone was intact, and this was opened and the contents removed by Mrs. Petrie and Mr. Engelbach on the 19th.

The work of clearance lasted till the afternoon of the 10th, when the whole tomb was free with the exception of the recess in the west wall of the antechamber. This was filled to within 10 inches of its roof with a very compact dried mud, quite distinct from the filling of the rest of the tomb. There was none of this mud out in the antechamber; for although I was not in the tomb at the time, and did not observe the actual line of demarcation when the mud was reached, still the Egyptian in charge of the work, without any difficulty whatever, distinguished on the surface between what had been taken from the recess, and what had come from the antechamber.

When the antechamber was emptied and the

recess was first seen, I was interested to notice how the surface of the mud filling had dried and cracked into little "saucers." As there was nothing to indicate that the recess had ever been walled up, it was evident that the bottom of the tomb had once been filled with mud to this depth, and that it had been removed subsequently, except from the recess.

On the top of the mud lay some planks of wood, very tender, but just sufficiently tough to be moved away intact. About 4.30 p.m., when I was some distance away north of the pyramid, I received a message from the Qufti in charge that some gold beads were discovered in the mud, and I hurried to the spot. Mr. Frost had already taken charge of the site, and Professor Petrie had removed all the local workers clear of the tomb and the earth from it, where they had been hunting for any gold beads that were overlooked, and from which they handed up a few. As soon as they had gone my first thought was to have the mud, which had been dumped at the surface, carefully searched by the Qufti's boy, under Mr. Frost, to see if any beads had been overlooked, the discovery being so utterly unexpected. One or two "ring" beads turned up, but nothing else, and possibly a few of these beads (which were the only things that had been disturbed) may have strayed.

The remainder of the work was done entirely by myself, during the ensuing eight days, the Qufti helping me during the first evening, while Mr. Willey came down one other evening and looked on. The detail of this work will be given later.

I must now turn to the contents of the tomb, other than the jewellery, which will form the subject of the next chapter.

24. (i) The sarcophagus stood unmoved in its chamber; in fact, there is very little room between it and the walls and roof, only 5 inches on the ground on the east side. The spoilers had found it a difficult matter to attack. There was no way to twist or turn the lid, which is very clumsy and heavy. They could have raised it; but the roof is very low, and this would have been a troublesome operation. As, however, there are no projections under the lid, fitting into sockets in the ends of the sarcophagus, it was found possible to push it till it touched the back wall, as shown in the section, pl. xxii. But this was not enough to give access to the interior, and the underside of the lid had to be gradually battered away, until a hole was made large enough to admit a small boy. Through this everything had been extracted. The photograph, pl. xvi, shows very well the present condition of the tomb.

The sarcophagus is of red granite, with a plinth, like that in Tomb 7, but quite plain, and with the usual rounded lid with raised ends. It is uninscribed, coarse and clumsy in design and workmanship, very different from the finished perfection of the earlier sarcophagus in Tomb 7.

The dimensions are 104 × 51 inches outside at the base, and 48½ inches high. The plinth, which is 31 inches high, projects 3 inches at the sides, and 1 inch at the ends. The bottom is 10 inches thick; the sides 9¼ inches; and the ends 9¾ inches, measured at the edge. The lid is 9 inches high, the raised ends being 12½ inches thick. The height of the lid is quite disproportionate to the body of the sarcophagus. There is no boss left projecting at the end of the lid, as in Tomb 7, though the plunderers may have destroyed it when making their hole. There are no projections on the underside of the lid.

(ii) Some pieces of wooden board lay in the recess (Sect. 23). The dimensions of the largest were about 3 feet long by 8 inches wide, and ½ to ¾ inch thick (I write from memory). It was light reddish-brown in colour, and showed no marks of paint. As no objects were left in the tomb that we can date later than the xiith dynasty, it seems conceivable that these were parts of one of the coffins, presumably portions of floor-boards. It is unfortunate that they could not be identified with any certainty, as they are of interest with reference to the problem which arises as to how and when the jewellery was placed in the tomb. Their origin, however, may be the same as that of the piece of a late coffin found in Tomb 10, previously described.

25. (iii) The scraps of gold foil, which formed the sole contents of the sarcophagus, show that the coffins were ornamented in the usual way, as was the canopic box (see below). It is curious that not a single bead was found there, especially when it is considered how the body and coffins must have been broken up to get them through the hole under the lid.

Can it be argued from this that the robbing was done very much sooner after the interment than was the case in Tomb 7? If that were so it is all the more extraordinary that the jewellery was left in the recess, but it might explain why the canopics were left untouched, the plunderers know-

ing well that there was nothing to be gained by breaking them up, as was done in Tomb 7.

26. (iv) The canopic chest forms another contrast between Tomb 8 and Tomb 7. Here the material is plain white limestone, moderately well smoothed, with the usual curved lid; it is not such as might be expected in the tomb of an important princess. Its dimensions are: body, 33¼ inches square, height 29½ inches, the sides being 4½ inches thick, and the bottom 5¼ inches. I have no measurements of the lid, but from memory I should say it was about 6 inches high.

(v) Inside the stone chest was the usual wooden box to hold the jars. Unlike that in Tomb 7, this had decayed to such an extent that indications only of its presence were available. It is to be noted how very much damper this tomb was than Tomb 7, and there is evidence that it was repeatedly flooded.

Mr. Engelbach, who cleared the chest, gave me the following details of the box. Clearance of about 1 inch between wood and stone, filled in with mud. Box probably standing on mud. (Presumably there were cross-pieces under the bottom, which allowed the mud to flow under.) Thickness of wood 1¼ inches. Divisions about ⅞ inch thick, reaching about half-way up the box, but much broken away. No details of the jointing could be made out. Strips of gold foil ran down each side of the corners, not only outside, but also inside the box. This is very strange. See pl. xv for plan of chest and box, the heavy lines at the angles indicating the gold foil. The quarters were filled up with mud to about 3 inches deep, and there was about 1 inch of mud *beneath* the jars. Mr. Engelbach could not determine whether there had been a lid to the box or not.

As before, the chest and box, owing to the size of the recess and burial chamber, must have been placed in position before the sarcophagus, and the jars put in separately. Their extraction was a very awkward and cramped business.

27. (vi) The set of canopic jars, of banded alabaster, were found to be in perfect condition. Photographs are given on pl. xiv. The heads are human, as always in the Middle Kingdom; all four are beardless. At Dahshur the jars of the princesses are 3 bearded and one beardless, except those of Princess Nub-hetep-ta-khred (Amenemhat III) which are all beardless, like those of King Hor (Reisner, *A.Z.*, xxxvii, 61). The lady Senebtisi (Senusert I) also had four beardless heads (Mace & Winlock, *op. cit.* p. 108). There does not seem to have been any fixed rule therefore for royalty or the nobility at this time.

As is generally found, the four jars vary considerably in shape and size, the height (including the head) varying from 14⅜ inches to 13½ inches. Only faint traces of colour remain: the iris and eyebrows are black; there are touches of red in the corners of the eyes, and the inscriptions are coloured blue.

The workmanship is fine, both of the heads and of the hieroglyphs. The faces resemble each other, without being alike; they are clearly not portraits, even if intended to be so, but a more or less conventional type, and wear the usual wig or striped head-dress.

The inscriptions have the stereotyped formula (Reisner's I*a*), but are of great value as giving the name of the princess, which does not occur otherwise, either in the tomb or elsewhere in Egypt, so far as I know. Mr. Battiscombe Gunn translates:

"O Neit, spread thy protection over Duatmutef, who is in thee. She who has honour with Duatmutef, the king's daughter, Sat-hathor-ant, true of voice." (See pl. xv). The omission of the feminine ending *-t* with *amakh* is unexplained. It is also absent on the jars of Princess Ment (*Dahchour* I, 59) and of Princess Nub-hetep (I, 115).

The jars were placed in the box as they are arranged on pl. xiv, north being at the top. At the north-west stood the jar inscribed Neit-Duatmutef: south-west Aset-Amseti: north-east Nebthet-Hapi: south-east Serqt-Qebhsenuf. The heads of the western jars faced east, and those of the eastern west, as shown by the arrows on the plate. This position of the jars was the standard one, judging from the few other examples of this date which are known to me. As to the heads, those of Senebtisi were not arranged symmetrically, and I can find no other record.

The relative positions of the jars does not seem to bear out Miss M. A. Murray's suggestion that the four genii were allotted to the four cardinal points (Engelbach, *Riqqeh*, p. 31). The indication seems to be that the genii are rather in pairs: Duatmutef and Amseti for the west, and Hapi and Qebhsenuf for the east. This is, however, not the order in the xixth dynasty, at the tomb of Mnevis (*Ann. Serv.*, 1918). The position of the canopic chest with regard to the coffin is another

point of some interest. In the tomb of Senebtisi it was east of the feet. At Dahshur, in eleven instances it was in the same position, or to the south-east; in two cases it was to the south; in one south-west (apparently owing to exigencies of space); and in one other the canopic box was placed *over* the feet (*Dahchour* II, 103). At Lahun in four examples it is east of the feet, and in two, south of the feet. Close proximity to the feet of the corpse seems to have been the desired position.

28. The contents of the jars from Tomb 8 afforded another example of the embalmers scamping their work, as pointed out by Garstang (*Burial Customs*, p. 178). The jars did not contain any of the viscera for which they were provided. The contents were bundles of cedar pitch adulterated with mud.

In one jar we found, to our astonishment, about a pint of fluid, which proved to be solution of natron. The late Sir Armand Ruffer, on 7th May 1914, kindly sent the following report:

"I have at last completed the examination of the things you sent me. It has taken a long time, because I meant to be certain that there were no organs in the jars; as a matter of fact I have found nothing in them except wood-pitch and sand. The wood-pitch was certainly cedar, and my whole laboratory has smelt of it ever since the hot weather has set in. The pitch was adulterated with very fine mud, to the extent of 10 per cent. or perhaps more. It looked quite normal, but when dissolved the mud settled at the bottom, as a very fine precipitate. It is not an accidental contamination, as the mud and pitch were intimately mixed."

Mr. A. Lucas, on 10th March 1914, wrote with reference to the fluid:

"The other sample was a dark brown, clear liquid, with a peculiar and somewhat aromatic smell. It consisted essentially of a water solution of a compound of humic acid and sodium carbonate, evidently natron, since it contained the usual impurities of natron, sodium chloride, and sodium sulphate. The evidence as to whether the humic acid is of animal or vegetable origin is not conclusive, but the latter is indicated."

29. (vii) A small piece of black granite which might have come from a small statue, or an offering-table, was found in removing the débris round the sarcophagus. The inscription is given on pl. xv. The first bird, although roughly sculptured and partly chipped, is, I think without doubt, the *sa*-goose. The last bird, of which the legs only remain, is clearly the *ur*- bird. The titles are then "[king's] daughter, king's wife, great consort," *or* "great lady united to the beauty of the white crown." It is to be regretted that the name is broken away: one sign, the very next, would have sufficed to determine whether this was Sat-hathor-ant or no, as the personal name (with two exceptions) when it occurs at all, invariably follows the *khnumt nefer hezt*; these exceptions are where the title *mut nysut*, king's mother, intervenes (xviiith dynasty).

30. As it was desirable to see whether Sat-hathor-ant might have borne this title, and as very little is known about it, I have collected as many examples as possible, which are written out on pl. xv, with the original order of the hieroglyphics, the object inscribed, and the reference, arranged in the closest chronological order.

First as to the reading. Erman, in his *Glossar*, gives "nefer" as the name of the white crown of Upper Egypt. I have not been able to learn his authority for this: but there is the epithet *thet nefer hezt* (*Urkunden* IV, 886/17). Now it is seen in the fullest writings (Nos. 10, 12, 23) that the white crown is often written out *hezt*, but that the word *nefer* in no case is given even a final *t*. It is possible that the name of the crown was *nefer-hezt*, but it seems preferable to revert to the old reading, translating *nefer* as "beauty," "United to the Beauty of the White Crown."

It will be seen that the period when this title was in use ranges from Amenemhat II to Amenhotep I. I know of no examples in the Old Kingdom, nor in the xith dynasty, and Sanehat does not give it as one of the titles of the Queen of Amenemhat I. It stops abruptly with Queen Aah-hetep II. Neither Queen Aahmes nor Hatshepsut bears it. Curiously, its range coincides with the time during which Asiatics were entering and partly overrunning Egypt, from the arrival of such parties as that of Absha, recorded at Beni Hasan, to the final rout of the Hyksos in Asia. The title itself suggests some union with a princess of Lower Egypt. Notable absentees from the list are Queen Nefert of the Tanis statues, and Queen Teta-shera, the ancestress of Aahmes I. Professor Breasted tells me he thinks the title may be a religious one, "united to the goddess Nekhebit": but a god is expected in this connection, not a goddess.

There seems to be a definite progression in the

rank of the ladies bearing the title. The earliest are only kings' daughters (Nos. 1, 2, 3, 4, 5). The first king's wife is *Nefert-hent* under Senusert III (No. 6). In the same reign there is an unnamed Queen who was also king's mother (No. 10). In the xiiith dynasty the owner of this title becomes "King's Great Wife" (No. 16), and thereafter it does not occur apart from that rank, except in one example of Queen Aah-hotep I (No. 24), where the reading seems to be dubious. In any case we know that she bore the title King's Great Wife. In a few cases in the list it will be seen that the ladies sometimes omitted the *Khnumt* title, which might imply that it had not been given them at the time the object was made; but three examples are scarabs from which brief form little can be argued; Princess Ata (No. 2) is very early, when the title was just coming into use; and Queen Aahmes Nefertari (No. 25) only used it occasionally. I have, of course, not included objects of this queen, and of the two Aah-heteps, which do not give the *Khnumt* title, as they are too numerous.

The titles of Queen Aahmes Nefertari from Deir-el-Bahri are included to show their striking similarity to those on the broken rock-inscription (No. 26), which I should attribute to her, and not to Queen Mentuhotep (Lepsius, *Königsbuch*). The other case (No. 21) where the *Khnumt* title is omitted is very doubtful. It is quite uncertain whether the Queen Sebek-em-sa-s is identical with the Queen Sebek-em-sa-ef. The titles would certainly indicate the contrary.

The *order* of the titles is almost constant. King's mother immediately follows king's wife (the word king not being necessarily repeated), except on the two coffins (Nos. 25 and 27), where it follows the *Khnumt* title, as mentioned above, and on the pyramidion (No. 22), where it follows the words *mes en*, "born of," and therefore naturally comes first. King's sister is curiously absent. In No. 21 it follows king's wife, in No. 25 it follows king's daughter. Divine wife immediately precedes king's wife.

The next point to be noticed is the frequency with which the *Khnumt* title occurs without a personal name, all the examples being of the reign of Senusert III (one doubtful). This seems to indicate that only one lady could bear the title at a time, and that therefore it may have had some connection with the succession.

The way in which the cartouche begins to be used for queens' names in the xiiith dynasty, but not before, may be pointed out here.

Among the papyri found at Kahun, and described by Borchardt in *A.Z.* xxxvii, p. 91, is a list of the royal statues in the temple at Kahun, which apparently was the "Valley-temple" of the Lahun pyramid. Unfortunately these papyri have not yet been published, and Borchardt's short summary is the only information available. The four principal persons represented in the temple were Senusert II deceased, Senusert III living, the king's wife and mother, the Great One (?) united to the Beauty of the White Crown, deceased, and the King's Wife, the Little One (?) united to the Beauty of the White Crown, living. In neither case are the queens named, which is strange. The addition of *Urt* to the *Khnumt* title occurs also on a cylinder in the Timmins Coll. (No. 11), also with no name. Can it be possible that Urt and Shera are personal names? No such names occur in Lieblein's Dictionary, but both are found on Middle Kingdom steles from Abydos; Urt on Schäfer *Grabsteiner* 20555, 20562; Shera on 20507, 20553. The name of the Princess Aat (No. 14) may also be borne in mind. The titles are determined in *A.Z.* by a seated king with uraeus and beard; this seems incongruous, and must surely be an error.

The question now arises whether the inscription on our black granite, and the inscription on the canopic jars, refer to the same or different princesses. If *Urt* is a personal name, there is nothing further to be said. If the *khnumt nefer hezt Urt* of the Kahun papyrus is the same as that of the stone, she was dead in the reign of Senusert III, and cannot be Sat-hathor-ant, who died under Amenemhat III. Of course Sat-hathor-ant may have become a later *khnumt nefer hezt Urt*, but it would then be strange not to find the title given her on her canopic jars. Princess Ata-urt at Dahshur is so styled on her canopic box, though not on her coffin. Princess Khnumt's canopic box is inscribed in the same way, also the canopic jars of Princess Ment, together with her sarcophagus. It seems impossible that Sat-hathor-ant could have held this title, and also have been a king's wife, yet described simply as a king's daughter on her canopic jars, unless they were made in her youth. The granite, then, must refer to another lady, or to a different age of Sat-hathor-ant; the piece may possibly have come from Tomb 7. If so, it is the earliest example of a king's wife using this title.

31. (viii) One pot alone was found in the tomb. It is drawn on pl. xix, 53, and is of dark brown pottery, of Middle Kingdom type.

(ix) A small cylindrical collar bead of green felspar. (See Sects. 23 and 43.)

CHAPTER IV

THE EXCAVATION OF THE JEWELLERY

32. BEFORE describing in detail the work of extracting the jewellery from the surrounding dried mud, it will be as well to give a list of the objects found, with the plates on which they are represented:

(i) Crown, with feathers and streamers . . pls. v, xi, xiii
(ii) Gold rings: about 810 large and 495 small . pl. x
(iii) Scraps of gold foil, with glaze (?) adhering .
(iv) Pectoral of Senusert II . pls. i, vi
(v) Do., Amenemhat III . . . pls. vi, xi
(vi) Drop beads, 74, in gold, carnelian, felspar, and lazuli . . . pl. vii
(vii) Gold cowries, 8 . . pls. iii, xiii
(viii) Gold lions' heads, 7 large, 7 small . . . pls. ii, xiii
(ix) Gold claws, 2 . . pl. viii
(x) Gold couchant lions, 4 pairs . . . pls. ii, iii
(xi) Amethyst ball beads, 291 pls. i, viii
(xii) Ball beads, gold, large 22, small 2, turquoise, 12 pls. vii, viii
(xiii) Minute beads, 2,717 gold, 2,604 carnelian, 4,251 turquoise . . pls. ii, iii, iv, vii
(xiv) Multiple beads, gold, 14 compound, 10 simple pl. iv
(xv) Lozenge-shaped beads, 78, gold, carnelian, felspar pls. iii, vii
(xvi) Inlaid *shen* fastener . pls. ii, xiii
(xvii) do. smaller . pls. iii, xiii
(xviii) *Au-ab* fastener . . pl. ii
(xix) *Ab-hetep-neter* fastener . pl. iii
(xx) *Sa-onkh-neb* fastener . pl. iii
(xxi) Tie-fasteners, gold, 7 pairs and 2 odd . . pls. i, ii, iii, viii
(xxii) Bracelet spacers, 12 with 2 fasteners . . pls. iv, xiii
(xxiii) Anklet spacers, 16, with 2 fasteners . . pls. iv, xiii
(xxiv) Mounted scarabs, 2 . pls. ii, xi
(xxv) Lazuli scarabs, 2 . pls. vii, x
(xxvi) Crystal eye . .
(xxvii) Silver mirror . . pl. xi
(xxviii) Obsidian toilet vases, 4 . pl. ix
(xxix) Alabaster vases, 8 . pl. ix
(xxx) Copper knives, 2 . pl. xi
(xxxi) Copper razors, 2 . . pl. x
(xxxii) Sandstone hones, 2 . pl. x
(xxxiii) Silver *shen* . . pl. xi
(xxxiv) Copper implement
(xxxv) A large quantity of ivory inlay . . . pls. xi, xii
(xxxvi) Gold Hathor-heads for inlay, 4 . . . pl. viii
(xxxvii) Gold *zads* for inlay, 20 . pl. xii
(xxxviii) White paste for inlay . pl. xii.
(xxxix) Squares of carnelian in gold, inlay, 16 . . pl. xii
(xl) Gold-headed nails, and gold edging . .
(xli) Traces of silver plating on wood . . .
(xlii) Gold plate from feet of casket, 4 . . pl. xii
(xliii) Silver knobs . .
(xliv) Traces of plain wooden box . . .

33. A plan of the recess, showing in detail how the jewellery was lying, is given on pl. xii. It must be understood that, though a great proportion of the objects were lying or standing more or less on one level (*i.e.* 6 inches from the rock floor), others, notably the crown, and the ornaments associated with it, were in a considerably higher position.

I have tried to make this clear in the photograph on pl. xvi. The plan is only intended to give some idea of the relative positions, and is not precise in every detail.

The most troublesome point in the clearance was the extraordinary confusion into which the innumerable slips of ivory inlay had fallen. They stood and lay in every direction, within certain wide limits, and were mixed and interlaced in such a way that it was a matter of the greatest difficulty to extricate them. The condition of the ivory

was extremely brittle; and it was heart-rending to find, after spending much time and labour in tracking round a broken slip (there were very few intact), and loosening it from the hard and sticky mud, that it was too tender to bear handling, and would break again into two or more pieces. The tendency was to flake, no doubt along the natural planes of the original tusks.

The consistency of the mud itself varied considerably: parts were as hard as a good firm cheese: parts were more gritty and crumbling; and this I take to be due probably to the presence of decomposed organic matter such as linen, wood, or hair. Fortunately salt was entirely absent. The harder mud was found in the top and bottom layers, the filling and surrounding of the empty box, and smaller scattered portions. The friable parts, often containing reddish specks, were in close association with the jewellery.

The work was carried out mainly from the front; it would have been better possibly to have done it from above, but the distance of the surface of the mud from the roof of the recess (only 10 inches) made this out of the question. In fact the recess was so low (only 40 inches to the roof) that I could not even kneel in it, and had as a rule to work lying flat and resting on my elbows. Of course the continued succession of finds, day after day, was amazing and utterly unexpected. The whole of the clearing, except in certain areas where the mud contained no remains whatever, was done with a small penknife; or with a pin when there was a chance of finding small beads in position. The work of picking out the minute beads (there were over 9,500 of them) was so laborious, that eventually any detached scraps of mud were examined in camp.

The whole of the mud from the recess was finally taken to the huts and washed, the mud remaining in suspension, and the beads, being heavier, fell to the bottom of the basins. In this way we can be certain that not a single bead, however minute, can have been overlooked. Professor Petrie and Mr. Campion did this work, which was spread over some weeks. The mud from the various areas was kept separate as far as it was possible to do so, in order that no evidence might be lost which would assist in the reconstruction of the jewellery.

In spite, however, of every care that was taken both below and above ground, very little guidance was obtained. This was entirely owing to the disturbed state of the deposit, and to the dampness of the mud, which had been repeatedly soaked by rain water. Not a vestige of a thread remained anywhere; what had apparently once been fine blue glaze survived as a white crumbly paste, looking like plaster-of-Paris; also the presence of wood was only determined here and there by a cast in the mud, containing traces of fine dark brown powder. One scrap was extracted whole, measuring roughly an inch each way. The gold was slightly tarnished, and was covered with a faint reddish bloom; but the copper and silver were corroded through and through, the copper remaining only in places as a stain in the soil.

34. The contents of the recess may be divided into six more or less distinct parts, four of which are marked on the plan (pl. xii).

A. A layer of hard compact mud covering the whole floor to a depth of 6 inches, in which nothing at all was found.

B. The part in the centre, a little nearer the entrance than the other groups, but at a higher level, about 14 inches from the ground, in which lay the crown and the associated ornaments. This area was well defined, the surrounding earth containing nothing. The productive depth was some 8 inches; the beads ceased at a fairly definable level, rather deeper at the back than in front.

C. The area containing the plain, empty box.

D. The part south-east of this, bounded by the south wall, and further out in the recess, where the alabasters were found and the first pieces of inlay from the jewel casket.

E. The area on the south corresponding to C on the north. It contained the greater portion of the fragments from the casket, with all the toilet objects and the remainder of the jewellery.

F. The final covering of mud, with a minimum depth of 8 inches over the crown. It formed a homogeneous mass, and contained no traces whatever of any remains.

Area B was the first worked out. It took the greater part of the night of 10th Feb. to free the crown and the objects found with it, including the later pectoral. Part of area D was cleared at the same time, and resulted in the discovery of gold *zads* and ivory inlay. Area D produced its eight alabasters (three lids missing) and more ivory inlay, etc., on the 11th. The 12th was spent in clearing area C, no finds being made there; also work was begun in

E, and the mirror first seen. It took nearly all of the 13th to get it out, as it was partly covered by the obsidian vases: but once I had extracted it the work went on faster. Still the treasure was not by any means exhausted, for next day every few minutes exposed more gold ornaments, the early pectoral or beads of some kind; indeed, it was the day most prolific of discoveries, not excepting the first. The 15th and 16th were spent mostly above ground, many matters urgently needing attention. On the 17th a few more portions of the jewel casket turned up at the back of area E, while the 18th saw the end of the clearance, in which the hard mud floor was removed.

35. *Area B.*—The principal object here was the crown; it had been laid horizontally, sloping somewhat down to the N.W.: the uraeus pointed N.E. as shown in the plan. Of the rosettes, two were found after the crown had been taken out. One was sticking in the ground slightly away from the position of the circlet, and at the back. This may possibly have been detached when the crown was extracted. The other was standing on edge inside the circle.

The piece of lazuli forming the head of the uraeus was not in position, but was found later in washing the mud. One garnet eye was then still missing: this also turned up in the washing, but without its tiny gold setting. This again was found by Professor Petrie in his examination of the material above ground.

The pairs of streamers and the feathers were lying more or less flat, the feathers and one pair of streamers north and south, under the circlet with their tops pointing north. The other two pairs of streamers were at right angles to them, and over them; they projected over the back of the circlet for half their length.

The crown rested on a bed in which were buried a quantity of gold ring beads of two sizes. This bed extended some distance in front of the crown; less far at the sides and back. Inside the circle they were more densely packed than outside. No semblance of arrangement could be discerned: no recognisable trace of the substance on which they had been threaded. Some of the small rings were lying inside the large, and they were occasionally seen crushed. None of these rings occurred in any other area. On the other hand, not a scrap of ivory, so plentiful elsewhere, was found near the crown.

Inside the diadem, and under the streamers, lay half the drop beads, some of the ball amethyst, the two lazuli scarabs, the smallest pair of couchant lions, and a small proportion of the minute beads.

In one case only could I discover any order. One of the lions was fixed in the ground with its head downwards. From its rump two lines of the tiny beads extended, one from each threading-hole; and by moving the earth away, grain by grain, it was possible to get the arrangement, which was, counting from the lion, 7 turquoise, 3 gold, 5 carnelian, 3 gold, with the remainder disturbed. The other string was in the same order.

These strings lay over the back of the pectoral of Ne-maat-ra, which was lying face downwards and horizontal, with beads underneath it. When it was lifted from its bedding, one or two pieces of inlay remained in the cast. Some pieces were found in the washing: while a few, which have never turned up, were no doubt lost anciently.

Its position was at the back of the area enclosed by the circlet, the front of which was mainly occupied by the ring beads, drop beads, and lazuli scarabs. Inside were also the *Sa-ankh* and *ab. hetep-neteru* fasteners, while with the fine beads were some of the little gold tie-fasteners.

The head of the scarab of Ne-maat-ra was missing at first, but was eventually found in washing the mud which had probably come from Area E.

Interlaced with this group were long pieces of very fragile gold leaf, showing here and there thin pieces of a white, chalky substance (decomposed blue glaze?) adhering to the layers. The gold foil was first seen inside the crown. It extended over the streamers and over the circlet on the south, spreading some distance beyond to the south and south-west. The mud was so tenacious, and the gold leaf so tender, that it was impossible to disengage it, or handle it satisfactorily. Nothing definite could be detected associated with it.

The last object to come from this group was part of a tiny crystal eye, which lay some inches lower than the rest of the objects. It does not come from any of the other finds.

36. *Area C.*—The box here was made of ebony (?) half an inch in thickness, judging from the dark brown dust to which it had been entirely reduced. The bottom as it stood in the recess was of different wood, reddish in colour, and flaky in substance. The front of the box is not shown on the plan, pl. xii; it was worked over unnoticed. In fact,

what was actually found was only the cast of the sides in the mud, which could be detected by the way the earth broke away in flat planes.

The dimensions shown by these casts were 365 mm. by 550 + *x* mm. height 254 mm. (14 × 22 + *x* × 10 inches). The photograph on pl. xvi shows the space after the mud had been taken away from the interior. The candle was left in one angle to show the way in which the box tilted. There was no sign of any lid nor of any kind of decoration, or fastenings. All four planes were flat and at right angles to each other. The mud contents were of the same consistency throughout, clean, hard, and clayey, without a trace of organic matter, and nothing was found in it.

Between the box and the north and west walls of the recess was plain mud filling, containing nothing except traces of copper at the back. The only things distinguishable were two thick nails (?) about 1¼ inch long without heads, which may possibly have been connected with the box, and some very thin silver plating, with wood dust, and small copper nails with gold heads, to secure the plating. Other scraps of this sort were found at the same level, some 8 inches down, touching the wall at the back of Area B, and at the west and south of Area E. Several gold heads from nails were recovered in the subsequent washing, and I believe all these to have formed part of the jewel casket.

37. *Area D.*—It was here that the innumerable plates of plain ivory veneer began to appear. These were lying in all directions, and I was not able to form any opinion, as the work went on, as to their original positions on the casket or caskets. They were found largely along the south wall, from the corner nearly as far forward as the crown: also, along the back wall behind Area E. They were met with in a stratum 8 inches deep above the mud floor, and often butted against the rock, forming an angle with it. There were none in between the alabaster vases, but on each side and underneath. There were two planes, roughly vertical and parallel to each other, but dipping west, to the north and south of the alabasters, in which some of the ivory could be seen in its original arrangement. These were not the usual ivory frames (see description of jewel casket), but rectangular pieces or single narrow strips. The arrangement was a succession of rectangular pieces alternating with a pair of narrow ones. In between the ivory was wood dust (ebony ?).

Some of the white substance (decomposed glaze ?) which had filled some of the ivory frames (jewel casket) was found with ivory in front of the alabasters. Five of the gold *zads* also from the ivory frames were taken from this area on the first night of the work. They lay roughly parallel to and close by the south wall. These *zads* were generally close to the walls, though some were found along the north side of Area E. Their three detachable capitals were seldom all in position, one or more being generally missing. Odd ones were found some distance away and some were never found at all.

The positions of the alabaster vases were interesting. The bottoms of six appeared first, and it was seen that they lay parallel, sloping down to the west at over 45°, in 2 rows, 3 above and 3 below, the bases being all in the same plane. One other was 4 or 5 inches deeper in, lying in the same direction and wedged between the others. The eighth lay at right angles, north and south, horizontally wedged in between the two rows of three vases.

Two of the first six were broken anciently, with the pieces all in position, and one of the broken vases had its lid in contact. One other lid was in place, but the rest of the lids were found subsequently, some at lower levels, some further back. The last two were actually in Area E, lying horizontally, one on the other. They had just been uncovered when the photograph pl. xvi was taken, and can be made out to the left.

The box appears to have been violently thrown over upside down. The dried contents of some of the vases indicate that the ointments solidified in a different position to that when found. The dipping angle of the 7 alabasters was practically the same as the dipping angle of the arrangement of ivory inlaid panels described above. It seemed that these panels had formed the ends of a box holding the perfume jars; but no trace could be seen of the sides, lid or floor.

The gold platings of two feet of the jewel casket were found in this area, one in front, and one under the alabasters, at the back.

38. *Area E.*—All the beads, except those mentioned in Area B, were found here: the cowries, lions'-heads, remaining couchant lions, bracelets and anklets, *shen* fasteners and *an·ab* fasteners, inlaid scarabs, toilet objects, and the magnificent pectoral of Senusert II. There was also the bulk of the ivory and other casket inlay, including the four Hathor-heads.

Nothing can be said as to the original threading of the beads. I believe the amethysts and gold balls were strung together : they were more or less in close association, but the confusion here was quite as great as elsewhere. For instance, fine beads from the bracelets were lying immediately above and below ivory slips ; and the gold spacers from the bracelets and anklets were at every conceivable angle, generally more or less upright, but close together.

The first object found here was one of the inlaid scarabs, the ring of which lay in the pronged end of the copper implement ; behind this at a higher level appeared the edge of the mirror. Before this could be moved, the obsidian vases had to be freed. Two of these, standing vertically upside down, were over the handle of the mirror. The third was also inverted but further back. The kohl-pot stood close by, right way up. All had their lids in position.

Under the reflecting part of the mirror (which lay flat, handle pointing north) and in contact with it, were the two copper knives, lying side by side, skew with each other and with the mirror. These in their turn rested on the pair of razors. The blades of these pointed east. They were exactly parallel, with their cutting edges in contact, and in between the gold handles in the same plane was the silver *shen*. The group seemed to have been purposely arranged. It may have been tightly wrapped up in the box, and the cloth entirely decomposed.

Further back lay the pectoral, flat, face up, top to north, at a low level with beads under it. Near it were the cowries and other necklaces, with some of the minute beads, and couchant lions. One of the bracelet spacers showed fine turquoise beads running up the whole length of it. I did not observe any carnelian or gold beads in contact with these spacers, but there were many turquoise beads here.

Of the four Hathor-heads, one was found with its parts much separated, wedged in between the third obsidian vase and the kohl-pot. Another lay flat between a very long, broad, ivory strip and another piece showing the characteristic long curve of a casket lid. These strips lay north and south. The other two heads were high up in the mud close to the back wall. The remaining pair of gold platings of feet came from this region also, one high up at the back, and the other one, lower, against the south wall.

39. *Area F.*—This contained nothing but mud of a hard, clayey consistency.

CHAPTER V

DESCRIPTION OF THE JEWELLERY

40. WITH one or two trifling exceptions, the whole of the objects found in the recess are shown in the plates, either in coloured photographs, plain photographs or line drawings. Professor Petrie has also drawn constructional details of the fasteners, etc. I am indebted to him for all the descriptions of formations and the technical details which are given below. No one else has examined the jewellery at all ; and most of the things were covered with mud when I first gave them to him. This he washed off with plain water, avoiding any rubbing in washing or drying, which would have altered the face of the gold.

The arrangements and threading of the necklaces and bracelets were done for exhibition purposes : and though in some cases there is direct evidence, and in others circumstantial evidence, for these reconstructions, they cannot be taken as satisfactory in all cases ; and many of the difficulties still await solution.

(i) *The Crown*

41. Plate v. (Cairo Museum.) Details, pls. xi and xiii.

This consists of a plain, almost circular band of gold, ornamented with 15 rosettes around it of gold inlaid, and in front with the royal uraeus, also inlaid. At the back a tube of gold had been riveted on to the band on the inside with three rivets. On this rested a solid gold papyrus (?) flower. These together served as a socket for the stem of the gold feathers. Three pairs of streamers of gold hung down, one on either side, and one at the back ; they were suspended from hinges attached to the rosettes.

The band is of highly burnished gold, perfectly plain, 192 mm. (7·5 inches) across from side to side, and 27 mm. (1·06 inches) high. It is not quite circular, measuring only 189 mm. from back to front. The actual shape is shown on pl. xiii 2.

The rosettes measure 25 × 27 mm., 1·0 × 1·06 inches, and consist of a base plate of gold, with ribs soldered on to form cloisons to hold the inlay. The design consists of a cross of flowers with a bud

and two leaves in each quarter. The inlay was of red carnelian, with white paste, which has crumbled and fallen out in many places. This white paste was originally blue glaze, judging from the two pectorals; for Amenemhat III used the white paste in place of Senusert II's turquoise. The rosettes are shown on a larger scale on pl. xi. 4, where the lowest has the rings which formed the hinge to which the ties or streamers were attached. The rosettes have a peg at the back which fitted through holes in the band of the diadem, projecting slightly on the inside as shown in the photograph, pl. v. Five of them were loose: I have described how some were actually lying detached in the ground.

The uraeus, drawn in detail, pl. xiii. 3, is of open-work, inlaid with lazuli and carnelian. The head is a single piece of lazuli, with garnet eyes set in little gold sockets. These were found in three separate pieces in washing the mud.

The feathers with their flower-socket stood 215 mm., 8·5 inches, above the rim. They are of perfectly plain sheet-gold, and their exact form is given on pl. xiii. 5. The tang at the bottom fitted into the gold flower, and down into the gold tube. This tube was originally fastened to the diadem with three rivets (see pl. v) but had become detached. In the photograph the tube is put *outside* the rim; but this was not its real position.

The pairs of streamers were cut from sheet-gold like the feathers. They are drawn on pl. xiii. 4. It will be seen that the side-ties are longer than the back one: 197 and 193 mm. (7·55 and 7·7 inches); while the distance from the top to the division is less at the sides than at the back. The ring at the top forms the hinge with the two rings on the rosette. It was soldered on to the back of the streamer by means of a little strip of gold shown in the drawing.

As a whole, the crown measures over a foot and a half high, and weighs nearly 10 ozs. (avoir.). The circlet is made sufficiently large to fit over the full wig which was in fashion at the time. The thickness of the feathers was such that they would wave slightly with every movement of the head.

The pattern is new to us, unlike the Dahshur crowns. It resembles to some extent the head-band of Princess Nefert in the reign of Sneferu. It tended therefore to carry on the old-fashioned model, like the silver crown at Leyden of King Antef; while the Dahshur coronets are lighter and more fanciful in design. It suggests that this princess was the queen of Amenemhat III, and may have died early in his long reign, before the Labyrinth and Hawara pyramid were advanced.

The significance of the two feathers is not obvious. Are they the feathers sometimes worn by the goddess Hathor (Lanzone, 314, 317, 320)? Or are they the feathers which were the insignia of the Heiress-queen? See Petrie, *Scarabs*, xxxvii. 12; Thyi at Soleb, L.D. III. 86; the Ptolemaic crown, *Koptos*, xxvi. 3, and others.

(ii) *The Gold Ring-beads*

Pl. x. (Half Cairo Museum, half Metropolitan Museum of Art, New York.)

These were entirely confined to the crown group, and the mud both under and round the crown was full of them. They were of two sizes, 9 mm. and 4½ mm., ·35 and ·12 inch in diameter, the numbers of each size being approximately 810 and 495 respectively. Strung on a rope, as shown on the plate, the large beads would have a length of 18 feet, and the small 7½ feet. The weight of all amounts to slightly over a pound. They are made from thin sheet-gold, cut in strips and bent round, with the ends slightly overlapping. A small proportion of the small-sized beads are ribbed round parallel to the edges. A few of these can be seen on the plate, top left.

No other tubular beads of this nature are known, and their use is quite undecided; in fact, very few plausible suggestions have been made. They are certainly too thin and fragile (they can be flattened between the fingers with very slight pressure) to be worn strung loosely as necklaces. They might possibly have covered the various wooden staves which were usually buried with the princesses and court ladies (see *Dahchour* and *Senebtisi*); but, if that were so, a few surely would have been found lying in a close straight row. The small ribbed beads are exactly similar, both in size and in the ribbing, to the rings on the back of the Amenemhat pectoral (see pl. vi) by which it was suspended. This would make use of a few, but not of all. My wife suggests that they were worn on the plaits of a wig, both large and small, thus converting the head of the princess into a shimmering mass of gold. We know that gold and silver rosettes in some numbers were worn on wigs (*Senebtisi*, p. 59, and *Journal of Egypt. Arch.* v. 173), and the hair would give the filling

required to prevent the crushing of the beads. The weight, though considerable, would not be excessive, and twenty-five feet length of tresses is not at all unlikely; thus the way in which the beads were found under the crown, and spread in all directions, would be fully accounted for. The wooden head of early XII Dyn. date found by Lythgoe at Lisht (Cairo Mus.) shows how a wig was ornamented so as to form chequers of black and gold.

(iii) *Gold-leaf with Glaze*

(New York.)—This has already been partly described in the account of the excavation of the recess. It is difficult to say how much there was of it: perhaps enough, if closely arranged, to cover a surface of 10 to 12 inches square. I could get no idea of form; but I noticed a few scraps with faintly incised lines, forming a pattern which may have been part of a lotus-flower, or even the feathering of a bird's wing. The points of the petals (?) were ornamented with the white decomposed glaze (?), very thin, and cut to the same pointed shape. Could this have originally decorated some head-dress, vulture or otherwise, the linen of which has disappeared? Or was it part of a broad linen collar from which hung the drop-shaped beads? One would have expected to find the vulture's head, in the first case.

(iv) *The Pectoral of Senusert II*

42. Pl. i (colour) and pl. vi (back). (New York.).—This exquisite piece of work, which is in perfect preservation, is perhaps the finest known example of the Egyptian inlay with cut stones. The famous Dahshur pectorals, now in the Cairo Museum, although magnificent specimens of the craft, are not wrought with the same delicacy and meticulous finish. The inlay is not so minute, and the designs, especially of the later pectorals, are more cumbrous and restless, less suited to such ornaments, which had to be viewed in general at a respectful distance. The plate unfortunately gives an insufficient idea of the precision of workmanship and the brilliant colour and polish of the inlay.

The pectoral measures 82 × 45 mm. (3·2 × 1·8 inches), and weighs about 1¼ ozs. (avoir.). In the centre is the king's cartouche, *Kha-kheper-Ra*. This is supported by the squatting man holding notched palm-branches, the group-symbol of a million years. From his right elbow hangs the tadpole, the hieroglyph for 100,000. Flanking these are the Horus-hawks, standing on the symbol of eternity, and wearing the solar-disk with uraeus from which hangs the *ankh*. The whole design would then express the wish that the Sun-god may grant an eternity of years of life to the king.

Formation.—The base plate of the pectoral was pierced through, and the ribs for holding the inlay were then soldered on it. The line of junction can be found at some parts of the edge. The base plate is ·76 mm. (·03 inch) thick, the outline ribs ·35 (·014) thick, and the inner ribs of details ·15 (·006) to ·20 (·008) thick. The legs of the hawks were made separately, and soldered in place; a slight difference of colour occurs in one at the junction. The claws and parts of the foot are most minutely modelled.

The inlay is of lazuli, turquoise, and carnelian, with chips of garnet for the eyes of the hawks. There are 372 pieces of inlay: 195 turquoise, 140 lazuli, 35 carnelian, 2 garnet. The bracelets of the squatting man are shown by specks of lazuli. The inlay was set with a backing of white plaster. This has greatly contracted by decay, and hence the inlay readily drops down in its ouches, or drops out if turned face down. It does not seem likely that the decrease of the backing can be due to solution of the gypsum; rather may it be due to the backing being of white of egg thickened with gypsum, and, the albumen having decomposed, the gypsum only fills a part of the space.

There are some unfortunate slips in the colouring on pl. i. In the right-hand hawk the three feathers in the top row are turquoise, not lazuli; the 5 tip feathers of the tail are carnelian, not lazuli; while the collar of the squatting man is carnelian with lazuli in the centre. These slips occur from misinterpreting the autochrome photograph kindly taken by Dr. Butterfield, as, in the tender condition of the original, it could not be risked in a workshop.

The delicate engraving at the back of the base-plate is well shown in the photograph (pl. vi). Above the head of each hawk is attached a broad ring, slightly ribbed, by which the pectoral was suspended. No gold rings such as this were found; nor were there any beads of a suitable size to form the string, except the amethysts. These then, though artistically unfortunate, had to be used for a reconstruction, together with a pair of the gold tie-clasps. The whole question of the suspension of pectorals requires study. There were, no doubt, a great variety of fashions: and a pair of broad ribbons, presumably of bead-work, hanging straight from

the shoulders, and meeting above the pectoral (*El Bersheh, I.* Frontispiece) is a well-known method.

(v) *Pectoral of Amenemhat III*

Pl. xi (photo.), pl. vi (back). (Cairo Museum.)—This pectoral of the same design as the first, is of poorer workmanship and material. The engraving on the backs well illustrates this. They are placed together on pl. vi for comparison. Note especially the feathering of the tail-feathers, and the hawks' feet. The ground-line on the early pectoral is a reed-mat with full detail. On the other the engraver has only troubled himself with the cross-lines. The whole is a trifle larger, measuring 83 × 46 mm. (3·25 × 1·8 inches), but weighs rather less, 1·05 ozs. The inlay is of carnelian, lazuli, and the white paste already referred to, which appears to be decomposed blue glaze, or some such substance. If this be allowed, then the colouring of the two pectorals was practically the same, an important exception being the suns on the hawks' heads, which are here of carnelian, and not turquoise. The rings for suspension on the back are attached vertically instead of horizontally, indicating a totally different method of hanging the ornament. No clue was obtained as to this, except the resemblance between the rings on the pectoral and some of the ring-beads (ii).

(vi) *The Drop, or Pendant Beads*

43. Pl. vii (New York).—Seventy-three are shown on the plate. One other, of lazuli, was not used in this arrangement. The following table gives the size and material of each bead, the measurements, which were taken after the threading had been done, being to the nearest ½ mm.

Size.	Gold.	Carnelian.	Felspar.	Lazuli.	Total.
14 mm.	—	2	1	—	3
14½ ,,	—	2	—	—	2
15 ,,	—	2	—	—	2
16 ,,	3	1	2	—	6
16½ ,,	3	1	1	—	5
17 ,,	3	—	1	3	7
18 ,,	1	2	3	1	7
18½ ,,	1	1	2	2	6
19 ,,	5	2	1	5	13
19½ ,,	2	2	1	2	7
20 ,,	2	—	—	—	2
21 ,,	1	—	1	2	4
22 ,,	1	1	1	—	3
22½ ,,	2	—	—	—	2
23 ,,	—	1	—	—	1
23½ ,,	—	—	2	—	2
24 ,,	—	2	—	—	2
Totals	24	19	16	15	74

Now of these, 12 gold, 10 carnelian, 8 blue-green felspar (amazonite), and 7 lazuli were found with the crown, 37 in all: while the remainder, 12 gold, 9 carnelian, 8 felspar, and 8 lazuli, total also 37, came from Area E. It is curious that at Dahshur a set of the same beads belonging to Princess Sathathor (Senusert III) also numbers 37: 10 gold, 10 carnelian, 9 felspar, and 8 lazuli. We do not know if this Dahshur set is complete, nor have we the measurements published; but the equal numbers certainly suggest that the three sets are complete.

Owing to a misapprehension, these two sets were not kept separate. It is not now known, therefore, which beads came from the two groups of jewellery, and the two Lahun sets cannot be arranged in order by the size. The composition of the three sets, it will be seen, was different: had we the Dahshur measurements it might be possible to settle the various questions which arise. For instance, is the order a recurring one beginning at one end of the string? or does the order work both ways from the centre, so that the sides are symmetrical? The beads cannot be exactly paired; so either they were not made accurately, or else the order was from one side. The jewellery of Senebtisi does not throw any light on this point.

A great deal of time has been spent in considering these drop beads; but it does not seem possible to settle the order with any certainty in spite of the close grading. The large number of beads of 19 mm. may indicate that one string was of small beads up to 19 mm. and that the other was of large ones down to 19 mm. More than that cannot at present be said.

Formation.—The gold beads are made in two halves soldered together. They are thick, but filled with a white paste to strengthen them. The stone pendants are bored in the usual way from each end with a single hole only.

Arrangement.—Throughout the whole course of ancient Egyptian history, royalties and nobles are shown wearing broad collars finished with a fringe of pendant beads of various designs. The hieroglyph *nub* shows this arrangement. The collars ended on the shoulder, often with semicircular or other end-pieces; and these were fastened behind the neck with strings. Miss M. A. Murray is publishing, in a forthcoming number of *Ancient Egypt*, various examples of the curious ways in which collars are shown fastened. The ornament at the

back sometimes repeated the design used for the end-pieces. (See Borchardt, Cairo Cat., *Statues of the Old Kingdom*, pp. 50 and 151. Also Lacau, Cairo Cat., *Sarcophages*, LII. 439 and 440, and Dr. Williams, *Journal of Egyptian Arch.* v. 278.)

Mace and Winlock (*Senebtisi*, p. 64) give the names and descriptions of various collars used for funeral outfits. In all cases the row of pendants is the rule, and it is difficult to imagine that the Lahun pendants came from anything but the usual collars. If they did not, then Sat-hathor-Ant had no collars at all, or they were abstracted at some time. The princesses at Dahshur had many varieties of collars. What, then, has become of the body of these? It is certainly very strange that both are missing entirely: no collar beads, no end-pieces, no "counterweights." Either they were of perishable material or spoilers took part of the collars only. Could they have been an arrangement of solid gold hieroglyphs or symbols (such as Aah-hetep's), which would be what a robber might be expected to take first? No explanation seems in the least probable.

Drop-beads and ball beads were strung together, for the suspension of pectorals in the xviiith Dyn., as shown on statues in the Theban tombs; and the pectoral of Hatai (xixth Dyn.) in the Cairo Mus. is hung from strings of drop and ball beads. The possibility of some such arrangement here may be considered.

The collar bead of felspar found in the shaft may have formed part of these collars. But, if it really came from this burial, it is more likely to have been on the mummy itself.

As to the stringing, how were these pendant beads threaded? If they hung with ends free, all would be vertical, and would not give the effect of a radiating fringe always shown on the statues. They cannot have had the threads or wires ending in clumsy knots. Nor could they very well have fastened the threads with beads (as now arranged), for there are no lazuli beads. I think we must suppose a line of some fine gold beads forming the outer edge of the collar. This would keep all the pendants radiating properly, and would agree with the sculptures which so often show a line connecting the tips of the drop-beads.

(vii) *Gold Cowries*

44. Pl. iii (colour), pl. xiii (details). (New York.) Eight large gold cowries, one of which is made in two halves sliding together to form a clasp. Weight 5¼ ozs. (avoir.).

Formation.—Each cowry is double-sided, showing a mouth on either side. The separate pieces appear to have been made by *cire-perdue* casting; yet in parts which are independent of the trimming, and round the edges, the dimensions are not alike. The greatest width of the mouth varies on both sides from 4·31 to 5·05 mm. (·17–·20 ins.), the least width from 4·06 to 4·82 (·16–·19), opposite sides 4·06 to 4·56 (·16–·18), the length of the mouth 42·63 to 43·14 mm. (1·68–1·70). Such differences are probably due to expansion by burnishing out the form of the mouth, while the main form was made by casting.

The hollow of the mouth was scraped or ground out with a fine-grained stone around the edge, to sharpen the hollow. The floor of the hollow was similarly ground or scraped. It may be that the whole surface was so prepared, but that on the convex parts the traces have been removed by burnishing.

The lines around the mouth have been separately worked by hand, varying from ·76 to 1·06 mm. (·030–·042) apart on the same part of different shells. The tool was a cutting instrument with a sharp point, which occasionally dug into the floor of the mouth; the breadth was made by the width of the tool, and probably partly by pressure as well as by cutting, as the surface is rounded between the grooves; the scraping round the edges of the mouth was done before the grooving.

The total length varies from 46·95 to 47·71 mm. (1·85–1·88 ins.), and width from 26·67 to 27·17 (1·05–1·07). The two sides were cast separately in moulds, one of which was the "mirror-double" of the other. The wax modelling can be seen best inside the lion-head (see below, viii), showing that it was not hammered. They were soldered together around the edge; in every instance the joint can be perceived.

The interior can be seen in the half of the slider, through the slit. Inside each cowry was a loose piece of copper; this still rattles loose in one of them, as seems to have been originally intended; in others it is stuck by corrosion, and this has burst two cowries down the edge by expansion. This rattle probably descended from a rattle in a natural shell, as the lion-heads have no such contents.

The mean distance between the thread-holes is 7·24 mm. (·285 ins.), mean variation ·25 (·01), ex-

tremes 6·35 and 7·58 (·25–·30). The holes for threading were not left at the time of joining the halves, but were subsequently drilled out, sometimes on, sometimes off, the joint. The drill was not a clean cutter, but burred up the metal outside. The surface was not smoothed or burnished afterwards to remove the burr. Grains of osmiridium occur in some of the cowries, especially in the tongue slider.

A section drawing of the tongue of the slider, and the corresponding groove, is given on pl. xiii, 9.

Arrangement.—The reasons for Professor Petrie's reconstruction of the necklaces as shown on pl. iii are (i) that the thread-holes in the cowries are almost exactly the same distance apart as those in the double-rhomb or lozenge beads, mean 6·96 mm., mean variation ·15, extremes 6·60 and 7·11; (ii) the number of double-rhombs, 16 (2 could not be threaded and are not shown on the plate), is twice that of the cowries (8); (iii) there is a copper stain on a double rhomb, and copper cores in the cowries; (iv) by exclusion, the thread spacing of the double pairs of rhombs is too narrow in the largest to agree with even the smallest of the single-pair rhombs (7·36 to 7·83), and the number will not agree with lion-heads large or small (7); (v) some spacers between the cowries are needful to make up the length for wear: the lion-heads will not do, as the thread-holes do not agree, the numbers are wrong, and there are fasteners for both cowries and lions'-heads.

Are any alternatives to this arrangement possible? Professor Petrie's prime reason for threading the cowries and rhombs together is that the cowries are not in themselves sufficient to give the necessary length, and that there are no other beads which agree as to the threading. But is this so? The lion necklace is only 17¾ in. in length: the 8 cowries alone would be about 15 in., and that, though small, is not out of the question. Princess Meryt at Dahshur had 8 double-lion heads, and no quadruple ones, suggesting a similar arrangement. On the other hand, her cowries were both large and *small* and would have made a long necklace if strung together; but the numbers do not agree. If the necklace of cowries alone *is* too small, it could be enlarged by fine gold beads in between. In fact there is no necessity for the cowries to go right round the neck at all, although the lion-heads must have done so. At Dahshur both the cowries and the lion-heads are *graded*; the fastener is in each case the heaviest, and therefore came in the *front*. The objection to stringing together the double and single rhombs on the score of the spacing of the thread-holes is not insuperable. Mr. Mace has recently told me that the spacing of the holes in his double gold and single stone rhombs was not the same, and yet they were actually found in position together. The staining of copper on the rhomb may have easily arisen in other ways: there were the copper razors and knives in close proximity. It would seem preferable to keep all the rhombs together, although the Professor's case is a strong one.

The cowry was occasionally used as an ornament, and also as an amulet, very rarely, from Predynastic times. The use of cowries as amulets is a large subject which cannot be entered into here.

(viii) *Lion-head Necklace*

Pl. ii (colour), pl. xiii (details). (New York.)

Seven large double lion-heads, one being a fastener, and 7 small quadruple lion-heads: weight 5 ozs.

Formation.—Each double-head is double-sided; all the pieces are from the same mould. The use of a mould is evident, as on each piece the distance between the inner ridges of the eyes is 7·11 mm. on one face and 6·47 on the other face. The hollows of the casting have all been worked out with a fine scraper, before the general polishing down of the surface. There are subsequent drops of solder on the third from the grooved slider. The solder joint at the edges can be traced in some, but is in most cases quite invisible.

The quadruple lion-heads were made in the same way as the larger ones, and then soldered together, side by side, in pairs. The smaller details about the eyes were not scraped out, but accentuated by light punching with a chisel. The lines over the convex muzzle were made by grinding out with a sharp-edged piece of hone-stone, which was also used on the muzzle lines of the larger lion-heads. Where there has been a punched or ground line the surface is much yellower than in general. It seems as if the compacting of the metal by pressure prevented the formation of the ruddy mat surface seen elsewhere.

In the slider (pl. xiii, 9), the tongue is well finished with a rounded end; that on the cowry seems to have been cut short later, in order to fit the groove. The groove is cut slightly tapering to the end; it

has clean, flat edges. The threading holes are cut clean without any burr.

The work of the tongue, groove, and thread-holes is altogether much better than in the cowries. It suggests that the lion-heads were earlier—perhaps of Senusert II, and the cowries later—perhaps of Amenemhat III. The groove slider piece contains grains of osmiridium. From the detail on pl. xiii it will be seen that the groove is much deeper in the lion-head than it is in the cowry, shown by the unshaded line.

Professor Petrie found no traces of loose copper inside the lion-heads. De Morgan, however, states that the lion-heads of Princess Meryt contained loose pieces of metal which rattled.

Arrangement.—The reason for the arrangement of the necklace, pl. ii, is the equality of the distance between the thread-holes, mean 7·96 mm., mean var. ·58, extremes 6·35 to 9·35 ; the quadruple lion-heads have spaces of 8·21, mean var. ·51, extremes 7·36 to 9·61. These spaces are both of them longer than those of the cowries (7·24) and double rhombs (6·96), and show that these cannot well be a grouping different from that here arranged. The numbers also agree, there being 7 of each of these lion-head types, double and quadruple.

This lion-head, or rather lion-face, is a curious type of ornament, found occasionally as an amulet. There are examples at University Coll. (Petrie, *Amulets*, 45) of xxiind and xxxth dynasties ; two in the Historical Medical Museum, London ; another, dated to Tahutmes III, is from the Maket tomb at Kahun (Ashmolean Mus., Oxford, Petrie *Illahun*, xxvi, 18). The handle of one of the Dahshur mirrors is also headed by this strange type. I do not know its significance.

(ix) *Pair of Gold Claws*

Pl. viii (colour). (New York.)

Formation.—The claws are hollow, made in two halves and soldered together around the edge. Two ball-beads are soldered to them, one above the other. One of these had broken off, but was found loose in the washing, and could be distinguished from other similar gold ball-beads by the trace of solder. The beads were likewise made in two halves, and soldered together equatorially. The holes are very clearly drilled without any burr. The thread-holes are 5·08 mm. apart.

Arrangement.—That the claws depended from a double string of ball-beads is proved by the gold beads attached to them. The smaller of the amethyst beads agree to the required size, and also the larger of the loose gold ball-beads. These beads were found closely associated, and the general effect is convincing. The exact number of amethyst beads is not known ; but sufficient are here taken for this necklace, leaving the remainder for a separate string.

The claws are no doubt lions' claws, and these are found occasionally as amulets, especially in the Middle Kingdom.

(x) *Gold Couchant Lions*

Pls. ii and iii. (colour). (New York.)

Four pairs of lions, measuring respectively 20 and 17 mm. (one thread-hole over base), 16 and 13½ mm. (two thread-holes in base), (·8, ·67, ·63, and ·53 ins.). The weights run from ·25 to ·10 ozs. (avoir.).

Formation.—The single-thread lions are hollow, cast in moulds from *cire-perdue*, but quite different in modelling. The paws are in one with the lions, but the tail is soldered on separately. The base is also soldered on separately. The details of the mane and eyes are chased with a sharp graver, ·10 mm. wide, usually used on edge, but sometimes on the flat. The larger pair are more carefully worked than the lesser.

The double-thread lions are similar in construction, but smaller, and much less well modelled and finished. The bases are made of two plates of gold, the lower ·10, the upper ·15 thick, soldered together with intermediate strips, ·75 mm. thick, so as to leave two thread-holes from end to end.

Arrangement.—When unearthed, I found one of the 13½ mm. lions with two strings of minute beads extending from its hind-quarters, as described above, the order of each string being 7 turquoise, 3 gold, 5 carnelian, 3 gold. That the lions were in pairs facing seems likely from the way in which lions and sphinxes were set in facing pairs, both on the bracelet of Aah-hetep, and in monumental work. The total length of the string is unknown. If there be a difference in the age of these, it seems likely that the single thread wristlets, which have the larger and better wrought lions, are the earlier. On the single thread the lion is liable to turn over, being top-heavy. The double thread is an improvement intended to prevent this twisting, and would hardly be given up again after being used.

Similar lions were found at Dahshur. Princess Sat-hathor had six, 18 mm. long; and Princess Meryt had four, 20 mm. long (Senusert III): this would agree with the larger lions being the earlier. These lions also occur in silver in private tombs (Garstang, *Burial Customs*, fig. 104, and p. 113).

(xi) *Amethyst Ball-beads*

45. Pls. i and viii (colour). (New York.)

Two hundred and ninety-one amethyst ball-beads were found with the jewellery, some with the crown group and the remainder in Area E: but they were not kept separate. All are shown on the two plates, with the exception of one which could not be threaded. The amethyst is of the darkest and richest quality. The size varies considerably from 9 to 4·5 mm. (·35 to ·18 inch) in diameter at the widest part. Such beads were also found at Dahshur: Princess Sat-hathor had over 258 and Princess Meryt 252, as far as may be gleaned from the publication. At any rate, the numbers of the three lots show some similarity.

(xii) *Gold and Turquoise Ball-beads*

Pls. vii and viii (colour). (New York.)

Gold.—Twenty-two of 6 mm. diameter; 2 of 3 mm. diameter. These beads were made in two halves which were soldered together. Each half is drilled very cleanly, the holes showing no burr. Similar beads are found at Dahshur, but in larger quantities. Princess Sat-hathor had 30, and Princess Meryt 98.

Turquoise.—Twelve of 5·5 mm. diameter. The colouring of the plate is rather too blue. The colour of these beads is quite distinct from that of the blue felspar drop and rhomb beads.

(xiii) *Minute Ring-beads*

Pls. ii, iii, iv, vii. (colour). (New York.)

Of these there were 2,717 gold, 2,604 carnelian, and 4,251 turquoise. No lazuli, or glaze. Professor Petrie considers that these fine stone beads were each cut separately by hand. In only two cases were these actually found in order. One case has already been recorded. (See Couchant Lions.) The other was in connection with the bracelet spacers. Down the length of one, and in close contact the whole way, sometimes 2 or more deep, were the fine turquoise beads. We must infer from this that the bracelets, if not the anklets as well, were threaded in panels with these coloured beads. But there are not nearly sufficient; 8 panels of the bracelets have had to be left unstrung and open. What has happened, then, to the missing beads? Were the anklets disused, and all the beads put on the bracelets? or were there other beads of some material which has disappeared?

Of the gold beads, those mounted in pairs in between the anklet bar-spacers are larger than the rest.

(xiv) *Gold Multiple Beads*

Pl. iv. (colour). (New York.)

Ten of these are spacers of 5 beads each soldered together; the other 14 are of 15 beads, arranged in 3 rows of 5 beads each, each row being like the single row spacers, and connected to its fellows as on the bars of the bracelets. The simple spacers are arranged top and bottom of the last panel but one of the last bracelet shown on the plate. The compound spacers help to fill the other open panels of the same pair of bracelets.

There is no clue to the original use of these. Senebtisi had 25 compound gold spacers, but of a different pattern, 3 × 3, which were used in a necklace with fine beads of the same size.

Princess Meryt had 51 like ours, but 3 × 3. We have no beads at all to mount with these: the fine beads would do, but there are not enough for the bracelets alone. We are continually faced with this insufficiency of material for making up the larger objects.

(xv) *Rhomb or Lozenge Beads*

Pls. iii and vii. (colour). (New York.)

Gold 16 (double), carnelian 30, blue-green felspar 32. All are shown on the plates, except two felspar, one of which was not threaded, being split.

Formation.—The gold double rhombs were made in two halves, the joint at the edge running across from one bead to the next. On one bead there remains a rough face not burnished over, which seems to show that they were cast and not swaged in a mould. The thickening often seen at the edges of the thread-holes would also agree better with a casting than with hammered work.

Arrangement.—Though these beads are now well known, being found at Dahshur, both double and single (Princess Sat-hathor), and also in private tombs (as at Harageh), yet their arrangement was not known until the discovery of Senebtisi's jewellery at Lisht. Hers were all strung together with

fine beads, to form a girdle (*Senebtisi*, pl. xxiii). Two of Senebtisi's double gold beads were united by a ring, to form a 5-row spacer. I can find no trace of such an attachment to any of the Lahun double gold rhombs. Sat-hathor at Dahshur had many more rhomb beads: 20 (double), gold, 47 (single) gold, and 16, 18, and 17 carnelian, felspar, and lazuli respectively.

(xvi–xx) *Inlaid "Motto" Fasteners*

46. Pls. ii and iii. (colour), pl. xiii (details). (New York.)

There are five of these: a large *shen*, 17 × 17 mm., a small *shen*, 13 × 12 mm., and an *au-ab* 20 × 20 mm. (all from Area E), a *sa-onkh-neb* 19 × 23 mm., and an *ab-hetep-neteru* 14 × 15 mm. (both from Area B). The inlay is chiefly of carnelian, and of the white paste with a little blue paste imitating lazuli.

Formation.—Four of the "mottoes" are made alike, with a sliding strip having a tongue along one edge which fits in a groove of a similar strip fixed on the back; the slider cannot be pushed too far up as the tongue butts against the fixed ring. This will be seen in the drawing of the back of the larger *shen* (pl. xiii, 10).

The smaller *shen* has a different system, *i.e.* a tongue of metal soldered on to the back. Over this slides a covering groove attached to a ring which was fastened to one end of the string. The detail will be seen in the drawing (pl. xiii, 11). The base plate is ·25 mm. thick, the ribs of gold soldered on it are ·33 thick and 1·77 deep. The *au-ab* has a base ·48 mm. thick, with ribs ·20 to ·25 mm. thick.

Arrangement.—Each of these "mottoes," being a fastener, was on a single thread of beads. Professor Petrie is of opinion that these beads were the small ones of gold, which agree to the size of the rings upon the motto clasps, and they have been mounted accordingly for hanging on the arm. They may also have been used for fastening the single strings at the back of collars, where they would be less liable to damage.

As to symbolism, they appear to express wishes for "satisfaction of heart," "all life amidst protection," and "peace of heart amongst the gods."

Fasteners of this class are known at Dahshur, some almost identical. Both Princesses Meryt and Sat-hathor had an *ab-hetep-neteru*: Khnumt had one *au-ab*, and Meryt had 3; Meryt also had a *sa-ankh*. Khnumt had 2 *shens*, and Meryt 1 (with rings for pendants).

(xxi) *Tie Clasps*

Pls. i, ii, iii, viii (colour). (New York.)

These are of gold, stamped and soldered. There are 4 pairs 15 mm. (·6 inch) long (3 only on plates); 1 pair 13½ mm. (·53) long (and a single one, a groove half, not shown); one single one (a rib half) 12½ mm. (not shown); 1 pair 10 mm.; and 1 pair 8 mm. (·3 inch).

Senebtisi had one such clasp described in detail by Mace (p. 62). Sat-hathor had 15, Meryt 12, and Khnumt 2; but these were not all fasteners, apparently, as they are strung as a necklace.

(xxii) *Bracelet or Armlet Spacers and Fasteners*

47. Pl. iv (colour), xiii (detail). (New York.)

Gold and inlay, 12 bar-spacers and 2 fasteners. Weight 5·35 ozs. The bars are composite, 81 mm. long (3·17 in.), of gold with gold beads. The fasteners are ·5 mm. shorter, and composed of two plain sliding pieces, and a slider of gold inlaid with carnelian, blue paste and white paste, giving the titles of Amenemhat III. The bars and fastener are pierced with 37 holes for the bead-threads.

The way in which the fine turquoise beads were found in touch has been described. It shows that the arrangement was monochrome, and not in chequers. A diagonal pattern is not impossible. The proportion of two green beads to one red is indicated by the proportion of each colour in the total found: but these are insufficient, as it is, to make a reasonable length. Moreover, we do not know for what other uses the fine beads were required.

Formation.—The gold bars are made up of a strip of gold ·25 mm. (·01) thick and 5·08 (·20) to 5·84 (·23) wide. On this are soldered two columns of gold beads, each made by bending round a strip of polished sheet-gold ·25 (·01) thick. These pairs of beads are connected by a coil of thinner sheet-gold ·18 (·007) thick, so as to hide the threads. Between these inner tubes the back bar of gold is seen in the hollows (pl. xiii, 6).

The end-pieces are made in the form of troughs, by soldering together a base of ·36 (·014) thick to sides of ·66 (·026) thick, and top edges of ·53 (·021) to ·78 (·031) thick, the whole trough being 2·54 wide and 2·85 (·112) to 3·10 (·122) deep outside. The section (pl. xiii, 8) shows the formation of the corresponding parts. The holes

for threading vary from ·51 (·020) to ·81 (·032) wide. They have all been drilled with a very tapering drill making a conical hole, from the inner side of the trough, leaving a burr on the outside, which has been mainly scraped away around the hole. The edges of the grooves and sliders are marked with notches, 0, 1, 2, and 3 to distinguish which are the reciprocal parts made to fit.

The slider has a tongue strip down each edge, fitting into the grooved end-pieces. It is highly polished on the back. The tongue strip is made separately and soldered in place: it is formed of two strips soldered together all along. Slight gaps in the continuity of the soldering show the formation. The base plate is ·31 (·012) thick, and the sides and ends are soldered on, as in the pectoral, though this can only be detected in one place. The thickness of the side-edges varies from ·36 (·014) to ·53 (·021) in the same strip, showing that it is hammer-wrought, and not mechanically gauged like wire. The inner strips of the design are ·15 (·006) to ·20 (·008) thick. All the strips are 2·28 (·09) wide, the depth of the ouches for the inlay.

The inlay is of carnelian for the ground-work; the polishing lines always running in the direction of the length of each piece. The backing has decayed as in the pectoral. The blue inlay is of paste, which is probably of finely ground blue frit. The white is a very soft paste, which has apparently decomposed much, owing to the wet soil.

At Dahshur, Princess Meryt had a similar pair of inlaid bracelet-fasteners, but not so high, being only 63 mm. (2·5 inches). No bar-spacers are recorded as being found with these.

(xxiii) *Anklet or Bracelet-spacers and Fasteners*

Pl. iv (colour), xiii (detail). (New York.)

Gold. Sixteen bar-spacers and 2 fasteners. Weight 2·8 ozs. (avoir.). It is not certain where these and the preceding were worn, whether on the upper arm, wrist or ankle. The hieroglyphs would certainly appear on the arm and not on the leg; but I should think the breadth of them would be more suitable for the wrist than for the upper arm. Anklets are generally shown in paintings of this period, and were regularly placed on the mummies of ladies of quality; but armlets do not seem to have been so regularly worn. Further, the bracelets may be broader than the anklets (cf. the daughters of Tehutihotep, at El Bersheh). The bar-spacers of the bracelets (xxii) are fewer and narrower than the bar-spacers of the anklets (xxiii); this would agree with the wrist being narrower than the ankle, but we do not of course know the width of the panels of beads. Senebtisi's bracelets had also fewer panels than her anklets. The bars are 44 mm. long, with three columns of beads soldered on instead of two (like the gold compound multiple beads, xiv). There are 23 holes for threads instead of 37. At the ends are a tongue on one and a groove on the other, instead of a separate slider. The narrower width of the anklet allowed it to be skewed on the limb sufficiently to get the sliders on to each other.

Formation.—The grooved end-pieces have a base and top ledges of ·31 mm. thick, on sides ·51 thick. The tongued piece has the sides of equal thickness up to the edge; between them are soldered in three tongues, 7·58 (·30) to 8·59 (·34 inch) long, and only descending about ·76 mm. (0·3) into the trough so as to leave spaces below the tongues for the threads passing through the holes, to be knotted. The thread-holes are ·66 (·026) wide, drilled from the outside very cleanly, with a faint burr on the inside. The section (pl. xiii, 7) shows the detail of the sliders. The greater regularity and better work of the holes here, as compared with those of the bracelets, suggests an earlier date. The overloaded style of the bracelets, cumbrous, and obtrusive in the inscription, may lead us to suppose that as they were of Amenemhat III, the anklets may well be of Senusert II. As there are not small beads enough for both anklets and bracelets, it may be that the whole of the beads belonged to the anklets, and were afterwards transferred to the later bracelets.

At Dahshur, Sat-hathor (Senusert III) had anklets 40 mm. wide with 8 spacers. Meryt's were 46 mm. wide, with either 8 or 9 spacers. Ata (Amenemhat II) had the same spacers, 45 mm. wide, with 17 thread-holes. Khnumt (Amenemhat II) had 67 spacers of 45 mm. with 8 fasteners (6 of 45 mm. and 2 of 53 mm.). The style then seems fairly uniform, with a tendency to increase the number of thread-holes in the same breadth of anklet, implying smaller beads.

(xxiv) *Inlaid Scarabs, mounted*

48. Pl. ii (colour). (New York.) Pl. xi (photo.) (Cairo Mus.)

These scarabs are closely similar, but not iden-

tical in form. This is most noticeable in the shape of the carnelian thorax. The fastening of the gold loops is also not quite the same. Size 10 × 17 mm. (·4 × ·67 inch).

Formation.—The scarab has the elytra of alternate strips of turquoise and lazuli, separated by ribs of gold ·23 mm. thick. The thorax is of carnelian; the head of a hard grey-green stone, perhaps serpentine. This piece was lost, and recovered by the washing of the earth. The base plate, which is uninscribed and perfectly plain, is of gold, polished. The legs at the sides are marked by inlays of carnelian and blue and white paste. The coloured plate is not correct in the colouring of the outer strips of the elytra.

Princess Meryt at Dahshur had a similar scarab.

(xxv) *Lazuli Scarabs, unmounted*

Pl. vii, x (colour). (New York.)

One engraved with the cartouche of Amenemhat III, the other plain. Both found with the crown.

The inscribed scarab is of the deepest blue lazuli, quite flawless, and looking almost translucent from the intensity of the colour.

Formation.—The hieroglyphs and scrolls are cut with great accuracy and finish. The legs are cut out quite detached, and the body nearly separate from the base. A gold tube passes through it to prevent wear on the ends. As it would be impossible to isolate the fan in front of the head, this part, 2·54 mm. (·10) long was cut as a separate piece, with a tenon projecting from it, fitting into a hole in the head. It was separated in the chamber, but found loose in washing the earth. It is not known how these scarabs were worn. They must either (i) have come from the mummy, (ii) have been worn as rings on a thread (Garstang, *Burial Customs*, p. 113), or (iii) have been threaded with beads on a necklace, or other ornament.

Unmounted scarabs at Dahshur only occur with the jewellery of Princesses Sat-hathor and Meryt. Sat-hathor had four, one of felspar, one of glaze, and two others. Meryt had nine, 1 of gold, 2 felspar, 2 lazuli, 1 glaze, and 4 others.

(xxvi) *Crystal Eye*

This tiny object is, I understand, at New York. I have no measurement of it, but from memory I should think it was about 7 or 8 mm. long. It comes from no object found in the recess. The wooden swans of Khnumt, Ata-urt, and Sat-hathor-meryt at Dahshur, had crystal eyes. This may have come from a similar swan.

(xxvii) *Silver Mirror, Obsidian and Gold Handle*

49. Pl. xi (photo.). (Cairo Mus.)

This object, being unique, was kept for the Cairo Museum, and it has not been so minutely examined by Professor Petrie as the other jewellery which was brought to England.

The measurements are: mirror width 141 mm., height 126 mm. (5·55 × 4·95 inches): curved piece, 87 mm. (3·4) wide, 14 mm. between top of rim and lower edge; head, 63 mm. (2·5) from ear to ear, 29 mm. (1·14) high; handle, length 97 mm. (3·8), greatest width 24 mm. (·95). The handle has a hole in top, 8 mm. square, into which a peg of wood (?) fitted. It will be seen that the height of the handle and Hathor-head together equals the height of the mirror.

The mirror itself is of silver, much corroded; probably no metallic silver is to be found in it.

The curved piece is of obsidian, the upper surface covered with a plating of electrum.

The head, which is the same on both sides, is of gold, and weighs 1½ ozs. (avoir.). It is formed of two halves, cast by the *cire-perdue* process, and soldered together. The four ears are cast separately, with the roots flanged in inside, and soldered. The brows are inlaid with lazuli, half of which is missing. The eyes are of white paste, in two pieces, set in silver sockets, with pupils of crystal.

The handle, of obsidian, is inlaid with four upright bands of plaited gold, connecting the collar at the top with the lotus-flower which covers the end. The collar is composed of four rows of coloured inlay in gold; each row consists of carnelian, lazuli, and white paste. The flower is of gold inlaid with carnelian, white paste and blue paste.

This mirror is of a type well known at Dahshur. Princess Meryt had 5 of various patterns, Sat-hathor 1 only. The handles in those instances were of wood, and have disappeared. This is the only known example of inlaid obsidian, either in a mirror, or, to the best of my belief, in any other object.

(xxviii) *Obsidian Toilet Vases*

Pl. ix (colour). (New York.)

Three gold-mounted obsidian perfume jars (one exactly similar, not shown on plate), and one *koh*

pot of the same materials. No *kohl* stick was found. All the lids were recovered. The vases are 83 mm. (3·25) high, 69·5 (2·73) across the lid, and 44 across the foot. The *kohl* pot is 35 mm. (1·38) across the lid. I have no record of its other measurements. They form part of the princess's toilet objects, and were not especially funerary in character. There was no trace of contents. Princess Meryt had 5 obsidian toilet jars, and 3 kohl pots, of alabaster carnelian and lazuli respectively.

(xxix) *Alabaster Vases and Lids*

Pl. ix (colour). (New York.)

Eight vases and lids of alabaster, all of the same shape, forming the usual set provided for the tomb. Height 95 mm. (3·73 ins.). Width of lid 68 mm. (2·67). Width of base 42 mm. The stone is of fine quality, and not highly polished. The contents were still visible at the bottom of one or two of the vases. It consisted of a pale pinkish deposit, and must have solidified before the jars were overturned. Further, the vases were not standing vertically when it solidified, as the surface of the deposit is not horizontal when the vase is placed upright.

The set of 8 jars is the usual thing in the tombs of Middle Kingdom princesses. Seven sets were found at Dahshur, often placed in a wooden box. The number of jars is given as 8 in 3 cases, 7 in 2 cases, 6 in one, while the other is uncertain. Some sets had the names of the unguents in hieratic on the lids, but there was no sign of this on the Lahun jars. It is difficult to say how some of the sets at Dahshur come to be short of one or two vases.

(xxx) *Copper Knives*

Pl. xi (photo.). (New York.)

Two knives of copper were found closely associated with the toilet group. There was no trace of handles, which may have been of wood.

Such knives were found with Princess Meryt's jewellery, but are not recorded elsewhere from Dahshur.

(xxxi) *Copper Razors*

Pl. x (colour). (New York.)

A pair of large razors, with copper blades, and gold handles. These also formed part of the toilet group; and when taken out of the tomb, the blades were still attached to the handles. The blades are roughly 124 mm. long (4·9): the handles 45 mm. (1·8) long, and 38 wide at the junction.

As razors are now used in the East as depilatories on the body, these do not necessarily imply that the head was kept shaven, and that consequently it was the fashion to wear wigs at all times. The natural hair is sometimes seen under the wig, as in the statue of Princess Nefert (iiird Dynasty).

Princess Meryt had similar razors, but the handles are wanting. No others are recorded from Dahshur.

(xxxii) *Whetstones*

Pl. x (colour). (New York.)

These are of sandstone, two in number, of slightly different sizes, 85 mm. and 81 mm. (3·35 and 3·2) long. I do not know for certain whether they came from the toilet group. Their purpose seems obvious. Probably one is for each razor. But, as they are not a pair, could they have been prepared differently, and used as the two different sides of a modern strop, for rough stropping, and finishing?

(xxxiii) *Silver Shen*

Pl. xi. (photo). (New York.)

This measures 38 × 36 mm. It is much corroded, but does not appear to have been a clasp. It seems too large and clumsy to have formed part of the casket's inlay. It was found lying exactly between the handles of the symmetrically placed razors. Its use is not clear.

(xxxiv) *Copper Implement*

This was a very corroded and thick rod of copper, about 50 mm. in length, rather thicker in the middle than at the ends, and terminating in four curved prongs as if forming a socket. It is drawn in the plan, pl. xii, but from memory. Inside the prongs was found one of the inlaid scarabs. Could it have been a ring-stand? It is now at New York. I can find no record of any similar object.

(xxxv–xliii) *The Jewel Casket, and the Casket for Alabaster Vases*

50. We now come to what is, in some ways, the most complicated problem of the whole find. I refer to the reconstruction of the two caskets which were in Area D and Area E respectively. The 8 alabaster vases were in the first, and jewellery with all the toilet articles in the second. The material to work from consists of gold *zads* and gold and inlay Hathor-heads; strips of white paste; squares of carnelian set in gold; silver plating on wood

gold plating, gold-headed nails, gold edging, silver knobs, and a vast multitude of strips of ivory, all more or less broken up.

The Ivory Inlay.—When the mud was first being removed it was difficult to realise the meaning of all this confusion. Nothing was in touch. There seemed to be no order in the chaos. Everything was coated with mud; and it was only after cleaning above ground that the significance of certain pieces appeared. I have already described the condition of the ivory. My wife has spent many hours in trying to find joins in the scraps, and has found some hundreds. Professor Petrie has also spent some time on this work, as on the reconstruction question; but there is still a quantity of pieces not yet fixed in position.

Some of the ivory was occasionally, but very occasionally, found in unbroken pieces. I have already described the plain rectangular pieces of inlay which were let into the ends or sides of the box of alabasters, one broad, then two narrow ones in a succession. The distance apart of these planes was rather more than the width of 3 of the vases, but not as much as four. I do not know how many of the rectangular panels can be reconstructed from the fragments, but it may be possible when the ivory has been exhaustively examined to say exactly how big this box was. Some slips giving the curved profile of a lid probably belong to this box. There is no reason to suppose that any metal or inlay of any kind was associated with it. There were no signs of feet or knobs, or of divisions to separate the jars, these being no doubt of wood which has disappeared.

At Dahshur the jars are arranged in 2 rows of 4. This seems hardly possible here. Rows of 3, 2, and 3 are indicated, and the box may have been square rather than oblong. At present nothing more can be said. All the casket fragments are in the Metropolitan Museum, New York, where they are being reconstituted with great skill.

The remainder of the ivory, forming the greater part of it, was found to resolve itself into large frames, narrow frames, different sized rectangular pieces, and pieces giving the curved profile of the lid. These last, if they can be exactly rebuilt, should be of the greatest help in the restoration. The shape of the frames can be seen by reference to the reconstruction of one side of the casket on plate xii. The large frames are 35 mm. wide and the small ones 22.

I believe 20 of the large frames and 16 of the smaller have been pieced together, or partly so. One of the smaller frames was found intact, and removed whole, but it has cracked since. A long rectangular panel which has been partly put together gives a length of 380 mm. The thickness of the ivory varies, but is generally about 2 to 3 mm.

In cleaning some of the fragments, my wife found carved hieroglyphs on a few, and was able to put together the three inscribed panels shown on plate xi, 5. These measure 85 × 22·5 mm. (3·35 × ·88 ins.). The inscriptions give the names of Amenemhat III. The carving is of the finest in some of the signs (such as the lion), while others are poorly done (for instance, the *neb*-basket). The "Amenemhat" panel seems to have been carved throughout by a better artist than the other two. Compare the binding at the foot of the two cartouches.

The ivory is somewhat thinner at the foot, giving a slight slope to the surface. If this is intentional, it may give a clue to the position of these on the casket. As it is not known what part of the recess they came from, it is just possible they belong to the box of vases; but there are reasons for thinking they are part of the jewel casket. It may be observed here that as the hieroglyphs do not all face in the same direction they cannot be arranged in a vertical line. The arrangement on the photograph is the only one possible.

In no case was it possible to discover the distance which originally separated the frames or the inscribed panels.

Gold Zads.—Always associated with the ivory frames were sheet gold *zads*, 20 in number, agreeing with the probable number of the larger frames, into which they fit exactly, and in which one or two were actually seen. They are drawn to scale on pl. xii. The upper three capitals are made separately in each case, and not all of these have been recovered. Very few were actually in position. The total weight of the *zads* is about 5½ ozs. (avoir.). Each is 123 mm. (4·8) high. Either the woodwork of the casket was carved in relief for the columns, and the gold fitted over, or the gold was fitted in with plaster, which was fastened to the box by means of a rib; but no plaster was seen. Little square notches in the top edges of the capitals imply that they were fixed on to a backing in shape, with a vertical groove down the back. This fitted over a corresponding rib on the casket.

The white paste was mostly in small pieces, or

simply powder. In one case, however, it was intact in one of the smaller frames, and thus the arrangement is certain. The strips are 117 mm. (4·6) long, thus leaving a space of 6 mm. inside the frames, at the top. There can be very little doubt that this white substance was originally blue. And the lines of shading on the drawing, pl. xii, are intended to indicate this.

The squares of carnelian, set in gold, fill the vacant spaces above the white paste strips. One was found there in the perfect frame. Each measures 6 × 7 mm. (·24 × ·28). The carnelian has a slightly convex surface and is highly polished. The setting is a simple band of sheet-gold, its width being the same as the thickness of the carnelian, round which it is fitted. Sixteen of these were found, agreeing with the number of the smaller frames reconstructed. They come from all sides of the Areas D and E where ivory was found. I have shaded them heraldically in the drawing.

Hathor-heads.—Plate H (colour). Three only are shown. One other is with these at New York. The goddess is represented in the conventional way with the sun-disk and horns. Under her chin is the unexplained object which has been described as a pole or a pectoral. On each side of this long tresses of hair descend, bound together at the ends to form a large curl. The heads and curls are of sheet-gold. The eyes are filled with a white material. In the centre is a round hollow for the pupil, which is of black substance, probably obsidian. The brows are inlaid with blue paste, imitating lazuli. The sun is of carnelian, set in a circle of plain gold. The horns are also plain. The threads of hair are tiny strips of gold, which were inlaid in the wood; the upper edges show a minute cross notching along the whole length. These were arranged more or less as shown in pl. viii. But the upper end of each one touches the side of the face, and the lower end touches the curl. There are 6 on each side of the face, all of different lengths. The curls should be almost touching the pole. It was impossible to arrange these properly for photographing. Many of them are very bent and twisted; and, further, on many there is a vertical curve as well as a horizontal one, which makes it necessary to form a setting for them before they can be seen in proper position. They should, however, give no trouble when the casket is finally restored.

This same vertical curve is found in the poles or pectorals. It can be seen in the photograph of the first head. The gold of these is quite plain. They are filled for some distance with tiny oblong strips of carnelian and white paste alternately, each one in its gold setting. The setting is on three sides on the strips, two long and one short, like a little clip. The short side is soldered on to the main frame, alternately right and left. The number of these is uncertain. I do not think they entirely filled the frame. Only a very few were found, and even the one head which was perfect in most respects only had 5. A minute examination of the inside of the frames is necessary to settle this point. The width of the whole head when properly arranged is 35 mm. and the height 85 mm. (1·4 × 3·3 ins.).

It is very interesting to find the same design among the jewellery of Princess Meryt. Two of the Hathor-faces are recorded by De Morgan. It would seem that the minuter parts, if found, were not catalogued, their connection not being understood. At any rate, it suggests that Meryt's jewel-box was ornamented to some extent in the same way, and it possibly indicates that the heads were in pairs.

Gold Edging.—Various pieces of gold edging were found, some whole, some in fragments. Two long pieces of 420 mm. (16·5 ins.) have been fitted on wood with a square edge. There are 8 pieces, 155 mm. (6·1) long, with a curved profile and bevelled ends. Other pieces remain to be studied and joined together. It should be possible to find their positions.

Gold-headed nails of copper were found in two places: at the side of Area E, and at the back of Area E, in both cases close to the wall and high up. About a dozen or more were counted. Some of them came from the washing of the mud. A few were found connected with the *silver-plating* and flakes of reddish wood, and had evidently served to connect the two. The silver formed a flat band about 20 mm. wide, and I could trace some 150 mm. of it in one place; but it was not much more than a powder or stain.

The gold feet, or rather, the gold plating of the feet, is drawn from memory on plate xii. Four were found, two right-handed and two left-handed. The wooden feet, or ends of the legs, were covered with sheet-gold to a height of 15 mm. or so, the edges of the gold being turned in under the foot all round. The drawings are in plan, and show what the foot would look like from the bottom, the centre

portion being wood, and the outer part the rough edge of the plating, which was turned under. A fragment of wood of dark brown colour was found in one, and it is hoped that this will be examined. It has always been considered to be ebony.

The shape of these feet was a puzzle, but was recently explained by Mr. H. E. Winlock, whose work it will be to superintend the restoration at the Metropolitan Museum of Art. It was noticed that inside the curved faces of the gold, and there only, were traces of silver. At the ends of the curves, a tiny groove runs up the gold foot, as indicated in the drawing. There is no doubt that the foot of an angle-piece fitted in here against the leg-post; the groove shows where the gold plating had been pressed into the crack between the two pieces of wood. The traces of silver prove that these angle-pieces were plated with this metal, and added another brilliant touch of colour to the casket. The right-angled form of the feet is due to the practice of making the corners of caskets of a board and post joined. These would continue down into the gold shoe, the hollow angle of course being on the inside. The plated angle-pieces would naturally be used for the long sides of the casket.

Knobs.—Fragments of silver (or perhaps copper) were found, some of which, 2 larger, 1 smaller, were certainly knobs, while the others may or may not have been. More than that cannot be said.

Arrangement of the Inlay.—The reasons for the reconstruction given on pl. xii are as follows. The casket was oblong, and not square. Apart from the general probability of this, the remains as left in the mud would indicate it. The longest piece of ivory is 380 mm. (15·0 ins.). The longest gold edging 420 mm. (16·5); 380 mm. would be the length of the side, plus a little for wood not covered by the veneer, and plus the corner posts; 420 mm. could then be the length including the posts.

Now as to the 20 *zads* and the 16 blue and red strips. We must take it for granted that the decoration went all round the box. The numbers suggest one less blue strip than *zads* on each side. What are the proportions of the sides to the ends? 3 to 2 is the only reasonable one, and agrees with other known caskets, such as those of the parents of Queen Tyi. There were then 6 *zads* and 5 blue strips on the sides, and 4 *zads* and 3 blue strips at the ends. The width of these 11 frames adds up to 320 mm. How much space was there between the frames? Not more than 7 mm., which is the width of the ivory slips, because that would give an unpleasing effect; the wood was intended to be mostly covered with inlay, and as 5 mm. of ebony shows on each side of the gold *zads*, it is supposed that 5 mm. should be allowed between the frames. Adding 12 × 5 mm. or 60 mm. to 320 mm. already arrived at, we get 380 mm. for the length of the side, which is exactly the length of the ivory rectangle mentioned above. The width of the ends on the same basis would be 246 mm.

It is well known that *zads* frequently occur in pairs. Could any arrangement give this? The only possible one is 3 pairs at the sides divided by 2 groups of 3 blue slips each: and 2 pairs at the ends separated by 2 blue slips. The length of the sides will not admit the consequent addition of a frame, and 27 mm.; and the proportions would be upset. This possibility cannot be considered as in the least likely. The blue is more likely alternate with the *zads*, as they are the pillars that support the heaven, with the blue sky between them. How the sides of the casket were made, above and below the row of *zads*, we do not at present know. The large oblongs of ivory may belong here. The 8 gold strips of edging, 155 mm. long, may belong to the sides and ends. They are rather longer than the ivory frames, which are 140 mm; 7½ mm. of ebony above and below the frames would look better than the 5 mm. in the drawing.

The lid is another difficulty. The usual thing was a lid sloping up gently from one end of the casket and ending in a sharp curve at the other. Pieces of ivory of this shape were found and partly put together, showing this outline. They must have come from the vertical sides of the lid. The knob was regularly placed at the higher end.

We have not yet placed the 4 Hathor-heads and the 3 inscribed ivory panels. The heads are, some of them at least, curved in parts, and cannot have been laid in a flat surface. The ivories may or may not be curved to agree with a curved surface. But we know of other examples of caskets where the king's cartouches appear on the lid (as in those of Queen Tyi), and not from side to side, but from end to end. The narrow ends regularly form the back and front of this class of casket.

One other point suggests that these heads and panels are associated. The height of both is the same, 85 mm. It will be noticed that the width of

the heads is 35 mm. and of the panels 22·5 mm. This is almost exactly the width of the large and small ivory frames respectively.

It seems, then, that the lines formed by the 7 frames at the ends of the casket were carried up (in imagination) over the lid from back to front, and the heads and panels arranged accordingly. I imagine 2 Hathor-heads at the back, either wide apart or nearer; then the 3 carved ivory panels, across the centre; then the 2 curved Hathor-heads on the curve of the lid; and then the silver knob. Perhaps the silver *shen* was inlaid between the Hathors at the back, and corresponded with the silver knob in front.

The general form of the jewel casket must have been very much like that shown in Naville, *Deir el Bahri*, V. cxxx, which gives the curved top, legs and angle-pieces.

(xliv) *Plain Wooden Box*

51. This has already been described in the account of the excavation of Area C (see sect. 36). Its purpose in the tomb is difficult to determine, and we can only judge by analogy with other tombs of the period. Wig-boxes are known (*Senebtisi*, 105; Gauthier and Jequier, *Licht*, 50). Also boxes for staves (*Dahchour*, I. 95–109, *Senebtisi*, 105). A box for linen has been suggested. How are we to explain the absence of all contents? The mud was clean and compact, and showed no organic traces whatever. The box must have contained something, which was removed. The only possible agencies are mud and man. No man would have taken linen and left the jewellery; and clothing would hardly have floated out in muddy water. The staves might have floated out, when the flood came, the lid having gone off first; but then the box surely would have floated too. If it held a wig, and if the gold rings belong to a wig, then it was removed at some time from the box, and its emptiness is explained. The dimensions, 365 mm. by $550 + x$ ($14{\cdot}3 \times 21{\cdot}5 + x$) would agree well with those of Senebtisi's wig-box, 350 by 600. The example at Lisht given by Gauthier measures 470 by 680 mm. On the other hand, Senebtisi's staff-box was only 160 mm. wide, and though no measurements of the Dahshur boxes are given, they were apparently much narrower than the Lahun box. A wig-box is then the best explanation. The absence of all decoration would also agree with this.

CHAPTER VI

VARIOUS QUESTIONS DISCUSSED

52. In this chapter an attempt is made to review the history of these four tombs and their contents. Much of this will consist of pure hypothesis; but it is better to hazard an explanation, than to put forward no working theories at all. There is very little to build on, and in some cases the edifice rests on a foundation of assumptions which may prove to be incorrect. A more or less reasonable explanation can be found, however, for most of the difficulties which present themselves.

In describing the four tombs, some stress has been laid on any details which could throw light on the order in which they were made, their purpose and their general history. In short, the connected story may run somewhat as follows.

At the time when the rough gallery was being driven into the king's pyramid at the ground level from the west, to find suitable rock for his burial chambers, a shaft was being sunk on the south, inside the brick wall for the tomb of a princess. During its construction two or three changes of plan were made, and the design was adopted of using an upper tomb of usual pattern as a mask to a lower tomb, nearer the pyramid, at the end of a long corridor. A tunnelled stairway had been added, of doubtful purpose. For some reason this tomb was abandoned, the lower chambers only having been completed. Perhaps the caving in of the rock was the cause.

Another tomb (No. 10) was then made on the same plan, but with the corridor to the right instead of to the left, and in this one the lower chambers are placed still nearer the pyramid. Before these were lined with stone, it was decided to use the tomb as an entrance to the pyramid, the tunnel on the west having revealed nothing but soft *tafl*. To facilitate the removal of the débris from the pyramid passages, the shaft O was sunk close at hand, but not in the precise position wished for. As this shaft acted as a drain for rain-water, a well was made below to prevent flooding. The upper tomb was then finished off, or, at any rate, most of it. The walling and flooring of the antechamber must have been subsequent to the king's burial.

The princess for whom the tomb was intended then sunk another shaft between these two tombs, and in this she was buried during the king's reign.

Forty years or more later, Princess Sat-hathor-Ant, a close relative of Senusert II, was buried in a somewhat hasty and careless way, in the fourth tomb, which had been partly prepared some years before, and left standing open, when the lower layer of hard mud was deposited in the recess.

53. The next subject for discussion is the jewellery itself. Many questions arise at once. When was it given to the princess? What is the significance of the crown? Does all or none belong to this princess? Is it personal or funerary? Was any on her mummy? Did she have any of it repaired or altered? Was it a standard outfit? Or is it unique? Why are the pectorals of the same design? Why no pectoral of Senusert III?

In many of the jewels Professor Petrie has detected signs of early and late date, of fine and more careless workmanship. One of the pectorals is of Senusert II, and other pieces may be of his reign—the anklets, the single-thread lions, and the double lion-heads. On the other hand the other pectoral, lazuli scarab, bracelets, and jewel-box are of Amenemhat III, and with them, by the workmanship, go the double-thread lions and the cowries. It will be seen that the use of the white paste for turquoise is found in the late objects mentioned, but not in the early ones, and it is possible that all the inlay of white paste is of the later reign. The use of blue paste inlay for lazuli seems also to belong to the later period, but real lazuli inlay occurs, as in the pectoral. If this surmise is correct, and it does not seem improbable, then all the "mottoes" are of Amenemhat and both the mounted scarabs of Senusert. The crown itself must be of the later period.

It will be seen from this that while the contents of the jewel-box are of different dates, the crown group is all dated to Amenemhat III.

54. The duplication of some objects at first suggested that two separate sets of jewellery were buried here. There are two pectorals, two sets of pendant beads, two inlaid scarabs, two heavy gold necklaces, two strings of amethysts, two *shens*, two sets of four couchant lions, and just possibly two pairs of bracelets. But the intermixture of the various ornaments in the jewel-box negatives this supposition. Also, a comparison with the Dahshur finds effectively disposes of the idea. Meryt had two pectorals, not even of the same design, and there are many other points of similarity between the two finds.

55. The crown certainly appears to be a ceremonial head-dress; it is quite different in character from the light and graceful coronets at Dahshur. The presence of the uraeus is not indicative of the highest rank: Princess Nub-hetep at Dahshur wore one on her coronet, and she is not given any high titles. But the feathers, in Professor Petrie's opinion, may be the insignia of the heiress-queen, and, if such be the case, it would show that the black granite titles "Great *khnumt nefer hezt*" were hers, in spite of the evidence of the Canopics, which, however, could have been prepared before she was queen. She might then be the queen who was worshipped years before in the temple of Kahun as the "Younger *khnumt nefer hezt*."

56. Could the whole of the jewellery have been brought from another tomb? There is no reason whatever to suppose this. The tomb itself and the sarcophagus agree well to the late date; while the only tomb it could have come from, No. 7, is certainly early.

All the jewellery was clearly personal and not funerary. There is no sign anywhere of sham or flimsy work. Everything is made for actual wear. Although all wood has disappeared, any gold-leaf covering of such would have remained, and there was no sign of gold-leaf in the casket. Further, the ornaments show signs of wear, and where inlay is now missing, it was no doubt lost anciently.

There is no necessity to imagine that any of these ornaments were ever on the mummy. At Dahshur the pectorals and diadems were not found on the mummies, with the exception of Nub-hetep's diadem: nor were the cowries or lion-heads or amethysts or couchant lions, or "mottoes." Bracelets and anklets were found on mummies, and also in the chambers: scarabs were not found on mummies, but collars more especially were. So were the glazed bead-belts. The belts of rhomb beads were in the chamber, except in the tomb of Senebtisi, where hers was found on the mummy. We see, then, that the probabilities are overwhelmingly against any of this jewellery ever having been in the sarcophagus.

57. The question of alterations and repairs cannot be settled with any certainty. It is possible that some of the beads are "spares." For instance, the rhomb-bead belt may have been scrapped, the carnelian and felspar beads kept in the jewel-box, and the double gold rhombs used to enlarge the cowry necklace. The finding of two odd halves of

the tie-clasps also points to odds and ends being stored up.

58. There does not seem to have been what can be correctly called a standard set of jewellery; but some princesses, who were certainly contemporaries, had very largely the same ornaments. The fashions changed rapidly; and I think it would be possible, if a minute and scientific examination of the Dahshur finds were made, to arrange the whole in a sequence from Amenemhat II down to Amenemhat III or later. The parure at Dahshur which most closely resembles that of Sat-hathor-Ant, is Princess Meryt's. Taking the 32 principal types of jewellery, etc., of Meryt, and the 27 of Sat-hathor-Ant, we find they had 24 more or less alike, often identical. Sat-hathor-Ant had no shells, bangles, amulet-cases, flail-beads, flying hawk, ball pendants, granulated gold finger-rings, or mace-head. On the other hand, Meryt had no rhomb-beads, no gold ring-beads, and no crown. We have seen how the crown may be a ceremonial one associated with the heiress: and if the ring-beads really do come from a wig, it may very well be that that is part of the regalia as well. Their absence from other royal tombs would then be accounted for.

59. The fact that the pectorals are of the same design is interesting. Princess Meryt had two pectorals of Senusert III and Amenemhat III, but different in pattern. It looks as if a princess would choose her own design; Sat-hathor-Ant, probably an elderly lady at the time, found the newer flamboyant designs were not to her taste, and so repeated her old favourite.

60. How are we to account for the fact that the name of Senusert III does not occur in this tomb? We may suppose that while Senusert III was the eldest son of Senusert II, Sat-hathor-Ant was the daughter of his old age: she arrived at maturity shortly before his death, and so received jewellery from him. Amenemhat III, probably her nephew, and more or less of her own age, may have married her, long before his accession, and only given her the jewellery bearing his name when he had come to the throne, 38 years after the death of Senusert II. When Sat-hathor-Ant died, she chose to be buried close to her father at Lahun, rather than with her husband at Hawara, where his pyramid may not have been completed.

61. Finally, what is the story of the robbing of the tomb?

At first it was thought that, as there was a good layer of mud *under* the jewellery, it must have been placed there by robbers after the tomb had been robbed, and left open. Thus it might have come from another tomb. But mud was found *under* the canopic jars, which were undisturbed, so we are forced to the conclusion that the mud had been deposited *before* the burial. The conditions under which the mud was deposited must be considered. There is no sign of it in other tombs, and it would seem that the mouth of this shaft was at a lower level; the storm-water poured down from time to time, as soon as its roofing had broken down; for it could not have been filled up with stones and rubbish (like Senebtisi's), and must have been covered over. The mud itself was probably derived from the great brick wall close by.

The jewels, then, were placed on the mud at the time of the funeral. How were they placed? I imagine the jewel-casket in the left corner, some distance out from the wall; the wig-box in the right corner; and the box of alabasters on the top of the jewel-box. This may seem strange, but unless the burial party flung the box of alabasters into the recess I do not see how the position and damaged state in which they were found can be accounted for. And we know that in the tomb of Princess Khnumt at Dahshur her box of alabasters was placed on the top of her jewels in the offering chamber. The jewel-box contained most of the jewels and all the toilet objects, the former at the back, the latter to the front, with the bracelets behind everything else. In the plain wooden wig-box was *either* (i) the crown, the wig with gold rings, and other objects of Group B, *or* (ii) an ordinary wig. Both cases involve grave difficulties. In the first case, we must suppose they were taken out again and piled up more or less carelessly by the burial party. In the second case, the wig must have floated out of the box and disappeared. In either case it is hard to see on what the "crown group" rested to keep it at the level in which it was found. Can we imagine a wig-stand? Or was it piled on the back of a more or less hypothetical swan? No solution seems really reasonable. Another great difficulty is the absence of sufficient material for a proper reconstruction of some of the jewellery. Where are the collar beads? Where are the end pieces? Where are the beads for the bracelets? Curiously, not a single fine lazuli bead was found. They were found in Tomb 7, and also at Dahshur, but not one here. Curiously also, not a single piece of glaze was found, if we except

the white paste, which was used in an exceptional way. Glaze was found both in Tomb 7 and also at Dahshur, but apparently only for scarabs, whips and belts. Senebtisi used ivory and brown paste for beads. Can some of the absences be explained by decomposition? We know how much paste was used in the jewellery, both imitation lazuli and imitation turquoise. We also know how the latter has changed in composition, and has largely disappeared. Senebtisi's brown paste probably imitated lazuli. Could a quantity of fine beads of this material have vanished entirely in the damp?

The next stage was slow disintegration for a considerable number of years, during which time no water entered the tomb. The wood gradually decayed; the threads stringing the beads rotted; the ivory inlay fell out and leant against the walls; the floor of the jewel-box dropped down between the legs, and the razors and mirror lying flat on the bottom fell down with it. The legs being of a certain height there was some distance for the floor to fall, and thus the obsidian vases turned somersaults on to the mirror handle. The bracelets were upright in the casket, and remained more or less upright when they fell. I think they were fastened. Then the ends of the casket fell out, and the corner posts became detached. One end, the outer one, swung round so that it lay near the south wall more or less in line with the side. The alabasters in their box fell over with a crash from their rather sloping position on the lid of the jewel-casket. Some of the jars broke in the fall, and the lids of some were thrown out as it turned over in falling.

Next came the deluge. The roof of the shaft broke, and a flood of mud and water poured down into the tomb, washing all the lighter things about in the recess, especially the wooden sides of the casket in which some of the inlay still clung, and also helping to break such portions of the decayed ivory inlay as were not already broken in their falls. The legs of the casket, of stouter wood, floated up, and hence the golden feet are found at the high level. Probably many storm floods filled the chambers with water, and each left its deposit of mud. Eventually the shaft filled up with sand to a greater or less extent, preventing the further deposit of mud, for the recess was not filled with it.

In this state the spoilers found it. It is quite clear how they pushed back the lid of the sarcophagus, and made their hole to clear it out. They made a clean job of it, and left nothing except a few planks from the coffins, which they pushed out of the way into the little space left between the mud and the roof of the recess. But they did not complete their work. They did not smash open the canopic jars, as their fellows did in Tomb 7; and they left the recess untouched, to the lasting joy of the present and future generations.

[It is only due to Mr. Brunton to express the fullest appreciation of the extreme care with which he extracted this jewellery from the hard mud, without a single scratch or injury—an accident having prevented my attending to this work myself. The assignment of the jewellery was a difficult question. It could not be scattered among all the contributing museums, and the only way in which their claims could be properly met was by one museum making a large grant to provide for future work, which should benefit the other collections. All objects found are bound to pass direct into a public museum, and the tender condition of the inlaid work made this particularly necessary. Every effort was made to obtain the support of some English museum, but after two months that was rendered hopeless by the war. As the Metropolitan Museum of New York had long shared in our work, the Committee of the School accepted the proposal of a special grant. The Treasure was conveyed to this museum, where the casket is being elaborately reconstructed, and the jewellery, after detailed study, is in course of arrangement.—W. M. F. P.]

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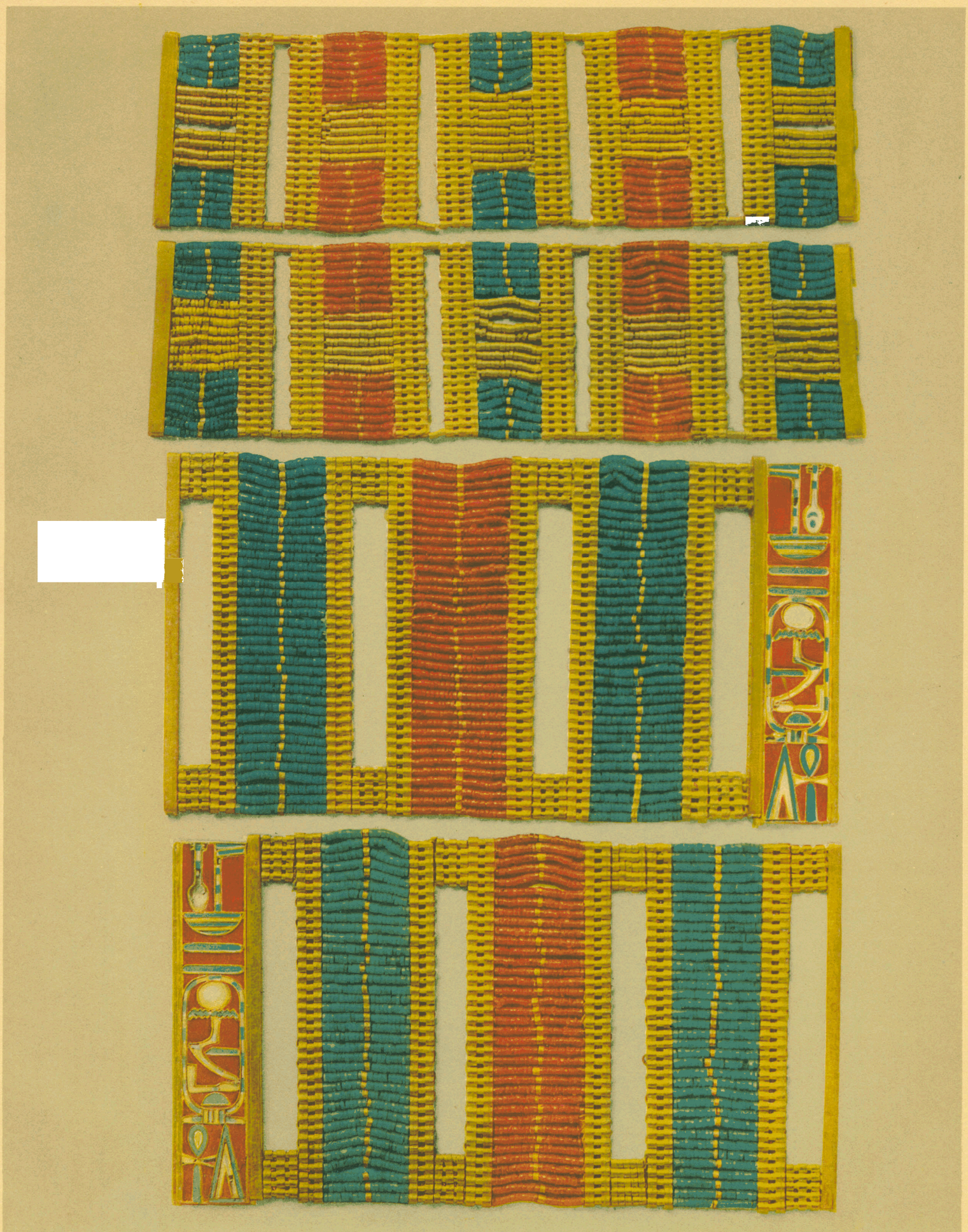
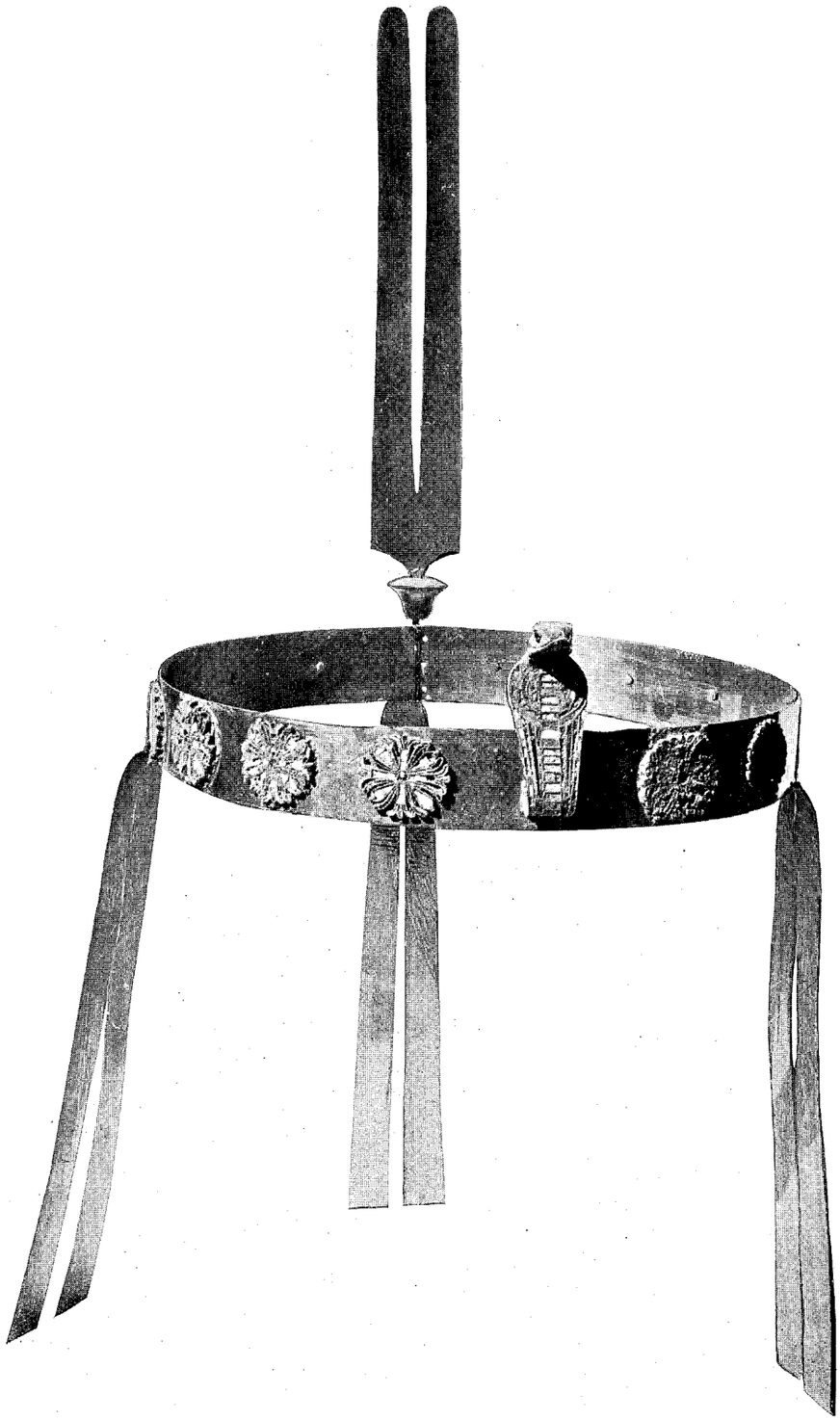
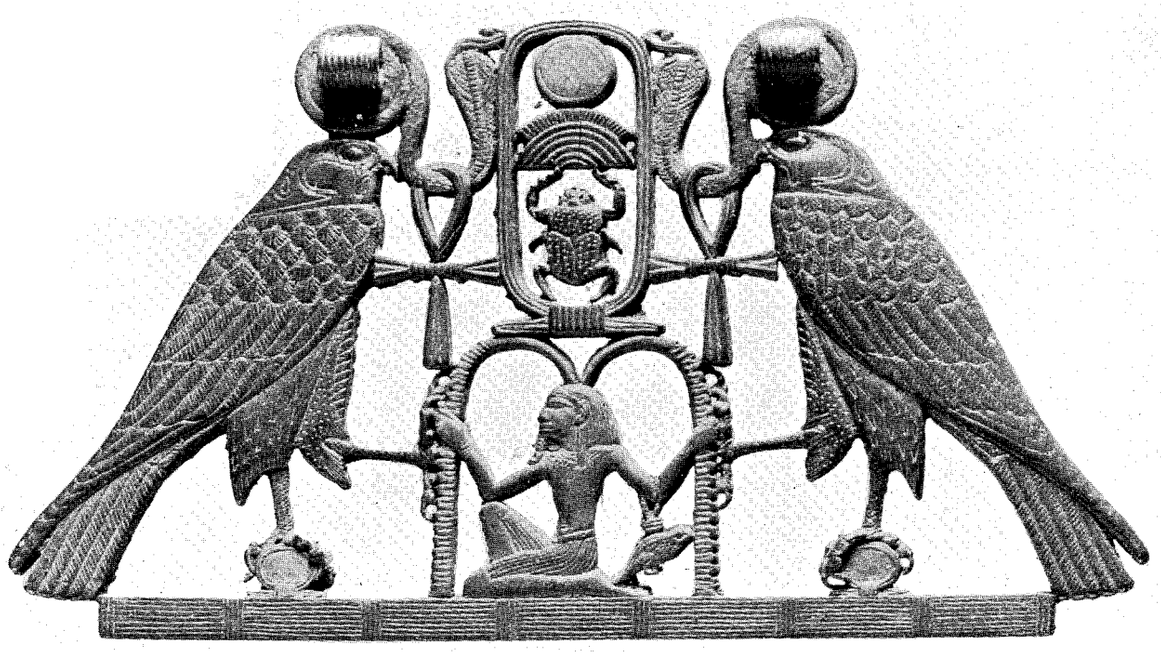
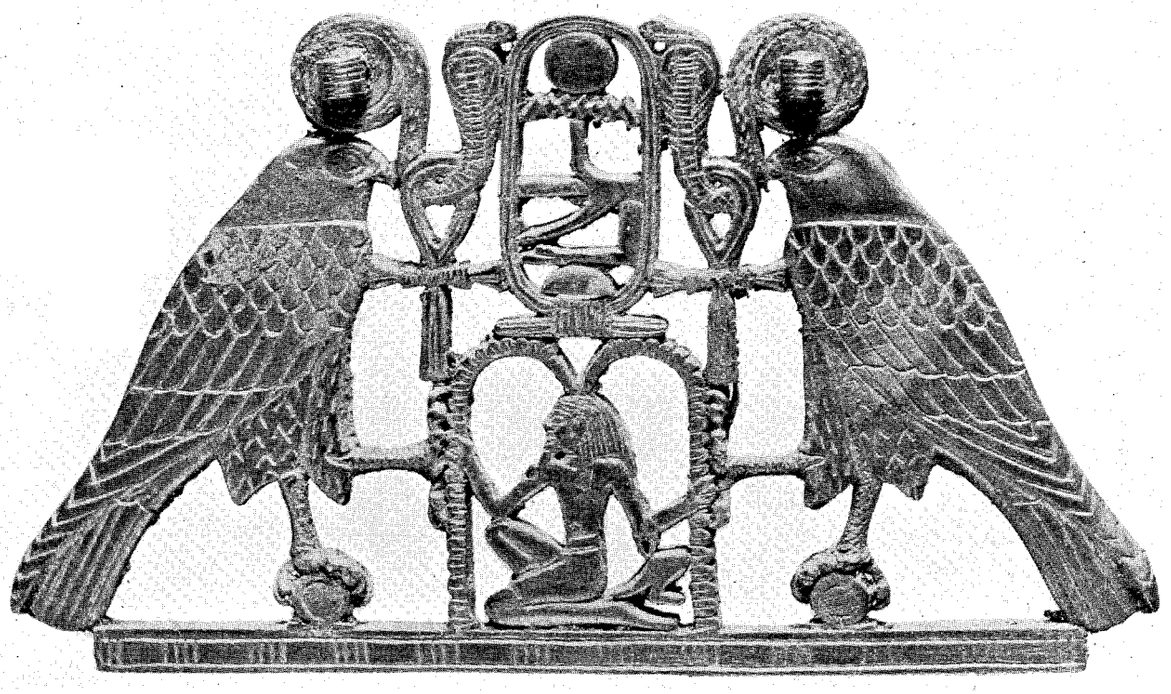
LAHUN. PECTORAL OF SENUSERT II, AND AMETHYST NECKLACE.

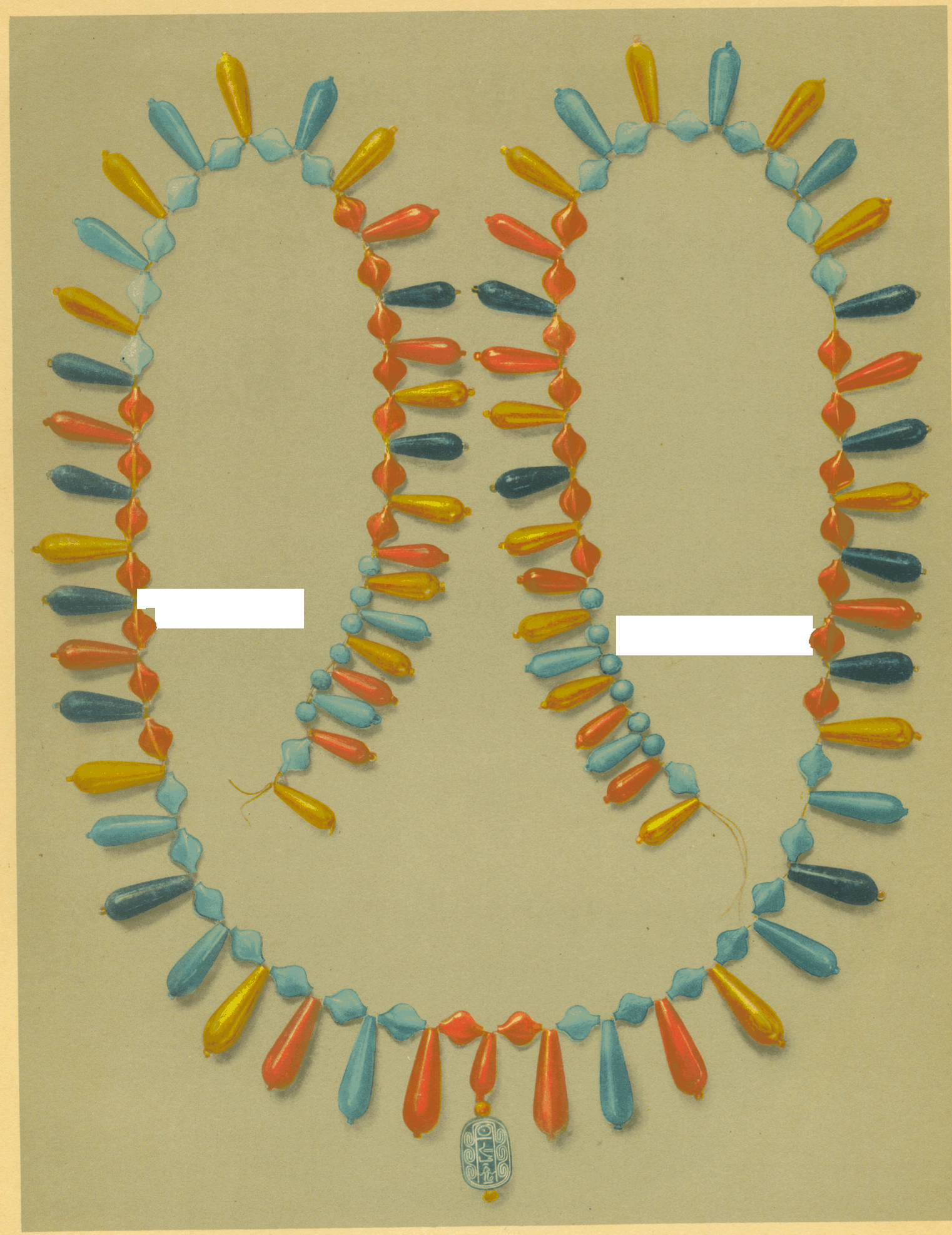
LAHUN. COWRY COLLAR AND ARMLETS.

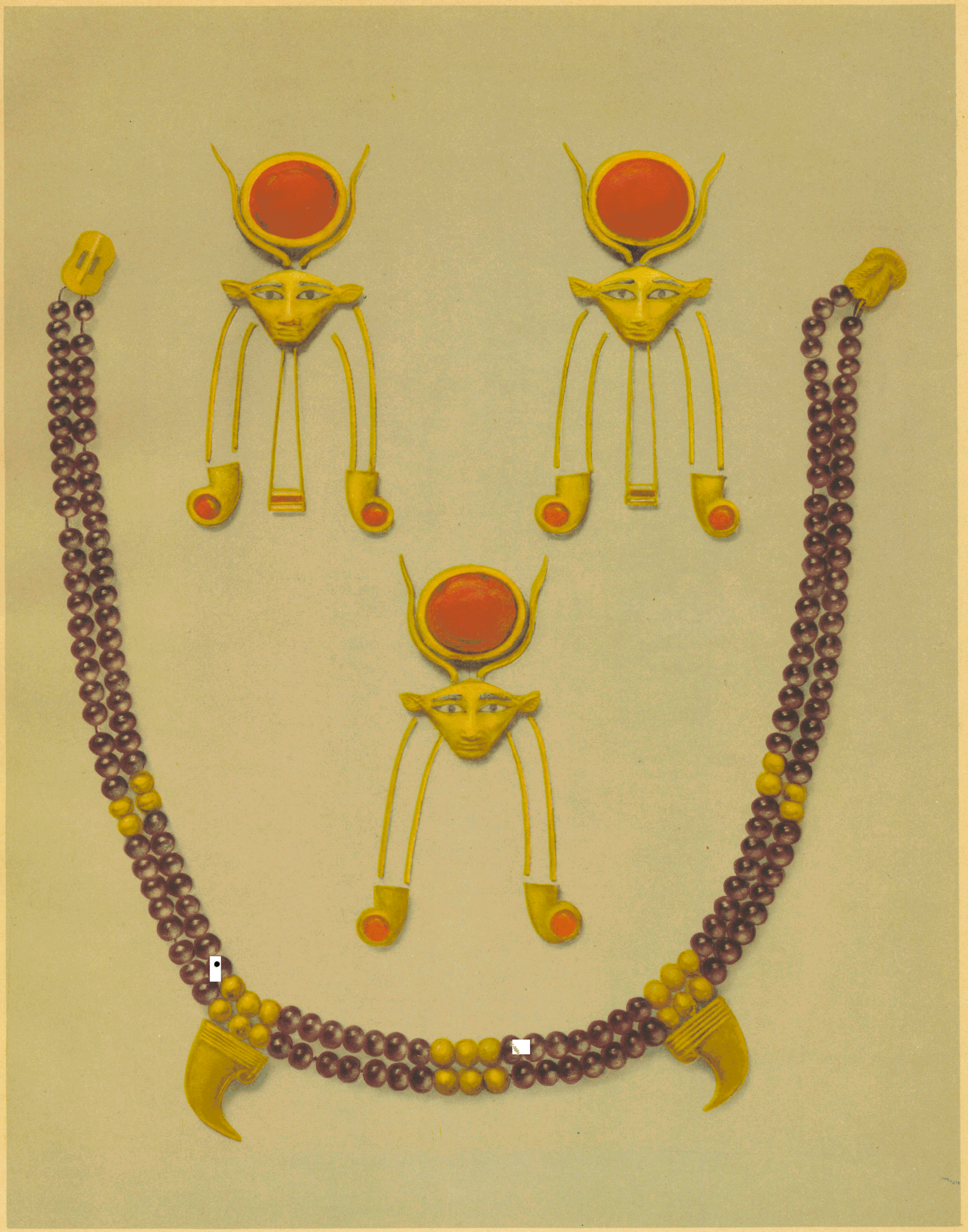


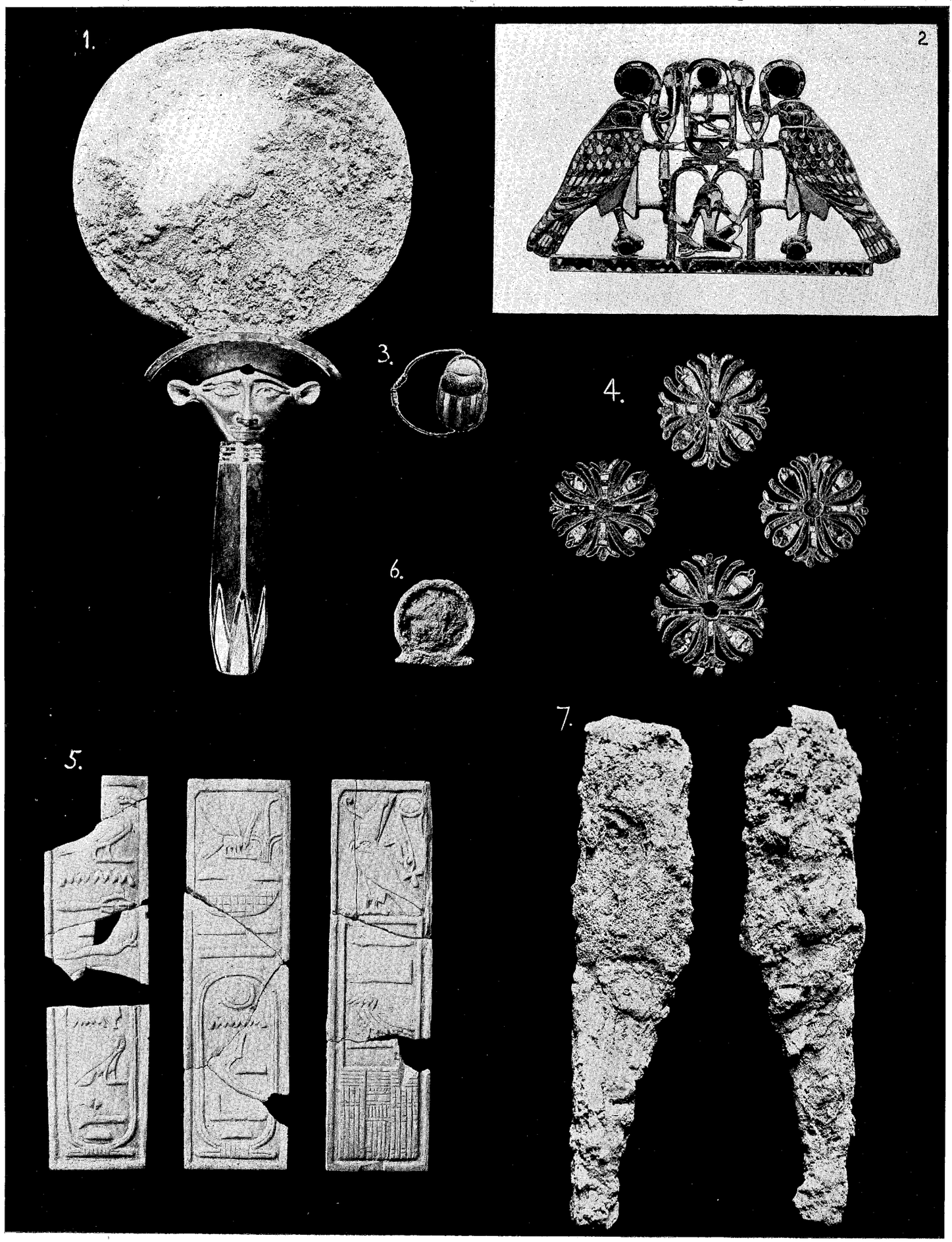








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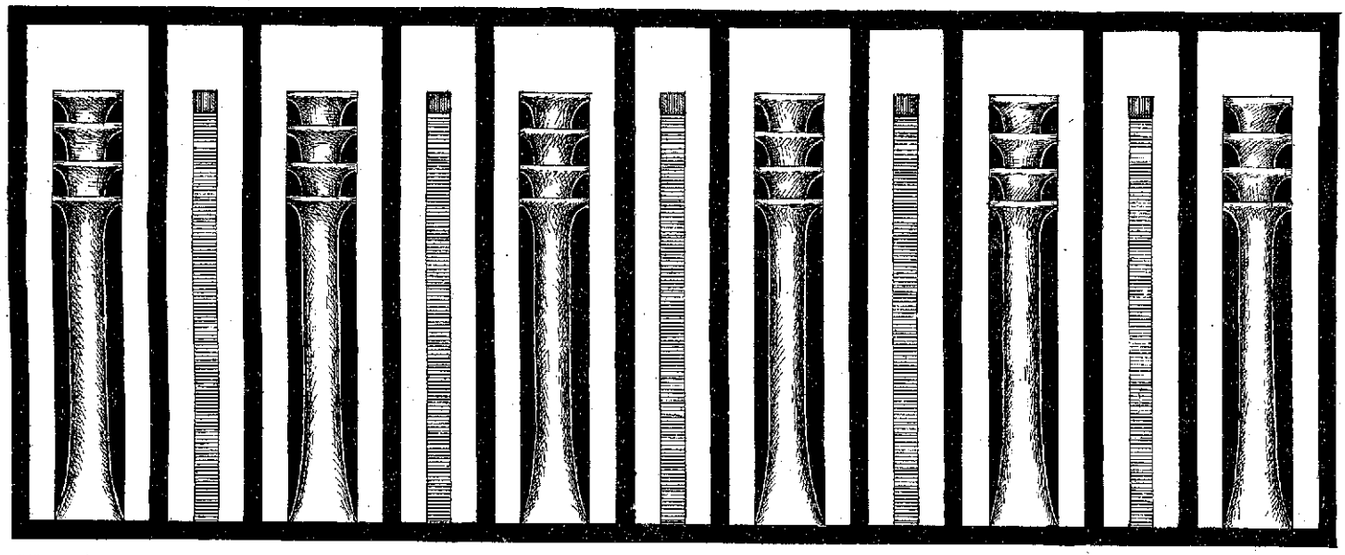

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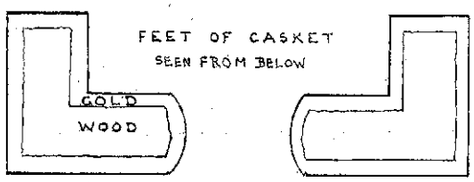
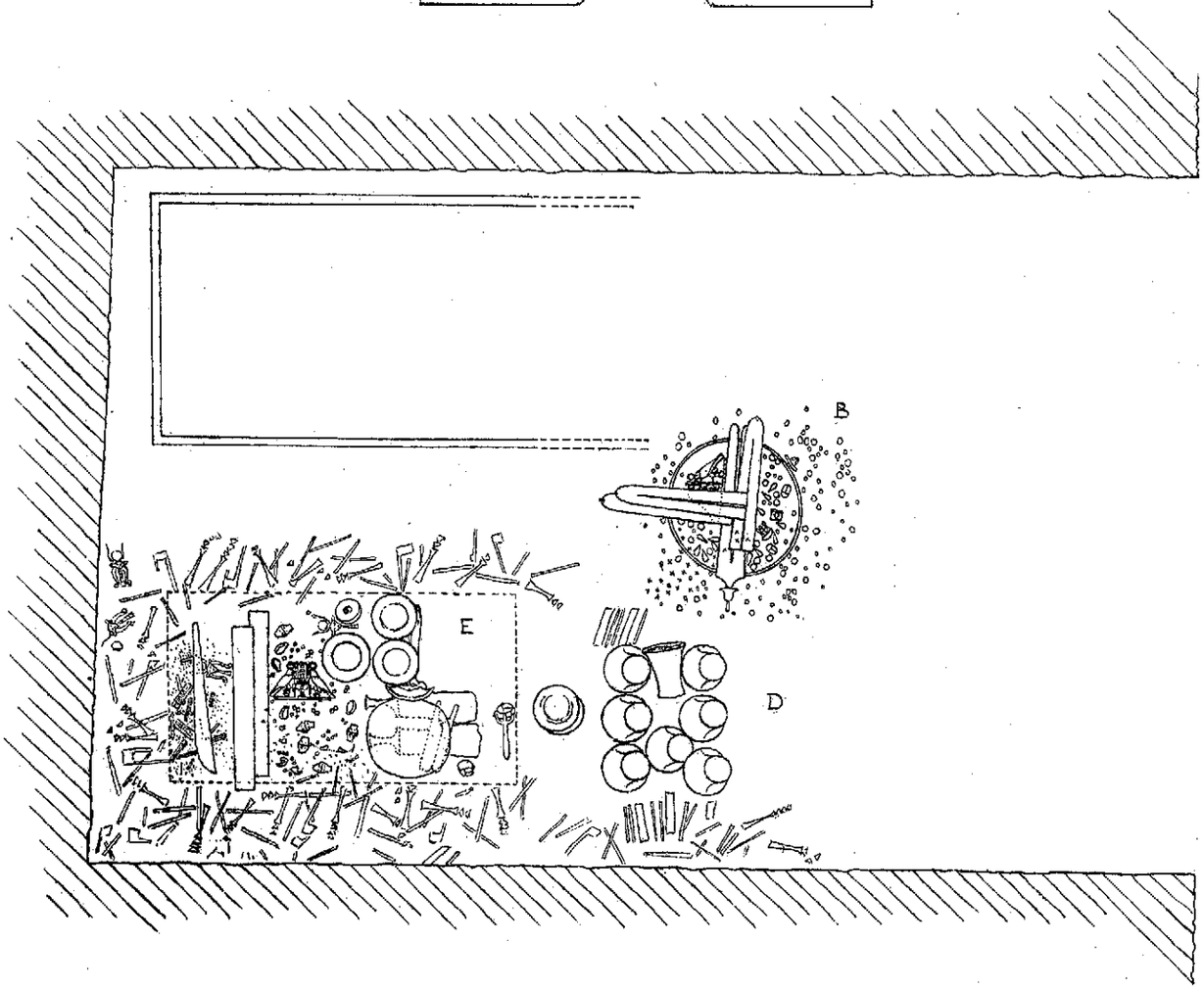
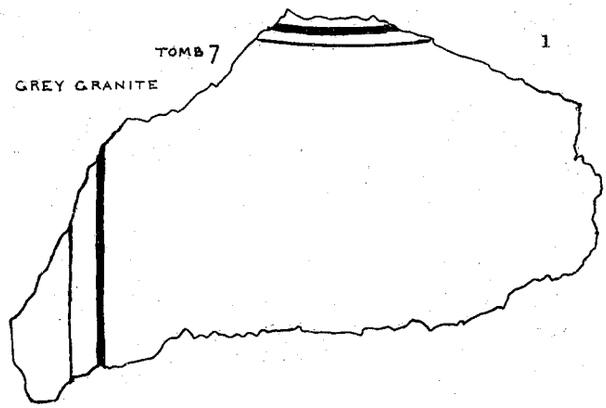
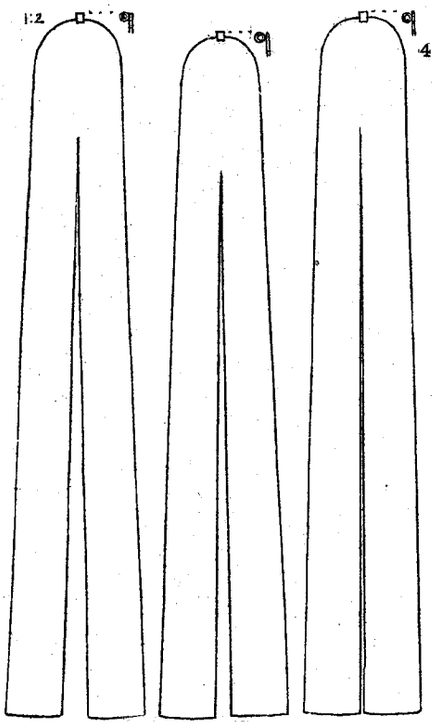
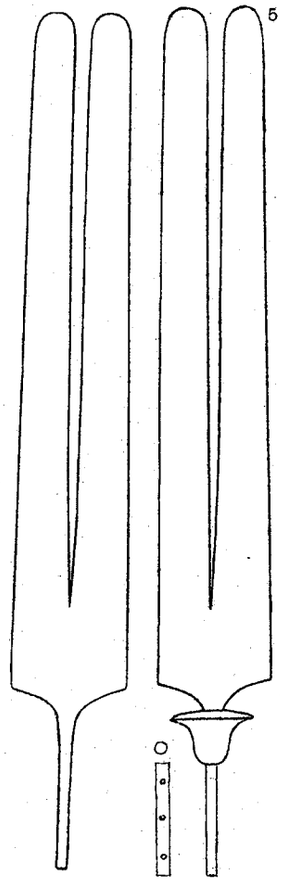
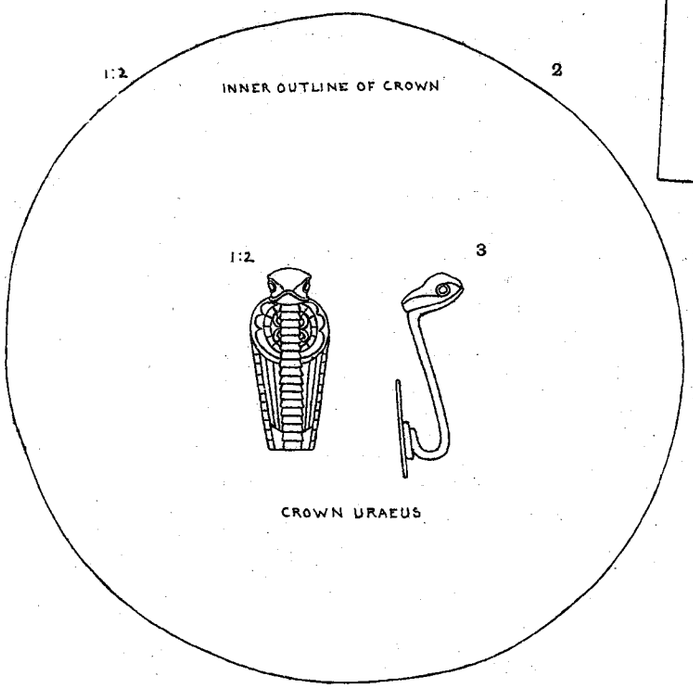


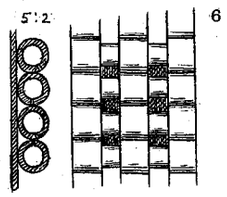


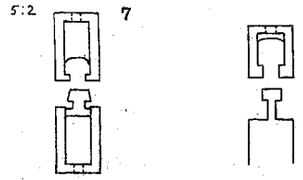


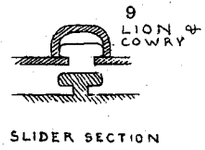




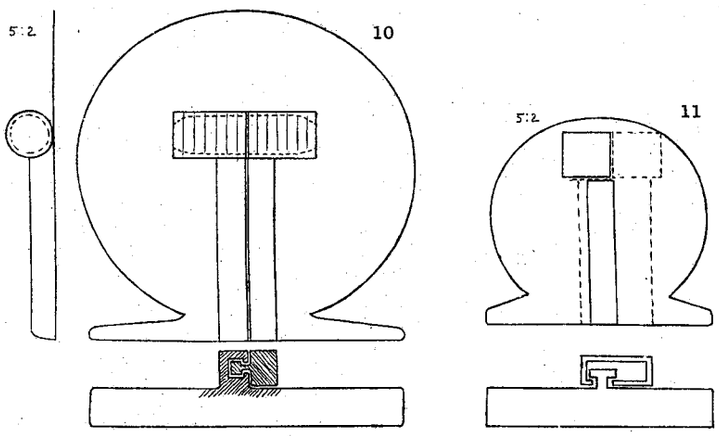


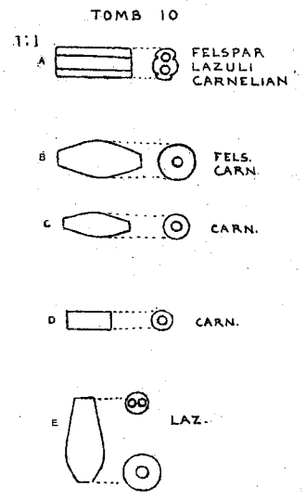


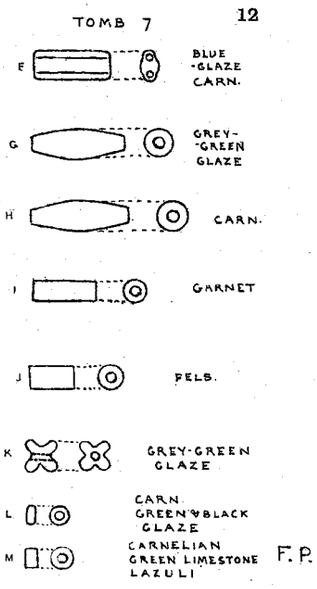




FASTENINGS OF SHEN AMULETS







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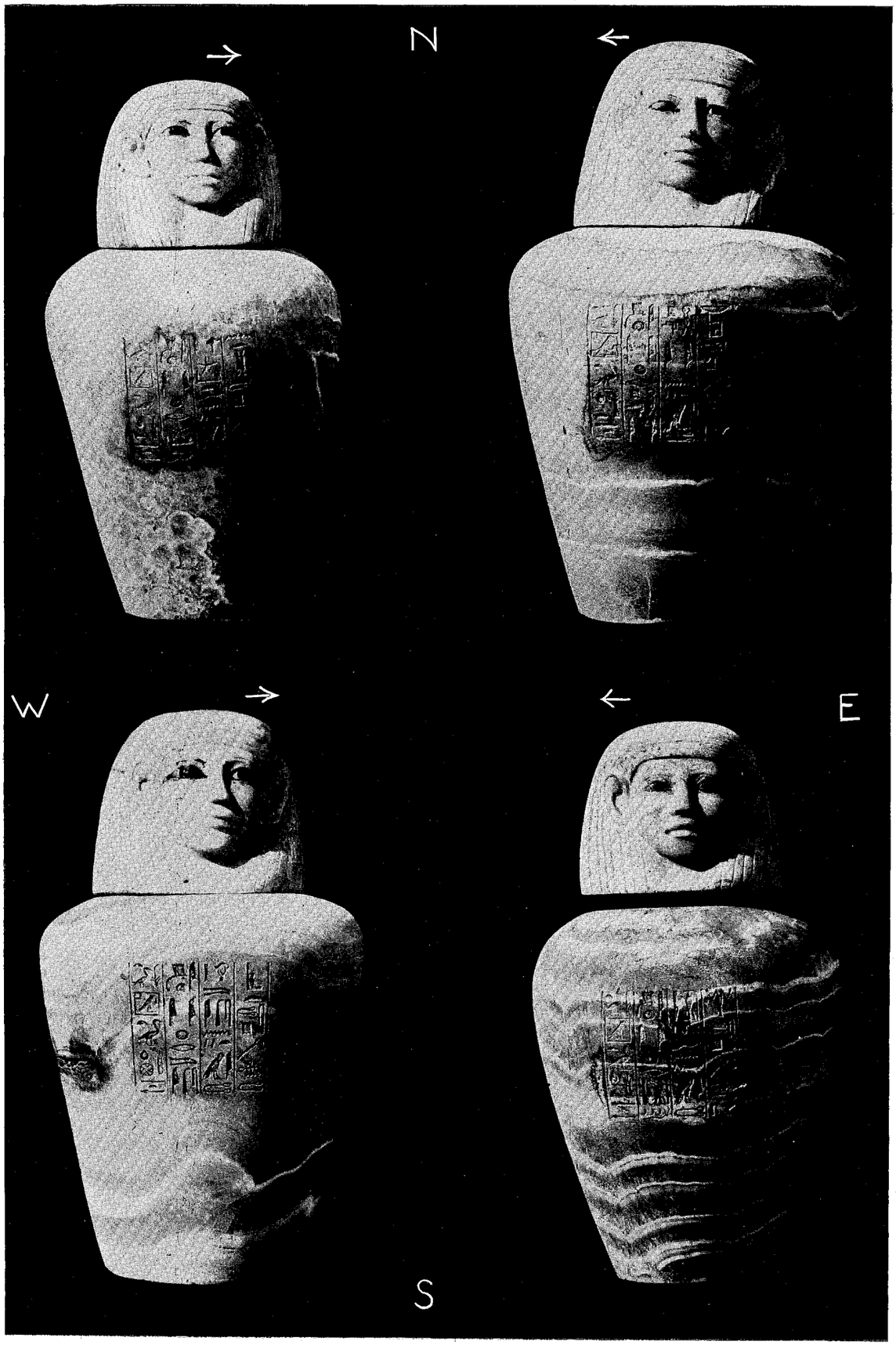
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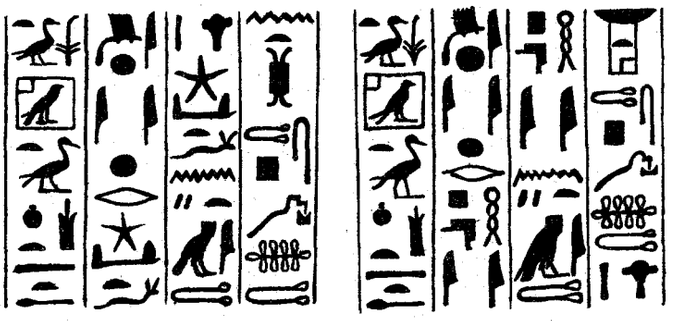

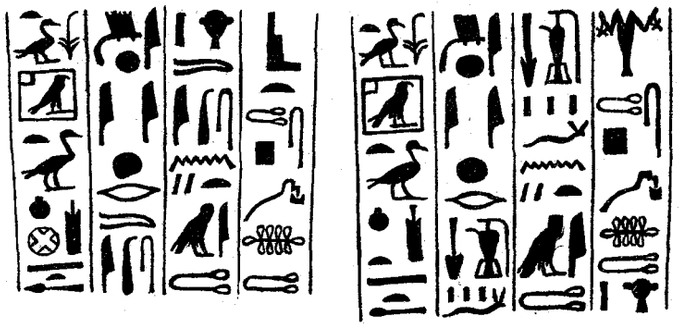

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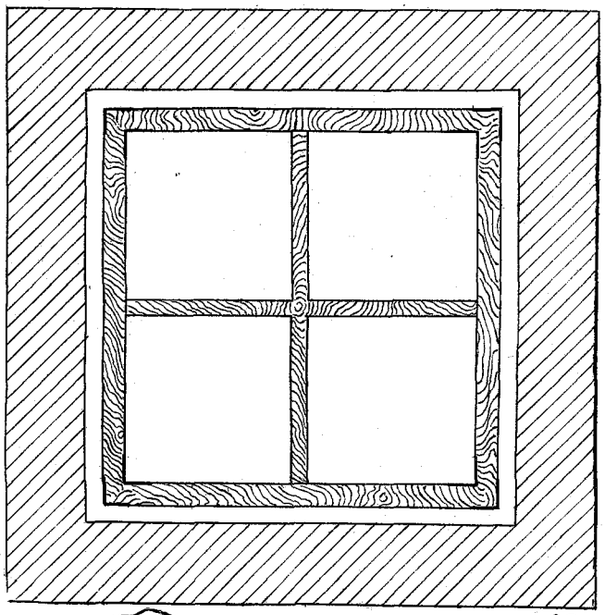
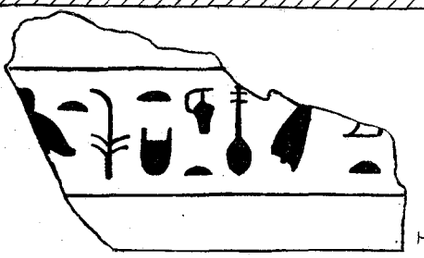


G.B.



H.P

OCCURRENCES OF THE TITLE

	DATE.	TITLES.	NAME.	OBJECT.	REFERENCE.
1.	Amenemhat II		?	Cylinder.	P.S.B.A. xxvii. 105
2.	do.			Canopic Box.	Dahchour II. 74.
				Coffin.	do. II. 73.
3.	do.		[KHNUMT]	Canopic Box.	do. II. 68.
4.	Senusert III.			Stela?	do. I. 77.
5.	do.			Sarcoph.	do. I. 56.
				Canopic Jars.	do. I. 59.
6.	do.			Sarcoph.	do. I. 54.
7.	do.		–	Scarab.	do. I. xx. 46b
8.	do.		–	do.	do. I. xix. 3
9.	do.		–	do.	do. I. 69.
10.	do.		–	Papyrus.	A.Z. xxxvii. 91.
			–	do.	do. xxxvii. 91.
11.	?		–	Cylinder.	Gauthier. Rois. II. 127
12.	Senusert III		–	Papyrus.	A.Z. xxxvii. 96.
13.	do.?		–	Bead.	P. Sc. xii. 36.
14.	Amenemhat III.			Stela.	Dahchour. II. 101.
				Offering Table.	do. II. 101.
					do. II. 101.
15.	XIII DYN.?			Scarabs.	N.Sc. xiii. 30. P. Sc. xviii.
				Scarab.	do. xviii.
16.	do.?			Scarabs.	do. xviii. N.Sc. xii. 26.
				Scarab.	do. xliv. 13.

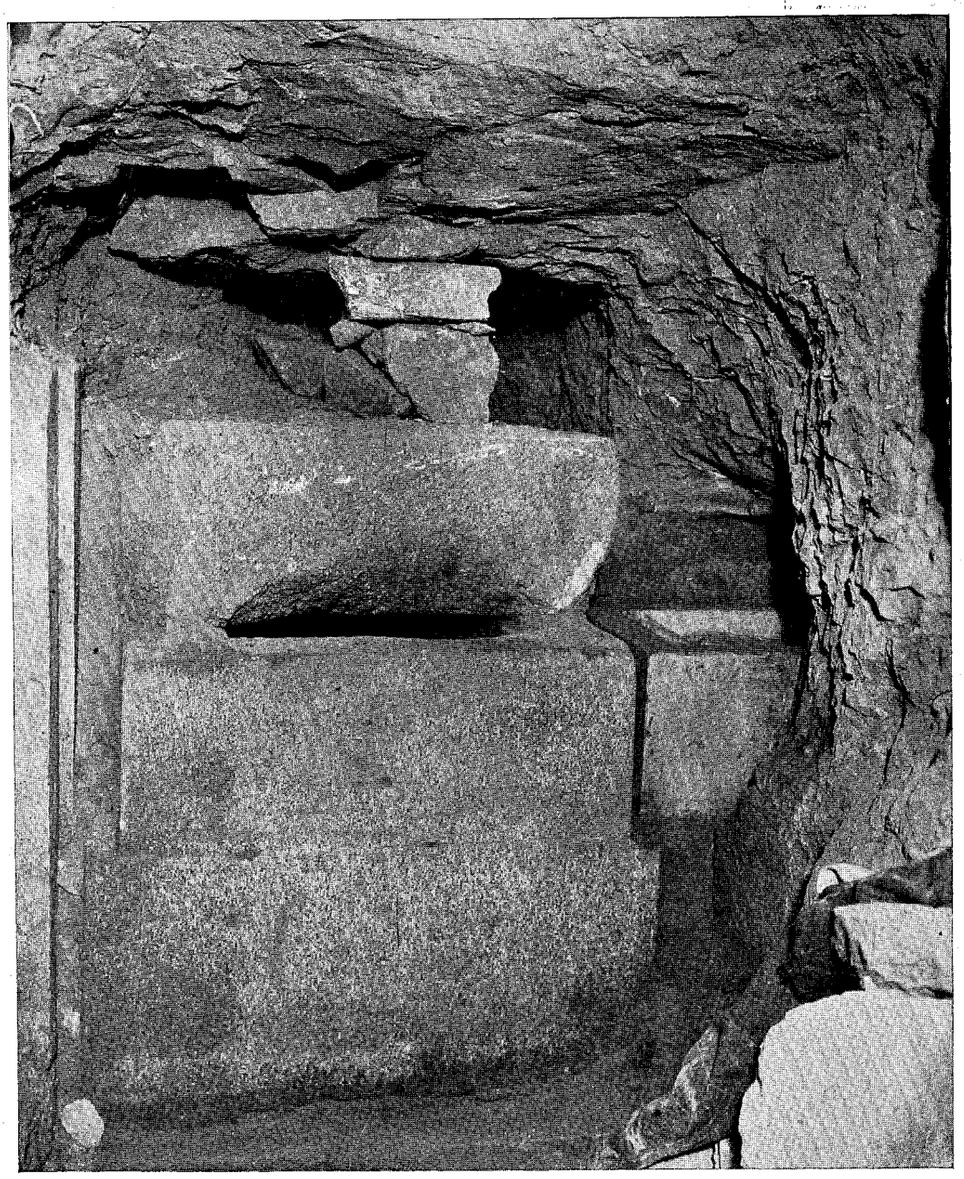
	DATE	TITLES.	NAME.	OBJECT.	REFERENCE.
17.	XIII DYN.?			Scarab.	P. Sc. xviii.
18.	do.?			Scarabs.	do. xix. 13. N.Sc. xii. 4.
				do.	do. xii. 5. P. Sc. xix. 13.
				Scarab.	F. Sc. p. 8, 61.
				do.	Gauthier Rois II. 122
19.	XIII–XVII DYN.			do.	N.Sc. xiv. 19.
20.	XVII DYN.?			Stela.	Pierret, Recueil d'Inscr. II. S.*
21.	do.?			Pendant.	P.S.B.A. xxiv. 285
				Head-rest.	do. xxiv. 289.
				Stela.	Rec. Trav. ix. 93.
22.	do.?			Pyramidion.	A.Z. xxxiii. 84.
23.	do.?			Canopic Box.	do. xxx. 46.
				Pyramidion.	Lepsius. Königs. 155
				Coffin	P.S.B.A. xiv. 41. Gautrier, Rois II. 123
24.	Seqenenra.			Statue.	do. II. 160.
				Coffin.	v. Bissing, Theban Grabfund. 21.
25.	Aahmes I.			do.	Cairo Cat. Cercueils. 4.
				Bead.	P. Sc. xxiii. 25.
				Vase.	Davis, Hatshopsitou 108.
				Sculpture.	Del Bahari II. xlvii
26.	?			Rock Inscrip.	L.D. II. 149a.
27.	Amenhetep I			Coffin.	Cairo Cat. Cercueils. 9.

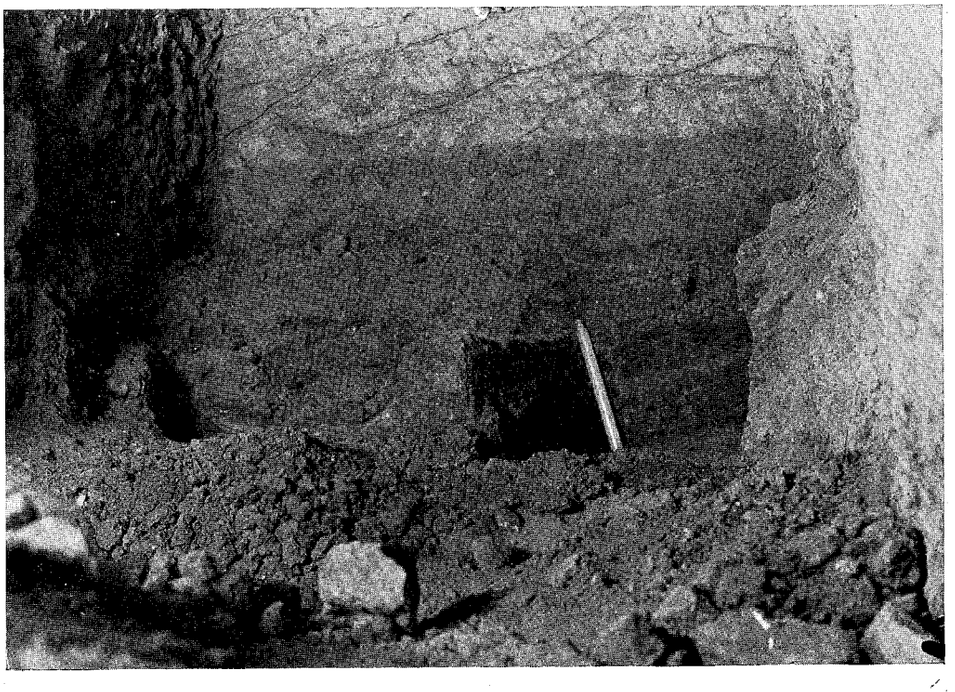
P.Sc., N.Sc., F.Sc. = Petrie, Newberry, & Fraser, Scarabs.

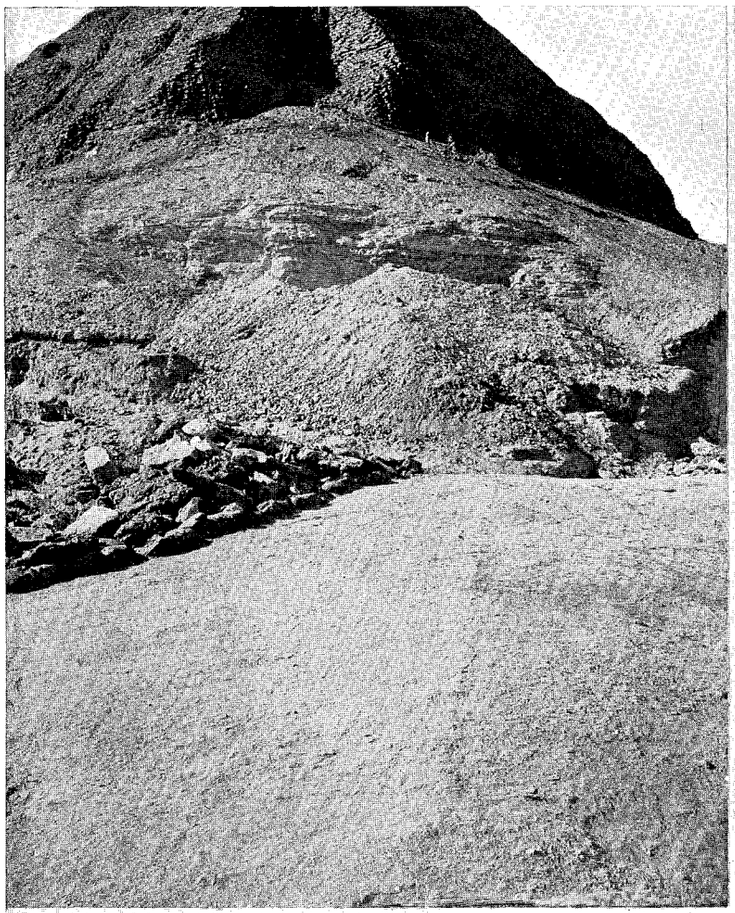
* corrected from the stele

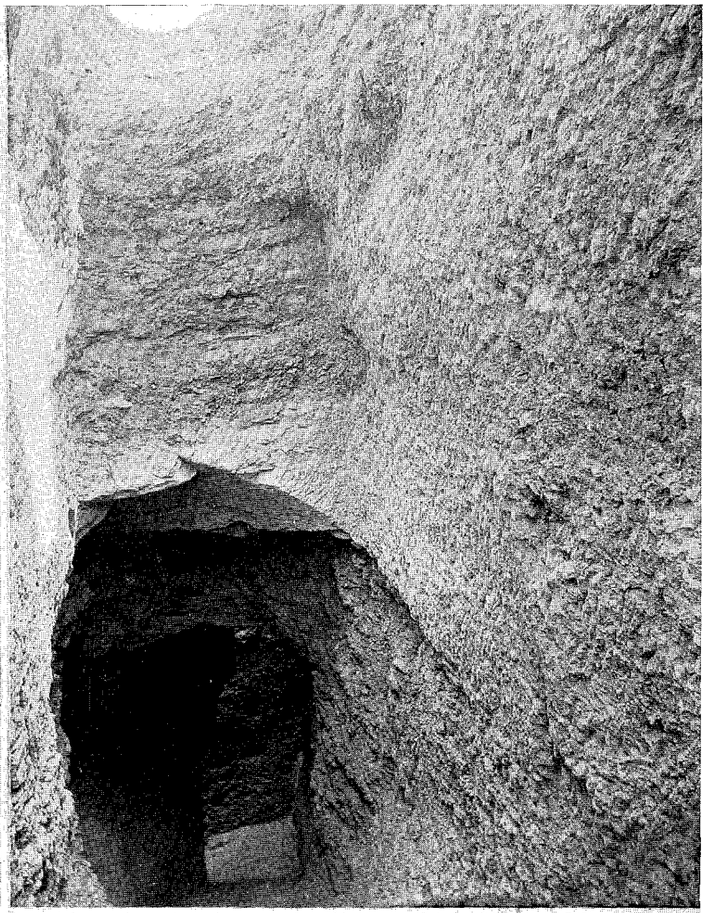
W.M.B. G.B.

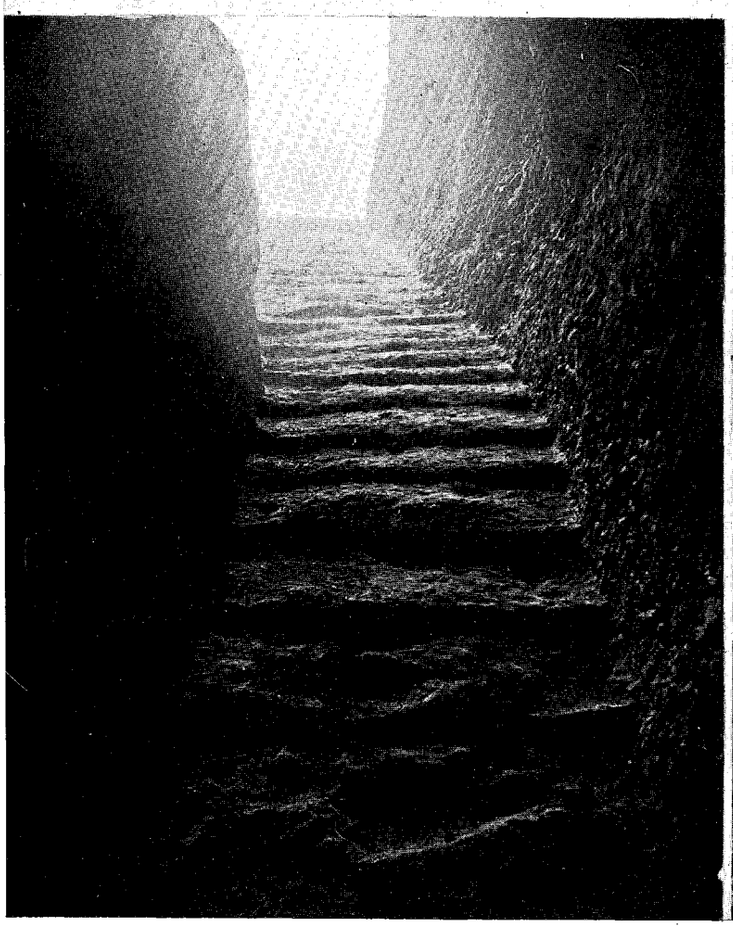
LAHUN. SARCOPHAGUS AND RECESS OF JEWELLERY TOMB

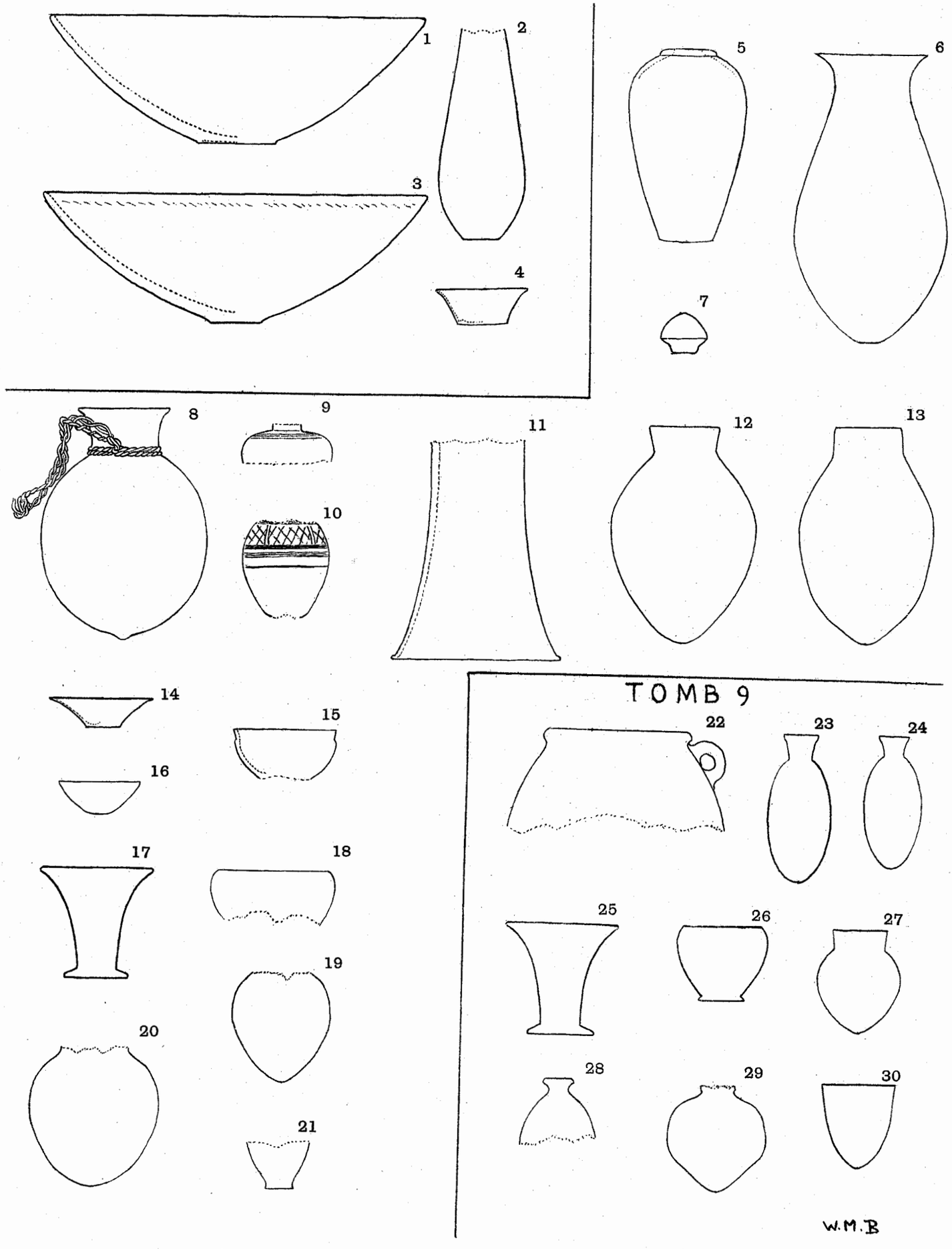








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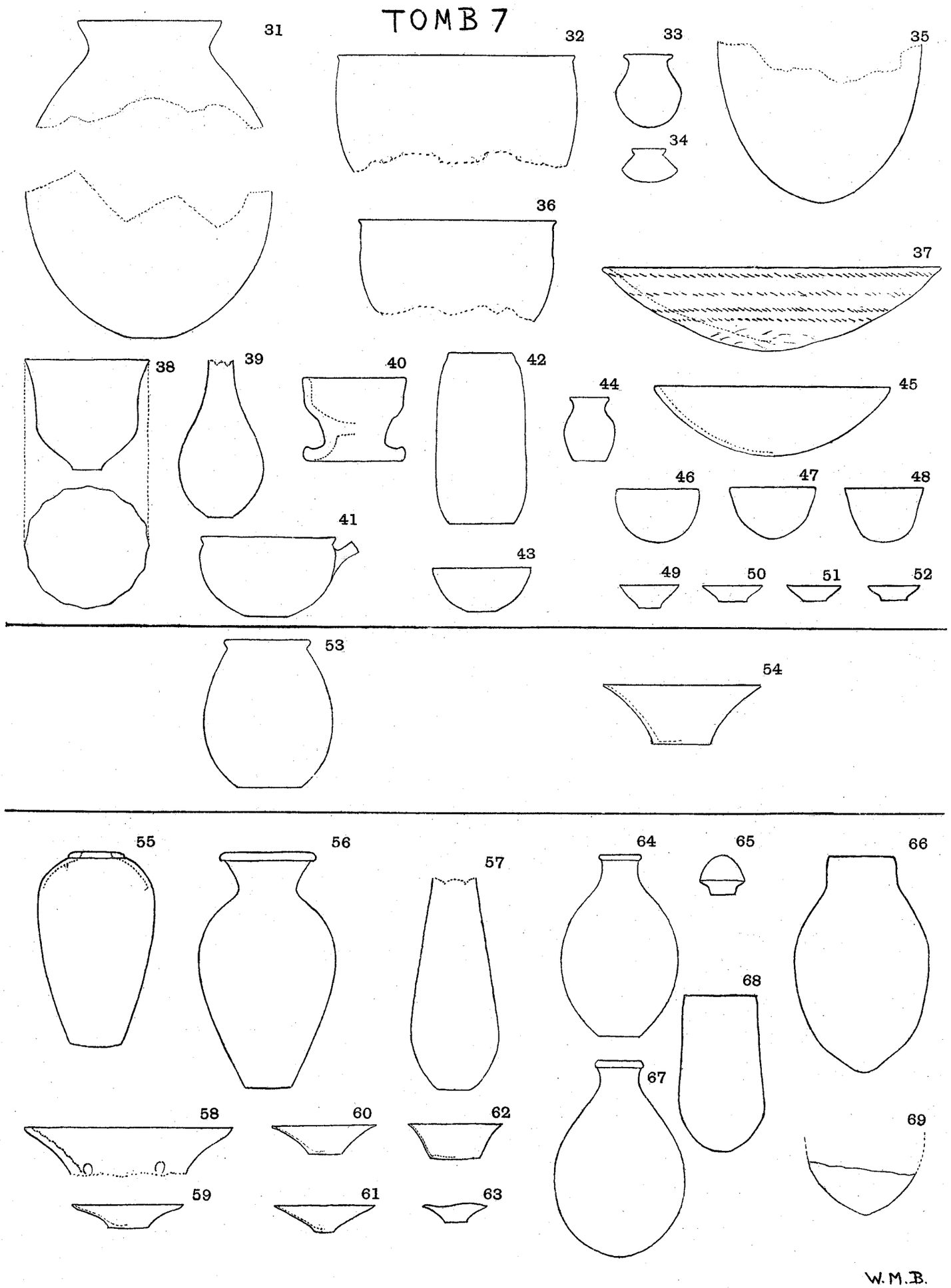
TOMB 7
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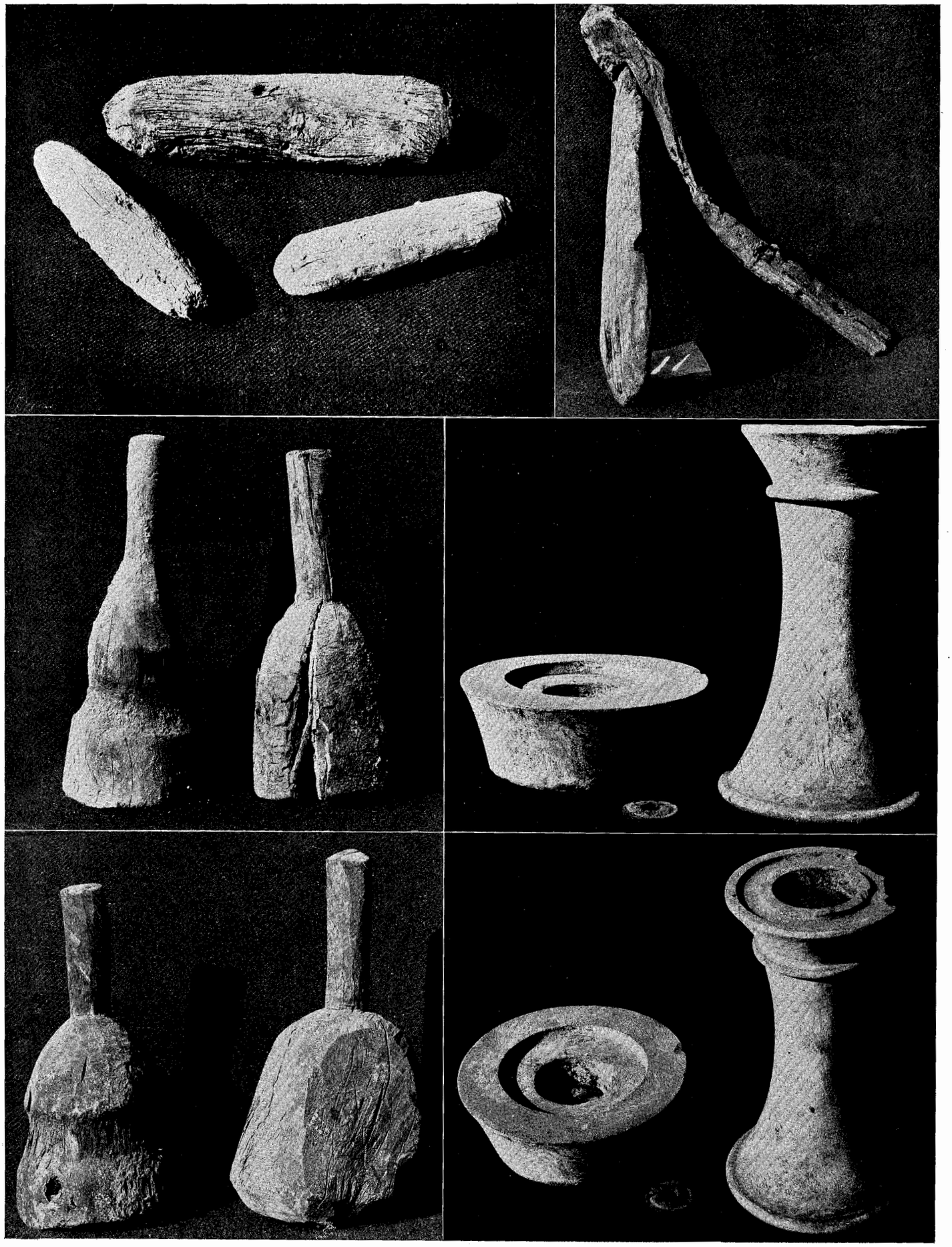
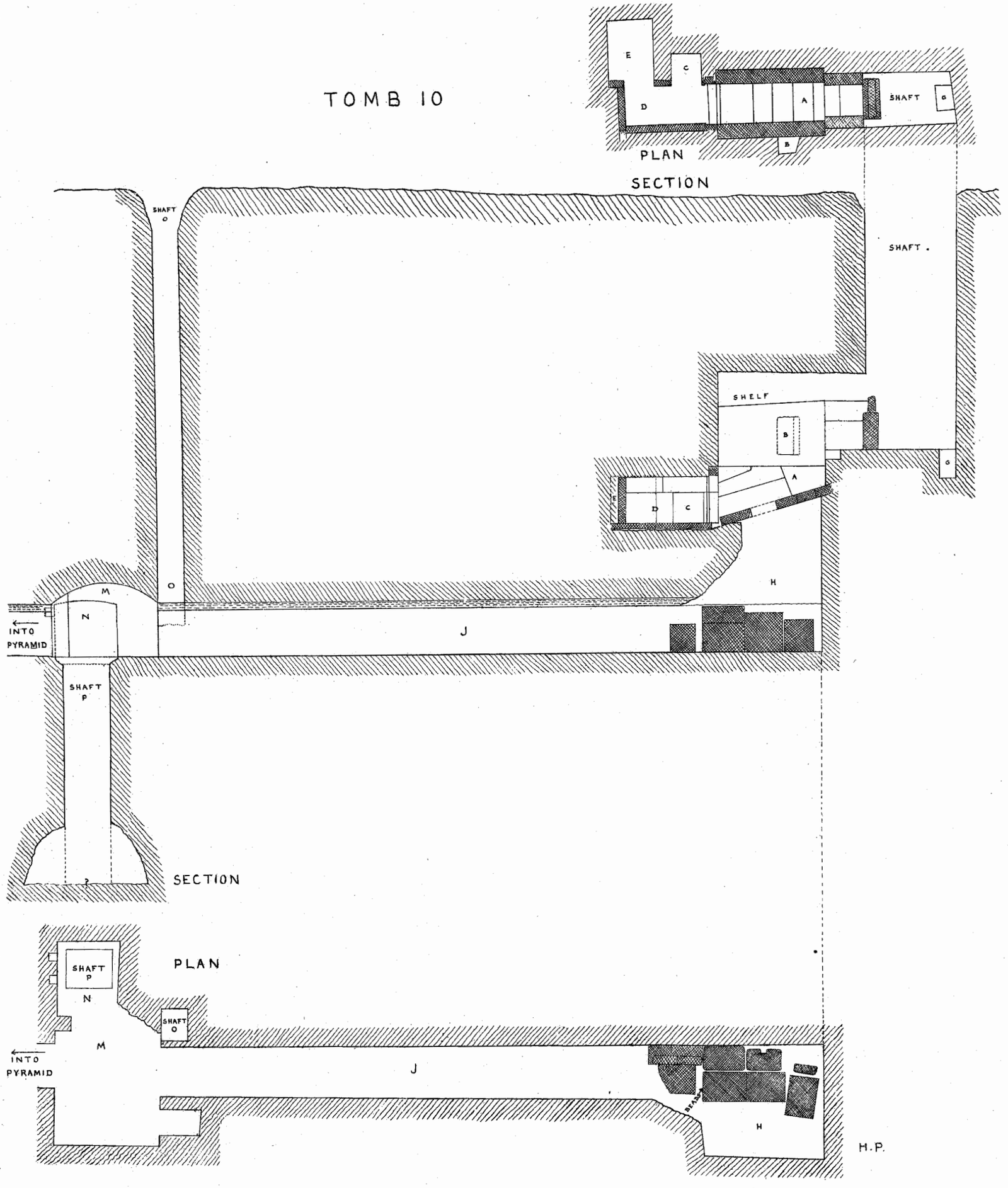


1 : 150 LAHUN. TOMB 10 AND ENTRANCE TO PYRAMID. XXI.



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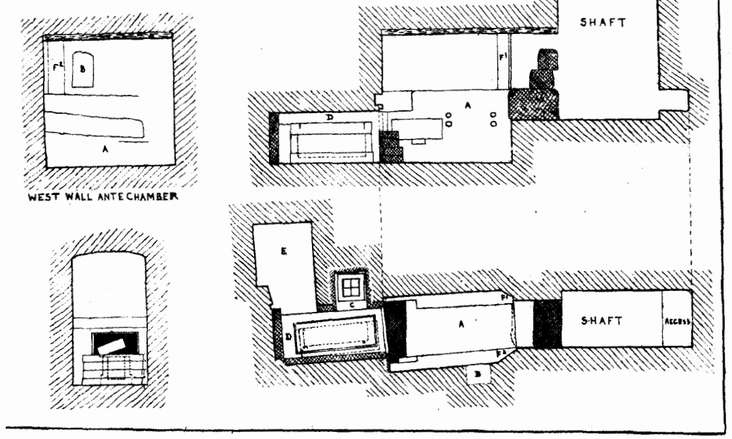
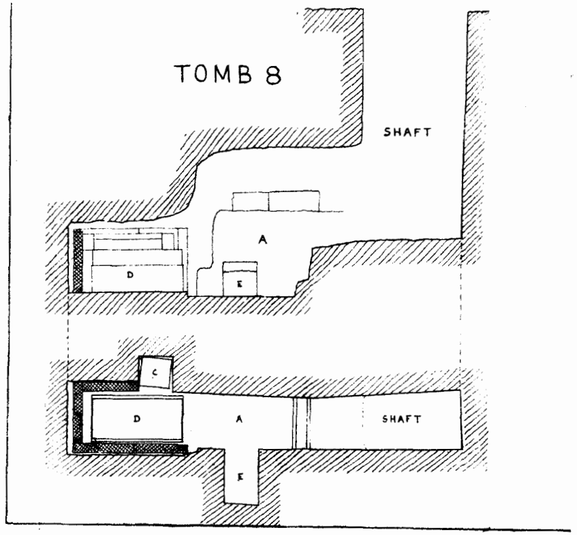
LAHUN. TOMBS 7, 8, 9, SOUTH OF PYRAMID.

XXII.

TOMB 7



TOMB 8



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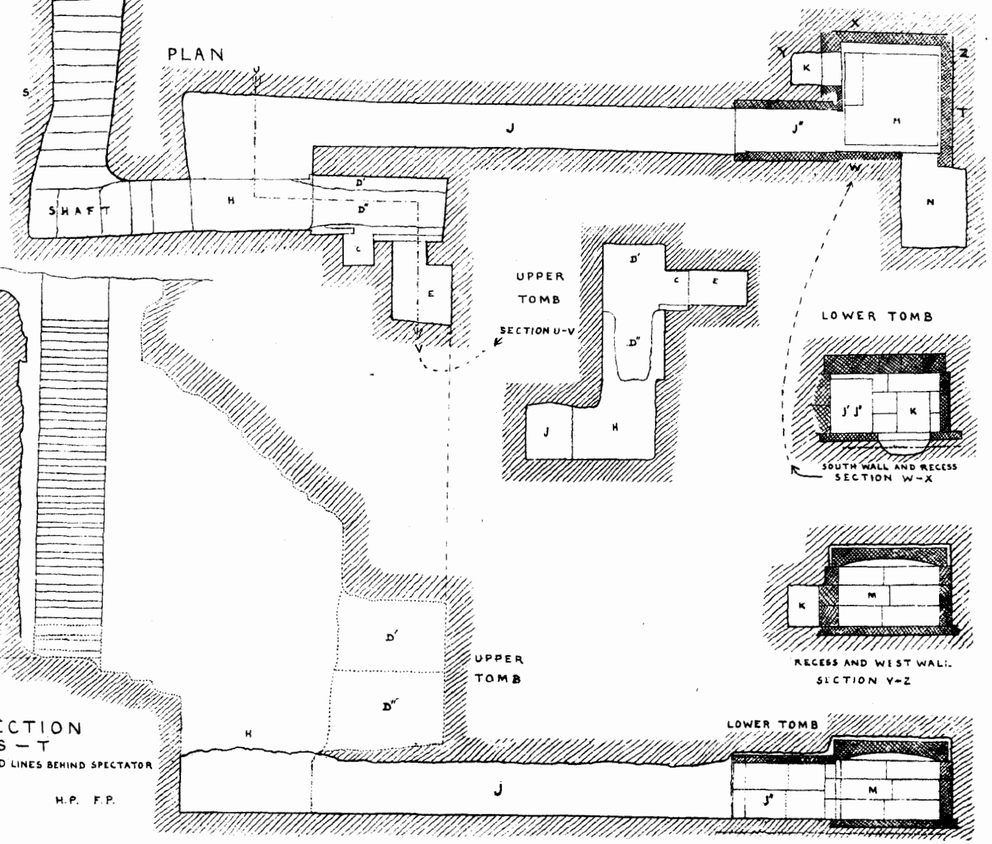
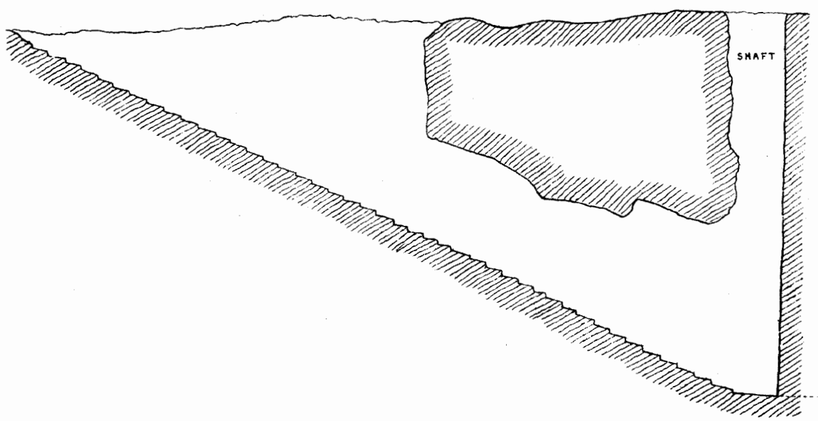


TOMB 9

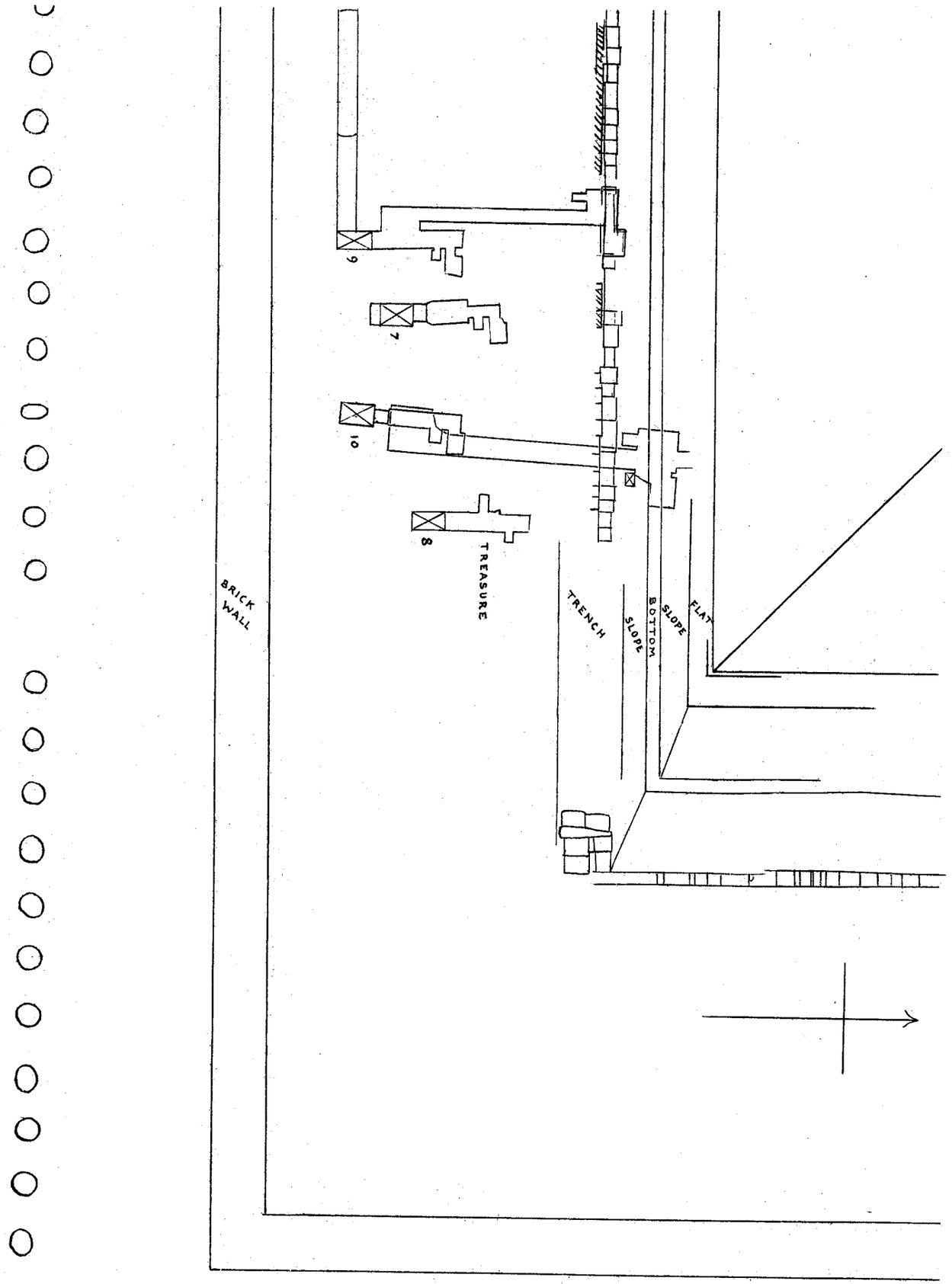


SECTION DOWN STEPS

SECTION S—T

DOTTED LINES BEHIND SPECTATOR

H.P. F.P.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