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FUNERAL FURNITURE with STONE AND METAL VASES

Sir W. M. FLINDERS PETRIE

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THE  
FUNERAL FURNITURE  
OF EGYPT

WITH

STONE AND METAL  
VASES

BY  
FLINDERS PETRIE, Kt.

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# THE FUNERAL FURNITURE OF EGYPT

## CHAPTER I

### THE VARIETY OF BELIEFS

1. At first sight there seems to be a mass of inconsistencies and contradictions in the statements and remains which are found in the Egyptian tombs. The dead were to wander in the cemetery, or to enjoy life in the kingdom of Osiris, or to sail with the sun; the offerings appropriate to one kind of life are quite useless for another; there seems no principle but what is confuted by some diverse practice. The clue to all this confusion lies in the mixture of many different races in prehistoric times, all of which go to make up what we call the Ancient Egyptians, who inherited many different natures and psychologies. The greatest problem at present in Egyptian pre-history and religion is how to disentangle all these various elements, to assign to each its different attributes, and so restore the perspective to the fore-shortened view which seems so confused when taken as a whole.

We have to take into account four different theories about the future existence, five different civilisations, from different quarters, several different classes of gods, and five different purposes of amulets. If we can succeed in linking these rightly together, the meaning which they will give to the funerary systems and their inconsistency, will go far to make a reasonable picture of the changes of prehistoric ages in Egypt.

2. Take, first, the association of the theories of the future with the different civilisations. The full length burial and mummification came in with the dynastic race, the Semainian age. Before that there was a great importance of the principality of Heliopolis, and therefore of Ra worship; the Gerzean prehistoric civilisation had brought in Eastern products, and appears to have come from the East, where solar worship was fixed; the travel of the soul with the boat of the sun therefore seems linked to the Gerzean prehistoric age. Before that, in

the Amratian age the Osiris worship had already passed into Libya, see *Geography of the Gods, Anc. Eg.*, 1917, p. 109. There *Ausar* is the "old man," and *Arau* is the "child," Osiris and Horus. That civilisation held with the Osiris worship. Before all that was the long Badarian age, when corn was already cultivated, and therefore not before Osiris, who brought in agriculture. Being Asiatic in origin, there is no bar to this being the age of the early religion of the charms, known as the Book of the Dead. These are clearly linked with the geography of the Caucasus, see *Anc. Eg.*, 1926, p. 41, and now emphasized by the later Caucasian immigrants (*Gaza II*). The Osiris myth also has its link, the tree which contained the coffin of Osiris, with the sacred tree in the midst of the cathedral, in which a spirit dwells. Myths in the Caucasus now point to a connection with Osiris (*Anc. Eg.*, 1928, p. 20).

There remains a yet earlier kind of belief about the wandering soul coming out from the tomb to seek its food and rest in the cemetery, and fed by the cow-headed goddess living in the sycamore tree. This seems to be linked with animal worship, and belong to the aboriginal African stock, and the ages before Osiris worship.

3. The different classes of amulets also derive from different beliefs. The similars are the lowest of all, then the protective amulets of animal figures, lastly the figures of the gods.

4. The connections then seem to fall together thus:

Savage age	Badarian	Amratian	Gerzean	Semainian
African Animal gods Wandering soul Amulets of similars	Caucasus Osiris Kingdom of Osiris Unusual	Libyan Set? Kingdom of Osiris Property	Eastern Ra Life with Ra Protection	Elamite Ptah, Hathor Revived body Gods

Such a grouping reconciles what is yet known of the religion and the funerary systems, and it will be

followed here as a classification. Some matters general in all the classes, as the forms of tombs, and the positions of cemeteries, will be dealt with in the volume on *Egyptian Architecture*.

The funeral and tomb have been unduly prominent in the general perception of Egypt. This is owing to the towns being largely covered by the Nile deposits, and the tombs being all exposed on the desert. Thus a hundred objects have come from tombs for each thing obtained from a town. Probably the churchyard is more familiar to English people than the desert cemetery was to the Egyptian.

The systematic divisions of the subject are:—

Chapter.

- II. The wandering soul, seeking food.
- III. The kingdom of Osiris, organised society.
- IV. Life with Ra, in the Sun boat with gods.
- V. The revived body, provision for the mummy.

## CHAPTER II

### THE WANDERING SOUL

5. THE various elements and developments of this view of the future are largely represented in modern African customs. They are here taken in the following order:

Objects in the text are not numbered when they belong to other Catalogue volumes.

Number in Collection.	Section in this volume.
1-3.	<i>Ba</i> bird, human-headed, fed by tree goddess . . . . . 6
	Contracted burial.
	Opening of the mouth . . . . . 7
	Food offerings . . . . . 8
4-11.	Food models.
12-14.	Altars . . . . . 9
15-16.	Fire bowl.
17-37.	Vases . . . . . 10
38-39.	Killed vessels . . . . . 11
	Sacrificed servants.
40-77.	Soul house . . . . . 12
	Lamp in shrine.
78-82.	Statues . . . . . 13
	Steles . . . . . 14
	Tomb chapel.
	Opening for spirit.
	Scenes in chapel.
	Amulets of similars . . . . . 15
	Amulets of powers.

6. The soul was represented as a human-headed bird; and the source of this idea was probably from the large owls, which house in empty tomb pits, and when disturbed, fly up out of the pit on noiseless wings, and look at the intruder with a plaintive face. This idea might not be older than the formation of shaft tombs, about the iind dynasty; but the owls may have been associated earlier with the dead in cave-burial.

The *Ba*-figures here are:

1. Bronze, 8.2 long, 7.8 high, body, legs, and base, separate castings; joined with blue paste.

2. Wood, 5.0 long, well carved, Hawara.

3. Wood, 4.0 high, coarsely cut and painted.

Glass relief, opaque blue body, white head, 1.2 long; see *Amulets*, and next two, green glaze, single bird, and two birds side by side. These are in chap. xvii, Book of the Dead, the soul is in a "pair of gods," two Horus falcons, the "avenger of his father" and "Horus in the two eyes," sun and moon, human and celestial. Green glaze relief, flat back.

This *Ba*-bird was represented as picking up its food in the cemetery, and as fed by the goddess in the sycomore fig tree. No illustrations of this belief are before the xviiiith dynasty; but the idea is obviously one of the most primitive. The sycomore fig tree is sacred in Africa (*Anc. Eg.*, 1914, p. 163). The goddess is sometimes identified with Hathor of the dynastic age, having a cow's head. She gives cakes to the *Ba* bowing at the foot of the tree, and gives drink to the figure of the dead woman kneeling before her (Florence stele 2591; L.D.M. cccxxii): in a red niche—the focus of domestic worship—she is shown giving drink to a kneeling woman, who has come out of a tomb on the desert (*Ramesseum*, XX). Hathor, human headed, feeds Queen Thyti (M.A.F. v, 412, vii). In other instances the goddess is Nut, the earliest protector of the dead in the prayers: she is always in human form, in two examples she gives drink to the *Ba* alone (W., M. and C. iii, 63, 118) while holding a tray of figs. In one case Nut holds a tray of food, and pours drink to the *Ba*, and to the man Yaya standing (L.D.M. cli). To Ani, kneeling, the goddess gives cakes and drink, but there is no *Ba*; also in Lepsius' *Todtenbuch* (late) there are only hands coming out of the tree giving cakes and drink to the man standing, without any *Ba*. In four other cases there is no *Ba*, and the recipients of the drink are comfortably seated, and receive the streams (Pasar and Nezemger, *Ros. Civ.*

cxxxiv, 1, 3; Leps. *Todt.* xxiii; xxvi dyn. tomb, L.D. iii, 264). These last are evidently the later form, when the kneeling to the goddess was omitted. The Hathor, cow-headed, is the early form, with kneeling recipient; Nut is a later form, and the omission of the *Ba* is the latest. On the other functions of the *Ba*, see the Book of the Dead, chaps. i, xvii, xlvi, lxxxix, xcii, cxxiii, cxxxii, vignettes.

7. There can be no doubt that contracted burial belongs to these beliefs, as it was universal till the dynastic period. The "opening of the mouth," so that it should be capable of feeding, is probably also as early as this, because the instrument used was the saw-edged forked flint lance, which in this association became dwarfed as an amulet, called *pesesh-kef*. The full-sized lance had a gold handle fitted to it in prehistoric times, and was copied until the amulets of the xxvith dynasty (see *Amulets*, p. 16). That this "opening of the mouth" is older than the mummy, upon which the operation is figured in later times, is evident as the forked flint lance had disappeared from use long before there was a mummy in Egypt. The custom therefore belonged to an earlier stage, and we can hardly separate it from the burial of food offerings. For examples of the mouth opener, see *Amulets*, nos. 38, 123.

8. The provision of food and drink for the dead is constant all through the prehistoric ages from the Badarian onward. Beside jars with remains of food and beer there were also large jars containing ashes, but never any bones. These suggest that a great quantity of food and property was burnt at the funeral, and the ashes collected to place in the grave. There was a regular ritual of burial in the prehistoric Gerzean age, as the positions of the various jars were the same in most cases. The body lay on the left side, with the head to the south, and the face to the west. The large jars of ashes were stacked at the north end of the grave, beyond the feet. A single pointed jar is usually at the south, beyond the head. The rare black incised bowls are toward the north end, but not at the side of the grave. The painted pottery is mostly at the south and west, about the face and head. The slate palettes are usually near the hands, before the body. The malachite is often in the hands. The flint knives and lances are usually along the back. Similarly in Africa at present, not only beer and flour offerings, but also the personal possessions of the dead, weapons, insignia, ornaments, as well as sacrifices, are buried with the dead.

4. Pieces of thin flat cake of coarsely ground corn. The burial of actual food was reduced later to the burial of models of food. Of the prehistoric age there are here models of garlic made in clay; and of historic time:—

5, 6 two wooden models of a haunch, 4.3 long, one painted black, red, and white.

7, 8 two wooden models of dates, 1.7, 2.1 long, painted red-brown.

9, 10 red wax models of ducks, head on back, 2.2 long, 1.1 long.

11 mud model of a crested ibis, *akh*, painted black, 2.7 long.

9. For the place of offering, stone altars were provided. These regularly have two hollows for the offerings, as in modern Africa there are two holes for offerings in front of the burial mound. The earliest altar in position is that in the court of the pyramid temple of Sneferu at Meydum. The most complete altar is that of the princess Ptahneferu, daughter of Amenemhat III, with 88 named offerings of foods and drinks (*Kahun*, v). That of Senusert II is far simpler (Illahun iii), having only the figures of the reed mat, on which the offerings were to be deposited, two cakes, two vases, and a pile of flour in a dish—the primitive *hetep* (*Deshasheh*, 35). The private altars sometimes have a tank for water, with steps down the sides (*Belmore tablets*, last pl.), and one in Cairo has the water levels at different seasons marked on it. In *Egyptian Sculpture* the altars here will be published; there are two with names of king Userkaf and two others of vth dyn., three of xiith dyn., a fragment of Akhenaten, an altar of king Painezem, an altar of Amasis, and a late one un-inscribed. Little model altars are not unusual, those here are of:—

12 slate, very rudely engraved with vase and cakes, 2.9 × 2.4.

13 slate, engraved with mat, bearing two vases, a table with a goose, four cakes above, 3.9 × 2.9.

14 copper, model table, 3.6 × 2.1 × 1.0 high, with five dishes, .9 diam., vith dyn. See earlier form, of vth dynasty, Borchardt *Ne-user-re*, p. 130.

The bowl of fire was also offered. At Amarna an actual fire dish stood before a raised seat in the inner hall—a pottery pan about a foot across. This was imitated by fire offerings of bowls containing charcoal partly burnt to ash.

15 bowl, hemispherical, 6.3 wide, 3.5 high, with charcoal, grave 605 Tarkhan, xith dyn. Another fire offering was found of S.D. 81, middle of 1st

dynasty, where there were two saucers, one inverted on the other, charcoal in the lower, and smoke on the upper (*Tarkhan I*, 11). There is also here a model fire offering:—

16 polished black clay, model splay-mouth vase, with cone of flame in it, 1.6 h. Other model fire bowls, or lamps, or stands, come from a shrine at the Labyrinth, see LAMPS.

10. Vases of stone and of pottery abound in early tombs. These are dealt with under the catalogues of *Stone and Metal Vases*, and *Pottery*. There are here from the tomb of Amenhetep III, Biban el Meluk, Tombs of the kings.

17–21 five pieces of alabaster vases, and 22 part of a lid, with various pieces of wooden furniture. Besides some solid models of vases in the catalogue of stone vases, there are here:—

23, *hes* vase, limestone, solid, finely cut, 2.8 high.

24, *hes* vase, blue glaze, xiith dyn. (?), 2.8 high.

25, 26, *hes* vase, blue glaze, conical cap, 2.8, 2.7 high.

27, conical cup, basalt, 1.0 high.

28, conical cup and lid, wood, painted, 5.9 high. Presented by Mr. S. Bruzard.

29, ovoid vase, wood, painted with red and yellow marbling, 4.4 high, of hollow models are:—

30–34. Five mud models, very rude; Gerzeh, xviiiith dyn., .5 to 2.8 high.

35, piece of pottery vase, painted with black and yellow marbling.

36, imitation of glass vase, festooned pattern, 4.3 wide, neck lost (see Davis, T., *Tomb of Louisa*, pl. xxviii).

37, model of corn barrel measure, painted white, red and green bands, inscribed for "the devoted, the corn measurer, Mer-aäkhū" (?), 6.8 high, 6.7 long. See model vases of vth dynasty, Borchardt, *Ne-user-ra*, p. 130.

Killed vessels and furniture are sometimes unmistakable, though usually damages might be attributed to mere accident, ancient or modern. The chair in the tomb of Maket was deliberately damaged by removing the front legs. There are here,

38. Slate bowl, 8.7 wide, with hole punched through the bottom, cracking it in two.

39. Slate bowl, 5.7 wide, with hole punched through the bottom.

Both of these are probably of the iiird or ivth dynasty. Whether such damage was intended to kill the object ceremonially to go with the dead, or

whether it was done to prevent theft, is not known. The killing of the offerings is usual now in the Blantyre region of Africa.

11. The killing of servants to be buried with the master is an African custom, and is seen fully carried out in the burial of Hep-zefa in the Sudan, where hundreds were slain to be buried with the great viceroy. The rows of burials around the royal tombs of the ist dynasty, evidently show the same custom (*Tombs of the Courtiers*, xiii, xiv). Later it was reduced to a single man, wrapped in a skin, and dragged on a sledge to the burial, the *teknu*; see *Ahnas and Paheri*, Paheri 20–1, and Quibell, *Ramesseum*, 14. This custom is very widely spread, as among the Celts (*Athenaeus*, vi, 54), and Scythians (*Hdtus*, iv, 71).

12. The Soul-house was provided during the ixth–xixth dynasties. It is an African custom to place little huts with jars of beer in them for a chief's soul, and such are often seen in villages, "little spirit houses where sacrifices are presented from time to time." In Egypt the pottery houses were placed on the ground at the side of the grave. They were usually north or west of the grave, and facing to the grave, so as to protect the soul from the usual winds in entering. They were of all degrees of detail, from a mere shelter with two props in front, like a Bedawy tent, up to two-storey houses with furniture, fully illustrated in *Gizeh and Rifeh*, xiv–xxii E. They seem to have originated in the altar (see *Qurneh*, xx, xxi) with offerings represented on it. The type set is at Manchester, and the examples here are:—

40. Square block, with two tanks, 5.5 wide.

41. Oblong tray with spout; oxhead, haunch and vegetables on it, 9.5 w.

42. Oblong tray, cross grooves for water, same offerings, 11.6 w.

43. Oblong tray, similar, 10.4 w.

44. Rough oval tray, offerings, stand for jars, 10.5 w.

45. Oval tray, long grooves, offerings, 14.0 long.

46. Oval tray, cross grooves, offerings, 12.2 long. El Kab.

47. Oval tray, cross spout hole, 12.1. El Kab.

48. Oblong tray, cross spout hole, 11.5. El Kab.

49. Horse-shoe tray, cross grooves and offerings, 9.6 w.

50. Horse-shoe tray, grooves only, 9.6 w.

51. Oval tray with two rings and grooves from them, 17.5 l.

52. Circular pan with offerings in it, 10.3 wide.

53. Tray with six small vases on it, 11.6 long.

54. Small altar with spout, pouring into a lower tub, broken.

55. Tray with offerings more complete, and two tank grooves, 8.5 wide. The above in case 691–9. The following on the other side, 681–9:

56. Slab with two tanks and groove, 8.5 w.

57. Tray of offerings with little shelter, 10.0 w.

58. Tray of offerings with shelter, and stand for four water jars, 11.0 w.

59. House with shelter broken, and steps to roof, two water jars, 11.0 w.

60. House with shelter broken, holes round tank for roof, 9.5 w.

61. House ornamented with discs, two tanks, 9.5 w.

62. House with offerings, 11.0 w.

63. House with high chair in shelter, 12.0 w.

64. Tray with complex shelter, 14.0 w. El Kab. Parts of houses,

65, with water jar stand.

66, 67, with couch (2).

68, with ribbed wall.

69, with couch, headrest, and seated figure.

70, with woman grinding corn.

71, with matting roof.

72, with granary.

73, with crenellated wall.

74, with stringcourses over windows and door (3).

75–77, with various offerings (3).

The placing of a lighted lamp upon the grave is frequently done now, the shelters for the light being made of mud, and placed about the grave, see *Qurneh*, liii. Such shelters for lamps are usual in the Roman age, and there are here, in the Lamp series, four such shrines of pottery, with small lamps fitting them. These seem to be of the same idea and system as the soul house, to give help to the soul on coming out to wander. The modern Egyptians and also the Jews provide a light for some weeks after a burial.

13. The great expansion of provision for the soul, passing in and out of the grave, was in the ivth–vth dynasties, with the statues, which are known to represent the soul coming forth from the tomb, see tomb of Mera and tomb of Nefer-seshem-ptah (*Capart, Rue de Tombeaux*). A few portions of statues are here, as:

78. Feet and base, 9.3 w., of "Royal acquaintance, chief of priests, (Ra) ka-men-(a)."

79. Feet and base, 6.5 w., of "Ra-ka-men-a." There seems no doubt that the name of the first should be completed as the second, as the breaks in the stone allow of the two signs being lost. Reign of Sneferu, iiird dynasty (*El Kab XVIII*, 55, p. 3). Both of limestone.

80. Foot on base of a "uab priest Sneferu . . m." Saqqareh. Limestone.

81. Wooden base of a figure of Emsaht, incised "Ha-prince, royal seal bearer, princely companion, *kher-heb* of the divine offerings, Emsaht." From his tomb, Asyut, xth–xiith dynasty, 9.8 long.

Many other parts of figures are in the *Minor Inscriptions*.

82. Wooden base of small statuette, 3.3 × 1.2, painted blue, with an altar in low relief before the figure, having two wells for offerings, and two channels. Ink writing "Devoted to"; remainder apparently not filled in. This proves that small wooden figures, only 3 or 4 inches high, were regarded as dwellings of the deceased, to receive the offerings, as much as the life-size limestone statues.

The whole subject of the ushabti figures, derived from the statues and changed to servants, is a volume by itself, *Shabtis*, with 45 plates. To include much here would have broken up the connected view of the funerary system.

14. The commonest of all inscribed monuments in Egypt are the funeral steles with the figures of the deceased receiving offerings, and inscriptions to ensure the perpetual supply to him from the gods. The stele, as shown by Maspero, is the door leading to the burial below; it is therefore expressly for the benefit of the wandering soul. The series of over 70 steles in University College will be catalogued under SCULPTURES. The scenes upon the walls of the tomb chapels are expressly stated to be sculptured that the deceased should behold all the things, and so enjoy them. They are on the same principle as the models of food, for the perpetual benefit of the wandering soul. The whole of this vast cemetery system belongs to this theory of the soul, and it would be inconsistent with any of the other three views.

The meaning of the chapel is emphasized by the provision of a narrow channel from the tomb below up to the chapel, in order to enable the soul to pass. In an early mastaba at Saqqareh, Mr. Quibell found long flues made from the grave up to the chambers of offerings: at *Deshasheh*, p. 9, a tube cut in the rock led from the burial shaft to the chapel; at *Tarkhan*

(ii, 5) reeds were placed in the corners of graves to allow the soul to pass in and out.

15. Lastly, the use of amulets of similars, the various members of the body, the claws of animals, the flourishing green papyrus stem, involve the simplest idea of gaining help and influence from magical means, also the amulets of powers, representing ability and authority, appear to be such as are most likely to have been associated with the earliest stage of beliefs about the future. Nearly all of the features which have been here noticed, are parallel to modern African customs (see *Ancient Egypt*, 1914, pp. 115, 159), and this strengthens the view that they belong together, and are the aboriginal system of Egypt, before other races came in from north, west and east.

Such are the various means provided in different ages to help the wandering soul. "It went forth by night . . . its organs needed nourishment as formerly did those of its body, and of itself it possessed nothing but hunger for food, thirst for drink; want and misery drove it from its retreat, and flung it back among the living. It prowled like a marauder about fields and villages, picking up and greedily devouring whatever it might find on the ground" (Maspero, *Dawn*, p. 114). To save the wandering soul from such misery it was provided with food, or the more permanent images of food, with a statue to inhabit, with a sculptured estate to behold and enjoy; or failing such comfort, it had a humble house provided with furniture and housemaid, with the door opening on to the grave close at hand; and its powers of life were protected, or produced, by similar amulets placed with it. All this was a gradual growth; but it was not hindered by other entirely different beliefs alongside. The Egyptian could go on developing quite incompatible ideas without any interference one with another; just as the driver of a motor or aeroplane now will continue to develop the lowest fetishism of amulets in "mascots." Humanity is never consistent, or it would be mere mechanism.

### CHAPTER III

#### THE KINGDOM OF OSIRIS

16. THE savage beliefs in an unsheltered and wandering existence for the soul, were overlaid by the new ideas which came in with the Badarian

civilisation. In these it seems that we should class together:

	Section.
<i>Future bodily existence, enjoying all things as on earth</i> . . . . .	17
The weighing of the soul.	
83-184. Life in the Fields of Peace and Reeds. Osiris the god of agriculture and vegetation . . . . .	19
185-186. Corn sprouting, as sympathetic magic.	20
187-192. Dismemberment . . . . .	21
Earthly existence, models:—	
193-202. Wife . . . . .	22
203-207. Clothing, sandals, collars, beads . . . . .	23
208-210. Slate palette, kohl pot, hairpins, comb, mirror, fan . . . . .	24
211. Head-rest, furniture, writing palette, games, music . . . . .	25, 26
212-217. Throwstick, flail, mace, dagger . . . . .	27
218-232. Tools . . . . .	28
233-238. Servants, ushabtis . . . . .	29
Granary . . . . .	30
239-256. Animals . . . . .	
Dolls and toys . . . . .	31
257-259. Amulets of property and sceptres . . . . .	32

17. The kingdom of Osiris is described in the Book of the Dead, with place names and geography copied from the Caucasus (*Anc. Eg.*, 1926, p. 41). What hesitation may have been felt about this is removed when we see the evidence of four later conquests coming from the Caucasus, in the viith, xvth, xxiind dynasties, and lastly under Salah-ed-din (*Ancient Gaza*, ii, p. 16) see sect. 2 here. Isis says "I made with my brother Osiris an end to the eating of men," on a stele in Deissmann, *Light from the Ancient East*, p. 140. Such was the revolution made by the Osiris worshippers.

18. The traditions still preserved till late times, describing Osiris as the corn god, evidently refer to the Badarian period when corn was introduced. The functions of Osiris were the converting of the Egyptians from cannibalism, by bringing in agriculture, the hoe and the plough, corn and the wine, and bread making; with permanent marriage, and the worship of gods, due to the same movement. The idea of the future life, in this connection with Osiris, is that of a perfected existence like that on earth. The soul had first to be accepted by Osiris, and further a declaration of innocence was made

(*Social Life in Anc. Eg.*, p. 66), the heart was weighed by Anubis, and the result recorded by Thoth. The heart needed to be heavy enough to balance the emblem of Truth (Book of the Dead, end of chapter i; and *L. Todt.*, pl. 1); thus evil was not regarded as positive—to weigh down the heart—but as a negative defect of omission. If the heart weighed light, the monster hippopotamus with a crocodile head was waiting, presumably to devour the person; or in other examples there is the figure of a pig being driven away from the judgement, presumably a transformation of the evil person (W., M. and C. iii, p. 467; Sarcophagus of Sety I).

19. Once accepted by Osiris, the person passed into a blessed state. He went to the Fields of Peace, *Sekhet Hetep*, among which was the Field of Reeds, *Sekhet Aäru* (the Iora of the Caucasus) or *Aälu*, often written *Aänru* (nr = l). The chapter cxxv of the Book of the Dead, the illustrations of which give the scenes of life in this future, refers to the Fields of Peace as a final stage at the head waters of the blessed river Iora. There is curiously no mention of Osiris in the long text, which refers to Horus and Set; it is therefore needful to look at the passages which connect Osiris with the Fields. In chap. i, which is addressed to Osiris, in the rubric the dead is promised that "his name shall be among the fields in *Sekhet Aänru*" (*L. Todt.*, p. 122). In chap. lxii, the "opening of the cool great place of Osiris" is named, and the dead will "go round about the lakes in *Sekhet Aäru*, and then arrive in *Sekhet Hetep*." In xcix, the dead says, "Let me come to see my father Osiris . . . and come forth in all forms in *Sekhet Aäru*." In the scenes of *Sekhet Hetep*, in chap. cx, there is on a canal the boat of (Osiris) *Unnefer*. In chaps. cxlv-vi, there are named "the pylons of *Sekhet Aänre* in the dwelling of Osiris." There seems no question, from these passages, that the blessed Fields were expressly the domain of Osiris; and the dead is promised that he shall "make his appearance as a follower of Osiris," after the judgment (cxxv, rubric).

In the text of chap. cx there is no mention of any servants or helpers, the dead person whatever his rank on earth was to do everything for himself. The illustrations agree with this, down to late times. The shabti figures buried in the tomb were only single figures, representing the dead person, to act for him in case of the destruction of his body. After the Asiatic influences of the xviii dynasty, a fresh belief crept in; the figures were multiplied, from

half a dozen up to 400, and they were inscribed as serfs to work for the dead whenever he was called on to do work by Osiris. The differences of rank and ability, therefore, which belong to the scenes of the wandering soul and its estates, had no place in the kingdom of Osiris; it was only long after, when foreign ideas changed Egypt, that the deputing of labour to inferiors first appears.

The description of the Fields of *Aälu* states that the glorified ones reap corn 9 cubits high, the barley had stalks of 7 cubits, of which 3 was the ear, the wheat was 5 cubits, of which 2 was the ear. This fertility is still seen on the Iora, with maize 7 to 10 ft. high. The wall round the region was of iron; this was doubtless settled by the occurrence of meteoric iron, from which the name arose "metal of heaven" for iron. The meteors were therefore fragments of the wall of the heavenly region. The last representation of the dead reaping in *Aälu* is engraved on haematite, of about the iind century A.D. (*Objects of Daily Life*, xi, 8a).

The portions of the Book of the Dead in the collection are:

83-181. Inscribed on linen, hieratic, with vignettes, chapters, or parts, 1 (4 copies), 15, 16, 17 (5), 18 (3), 26, 28 (2), 30, 43, 44, 45 (2), 47, 50, 81, 91, 92, 93, 125, 127, 128 (2), 129, 130, 134, 145 (3), 148 (2), 149 (3), 157, 158, 159, 161, 162. Saqqareh, 145 gates 12-16 (Edwards).

182. Painted on linen, one piece, parts of chaps. 81, 84, 87, 126. Rifeh.

183. Papyrus, parts of a finely written text, like Ani, chaps. 6, 38, 50, 64, 109, 113, 125, 126, 131, 136, 151. Rifeh. Part of chap. 42 with very delicately painted figures of gods (in *Writing section*).

184. Papyrus, chaps. 163, 164, 182, on the back a diagram of a shrine (Edwards) for *Pedusar*, son of *Nekht-ne-uast*.

20. Osiris as the founder of the civilisation and of agriculture naturally became a corn god, and is represented lying mummified amidst the vegetation at Philae (*Ros. Cult.* xxiii; *Hawara*, ii). Figures of Osiris containing corn were buried, also "Osiris beds" of sprouting corn (Davis, T., *Tomb of Iouiya*, p. 45). There is here a mud figure of Osiris, wrapped in linen, and buried in a mud mummy case, 9 ins. long. Pans of grain sprouted were also buried by the entrances of tombs; there are here:

185. pan-full of mud with sprouted corn, 6½ wide, Thebes.

186, earth with growing wheat, from a box beside the entrance to the pyramid of Lahun, Senusert II.

These pans of wheat were apparently amulets of similars, to promote the revivification of the dead, regarded as being one with the corn-god Osiris. On the various connections of Osiris with vegetation see Murray, *Osireion*, pp. 27-29.

21. One of the greatest features of the Osiris myth is his dismemberment and reconstruction. This must be taken in connection with the dismemberment often found on the actual body, and the reconstruction sometimes found, and also described in the Pyramid Texts. The instances of the dismemberment are stated in *Naqada*, pp. 30-32; other graves in *Diospolis*, pp. 32-36, see nos. B. 17, 24, 37, 102; H. 16, 36, 76; R. 111; U. 96, 261; other graves in *Labyrinth and Gerzeh*, pp. 8-11; the iiiird dynasty nobles unfleshed, in *Meydum*, pp. 13-19; other graves in *Deshasheh*, pp. 20-24. The account of reconstruction of the bones in the Pyramid Texts has been fully collected in *Labyrinth*, pp. 11-15, by Wainwright. It is useless to restate the dozens of instances of dismemberment which cannot possibly be explained on any other hypothesis; they are incontestable, and are amply supplemented by the written evidence. There are here examples of parts of mummies wrapped up.

187. Shin bone with splint bone placed in front.  
188. Foot with ankle bones misplaced.  
189. Two shin bones wrapped up together, all showing un-fleshing and separation of bones.

*Deshasheh*  
vth-vith dyn.

One of the most usual mutilations was the removal of the head, not merely an attack by a plunderer, but the burying of other objects in the place of the head, and the subsequent placing of the head in some special position, as upon a pile of stones. This cannot be separated from the present West African custom of removing the head, and keeping it as an object of family adoration, placing it amid all the ceremonies and interests of family life (*Anc. Eg.*, 1914, p. 117). The head being thus removed, it was very important to provide that if it were not restored to the body there should be a duplicate head for the soul of the dead (see *Shabtis*, pp. 1, 2). Hence stone heads were placed in the grave. They

are not found in the prehistoric age, but appear in the ivth dynasty; there is here:

190. Stone head, 10.2 high, ivth dynasty. For others found by Dr. Reisner, see *Museum of Fine Arts Bulletin*, Boston, April 1915, and *Anc. Eg.*, 1916, 48.

The question now is, in what period this custom of dismemberment arose? It is not found in the Badarian prehistoric age, the Osirian civilisation, but it appears in the Amratan. The division of the body of Osiris being represented as being made by Set, an enemy, suggests that it belongs to the introduction of Set worship. It was a usual custom in Neolithic times in Europe, and it seems to have entered Egypt with the Amratan invaders from Libya, and continued until it died out in the vith dynasty (see *Deshasheh*, pp. 20-24).

Perhaps part of the attention paid to the head is shown by the gold plates embossed, placed over the eyes, and specially the tongue. Here there are:

Pair of eye plates (*Amulets*).

191-2. Five tongue plates (3 in *Amulets*). For others, see *Labyrinth*, xxxvi.

22. For the renewed bodily life in the future there were many objects placed in the tombs; these are much more detailed than could be required by the wandering soul, and they seem therefore to be placed for the benefit of the life in Aälu.

*Wife figures*.—There are several classes of nude female figures which need to be distinguished. (1) Female statuette along with master (*Sedment*, xi). (2) The funereal offerings of figures on couches, beginning in the xviiiith dynasty, and continuing on till they become degraded figures found in Greek and Roman town sites. (3) The religious figures, some excessively rough, holding the breasts, and attributed to Ishtar and Ninlil—when found in Babylonia. Later there are terra-cotta figures of a woman, nude, in a shrine with offerings and a child, or Roman figures with palm trees, or figures of Bes; also figures of the Aphrodite type in a shrine, and variants of these down to the most pan-demic. (4) The doll figures; cut short at the knees, in limestone, and in blue glaze, of the xiith dynasty; these might be thought to be wife figures, but a large figure in wood of this type was found with the burial of a girl and her toys, settling that these are dolls. Other doll figures are of pottery very roughly made, sometimes with a child on the back. All of these are catalogued in *Objects of Daily Use*, li-lv, *Labyrinth*, xxx.

The earliest of the wife figures are of the late xviiith or early xviiiith dynasty, see *Qurneh*, xxxi. These are made as separate figures to lay on a pottery couch. There are here:

193. Double couch, with lines of cross threading, a symbol incised at foot end, two pillows at head end, one broken away, four legs; 5.2 long. Female figure, arms bound, 4.4 long, not found with couch. (*Anc. Eg.*, 1917, p. 77.)

194. Double couch, on four legs, with two pillows, partly broken, 6.5 long. *Qurneh*. Female figure, with left arm across chest, 5.2 long; not found together.

195. Another such figure, 4.2 long.

The following were marked with an asterisk\* are not placed in the collection with funerary objects, but are classed with statuettes, under *Sculpture*.

\* Figure on couch, painted, slab without feet, 9.0 long, 4.6 l. Gurob, with an infant and branches 5.7 l. Gurob. Upper half of a figure of fine work with cone on head, couch on short legs. All the above, xviiiith dynasty.

196. xixth dyn. Figure, on couch, with block foot each end, rough. 4.4 long.

197. Figure on a slab, mud. Riqqeh, 8.7 long.

198. Figure sideways on slab of pottery, slight foot ridge, 4.7 l.

\* Figure sideways, with infant, on limestone slab, 4.9 l.

\* Figure sideways, with infant, pottery slab, 5.2 l.

\* Head of another, Gurob.

\* Figure, plain, relief, 4.2 l.

Mud figure in the round, Gerzeh, 8.0 long.

\* xxth dyn. (?). Figure in the round, lying on couch with four legs, and headrest, child at feet, 6.8 l.

xxvith dynasty. *Figures on couch raised at side*.

\* On couch on four legs, child at head, painting rosettes and zig-zag, limestone, 6.3 l.

\* On couch, very rough, limestone, 3.3 l.

199. On couch, child at feet, limestone with red painting, 5.5 l. (See *Naukratis I*, xix.)

200. On flat couch, with pillow, limestone, Memphis, 3.2 l.

201. Head of similar, but larger, figure.

202. Flat slab with figure in recess, limestone, 4.9 l.; another 4.0 l.

Those with \* are placed with statuettes.

23. Boxes are often placed in tombs, to contain clothing, food, and toilet objects.

203. Box with sliding lid, 7.0 × 5.3 × 2.8, of

hard wood, containing nuts and *dum* fruit, xiith dyn. (?)

204. Box with sliding lid, 5.1 × 3.4 × 2.0, painted to imitate ebony inlay. Burial of Sät-rannut, Hawara, xiith dyn.

*Clothing*.—The earliest burials of the prehistoric time are covered by goat skins, which were probably the dress, see *Naqada 29*, 1563, S.D. 32, and *Diospolis*, p. 34, S.D. 30. Woven linen is found soon after, but was only used over the body, and not as a separate offering. A large quantity of plain linen was thrown out of a ist dynasty mastaba (*Tarkhan II*, p. 6). The fullest account of made up clothing offerings is of the vth-vith dynasties, when white dresses, folded up, were placed by the side of the body (*Deshasheh*, pp. 16, 31, 32). Of about the same period are large plain wrappers and lengths of linen in coffins at Tarkhan (*Heliopolis, etc.*, pp. 12-19).

In later times spare clothing was not usually buried.

Model sandals were buried in the early prehistoric age, S.D. 32; see a pair in ivory (*Diospolis*, x, 19). Pairs of wooden models are of the vth or vith dynasty (*Deshasheh*, xxxiv, *Heliop.*, xiv). Models in wood also occur in large burials of the xith-xiiiith dynasties—see Garstang, *Burial Customs*, pp. 63, 88, 110. Actual sandals of palm leaf or fibre are catalogued in *Objects of Daily Use*, 12 of papyrus, 4 of coiled fibre, 4 of leather, 2 of cork, also 5 shoes of leather; 3 of the xixth dynasty, the rest Roman. Also a coiled fibre sandal is with a group (in *Roman Portraits*, xvi). The only distinctly funeral model here is:

205. Pair of sheet bronze sandals, with punched ribbing; probably late.

206. The tie and flap of the girdle carved in wood, 4.6 w., 7.2 l., was on the body of mastaba 17, Meydum, iiiird dynasty.

Collars of beads, with falcon-head ends, were usual in good burials of the xiith dynasty (*Burial Customs*, p. 112). A painting of a large collar is here on a cartonnage of the vith dynasty. See below under *Cartonnage*, sect. 45.

207. Green glazed falcon head of a collar, 3.2 wide; Harageh.

Beads of necklaces are the commonest objects with burials. As an example of the variety found together, see the group of Sät-rannut.

24. *Toilet objects*.—The slate palettes for grinding malachite, to paint under the eye, are found from



the Badarian through the whole prehistoric age, and down to the middle of the ist dynasty, S.D. 81 (*Tarkhan I*). They are catalogued in *Prehistoric Egypt*, xliii, xlv.

The kohl pot was the successor of the palette. In the Old Kingdom, small vases of green or blue glaze were used, see *Glazes*. Little alabaster vases of the same form were used in the ixth-xith dynasties (*Dios.*, xxviii). In the xiith dynasty these became the regular kohl pot, with narrow neck, wide flat brim, and flat lid on it to keep out the dust. The forms became clumsy and ugly in the xviiiith dynasty, down to Tahutmes III, when Asiatic influences brought in the tube form (note Keren-ha-puk, "horn of antimony," Job's daughter). For all these, see the Catalogues of *Stone Vases*, xxx, xxxi, and of *Daily Use*, xxii. After the xxth dynasty, the use of kohl seems to have vanished, and no provision of it is found in the tombs until, in Coptic times, it occurs in wooden tubes, which are turned and painted.

Mirrors begin to appear in graves of the vith dynasty, and they abound in the xiith and xviiiith, and are usually painted on the sarcophagus. One here, 208, is from the tomb of Emsaht at Asyut, in a group of ixth dyn. For the forms, see *Objects of Daily Use*, xxiv-xxix. Afterwards the Egyptian ovoid form disappears, and the Greek and Roman circular mirror is general.

Combs are usual in the earlier prehistoric age, with animal figures on the top, and long teeth for fastening up hair. In the later age they were merely short scratch-combs. They are rare and small in the ist dynasty, of ivory; are also rare in the xiith dynasty, of wood, and are never among objects painted on the sarcophagi. In the xviiiith dynasty, combs were often buried, but after that there is an entire gap till Roman, Coptic, and Arabic combs of wood, which are common. These are in *Daily Use*, xx, xxi.

Hairpins (see *Daily Use*, xix) are found all through the prehistoric age, with carved heads. They are rare and shapeless in the ist dynasty; there are some in the xiith tombs, they are much more usual in the xviiiith-xixth dynasties, and after that vanish till the great mass of them in Roman times. For hairpins and comb in position on a prehistoric head, see *Diospolis* vi. None are shown on sarcophagus paintings.

Fans are rare; they are figured on sarcophagi along with the mirror, showing that they were for

personal use, and not for fanning a fire. There are here:

209. Solid model fan, copper, tomb of Mena, Denderah, vith dyn., 5.3 wide.

210. Openwork fan, copper, Diospolis, D. 7, vith dyn., 4.4 wide.

Trays for sandals are of the ist dyn., see *Tarkhan I*, xi, xii.

25. *Furniture*.—The burial of couches with the dead was usual in the late prehistoric and ist dynasty tombs; the most complete examples are in *Tarkhan I*, viii, ix. There are here two side poles of such a couch; also four lion-head legs of Roman couches, in *Daily Use*, xl, xi, xii. For couches of the iiird dynasty, see *Tomb of Hesy*, xviii-xx. A funeral model is:

211. Couch model, frame work, from grave of Sät-rannut, 19.4 long, xiith dyn. *Labyr.* xxx, 35-6.

The finest examples of furniture are those of the tomb of Iouiya.

Headrests. The earliest dated are the figures in *The Tomb of Hesy*, xiv, of the beginning of the iiird dynasty. On the early types see *Heliopolis*, 20, xviii. The double pillar type gave way to the single pillar in the ivth dynasty. The single block belongs to the vth and vith dynasties. The head-piece supported on six sticks is of the xth or xith. A very massive well-cut single block was made in the xith and xiith. This was fined away and sometimes inscribed in the xviiiith and xixth. After the Ramessides there are no wooden head rests known, and the stone head rests of later times are never found in tombs. See catalogue of *Daily Use*, xxx-xxxii.

Walking sticks are often found in tombs of all ages. See *Daily Use*, 47.

Writing palette. The earliest found in a tomb is of the middle of the ist dynasty (*Gizeh and Rifeh*, iii). The two pans, for red and black ink, were carried in this form in the iiird dynasty (*Hesy* panels), but by the ivth dynasty the long wooden case for the reeds had the two saucers cut at the end of it, in the form which lasted till late times, probably Roman. The examples of palettes here are in *Daily Use*, lvi-lxix.

26. Games have been discussed in the catalogue, *Daily Use*, xlvii-xlix. Various gaming pieces belong to prehistoric times; the boards and pieces are figured in the *Tomb of Hesy*; the deceased in the Book of the Dead, chap. xvii, is represented playing draughts (*Any*, and *Trin.* Coll. Dublin); draught

boards, of 3 × 10 squares, have often been found in tombs; and in the Ptolemaic tale of Setna the dead in the tomb is said to play a board-game with the living.

Musical instruments were also provided, see *Daily Use*, l. Reed pipes are found buried in tombs (*Illahun*, xxvii; *Leyden*, *Cat.* II, ccxliii; *Burial Customs*, pp. 154, 155); a pottery model of a citharist was found in a grave (*Hyksos Cities*, xxxvii B). There are here models of a citharist, a lyrist, and a piper and drummer, which were probably for funereal figures; also part of a lute, and Roman pan-pipes, from tombs.

27. *Weapons*, see *Tools and Weapons*.—From the earliest time, the dead was provided with weapons; the disc mace in the Amratian civilisation, followed by the pear mace, Gerzean, being the most usual. Practically all known kinds of Egyptian weapons have been placed in tombs for the use of the dead. The funeral models here are:—

Red pottery, 4 forked lances and dagger; 4 painted wood daggers, in *Prehistoric Egypt*, xxviii.

212. Limestone mace head, with cross binding painted. Hawara, xiith dyn., 2.3 high.

213. Parts of painted limestone model flail, found with previous (*Labyrinth*, 36, xxxi).

214. Alabaster model of a mace head, 1.0 high.

215. Ceremonial flail of green glaze and carnelian. Harageh 49, xiith dyn., 7.0 long.

Set of 6 model copper daggers, 3.3-4.4 long. Painted wood model dagger, *Illahun*, 12.1 long, xiith dynasty. These daggers are in *Tools* catalogue.

216. Wooden model of a dagger with handle, 10.3 long. Presented by Mr. S. Bruzard.

Throwstick, from a tomb, *Lahun*, 37.0 long. With 4 others in *Tools*, xliii, lxix.

Bow and arrows. Red and white prehistoric, black banded prehistoric; 3 plain wood, and reed arrows, historic (in *Tools*, lxix).

217. Wooden model of *ped aha*, "the upright bow," in a case. *Kahun*, xiith dyn., 7.6 l.

28. *Tools*.—A great variety of tools are found in graves; of the prehistoric age are harpoons, model flint knives and long arrow heads of flint, chisels, adzes, and axes of copper (see *Prehistoric catalogue*). Of historic times are chisels, adzes, axes, cutting-out knives, borers, prick points, tweezers, and hair curlers of copper and bronze (see *Tools and Daily Use catalogues*). The models made for funereal purposes are:—

218. Copper axes, 1.7 wide, *Meydum* 17, iiird dyn.

219-20. Copper axe, 2.7 long; adze, 2.6 long; tomb of Mena, Denderah, vith dyn.

221. Copper hoe, with cross tie, 3.8 long. Edwards coll.

From tomb of Emsaht, Asyut, ixth-xith dyn., as follows:—

222-3. Two model copper axes, in handles, 13.5 l.

224-6. Three model copper chisels, in handles, 5.5 to 6.0 l.

227. Wooden mallet, pear-shaped, 4.1 l.

228-31. Four wooden adze handles, 6.8 to 8.2 long.

232. Piece of box painted with black chequers.

Set of copper, 2 adzes, 2.8 l; small adze, 1.8; cutter, 1.7; chisels, 1.6, 1.8; axe, 1.6.

Set of copper, chisel, 1.8 l.; adze, 1.3; axes, .7 long.

Axe with open socket, .9 long, Greek (?)

Broad axe, open socket, 2.3 long, Roman.

Those in bracket are catalogued in *Tools*, from unknown sources. For a set of the vth dynasty, see *Ne-user-ra*, p. 115.

29. *Servants*.—Figures of servants are often found from the vth to the xiith dynasties, engaged in domestic work or agriculture. Whether these are to be regarded as equivalent to the wall sculptures may be questioned. In the vith dynasty the figures of domestics, and of the boats for ascending and descending the Nile, are painted on a board in one tomb, and sculptured on the walls in another tomb (*Deshasheh*). So the equivalence with the painted wooden figures seems probable. Yet it would seem incongruous for a staff of servants to be supplied to the wandering soul, though the beholding of his estates might be thought applicable. The two beliefs are so remote before the Old Kingdom that we cannot expect to find clear bounds to the different ideas. The figures of servants will be catalogued under *Statuettes*; they are:—

Woman carrying square basket, 13.5 high.

Woman standing, 14.0 high.

Girl, with forehead shaved up to vertex, 8.3 h.

Man, carrying square basket, 9.9 h.

Seated men, 6.5, 5.3, 4.9 high.

The ushabtis, which were at first a continuance of the personal statue, became assimilated to servants in the end of the xviiiith dynasty, and at last frankly serf figures. This class, and the history of the formula, are given in the catalogue of *Shabtis*. We may note in the Funerary section here:

233. Collar or pectoral of 50 glazed pottery

ushabti figures, about as many long beads, and more ball beads, red, blue and purple, with glass ring of Ramessu II, heart scarab (nameless), canopic Osiris of steatite, and of purple and green glaze, steatite amulet of Tehuti and Anubis (?) seated, etc., a group, from Gurob, xixth dyn., ushabtis, 1.6 high.

Lids of ushabti boxes, curve-topped, wood painted, for :

234. Kho-u-uast, 5.2 × 3.2.

235. Singer of the table of Amen, Bak-ne-urnure, 4.9 × 3.7.

236. Scribe of the *neb-tau*, Mure, 5.1 × 3.5.

237. Nesament, 4.1 × 3.5.

238. Square, flat, with *okhm* falcon on top, demotic inscription, 6.1 × 5.2. Similar falcon, 4.6 long. See *Shabtis*, 13.

30. Granaries are sometimes found, with figures of servants bread making (see *Sedment*, xi, xx, xxvi). Wooden figures of animals belong to the same system. They are not food offerings, as they are represented as living.

239. Piebald cow, very rough, 13 long.

240. Black and white ibis, 10.1 long. Tomb of Emsaht, ixth-xiith dyn.

241. Duck, blue and white feathers, 5.3 long, Emsaht.

242. Two geese, ibis, hoopoe, and lamb, with *Sculpture*.

From tombs at Tell el Amarna, xviiiith dyn. :

243. Ibis, 4.0 long, headless.

244. Ibis head, 4.5 long.

245-7. Ibis bodies, 4.3, 3.3, 3.0 long.

248. Duck (?), 5.0 long.

249. Bird on peg, painted, 4.0 long.

250-1. Crocodiles, 12.0 long, very rough, 6.0 long.

252-6. Five fish, 7.5 to 5.0 long.

31. *Dolls and toys*.—It is difficult to distinguish, in the prehistoric age, between figures that were for children and figures used for religious or magical purposes. Not till the xiith dynasty do we find a separate class of toys distinctly for children. The most conclusive class is made in mud, by the children themselves (*Daily Use*, liii); these figures are entirely for the living, not for burial, but among them is a model sarcophagus and mummy. Pottery dolls with bushy wigs are sometimes found in graves; there are 10 here, besides 12 fragments. The dolls, cut off at the knees, are proved to be such by that in the burial of the girl Sät-hathor; there are two perfect ones of blue glaze (in *Sculpture*) and two broken, from Kahun (in *Daily Use*, see *Toys*). The

same type is found in limestone, of which there are three here and a bust (*Toys*). Wood dolls are of two types, those in the round, 3 of which are here, and those cut in flat board and painted, 4 here. Rag dolls were made very rudely, two are here, and see *Burial Customs*, pp. 152-3. All of these are of the xiith dynasty, and catalogued in *Daily Use*, li-lv. In Coptic times bone dolls are frequent, 7 here.

Complete sets of dolls and toys here are of Sät-rannut, xiith dynasty, and two of Roman age, see *Hawara*, xix, xx. A fine group is in *Roman Portraits*, xiv.

Balls of leather made in gores are mainly of the xviiiith dynasty, 3 are here.

All of these toys are in the Catalogue of Games and Toys (*Daily Use*, li-lv).

32. The Amulets which agree with the Osirian future of the person are those representing property; also the charm cases, cylinders of metal, to contain a roll of papyrus. Beside these, all in the catalogue of *Amulets*, there are :—

*Uas* sceptre, hard brown wood, 32.9 l., Lahun. Head belonged to another *uas*. Stems of two sceptres, 34, 39 l., broken, Lahun.

257. *Uas* sceptre, head partly gone, 20.7 l. Meydum, Mast. 17, iiird dyn.

258. *Kherp* sceptre, 30.7 l., head 9.0 long; same tomb; has been longer at handle end.

259. *Kherp* sceptre, 20.5 l., but handle substituted; head 7.2 l., or 5.6 flat blade, painted yellow blade, with blue outline, red and blue calyx. Asyut, Tomb of Emsaht, ixth-xiith dyn.

#### CHAPTER IV

##### LIFE WITH RA

33. The Heliopolitan worship of Ra was far older than its revival in the vth dynasty. The sacred emblems kept in the temple at Heliopolis were the *heq* sceptre and the flail, the emblems of the principality in some remote age. Ra pervades the Book of the Dead and the Pyramid texts evidently long before the Pyramid period. At the same time this worship is an accretion on the Osiris system, and hence it must be after the Badarian civilisation.

The tokens of the belief in the dead going to the boat of Ra, are the provision of boats and equipment to enable the dead to join Ra. These are :

Number of Object.	Section.
260-320. Boats of pottery or wood	33, 34
Paintings of boats.	
321-3. Pyramidion of Râ	35
Amulets of the Râ boat, and of animals	36

In the Book of the Dead, chapters 133, 134, 143 are for acquiring power with Ra; chapter 99 for the knowledge of the boat to follow Ra; chapters 100-102, 130, of entering the Ra boat; chapter 136 for being conveyed by the Ra boat. A model boat was necessary to reach the heavenly Ra boat.

As Ra went through the hours of night, so had the soul to do who accompanied Ra; and therefore these directories were provided, giving the description of the successive gates and the watchwords to be used in passing them, which fill chapters 144-146 of the Book of the Dead. Of these chapters there are here examples of :—

Chapter 134, the boat of Ra, with the 9 gods and the bird-soul in the disc;

Chapter 145, portions of three different books, of the pylons;

these are all written on linen.

34. *Boats or ships* (for forms, see *Anc. Eg.*, 1933).—There is one appearance of a ship on the early prehistoric pottery of the white-lined class (*Prehistoric Egypt*, xxiii). After this, in the second civilisation, figures of ships abound on the pottery, from S.D. 45 to 63. Are these to be regarded as in material life, or in future life? First, there is never any suggestion of a corpse or a catafalque, or of any one person prominent; where there are figures they are in common action. Second, there is never any solar or celestial representation about them. Third, there are distinctly local emblems borne by the ships as standards; out of 32 ensigns only four belong to gods, and there is only one pot known with the disc of Ra. This proves that the Ra sign was known, yet it is only casually—as a place sign—that it once appears connected with the ships. The conclusion must be that these paintings refer to common earthly ships, and not to the future world.

The only prehistoric boats that may have a spiritual meaning are the models found in graves. There are plain boat models of S.D. 32, 33, 35, 36, and a model with painted figures of oarsmen at 52. Much more distinct are the pottery model boats

ending in a rosette knob at each end, with a seated figure in them, and occasionally a string-work canopy over them. These have only been known through dealers, are therefore undated, and were suspect; but the fragile state of the string canopy proves their antiquity. The boats here are :

Seven of red pottery, polished, ends curved upward, some like a bark canoe; 3.2 to 9.3 long.

Brown pottery boat, with string canopy, and loose figure seated, fitting in it; 22.3 long, canopy 5.8 long.

Buff and red painted pottery boat, with rib lines, 2nd period, 13.0 long.

(The above in *Prehistoric Egypt* catalogue.)

260. Pottery boat with seated figures at the end, and a bier with a mummy lying on it; 9.2 long; by the brown ware with buff wash over it, this is evidently of the xith dynasty.

261. Wooden boat 28.5 long, with mast, yards, sail, oar, 4 seated rowers, 4 sailors standing, and a captain. The sailors and captain are let into the deck and plastered; the rowers (who have no place in a sailing boat) have been pasted down on the deck, apparently faking done in the Cairo Museum, where this was bought.

262. Yard, 27.9 long, finely tapered. Tomb of Emsaht.

263. Steering post, 14.5 long. Tomb of Emsaht.

264-302. Loose figures of boatmen from :

	Standing	Seated	Kneeling	Squatting	Scribe
Beni Hasan	—	7	—	—	—
Ehnasya	4	6	7	1	—
(Statuettes)	8	6	4	2	2

303-5. Oars, ridge blades, curved tips, 3 from Beni Hasan, 7.4 long, xiith dyn.

306-14. Oars, flat blades, rude, 9 from South tombs Tell el Amarna, with them :

315-16. Two tops of steering oars with falcon heads, and

317. Horizontal bar with falcon head.

318-20. Two mooring pegs and mallet, Beni Hasan.

It should be noted that the models of boats are of three classes, those for sailing up the river, those for rowing down, and the guard boats armed. The up and down boats are best shown in those from the tomb of Nekht-onkh, at Manchester, see *Gizeh and Rifeh*, xc. These, with the guard boat, were found

at Beni Hasan, tombs 186 and 585 (*Burial Customs*, pp. 84-5 and 94 with 96-7). This distinction is seen also on the painted board (*Deshasheh*, xxvii) of the vith dynasty, where the rowing and sailing boats are going in opposite directions. The presence of steering and rowing oars in the South tombs at Amarna, shows that the funeral boat was revived in the Aten worship, although it does not appear in other tombs of the xviiiith dynasty.

35. The worship of Ra is particularly associated with the obelisk and its top pyramidion. In the xvth chapter of the Book of the Dead, which is the adoration of Ra, there are obelisks on each side of the way to the pile of offerings, like the two steles one each side of Sneferu's altar at Meydum (*Leps. Todt.*, pl. v). In the Leyden Museum are three pyramidia, each bearing adorations to Ra (*Leyd., Mon.*, III, pp. 1-4). In the Alnwick collection is a pyramidion with adoration of Ra and Osiris. In this Collection are the following:

321. Pyramidion, limestone, 12.6 high, 12.0 wide. Front, sun on horizon, *aakhut*. Scarab below, mainly cut away later in making a recess. Side, baboon adoring, wearing the *uzat*. "The devoted Osirian, Nes-nub-hetep, born of the lady of the house, Ast-ar-dus, fourfold adoration of the god." On the other side, baboon similarly, "Fourfold adoration of the god; the devoted Osirian Nes-nub(-hetep), son of the registered (*am as*) *ka* servant, prophet, Nub-hetep. Nes-hor, born of Ast-ar(-dus)." Back flaked, traces of "Nub-hetep." Early xxvith dyn.

322. Pyramidion, limestone, 10.5 high, 11.0 wide. Front, winged scarab holding the sun disc, *shen* below. Sides, Anubis-jackal couchant on shrine, with flail and collar. Back, sun on horizon, *aakhut*. Gurob, xviiiith dyn.

323. Pyramidion, curved sides. Disc, held by arms of the *zed* sign below it, in a boat; a baboon on each side adoring. Gurob, xixth dynasty.

36. The amulets of the Gerzean prehistoric age are all animal forms; the baboon, hippopotamus, bull's head, ram, lion, jackal, claw, crocodile, snake, ibis, falcon, frog, fly and beetle. Protection by the sacred animals seems to have been the leading idea at that time. In the xviiiith dynasty are glazed pottery amulets of Ra in his bark adored by baboons (*Amulets*, 181h), also scarabs (*Kahun*, xxiii, 75; *Illahun*, xxiii, 88), and in the xxiind dynasty on a *menat*, and on openwork finger rings (*Ill.*, xxix, 21-24).

CHAPTER V

THE REVIVED BODY

37. THE scenes of the Book of the Dead in which the mummy appears are the following. The 1st chapter of the funeral procession, in which the dead declares his unity with each of the gods, and appeals to those who regulate the house of Osiris to bring him there, to provide food and drink, and to open the ways to him. The mummy itself is only described in the clivth chapter, where it is represented in the tomb chamber; the appeal to Osiris is made to preserve the body from all decay, and it concludes, "I am, I am, I live, I live, I grow, I grow, and when I shall awake in peace, I shall not be in corruption, I shall not be destroyed in my bandages. I shall be free of pestilence, my eye will not be corrupted, my . . . (?) will not fail, my ear will not be deaf, my head will not be taken away from my neck, my tongue will not be removed, my hair will not be cut off, my eyebrows shall not be shaven off. No grievous harm shall come upon me, my body is firm, it shall not be destroyed. It shall not perish in this land for ever." This is the main text for showing the purpose and idea of mummifying. It was expressly that the dead should in future live, grow, and awake in peace. The chapter cli calls on Anubis, Isis, and Nebhat, with the amulets in the wall, to protect the mummy in the tomb; and chapter clxxxii refers to Thoth repelling all the foes of Osiris, and therefore of the dead who is Osirified.

38. The provision for the revived body may be classed as:

Number of Object.	Section.
Funeral procession . . . . .	39
Preparation of mummy . . . . .	40
324-47. Embalming and wrapping . . . . .	41-4
349-66. Cartonnage . . . . .	45
367-9. Portrait . . . . .	46
370-9. Animal mummies . . . . .	47
380-7. Wrappings . . . . .	48
388-92. Neck-band . . . . .	49
393-504. Label . . . . .	50
505-18. Casing of the body . . . . .	51
519-29. Plaster mask . . . . .	52
530-64. Mummiform coffin . . . . .	53
565-72. Catafalque . . . . .	
573-5. Censer . . . . .	54
Slabs of outfit.	

Number of Object.	Section.
576-81. Hypocephalus . . . . .	55
582-6. Pectoral scarab . . . . .	56
587. Name . . . . .	57
588-619. Sons of Horus . . . . .	58
620-53. Viscera jar (canopic) . . . . .	59
Ptah-Sokar-Osiris figure . . . . .	60

39. *The funeral procession.*—This is often represented in chapter 1 of papyri of the Book of the Dead, and sometimes in tombs. The order of the procession was fairly constant, as is seen by the numbers given here, of the order in each of the principal copies.

	Any	Hunefer	Nebqed	Roy	Nes-her-pa-ra	Auf-onkh	Ast-urt	Nes-nekhtu	Pedu-her-pa-ra
Tomb in desert . . . . .	1	1	1	1	1	1	1	1	—
Stele . . . . .	2	2	2	2	2	2	2	2	—
Anubis and mummy . . . . .	2	3	2	3	3	3	3	3	—
Mourners . . . . .	3	4	4	4	4	4	4	4	—
Opening of the mouth . . . . .	5	5	3	5	* purifying	6	6	6	—
Offerings . . . . .	4	6	5	—	—	—	—	—	—
Obelisks, a pair . . . . .	—	—	—	—	—	7	5	6	—
Priest in panther skin . . . . .	6	7	—	3	6	9	7	8	—
Instruments on table . . . . .	7	8	—	—	7	8	6	7	—
Scribe . . . . .	8	10	—	—	8*	10	8	—	—
Obelisks, a pair . . . . .	—	—	—	—	—	—	9	—	—
Offering table . . . . .	10	—	—	—	9	11	10	9	1
Cutting up, calf, cow . . . . .	9	9	—	—	10*	12	11	—	2
Furniture . . . . .	—	—	—	—	11	13	12	—	3
Four standards borne . . . . .	—	—	—	—	13*	14	13	10	4
Mourners . . . . .	11	11	—	6	—	—	—	—	—
Men with furniture and bouquets . . . . .	12	—	—	—	—	—	—	—	—
Chair carried by man . . . . .	12	—	—	—	—	—	—	—	—
Water carrier . . . . .	13	—	—	—	—	—	—	—	—
Kine and men dragging bier . . . . .	14	13*	6*	7	12*	15*	14*	11*	5*
Priest censuring . . . . .	15	14	7	9	14	—	15	12	6
Mummy on bier . . . . .	16	15	8	10	15	—	16	13	7
Men following . . . . .	17	—	—	11	—	—	—	—	—
Dragging the Anubis coffin . . . . .	18	16	9	13*	16	16	17	14	8
Dragging a shrine . . . . .	—	—	—	—	17	17	18	15	9
Carrying furniture . . . . .	19	—	—	—	—	—	—	—	—
Mummy on mat . . . . .	—	—	—	—	—	—	—	—	10
Mourners . . . . .	—	10	12	18	18	19	16	11	11
Menservants . . . . .	—	11	14	19	19	20	17	12	12

The sources of these copies are *The papyrus of Ani* (Brit. Mus.). *The papyrus of Hunefer* (Brit. Mus.). *Le papyrus de Nebqed*, Deveria and Pierret (Louvre). Tomb of Roy, Rosellini, *Mon. Civ.*, pls. 128-9. Nes-her-pa-ra, *Description de l'Egypte*, II, 60. Auf-onkh, Lepsius, *Todtenbuch*. Ast-urt, *Aegypt. Mon.* . . . *Leyden*, T. 16. Nes-nekhtu, *A. M. Leyden*, T. I. Pedu-her-pa-ra, *Papyri* . . . *Belmore* (Brit. Mus.).

The changes which took place in the scenes were

probably long overdue before they affected the stereotyped figures. Just as the actual garments in a tomb of the vth dynasty show that the monumental dress on the early sculptures belonged to a past age, so the sacred scenes were copied long after the actual custom had changed. The differences that we see are therefore post-dated. The papyri fall into two groups, those of the xviiiith-xxth dynasties, and those of the xxiiird ? to Ptolemaic. The Belmore is probably the last, as it has wide differences from the others, in the second introduction of the mummy, and the absence of a sacrifice. The differences we note here are starred numbers in the list.

The first change to take place was misunderstanding the kine drawing the funeral bier; in Any and Roy they are harnessed, after that the men draw it, and the kine have no meaning; in Nes-her-pa-ra the cow has plumes as a sacred animal, and the standard bearers come between her and the bier. The Anubis coffin is carried on men's shoulders, instead of being dragged, in the tomb of Roy, and this may be the earliest type.

The changes after the Ramesside age are that the ceremony of opening of the mouth disappears, and a purifying priest pours water over the mummy. The scribe has two tall feathers on his head. The scene of cutting a leg from a living calf, and presenting it as an offering, is altered to having a usual form of bound and slaughtered cow, from which a leg-offering is cut, while the previous cow and calf appear with no connection to the subject. In Pedu-her-pa-ra the sacrifice has disappeared altogether; but that may be due to the omission of all scenes before the table of offerings. The four standards, or eight in Auf-onkh are in the following order, with those of the 1st dynasty.

	Narmer	Nes.	Auf.	Ast.	Nesn.	Pedu.
Jackal . . . . .	3	1	1	4	1	1
Ibis . . . . .	—	3	2	3	3	2
Hawk . . . . .	1, 2	2	3	—	2	3
Bull . . . . .	—	—	4	—	—	—
Vulture . . . . .	—	—	5	—	—	—
Flesh . . . . .	4	4	6	2	4	4
Double plumes . . . . .	—	—	7	1	—	—
Okhem hawk . . . . .	—	—	8	—	—	—

It is curious to see the old standards of the 1st dynasty, brought in about the xxiiird to such an inappropriate place. The kine employed to draw the bier were separated from it as early as Sety I

(Hunefer), and in all the five late papyri they are reduced to a single cow, and sacred emblems added, showing the ignorance of the copyist. That the whole subject is not simultaneous but successive is evident from the repetitions of the mummy, held by Anubis, on the bier, and in the latest time repeated again between the mourners.

40. *The Mummy*.—There does not appear to be any evidence of the preparation of the body in the prehistoric age. The many well-preserved bodies of that time are merely dried by the extreme dryness of the air in Upper Egypt. I have found a dried body of a young dog in a rock pit, that was quite perfect; the animal had simply slipped in, and could not escape. I have found bodies of men, murdered a few weeks before and roughly buried, with the flesh dried hard and dark brown. It is said that a "mummy" brought by a tourist from Aswan was identified as the body of an English engineer who had died there. The only piece of a body of the first dynasty was the arm of the queen of Zer, elaborately wrapped in a thick mass of extremely fine linen. This was delivered by me to the Cairo Museum, and there thrown away, for it is not catalogued and cannot be found. Part of the gold bracelets found with it was also cut off and destroyed, in order to mount neatly on a board. The photograph which I took shows the bandage laid close against the bare bones. This suggests that probably the body had been treated like that of the great noble of mastaba 17, Meydum, where each bone had been unflashed and cleaned, and then wrapped separately in cloth (*Meydum* 15). The body of Nefermaot had been emptied and filled with pads of cloth, and the bones were entirely bare in the wrappings (*Meydum* 18). In the iind dynasty a body at Saqqareh was salted and elaborately wrapped up, each limb separately (*Brit. Ass. Report*, 1912, p. 612).

The earliest well-preserved mummy that is known is that of Ranefer, from Meydum, now in the College of Surgeons. As to its age: it was in the stone chamber of a large mastaba of the age of Sneferu, the close of the iind dynasty; the only entry to the chamber was a long forced creep-hole, out of which it is very improbable that a mummy could be taken, or this mummy be introduced; it has the green paint round the eyes, known on sculptures of the iind dynasty, but not found on sculptures or bodies of later ages. There is then no doubt as to its age; the name for the tomb is that stated by Mariette,

but the evidence for it had disappeared by 1892. The mummy was a shrunken, dried body, covered with a wrap of linen, then moulded over with resin to the bulk of the full natural form, and this, lastly, wrapped in a few turns of the finest gauze.

The eyes and eyebrows were painted in green malachite on the outer wrapping. For description of details, see *Medum*, pp. 17, 18; *Royal Arch. Inst. Proc.*, 2 May, 1894, Garson in *Brit. Association Report*, 1892.

The mummy found in the pyramid of Mehti-emsaf, of the vith dynasty, has usually been supposed to be of that king; but the mode of embalming, with stuffing under the skin of the limbs is entirely unknown before Amenhetep III, and was not usual till later; this is strong evidence that the body is of a subsequent burial (Elliot Smith, *Cairo Sci. Jour.*, 1908, p. 205). The bodies of the xiith dynasty do not seem to show more than drying and salting as preservatives. The most complete examination (Murray, *Tomb of two brothers*, Manchester), shows that lime, alum, potash, and salt, were all used; but the results were so poor, that the bodies readily break up and fall to dust.

41. The mummies of the early xviiiith dynasty are only roughly embalmed, dried, shrunken, and distorted. An alkaline bath was not used; only removal of the main viscera, packing with salt for a time, and then powdering with an aromatic wood (Cairo Catalogue, Elliot Smith, *Royal Mummies*). The body of Aahmes I is the earliest instance of extracting the brain. The embalming was better under Tehutmes I, and was scarcely improved on later. The earlier attitude was with the arms at the sides, next they were shifted forward till they touched in front. Folding the arms begins with Tehutmes II, whose hands reach the collar-bones. The arms were folded parallel in Amenhetep II. In the Ramessides the fore-arms cross one another on the chest; in the xxth dynasty the hands were spread out flat on the shoulders; by the xxist dynasty, the old position down the sides was again adopted. The incision in the left side, for removing the viscera, was from the hip to the breast before Tehutmes III; in him, and later bodies, it is along the groin, but it is variable in the xxist dynasty. It was covered with a fusiform plate (*Roy. Mum.*, 105) in the xviiiith dynasty; left bare in the xixth and xxth; and covered with a square plate embossed with the *uzat* eye, in the xxist dynasty. There is here:

324, bronze plate with *uzat* in relief, 4.0 × 3.5, xxist dyn. ?

also in *Amulets*,—

bronze plate, *uzat*, high relief, 3.9 × 3.2,

silver plate, *uzat* incised, 2.3 × 1.9,

lead plate, *uzat* incised, 3.4 × 3.1,

lead plate, *uzat* in cut outline, 5.8 × 2.8.

The use of these plates seems to have ceased before the xxvith dynasty; but at that time an amulet of two fingers is found in connection with the incision, inside the body, or lying with other amulets upon the body. The position in the latter case is almost always over the incision, either at the base or middle level of the abdomen. It seems then, that the fingers take the place of the *uzat* eye plate. There are here ten examples among *Amulets*, 3.5 to 1.2 long.

Returning to the preparation of the mummy, in the xxist dynasty a system of stuffing under the skin was adopted generally; it is first found in Amenhetep III, where the stuffing was resinous; the later examples are stuffed with mud, sand, sawdust, fat and soda, so as to simulate the natural form, lost by shrinkage of the muscles and loss of the fluids. The viscera also were usually replaced in the body; yet the canopic jars continued to be made, and were more elaborately carved than before.

42. In the xxvith dynasty down to Roman times, a different process was employed; the viscera were usually removed, the brain was sometimes removed, and then the whole body was flooded with superheated pitch or resins; the heat was enough to drive out remaining water and to carry the pitch into the structure of the bones. The penetration is such that it seems as if the body had been soaked in hot pitch, but the condition of the hair shows that the pitch was only poured in. Pitch was sometimes poured over the body in the coffin, as early as the vth dynasty (*Deshasheh*, 18). A previous soaking in salt or natural natron was the first stage; and the epidermis thus loosened was removed, rolled up, and placed inside the body. The use of natural natron (carbonate, chloride, and sulphate of soda mixed), is shown by the analysis of Mr. Lucas, from the xviiiith dynasty onward (*Cairo Sci. Jour.*, 1908, p. 133). In addition to natron as a bath, or solid, myrrh was used in the xviiiith–xxth dynasties, and coniferous resin—probably cedar—in most periods, together with cedar oil, which saturates the mummies of the ist and iind centuries.

In the late Roman and Christian period the treatment of the body ceased, it was dressed in ordinary day clothes—usually well worn—and buried packed with salt to preserve it. The skin is tough and leathery, and the viscera well preserved in place. On the diseases observed in mummies, see Ruffer in *Cairo Sci. Jour.*, 1910, p. 3.

43. The mode of wrapping the body rarely changed; for a long time it was singularly constant, though with small variations. The earliest prehistoric people only laid a goatskin over the body. A single garment of linen was usual later. The first thickly packed wrapping, of many dozens of turns, is that of the arm of the queen of Zer in the ist dynasty. The contracted burials of the iind and iind dynasties, placed in coffins, are tightly bandaged into bundles (*Tarkhan I*, xxviii). A fine example of this is in the Bristol museum.

In the end of the iind dynasty (*Meydum*) the re-composed bones were elaborately wrapped and packed, so as to simulate the living size of the body. The more or less dissevered bodies were also carefully bandaged and wrapped, in the vth and vith dynasties; see the X-ray photographs in *Deshasheh*, xxxvii.

The whole bodies were also fully bandaged, but only plain dried, without any embalming (*Deshasheh*, 15).

On comparing the system of bandaging of the xiith, xxvith, and Roman period (*Roman Portraits*, xxi), there are several main points alike throughout. The limbs are bandaged around; after a few cloths there is a great roller bandage from end to end, of 15 to 26 turns; then a mass of pads; again a long winding; then the forked tie, split into a Y on the chest, the two upper ends tied behind the neck, and the lower end often split and tied round the feet: this is evidently of ceremonial importance. Outside of this are pads, a long winding, cloths and pad, and then the main winding of 15 to 49 turns. Three alternations of padding and winding, and then comes the great shroud over all, with the ends tucked in. Sometimes there are long windings outside of that. For detailed accounts of the cloths used, see the unwrappings described in *Tomb of two Brothers*, 54 (xiith); *Qurneh*, 8 (xviiiith); *Ann. Serv.*, 1907, 166 (xxist); *Roman Portraits*, 16; Schäfer, *Priestergräber*, 30.

44. The portions of bodies here are:

325. Skull of Anta, the general, vth dyn., *Deshasheh*, xxxvi.

188. Leg and foot, bones misplaced, and wrapped, vth dyn., see *Deshasheh*, xxxvii.

189. Leg with two shins and one splint bone, vth dyn., see *Deshasheh*, xxxvii.

187. Leg with splint bone in front of shin, vth dyn., *Deshasheh*.

326. Arm and hand, very slender, long nails, dried, xiith dyn. ?

327. Hand, blackened, with double scarab bound on little finger, xxiiiird dyn. ? presented by Mrs. Hamilton-Williams.

328. Similar hand with part of a scarab of xiith dynasty, fraudulently attached.

329. Leg in true articulation, with smooth cloth cover stuck over the front, xxiiiird dyn. ?

330. Head, female, face gilded, and hair plaited and coiled at back, Ptolemaic, presented by Miss Mackintosh.

331. Head, female, skin dried, yellow, pale brown hair plaited and coiled at back, with four hair pins, two ivory, tortoiseshell and bronze. Roman. Hawara.

332. Head, female, skin dried yellow, with blue and white knitted woollen cap drawn down over the face. Roman. Hawara.

333. Head, male, black, nostrils and eyelids well preserved. Ptolemaic or Roman.

In all truly Egyptian periods the cloth wrapping of the mummy was left plain ; but in Roman times painted cloths were sometimes placed over all. Some are well executed with a portrait figure (Hilton Price *Catalogue*, p. 8), others coarser (*Roman Portraits*, xii) ; and some with a red ground and gilt figures fairly executed, of the purification, weighing, and worshipping scenes. Many such figures are here, 334, 335 ; also 336, a red cloth with a coarse figure of Osiris on the front. Other decoration was by plaster casts affixed, as here :

337-9. Three discs of plaster with *bak* falcon in relief.

340-7. Eight small rosettes, flowers, and Bes figures.

The mummy was in all Egyptian ages entombed after a period of mourning. But a strange custom arose in Ptolemaic times, or perhaps not till the Roman age, of keeping the mummy in the house standing upright, probably against the wall of the peristyle court, for many years (*Hawara*, 15, *Rom. Port.*, 2). This led to the elaboration of the cartonnage which had been a simple covering of the mummy for burial. That it was not only placed in a mausoleum is shown by the scribbling of carica-

tures by schoolboys on the outer wrapping (*Rom. Port.*, xiii) here.

45. Cartonnage is a covering built up of cloth, plaster, and glue, or later with papyrus in place of cloth. One of the earliest examples is here (348) ; the head is lost, but the chest piece shows the collar of five rows of cylinder beads, and a row of pendants ; below that the breasts are painted, and a line of inscription of the house of offerings and all things pure for the *ka* of the devoted Athet *makheru*. The name was left blank, and has been inserted by a much rougher hand in a bluer ink. For examples of the viiith, ixth dyn., see *Sedment*, xiii, xvi. Others rather before the xiith dynasty are in *Gizeh and Rifeh*, xi. In the xviiiith dynasty, cartonnage was expanded to cover the whole figure, and must rather be looked on as a mummiform coffin.

The original type of cartonnage was revived in the Ptolemaic age. This was mostly made of papyrus, and has provided a great amount of Greek MS., especially the wills and letters, which, being short, were used entire in building up the form. A wooden block was used, made in two halves, so that the back half could be withdrawn, and the face half thus freed. On this form the papyri were plastered on wet, and left to dry. The surface was then whitewashed and the painting executed. After removal of the mould, the inside was then whitewashed, and sometimes the name written in it to show whom it was for. One here is :

349. Female head, face gilt, wig blue, coloured necklaces, 18½ high, Gurob. Chest pieces, leg pieces, and foot-cases were similarly made.

350. Chest cover, with collars, figure of Maot winged, kneeling, and inscription, "Royal offering to Osiris in the lake land (Fayum) that he may give a place of offerings, all excellent and pure, sweet drink, and living with the god, for the *ka* of the Osirian Nekht-hetep son of Peduamen born of Themer-hetep." The writing is unusually correct for the Ptolemaic age, only *ka* is written *s*. The four sons of Horus, Isis, and Nebhat, are at the sides, 18 high ; Gurob.

The next stage was a stout cartonnage case painted with figures all over the head, with gilt face ; one here, 351, is 18 high, of a woman, and another, 352, of a man (broken). Rather later there is :

353, cartonnage head piece with three lines of curly realistic black hair above the gilt face.

After that come the massive half-length cases, as : 354. Gilt over face, hair and front drapery,

painted figures of gods on back. Next the case was only with drapery, and no figures, and entirely gilt, as *Rom. Port.*, x, 1, 2.

Then the arms are shown, partly gilt and realistically coloured, and the face and nipples were gilt. Jewellery was represented by bracelets and rings, all gilt. Finally, the hands often hold a wreath of red flowers, in one instance a lighted candle. There are here :

355, case with face and arms all gilt ; woman.

356, 357, cases with face and arm gilt, holding wreath ; woman and man.

358, case with face gilt, arms pink, holding wreath, drapery white.

359, case with face gilt, arms white, drapery red.

The faces of these are mainly lost ; all have jewellery represented, which is useful for dating. They belong to early in the second century, see *Hawara*, ix.

The foot-cases are similarly made, of papyrus (Ptolemaic) or of cloth (Roman). The earliest is cast in plaster.

360. Front of pair of feet in plaster, wearing thick twisted gold anklets, and black straps for sandals ; apparently a cast from life.

361-6. Pieces of foot-cases, always painted on the base with two captives bound.

46. About the time of Trajan, a canvas wax portrait is rarely found, painted in imitation of the bust, as above (*Portfolio* YY). Immediately after, this gave place to the system of painted portraits on thin wood panels, bound on over the face of the mummy. These lasted from about 120 to 250 A.D. After that the influence of Christianity led to abandoning any special preparation of the body, which was simply buried in ordinary clothes, packed round with salt to preserve it.

The wrapping of the mummy also became elaborate when it was retained for years in the house. First there were outer covers of resined cloth inscribed in demotic as 367-8-9 here (one with caricatures *R.P.* xiii, xxiv, 5), copied in *Rom. Port.* xxiv, 3, 4, 5. Then a red painted cloth with figures on it was used, as 336 here (*R.P.*, xxiv, 6), and see *R.P.*, xi, xii, xiii. Next, bandaging with narrow lines of bandages, crossing ; sometimes very perfectly arranged (*R.P.*, xi, 1). Next, repeating these crossing lines with narrower strips, one over the other, so as to make a sort of coffered pattern, in one case 13 layers of different colours (*R.P.*, x, 3). To relieve the effect, coloured strips were used, blue and

white, and probably red gone brown-black. To brighten the appearance further, gilding was put in the hollows, to suggest that the mummy was wrapped in gold beneath the bands. At first this was by bits of base gold foil, bound over by the first layer of bandage. Soon it became a gilt plaster button, stuck on a square of plastered cloth, and put under the lowest layer of bands. Half of the portrait mummies are without buttons, and half with buttons, so the change was during the use of portraits, say 160 A.D.

The portraits which were bound on the mummy were not painted for that purpose, but were portraits hung in the house during the person's lifetime, and afterwards roughly cut down to fit on to the mummy. Every one has been hacked along the top and corners, and in one grave the portrait was in a frame with a cord for hanging it (*Hawara*, xii). Three portraits at University College from Hawara are published :

370, in *Roman Portraits*, vi, 40 ;

371, in *Roman Portraits*, viii, DD, *Hawara*, front. vi.

372, in *Roman Portraits*, ix, WW, *Hawara* x, 18.

See also *The Hawara Portfolio*, and Edgar, *Graeco-Egyptian coffins*.

47. Animal mummies are often found ; there are here :

373. Cat, head and shoulders.

374. Kitten in wrappings ; only two leg bones in it, see radiograph.

375. Dog, head.

376. Ibis, finely wrapped in square pattern of green, white, and red (?). Thebes.

377. Crocodile head. Lahun.

378. Crocodile mummy, only a few bones in wrappings. Lahun.

379. Plaster head from a jackal mummy.

On animal mummies, see Pettigrew, *History of Egyptian Mummies*, pp. 183-226 ; Wilkinson, *Manners and Customs*, III, pp. 258-265 ; and on fishes, *Gurob*, by L. Loat, in *Saqqara Mastabas I*.

48. The wrappings of a mummy were sometimes sealed in Roman times, placing the clay over a string tying the crossbands together. The seals here from Hawara are :

380, bust of Isis.

381-3, seated gryphon with paw on wheel, incuse (three examples).

384, seated sphinx (?) very rude.

On mummy cloth there are frequently inscriptions recording the year of manufacture and purposes of

making. These have nothing to do with the funeral, but are merely trade labels of the makers. A good example of fixed age is that from the Tomb of Two Brothers, pl. 17, inscribed "year 4 excellent," *hati onkhui, neb . . . neferui*. This carries other examples to the Middle Kingdom, in *Rom. Port.*, xxiv, 1, 2; though these were wrappings used on Roman mummies, it is probable from the style, and from the name Sebek-hetep, that these are earlier wrappings stripped from mummies of the xiith or xiiiith dynasty. There are here:

385-6. Inscriptions (2) on "linen made for the priestess of the Amen temple at Thebes, of the 4th rank, Khāo-su-mentu."

387. Inscription on linen, partly rotted, dated in year 25.

The large number of such inscriptions on the wrappings of the royal mummies are of some historical value, see *Stud. Hist. Eg.*, III, pp. 190-2.

49. Within the wrappings there were placed in the xxist and xxiind dynasties a band of leather round the neck, crossed on the chest. On the ends of these bands, and also on a *menat* and collar attached to them, a white leather facing is let in, and this has impressed on it a design from a mould. On the bands are figures of the king offering to Min, on the *menat* a rosette base and a band of cartouches, on the collar only rows of pendants. The period shown by the names is from Painezem I to Usarken I, about 1072-895 B.C. Those here are:

388, band of "Usarken I beloved of Hathor-nefer-hetep" offering to Amen.

389-90, *menat*, and part of another, with names of Usarken I.

391-2, collar, and another plain.

With the scarabs is a *menat* of Men-kheper-ra and a *menat* and 3 bands of Usarken I. All of them are from burials in the Ramesseum, see *Ramesseum*, xviii, *Leyd. Mon.*, II, xxix.

50. In Ptolemaic times the mummies were often labelled, usually with a white limestone label tied on at the neck. There are here 60 of limestone (393-452), 5 of which are blank, 2 hieroglyphic, 1 Greek, 1 Greek and demotic, and 51 demotic. All are from Denderah, photographed in *Dend.*, xxvi A, B, and some translated on p. 56; the description of the burials is on p. 32. Beside these there are (453-466), 11 demotic and 3 blank, of wood, and 1 ivory demotic label (467), all from Denderah.

50. In Roman times the mummies were often sent to be buried at some distance, and it was need-

ful to identify them amid a boatload. For this purpose a small wooden label was tied on, stating usually the name and parentage, and sometimes the age and the place of residence. These labels are mainly from Panopolis, some from Antinoe, and a few from Arsinoe. The following readings were made by Sir Herbert Thompson, with a few variations suggested by parallels noticed later. The copies are in order of the name of the mummy, and the parental names are inserted in the same series with reference to the main name.

468. ΑΚΑΡΙΕ ΑΡΜΙΥΙΕ

469. CWMA ΑΠΟΛΙΝΑΡΙΟΥ ΥΙΟΥ ΔΙΟΚΛΕΟΥΣ  
ΕΡΙ ΕΜΠΟΡΟΥ ΕΙΣ ΑΡΚΙΝΟΕΙΤΗΝ

470. ΑΠΟΛΛΩΝΙΟΣ ΨΑΠΙΣ ΠΑΧΟΥΜ ΕΙΣ  
ΕΡΜΟΝΘΙΣ ΕΝ ΚΑΛΗ

471. ΑΠΟΨΙΑΘΩΝ ΨΕΝΚΕΝΚΑΜΗΤΙ  
ΑΡΒΟΣΟΥ see ΠΑΧΟΥΜΙ

ΑΡΕΙΟΥ see ΧΑΙΡΕΙΣ

ΑΡΕΙΟΥΣ see ΚΟΛΑΝΘΟΣ

ΑΡΜΙΥΙΣ see ΑΚΑΡΙΣ

ΒΗΚΑΤΟΣ see ΔΙΔΥΜΗ

ΒΗΚΙΟΥ see ΠΕΤΕΜΙΝΙΣ

ΒΗΚΙΟΥΣ see ΚΕΝΠΕΛΙΑΙΣ

472. ΒΟΒΑΣΤΟΥΣ ΕΙΣ ΤΗΝ ΠΥΛΗΝ ΤΗΣ  
ΘΕΡΜΟΥΘΙΑΚΗΣ ΤΗΣ ΜΗΤΡΟΠΩ-  
ΛΗΩΣ ΑΡΚΕΝΟΙΤΟΥ

473. ΔΙΔΥΜΗ ΒΗΚΑΤΟΣ ΜΗΤΡΕ < ΚΕΝ Π Χ  
Β ΕΙΣ ΠΑΝΩΝ ΣΑΡΑΠΙΗΝ ΙΠΕΑΝ ΣΤΗ

474. ΔΙΟΚΚΟΡΟΣ ΚΟΛΑΝΘΟΥ ΜΗΤ. ΚΕΝΨΑΙ-  
ΤΟΣ

ΔΙΟΚΛΕΟΥΣ see ΑΠΟΛΙΝΑΡΙΟΥ

ΔΙΟΚΚΟΡΟΥ see ΚΟΛΑΝΘΟΣ

475. ΕΡΜΙΑΣ ΚΕΦΑΛΑΤΟΣ Λ ΤΟΥΕ ΕΠΑΥΝΙΚΣ  
Β ΕΡΜΙΑΣ ΚΕΦΑΛΑΤΟΣ

476. ΕΥΔΑΙΜΩΝ ΠΡΕΣΒΥΤΕΡΟΣ ΥΕΡΑΚΟΣ  
ΑΝΤΙΝΟΕΥΣ

477. Thezy son of Thezy, his mother being Ter-  
mouthis; his name abides here before Osiris  
Sokaris, the Great God, Lord of Abydos.  
(Demotic, Spiegelberg)

ΗΡΑΙΔΟΣ see ΜΑΤΡΩΝΑΝ

ΗΡΩΝΟΣ see ΜΑΤΡΩΝΑΝ

478. ΘΙΝΨΟΝΑΥΤΟΣ ΓΥΝΗ ΨΟΛΩΜ

ΘΜΕΚΙΩΤΟΣ see ΤΚΑΝΚΝΩΣ

ΚΕΦΑΛΑΤΟΣ see ΕΡΜΙΑΣ

479. ΚΟΛΑΝΘ (ος) ΑΡΕΙΟΥΣ

480. ΚΟΛΑΝΘ (ος) ΔΙΟΚΚΟΡΟΥ

ΚΟΛΑΝΘΟΥ see ΠΑΝΓΟΡΧΗΣ

ΚΟΛΑΝΘΟΥ see ΤΚΑΝΚΝΩΣ

ΚΥΡΙΑΛΟΣ see CWKPATH

481. ΜΑΤΡΩΝΑΝ ΤΕΡΑΔΙΟΣ ΚΟΡΟΥ ΗΡΩΝΟΣ  
ΕΜ ΜΗΤΡΟΣ ΗΡΑΪΔΟΣ ΠΡΕΣΒΥΤΕ-  
ΡΑΣ

Β ΜΑΤΡΩΝΑΝ. ΤΕΡ . . . ΚΟΡΟΥ ΗΡΩΝΟΣ  
ΜΗΤΡ . . . ΕΜΜΗΤΡΟΣ ΗΡΑΪΔΟΣ

482. ΤΑΦΗ ΜΙΚΚΑΛΟΣ (Σ)ΙΣ ΠΑΝΩ

483. ΠΑΒΗΣ ΕΤΩΝ Ε

484. ΠΑΝΓΟΡ . . . Λ Β/ΜΕΧΕΙΡ ΚΘ ΨΙΒ (?)

485. ΠΑΝΓΟΡΧΗΣ ΚΟΛΑΝΘΟΥ ΤΙΘΘ ΕΙΟΥΣ  
ΜΗΤΡΟΣ ΚΕΝΨΑΙΤΟΣ ΕΒΙΩΚΕΝ ΕΞΗ-  
ΚΟΝΤΑ

ΠΑΤΚΟΡΟΥΑΤΙΣ see ΚΕΝΚΑΝΚΝΩΣ

486. ΠΑΧΟΥΜΙ ΑΡΒΕΣΟΥ

ΠΕΚΥΣΙΟΣ see ΚΕΝΠΕΤΕΜΕΙΝΙΣ

487. ΠΕΤΕΜΙΝΙΣ ΒΗΚΙΟΥ (υ) ΠΡΕΣΒΥΤ (ερου)  
ΦΡΕΜΟΥΘΙΟΥ (υ) ΜΗ (τρος) ΚΕΝΠΕΛΙ-  
ΑΙΟΣ

ΠΕΤΕΤΩΤΟΣ see ΚΕΝΠΕΛΙΑΙΟΣ

ΚΕΝΑΠΟΛΛΩΝΙΑΣ see ΤΑΛΟΣ

ΚΕΝΒΗΚΙΣ

ΚΕΝΩΤΗΣ

ΚΕΝΠΕΛΙΑΙΣ ΠΕΤΕΤΩΤΟΣ ΟΡΚΕΝΟΥ

ΜΗ (τρος) ΑΡΚΙΝΟΗΣ

Β similar, add ΓΥΝΗ ΒΗΚΙΟΥ . . . . . Θ

488. ΚΕΝΠΕΤΕΜΕΙΝΙΣ ΠΕΚΥΣΙΟΣ Ο ΚΑΙ  
ΤΧΑΛΙΜΑ ΠΙΗΥΣ ΕΙΣ ΠΑΝΩΝ  
ΚΕΝΨΑΙΤΟΣ see ΔΙΟΚΚΟΡΟΣ & ΠΑΝΓΟΡ-  
ΧΗΣ

489. ΚΕΝΨΑΝΕΝΩΕ ΚΙΣΟΙΤΟΣ

490. ΚΕΝΚΑΝΚΝΩΣ ΠΑΤΚΟΡΟΥΑΤΙΣ ΠΑΝΟΠ-  
ΟΛΙΤΙΣ

ΚΕΝΚΩΤΗΡΩΝΟΣ see ΤΑΘΙΩΣ

491. ΚΕΡΗΝΟΣ ΨΕΝΤΟΥΩΝΟΟ ΠΑΝΟΠΟΛΙΤ-  
ΟΥ

492. ΚΙΣΟΙΣ ΚΙΣΟΙΤΟΣ ΜΗΤΡΟΣ ΘΕΡΜΟΥΘ-  
ΙΟΣ ΑΠΟ ΒΟΜΠΙΑΗ Β of Thezy

ΚΙΣΟΙΤΟΣ see ΚΕΝΨΑΝΕΝΩΕ & ΚΙΣΟΙΣ

ΚΥΤΕΑ see ΨΕΝΘΕΡΜΟΥΘΙΝ

493. CWKPATH ΘΥΚΑΤΕΡΑ ΚΥΡΙΑΛΟΣ ΕΝ  
ΑΥΤΙΝΟΩΣ . ♀ Β ΠΟΛΕΟΣ

494. ΤΑΘΙΩΣ ΦΑΤΡΕΙΟΥΣ ΜΗΤ ΚΕΝΚΩΤΗ-  
ΡΩΝΟΣ

495. ΤΑΛΟΣ ΠΡΕΣΒΥΤΕΡΑ ΨΕΤΕ ΜΗΤΡΟΣ  
ΚΕΝΑΠΟΛΛΩΝΙΑΣ ΑΠΟ ΒΟΜΠΙΑΕ

Β Demotic. Her soul rests before Osiris

Sokaris, the Great God, Lord of Abydos,  
. . . . the lady . . . . Talos the elder, dau<sup>r</sup>

of Pseine, her mother being Senapollonia,  
lady of Bompae.

Spiegelberg, 17, 42-3

496. ΤΑΥΝΧΙΣ ΤΑΥΝΧΙΣ ΤΑΥΝΧΙΣ ΦΜΟΥΣΤΟΣ  
ΘΕΡΜΟΥΘΙΣ see ΚΙΣΟΙΣ

ΤΙΒΗΚΙΟΣ see ΤΚΟΝΕΚΟΝ

497. ΤΙΘΩΥΗΣ ΨΕΝΑΡΚΙΗΚΙΟΣ ΠΑΡΔΟΣ  
ΕΡΡΙΖΗ ΑΥΤΟΥ ΤΟ ΟΝΟΜΑ.

498. ΤΚΑΝΚΝΩΣ ΚΟΛΑΝΘΟΥ ΜΗΤΡΟΣ ΘΜΕ-  
ΚΙΩΤΟΣ ΑΠΟΨΙΝ ΠΕΑΑΔΕΛΦΗΣ ΨΕΝ  
ΜΕ ΠΑΚΥΤΜΙΟΣ.

499. ΤΚΟΝΕΚΟΝ ΤΙΒΗΚΙΟΣ (Panopolis)

ΥΕΡΑΚΟΣ see ΕΥΔΑΙΜΩΝ

ΦΑΤΡΕΙΟΥΣ see ΤΑΘΙΩΣ

ΦΜΟΥΣΤΟΣ see ΤΑΥΝΧΙΣ

ΦΡΕΜΟΥΘΙΟΥ see ΠΕΤΕΜΙΝΙΣ

500. ΧΑΙΡΕΙΣ ΑΡΕΙΟΥ

501. ΧΑΙΡΗΜΩΝ ΑΠΟ ΨΙΝΟΜΟΥΝΕΩΣ ΤΟΥ  
ΑΝΤΑΙΟΠΟΛΙΤΟΥ

ΨΑΠΙΣ see ΑΠΟΛΛΩΝΙΟΣ

ΨΕΤΕ see ΤΑΛΟΣ

502. ΨΕΝΘΕΡΜΟΥΘΙΝ ./. ΚΥΤΕΑ

503. ΨΕΝΘΕΚΙΩΣ ΕΒΙΩΚΕΝ Λ ΚΑ

504. ΨΕΝΠΑΝΙΣ Λ Ε

ΨΕΝΚΕΝΚΑΜΗΤΙ see ΑΠΟΨΙΑΘΩΝ

ΨΕΝΤΟΥΩΝΟΟ see ΚΕΡΗΝΟΣ

ΨΙΝΟΜΟΥΝΕΩΣ see ΧΑΙΡΗΜΩΝ

ΨΟΛΩΜ see ΘΙΝΨΟΝΑΥΤΟΣ

472 from *Hawara* viii, 3

#### Casing of the body

51. The mummiform coffins, and cartonnage covering the body, were an important feature in the xviiiith-xxist dynasties. This cartonnage is a different system from that of the partial masks and breast covers; such were used in the vth-xviiiith dynasties, (see Borchardt, *Ne-user-re*, 114; Yaa and Thuau) when as yet no complete cartonnage was known. It is from the decorated mummy coffins of the xith-xiiiith dynasties, as those of two brothers (*Gizeh and Rifeh*, x B), that the xxist dynasty cartonnage cases really descend.

There are here:

505. Fragments (4) of hard white cartonnage, backed with mud behind the linen; incised with scenes for "the overseer of workmen of the temple of Amen, Pedu-amen-nes-tau, otherwise Pedy.

506. Piece of coloured cartonnage of Nesi-pa-paut-tau, son of Nesi-pa-qa-shuti. Edwards, Thebes.

507. Piece of coloured cartonnage of *n* son of Khonsu son of Aith, his mother Zed-mut-as-onkh. xxiird dyn., Ramesseum.

508. Piece of 4th prophet of Amen, Hor-sä-ast.

509-11. Piece with dummy inscription; another with figures of genii, another with finely drawn head.

In these cartonnage cases the face was usually carved in wood, and a fairly good style was kept, better than in the decoration. Here are:

512. Face with white marble eyes, black paste iris, blue paste border, blue glaze eyebrows, surface red varnish. xxth dyn.?

513. Face painted yellow, black eyes and brows.

514-15. Faces, 2, white with black eyes and brows.

516-17. Faces, 2, plain wood.

518. Face, very rudely cut, Ptolemaic.

52. The use of cast plaster faces began in the degradation of the cartonnage masks during the Hyksos age. At first a small face was cut in white limestone for inserting in the reduced mask, as here.

519, face 2.3 high, with beads of xiith dynasty, Abydos, cem. D, 104.

By the xviiiith dynasty such were cast in plaster, see *El Amrah*, xlvi, D 99.

The revival of plaster heads for mummies was in the Roman period. Unhappily all have been removed for sale without a history; but they are probably mostly of the 1st century A.D. They were of Middle Egypt, and I have seen a cemetery covered with the wreckage of such work dug out by plunderers. The following examples have been chosen as being of better modelling than the average. The order is that of quality, and probably of date.

520. Female head, draped with thin veil over hair and curls. Eyes inlaid with white glass, and black glass iris; bordered with dark blue glass edging, which has been plastered over and gilded. Style Punic-Greek, in the curls and the narrow mouth, with slight smirk,  $7\frac{1}{2}$  high.

521. Female head, wavy hair, brow line hard, eyes slightly blocked out, 6 high (*Arts and Crafts*, 137).

522. Female head, complete with back; hair dressed with coiled plait on the back, and one twisted strand just above the forehead. Plain gold torque and gold earrings of three balls. Eyes and eyelashes roughly painted. Tinted pink. Expression good, 7 high.

523. Male head, short curly locks, stubby beard, eyes and lids plain black,  $7\frac{1}{2}$  h.

524. Male head, loose curly locks, narrow beard clipped close, eyes roughly painted on the flat. One of the best work, broken in travelling; see *A and C* 135 for original state, 9 h.

525. Female head, close triple band of curls, of about 60 A.D. Small mouth, weak expression. Ball earrings. Tinted pink, 7 h.

526. Boy's head, hair combed straight forward, eyes each a single piece of glass with black iris painted, lips thin, expression natural,  $7\frac{1}{2}$  h. Such glass eyes are dated to the middle of the iind cent. A.D. (Edgar, *Graeco-Egyptian coffins*).

527. Male head, white glass eyes with dark brown iris painted in one; hair curly black, beard and moustache black, skin red-brown, 9 h. This shows how after the mummy was wrapped and plastered over the head, a gap was left at the face, and then a separate plaster head was put over it, and smoothed around.

528. Youth, black hair combed forward, eyes and brows black painted, skin yellow, expression natural, 8 high.

529. Female head, slightly wavy black hair, small braided coil on back, which is complete, eyes plain clear glass, iris painted black on back; hard, mechanical work, 7 high.

53. Next to the mummy and its adornment comes the mummiform coffin. A complete example, which had been presented to University College before 1890, is of about the xxvth dynasty.

530. Wooden coffin, painted with scene and inscription inside and out; length 69 out, 67 in, width 19. *Outside lid*.—Below the deep collar is the ram-headed vulture. On either side, the deceased adoring Osiris and two of the genii. Next line, Balance with Anubis; deceased led by Thoth before Osiris, four genii, Anubis, and Horus. Next, mummy on bier, offerings below. "Speech of the Osirian the lady of the house Na-ar-er-ast-nefer"; a spread Ra falcon at each end. Next, "Speech of the Osirian lady of the house, Na-ar-er-ast-nefer; daughter of the prophet of Mentu in Hermonthis, Bes; son of the same Peda-ast; her mother the lady of the house Tä-oät, daughter . . . in Thebes Aufenamen, son of the same Zed-mentu-auf-onkh. I do homage to thee Osiris khent amenti great god in" (end of formula omitted). Below, 7 seated genii with heads of falcon, serpent, ibis, ape, crocodile?, man, crocodile, the 8th space the sign *ament*. In the middle the head of Osiris, plumed, on a stand. "Speech of the Osirian, lady of the house, Na-ar-er-ast-nefer, daughter of the offerer to the god in Hermonthis, Bes." On feet, 5 columns of text obliterated.

*Outside, body*.—On each shoulder *tep-du-f*. Down

the flat base a large *zed* sign crowned with feathers and horned disc. On both upper arms, Amset and Hapi seated, "Speech of the Osirian the lady of the house, Na-ar-er-ast-nefer, devoted." Below Kheb-senuf and Duatmutef seated, "daughter of the offerer to the god in Hermonthis, Bes, devoted to his lord, son of the same, Pedu-ast," "her mother, lady of the house Täi-oäou, devoted to Osiris-khent-amenti"; at base, two standing genii, human and ape headed, on one side; on other, human headed genius holding feather, = Amenti?

*Inside, body*.—*Onkh* between two *uas*. Disc radiant, two serpents bearing *onkh*. Across base, "Speech of the Osirian, lady of the house, Na-ar-er-ast-nefert, daughter of the divine father of Amen, offerer in Hermonthis, Basa. Her mother, lady of the house, Taioäou, daughter of the divine father of Amen, king of the gods, Auf-en-amen. Is given the heart of the Osirian, lady of the house, Na-ar-er-ast-nefer to her in the house of hearts (*abu*): her will (*hati*) to her in the house of the will. It is that the heart of the lady of the house Na-ar-er-ast-nefer is to her, she is at peace by it. Not vainly has she eaten the *shat* cake of Osiris at the side of her house on the east of Re-negy (Denderah?) when another hastens in going south. Descend not the Osirian lady of the house, Na-ar-er-ast-nefer, daughter of the divine father of Amen, offerer in Hermonthis, Basa, son of the divine father of Amen, offerer in Hermonthis Pedu-ast, son of the same, Basa, devoted to Osiris."

Down the sides, the same name and titles of deceased and Basa.

*Inside lid*.—Nut holding the disc, two baboons adoring at each side.

"Speech of the Osirian, the lady of the house, Na-ar-er-ast-nefer. Open the gates of earth, Na-ar-er-ast-nefer, and the Cavern of Geb, Na-ar-er-ast-nefer. Open the mouth and the eyes by Osiris, Na-ar-er-ast-nefer. Loosen it which her hand hath bound, N. Her hand pulls with her to the earth. Open the mouth of youth and excellence, Osirian N. Go forth oh N. in the day to every place which her heart desires therein. Speech to Osiris, may he give offerings and incense and clothing and all things good and pure, growing and sweet for the Osirian lady of the house, N."

The mummy on a bier, four jars below and a sack; Ba bird flying above holding the *shen* "Ba of the Osirian, Na-ar-er-ast-nefer." At head Nebhat

seated. "Incense, done for Na-ar-er-nefer." At feet Isis seated. "Ast, divine mother, make protection for the lady of the house."

"Speech of the Osirian, the lady of the house, N. daughter of the divine father, offerer in Hermonthis, son of Basa. Oh! Atmu, may thou give sweet breezes in thy *reta* for the Osirian N. It is he who embraces thee in the midst of heaven. It is that I give to him an egg of the *Geg ur* (great cackler). As it flourishes, so flourishes the Osirian N. and *vice versa*. The egg lives and the Osirian N. lives, and *vice versa*. It breathes and the Osirian N. breathes, and *vice versa*."

Many of the phrases here are obscure; all that can be done is to give them as literally as possible, and to wait for comparisons. I thank Dr. Murray for studying the difficulties of this.

531. Fragment of a coffin lid, wood, 1.7 thick. *Outside*, blue and red figures and text, yellow varnish. Adoration to "Ra-har-akhti, Atmu-neb-taui, of Hermonthis . . ." Lost figure of Amenemapt (?), "son of Akuif; his wife, lady of the house, Thent-du-khonsu" over wife, seated. "Speech of Osiris, lord of eternity, Khent-amenti who is in Abydos" and parts of 4 other columns. *Inside*, male figure with tail and wings of vulture, upholding the disc on the horizon; below it, cartouche of Amenhetep-pa-ab-sepi. Bust of Amen-em-apt adoring, "Adoration to Ra-har-akhti, illuminator of the land of the cycle of his gods, done by the Osirian Amenemapt." Fair work. Edwards. Thebes, sixth dyn.?

532. Fragment of a yellow varnished coffin, "Royal offering given to Ra-her-akhti." xxth dyn.? Ramesseum.

533. Fragment of foot of coffin of Tauher, daughter of Pedu-amen-neb-nest-res-meh, born of Takhred-ahy. Edwards, xxvth dyn.

Inscribed centre boards of coffins, nearly all published already.

534-5. Yuarehäu, son of Onkh-nefer, xxiiiird. *Kahun*, xxv, 21, 22.

536. Pa-dui. xxiiiird. *Kahun*, xxv, 17.

537. Pa-ama. xxvth. *Kahun*, xxv, 13.

538. Osiris Khentamenti (! ignorant copying). *K.*, xxv, 26.

539-41. Blundered, without names. xxvth.

542. Ta-ari. xxvith. *K.*, xxv, 18.

543. Name lost, deeply incised. xxvith. *K.*, xxv, 19.

544. Name lost, deeply incised. xxvith. *K.*, xxv, 20.

545. Amen-rekhsu, dau. of Zedher. xxvith. Whole lid. Ink-written on scene.

546. Ay-kher-seti (?) xxvith. Lid without head. Ink-written on scene.

547. Priestess of Hershefi, Tazāb, dau. of Sāt-meref, Merheru. Deeply incised. xxviith. Abusir el Melek.

This name plate is a successor of the name bead, found on the necks in the xiith dynasty, and continued.

See piece of end of coffin with mortising of top boards, in *Furniture*.

Toy sarcophagus and mummy, of mud, in *Toys*.

548. Sides of sarcophagus, of Ter-sent, carefully drawn, but ignorantly. xiiiith dyn.

549. Sides of sarcophagus cover to coffin, of Men-neb-onkh. xxvth.

550. Sides of sarcophagus cover to coffin, name lost. xxvth.

551. Part of corner post of a sarcophagus, incised "royal acquaintance, over the offerings, Khnum-hetep" figure standing. xxvith. 14.9 h.

552. Model sarcophagus with corner posts on a sledge. Ramesseum. 5.9 × 2.7. xxth dyn.?

Often after the decay of a sarcophagus of wood, the eyes which were inlaid in the side, for the dead to see out, remain complete. Such are:

553. Pair of eyes of white marble, with obsidian iris, in copper frames, eyebrows and pendants of slate.

554. Parts of a similar set, the pendants and eyebrows of dark blue paste. Tehuti-hetep, Bersheh. xiith dynasty.

555. Pair of eyes from wooden coffin, cast bronze, with triangles of ostrich shell each side of the iris. Lahun. xxiind dynasty (?).

556. Bronze frame, with remains of eye.

557. White marble eye, with obsidian iris, in sheet bronze frame: from a coffin.

558. Eye of alabaster and obsidian, another of alabaster and clear white glass.

559. Socket for an eye, of violet paste, glazed over.

560. Lead eyelashes from an eye.

See also inlaid eyes, white, iris, and pupil, with bronze eyelashes in the cartonnage head-piece. Also crystal eye in bronze setting, and obsidian eye of a bull, in *Minerals*.

Coffins were sometimes of pottery, painted, in the xviiiith dynasty, see *Hyksos Cities*, xiv, xiva. These degenerated into plain rough coffins, and such con-

tinued to be used in Roman times in the Delta, where wood was scarce, see *Ehnasya*, 38. One fragment is here, 561, of a pottery coffin with upper part of a figure painted in black, red, blue, and white, on a yellow ground. Model coffins of pottery were also used to bury the ushabti figure. Here are:

562. Parts of a pottery box coffin, painted white, for Antef Ransenb, from cemetery B 20. Qurneh. xith dyn.

563. Lid of a pottery coffin, inscribed "for the ka of Teta-nefer." Thebes. xviiiith dynasty.

564. Parts of a red pottery coffin, with yellow bands, inscribed. xviiiith dynasty.

Pottery coffin of Tehuti with wooden ushabti of same, xviiiith dynasty, see *Shabtis* (29A), also wooden lid of coffin of Teta-on, and another nameless.

Over the coffin was sometimes an open-work catafalque, see frontispiece to Rhind, *Thebes*. Fragments of such open-work here are:

565-6. Figures of Duatmutef, disc on head, 8 high, 9 high. Good work.

567-8. Figures of Tehuti and of queen (?), 8.7 and 10 high; roughly cut, and outlined in black. Gurob.

569. Part of figure, painted red and black. Edwards.

*Khaker* from top of a cornice, see *Furniture*.

570. Piece of box (?) with incised figure of Isis (?) seated, table of offerings in front, 3.6 h.

571. Rude figure of Ra, crowned, seated. Gurob. 4.4 h.

572. Girdle tie of Isis, open-work wood.

54. In the funeral procession the coffin was preceded by the priest with a censer. There is here:

573. Bronze censer with falcon head, much broken, 19 or more, long; inscribed "Royal offering to Osiris Khentamenti, Ptah lord of truth . . . kherheb of Osiris, May." Abydos.

574. Falcon-head end of a censer, wood. Gurob.

575. Piece of a pottery pan with melted incense and charcoal. The pan was apparently heated to melt the incense and make it burn readily. Amarna, xviiiith dynasty.

With the coffin were models of the funeral outfit of instruments. They are represented as lying on a table by the priest engaged in "opening the mouth," in the procession of chap. i of the Book of the Dead. Limestone slabs with models of such instruments are found about the vith dynasty, see *Denderah*, xxi. There are obsidian vases from such sets.

55. Hypocephali were discs with magic texts and

figures placed beneath the heads of mummies. They are not very common, as they belong to a poor period of burials, when much expense was unusual. The starting point is the direction in chap. clxii of the Book of the Dead, that a figure of the Hathor cow was to be drawn on papyrus and placed under the head of the mummy. This may suggest that the discs with a Hathor cow (*P.S.B.A.*, xix, 146) and with mummy resting on the back of the Hathor cow couchant, *Amulets*, 134a, are the earliest stage. On the back of this last, the seated Ra with 4 rams' heads is adored by apes, a type which is present on nearly all hypocephali. Another example at Bologna may be early, as it is on papyrus as directed, while others are on cloth or bronze. The most definite dating is that of a group of bronze discs, *Abydos I*, lxxvi, lxxvii, pp. 38, 50. The family is that of Zedher, a name that belongs to the xxxth dynasty; his wife's father was Nefer-ab-ra, a name of the xxvith. The style of the ushabtis in this tomb borders on Ptolemaic glaze, and it cannot be put before the xxxth dynasty, the name Nefer-ab-ra being a family survival. One disc here, *Amulets*, 134b 2, coloured black with yellow lines, seems probably an imitation of a dark bronze disc with gold inlay, and therefore later than the bronze discs. None of the names on the Turin or British Museum discs have connection with the xxvith dynasty, but seem to be of later style. One is black, with yellow designs, coarsely done, is dated to the reign of Philadelphos or later, as Hornezatuf was priest of Soter and the Philadelphos, and agreeing with this is the name of his father Nekht-her-heb (B.M. 8446). The use of such discs seems, then, to be from about 350 to 250 B.C. For a study of the hypocephali, and a list of 20, see Leemans, Leiden, *Congress Orient*, 1883, IV, 91; for those in Brit. Mus., see *P.S.B.A.*, vi; for Cairo, *Catalogue, Textes et Dessins Magiques*, Daressy, p. 49; for a general account and references, *Abydos I*, 50. Those here are published in *Amulets*, 134, as follows:—

134a, cloth, mummy on back of Hathor cow. Rev., seated Ra with 4 rams' heads, and usual figures.

134b 2, cloth, black with yellow figures; Radiant disc; Isis and Nebhat mourning at sides of *zed*. Rev., barks of Thoth and Ra (?), 4 rams' head figure, etc.

134c, cloth, 8 crocodile heads around a disc, with 8 baboons above, and below Paunhatuf offering Mäot to Ra falcon.

576. Fragment of cloth, with drawing of circle containing baboons, surrounded by 16 crocodile heads.

A pectoral was often placed on the breast, in the xviiiith-xxth dynasties. It descended from those worn by the living in the xiith dynasty (Dahshur and Lahun, jewellery). Those here are:

577. Part of wood pectoral, painted with a bark which contained the scarab, with figures of Isis and Nebhat; reverse, the scene of weighing and introduction to Osiris. Gurob, 5.1 w., xixth dyn.

578. Green glaze pectoral, black figure of Anubis couchant on shrine, 2.3 h. (see *Amulets*, 91).

By about the xxist dynasty the use of the pectoral ceases, and only the scarab was applied upon the breast. There are here, along with ushabti figures found together:

579. Jade scarab for "fourth prophet of Amen, Zed-khonsu-a-onkh," and chapter of the heart finely engraved. With 2 ushabtis, coarse blue, thin writing. Ramesseum, 107, xxist dyn.?

580. Grey jasper scarab, heart-shaped, head prominent, 4 lines on base, no inscription; with very coarse small blue and pottery ushabtis. Ramesseum 143, xxiiiird dynasty? (see *Scarabs*, xlvii-viii).

581. Coarse dark frit scarab and rough brown pottery ushabti. Ramesseum, 147. xxiiiird dynasty?

56. Upon the breast of the mummy in later times were usually placed a winged scarab and figures of the four sons of Horus. The earlier form of the scarab was set in a square pectoral, or carved on such, in the xviiiith-xxth dynasties, see *Amulets*, 91a. About the xxiind dynasty, the winged scarab superseded the pectoral, and was particularly used as inset in the bead networks, along with the four sons of Horus. In the xxvith dynasty, these amulets were largely supplemented and superseded by the multitude of figures of gods and other amulets. Yet they appear sometimes later, even to the Ptolemaic age; see *Amulets*, li-liii; li 9, xxxth dyn., 15, 18, 20, 21, 24 Ptolemaic. The winged scarabs here are:

582. Wood, curved wings, 8½ ins. span, one thickly gilded, scarab lost from setting, gilded disc. Ramesseum, 102, xxiiiird dyn.

583. Sheet lead wing, similar form.

584. Bright blue glaze, barred with yellow and red paint, xxiiiird? dyn., 4.2 w.

585. Green glaze, relief, xxxth? dyn., 4.4 w.

586. Dirty green glaze, wings perhaps of another set, 4.1 w.



Associated with the winged scarab and sons of Horus, there is often a strip of beadwork in a bead net, with some formula, or name of the person (see *Leiden Mon.*, M 14, pl. ix, M 23, pl. 11). There are two networks here from mummies, one on original threading, see *Beads*, Univ. Coll. collection.

57. The name was, later, put on a slip of glazed ware, and one such name-plate here is important :

587. Strip of blue glaze, 7.0 × 1.1; three holes at top, two below, for fixing to network. Incised in it is a very rough and blundered inscription, which appears to be intended for "Royal offering given to Osiris-Khent-amenti, great god, lord of Abydos, that he may grant thee to come forth to the day oh Divine address Neitaqer, born of Psemthek (made by) his son Sepa, born of his mother Shept, daughter of Mer-en-ast." This gives some fresh personages in the family of Psemthek I; it was made by his son Sepa; Shept, a wife of Psemthek, was daughter of Mer-en-ast. We can hardly doubt that Shept is short for the well-known wife of Psemthek, Shepenapt. If so, this would add one more to the maze of adoptions by the High Priestesses of Thebes; the series would run :

Shepenapt II, mother Merenast, adopted by Amenardus.

Neitaqer, mother Mehtienusekht, adopted by Shepenapt.

Ankhnes-ra-nefer-ab, mother Takhuat, adopted by Neitaqer.

This would, then, suggest that as Mehtienusekht was wife of Psemthek, and Takhuat was wife of Psemthek II, so Merenast was wife of Nekau I, Men-kheper-ra. This also removes the sister-marriage of the Ethiopians to an adoption of the daughters of the Saites as nominal daughters of the Ethiopian king and his priestess sister. A small scarab of green felspar, inscribed for Merenast (*Scarabs*, li J) may well be for this wife of Nekau I (Edwards).

The earlier form of the official name plate was the name bead worn on the neck, such as in *Scarabs*, xliii, 166.

58. The earliest figures of the four sons of Horus—or of Ra—are those carved in limestone, painted, and seated to surround the mummy figures, of the xiith dynasty (*Riqqeh*, viii). The figures were usual in paintings on the coffins of the xviiiith dynasty, sometimes all with human heads, sometimes with the animal heads. The separate modelled figures placed on the mummy are not found until the

xxiind dynasty, and continued till the xxxth. The earliest precisely dated is of the xxist dynasty (*Ann. Serv.*, vii, 155, pl. viii), which had four small figures of wax, with the animal heads, placed among the viscera in the body. The figures here are as follows : A, Amset (human head); D, Duatmutef (jackal head); H, Hapy (baboon head); Q, Qebhsenuf (falcon head).

588-94. Wax : 4 of A, 3.0-3.4 h.; 1 of D, 3.0 h.; 2 of H, 2.8, 3.2 h.; broken H, thin, flat.

595. Wax painted black, A, D, Q, a set, 2.0 h. Ramesseum.

596-9. Wax over mud : 1 of A with 1 of D, 4.2 h. Ramesseum. 1 of H, 3.5 h.; 1 of H, 3 high, broken.

600-3. Resin : A with H, 4.2 h., Ramesseum; A with D, 4.7 h., A wrapped in leather, D in cloth, Ramesseum.

604. Mud, painted black, blue wigs, A, D, H, Q, a set, 2.1 h.

605. Red pottery, Q, 3.0 h., thick and round.

606. Green glaze statuette, D, 2.8 h., on back "Qebhsenuf make protection for the Osirian Nes-shu." Fine work.

607. Blue glaze, high relief, D and Q, 2.0, 1.8 h., holding loop.

608. Dull blue glaze, flat relief, Q, 1.6 h.; dummy signs on back, holding loop.

609-10. Blue glaze, painted yellow and red stripes, 2 of D, 2.3, 2.7 h., with winged scarab.

611-14. Similar, but very coarse, 2 D, 2 H, 3.4 h.

615. Blue-green glaze, in relief, A, D, H, Q, 2.1 h., with winged scarab and falcon ends of collar, a set, holding loop. Tunch.

616. Pale blue glaze, roughly incised, A, D, H, Q, 2.5-2.7 h., a set.

617. Set of pottery moulds for flat figures of A, D, H, Q; figures 3.2 h., moulds 4.2 h.

618. Limestone block with high relief figures of D, Q, for impressing pottery moulds: figures 4.5, 4.9 h.

619. Piece of wooden open-work incised "Speech of Duatmutef Osirian." Gurob.

See also *Amulets*, 93 and 182.

59. In the process of mummifying, viscera were removed from the body, and it was naturally felt that such needful parts could not be destroyed. By the end of the iiird dynasty they were also dried, preserved with resin, and rolled up in cloth as separate bundles. These were found placed on a rock shelf, by the mummy of Ranefer, at Meydum. There were no jars or covers for the bundles.

By the middle of the vth dynasty, four limestone jars with flat lids were used (Borchardt, *Ne-user-re*, 131), to contain the viscera. An earlier stage, however, was continued to the xiith dynasty, when a box was divided in four compartments, each holding a bundle covered by a miniature cartonnage head-piece. This marks the identification of the viscera with the person, and the provision of a case to keep the bundles together. This custom was already old then, as it was purely formal, the bundles only containing rag. There were also, in the xiith dynasty, boxes with four divisions, each containing a rag bundle, and the name of one of the sons of Horus written in each corner (Garstang, *Burial Customs*, pp. 92-3, 176-80). Sometimes the box has the four heads of the genii fastened on the lid (*Ann. Serv.*, xi, 14).

The jars of the xiith dynasty are best shown by those of the princess Sät-Hathor of Lahun, and the private jars of Riqqeh. In that age, the plain flat lid was also still used, and the jars were such as were in use, as domestic jars, in the household; this interesting point is shown by the polish of wear on two jars with flat lids, containing food, *Riqqeh*, 16, xii, xiii. Sometimes knob lids were used (*Riqqeh*, vii); but generally a human head was carved for the lid, as early as the ixth-xth dyn., see Kay (*Ann. Serv.*, xi, 19 and Winlock).

The jar became identified with the person when arms were modelled on it, in the xth dyn. As the four sons of Horus were human figures (in the seated set, *Riq.*, viii, and on xviiiith dynasty coffins), so the four human heads doubtless represent them. These heads are sometimes all bearded (*Riq.*, vii), or three bearded and one beardless (*Labyrinth*, xxxi), or all beardless (*Z.A.* 1899, 62). As those of the princess Sät-Hathor, and Senbtisi, are all beardless, that may at some time distinguish female canopic jars. The bearded heads are with a male burial named Senusert (*Riq.*, vii). The set of three bearded and one beardless is also with a male burial (*Two brothers*, 13), but occurs with princesses Ata and Khnumt at Dahshur.

The heads and jars here (erroneously called *Canopic jars*), are :

620. Wooden head, well carved, beardless, eyes and brows black, wig blue, perfect state; hole through the plug base to pin it on to the jar; height over jar, 5.7. Bought at Cairo Museum, no history, probably from the plundering of Meir, and between vith and xith dynasties.

620a. Red pottery jar with human arms in relief, and dome lid (*Antaeopolis*, 11, xiii), name Uahka, bought in Cairo, xith dyn.

621. Limestone jar and beardless head of Iunefer. *Labyrinth*, xxxi, lowest, 12 high.

622. Hard limestone heads, beardless, well cut; eyes, brow, and hair-lines, black, red tie round wig; height over jar, 4.6. Similar to one found broken on floor of viith dyn. palace at ancient Gaza.

623. Alabaster head, good work, beardless, but a slight cut under chin for attachment (?), 3½ h. over jar. With the following jar, bought together by Miss Edwards, but too small for the jar. Early xviiiith dyn. ?

624. Alabaster jar, 10.8 high. Usual xviiiith dyn. inscription, to Isis and Amset, by the "keeper of the great house, Kanuni," xviiiith dyn.

625. Head of pottery, beardless, painted white flesh, blue wig, much rubbed, 3.5 h. over jar, xviiiith dyn.

626. Head of pottery, well modelled, beardless; red face, black and white eyes, black hair, long tubular stem below. 3.0 h. over jar, xviiiith dyn.

In pottery case :

627. Jar, painted black, 11½ high, for "marshal of prince's table, Beb," vith dyn. ?

628. Jar, cylindrical, painted black, 7.3 high, incised "Hepy support his brother (*sic*) Osiris, Priestess of lord of Dendera (?) Qers."

629. Pottery head, rounded form, no paint, 2.5 h.

630. Drab polished jar and head, 10.7 h., late xviiiith dynasty.

631-2. 2 green glazed pottery heads, rough, 2.9 h., sixth dynasty.

Fragments of jars, probably human-headed. Pottery.

633. White painted, marbled, inscription incised, blue. Q. *n* born of Teta, xviiiith.

634-6. Inscription incised, blue, Ay. xviiiith; 2 pieces same style.

637. Plain drab, incised, . . . lady of the house, Hatep. Pitch inside. Late xviiiith.

638. Alabaster incised. H. Cartouche ends . . . mut, Nefertari-mery-mut ?

639. Written on yellow ground, D. Scribe of accounts, Baka.

640. Written on red polished pot, D. Amen-neb.

641. Written on brown pot, D. 4th prophet, Sā-Tehuti.

642. Deep blue glaze, black inscription *en ka en sedem en o . . .* xviiiith.

An entirely different system was begun in the xviii<sup>th</sup> dynasty. In place of the genii having human heads, three of them had animal heads, Amset human, Duatmutef jackal, Hapy baboon, and Qebhsenuf falcon. The earliest example of these is a burial of the xviii<sup>th</sup> dynasty (Carnarvon, *Excavations*), and they occur also in the burial of Mnevis under Ramessu II (*Ann. Serv.*).

Fragments of jars here of the second system.

643-4. Alabaster, incised, filled blue, cylindrical jar. Q. "Chantress of Amen Ast, daughter of the divine father Baknekhonsu and Nes-khonsu." Ramesseum. Also part of Hapy jar of same. xxiind dyn.?

645-6. Alabaster, incised, filled green, for . . . aufonkh son of prophet of Amen . . ., and piece of D of same. Ramesseum. xxiind dyn.?

647. Alabaster, thick jar, ink-written.

648. Limestone, incised, for Pa-du-khonsu, son of the divine father Du-khonsu-fuo-heru. xxvith?

649. Limestone, ink-written, for Ptah-ar-ef-ou. xxvith?

650. Complete jar, uninscribed. Qebhsenuf. 12.0 h. xxvith-xxxth.

651. Head of Qebhsenuf, 4.4 high, xxvith-xxxth.

652. Head of Duatmutef, pottery, 5.8 high, deeply modelled, hollow, painted blue.

653. Head of Hapy, similar, 4.5 high.

Examples of sets of jars may be seen in *Gizeh and*

*Rifeh*, xxvii B, xxth dyn. ? ; xxxi A, B, xxvith dyn. ? ; long inscriptions of the very fine set of Horuza in *Kahun*, xxiv ; Garstang, *Burial Customs*, p. 205, xxth dyn. ? probably xxvith ; Engelbach, *Riqqeh*, vii, xii ; Brunton, *Lahun I*, xiv ; Petrie, *Gizeh and Rifeh*, x D ; and description of types in various periods in *Z.A.* 1899, pp. 61-72.

The parts of the body of which the different genii were protectors are known in the xiith dynasty from the research of the late Sir A. Ruffer ; Amset the lung, Duatmutef the liver, Hapy the intestine, Qebhsenuf stomach and part of small intestine (*Riqqeh*, 14). In later times it is stated that Amset protected the stomach and large intestines, Hapy the small intestines, Duatmutef the lungs and heart, or the gall bladder, Qebhsenuf the liver and gall (Pettigrew). There was also a choice of orientation of the genii, Amset to N. or E., Duatmutef to S. or E., Qebhsenuf to S. or W., Hapy to N. or W. (*Riqqeh*, 31).

60. Wooden figures of Ptah-sokar-Osiris were made about the xxvith dynasty and onward to about the xxxth. Large wooden figures of Osiris were placed in the royal tombs of the xviii<sup>th</sup> dynasty ; to them succeeded smaller figures, which were hollowed to contain papyri, about the xxiind dynasty, as that of Anhai (Brit. Mus. Budge, *Mummy*, 216). Later are figures fairly dated to early in the xxvith dyn. (*Heliopolis and Kafr Ammar*, p. 34, xxix).

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# STONE AND METAL VASES

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## STONE AND METAL VASES

### INTRODUCTION

1. In studying the stone vases, it seems best to set aside the prehistoric forms already described with other prehistoric remains in *Prehistoric Egypt* xxxiv-xlii. This course has been followed in other classes of objects; and as the vases are here dealt with in historical order, the separation of the earlier period does not break up the present arrangement. In several ways the prehistoric work is on a different footing from that of the dynastic times, and few types of vases run through from one age to the next. Where reference to earlier forms explains a type, they are briefly noticed here.

Previous publications on stone vases are of (a) disconnected groups in excavations, invaluable for dating but only touching one period; or (b) *corpus* lists according to form, essential for registering forms as found, and for descriptive purposes; or (c) the undated mixture of examples deposited in museums, with very rarely any history which can be of use for dating purposes. None of these provide for an historical view of each class of forms. To arrange the varieties of each general form historically is still requisite, in order to show the history of the types, the contemporary varieties, and the style of each period. The collection at University College, including most of the forms that are known, gives a fit ground for an historical treatment of the subject. This catalogue is therefore not merely a list of chance specimens, but is a first step toward a consecutive history of the forms and varieties of stone vases. Of the 728 examples in the Cairo catalogue, only half are drawn.

2. *Mode of dating.* Few of the vases here are absolutely dated; but every undated example has been compared with all dated vases that are published, and the nearest form that is found is stated in the text. This gives a tolerably close date for nearly all forms here, and they are arranged according to that order. A few uncertain forms are placed

apart. I regret that the mixture of several periods of vases at the ruins of the temples of Menkaura precludes the use of that material here.

The dating of the vases and other remains is derived from various sources and by various methods. The most direct is the royal name on a vase, as on those from the 1st dynasty, dedications of the ivth, vth, and vith dynasties, and the occurrence of later names, especially those of Tehutmes III, Amenhetep III, Ramessu II, and later the Bubastites and the Saites. Next are those found in royal tombs, or with named objects, such as scarabs, in groups. Then those associated in groups, or by levels, with objects dated from other sources, such as pottery. The mass of dated material, exactly published during the last fifty years, has left but few periods where there are not sufficient points fixed to determine the age of forms. The Ptolemaic and Roman periods are the worst known, owing to excavators having centred their attention upon papyri, and ignored the archaeology.

When we can deal with a closely dated series, such as the 700 forms from the royal tombs of the first three dynasties (*Royal Tombs* II, xxvi-liii G), each fixed to one reign, the changes in small features can be traced. We see how fashions were so short-lived that often some one detail is restricted to a single reign. This shows how needful it is to observe every detail of a form, and how minute the record of it must be, in order not to lose any possible result. Just as in experimental science a dozen attempts on different lines may be required before one of them yields a definite result, so here a great many details are found to have a wide range, and to be of little historical import. It is only by searching the whole field thoroughly that we can fix on those changes which are closely limited to one period. Even where there is some range of time for a form, it is useful to list all the instances, as in pl. XIII; thus, for instance, the cord pattern on cylinder jars is entirely limited to the range S.D. 78-81, except a

very few early in the iird dynasty, which might come from a previous source. The left-handed cord is only in 80-81. The cord is much commoner than the plain band in 78-80, the plain band is the more usual in 81, and is therefore the degenerate form. Thus the statistics of types, in each period that can be separately defined, is a further help. The most important group in this collection is that from the tomb of Neit-hetep, see pl. i, 1 to 9, nos. 12, 211 to 219, and 449.

**3. Illustrations.** For the comparison of details, photographs are inadequate; too often they are taken from a useless point of view, as the top view of a bowl; at the best, they give a skew view of either the top or base; and they never show the thickness and the interior form, which are very useful in discrimination. For comparison, it is only drawings that will suffice. These should, of course, always be made to a uniform scale; all my drawings of scientific value are already issued on a scale of  $\frac{1}{3}$  for stone, being first drawn on  $\frac{1}{2}$  and then reduced. This should therefore be adhered to for future publications. Where a collection can be dealt with all together, it is worth while to fix a rigid *camera lucida*. The greatest distance convenient for drawing is 26 ins. from the prism, the object being at 52 ins. for  $\frac{1}{2}$  scale. A dotted outline should be made, so as not to hide the form by the pencil. Across the axis of the mouth of the vase, a straight-edge should be laid, and this defines the top accurately. After dotting the outline, the real drawing is made on the dots, finishing off the brim and base by observation and measurement. From three to six thicknesses, or inner widths, are measured, and the section line of one side drawn in. For small vases, under 4 ins., half of the above distances may be used, with a lens below the prism, so as to observe the form more exactly. For very large vases, the top and base can be drawn separately, shifting each opposite to the prism. Binocular drawing is much the best on long-distance work, keeping both eyes converged on the pencil, while one eye also sees the prism image. For drawing from fragments, see the stand in *R.T.* II, viii A.

The complete form should be drawn from a fragment, so far as may be possible. By measuring the diameter at one level, and reversing the fragment, each side can be drawn from it in relative position. If more than a quarter of the circumference remains, it should be put in a hollow right angle, and the radius read at the points of contact. Each drawing

is completed here thus, so far as it can be. The slight irregularities in the drawings of the form are less than those of the actual vases, as each has been placed in the most symmetric direction for the drawing.

**4. Materials and forms.** In considering dates, the material has to be considered as well as the form. Some of the rarer rocks were only found once, and were used up in a reign or two. Thus large white-crystal porphyry was only used in S.D. 79, and perhaps 81: red porphyry is very rare in S.D. 79, and is never found again till Roman times; blue volcanic ash is limited to the ist dynasty; blue marble very rarely occurs after the xiith dynasty, though common then; purple fluorite is only known in the reign of Ramessu II. In smaller work, amethyst is scarcely ever found except in two periods, the xiith dynasty and Roman times; a long vein of it in granite, recently discovered, was probably the only source. Green noble serpentine and brown steatite are almost entirely prehistoric, and agate is of Greek times. Thus the material is often a clear guide to the date, and we should require the strongest evidence to date a translucent diorite vase outside of the iird to vith dynasties. The source has been found in western Nubia.

In the origin of the forms of stone vases, there is less to be said than in the origins of pottery. Most of the types are obviously suitable for stone working, and in few instances does other material seem to have affected them. The cylinder jars are clearly a translation of pottery forms, which already had a long history before they appeared in stone. The bowls with recurved brims of the iird-ivth dynasties may probably be derived from pottery forms then used. We happen to know of the common kohl pot form in glazed pottery earlier than in stone, but it may not have originated in pottery. Otherwise the stone forms seem to be quite independent, although a general resemblance can be seen between them and the pottery, as a matter of fashion, in each period.

**5. Manufacture.** The mode of manufacture was usually by grinding. The form was first chipped roughly, and the surface then worked down by emery blocks. The direction of grinding was not circular, but diagonal, on prehistoric vases. On the dynastic bowls, the grinding was done circularly in a block. For hollowing the interior, many methods were followed, according to the form. The main resource was to drill out a large core from the axis, to begin with; this removed the portion which

would grind away most slowly, and left a hollow into which the sludge of grinding would fall. The main part was then ground out with a block, fed with sand or emery.

In the earlier part of the ist dynasty, the circular groove of the tube drill was carefully ground away in hollowing the interior. By the middle of the dynasty it was often left, showing as a ring in the smooth hollow. Later still, this ring mark was regarded as necessary, and was imitated by a scraped line if not already there. The means of hollowing undercut spaces, as in bowls with incurving edges, or vases with necks, is not clearly shown. Narrow bars were slipped up the axis of a vase and then turned across it, and were twisted round by a forked stick; for this purpose they were often of hour-glass shape. The forked stick, with a weight on the top to press the grinder down, became the usual hieroglyph for the word workman. There must have been a series of such grinders of increasing lengths; in some instances they are shown by the irregularities inside, as in xxiii, 581. The undercutting in bowls is a difficulty; apparently a grinder in two pieces must have been used. The difficulty of hollowing was well managed at first, as in xxi, 477, 488, leaving an almost uniform thickness. Later on, the hollowing was perfunctory, until it becomes merely ceremonial (iv, 57) or disappears altogether. An evasion of the difficulty began in the ist dynasty, by making a vase in two halves as xx, 451, 452, and this continued to be done in the xiith dynasty, xxiv, 627, 629, 632.

I have to thank Prof. Kosaku Hamada for kindly drawing the series of kohl vases 679 to 769 during his first visit to England in 1915. These were drawn full size, and are here reduced to 1:2.

## CHAPTER I THE CYLINDER JAR

**6. Derivation.** This is perhaps the only class which is clearly descended from prehistoric times. Early in the second prehistoric civilisation, large globular jars of pottery were made, with a ledge at each side half-way up, to serve as handles. This type became more upright, and the handle-ledges became wavy. In this form it survived for long in Palestine. In Egypt the wavy handles dwindled, the form gradually became cylindrical, the handles became a band of arched pattern, and passed into a

mere ridge. In the earliest historic times, the ridge was notched as a cord pattern, decayed into a row of dots, and disappeared; the pot then dwindled, until by the end of the ist dynasty it was a little tube like a finger-stall. The stages of a wavy handle, a wavy ridge, and a cord pattern were all copied in stone; and the latter two, as figs. 1-11 show, belong to the historical age that we deal with here. The form then continued in stone, passing from a cylinder to a trumpet mouth in the xiith dynasty, as 127. Thus there was a change from globular sides to deeply concave sides, during a period of about 3,000 years. Archaistic copies (133 to 142) were continued for ceremonial use, for about 2,000 years later; this is the longest history of continued derivation that is met with in archaeology. The earlier part of it appears in full detail in the *Corpus of Prehistoric Pottery*, xxviii-xxx.

**7. Changes.** The history of the changes of detail can best be seen in pl. xiii, where the total of published examples, that are dated, are listed under each variation and period. In the last column, the numbers with + prefixed are added from the plates here. In the forms of brim, the cusp brim (A), and round brim (B), continue side by side through the ist dynasty, but the rounded brim is occasionally found later. The obtuse-angle brim (D) is peculiar to Kho-sekhemui. The thin parallel projecting brim (F to J) begins from the rounded type (F) under Neter-khet, and is the only form of the ivth to xiith dynasties, becoming much exaggerated, and then receding in the xiith dynasty. In the forms of body, the widening downward (B) is mostly of S.D. 78, but lasts to S.D. 81. The plain cylinder, or that with slightly hollowed sides (D, E), was usual from the beginning to beyond the middle of the ist dynasty, S.D. 78-81, and then suddenly passed into the concave-side form which started at 79, became commonest at 81, and lasted on to the iird dynasty. It became more deeply hollowed (M) at the end of the ist dynasty, and continued thus to the vith dynasty. The splay out to a foot at the base (N) seems to have started in the iird dynasty, and became the usual type in the vth and vith dynasties. Associated with a sort of flange projection at base and brim (O), this was the special vith dyn. form, surviving till the xiith dynasty. Lastly, the upper part became almost a conical trumpet shape (P).

The cord pattern also went through continual changes. The large wavy band is mostly late in dyn. O = S.D. 78, but survived into the time of

Mer-neit, S.D. 81. The small wave band had a shorter history, S.D. 78-80. The faint wave was more usual, from 78-81. The notched wave band was a degradation at 79, 80. The plain cord line belongs to the age of plain cylinder forms, beginning in 78 and ending in 81; various modifications of it appear in the same range. The left-handed cord is only of 80, 81. The plain band is of the same age as the common cord band. The cylinders without a band are known from S.D. 78, they become commoner till 81, and are universal after the 1st dynasty, with the exception of a few cord patterns early in the 3rd dynasty.

A correction should be stated here. Early in the work of classifying the prehistoric remains, the cylinder jars were dated (in *Diospolis Parva*) far back in the prehistoric series. This was due to my being supplied with reports of burials which were of mixed periods, without distinguishing the primary and secondary interments. Soon after that publication, I found the true position of the cylinders, in the tombs of the 1st dynasty.

In the present account, only the more notable matters will be mentioned. The complete catalogue of the material, the nearest comparison of dated examples, the earlier publication and origin if known, and the date (known or inferred), appear listed further on in this volume.

8. *The early dynasties.* Pl. VI. The separate wavy handles still survived in the time of the obscure kings just before the 1st dynasty, and such are therefore included here in the historical series. No. 1 is a portion of a magnificent jar, which is dated to S.D. 77 by the finding at Tarkhan; but the same form of wave survived to the age of Neit-hetep, presumably the second reign of the 1st dynasty. 3 has the wavy handles treated as serpents, a form not known elsewhere; there is no trace of this being a modern adaptation, it appears to be entirely ancient. 6 is absolutely dated to the reign of King Ka, in dynasty O, before Mena, as it was found at Tarkhan with inscribed vases of Ka. This may perhaps be more truly classed with the small-handled vases in *P.E.* II, xxxix, 81, 85. No. 8 has a coarse imitation of the wavy band, made by cutting into a broad band, alternately above and below. In 9, the bulging sides occur at Tarkhan in 77 (type 51a) and 78 (type 51p), and in the tomb of Zer (*R.T.* II, liii, 362) in 79. The wide wave band occurs in 79 (*R.T.* II, lii, 348), and in 80 (*Tarkhan* i, type 51t), but never in the Gizeh tomb under Zet. This can

hardly be dated otherwise than S.D. 79. 12 is a basalt jar of the series with similar markings, xi, 211-219, and xx, 449. Another vase that I have seen with this mark bore also the name Neit-hetep, and the forms of these would all agree with the date of that queen. It seems therefore probable that all of these marks were found in the royal tomb of Neit-hetep, excavated by De Morgan.

Pl. VII. From 16 to 25, these belong to the age of King Zet, S.D. 80. Fine concave outlines were beginning to prevail. These were carried to an exaggerated slenderness in the next reign, that of Den, S.D. 81, as in fig. 26. Pl. VIII. The plain band, or absence of band, increased during the reign of Den. One of the earliest vases with a private name is 37, with the inscription of the "Sacred scribe Safekht-nezemt." This name, "sweet is the goddess of writing," suggests that he came of a family of scribes. The vase is of gypsum, the softest of stones, which began to be used in this reign. Pl. IX. There appears a general decadence during the long reign of Den, like that in the reigns of Amenemhat III, and Amenhetep III, in later ages. The vases are largely plain instead of corded, and very coarse thick forms become common, as 50 to 60; the brims also are not well rounded, but there is often merely a flat space left between the inside and outside. A form somewhat like 53 recurs in the xviii dynasty (*A.C.W.* III, xlv). Gypsum also became largely used, in place of the harder Egyptian alabaster. A great number of vases of this clumsy type were found in the excavations at El Kab. Pl. X. The angular brim, as 66, or bluff slope, 67, 68, 69, 71, 73, 75, are characteristic of the iind dynasty. The form is hardly defined in the rough model, 62, from the tomb of Qa. A peculiarly wide type occurs at Gizeh, dated to Neter-en, like 65; and 63, 64 are probably contemporary. For the late 3rd dyn. date of the small cup-hollows, see *M.M.* xxiv, 11-15.

Pl. XI. 9. *The ivth to vith dynasties.* The absolutely dated material is scanty for so flourishing a period. The temple of Menkaura, where most has been found, was so much altered and turned over that no vases can be dated thence. The tombs that have been opened have seldom been completely published, so the chance of getting fully dated objects after this catalogue was drawn up has been gladly secured. Especially is this needed for the characteristic form of the brim. Here we have 93A, a vase of Khufu for the early ivth dynasty, another of Teta 93B for the vith, and a third of

Pepy I 93C for the vith. The increase in width and reduction in thickness are clearly defined, seen in pls. IIA and XI, with the Khufu inscription repeated below in different light. The clumsy form in *L.D.* II, ii, 2, belongs to the series of thick alabaster, like vith dyn. types; but the equal curvature from top and from base belongs to the 3rd dynasty, as 37, 71, and is not found in the vth dynasty or later. It seems therefore as if it must be assigned to the ivth dynasty. Nos. 78, 79 are also to be provisionally put to the ivth dynasty; but the whole of this part of the history will need to be written whenever the existing material is made of scientific use by a full publication. It may then appear that some examples now assigned to the 3rd or vth may be of the ivth dynasty.

Narrow conical forms with a very sharp foot, 80-86, seem to be typical of the vth dynasty, and to extend to the vith. For these dynasties there are good dating points in the vases dedicated by kings, which have increasingly wide brims, as in that of Khufu 92A, wider under Teta, and more in 93 of Pepy I here; similar vases of Pepy and of Mer-en-ra are in Cairo Museum. The brim and base were both exaggerated at this period, sometimes absurdly, as in the beautiful diorite vase 95. This style continued in the decay of the Old Kingdom, as in 97, like a vase of about the ixth dynasty. The graceful curve of the sides was sometimes lost as in 98, like a vase of about the xth dynasty; and 103, 104 resemble this clumsy form in the xiith dynasty. It may be that 94 should come into the xth-xiith dynasties, owing to the clumsy body, and its being of a grey variety of the xiith-dynasty blue marble; but it is left here to the vith dynasty on the grounds of its brim and base. 96 was much like it, but the brim and base have all been broken away. The broad brim and foot lasted to the xith dynasty; see Antefaqer in *Denderah* xxii.

10. *XIth dynasty.* Pl. XII. The latest stage of the cylinder vase is the prevalent form in the xiith dynasty, with a small brim and less foot. The sets of six or seven of these vases are found in the tombs of this age, supposed to contain the unguents needed. Such sets are figured on the coffins, and bear sometimes the names of the different ointments. The original pottery jars that lead to the cylinder type were always for ointment; mud was substituted later, or the jar left empty. Serpentine was the favourite material, speckled, of black and dark grey, or of black and brown, or shades of dark brown.

The blue marble of this age, and alabaster, were also used. Lids, which sometimes appear in the vith dynasty and onward, were usual at this time. Blue paste—imitating lazuli—also began to be used, as in the large vase 127. 129 may be derived from this type; it is dated to the xiith dynasty by its polish and thinness and its discovery at Kahun. It contained resin. By comparison of form, we must place 128 with this; but I should be more inclined to credit it to the 1st dynasty. No. 130 I greatly suspect of being a modern attempt; but it is worked so thin, and entirely by hand, without a lathe, that it is kept here in case other examples should prove it to be ancient. It might be a clumsy local fabric of the 1st dynasty. 131 is uncertain in age. 132 is of the xiith dynasty from Gizeh, with broken ivory wands. The following vases are all from foundation deposits, 133, 134 of Hatshepsut at Deir el Bahri, 135 of Tehutmes III at Amu (Kom Afrin), 136 of Tehutmes III at Nubt, 137, 138 of Tehutmes III at Koptos, 139 of Amenhetep II at Nekhen (El Kab), 140 of Amenhetep II naming Amen going sailing on the Nile, 141 of Amenhetep II at Thinis (?), 142 of Amenhetep II from his funeral temple at Thebes. None of them are well hollowed, and they degrade until there is only a slight hole on the top. Those of Yuua under Amenhetep III are of the form 127, with a rather more splayed foot; this suggests that 127 may be of the xviii dynasty.

## CHAPTER II

### BOWLS, STANDS, AND HANDLED VASES

Pl. XIII is a key to the dating of details of stone vases, with the number published of each period.

11. *Stands.* The Egyptian usually sat on the ground or on a slight stool; hence he only required low stands for his cups and plates, just to keep them out of the dust. Pottery stands are common, from mere rings up to tall trumpet-shaped tubes 2 or 3 ft. high.

Pl. XIV. 143 is a bowl and stand in one piece; this is the only example of such a combination that I have met with, and I should therefore doubt its age, but as it has been hollowed by a large tube drill, this seems to prove it to be ancient. 144, 145 are stone stands made in imitation of the pottery forms, with triangular holes. It seems probable that this style is a copy of stands made with crossing sticks, bound together and plastered with mud. 144 is

absolutely dated to the iiird dynasty, being found in the ruins of the lower temple of Sneferu at Meydum. 145 is a fine piece of work in grey volcanic ash, drilled out from the base and the top. 146 appears to be a tray, rather than a dish, from the large diameter and flatness of it.

147 to 153, the low table stands, appear in the earliest examples at S.D. 81 (confirmed by the tomb of Den's vizier), but the greater part are of the iiird dynasty; 149 and 152 in diorite are probably of the ivth dynasty. They thus seem to have a very limited range. The earlier forms, of the beginning of the ist dynasty, are rectangular with one end rounded, and three very short legs below (*P.T.* II, i, 3; *P.T.* I, xi, 23).

The earliest here is the low base, 148, on which a disc table has been cemented; this is of S.D. 81. No. 147 may be as early, as there is a rather clumsier table of 81 (*Tarkhan* I, type 5m).

12. Pl. XV. *Handled vases.* The low vase with the two handles was one of the regular types of stone vase of the Gerzean prehistoric age, usually like 155, but with a flat brim. It was also largely imitated in pottery, painted to imitate stone patterns. This type certainly descended to S.D. 81, as 156, 158, and 166, from the Tarkhan cemetery, are of that age. As the others, from 154 to 159, are more like the dynastic than the prehistoric forms, they are included in this series. That the type was familiar in the early dynasties is proved by the very coarse and slightly hollowed examples found in the iiird dynasty, like 157 and 168. The idea of the type lasted down to the xiith dynasty, as seen in no. 160 of blue marble, and 161 from Harageh. Another type of the later prehistoric age, 169 to 178, is probably derived from the barrel vase with handles. Many were found at Naqadeh from S.D. 71 onward, like 169, 170, which I should place about S.D. 75. No. 171 is a type known to extend to 76. Nos. 172 and 173 are types of S.D. 77. No. 174 has been cut down anciently. 175 is a type of 78, and 177 is dated to S.D. 78. No. 176 seems to be of this date or earlier. The type lasted on to the vith dynasty, as shown by 178 from Zaraby. But none have been found in the iiird dynasty at Beyt Khallāf nor at Gizeh, nor any in the royal tombs of the ist and iind dynasties. The type was therefore practically extinct by the beginning of the ist dynasty.

13. Pl. XVI. *Bowls of ist dyn.* This is the largest class of all the stone or pottery vases. The bowl is often represented as held by the base in one hand

while drinking from it. It is not so often found in the prehistoric ages, but is very common in the ist dynasty. The thousands of fragments of slate and alabaster bowls comprise the bulk of all that is found in the early royal tombs. The varying forms of the brim and of the inside base are tabulated with their dates in pl. xiii.

Pl. XVI. The examples that may be assigned to S.D. 77, 78, and 79 (that is, dynasty O and Mena) are placed together here, as it is difficult to distinguish them. There are several of fixed period, as 183, 184, found with pottery inscribed for Nar-mer, and 180, 185, 186, 189, 190, 191, 192, 196, 201, and 202 from the great deposit of Hierakonpolis. Two of these (201-202) bear the name of the Scorpion king of the Anu and one (196) that of King Ro. Others are dated by pottery in the graves at Tarkhan, as 195-200 of S.D. 77; nos. 179, 182, 187, 199, and 205 of S.D. 78, besides 209 like one from royal tombs of S.D. 79. The last named has been a magnificent bowl of red porphyry, ribbed, one of the very few objects of this stone before Roman times; only the base and fragments of the sides and edge remain. Some intermediate examples are omitted from the drawings, as two dishes between 190 and 191 from Hierakonpolis, while a set of eight small funerary models varies between 193 and 194. The deep conical bowls are a feature of this period, and such as 206 is, for the size, thin cutting, and polish of it, a noble example of work.

The series of bowls 211 to 219 were bought, together with the cylinder jar 12, and the tall vase 449. The group of signs on all of them shows three fishes with heads toward a tank, and three objects behind them. The same group is on a cylinder in Berlin (*Z.A.S.* xxxiv, 160), and I have seen another such bowl with the name of Neit-hetep added. Probably all of these come from De Morgan's tomb of Neit-hetep at Naqadeh. On 214 there are also the marks of a square and a branch, well known in pottery marks. The two mouth signs on no. 210 show that this is one of a series with those bearing two mouth marks, along with numbers, which appeared on about a dozen prehistoric vases of various ages, offered to me all together. I carefully examined them, and the vases were clearly ancient; but the numerals were greater the larger the vase, whereas the mouth means a fraction, and the number should be higher, therefore, on the smaller vases. I concluded that there was no proof of age in the marks themselves, that they were contrary to correct

usage of such numerals, and that this discrepancy left no chance of the marks being ancient. It is needful to state this, as these marked vases have been adduced as evidence of the prehistoric use of hieroglyphs. The buyer must be incessantly on guard against forged or faked objects in Egypt.

Pl. XVII, S.D. 79-80. Reigns of Zer and Zet. The period of S.D. 80 is briefer than those before or after it, but is numbered apart, as it has a distinct character in its style. The recurved outline at the base of the bowl is seen earlier in some instances, 215 to 218, but it is usual in this period, as in nos. 225, 230, 233, 239, 240, and 245. It belongs to the refined style of Zet, seen in the hieroglyphs of the reign, and it is very seldom found in the coarser profusion of the reign of Den.

Pls. XVIII, XIX, S.D. 81, reigns of Den and Azab. This group includes also the age of the tomb of Mer-neit, the queen who died some years before Den. A new feature of the time is the use of very thick dishes with a central drill hollow, as 251, 252, and often with thick square edge, as nos. 253, and 255 to 259. The oval bowls 264, 265, 266 are of the ist dynasty, by the example of the dated pottery, S.D. 79-81, and they are too irregular in work to belong to the previous reigns. The fragment of a great bowl, 277, is placed here because the nearest parallel to the form is from the tomb of Den; but the large-crystal porphyry would point to the beginning of the dynasty. The incurving of the edges is also another feature which, though starting before, now rules the style of the bowls, both in the flat forms 293 to 298, and in the deep forms 299 to 303. The latter begin the class which is so marked under Khosekhemui, xvi, 340-346.

Pl. XX, S.D. 82. The last two reigns of the first dynasty are much alike in products, and their separation is almost impossible owing to Amélineau having thrown the contents of one tomb into the other. The turning in of the edges progressed, and became extreme in some cases, 327, 328, like bowls from the tomb of Qa.

14. *Bowls of iind and iiird dyn.* Pl. XXI, iind dynasty. The style of the reign of Neteren is shown by a tomb dated with seals of Neteren at Gizeh. The peculiarity of the bowls of this reign (329 to 333) is the very wide sloping face to the lip. This face became much steeper in the time of Perabsen, as in 335 and 337. The bowls here, like those of Khosekhem in 339 to 346, are all deep. The facing of the edge became still more upright, as in 340, 341,

and 342, and in the deepest bowls the lip is very thick and square, and much turned in, 343 to 346.

Pl. XXII, early iiird dynasty. This period is fully represented by the royal and princely tombs of Beyt Khallaf and Mahasneh, and other tombs of Reqaqneh. The comparisons therefore are well based, like those with the royal tombs of Abydos. Some of the steep lips remain, as 361 to 364; but in general the excessive lip had become so inconvenient that all lip was abandoned, and the brim reverted to the simple form of the early ist dynasty. The distinction from the earlier bowls is, however, in the round form of the inside. This began in the less careful work of Den, S.D. 81; and after the ist dynasty it is rarely that any internal corner was worked at the base. Thus the different ways of working the brim and the base pretty safely define the ages of bowls. At the end of the plate are a few forms, 365 to 371, for which no dated comparison is close enough, but they appear to belong to the less-known times of the iiird dynasty; 365-6 may be Roman, as well as 972.

Pl. XXIII, iiird dynasty and onward. A tomb of the iiird dynasty at Gizeh gives parallels to these vases, 372 to 381. The style of flat dishes began to revive at 349 (since the old Hierakonpolis and Tarkhan examples, 198 to 203), and it appears here in 372, 373. The bowls, 374 to 379, are much like those of the iind and early iiird dynasties. The massive vase 380 probably turned outward to a brim; perhaps with a wide mouth, as Beyt Khallaf xxvii, or a narrower mouth, as Gizeh vi E.

At the end of the iiird dynasty there is this very clumsy bowl from Meydum, 382. The recurved edges in 383 to 387 are like the pottery bowls from Meydum and elsewhere, apparently of the early ivth dynasty. This form is well adapted for pottery, to stiffen the brim, but is difficult to work in stone; hence these probably originated from the pottery forms. Some at the base of the plate are undated, 388, 389 with peculiar flat brims, and 396. The conical vases in obsidian and basalt, 390 to 392, are from funerary sets of the vith dynasty (*Dendereh* xxi). The little flat-brim bowl, 395, has a scroll pattern on it, and is of the xiith dynasty from Kahun. The age of 393 and 394 is uncertain, but as 393 is of blue marble these are probably of the xiith dynasty; the form occurs in the xviiiith (*Ab.* III, xlv).

15. Pl. XXIV. *Spouted bowls.* The dated examples of open-spout bowls are of the reign of Den,



and probably these, 397 to 403, should be assigned to that date, or rather later in the case of the rough work of 400 to 402. The smaller ones are beautifully made and of fine stones.

The double-spout bowl, 405, seems obviously related to the double-spout copper bowls of Khosekhemui; those probably were originated by the co-equal worship of Horus and Set at that time, neither of them greater nor less than the other, and to be adored simultaneously. The bowl is of fine thin work, but only in soft limestone. A single-spout bowl of limestone of the same form, 406, is probably of the same age.

The bowls with tubular spouts, 407, 408, are related to the tubular-spouted bowls of pottery made in the iird to vith dynasties. As these stone bowls are of fine work they seem most like the delicate forms of the vth and vith dynasties, and a similar bowl is dated to the vith dynasty (*Dendereh* xxi). The deep small bowl, 409, of white marble, has a uraeus under the spout with its tail curling round the base. The style of this looks like that of the xiith dynasty. The little bowl, 410, is adapted from a fish form; as it is of gypsum, it is probably of the iind or iird dynasty.

**16. Rimmed bowls.** This class appears to have been started at S.D. 80, about the reign of Zet, and it disappears after the iird dynasty; thus it is characteristic of the first group of dynasties. The series is placed here in order of age, as shown by the fixed examples and the style of form. 411 to 415 are the taller and less specialised forms, and the others on to 424 are fixed to S.D. 80. From 425 to 436 they are of S.D. 81, or like those so dated. From 437 to 441 they are like those of S.D. 82 or the end of the ist dynasty. 442 to 444 appear to be late, by the coarse forms. 445 to 448 are like those of the iird dynasty at Beyt Khallaf.

### CHAPTER III

#### UPRIGHT VASES

**17. Pl. XXV. Barrel form.** The earlier forms leading to the barrel type are first given here. 449 is of the group figured in 12 and 211 to 219, and therefore probably from the tomb of Neit-hetep; the same outline, but of an oval plan, was found in that tomb (De Morgan, *Tombeau de Negadeh*, fig. 667). The forms 450-452, 455, 456 are like those of S.D. 80, and the tip of a vase 437 is from a tomb of that date.

The less regular form, 453, may perhaps be an earlier stage, as it occurs in S.D. 77 and 78 (*Tarkhan* I, type 77d). The almost globular vase, 458, has the same form as the pottery (type 941), dated to S.D. 79, 80. The succeeding forms, 459 to 461, are like those of S.D. 80; while the others, 462 to 475, are like those of S.D. 81. This type therefore was mainly of the middle of the ist dynasty, about the reign of Den. The method of sawing a cut to separate the brim from the body, as in 466, was started in that reign, as seen in *R.T.* II, type 282; and it lasted to the end of the iind dynasty, as in *Abydos* I, ix, 6, 7.

**18. Pl. XXVI. Squat form.** The barrel form which came to its maximum in S.D. 80, passed into the squat form which began in S.D. 81, the better formed and earlier examples, 478 to 490, being all of that age. The form was already greatly flattened, as in 485; and it became still flatter and more misshapen, as 491, 492, which are like those of the close of the iind dynasty. 495 is like the iird dynasty type. The top was often inserted after the vase was hollowed, and it has been afterwards lost; hence the form 500. This seems to have led to a form without a mouth-piece, as 501, 502, which are so wide across the opening that they reach the form of bowls. A late development of this was with a tall neck, as 505, which is like a form of the ivth to vith dynasties (*Mahasna*, xxxv, 18). This class of vases is generally of gypsum in the end of the ist and in the iind dynasty; later, various grey and variegated marbles appear. The difficulty of hollowing so wide a vase with a narrow neck led to making it in two halves, as 480, 481. This method has been adopted by modern forgers, whose work in grey serpentine turned in a lathe is pretty well evident.

**19. Pl. XXVII. Collared form.** The top row, 506 to 517, is placed as introductory to this class, though some (such as 506) are almost nearer to 578, 579, and others. Half a dozen in this row can be dated by comparison, all to the vith dynasty. The length of the neck, or the pointed base, are the links with the collared forms, 518 to 532. Two unusual materials here are quartz crystal 509, and crystallized calcite 512. 509-512 have been hollowed by a tube drill only. The form with a double rim, 516, 517, seems to be the step leading to the collared form.

The collared vases, 518 to 527, are in no case datable outside of the vith dynasty. The example on a stand, 527, is much like a vase on stand which is certainly of the xviiiith dynasty, 880; but the latter

has only a plain neck, and not the double ridge, hence it is not of this class. Of course, pointed vases were always placed on ring stands, and so there is nothing surprising in such a combination being imitated at any period. The short forms, 528 to 532, were the degradation of the longer type, as is shown by the single-rim forms, 533 to 535, being still later. One, like 534, was found at Hu, grave 182, of rough work, and associated with so degraded a bowl form that it was assigned to about the ixth dynasty (*Diospolis*, xxviii).

**20. Peculiar types.** The use of shells for containing eye-paint dates from the iird dynasty (see *Medum*, xxix, 17). In the vith dynasty, imitation shells carved in diorite were used (see *Dendereh*, xxi). The carved shells, here 536 to 538, probably belong to the xiith dynasty. 536 is of alabaster, 537 of slate, and 538 of blue paste; the latter material was not used before the xiith dynasty.

The shallow rough dish, 539, is a model from the tomb of Qa, at the close of the ist dynasty.

The flat tray, 540, with lotus patterns incised, is most like the top of a stand of about the iird dynasty. The rough style of decoration would agree well with this age, but there are no other examples for comparison.

The oblong stone dishes, 541, 542, are of sandstone and of alabaster. Such are dated to the xiith dynasty at Rifeh (*Gizeh and Rifeh*, xi A, 70) and at Hu (*Diospolis*, xxvii, W 38; xxx, Y 448). The little oblong alabaster dish, 543, is obviously connected with these, but no dated example has been found.

The upright pot of dark grey limestone, 544, is quite undated. The tube of blue marble, 545, is probably of the xiith dynasty; it may be an early form of kohl tube. The solid form, 546, is well finished, except that the projecting foot is rough; it looks as if it were a model lamp on stand, from a set of funerary models.

Bowls with figures of apes on the outside were made in the xiith dynasty, as in *Arabah*, ix, with two apes like fig. 547. This type was expanded in the xviiiith dynasty, with four apes, as in *Qurneh*, xxii, 9. The material is much the same in all these, a greyish marble, like the poorest examples of blue marble.

548 is a well-made vase of hard black steatite, with a thin lid, and a figure of an ape as a handle. Whether this is of the xiith or xviiiith dynasty is uncertain. There is the same uncertainty in the date

of the small oval vase, 549, with crocodiles on the edges of it.

**21. Pl. XXVIII. Vases of the vith to the xith dynasties.** After the vith dynasty, various degradations of type occurred, seen in the clumsy and rudely made forms attributable to that period. In all those from 550 to 604 there is not a single example of the blue marble which is characteristic of the xiith dynasty. There is a larger amount of limestones, plain and coloured, than in other ages, as 557, 563, 569, 595 of white, 573, 587, 588, 593 of buff, 572 of brown, and 604 of pink mixture.

From 550 to 582 they appear to be of the vith dynasty, with a few earlier. 553 is a rough solid model of limestone from the tomb of Qa (ist dyn.); from the same is 556 (solid). No. 552 is the first vase with a handle. Probably this and the succeeding vases, 557, 558, are from sets of vases for the seven ointments placed in the tomb; see the complete set in *Riggeh*, xiii, the table of thirty sets showing the forms and names, R., xlix, and the statement R. 16. No. 559 may be a similar jug, broken; it is from Hu, perhaps of the viith dynasty (*Diospolis*, xxviii). 552, 560, 561 are solid, and appear to be rough models of vases. The forms 562 to 568 are akin to those (508 to 512) which lead into the collared vases. 567 is solid, and was evidently one of the model vases on a slab of the vith dynasty, as in *Dendereh*, xxi. See also the similar forms in pottery of that age (*Dendereh*, xvi, 24, 25, 27).

The rounded forms 569 to 576 are merging toward the round-bottomed forms of the xiith dynasty 626 to 633, but the general type is like those from Mahasneh and Diospolis, of the vith dynasty. 576, which has a round bottom, is nevertheless before the xiith dynasty; it is from a tomb at Mazghuneh with things of the vith dynasty style (*Mazghuneh*, p. 40, tomb A, pl. 1, 3). 577 is much like the ist dynasty forms 451 and others; it is distinguished from those by having a stronger lip and more fullness, like the vith dynasty forms from Zaraby (*Gizeh and Rifeh*, vii E, 118, 53). 578 is from Zaraby 118, just quoted. The fine forms of 579 to 582 are clearly of the vith dynasty; 579 is from Zaraby, the flat wide brim of 580 is like the tips 93 and 95 of the vith, 581 and 582 are like the Mahasneh vases. The degradation of these forms is seen in the line 584 to 593 (some of which are dated to the xith dynasty); 584, 589, 590 from the Qurneh cemetery; and 588, compare with *Dendereh*, xx, 32 and 441. 593 has had a wider brim, which is now broken away. 595 is

probably after the viiith dynasty, compared with those of Denderah. 596 is from Qurneh, and so of the xith, as also are 597, 598 by comparison with the vase of Antef-aqer (*Denderah*, xxii). The form of 599 is assigned to the xth dynasty at Rifeh and to the xiith at Hu; it was found with 600 and the scarab. 603, 604 are from Qurneh cemetery, and so of the xith dynasty.

22. Pl. XXIX. *Vases of the xiith dynasty.* The curiously flattened forms 605 to 607 are dated by one found at Hu (*Diospolis*, xxix, 348; xxx, 448) of the xiith dynasty. The more upright form, 607, is probably descended from the flat-bottomed vase in *Denderah*, xxi, now in Cairo (18619). The form 608, 609 seems as if derived from the same, but there is no dated comparison for these, except a somewhat similar vase of Hatshepsut (*Wilk. M. and C.*, fig. 281). The whole class, 605 to 609, seems to be the source of the xviiiith dynasty form 867 to 872. The little cups, 610 to 612, are dated by similar examples. The very small vases, 613 to 621, are connected with the dwarf pottery of the xith dynasty (*Qurneh*, xvi, 263-282); from the good forms, and being mostly of blue marble, these appear to be of the xiith. 625 is of blue and black glaze; it is entered here for comparison with 612.

The round-bottomed vases, almost globular, seem to belong entirely to the xiith dynasty, and 626 must be so classed by the form, though none as large have been found dated. The insertion of the neck separately is like 629. Nos. 627, 629, and 632 are all made in two halves and joined. 633 is dated to the xiith by *Abydos* III, xi, 26. The fashion of the petalled mouth 635 to 637 is dated by such a vase found in an untouched burial with a scarab of the xiith dynasty (Peet, *Cem. Abyd.* II, xiii, 9, 10); other objects of the xiith and xviiiith dynasties were found in plundered burials above this, but must not be confused with the earlier things. In 635 the neck is inserted in the body at the shoulder; it has a stopper of alabaster, stuck tight at present. The outside is highly polished, as was usual in this age. 636 is a similar neck, for insertion in a vase. The two pieces 638, 639 are undated. 640 to 642 are solid models of vases; they have shallow holes on opposite sides, and the largest one has a groove in the neck above the holes. These holes were probably for inserting a spout and handle to each model, perhaps made of copper wire. No. 643 is a clumsy kohl pot of black limestone, from Harageh and therefore of the xiith dynasty, though nothing else was found with it.

644, 645 are solid models of vases with sealing caps upon them. 646 is a finely made form which had loop handles on each side, and probably a brim, now lost. 647 is the *khnum* vase, with a square lug in front for lifting it; this is the more classical form of the type 557-559. A type peculiar to this period is 648-649, with a flat base and wide conical brim; these examples are from the xiith dynasty cemeteries of Rifeh and Harageh.

The vith dynasty type 579 to 582 was continued in the xiith, as in 650 to 654. A change is seen in the conical brim of 652, like that of the kohl pots below; 653 seems to be a funeral model, with only a slight hollowing.

The forms with fully rounded base are very usual in pottery of the xiith dynasty, and are also characteristic of the stone vases. The globular form, 626-632, is noted above; but the drop form, 655-659, is the more marked in the pottery. In stone it has sometimes two, three, or four bands on the brim; one of these found in the royal burials of Dahshur fixes it to the xiith dynasty, agreeing thus with others from Hu, Rifeh, and Harageh.

The kohl pots 661-663 are of unusual size, larger than any of the examples of the xiith dynasty on the next plate. 666 is a pottery copy of stone form, perhaps to imitate serpentine, being reddish brown with a smooth surface; such imitations were made at this age, as the black pottery 124, imitating black serpentine.

## CHAPTER IV

### KOHL POTS

23. Pl. XXX. The series of kohl pots was drawn by Prof. Hamada of Kyoto University, in January 1915, as he kindly wished to do a piece of systematic work while in England during his archaeological travels. It seemed better not to alter his drawings by filling in a ground, as the outer side of his lines is the true outline. For the sake of completing the subject he drew also the kohl tubes, which are mainly of wood and ivory. These are published by photograph in the catalogue of *Objects of Daily Use*, and therefore without sections. As they are small objects, and some with detail, they are here printed on a scale of one half, not one-third like the other stone vases.

As the greater part of the kohl pots are of the Middle Kingdom, and hardly any dated precisely to

a dynasty, it is best to class them entirely by form. The divisions here followed are:

679-682. *Necked forms.*

683-685. *Handled forms.*

686-697. *Vase on stand*, also of xviiiith dynasty.

698-713. *Thin brim*, also of xviiiith dynasty.

714-728. *Thick conical brim.* All the above are of the Middle Kingdom.

729-746. xviiiith dynasty forms, with *high shoulder.*

Pl. XXXI. The necked forms are probably the earliest, about the beginning of the xiith dynasty, as they link on to the xith dynasty forms 584-593. The handled forms have no immediate forerunners, but seem as if they had descended by some unknown line from the early dynastic vases, like 163 to 167. As they are all three of blue marble, they are almost certainly of the xiith dynasty.

The vases on stands are made sometimes separate from the stand, but more usually in one block. They are mostly with the thin brim but also extend to the conical brim class. They are rare in proportion to the other classes, the number here being due to my selecting them as peculiar, while the common forms were seldom purchased.

The thin-brim vases have the early egg form 698-701, like the necked vase 679. They pass on to the later angular shoulder form, as 713. 706 is classed here by the type, but it was found on Heqreshu knoll at Abydos, and by this locality it would be of the xviiiith dynasty. 708 was picked up by me at Kahun, with the original linen tied over the mouth of it.

The deep conical brim is presumably the nearest to the xviiiith dynasty, as it was usual at that time. But it is here of the xiith dynasty from Rifeh, 724, and three of them are of blue marble. The type often appears among the xiith dynasty burials.

The high, and often angular, shoulder is the mark of the xviiiith dynasty, as seen in *Gizeh and Rifeh*, xxvii A. None of these are of blue marble, and they are mostly of awkward and badly proportioned shapes, which ignore the original idea of the type, such as 679, 700, or 714.

24. *Kohl tubes.* The kohl pot died out and was superseded by the kohl tube. This change took place during the long reign of Tehutmes III. I have not found a publication of any kohl pot dated later than Tehutmes III. In one tomb, *Arabah* 276, which has scarabs of Tehutmes III and Amenhetep II, there were two much-chipped kohl pots, evidently

long used before burial. This is the latest fixed date; there were none at Gurob, which site began under Tehutmes III; there were none in the tomb of Tehutmes IV, nor in that of Yuua. The beginning of the tube is seen in tombs *Arabah* 155 and 294, both associated with the kohl pot, and dated to Tehutmes III. In the Maket tomb, under Tehutmes III, there were four pots (one with a figure, one with a stand), and one palm-capital tube (*Illahun*, xxvii). In the tomb of Tehutmes IV were many kohl tubes (misnamed as pots in publication), of the palm-capital form. In groups dated to Amenhetep III, Tutankhamen, and Ramessu II there are tubes but never pots (Gurob). At Tell el Amarna there were many tubes but no pots. The change must have been rather sudden, apparently within a generation. The pots of limestone, blackened, with yellow incised patterns as 745, 746, are the later stage, being dated to Hatshepsut (*Arabah*, xxi, 155) and Tehutmes III (*El Amrah*, li, D 59). They are an imitation of ebony inlaid with gold. The tube is due to Syrian-Semitic influence (see the name of Job's daughter Keren-ha-puk, "horn of paint").

Of the kohl tubes there are some additional examples in the catalogue of *Objects of Daily Use*, pl. xxii, figs. 1, 2, lid and pot engraved; figs. 3, 4, 5, apes and seated woman holding a tube; figs. 15 grey serpentine sextuple tubes, 16 wood quadruple tubes, 17 blue glazed quintuple tubes, 20 wood single tubes, 23 palm capital tube of wood, 24 bone tube, 25, 26 wooden tubes, 31 to 36 reed tubes, 37, 38 Roman and Coptic wooden tubes.

Fig. 748 is a limestone block with cursive hieroglyphic inscriptions of the "Divine father, priest of Ptah, cleanser of the temple of Memphis, AUFHENSI, chief engraver." On the other side is a figure of a falcon wearing the crown of Lower Egypt. This is probably about the xxist dynasty. The use of several tubes together was to hold the various colours and medicaments for the eyes. Those figured here are of serpentine, alabaster, and four of wood. The ape (755) holding a tube with a figure of Taurt on the front (shown below) is of browned limestone; it is duplicated after 807 here. The bone tubes carved as columns, 756 to 761, are of the xviiiith dynasty; see a pair on a stand in *El Amrah*, xlvi, 115. They are of interest in the study of architecture. Following them are wooden tubes with cross-line patterns. The double tube, 765, is of ivory. The triple tube, 766, is of wood; it has a similar figure of an ibex on the other side. The

three compound tubes, 767-769, are of steatite, probably Roman. The last has the figure of Harpocrates standing in a shrine, guarded by couchant lions; there is also a lion at the foot of the tube.

My best thanks are due to Prof. Hamada for assisting the catalogue with this series of drawings.

## CHAPTER V

### VASES OF THE XVIIIITH DYNASTY

25. Pl. XXXII. *Cups*. A few of these may belong to the next dynasty, and one such (785) has been placed here, as it compares with others which are earlier. 770 is a fragment of a great bowl of grey serpentine, which was fully 18 ins. in diameter, bearing the titles and name of Tehutmes III. The fish bowl, 771, is the original form of the little rough fish bowls met with later (886 and *Illahun*, xvii, 41). The bowl 772, with four handles, is probably derived from the earlier type of the bowl with four rams' heads (*Kahun*, viii, 3). The slate bowl, 773, has groups of fishes and lotus incised on the inside. The date of it is uncertain, but probably of the xviiiith dynasty. The slight handle carved on some bowls, as 771, 774, 785, 787-789, is shown above it in plan; it is derived from the projection which is riveted on to metal bowls to carry a loop for suspension, as in the metal bowls 39, 40. Another bowl with decoration is 794, with fish and lotus pattern; this is certainly of the xviiiith or xixth dynasty, by the style. A rather shallower bowl than 786 was used in the vith-viiiith dynasties (*Denderah*, xx, 242).

The set of funerary models, 799-806, was found in the knoll where offerings were deposited at Abydos in the xviiiith dynasty. They are closely like those deposited as offerings to Aohmes I (*Abydos* III, xlvi). Some unusual pieces, 807 to 812, probably belong to this dynasty. 807 is a fragment of a cylindrical alabaster jar with an incised pattern of sepals, and of buds on long stems; no jar of this form is known after the early dynasties, but this work clearly seems much later. 755 is given under that number before. 808 is a steatite figure of Taurt, drilled down from the head for a kohl tube. 809 is a bird dish, and 810 another with a flying bird; no exact parallel for these is dated. 811 seems to be a degradation of an animal bowl; one edge is broken away. 812 is a little vase with a monkey holding it and a baboon before it.

The lotus cup was a very favourite design of the New Kingdom. The first one here, 813, is so closely the form of a pottery cup of the ixth-xth dynasties (*Gizeh and Rifeh*, xiii A, 3, and see *Mochlos*, ix, M 12) that it seems difficult not to accept that date for it. Yet there is no lotus chalice dated before the xviiiith dynasty. If 813 is early it may carry with it 816, 817; but the work of all these seems to be like that of the other lotus cups. Possibly the form was conserved in some other land, and introduced in the ixth and again in the xviiiith dynasty. Lotus cups sometimes have the petals in relief, as on a fragment, 804, 818, from Tell el Amarna, the base of which is broken away. Other such cups of Amenhetep III were found in Sinai (*Researches*, fig. 145).

26. Pl. XXXIII. *Tazze*. The tazza with upright sides is peculiar to the xviiiith dynasty, and does not seem to have any prototype in Egypt. It was a favourite form in Palestine, and it may be a Syrian fashion imported; the corrugated form strongly suggests a derivation from hammered metal-work. The evidence of dating shows the plainer form to be earlier than that with the middle band. The plain form, as 825-826, occurs in the Maket tomb, of the same date of Tehutmes III at Abydos (*Cem. Ab.* III, x, 6), and 829 from Tell el Amarna. The middle rib occurs from the tomb of Sadiamia at Gurob, about Tehutmes IV (*Kahun*, 35, xviii, 6), and under Amenhetep III (*Illahun*, xvii, 10), and Ramessu II (*Ill.*, xviii, 23). Thus the overlap of the two-ribbed and three-ribbed forms seems to have been during the time of Amenhetep III. The four-ribbed form, 837, is coarsely made, and apparently the latest, bordering on the style of the corrugated bronze buckets of Europe. The earlier two-ribbed forms have little or no foot; a distinct foot is found in the later two-ribbed 829; and a separate foot was made for some three-ribbed bowls, 832, 833, which only have a slight peg for attachment. The foot of 832 is not known to belong to it, but as it fits so closely, and is in accordance with one in Cairo (18218), we may fairly associate the two pieces.

27. *Tubular forms*. The tubular vase descends from the pottery of the xiith dynasty, see *Hyksos Cities*, x, and *Gizeh and Rifeh*, xxv, xxvi, xxvii D, H, K. It was one of the commonest forms of pottery, especially in the early part of the xviiiith dynasty, and decorated in the later part. It was not so usual in alabaster, but yet fairly common. 838 to 842 are probably all of the xviiiith dynasty, and the wreath incised on the last is like that on a piece of a

vase of Horemheb in the Cairo Museum (18790). 840 from the rather clumsy outline might be supposed later, but it is finely polished and therefore not likely to be Ramesside. The very thin translucent alabaster, 843, is of a pottery form very usual about the middle of the xviiiith dynasty, and is most closely paralleled by pots of Tehutmes III (Maket, *Illahun*, xxvii, 42) and of Amenhetep II (*Six Temples*, v, 1). 844 is from Rifeh, of late xviiiith dynasty (*G.R.*, xxvii A, 257). The bowl, 845, is of about Tehutmes III, see *Riqqeh*, xiv, 61, grave 601.

28. *High-necked vases*. The series of high-necked vases, 846 to 859, seems to have had a brief career; I have not observed, after one of Hatshepsut (*Rifeh*, xxvii H, 206), any example dated outside of the reign of Tehutmes III. In that reign there were five in the Maket tomb, and another of that age from Abydos. The type seems to have passed at that time into the large form with handles, 883 (Cairo, 18734), which continued to the end of the dynasty, 885 (Cairo, 18790). An indication that the type did not continue long after Tehutmes III is seen in the clumsy and debased form, 854 being the origin of the type 860, which in turn set the fashion of pottery at the close of the dynasty (*Illahun*, xvii, 5; xx, 13). The latest debasement of this type is dated to Ramessu II, in 909.

29. Pl. XXXIV. The *handled vases*, 862, 863, are not dated closely, but are clearly of about the mid-xviiiith dynasty; as also probably 864, which is carved in one piece for the body and bird, with a neck set in and joined to the bird's beak.

The vases with three handles are probably foreign, perhaps Cretan, in idea; in fact, handles in general are due in Egypt to foreign influence. They are of two types: (A) at the neck two handles opposite, and a third at right angles as 865, and a glass vase of late xviiiith dynasty from Gurob (*Illahun*, xx, 11); (B) three handles equidistant on the shoulder, as 866, also in pottery of Ramessu II (*Ill.*, xviii, 51), of Sety II (*Ill.*, xix, 11), and in Crete (*Ann. Brit. Sch., Athens*, vii, 91; xi, 14, and others). The stone and the work of 866 is not like any Egyptian vase that I know, and it may well be a Cretan importation.

30. *Pear-shaped vases*. The pear-shaped type, 867-872, is well dated. 869 is like one of Maket, 868 has a figure-handle, like a Maket kohl pot, 867 has the name of Amenhetep III, 872 is like one from Gurob dated to Amenhetep III (*Ill.*, xvii, 6), and 869 is like the funerary vases of Yuua. Hence from Tehutmes III to Amenhetep III is the range.

The small forms 873 to 876 are not dated, and are only tentatively placed here. 877 is from Rifeh of the xviiiith dynasty; it is the ancestor of a form of the xxvith dynasty (Cairo, 18489). 878 contains brown ointment, so the inner form is unknown; it has a peg below to fit into a stand, which is only suggested here. This, and 879, are clearly dated by pottery types, to the last half of the xviiiith dynasty. 880 is from tomb 78 Meydum, certainly of the xviiiith. 881, 882 are probably of the same age, but not dated by comparisons.

The great jars with loop handles are dated to Tehutmes III (as 883, Cairo, 18734) and to Tutankhamen 885. They were often imitated in pottery about the latter time. 883 contains brown ointment, like 869.

## CHAPTER VI

### VASES OF LATE PERIODS

#### *Vases of the Ramessides and Bubastites*

31. Pl. XXXV. *Saucers*. In most cases these are not well fixed in date, but are presumably of this period, by their deterioration from the previous types. The series of the bird dishes, 887-893, begins in the last dynasty, but these are very degraded copies. 887 has the tail roughly painted. 888 has a goose-head handle projecting. 889 has apparently a bird head at the opposite end. 890-891 seem to be copied from the trussed-goose dishes of the last dynasty, which originated in the xiith dynasty, as known at Lisht and Hawara pyramids. 892 has traces of the limbs, and a straight-tail handle, while 893 retains only the handle. Lastly the handle became a lotus flower, retaining traces of the limbs, 895, or with the flower alone, 894. 896 has a row of triangles incised around the brim, and filled in with black. 897 looks like a clumsy copy of 821; or it might be the foot of an early table-stand, like 148 but inverted. 908 has a gold binding to the lid, a gold hinge and band round the pot, and a gold loop and pin in front fastening into a silver socket. The powdery black state of the silver proves the antiquity of it. The pot above, 907, has had a swivel lid. Of the large jar of Ramessu II, 909, there is only a portion, but enough to show the form as here drawn, which is a very debased copy of 854. 910 and 911 are debasements of the type 846 to 859, and probably a dynasty later than those. 912 is inter-

esting as a type quite unknown in Egypt but favoured in Crete. This form of lid occurs in Knossos, Mid Minoan I period (*Ann. Brit. Sch., Athens*, ix, 95); and of Mid or Late Minoan, found by Seager (*Mochlos*, pp. 88, 89; IX, iiii). This is probably therefore of Cretan origin.

32. Pl. XXXVI. *Pilgrim bottles*. The pilgrim bottle type is foreign to Egypt, but was brought in under Tehutmes III, or perhaps earlier, probably from Cyprus. At that time it was shorter in the neck than 915; see Maket tomb, Amenhetep III and Tutankhamen groups in *Illahun*, xxvii, 4; xvii, 21, 42; and under Akhenaten, in Apiy tomb, *Riqqeh*, xvi, 2. The body and the neck were lengthened in the ninth dynasty, as under Ramessu II, 917 and 919, like that of Sety II (*Illahun*, xxi, 25). The vase 917 is a very rare example of a dated vase, with names of Ramessu II and Queen Nefertari, mounted in gold. The brim, outsides of the handles, and edge of the body are covered with gold strips cast to fit, and a band of beaten gold crosses the shoulder. The age of this mounting is guaranteed by the gold passing a conical foot of sheet silver, which is clearly corroded anciently. 916 has a very narrow neck, so that it cannot be measured inside; but it is doubtless well hollowed, as the body is made in two halves, joined together on one side close to the edge. 918 is from Gurob, and has a loop of soft cord through the handles. 920 is a circular jug, of the same style of stone and work as 919.

33. *Tub pots*. The various tub pots, widest at the base, 922, 923, 926-928, are all undated. There can be little doubt from the style that they are late Ramesside or Bubastite, but neither from excavations nor museums is there any fixed age. The only dating point is that one occurs in a North Syrian cemetery, which brings it to 700 B.C. or later (*Ancient Egypt*, 1917, 41). Looking at the forms of stone vases from Libya, in *Anc. Eg.*, 1915, 163, 167, it seems that the origin of these wide-based pots was an influence from the West. 924 is obviously copied from the usual pottery form of about the xxiird dynasty, such as *Qurneh*, 1, 795. A similar character is seen in a Ramesside vase from Gurob (see *Illahun*, xix, 42).

Some forms of uncertain age are in the lower half of pl. xxxvi. 931 is made of nummulitic limestone hardened by infiltration. As large vases of this form have not been discovered, this was set aside as suspect. It does not, however, appear to have any trace of modern work, and the inside has

been hollowed out at first by a large tube drill hole, 2 ins. wide. Such a drill has not been used since the Old Kingdom, so far as I have seen; I should therefore credit this vase to the vith dynasty, resembling 514, 515, and *Mahasna*, xxxvi, 23. The black steatite bowl 932 might be of the Old Kingdom, but the soft material is probably late. The very squat type 933 is probably of the xxiird or xxvth dynasty (see *Hyksos Cities*, xix, 85). The group 936-938 is early Ptolemaic (see *Anthedon*). The great basalt tub 940 looks akin to the tub pots 922, 923, 926-928. 939 is hollowed from the bottom, and closed by a flat plate; there is no parallel to this form.

#### Vases of Saitic and Ptolemaic Age

34. Pl. XXXVII. *Alabastra*. There is a remarkable absence of stone vases after the Ramesside times, and, barring a very few large jars, there is nothing of Saite age except the alabastra. 941-942 are perhaps of xxvth dynasty, 941 being from Abusir el Melek, sold along with the scarab of the late vizier Nekht (*Scarabs*, lvii, C). There is only a presumption from the forms of 943-946, to place them at this age.

947 is a well-known type of pottery of about the xxiind-xxiiird dynasties. It was derived from the large egg-shaped jars with handles, of the xviii th dynasty, and in turn it originated the series of alabastra 948 to 971, coming down to the Roman age. The form of handle in 948-949, the plan of which is placed here above the side, was evidently made for tying down a lid over the pot, to hold the string in the notch. Very few of the alabastra are recorded of fixed period. Some at Yehudiyeh, like 955, 956, are at the beginning of the xxvth dynasty or rather earlier, shown by the mirror with them not yet being circular, as in the xxvth. The fibula, which was found with another vase like 963, is also early xxvth (*Hyksos Cities*, xxA).

The large vases 958, 959 are two of a group of four, which were thoroughly broken up and buried in a pit in the palace of Apries at Memphis. This intentional destruction is probably to be dated to the Persian invasion, in 525 B.C.: hence the vases may be dated to the reign of Apries or Amasis. The other two vases are larger, and of the forms 949 and 958 (*Memphis* II, xvi).

The form 982 in gypsum is usual in early Greek tombs, of the xxvth dynasty and onward.

In later times a sharp shoulder and tubular neck were adopted, 966-968, apparently in imitation of vases with a separately cut neck and mouth inserted, though these here are all in one piece. 966 and 967 are very thin and translucent. 968 is like a vase dated to Necho, in the British Museum (Wilk., 275, 3). 969 was found with a gold necklace and a ring of the 1st century A.D., at Kafr Ammar (*Heliopolis*, xxxix, 20-24). A vase similar to 969 was found at Kafr Ammar, inscribed in Greek *Paraiguptou A. . rakinon*, which may be restored as *Anthrakinon*. Theophrastus describes the anthrax as being brought from Egypt, near the cataracts and Syene, and Pliny refers to the Ethiopian carbuncle. It seems then that this alabastron was intended for the exportation of garnets. The lettering appears to be Ptolemaic (*Heliopolis and Kafr Ammar*, xxxvii). The long tubular neck of 970-971 is dated by the latter being found in a group at Mazghuneh (*Labyrinth*, xlvi), which by its general style belongs to the 1st century A.D. This seems to be the close of this type, as no trace of it was found in the large cemetery of Hawara of the 1st century onwards.

35. Pl. XXXVIII. *Vases of Roman age*. Dishes with two or four lugs are often found in Roman remains, such as 972, 977. The flat alabaster dish 973 is of the 1st century from Mazghuneh, 974 is the simplest form of the toilet saucers, which were later decorated with relief figures; these are fully described in the catalogue of *Objects of Daily Use*, both the 9 examples at the College and 19 elsewhere. This earliest form has a spout which is partly open, but pierced at the end; the inside is plain turned, without decoration, the outside has a plaited pattern. 975 is part of a dish, having a raised brim with wreath pattern, and a band of criss-cross pattern on the flat bottom. 976 is a gypsum bowl with very rude lug handles; the age is quite uncertain. No. 979 is a clumsy bowl of black granite.

The use of mortars for pounding was at least as early as the xviii th dynasty; two were in groups D 115, 119, and *Amrah and Abydos*, xlvi, xlvi. The regularly formed mortars seem to begin with the Greek influence in the xxvth dynasty, see one of Psamtek II in Cairo (18736); the handles in this are deep, and cut square below, as 981. The mortar of Nekhtnebef has shallow handles, cut square (*Abydos* I, lxx, 11). That from the deposits of Ptolemy II has deep handles, cut sloping below, as 982 (*Naukratis* I, xxvi). It may seem that the handle is a guide to the date. 983 has grooves cut

in the handles, as shown at the side, implying that a lid was tied down over it.

A unique dish, 984, has a deeply incised figure of a falcon on the inside. The outside pattern is also without a parallel, but from the work it is doubtless of the 1st or 2nd century A.D. The other bowls, 985-991, have no fixed comparison elsewhere, but appear to be all Roman.

The alabaster vases with a ring on the neck, 993-995, are of the 1st century A.D., by 993 found at Mazghuneh. This place also dates 992. The tub pot 996, of steatite with loop handles, hardly seems to be of the Ramesside family, but is probably later. 997 is a flat slab with sunk compartments, and a hole for a pivoting lid; it was probably for ointments or colours.

#### CATALOGUE OF STONE VASES

In the following list, the first numbers are those on the black and white plates. The material is stated next; colours are marked as bk. black, bl. blue, gn. green, gy. grey, wt. white; names specially used for materials are *alabaster* for veined crystalline carbonate of lime, *marble* if massive, *limestone* if opaque, *gypsum* for sulphate of lime, *dolomite* for carbonate of lime and magnesia.

The numbers in [ ] refer to the photographs on pls. i to v.

The sign = shows that the vase here is that found at the place named, or published in the reference following. A reference without = is for comparison of a similar specimen which is dated. The Arabic numbers 77 to 82 refer to Sequence Dates of the early dynasties; the Roman numbers are those of dynasties. Type numbers refer to the types published with dates in *Tarkhan* I, pls. xxxii-xliv, and *Tarkhan* II, pls. xxv-xxvii.

The publications, or tombs, referred to here are: A.A., *El Amrah and Abydos*; Ab. I, II, III, *Abydos* I, II, III; A. C. W., *Abydos* III; Barnasht, see *Labyrinth*, 37; B., Ballas in *Nagada*; Cem. Ab., *Cemeteries of Abydos* I, II, III; D., *Denderah*; D.P., *Diospolis Parva*; F.T., *Fayum Towns* (Grenfell); G.A., Garstang, *Arabah*; G.R., *Gizeh and Rifeh*; G.T., Garstang, *Third Egyptian Dynasty*; H., *Hyksos and Israelite Cities*; Il., *Illahun*; K., *Kahun*; L. or L.G., *Labyrinth, Gerzeh and Mazghuneh*; M.K., *Mahasna and Bet Khallaf*; M.M., *Meydum and Memphis* III; N., *Nagada*; N.N., no number; P.E.,

*Prehistoric Egypt*; P.T., Tarkhan; P.G., Gaza; Q., Quibell, generally *El Kab*; R. or R.M., Riqqeh and Memphis VI; R.K., Reisner Kerma (*Mus. Fine Arts Bull.*, 1915, Dec.); R.T., Royal Tombs II, pls. xlv-lviii G; T.R., Tombeau Royal de Negadeh (De Morgan); Wilk. Wilkinson, *Manners and Customs*; Z., Zaraby in G.R.

## PLATE VI.

1. Gy. limestone = P.T. 315 . . . . . S.D. 77  
 2. Alabaster banded [21].  
 3. " . . . . . type 50 l S.D. 78  
 4. " = P.T. 1023, & 36 . . . . . S.D. 78  
 5. " = " 1023 . . . . . S.D. 78  
 6. " = " 261 King Ka S.D. 78  
 7. " = " 414 Narmer S.D. 78  
 8. " = " 10 . . . . . S.D. 79  
 9. " { bulging sides type 51 p S.D. 78  
           R.T. 362 S.D. 79  
           wide wave R.T. 348 S.D. 79  
           top, see R.T. 361 S.D. 79  
 10. " . . . . . S.D. 79  
 11. " = P.T. 111 . . . . . S.D. 79  
 12. Basalt [3] (Neit-hetep) R.T. 357, 360 . . . . . S.D. 79  
 13. Bl. volcanic ash R.T. 190 . . . . . S.D. 79  
 14. Alabaster = P.T. 1523 . . . . . S.D. 79  
 15. " . . . . . type 61 j, l S.D. 80

## PLATE VII.

16. Alabaster form. G.R. v A, 8; top Ab. I, xlvii, 26 S.D. 80  
 17. " . . . . . G.R. v A, 10, 19 S.D. 80  
 18. Gy. volcanic ash. R.T. 364 . . . type 54 r S.D. 80  
 19. Alabaster . . . . . type 54 v S.D. 80  
 20. " = G.R. Zet, 11 . . . . . S.D. 80  
 21. " [30] G.R. v B, 31 . . . type 54 p S.D. 80  
 22. " . . . . . type 54 v S.D. 80  
 23. " . . . . . Ab. I, xlviii, 60 S.D. 80  
 24. " . . . . . type 61 l S.D. 80  
 25. " . . . . . type 61 l S.D. 80  
 26. " . . . . . Ab. I, xlvii, 7. S.D. 80  
 27. Bk. basalt . . . . . R.T. 81 . . . . . S.D. 81  
 28. Alabaster . . . . . type 54 n S.D. 80, 81  
 29. Bk. steatite . . . . . R.T. 375 S.D. 81  
 30. Alabaster . . . . . type 54 f S.D. 81

## PLATE VIII.

31. Slate . . . . . type 54 n S.D. 80, 81  
 32. Alabaster . . . . . type 54 w, 55 c S.D. 80, 81  
 33. " = P.T. 165 . . . . . S.D. 81  
 34. Gypsum . . . . . type 54 t S.D. 81  
 35. Alabaster . . . . . type 54 l, 62 w S.D. 81  
 36. " . . . . . type 63 m S.D. 81  
 37. Gypsum [16] . . . . . type 62 w S.D. 81  
 38. Alabaster [17] = P.T. 165 . . . . . S.D. 81

39. Alabaster . . . . . type 63 m S.D. 81  
 40. " . . . . . R.T. 339, 374 S.D. 81  
 41. " . . . . . type 62 p S.D. 81  
 42. " . . . . . type 62 w S.D. 81  
 43. " . . . . . type 62 w S.D. 81

## PLATE IX.

44. Gypsum . . . . . R.T. 338, 339 S.D. 81  
 45. Alabaster . . . . . type 62 e S.D. 81  
 46. " = P.T. 165 . . . . . S.D. 81  
 47. " = " 107 . . . . . S.D. 81  
 48. " = Q. . . . . type 62 r S.D. 81  
 49. " . . . . . type 62 w S.D. 81  
 50. " = Q. 711 . . . . . type 62 g S.D. 81  
 51. " = Q. 62 . . . . . type 62 c S.D. 80, 81  
 52. Gypsum = P.T. 191 . . . . . S.D. 81  
 53. Alabaster = Q. 177 . . . . . type 62 b (?) S.D. 81  
 54. " = Q. . . . . type 62 b, k S.D. 81  
 55. " = Q. . . . . type 62 e S.D. 81  
 56. " = Q. 158 . . . . . type 62 k S.D. 81  
 57. Gypsum . . . . . type 62 e S.D. 81  
 58. Alabaster = Q.M. . . . . type 62 k S.D. 81  
 59. " = Q. 867 . . . . . type 62 w S.D. 81  
 60. Gypsum = P.T. 231 . . . . . S.D. 81  
 61. Alabaster . . . . . ? later than 62 l S.D. 81

## PLATE X.

62. Limestone, solid = Qa tomb . . . . . S.D. 82  
 63. Alabaster . . . . . type 63 m S.D. 81  
 64. " = P.T. 231 . . . . . S.D. 81  
 65. " . . . . . G.R. vi B, 94 . . . . . II  
 66. " . . . . . Ab. I, x, 35 (?) . . . . . end II  
 67. " = Q. 311, M.K. xxii, 3, 12 . . . . . early III  
 68. " . . . . . Ab. I, x, 30 . . . . . end II  
 69. " . . . . . M.K. xxii, 11 . . . . . early III  
 70. " . . . . . M.K. xi . . . . . III  
 71. " . . . . . M.K. xxii, 9 . . . . . III  
 72. " . . . . . M.K. xi, xxiv . . . . . III  
 73. " = Q. 233, M.K. xxii, 11 . . . . . III  
 74. " [23] = Q. Mastaba, M.K. xxii, 10 . . . . . III  
 75. " = Q. 526, M.K. xxii, 8, 9 . . . . . III  
 76. Gypsum [22] M.K. xxii, 9 . . . . . III

## PLATE XI.

77. Alabaster [34].  
 78. " banded.  
 79. " . . . . .  
 80. " [24] . . . . . Ab. II, xiv, 289 V  
 81. " [25] . . . . . Ab. II, xiv, 290 ? V  
 82. " = Zaraby . . . . . VI  
 83. " } G.R. vii E, Zaraby 3, 5 }  
 84. " [26] } VI  
 85. " [27] M.K. xxxvi, 5 }  
 86. " [28]

87. Alabaster } [35]. G.R. vii E, 5 . . . . . VI  
 88. Limestone } [29].  
 89. Alabaster } [36].  
 90. Basalt } [37].  
 91. Alabaster [38] M.K. xxxvi, 2 . . . . . VI  
 92. " . . . . .  
 93A. " of Khufu [ii A] . . . . . IV  
 93B.C. " of Teta and Pepy I [48] [ii A] . . . . . VI  
 94. Bl. marble as Pepy II Ab. II, xxi, 7 . . . . . VI  
 95. Diorite [49] M.K. xxxviii, 13. . . . . VI  
 96. Syenite. . . . . VI  
 97. Alabaster [40] D. xx, 480 . . . . . IX-XI  
 98. " [41] } D.P. xxviii, Y 250 . . . . . X  
 99. " [42] } G.R. 194 . . . . . X  
 100. " . . . . .  
 101. " = Rifeh 215, G.R. xi A . . . . . ? XI  
 102. " [50] D. xxii, Antefaqer . . . . . XI  
 103. " D.P. xxviii, Y 250 . . . . . X  
 104. " Cairo 18107, Emsaht . . . . . ? XI

## PLATE XII.

105. Gy. wt. marble.  
 106. Br. bk. serpentine [43] G.R. xi A, 215 . . . . . XII  
 107. Alabaster D.P. xxix, W 72 . . . . . XII  
 108. " " W 32 . . . . . XII  
 109. " [51] " Y 372 . . . . . XII  
 110. Bl. paste.  
 111. Pink-gy. marble.  
 112. Alabaster.  
 113. Bk. serpentine.  
 114. Bl. marble = Kahun II. xiii, 1 . . . . . XII  
 115. Br. bk. serpentine [45].  
 116. Gy. bk. serpentine. Cem. Ab. III, viii, 12 ? XII  
 117. Bk. serpentine.  
 118. Alabaster [44].  
 119. " [46] = Kahun viii, 29, no lid . . . . . XII  
 120. Bk. serpentine = D.P. xxix, Y 372 . . . . . XII  
 121. Alabaster [47] R.K., vert. edge . . . . . XII  
 122. " . . . . .  
 123. " . . . . .  
 124. Bk. pottery.  
 125. Alabaster [53].  
 126. Br. serpentine [52].  
 127. Dark bl. paste.  
 128. Gy. marble [156], as 129, Ab. III, xlv . . . . . XII  
 129. Alabaster = Kahun (cf. K. xii, 12) . . . . . XII  
 130. " . . . . .  
 131. Limestone.  
 132. Alabaster [157] Gizeh, G.R. xi A . . . . . XII  
 133. " Deir el Bahri, Hatshepsut.  
 134. " " " "  
 135. " Amu, Tehutmes III.  
 136. " Nubt, "  
 137. " Koptos "  
 138. " " " "

139. Alabaster G.A. xvii, Nekheb, Amenhetep II.  
 140. " Busasu fish, place ? "  
 141. " Thinis "  
 142. " Thebes, temple of "

## PLATE XIV.

143. Slate [73].  
 144. Basalt, stand . . . . . end III  
 145. Gy. volcanic ash, stand.  
 146. Limestone.  
 147. Alabaster G.T. viii . . . . . III  
 148. " = P.T. 250 . . . . . S.D. 81  
 149. Diorite G.T. viii . . . . . III  
 150. Alabaster "  
 151. " [116] "  
 152. Diorite "  
 153. Buff limestone "

## PLATE XV.

154. Bk. and wt. porphyry [62] R.T. 72 . . . . . S.D. 81  
 155. " [65] R.T. 130 . . . . . S.D. 82  
 156. Alabaster [55] = Tarkhan 19 . . . . . S.D. 79  
 157. Bk. and wt. porphyry [64] M.K. xxiv . . . . . III  
 158. Alabaster = Tarkhan 61 . . . . . S.D. 81  
 159. Pink marble [55] . . . . . R.T. 72 S.D. 81  
 160. Bl. marble . . . . . ? XII  
 161. Alabaster = Harageh . . . . . XII  
 162. Bk. wt. porphyry [63] see R.T. 127 . . . . . ? S.D. 81  
 163. Buff limestone [122] G.T. xii, 38 . . . . . III  
 164. Alabaster [138] " . . . . . III  
 165. Bk. wt. marble by stone . . . . . III  
 166. Alabaster [124] = Tarkhan 100 . . . . . S.D. 81  
 167. " . . . . .  
 168. Bk. and wt. porphyry [66] G.T. vii . . . . . III  
 169. Alabaster Naqada ix, 51 . . . . . ? S.D. 75  
 170. " [125] " . . . . . ? S.D. 75  
 171. " [126] " ix, 47 . . . . . ? S.D. 75  
 172. " [127] . . . . . type 71 f S.D. 77  
 173. " [128] . . . . . type 71 y S.D. 77  
 174. " cut down.  
 175. " [129] . . . . . type 71 j S.D. 78  
 176. " [130] Naqada, ix, 51 . . . . . ? S.D. 75  
 177. " = P.T. 1801 . . . . . S.D. 78  
 178. " = Zaraby 83 . . . . . VI

## PLATE XVI.

179. Alabaster = P.T. 1023 . . . . . S.D. 78  
 180. " = Hierakonpolis . . . . . R.T. 297 S.D. 79  
 181. Bk. steatite.  
 182. Alabaster = P.T. 20 . . . . . S.D. 78  
 183. " = " 414 . . . . . S.D. 78  
 184. " = " " . . . . . S.D. 78  
 185. " = Hierakonpolis . . . . . type 6 j S.D. 78  
 186. " = " . . . . . type 17 k ? S.D. 78  
 187. " = P.T. 1023 . . . . . S.D. 78

188. Alabaster . . . . .	type 8 c	S.D. 81	241. Basalt . . . . .	R.T. 69	S.D. 79
189. " = Hierakonpolis.			242. Alabaster . . . . .	type 14 n	S.D. 79
190. " " . . . . .	type 6 h	S.D. 79	243. Basalt . . . . .	G.R. v D, 65	S.D. 80
191. " = Hierakonpolis.			244. Dolomite . . . . .	R.T. 165, 166	S.D. 79
192. " = " . . . . .	type 17 k	S.D. 78	245. Alabaster . . . . .	R.T. 426, 432	S.D. 80, 81
193. " . . . . .			246. Slate . . . . .	G.R. v D, 77	S.D. 80
194. " . . . . .			247. Gy. wt. metamorph.	{G.R. v D, 62	S.D. 80
195. " = P.T. 1892 . . . . .		S.D. 77	{R.T. 109 . . . . .		S.D. 81
196. " = Hierakonpolis .	type 14 n	S.D. 79	PLATE XVIII.		
197. " . . . . .			248. Slate . . . . .	R.T. 207	S.D. 81
198. " = P.T. 81 . . . . .		S.D. 77	249. Alabaster . . . . .	R.T. 293	S.D. 81
199. " " 1570 . . . . .		S.D. 78	250. Pink limestone . . . . .	type 6 q	S.D. 82
200. " = " 1627 . . . . .		S.D. 77	251. Limestone = P.T. 231 .		S.D. 81
201. " = Hierakonpolis .	type 15 p	S.D. 77	252. " . . . . .	type 8 n .	S.D. 81
202. " = " . . . . .	type 17 f	S.D. 78	253. Red limestone.		
203. Red limestone . . . . .	R.T. 70, 408	S.D. 79	254. Gy. volcanic ash.		
204. Bk. basalt . . . . .	R.T. xxxiii, 10	S.D. 80	255. " . . . . .		
205. Alabaster = P.T. 1023 .		S.D. 78	256. Drab, wt. alabaster . .	type 8 r .	S.D. 81
206. " . . . . .	type 14 t	S.D. 78	257. Alabaster.		
207. " = P.T. 1023 . . . . .		S.D. 78	258. Alabaster = P.T. 249 . .		S.D. 81
208. " . . . . .	type 14 t	S.D. 78	259. Pink limestone . . . . .	type 8 r .	S.D. 81
209. Red porphyry . . . . .	R.T. 88	S.D. 79	260. Quartz crystal.		
210. Basalt . . . . .	R.T. 57	S.D. 79	261-2. Yell. gy. serpentine, oval.		
211. Noble serpentine . . . .	R.T. 58	S.D. 79	263-4. Gy. volcanic ash, oval.		
212. Basalt [5] . . . . .	R.T. 491	S.D. 79	265. Gy. volcanic ash [74].		
213. " [7] . . . . .	R.T. 59	S.D. 79	266. Alabaster, cf. P.T. I, xlvi, 11 b		S.D. 79-81
214. " [6] . . . . .	Ab. I, xliv, 2	S.D. 81	267. Red buff limestone . . .	R.T. 237	S.D. 81
215. " [1] . . . . .	R.T. 59	S.D. 79	268. Basalt [70] . . . . .	R.T. 52	S.D. 81
216. " [2] . . . . .	R.T. 70	S.D. 79	269. " [69] . . . . .	"	S.D. 81
217. " . . . . .	Ab. I, xliii, 4 c	S.D. 80	270. Calcite = P.T. 61 . . . . .		S.D. 81
218. " [9] . . . . .	" 61	S.D. 80	271. Bk. wt. porphyry [67] . .	R.T. 62, 91.	S.D. 81
219. Pink limestone [3].		S.D. 80	272. Alabaster . . . . .	R.T. 62, 95.	S.D. 81
PLATE XVII.			273. Slate . . . . .	R.T. 242; type 13 p	S.D. 81
220. Slate . . . . .	R.T. 292, 401	S.D. 80	274. Bk. wt. syenite . . . . .	R.T. 91	S.D. 81
221. Bk. wt. syenite . . . . .	R.T. 51	S.D. 79	275. Gypsum.		
222. Bk. wt. porphyry . . . . .	R.T. 58	S.D. 79	276. Pink alabaster . . . . .	type 13 f, g	S.D. 81
223. Alabaster . . . . .	R.T. 59	S.D. 79	277. Bk. wt. porphyry. . . . .	R.T. 93	S.D. 81
224. Basalt . . . . .	R.T. 59	S.D. 79	PLATE XIX.		
225. Gy. syenite . . . . .	Ab. I, xliii, 4 c	S.D. 80	278. Alabaster . . . . .	R.T. 95	S.D. 81
226. Slate = Abydos . . . . .	R.T. 402	S.D. 79	279. Basalt . . . . .	R.T. 421, 63	S.D. 81, 82
227. Alabaster.			280. Alabaster . . . . .	R.T. 107; Ab. I, xlv, 7	S.D. 81
228. Slate . . . . .	R.T. 402	S.D. 80	281. " . . . . .	Ab. I, xlvi, 31	S.D. 82
229. " . . . . .	R.T. 245	S.D. 79	282. Buff limestone . . . . .	type 14 m	S.D. 81
230. Pink limestone . . . . .	R.T. 59	S.D. 79	283. Alabaster . . . . .	type 18 t	S.D. 81
231. Alabaster, triangular . .	R.T. xxxiii, 22	S.D. 80	284. Pinkish limestone . . . .	R.T. 432	S.D. 81
232. Serpentine . . . . .	G.R. v D, 61 .	S.D. 80	285. Slate . . . . .	Ab. I, xliv, 52	S.D. 81
233. Quartz crystal . . . . .	R.T. 195, 250	S.D. 79	286. Alabaster . . . . .	Ab. I, xliv, 40; xlvii, 5	S.D. 81
234. Gy. steatite. . . . .	G.R. v C, 34 .	S.D. 80	287. Bl. gy. volcanic ash . . . .	R.T. 220	S.D. 81
235. Alabaster = P.T. 19 . . . . .		S.D. 79	288. Hard limestone . . . . .	R.T. 423	S.D. 81
236. " = " 153 . . . . .		S.D. 80	289. Limestone . . . . .	R.T. 427	S.D. 81
237. " = Gizeh . . . . .	G.R. v D, 73	S.D. 80	290. Bk. steatite . . . . .	Ab. I, xliv, 40	S.D. 81
238. Gy. volcanic ash . . . . .	R.T. 248	S.D. 80	291. Bl. volcanic ash . . . . .	R.T. 255	S.D. 81
239. Hard limestone . . . . .	Ab. I, xliii, 4 c	S.D. 80	292. Buff limestone, gy. veins	Ab. I, xlvii, 21	S.D. 81
240. Bk. wt. syenite . . . . .	" "	S.D. 80			

293. Alabaster = P.T. 250 . . . . .	S.D. 81	343. Alabaster [15] . . . . .	Ab. I, ix, 14, 15, Khosekhemui
294. Bk. wt. syenite . . . . .	R.T. 442	344. Gy. porphyry . . . . .	Ab. I, ix, 15
295. Slate . . . . .	R.T. 227	345. Hornblende schist . . . . .	G.R. vi E, 142 III
296. Volcanic ash . . . . .	R.T. 436	346. White granite [90] . . . . .	Ab. I, ix, 15 II
297. Alabaster = P.T. 250 . . . . .	S.D. 81	PLATE XXII.	
298. Slate . . . . .	R.T. 220	347. Alabaster . . . . .	M.K. xxi, 6 . . . . . early III
299. Alabaster . . . . .	type 24 v	348. " . . . . .	M.K. xxi, 8 . . . . . " III
300. Gy. volcanic ash . . . . .	"	349. Gypsum . . . . .	G.T. ix, 18 . . . . . " III
301. Alabaster . . . . .	R.T. 446, 473	350. Hard limestone . . . . .	M.K. xiv, 18 . . . . . " III
302. Alabaster [75] = Tarkhan 165	S.D. 81, 82	351. Limestone . . . . .	M.K. xxi, 6 . . . . . " III
303. Alabaster . . . . .	R.T. 266	352. Hard limestone . . . . .	M.K. xiv, 17 . . . . . " III
PLATE XX.			
304. Hard limestone . . . . .	R.T. 400, 486	353. Alabaster . . . . .	M.K. xxi, 6 . . . . . " III
305. Serpentine, altered . . . . .	R.T. 400	354. Diorite . . . . .	G.T. ix, 19 . . . . . III
306. Limestone . . . . .	R.T. 486, 492	355. Alabaster . . . . .	M.M. xxiv, 2 . . . . . III
307. Aragonite . . . . .	R.T. 143	356. Hard limestone . . . . .	M.K. xxi, 6 . . . . . early III
308. Bl. volcanic ash . . . . .	R.T. 147	357. Bl. volcanic ash . . . . .	M.K. xxi, 11 . . . . . " III
309. Basalt . . . . .	R.T. 63	358. Bk. steatite . . . . .	M.K. xxi, 11 . . . . . " III
310. Slate . . . . .	R.T. 486	359. Alabaster = Khallaf. M.K. xxviii, 7	" " III
311. Bk. wt. porphyry [68] . . . . .	R.T. 92	360. " . . . . .	M.K. xii, 15 . . . . . III
312. Bk. wt. limestone [72] . . . . .	R.T. 92	361. Porphyry . . . . .	M.K. xii, 6 . . . . . III
313. Basalt [71] . . . . .	R.T. 92	362. Pink limestone . . . . .	M.K. xii, 16 . . . . . III
314. Gy. volcanic ash . . . . .	R.T. 150	363. Alabaster . . . . .	M.K. xii, 16 . . . . . III
315. Alabaster.		364. Volcanic ash . . . . .	G.T. viii, 3 . . . . . III
316. Gy. volcanic ash . . . . .	R.T. 150, 152	365. Gypsum } see 972, Roman (?).	
317. Buff bk. limestone . . . . .	R.T. 490	366. Gypsum }	
318. Bl. volcanic ash . . . . .	R.T. 149, 150	367. Drab limestone.	
319. Buff limestone . . . . .	R.T. 429, 467	368. Alabaster.	
320. Slate . . . . .	R.T. 155	369. Alabaster.	
321. Slate . . . . .	R.T. 451	370. " . . . . .	? G.T. viii, 2 . . . . . III
322. Serpentine . . . . .	R.T. 465	371. " . . . . .	
323. Alabaster . . . . .	R.T. 257	PLATE XXIII.	
324. " . . . . .	R.T. 255, 258	372. Slate . . . . .	G.R. vi D, 127 . . . . . III
325. Gy. volcanic ash . . . . .	R.T. 177	373. Gy. volcanic ash . . . . .	" " III
326. " . . . . .	R.T. 184	374. Diorite . . . . .	" 123 . . . . . III
327. Diorite . . . . .	R.T. 186	375. Diorite . . . . .	" 129 . . . . . III
328. Basalt. . . . .	"	376. Alabaster . . . . .	" 130, 131. . . . . III
PLATE XXI.			
329. Alabaster . . . . .	G.R. vi C, 102	377. " . . . . .	" 132 . . . . . III
330. " . . . . .	" 103	378. Wt. quartz . . . . .	" 130 . . . . . III
331. " . . . . .	" 103	379. Alabaster . . . . .	" 132 . . . . . III
332. " . . . . .	" 103	380. Diorite . . . . .	G.R. vi E, 143 . . . . . III
333. " . . . . .	" 103	381. Alabaster . . . . .	" 145 . . . . . III
334. " . . . . .	R.T. 161	382. " = Meydum. M. xxix, 15 . . . . .	late III
335. Bk. wt. porphyry. . . . .	R.T. 110, 158	383. Diorite . . . . .	See M.M. xxvi, 43 . . . . . III
336. " . . . . .	R.T. 158	384. Diorite [III] . . . . .	Q. Kab, iii . . . . . III
337. " . . . . .	G.R. vi D, 129; R.T. 110	385. Diorite [II4] . . . . .	" " III
338. " . . . . .	R.T. 158, 160	386. Basalt [II2] . . . . .	Q. Kab, iii . . . . . III
339. Bl. volcanic ash [88] . . . . .	R.T. 173	387. Alabaster [II3] . . . . .	" " III
340. Bk. wt. syenite . . . . .	Ab. I, ix, 14, Khosekhemui	388. Buff limestone.	
341. " . . . . .	"	389. Alabaster.	
342. Gy. gneiss . . . . .	"	390. Obsidian [II7] . . . . .	D. xxi . . . . . VI
		391. Basalt [II7]. . . . .	Cem. Ab. I, iv . . . . . VI
		392. " . . . . .	" " VI
		393. Bl. marble . . . . .	Ab. III, xliv . . . . . XVIII

394. Diorite . . . Ab. III, xlv	447. Alabaster . . . M.K. xxvii, 6	III
395. Schist = Koptos . . . XII	448. Bk. wt. marble . . . "	III
396. Alabaster.		
	PLATE XXV.	
PLATE XXIV.	449. Alabaster [8] . . . T.R. 667	S.D. 79
397. Bk. steatite [120]	450. " [131] . . . type 77 k	S.D. 80
398. Alabaster [118]	451. " = P.T. 153 . . .	S.D. 80
399. Gy. volcanic ash } types 13 k . . . S.D. 81	452. Gypsum . . . type 77 s	S.D. 80
400. Limestone } 25 c . . . S.D. 81	453. " . . . "	S.D. 80
401. Alabaster	454. Alabaster banded.	
402. Hard limestone	455. " Abusir. . . type 77 k	S.D. 80
403. Serpentine [119] . . . type 13 k	456. " see pot . . . type 85 c	S.D. 77, 80
404. Pink limestone.	457. Pink limestone . . . G.R. v C, 56	S.D. 80
405. Buff limestone . . . late II	458. Alabaster [142], . see pot type 94 L	S.D. 79, 80
406. " "	459. " [140] . . . type 77 k	S.D. 80
407. Aragonite.	460. " . . . type 80 c	S.D. 80
408. Hard buff limestone.	461. " [141] { . . . type 80 c, f	S.D. 80, 81
409. Bl. marble.	462. " " " . . . type 92 m	S.D. 80
410. Gypsum.	463. " [133] . . . type 78 e	S.D. 80, 81
411. Alabaster.	464. " [134] . . . type 80 h	S.D. 81
412. " "	465. " [135] . . . "	S.D. 81
413. Gy. limestone . . . Ab. I, ix, 11 . . . late II	466. " [136] . . . R.T. 282	S.D. 81
414. Alabaster . . . "	467. Alabaster . . . R.T. 282	S.D. 81
415. Buff limestone	468. " [143] . . . type 80 c	S.D. 80
416. Wt. marble } . . . type 42 f	469. " [137] . . . type 78 k	S.D. 80, 81
417. Buff marble }	470. " = P.T. 165 . . .	S.D. 81
418. Diorite.	471. Gypsum = P.T. 191 . . .	S.D. 81
419. Alabaster . . . type 42 f	472. Alabaster [132] . . . type 78 k	S.D. 80, 81
420. " "	473. " . . . "	S.D. 80, 81
421. Bk. wt. syenite.	474. Gypsum = P.T. 191 . . .	S.D. 81
422. Buff limestone.	475. Alabaster . . . type 78 s	S.D. 81
423. Bk. wt. marble.	476. " = P.T. 250 . . .	S.D. 81
424. Alabaster.	477. " [138] . . . M.K. xxvii, 10	III
425. Breccia.		
426. Alabaster . . . type 42 g		S.D. 81
427. Bk. bl. glaze . . . "		S.D. 81
428. Alabaster . . . "		S.D. 81
429. Veined marble . . . "		S.D. 81
430. Gy. wt. marble.		
431. Ivory.		
432. Alabaster.		
433. " . . . type 42 g		S.D. 81
434. " = P.T. 191 . . .		S.D. 81
435. Volcanic ash.		
436. Alabaster.		
437. Breccia . . . type 34		S.D. 81
438. Dendritic limestone, see R.T. 201 . . .		S.D. 82
439. Limestone solid = Qa, Abydos . . .		S.D. 82
440. Bk. wt. syenite.		
441. Alabaster.		
442. Hard limestone.		
443. Alabaster.		
444. Gypsum.		
445. Alabaster . . . R.T. 121		S.D. 82
446. " . . . M.K. xxvii, 6		III
	PLATE XXVI.	
	478. Alabaster [152] . . . type 80 j	S.D. 81
	479. " "	
	480. " [153]	
	481. " [154]	type 81 b S.D. 81
	482. Gypsum	
	483. " . . . type 81 b	S.D. 81
	484. " fine . . . type 81 k	S.D. 81
	485. " [155] = P.T. 165 . . .	S.D. 81
	487. " . . . type 81 k	S.D. 81
	488. Gypsum = P.T. 191 . . .	S.D. 81
	489. Limestone = P.T. 250 . . .	S.D. 81
	490. Alabaster = N.N.	
	491. Limestone, solid = Qa, Abydos . . .	S.D. 82
	492. Buff bk. marble [148]. Ab. I, xi, 10 . . .	end II
	493. Bk. wt. marble [149] . . .	" II
	494. Gypsum.	
	495. " . . . G.R. vi E, 143	III
	496. Buff limestone [146].	

497. Gypsum.	PLATE XXVIII.	
498. Alabaster [145].	550. Alabaster, solid ; and duplicate.	
499. Gypsum.	551. Limestone [167] D.P. xxviii, W 100 . . .	VII
500. Alabaster [150] . . . Ab. I, ix, 5 . . . end II	552. Alabaster, solid [168].	
501. Buff limestone . . . G.R. vii E ; Zaraby 36	553. Limestone, solid = Abydos, Qa. . .	S.D. 82
502. Gypsum.	554. Diorite [166].	
503. Buff limestone.	555. Diorite.	
504. Bk. wt. marble [147], see G.T. vii . . .	556. Limestone, solid = Abydos, Qa. . .	S.D. 82
505. Alabaster [151] . . . M.K. xxxv, 18 . . .	557. Alabaster = Harageh 360 . . .	XII
	558. " [177] . . . G.A. xviii, E 210 . . .	? XIV
	559. " = D.P. xxviii . . .	VII
	560. " solid ; and duplicate.	
	561. " " " . . .	
	562. Slate.	
	563. Limestone . . . Cairo 408 . . .	XII
	564. Alabaster [178].	
	565. " [179].	
	566. " [180].	
	567. " . . . D. xxi . . .	VI
	568. " = Memphis. D.P. xxviii, N 19	VI
	569. Limestone [182].	
	570. Alabaster [181].	
	571. " . . . D. xx, 495, 509 . . .	XI
	572. Br. marble . . . D.P. xxviii, Y 8 . . .	VI
	573. Pink buff marble [191], Abydos.	
	574. Alabaster.	
	575. " "	
	576. " [190] = Mazghuneh 1, 3 . . .	XII
	577. " [192] . . . Zaraby 53 ; G.R. vii E	VI
	578. " = Zaraby 118, G.R. vii E . . .	VI
	579. " [194] = Zaraby 37 ; G.R. vii E	VI
	580. " [193] as Zaraby 37 ; G.R. vii E	VI
	581. " . . . M.K. xxxvi, 10, 11 . . .	VI
	582. " . . . M.K. xxxvi, 10 . . .	VI
	583. " [184] . . . B. 12 ; D.P. W 83	VII
	584. " [187] = Qurneh A 21 . . .	XI
	585. " . . . "	XI
	586. " . . . G.R. xi A, 34 . . .	XI
	587. Buff limestone [186].	
	588. " " . . . D. xx, 32, 441 . . .	VI-VIII
	589. Alabaster = Qurneh A . . .	XI
	590. " [185] = Qurneh A 56, D. xx, 441	XI
	591. " "	
	592. " "	
	593. Buff limestone = Quft.	
	594. Alabaster.	
	595. Limestone . . . D. xx, 274, 441 . . .	VI-VIII
	596. " = Qurneh B 20 . . .	XI
	597. Alabaster [188] . . . D. xxii, Antefaqer . . .	XI
	598. " [195] . . . D. xx, 32 ; xxii, Antefaqer	XI
	599. " { = Tarkhan 1747 + scarab . . .	XI-XII
	600. " { G.R. xi A, 194 . . .	
	601. " { D.P. xxviii, Y 250 . . .	
	602. " [189]	
	603. " [183]	
	PLATE XXVII.	
506. Alabaster [169] . . . M.K. xxxv, 6 . . .	VI	
507. " [171] . . . D. xxi ; G.R. vii E, 34	VI	
508. " "		
509. Quartz crystal.		
510. Alabaster.		
511. " [158] = Memphis 1909. D. xxi	VI	
512. " "		
513. " [159] . . . M.K. xxxv, 13 . . .	VI	
514. " [170].		
515. " . . . M.K. xxxvi, 23 . . .	VI	
516. " . . . See D.P. xxviii, Y 6	VI	
517. " [172] . . . D. xxi . . .	VI	
518. " [173] . . . Zaraby 118 ; G.R. vii E	VI	
519. " . . . D. xxi . . .	VI	
520. " . . . D. xxi . . .	VI	
521. " . . . M.K. xxxv, 1 . . .	VI	
522. " . . . D.P. xxviii, Y 8 . . .	VI	
523. " . . . Zaraby 35 ; G.R. vii E	VI	
524. " [174] . . . " " . . .	VI	
525. " [176].		
526. " . . . Zaraby 57 ; G.R. vii E	VI	
527. " [175].		
528. " [160] . . . D.P. xxviii . . .	VII	
529. " = Zaraby 88, G.R. vii E, . . .	VI	
530. " . . . D.P. xxviii, D 14 . . .	VI	
531. " [162] . . . " " . . .	VI	
532. " [161] . . . D.P. xxviii, 83 . . .	VI	
533. " [163].		
534. " [164] . . . D.P. xxviii, Y 182 . . .	IX	
535. " [165]		
536. " . . . ? D. xxi . . .	VI	
537. Slate.		
538. Bl. paste . . . . .	XII	
539. Limestone, Abydos, Qa. . . . .	S.D. 82	
540. Alabaster.		
541. Sandstone . . . } D.P. xxx, Y 448 . . .	XII	
542. Alabaster . . . } G.R. xi A, 70 . . .	XII	
543. Alabaster.		
544. Grey limestone.		
545. Gy. bl. marble . . . . .	XII	
546. Alabaster . . . . .	? XII	
547. Gy. bl. marble . . . G.A. ix . . .	XII	
548. Bk. steatite, polished.		
549. Bk. steatite.		

603. Alabaster = Qurneh B 24 . . . . .	XI	655. Alabaster	
604. Pink marble = Qurneh B 10 . . . . .	XI	656. Bl. paste = Rifeh 243 ; G.R. xi A . . . . .	XII
PLATE XXIX.			
605. Alabaster . . . . D.P. xxix, 348 . . . . .	XII	657. Alabaster = Harageh 92, R.K. . . . .	XII
606. " . . . . " . . . . .	XII	658. " . . . . D.P. xxx, Y 461, R.K. . . . .	XII
607. " . . . . Abydos. D.P. xxx, 448 ; R.K. . . . .	XII	659. " . . . . Cairo 18720, R.K. . . . .	XII
608. " . . . . " . . . . .		660. Alabaster = Bernasht . . . . .	XII
609. " . . . . " . . . . .		661. Alabaster . . . . G.R. xi A, 235 . . . . .	XII
610. " . . . . = Rifeh 215, G.R. xi A . . . . .	XII	663. Gypsum = Rifeh 243, G.R. xi A . . . . .	XII
611. " . . . . D.P. xxix, W 85 . . . . .	XII	664. Alabaster.	
612. " . . . . { D.P. xxix, Y 51 . . . . .	XII	665. Bk. serpentine = Koptos.	
	XVIII	666. Pottery.	
		667. Bk. serpentine.	
613. Bl. marble.		668. " " = Kahun } group . . . . .	XII
614. Buff marble		669. Alabaster = Kahun	
615. Bl. marble		670. Blue marble = Kahun	
616. Bl. glaze		671. Alabaster = Gurob or Lahun.	
617. Bl. marble		672. Bk. serpentine = Gurob.	
618. Alabaster		673. Alabaster = Lahun.	
619. Bl. marble		674. Olive glaze.	
620. Alabaster		675. Gy. serpentine.	
621. " . . . . " . . . . .		676. Limestone.	
622. Gy. bl. marble		677. Alabaster = Kahun.	
623. Bl. marble.		678. " = Lahun.	
624. Gy. marble = Harageh 130.		PLATE XXX.	
625. Bk. bl. glaze.		679. Alabaster.	
626. Alabaster.		680. " . . . .	
627. " = D.P. xxix, 152, R.K. . . . .	XII	681. " = Harageh.	
628. " . . . . " . . . . .		682. Bl. marble.	
629. " . . . . D.P. xxix, W 32, 72 . . . . .	XII	683. " . . . .	
630. " . . . . " . . . . .	XII	684. " . . . .	
631. Bl. marble.		685. " . . . .	
632. Alabaster.		686. Alabaster.	
633. Bl. marble . . . . Ab. III, xi, 26 . . . . .	XII	687. Bl. marble.	
634. Alabaster.		688. Alabaster.	
635. " . . . . Cem. Ab. III, xiii . . . . .	XII	689. Bl. marble.	
636. " . . . . " . . . . .		690. Serpentine.	
637. " . . . . " . . . . .		691. " . . . .	
638. " = Rifeh 257.		692. " . . . .	
639. " = Harageh 645 . . . . .	XII	693. Basalt.	
640. " solid.		694. Alabaster = Koptos.	
641. " . . . . " . . . . .		695. " = Thebes.	
642. " . . . . " . . . . .		696. " . . . .	
643. Bk. limestone = Harageh . . . . .	XII	693. Serpentine.	
644. Alabaster, solid.		698. Limestone.	
645. " . . . . " . . . . .		699. Alabaster.	
646. Br. wt. marble.		700. " . . . .	
647. Alabaster = Harageh 275 . . . . .	XII	701. Bl. marble = Rifeh 253, G.R. xi A . . . . .	XII
648. Alabaster = Harageh 275 . . . . .	XII	702. Alabaster = Ramesseum.	
649. Gypsum = Rifeh 243 ; G.R. xi A, R.K. . . . .	XII	703. " = Rifeh 67 (G.R. xxiii, 13)	
650. Alabaster = Harageh 112 . . . . .	XII	704. " = Diospolis, W 114 ; G.R. xi A	
651. " = D.P. xxx, 361 ; Il. xiii, 3 . . . . .	XII	705. Limestone = Qurneh, viii, 5 . . . . .	XI
652. " = D.P. xxx, 361, 448 . . . . .	XII	706. Serpentine = Abydos, Heqreshu.	
653. " . . . . " . . . . .		707. Bl. marble = Diospolis, W 45.	
654. " with kohl.			

On nos. 613-626 compare  
*Diospolis*, xxix, xxx

708. Alabaster = Kahun, 1914 . . . . .	XII	760. Wood . . . . .	XVIII
709. " = Harageh 275 . . . . .	XII	761. Bone . . . . .	XVIII
710. Serpentine = Harageh 602 . . . . .	XII	762. Wood.	
711. " . . . . " . . . . .		763. " . . . .	
712. Steatite.		764. " . . . .	
713. Alabaster = Diospolis 431.		765. Ivory.	
714. " = Qurneh.		766. Wood.	
715. Serpentine.		767. Bk. steatite.	
716. Alabaster, inserted mouth.		768. Steatite = Koptos.	
717. Bl. marble.		769. Bk. steatite . . . . .	Roman
718. " . . . . " . . . . .		PLATE XXXII.	
719. Alabaster.		770. Gy. serpentine . . . . .	Tehutmes III . XVIII
720. " . . . . " . . . . .		771. Alabaster.	
721. Limestone.		772. " . . . .	
722. Serpentine.		773. Slate.	
723. Bl. marble.		774. Alabaster.	
724. Alabaster = Rifeh 116 ; G.R. xi A.		775. " . . . .	
725. " . . . . " . . . . .		776. " . . . .	
726. Bl. marble.		777. " . . . .	
727. " . . . . " . . . . .		778. Wt. marble.	
728. Alabaster . . . . down to here . . . . ? XII		779. Alabaster.	
729. Serpentine = Qurneh from here on . . . . ? XVIII		780. " . . . .	
730. Limestone.		781. " . . . .	
731. Alabaster.		782. " . . . . R.M. xiv, 62 . . . . XVIII	
732. Limestone.		783. " . . . .	
733. Alabaster.		784. " . . . .	
734. Serpentine.		785. " = Pasar, G.R. xxiii, 46 . . . . XIX	
735. Alabaster.		786. " . . . .	
736. Serpentine.		787. " . . . .	
737. Alabaster.		788. " . . . .	
PLATE XXXI.			
738. Alabaster.		789. " . . . . Il. xviii, 25 . . . . XIX	
739. " = Rifeh 320 ; G.R. xxvii A.		790. " = Gurob.	
740. " = Rifeh 231 ; " . . . .		791. " . . . . Il. xvii, 31 . . . . end XVIII	
741. Serpentine.		792. " . . . .	
742. Alabaster = Rifeh.		793. " = Nubt. N. 69, sect. 112. . . . XIX	
743. " . . . . " . . . . .		794. Bk. steatite.	
744. " . . . . " . . . . .		795. Alabaster.	
745. Limestone.		796. " . . . .	
746. " . . . . " . . . . .		797. " . . . .	
747. Bl. marble.		798-806. Limestone painted, one group . . . . XVIII	
748. Limestone, of Aufhensi . . . . . ? XXI		807. Alabaster.	
749. Serpentine.		808. Bk. steatite.	
750. Alabaster.		809. Wt. br. steatite.	
751. Wood.		810. Wt. steatite.	
752. " . . . . " . . . . .		811. Alabaster.	
753. " . . . . " . . . . .		812. Bk. steatite.	
754. " . . . . " . . . . .		813. Alabaster [207].	
755. Limestone . . . . . XVIII		814. " [202] . . . . Cem. Ab. III, x, 6 . . . . XVIII	
756. Bone . . . . . XVIII		815. " [208].	
757. " . . . . A.A. xlvi, D 115 . . . . XVIII		816. " [203] . . . . A.A. li, D 77 . . . . XVIII	
758. " . . . . " . . . . . XVIII		817. " [209] . . . . A.A. xlix, D 9 . . . . Tehutmes III	
759. " . . . . " . . . . . XVIII		818. " = Amarna . . . . . XVIII	
		819. " [201].	



PLATE XXXIII.		870. Alabaster
820. Alabaster = Koptos.		871. "
821. " [212].		872. " { Tehutmes III ; Il. xxvii, 7
822. " [205].		{ Amenhetep II ; P.G. II, xxii, 21
823. " [197] . L.G. xvi . . . XVIII		873. "
824. "		874. "
825. { Buff limestone [196], Il. xxvii, 13 } XVIII		875. "
{ Amenhetep II, P.G. II, xxiii, 33 }		
826. Alabaster . Cem. Ab. III, x, 6 . XVIII		876. " { as pot, Cem. Ab. II, xxi, 7 ;
827. Bk. bl. serpentine [206].		p. 105 . . . XVIII
828. Alabaster.		{ or R.M. xiv, 63 . . . ? XXII
829. " = Amarna . . . XVIII		877. " = Rifeh 175 ; G.R. xxvii A . XVIII
830. " [198].		878. " L.G. xvi ; Amenhetep III.
831. " [199] = Koptos.		879. "
832. " [210] Il. xvii, 10 . . . XVIII		880. Serpentine = Meydum. L.G. xvi, 3 . XVIII
833. " K. xviii, 6 . . . XVIII		881. Alabaster
834. " [211] Amenhetep II, P.G. II, xxiii, 30.		882. "
835. " [204].		883. " Cairo 18378, 18734 . . . XVIII
836. " Il. xviii, 23 . . . XIX		884. "
837. " [200].		885. " = Tutankhamen, K. xviii 25 XVIII
838. Limestone.		
839. Breccia.		PLATE XXXV.
840. Alabaster.		886. Alabaster Il. xvii, 41 . . . XVIII
841. "		887. " = Gurob.
842. " = Gurob. Cairo 18450, 18790 . XVIII		888. "
843. " Il. xxvii, 42 . . . XVIII		889. "
844. " = Rifeh 257, G.R. xxvii A . XIX		890. "
845. Limestone . R. xiv, 61 . . . XVIII		891. "
846. Alabaster . Il. xxvii, 5 . . . XVIII		892. "
847. Br. serpentine " 3 . . . XVIII		893. "
848. Alabaster.		894. "
849. Gy. br. serpentine. Il. xxvii, 2 . . . XVIII		895. " later than L.G. xvi, 3 . . . XVIII
850. Alabaster . Cem. Ab. III, xii, 11 . XVIII		896. Limestone.
851. "		897. Alabaster.
852. "		898. " Il. xix, 19 . . . XIX
853. " . Il. xxvii, 6 . . . XVIII		899. " = Meydum ; L.G. xvii, 16.
854. "		900. "
855. " . A.A. 1 ; D. 17, Tehutmes III.		901. "
856. "		902. "
857. "		903. "
858. "		904. "
859. "		905. "
		906. "
		907. " G.A. xxi, 155 ; Hatshepsut.
		908. " with gold mounting.
		909. " Ramessu II.
		910. "
		911. "
		912. "
		913. "
		914. " = Gurob ; Il. xix, 36.
PLATE XXXIV.		
860. Alabaster.		PLATE XXXVI.
861. "		915. Alabaster Il. xvii, 42 . . . XVIII
862. "		916. "
863. " { = L. xvi, 2, 61 . . . XVIII		
{ Amenhetep II ; P.G. II, xxii, 14		
864. "		
865. " . Il. xx, 11 . . . late XVIII		
866. Bk. serpentine. Il. xviii, 51 ; xix, 11 XIX		
867. Alabaster . Amenhetep III . . . XVIII		
868. Bk. steatite . Il. xxvi, 48 . . . XVIII		
869. Alabaster . Yuua xxv . . . XVIII		

917. Alabaster { with gold mount and silver foot.	969. Alabaster = Kafr Ammar . . . 1st cent. A.D.
{ Ramessu II and Nefertari . . . XIX	970. " = Mazghuneh, xlvi . . . 1st cent. A.D.
918. Alabaster = Gurob ; K. xviii, 1 . . . XIX	
919. " Sety II ; Il. xix, 25 . . . XIX	
920. " = Thebes	
921. " = Memphis ; Ptah temple	
922. "	
923. "	
924. "	
925. "	
926. "	
927. "	
928. "	
929. Slate.	
930. Serpentine.	
931. Limestone . . . . . ? VI	
932. Bk. steatite.	
933. Serpentine. H. xix, 85 . . . ? XXIII	
934. Alabaster.	
935. " ? see D.P. xxix, Y 51 . . . ? XII	
936. "	
937. "	
938. "	
939. "	
940. Basalt.	
PLATE XXXVII.	
941. Alabaster, yellow,	
942. " " = Abusir.	
943. "	
944. "	
945. "	
946. "	
947. Pottery, source of type, H. xvii A . . . XXII	
948. Alabaster.	
949. "	
950. "	
951. " Cairo 18490, Psamtek I . . . XXVI	
952. "	
953. "	
954. "	
955. "	
956. " = Fayum, Edwards.	
957. "	
958. " } Palace of Apries, xvi, 1, 2 . . . XXVI	
959. " }	
960. "	
961. "	
962. Gypsum.	
963. Alabaster.	
964. "	
965. " Edwards Coll.	
966. " very thin, F.T. x, late Ptolemaic.	
967. " " " " "	
968. " B. Mus., Wilk. 275, Nekau . . . XXVI	

PLATE XXXVIII.	
972. Alabaster = Mazghuneh xlvi . . . 1st cent.	
973. " " " " " " "	
974. Bk. steatite.	
975. Steaschist.	
976. Gypsum.	
977. Slate.	
978. Br. serpentine = Koptos.	
979. Bk. granite.	
980. Alabaster, pestle, Cairo 18255.	
981. "	
982. Basalt, Cairo 18736, Psamtek II.	
983. Alabaster, Cairo 18248.	
984. Gy. steatite.	
985. Gy. serpentine.	
986. Gy. syenite (see 365-6).	
987. Gy. serpentine.	
988. Br. steatite.	
989. Gy. steatite.	
990. Br. serpentine.	
991. Serpentine.	
992. Alabaster, Mazghuneh, xlvi . . . 1st cent.	
993. " " " "	
994. "	
995. "	
996. Gy. steatite.	
997. Basalt.	

Of these 997 drawings, 24 are not of stone ; there are thus 973 stone vases drawn, besides duplicates of some forms.

## METAL VASES

## INTRODUCTION

36. *Materials.* Regarding the metal vases, much of what has been already stated about the catalogue of stone vases is similarly applicable, and the first three sections of the introduction apply to both.

As to the materials, the metal vases in the earlier dynasties are all of copper. This is usually hammered, figs. 8, 9, but as early as Khosekhemui, of the iind dynasty, the spouts of the vases were cast by *cire perdue* (fig. 4), and then attached to hammered vases, or set in a fresh wax vase-body and so joined in a second *cire perdue* casting (fig. 3).

A curious mixture of work is seen in the xviii<sup>th</sup> dynasty, the cup 18 having the bronze bowl hammered very thin and elastic, and then fitted with a wax stem and foot, rising through a hole in the base of the bowl for the *cire perdue* casting here. The bronze bowl 20 shows another interesting piece of work. In the hammering out of it, the sharp edge of the foot broke through, around half the circuit; this has been mended by flushing it with melted bronze of the same quality, and grinding off the surplus outside. The funnel and flask, 25, 26, show a curious mixture, the bodies being of yellow bronze, while the top ribbed part of the funnel and the brim of the flask are of red copper.

Silver is rarely found, the only large groups being those from Mendes and Bubastis. Here there are two bowls, 30, 31. The former was made by spinning the metal, as shown by the lines on it, its thinness and its hardness. The latter was probably cast, as it is rather thick and soft. The octagonal vase of Roman age, 138, is of silver, with gold neck and handles. One gold vase here, 24, is entirely hammered or burnished work, with impressed relief and lines.

The pewter work is of Roman age; the dippers 124, 125 have pewter bowls and iron stems; they were found with the pewter bowls 142, 143, and three others similar, and a bronze bowl, 141. Plain lead was used in one case for the dipper 121. Iron once appears, for the brazier 135, pierced with triangular air holes.

**37. Manufacture.** The methods of manufacture have been partly noted above. A very difficult piece of work is seen in no. 15, which has no trace of a joint nor of spinning lines. It is so thin that *cire perdue* casting is improbable; yet the long neck being only a quarter of the diameter of the body, the introduction of a hook tool, to beat it on, seems unlikely. It would be just possible to pass in a hook tool  $\frac{1}{4}$  of an inch deep, to support any part of the upper half of the body. The *hes* vase, 68, of the xxist dynasty has been clumsily made in two parts, which have been joined askew. In the Roman age *cire perdue* was kept up, as seen in the measure 102. This is of a single casting, body, handle, and three feet, with a thick brim, and three raised bands on the inside to divide the contents in four equal parts.

The Graeco-Roman fashion of making very thin bronze vessels, with heavy solid-cast handles attached later, was not happy in the effect, and is most disastrous for their preservation. The thin

bronze rots and the weight of the heavy handles breaks it up as soon as it is moved. The complete form is seen in 100; in 99 the handle has become detached, leaving traces of its fixing; often loose handles are found, as 132, 133, 134, without any vessel.

The use of solder is rare in Egyptian work. A ring in the bottom of bowl 34 is soldered in, and seems to be original work of the xviii<sup>th</sup> dynasty. Riveting was the usual way of fixing handles, as on 16, 17, 25, 39, 40, 45, 50. But solder must have been used for the calf figure 44, as it has no rivet holes; and this seems to be of the xviii<sup>th</sup>-xx<sup>th</sup> dynasties. Soldering became usual in the Greek age for the massive handles then used; but it was so poorly done, owing to not cleaning the joint, that the true alloying was only very partial and readily broke away. Pliny, indeed, confuses the adhesion of marble by resin with the cleansing of lead by resin in order that solder should alloy with it.

## CHAPTER VII

### DYNASTIC VASES

**38. Pl. XXXIX. Vases of the ist-xi<sup>th</sup> dynasties.** As the metal vases are much fewer than those of stone, and there are fewer details of material and references to be noted, the current description here renders a listed catalogue unnecessary. The question of the contents is dealt with in the catalogue of *Ancient Weights and Measures*.

1. Spout made of sheet copper, bent to the form, and with fixing flanges made by turning the sides outwards (Khosekhemui tomb, iind dynasty).

2. Spout made by *cire perdue* casting, with a continuous flange, ready for fixing it in a vase (Khosekhemui).

3. Vase with long curved spout, with flange sloping to an edge. The flange section is drawn in open outline, the vase body section in solid black. A similar length of spout is shown in Rahetep's offerings (*Medum*, xiii).

4. Double spout; made by modelling two spouts separately in wax, joining them into one flange, and casting the whole by *cire perdue* (Khosekhemui, dyn. ii).

5. Vase with broken spout; square-edged flange. Apparently both 3 and 5 had the spout cast first and then inserted in a wax moulding for casting the whole vase. Spouted metal vases of this kind were

used for washing as early as the beginning of the ist dynasty (palette of Narmer), and are stated to be for washing, at the tomb of Methen (*L.D.*, ii, 4).

6. Model vase, cast *cire perdue*, for a tomb offering.

7. Vase cast *cire perdue*. The form of spout is the same as on a piece of blue glazed vase from the royal tombs at Abydos, so this is probably of the early dynasties.

8. Bowl of beaten copper from Tarkhan, 16, S.D. 78. The edge is roughly turned down outwards, to stiffen it.

9. Platter of beaten copper, with a hollow in the middle. Very roughly made as one of a large quantity of funeral models. Khosekhemui tomb.

10, 11. Bowls of cast copper, usual from the iind to the vith dynasties; see *R.T.*, ix, 13, 15, and Cairo Catalogue, 3480. They were also imitated in pottery, probably in the vth-vith dynasties (*Cem. Abyd.* I, ii). 10, 11 are the usual hammered basins of the iind-vith dynasties.

12. Conical cup of roughly hammered copper, having about 40 strokes in the height of it.

13. Cup of similar work, with hole in the base. This has evidently had the previous cup put over the mouth of it, as the marks and corrosion exactly agree. As there is no sign of intentional junction or union, the collocation was probably merely made to keep them clean inside. The hole in the base was probably for casting on a foot, as on 18, and the work of both of these was left unfinished.

**39. Vases of the xviii<sup>th</sup> dynasty.** 14. Bowl of beaten bronze, with incised pattern. The handle is of hammered wire, tapered to the end, and with the thin ends wound round the shanks. It is passed through a cast holder, which is riveted on to the bowl.

15. Flask of bronze, inscribed for the "washer of the sandals of Amen, Tehuti-hetep." The form was degraded in the xixth dynasty (*Dendereh* xxiv, 2), and it is reflected in pottery about Tehutmes IV (*Gizeh and Rifeh*, xxvii, K, 383), and degraded under Sety II (*Illahun* xix, 13). The surface has been finished by scraping, to remove traces of hammering. The thickness is only  $\frac{1}{16}$  inch on an average, as shown by the weight not exceeding 7 ounces.

16. Jug of bronze, beaten in one piece, with cast handle riveted on. The handle ends above in a lotus pattern.

17. Cast bronze lotus handle, from a jug with a shorter neck. Such handles are of the xviii<sup>th</sup>-xix<sup>th</sup>

dynasties (see *Amrah and Abydos*, xlvi, D 116; xlv, D 33).

18. Bronze cup, hammered, very thin and still quite elastic. A hole has been made in the bottom of the bowl, and a foot cast on it by *cire perdue*. The foot is hollow below, as marked by section line.

19. Bronze bowl from Gurob. The foot and swell in the side, and the slight lip, belong to pottery of the time of Hatshepsut (see *Gizeh and Rifeh*, xxvii H, 222, 228).

20. Bronze bowl of the xixth dynasty, from Dendereh (*D.*, xxiv, 8). In hammering it the bottom edge broke through, and it has been united by a flush of melted bronze.

21. Bowl of bronze hammered, with slightly raised centre. The form is an advance on the Hatshepsut form 19. Rough red patina.

22. Dish of bronze, with umbo centre, around which is an incised pattern, shown here above. The umbo, for a finger under the bowl when in use, began to be made as early as Tehutmes III, as in the gold bowl of Tehuti in Paris. This bowl is rather later than that.

23. A strange combination of a bronze cylindrical body with a shoulder and neck of blue glaze fitted into it. On the body is incised "fraction  $\frac{1}{8}$ ," and this contains  $\frac{1}{8}$  of the *hen* of 28 $\frac{1}{2}$  or 29 cubic inches, as measured to the top of the neck or to the brim.

24. Gold vase with relief-work bust on each side, probably intended for Hathor. The neck has been made in one piece, and the body as a separate piece; the neck and body were soldered together, and the rings at the sides were also soldered on. The face and arms are in relief, the crossing lines of the hair are incised. I bought it from a local dealer at Hawara, in a crushed condition; but as the gold is very soft, it was easily put back into its original form (xviii<sup>th</sup> or xixth dynasty).

25. Bronze funnel; with upper sixth of thin copper, having two raised bands to stiffen it. There was formerly a small handle, the bottom of which remains riveted on, and two rivet holes show in the copper band above. The form evidently was influenced by the Cretan conical vases.

26. Bronze flask, with narrow band of copper round the lip. Earlier stages of the same form are seen in pottery under Tehutmes IV (*G.R.*, xxvii K, 380, 386). This and no. 25 were found together, and probably belong to the time of Akhenaten. I bought them in Cairo, much crushed and burnt black; there was, however, a metallic body below the

black oxide of copper. By heating red hot and quenching in alcohol several times, Miss Burke (of University College) restored the whole to a metallic state, and I was then able to bend both vessels back to their original form.

27. Bronze drinking vessel, dated to Hatshepsut by the parallel form in pottery (*G. and R.*, xxvii H, 253).

28. Bronze drinking vessel. This form is of the same age (see *G. and R.*, xxvii H, 241); the earlier varieties of the form are more pointed (*G. and R.*, xxvii D, 49-59).

29. A larger bronze drinking vessel of about the time of Amenhetep II (see *G. and R.*, xxvii K, 346).

40. Pl. XL. *Vases of the ninth-xxth dynasties.* 30. Silver bowl, with incurved brim and slightly raised centre. It was formed by spinning, as shown by the lines on the face. The purpose of this form was doubtless for a finger-bowl, carried round by servants at meals, the edge being inturned to prevent spilling the water. This was found with the next dish in one of the great silver groups at Bubastis, and is thus dated to the ninth dynasty.

31. Silver dish, with umbo centre. This is rather thick and soft, and therefore seems to have been cast (Bubastis, ninth dynasty).

32. Bronze dish, with umbo. This is thin and flexible, and a good deal twisted.

33. Bronze dish, with wide umbo.

34. Bronze dish, with thickened edge, and a short tube soldered in the centre, probably to hold a central ornament.

35, 36, 37. Bronze bowls, hammered very thin. From the good work, these may be of the xviii dynasty.

38. Bronze dish, rather thick.

39. Bronze dish, the centre punched through and soldered. On the side an attachment for a handle, riveted on.

40. Bronze dish, very thin, with riveted attachment for a handle.

41, 42. Bronze bowls.

43. One of three similar bronze bowls, stuck together by corrosion.

44. Loop handle for a bowl, with attachment in the form of a couchant calf. Bronze.

45. Attachment for a handle, in the form of a hand, with rivets. Bronze.

46-48. Bronze strainers, for pouring wine through.

49. Bronze dish with slight foot, descended from the form 19.

50. Bronze dish with loop handle, riveted attachment. This is descended from the form 20 of the ninth dynasty, and hence from 19 of the xviii. It is from the tumuli of the xxth dynasty at Tell el Yehudiyeh, 1887.

51, 52. Bronze bowls, also dated to the xxth dynasty, from the tumuli of Yehudiyeh. These seem to be the first of the deep form with thickened edge.

53. Bronze bowl of the previous form, and therefore of the xxth dynasty.

54. Bronze bowl with thick edge but no projection. This is the Assyrian type of 700 B.C. (Botta, *Ninive*, 37, 98, No. 4, 126).

41. *Necked bowls.* This class of bronze bowl is evidently later than the xxth dynasty forms which we have just noted. They seem to start from 59 like an alabaster bowl of Tehutmes III (*G.R.*, xxvii A, 26). A flat form, most like 62, occurs in a North Syrian cemetery with objects beginning at about 700 B.C. (*Anc. Egypt*, 1917, 41). Yet there is no evidence of this form belonging to the rich and flourishing xxvth dynasty, unless the silver bowls of Mendes are placed to that age. Altogether we cannot yet limit it more closely than 1000 to 500 B.C., though probably about 700-600 B.C.

55. This bronze flask is similar to xviii dynasty forms (*G. and R.*, xxvii L, 421). It is placed here as a type which influenced, or originated, the necked bowls. A variant of it, half-way between these, is from the xviii dynasty tomb D 29 at Abydos (*Amrah and Abydos*, xlvi, mid top right hand). Another, and perhaps more direct, influence on these bowls was the form 50, of the xxth dynasty.

56 is a small bowl, partly crushed at the top.

57 to 67. As 67 is, by the lines, obviously the latest in style—late Greek, or possibly Roman—the sharp shoulder is a late feature. This agrees with the gentle rounding of the prototypes 20, 50. Hence these bowls are placed with the roundest shoulders first and the increasing angularity later. As 60 and 66 are on the Persian standard of volume, the form may be Eastern.

42. Pl. XLI. *Vases of the xxi-xxvth dynasties.* 68. Bronze *hes* vase from the burial of Nesitaneb-asheru at Deir el Bahri, about 970 B.C. The upper part and base, made separately, have been joined together carelessly askew. The inscription is "The Osiris, the great chief, the head of the harem of Amen Ra, king of the gods, Nesi-ta-neb-asheru."

69. The series of pendant situlae, 69-74, is the

commonest type of later times. The earliest fixed example appears to be that in the main group at Dendereh (*Dend.*, xxiv, 10), which is probably of the ninth dynasty; it is copied here in the small figure marked 1:6. This is obviously descended from the large drinking jar of the xviii dynasty, such as those under Amenhetep II (*G. and R.*, xxvii K, 352, 356), but provided with metal loops for a handle, instead of cord loops which were probably used on the pottery jars for suspension. By about the xxi dynasty the top had contracted much, as in 69, which is of hammered work, with a stout casting for the mouth and loops. A rougher form was made with the handle merely passing through holes in the neck, as in 70. The mass of small situlae as 71-74 are of the xxi to xxvth dynasties, as shown by the names of dedicators upon them; those in the Cairo Museum have names of Nesi-ba-neb-zedu (xxi), Nesimin and Nesikhonsu (xxii), Zed-ptah-auf-onkh (xxii), Mertheru (xxiii), Psemthek and Haa-abra (xxvi). The form 73 is certainly late, as such was found with much worn alabastra at Dendereh.

The series of bronze cylinders, 75-80, appear to be measures, and similar cylinders were made of pottery. The whole question of measures is dealt with in the Catalogue of *Weights and Measures*, in which such vases as agree with known standards are repeated in the plates. 75 is of thin beaten bronze. 76 is likewise beaten, with a sloping spout projecting; but it is kept up to full level at the top edge to hold the liquid. The three regular cylinders, 77-79, are in the proportion of 5:3:2, the basis being the Syrian *kotyle*. The same form in pottery belongs to about 600 B.C. at Defenneh (*Tanis II*, xxxv, 75, 76).

The series of little bronze cylinders with handles, 83-89, was found together at Nubt, of uncertain age. The purpose of them was for measuring gold dust, and when piled full they contain  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$ ,  $\frac{1}{32}$ ,  $\frac{1}{64}$ ,  $\frac{1}{128}$  of the *deben*. The last is the Ethiopian *pek* of gold, mentioned on the stele of Hersiatef. This system of gold measuring is therefore known to have been used in Ethiopia. The average *deben* given by these is 1,486 grains, and the mean error of the measures is  $6\frac{1}{2}$  grains (see *Naqada*, p. 67). These measures were cast, and then ground down at the top to contain the exact quantity.

81 and 82 are two small bronze measures, perhaps also for gold dust. 81 contains the same as 89 within  $\frac{1}{16}$ .

90. Bronze jug, cast *cire perdue*. The modelling is very regular, and with flat even surfaces of brim and spout. Probably early Greek period.

91, 92. Bronze dishes, of which there are no dated examples. On reference to the pottery, the nearest parallel is of 600 B.C. from Defenneh (*Tanis II*, xxxv, 54), but with small handles. Other forms, rather more curved, were in the store rooms of Sety I, with pottery of about 600 B.C. (*Qurneh*, liv, 814, 819). The thickened edge with flat brim is like that of the Yehudiyeh bowls, 52, 53, of 1100 B.C., and is not found in Greek vessels. On this ground it is likely that these bronze dishes may be of about 800 B.C., and the later pottery forms imitate them.

93, 94. Bronze pans with handles. These are found in groups with mirrors, and belong to the toilet; yet they are certainly not mirrors, as they are much thicker and far too concave. They seem to have been for heating some oil or unguents, with a thick body of metal to retain the heat while in use. They began to be used in the xviii dynasty (*Abyd.* III, xvii), and were then wider at the junction of the handle. They were similar in the xxi dynasty (*Cem. Abyd.* III, xi, 1; see pot, vi, 38); but narrower in the handle in the xxvth dynasty (see *Tanis II*, xxxix, 6, 7). Fig. 93 is probably of the latter date; fig. 94, by the triangular papyrus-stem handle, the lotus-flower outline, and the more varied contour, seems earlier, perhaps ninth dynasty.

## CHAPTER VIII

### VASES OF GRAECO-ROMAN AGE

43. Pl. XLII. *Hydreia and measures.* Fig. 95. Bronze dish, thin and well made; a handle has been lost, shown by three rivet holes. The form is not dated in metal; but it seems to be Ptolemaic by the analogous pottery forms (*Hyksos Cities*, xxxix H, 224, 228, 253, 272, 331). Later stages of the type occur in Italy (see Tarbell, *Catalogue of Bronzes in Field Museum*, fig. 13, and later at Pompeii, fig. 115 A).

96. Bronze jug measure.

97, 98. Bronze vases, probably measures. The forms are those of the 1st cent. A.D., but Roman examples always have handles (Tarbell, *Cat.*, 130, 145).

99. Bronze vase, handle lost, leaving traces, here marked on neck and shoulder. This was made entirely by spinning, and is beautifully thin and light;

by the weight the average thickness is  $\frac{1}{8}$  inch. It is probably of the ivth century B.C.

100. Bronze jug, of thin beaten metal, with heavy solid cast handle. The spout is lost, only the socket remaining. This was bought with the large basin 101, and these doubtless belonged together for washing purposes. The very wide neck suggests that it was also intended for pouring a big flush of water, as well as for a small stream by the spout. From the clumsy form, it is unlikely to be earlier than the iind century A.D. and might well be of the iiird century, but it does not seem as late as the Constantine style.

101. Bronze basin, accompanying the jug 100.

102. Bronze measure of two *hen*, divided by lines round the inside into 4 half *hen*. The whole has been modelled in wax and cast *cire perdue* in one piece. Roman.

103. Bronze jug measure of Egyptian style, but late.

104. Bronze jug measure. Roman.

105, 106. Bronze jug measures of Roman style, about the 1st century A.D. (see Tarbell, *Antiquities from Boscoreale*, cxi, 24406.

Pl. XLIII. 107. Bronze strainer, with handle ending in a duck's head. Early Roman.

108. Bronze vase of fish form, with two loops, above and below the mouth, for suspending it. Roman.

109. Spouted vase of bronze; a thick casting *cire perdue*. Part of the bottom edge is broken away. Roman.

110. Bronze dish, of beaten work. Handle with lion's head in a foliated base, cast solid and riveted into the side of the dish; another handle has been lost from the opposite side. Roman.

111. Bronze basin of Egyptian style. It appears to descend from the type of pottery basins of the xviiiith dynasty (*G. and R.*, xxvii D, 1, 227, 399), which very probably lasted on to Ptolemaic times (*Hyk. Cities*, xxxix J, 333). Though there is no clear dating for this, it might perhaps be best put in the Persian period, before Greek influence was dominant.

44. *Group from Abydos*. Figs. 112 to 117 are one group of bronzes found together at Abydos; they are all much broken up by corrosion, and the form is not certain where the outlines are dotted. The value of them is in showing a set of contemporary forms. The decoration on 113 is of Ptolemaic age; but the lotus flower at the spring of the handle is

more of the style of the vth century B.C., which hinders dating this in the late Ptolemaic or Roman age. The other vessels point to an earlier rather than a later date. 114 is like the ninth dynasty vase (*Dendereh*, xxiv, 1); 115 is like the Assyrian bowls of 700 B.C.; 116 has had a foot or stand, by traces below it, and it is like a great Assyrian *lebes* on a stand, 700 B.C. (Botta, *Ninive*, 76), except that it has handles. A similar brim and handle survived at Pompeii (Tarbell, *Cat.*, 234). Altogether about 300 B.C. would be a middle date for the group. This takes back the duck's-head pattern, on 113, 117, earlier than might be supposed otherwise.

112. Bronze cooking pot, with iron handle.

113. Bronze strainer with wreath, scroll, and lotus patterns.

114. Bronze cooking pot.

115. Bronze bowl, three alike.

116. Bronze *lebes* with two opposite handles cast solid: the handles are here put at right angles to show the two views. On the base are traces of a circular foot or stand, the limits of which are here marked by lines. Compare the Assyrian form (Botta, 76).

45. Pl. XLIV. *Dippers*. Fig. 117. Dipper, cast bronze, solid, with duck's head.

This concludes the group from Abydos.

118, 119. Bronze dippers, with ducks' heads and bands on the stems.

120. Bronze dipper with horse's head on the handle and foliated stem. This marks the beginning of the hook turning to the same side as the bowl, probably of the 1st century A.D.

121. Lead dipper; the stem is a strip twisted in the middle. Rifeh.

122. Bronze dipper with catches on the backs of the stem.

123. Bronze dipper, with stem in two parts, sliding one on the other. This was in order to adapt it to different depths of a jar.

124, 125. Pewter dippers with iron stems. These are examples of the very unusual soldering on iron. With these were bought 141-143.

126. Cast bronze cup, on three feet, with ribbed surface, perhaps a measure.

127, 128. Cast bronze cups, on three feet. Roman.

46. *Handles*. Fig. 129. Large bronze handle of a situla ending in birds' heads. Cast.

130. Handle from a *lebes*, with fore-parts of horses. Cast bronze.

131. Small bronze handle of a jug.

132. Bronze handle with two hands to attach to a *lebes*. Cast imperfect.

133. Attachment for lifting a bowl, without any ring. Bronze, Egyptian.

134. Bronze handle, cast solid.

135. Small iron brazier, pierced with triangular holes. Broken.

136. Bronze basis, for a vase or a statue. The upper part circular, spreading out to a square foot.

47. *Late vases*. Fig. 137. Small cup of cast bronze, with ribbed outside.

138. Octagonal silver vase, with neck and handles thickly plated with gold. The polygonal form was favoured in the ivth-vith centuries A.D.; the simplicity and good style of this would place it early in that class. From Thebes.

139. Bronze cup with arching pattern around the base. Cast.

140. Bronze vessel, probably for heating wine. Half the top is covered, and the rest had a hinging lid, now lost. A spout has also been lost, only the hole for it showing here. The lid and end of the handle missing and the top bent inward.

141. Bronze bowl with slightly raised centre; bought with the two dippers 124, 125, and five pewter bowls, as 142, 143.

142, 143. Pewter bowls, and three others between the sizes of these, one with the bottom rusted away. The condition of most of this group of pewter is fresh and bright. Roman.

144. Bronze bowl of late Arab work, with incised inscriptions. Placed here to show the survival of the umbo, which began in the xviiiith dynasty.

145. Censer of bronze open work. The body in a single casting, with twisted handle, now partly broken away. The lid a single casting, hinged to the body. Not figured.

146. Bronze censer, with perforated dome lid and perforated edge to the cup below. The form is evidently copied from an Arabic dome; in outline and in pattern it most resembles that of the tomb of Bars Bey, A.D. 1438. These perforated censers may then be dated to about 1450. Not figured.

48. *The names of vases*. The fullest catalogue of names is in the *Noms et Signes Egyptiens designant des Vases*, 1935, by Comte du Mesnil du Buisson, in which 264 names of forms are discussed. This should be used for any fresh study. They are largely of pottery forms. The better-known names of 60 stone vase forms are here listed, but the conventional figures are few of them representative, and the

evidence of the use, or of Semitic names, is desirable. Another difficulty is that many are named only on the latest monuments, when the writing was corrupt, and probably the real forms were forgotten. Some help can be gained from comparison with Hebrew names, when forms were imported from Syria. The origin of the name of a vase can sometimes be traced in Egyptian or Hebrew, thus indicating for what purpose and of what size it was. Generally it may be taken that most flat-bottomed forms were of metal, and round-bottomed of stone or pottery. The names are placed in alphabetical order on pl. xlv, and numbered. The connections are placed after the names, and the identification with known forms at the end of the line. The sources followed here are Brugsch's and Erman's Dictionaries and the facsimile drawings of tombs of *Saqqara Mastabas* and of *Medum*.

Pl. XLV. 1. *Aoot*, a liquid measure, medical.

2. (Buisson, p. 44.) *Apt*, a cup, is evidently the *apt*,  $\frac{1}{3}$  of the *hen*, or  $9\frac{1}{2}$  cubic inches. The standard of the *hen* was rather less than a pint, so this would be a small cup. Besides this there was the large *apt* measure of 40 henu, or 1,168 cubic inches, and this name is equivalent to the Hebrew ephah of 2,300 cubic inches, double of the Egyptian standard.

3. (B. 93.) *Annure*, *Ynnure*. This is evidently a Syrian word; the form is an attempt to give some sound not regular in Egyptian.

4. *Anemti*, used for milk. This is from *anem*, a skin, and would be therefore the goat-skin commonly used for churning milk in Egypt. A vase might be called after that as a unit of capacity, much as a chaldron measure is named from the quantity, which is designated from a cauldron. The *anemti* would be 100 to 200 cubic inches.

5. *Anhet*, literally a "stone vase," and therefore probably not over 50 cubic inches.

6. (B. 50.) *Akanä*, a two-handled jar "of Syrian work," not therefore a type found in Egypt.

7. (B. 76.) *Aken* is perhaps the same, see Hebrew *agn*, cup.

8. (B. 57.) *Ou*, a vase, and also a measure of 16 cubic inches. This is about as much as can be held in the two hands, agreeing with the measure being named from the hand. This size shows that the vase cannot be the large copper washing bowl of that form, but a smaller size which is usually of stone.

9. (B. 6.) *Onz*. This is a large bowl, by the figure. It is tempting to take the name as a derivative of *nez*, to grind; the *äyu* is often found as a

prefix, e.g. *pay*, a bird; *opy*, to play; *nem*, small; *onem*, precious stone, smallest object; *shab*, food; *oshebu*, to consume. The Egyptian commonly uses any stout bowl or pot to grind in, and a big stone bowl would be all he wants for a mortar.

10. (B. 26.) *Osh*, a beer jug, from *ash*, to pour.

11. (B. 53.) *Ushab*, a lotus cup in some texts, a situla with a hoop handle elsewhere (see *Rev. Archéol.*, 1906, i, 55).

12. (B. 30.) *Ushem*, from *shemem*, to water, probably a large pot, such as that used for sprinkling (Petrie, *Amarna*, v) or for irrigating (Wilk., *M. and C.*, fig. 144).

13. (B. 106.) *Uzu*, *uzeh*, *udeh*, a vase used in offerings; *uzeh*, libation; *uzhet*, altar.

14. (B. 80.) *Bä*, the later form of cylinder jar with hollowed sides.

15. *Pena*, the spouted jar of copper used for washing, as figured on the slate of Narmer, and in the tomb of Sekerkho-bau (*Saqq. Mast.* II, i).

16. *Mor*, apparently the Syrian measure *maris*. This probably means only a standard measure of any kind, as the Arabic *māiar*, or *āiar*; an ancient word apparently belonging to Hebrew *āir*, a city, i.e. a civic standard. The *maris* was of many sizes, 92½, 925, and 1,850 cubic inches in different series, showing the name does not refer to a specific amount.

17. (B. 8.) *Ment*, probably a small vase, as the *man*, gold and silver vessels, in the Aramaic of Ezra and Daniel. A small vase.

18. (B. 8.) *Ment*; this must be a different kind of vase, as it is used to measure incense, beer, and other liquids; evidently of large size.

19. (B. 76.) *Meht*, the only vase stated to be for kohl; apparently the name of the usual kohl pot.

20. (B. 26.) *Nubti*, "the golden," therefore a small vase.

21. (B. 131.) *Nemast* or *nesast*; the form resembles the large copper jar known from the tomb of Khosekhemui; at Meydum (Rahetep) it is figured of copper and of electrum. It seems to be named from the place Nemast. *Nem*, store jug of food or drink.

22. *Nen* or *nennu*, an unguent vase, therefore small.

23. *Nenhu*, a drinking jug, see *nenuh*, drunkenness.

24. *Nesut-hetep*. This was the specific name of the flat stone plate or dish, as in the lists of offerings (see *L.D.*, ii, 69).

25. (B. 70.) *Hen*. This is the principal measure,

of about 29 cubic inches. There are three similar names known as measures—the *hen*, the *hennu* of four *hen*, and the Hebrew *hin* of ten *hen*. They may have been all pronounced alike, but these spellings will serve to distinguish them. There are likewise three or four different spellings in Egypt: 25, *hn*; 26 *honnu*; 27 (B. 67) *hn*, *hnti*. These may perhaps refer to the three different measures. The source of them all may be *hen*, a lake or pool.

28. (B. 11.) *Här*, connected with *har*, a basin or pool.

29. *Hut*, the form as a large metal bowl is well given by Seker-kho-bau and Rahetep. It was probably connected with *hud*, an offering.

30. (B. 115.) *Hest*. This is a very well-known form in bronze, as metal vase, fig. 68.

31. *Heti*, a heart-shaped vase, with two handles and a wide mouth.

32. *Heken*, a word meaning offering or ointment; it is apparently applied to the vase at Meydum, and seems to mean simply an offering vase; this and the other senses all coming from *heknu*, to adore.

33. *Heden*, a vase of oil.

34. (B. 65.) *Khäy*, a vase measure of  $\frac{1}{3}$  *hen*, 9½ cubic inches. It comes from *khäy*, a leather vessel; and the only pottery copied from a leather flask has in the early examples a capacity of 10 or 11 cub. ins. This fixes the form from Syria known as the *bilbil*.

35. (B. 65.) *Khät*, *khäut*, *khäui*, the stone table for offerings, usual in the iind and iird dynasties, being well figured with the name at Meydum, where it is said to be of alabaster, the usual material. It is connected with *khäo*, to deposit, being the place where offerings were deposited in the tomb.

36. (B. 63.) *Khebeb* or *khebkeheb*. The determinatives for this word differ much. The first suggests the larger bronze basin type, drawing in upward, which belongs to about the early Greek age. Possibly this was a measure rather than a specific form, and connected with the Greek measure *khous*, which means simply a heap, and which varied from 210 to 932 cubic inches. The Egyptian would sound as *khevev*.

37. (B. 45.) *Khmem*, the well-known vase with long handle and a lifting lug in front.

38. (B. 25, 26.) *Senu*, perhaps connected with the *tzintzehmeth*, the pot of manna put in the ark.

39. (B. 139.) *Sery*, the Hebrew *sir*, a cooking pot; Arabic *zir*, a large jar; hence perhaps the Indian *sir* measure, which is much varied in size, but usually

about 60 cubic inches; as the determinative has two handles, it seems likely to be the usual two-handled cooking pot.

40. (B. 53.) *Seshen*, Hebrew *shushan*, a lily; the lotus cup.

41. (B. 74.) *Seti*; 42, *sethel*. These are variant names. On the stele of Naukratis this is rendered by *keramion*, a big jar, stated by Brugsch at 1,610 cubic inches. There might otherwise be a connection between the *seti* and the Syrian *saton* of 740 cubic inches. Seeing how often the same name is used for a measure and its double, both of these connections may be true. The Egyptian pot was certainly large, as *sethel* means brewing.

43. *Shädu*, is probably connected with *shat*, wine.

44. *Shamu* or *Aäkheth* is a large jar, probably connected with the idea of the inundation. It is placed on a stand, pierced with triangular holes, which was usual in the Old Kingdom, made of stone or of pottery.

45. *Shauabti*, probably a wooden measure made of *shauabu*, persea wood.

46. (B. 85.) *Shedy*, a brewing jar, from *shed*, brewing; therefore large.

47. *Qärnebu*, of silver. Probably a horn-shaped vase, from Hebrew *qeren*, horn.

48. (B. 29.) *Qeb*, a small vessel for lamp oil; Hebrew *qab*, 128 cubic inches.

49. (B. 111.) *Qebh*, a libation vase with a spout, from *qebh*, coolness.

50. (B. 62.) *Qerer* or *qelet*, Hebrew *kelī*, a vessel (common throughout O.T.); Arabic *qulleh*, water jar. From the last it may be the long tubular drinking pot used in the Empire.

51. *Ka-hen*, "servant of the *ka*," the name of the *ka*-priest, here applied to a pot for drink which ministers to the *ka*. Compare a small poker called a "curate."

52. (B. 72.) *Gäy*, a liquid measure, from *gä*, liquid.

53. *Tenau*, a flat dish, see *tennu*, largeness.

54. *Tennu*, a large vessel, *tennu*, largeness, quantity. Probably the hand-washing bowl of the early dynasties.

55. *Tet*, a large open vessel, see Hebrew *dud*, cauldron, pot.

56. (B. 64.) *Thebu*, a metal jug, measure, probably not large. Perhaps connected with *tebä*, *zebo*, digit, so a fraction of a larger measure, as the digit is of a cubit.

57. *Debh* from *debhu*, an offering, an offering vase.

58. (B. 9.) *Defa*, a metal bowl with two handles, figured at Meydum, and the tomb of Seker-kho-bau. Probably *zuau*, *tuau*, a measure vase.

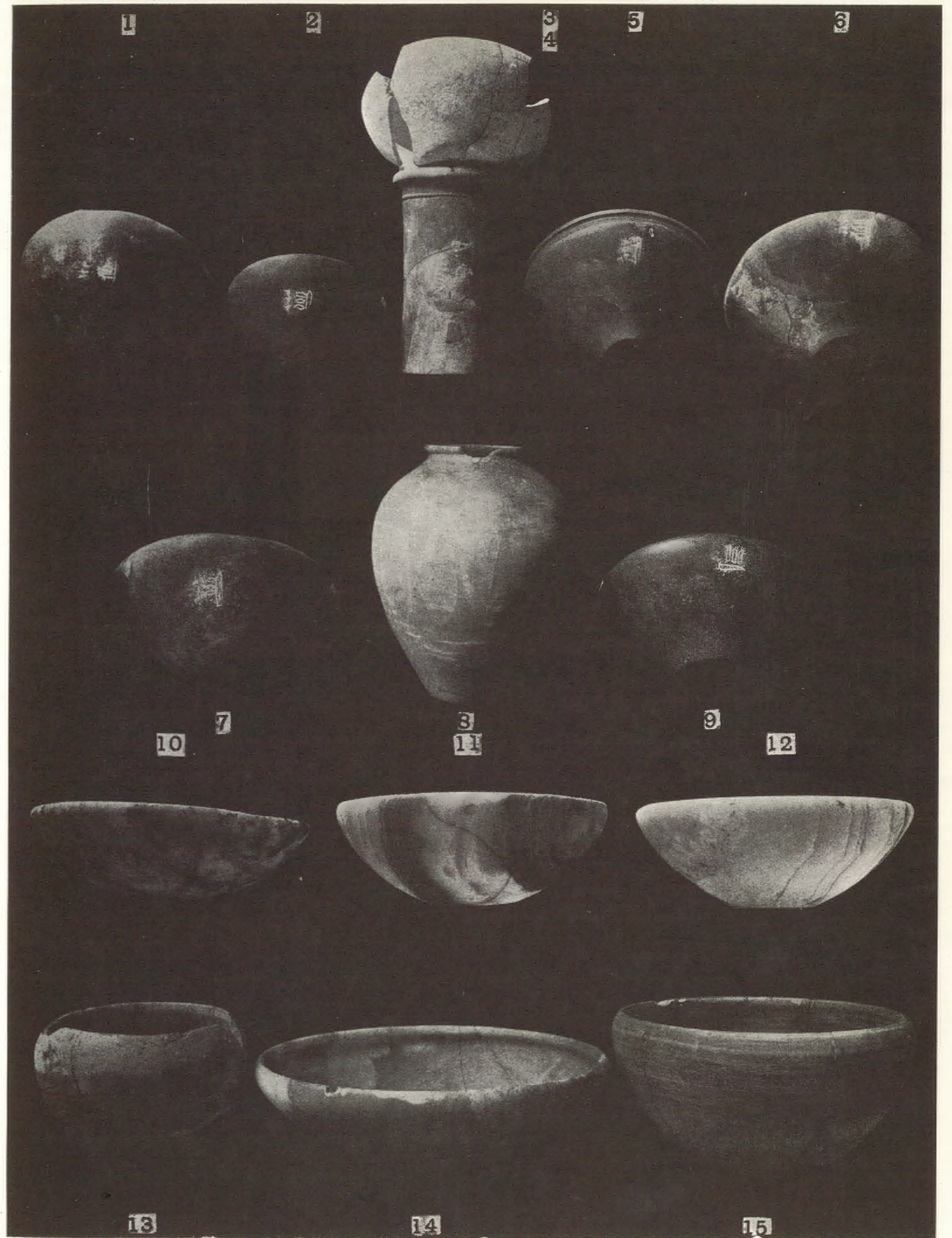
59. (B. 18.) *Des*, a beer jar; compare *tesaf*, a liquid offering, *tesef*, a bread offering.

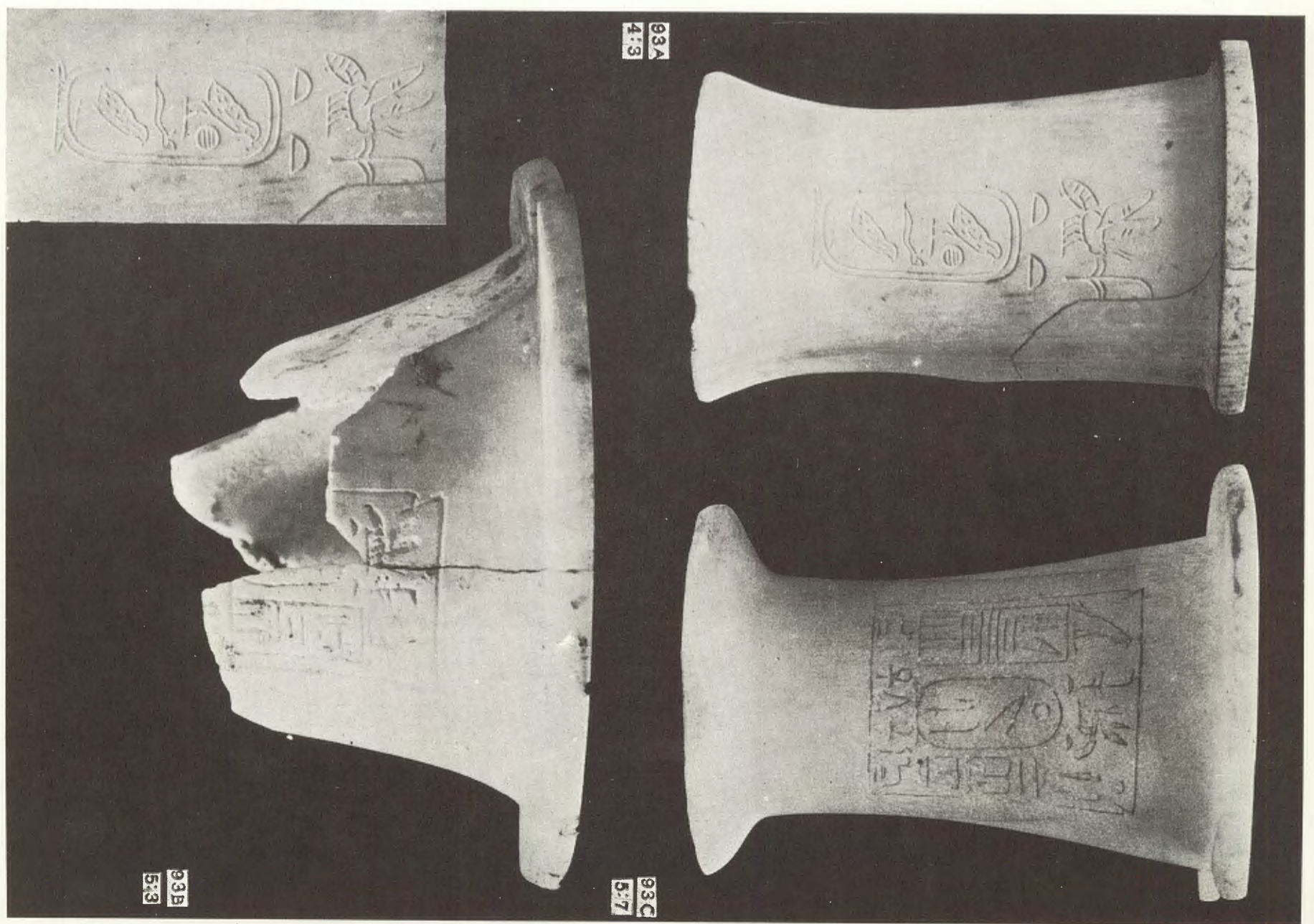
60. *Tshärbu*, a patera or drinking bowl, see Arabic *shorba*, a drink. This is probably the deep bowl (metal 41-54) used for drinking, as figured on the monuments.

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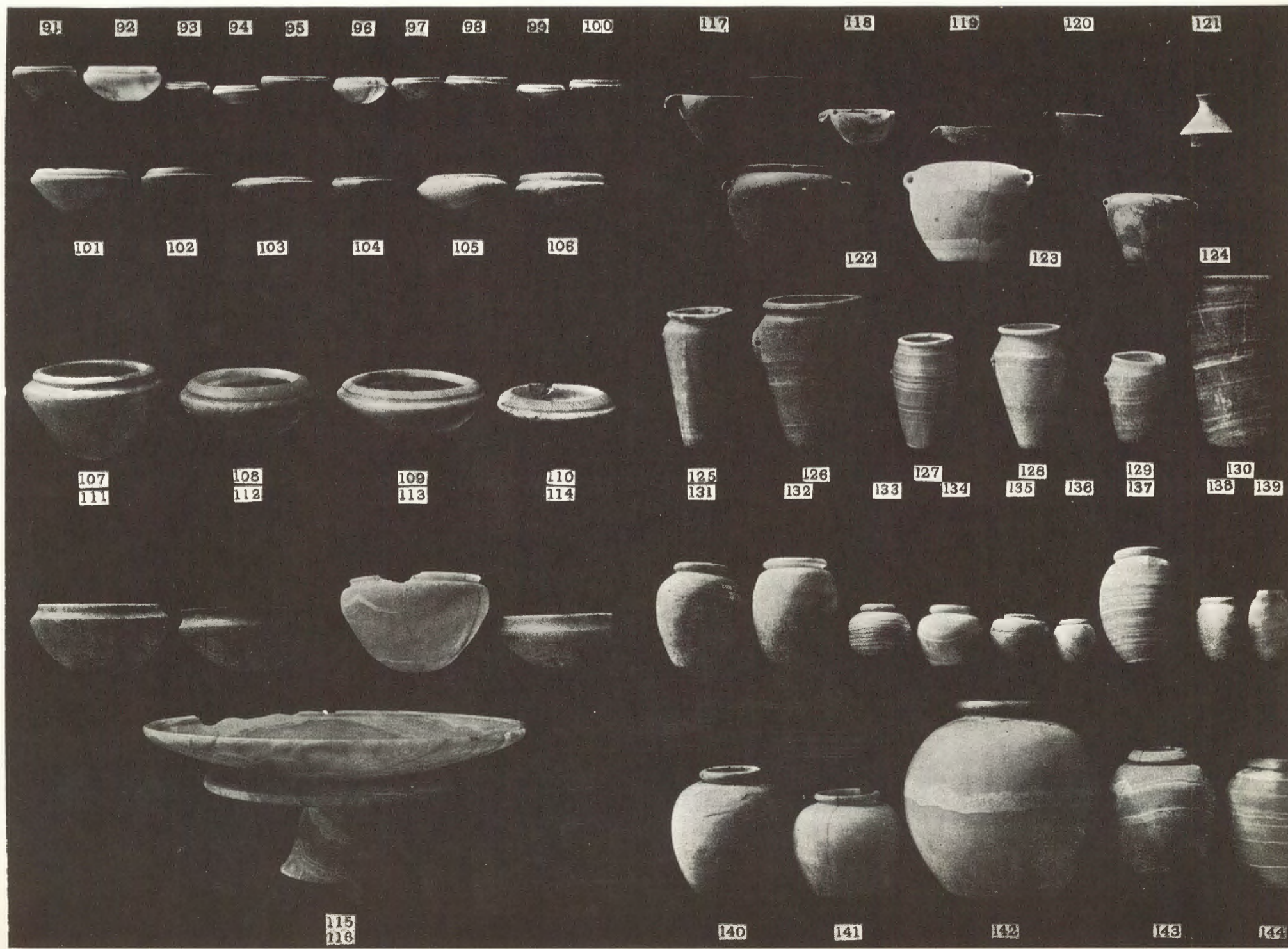


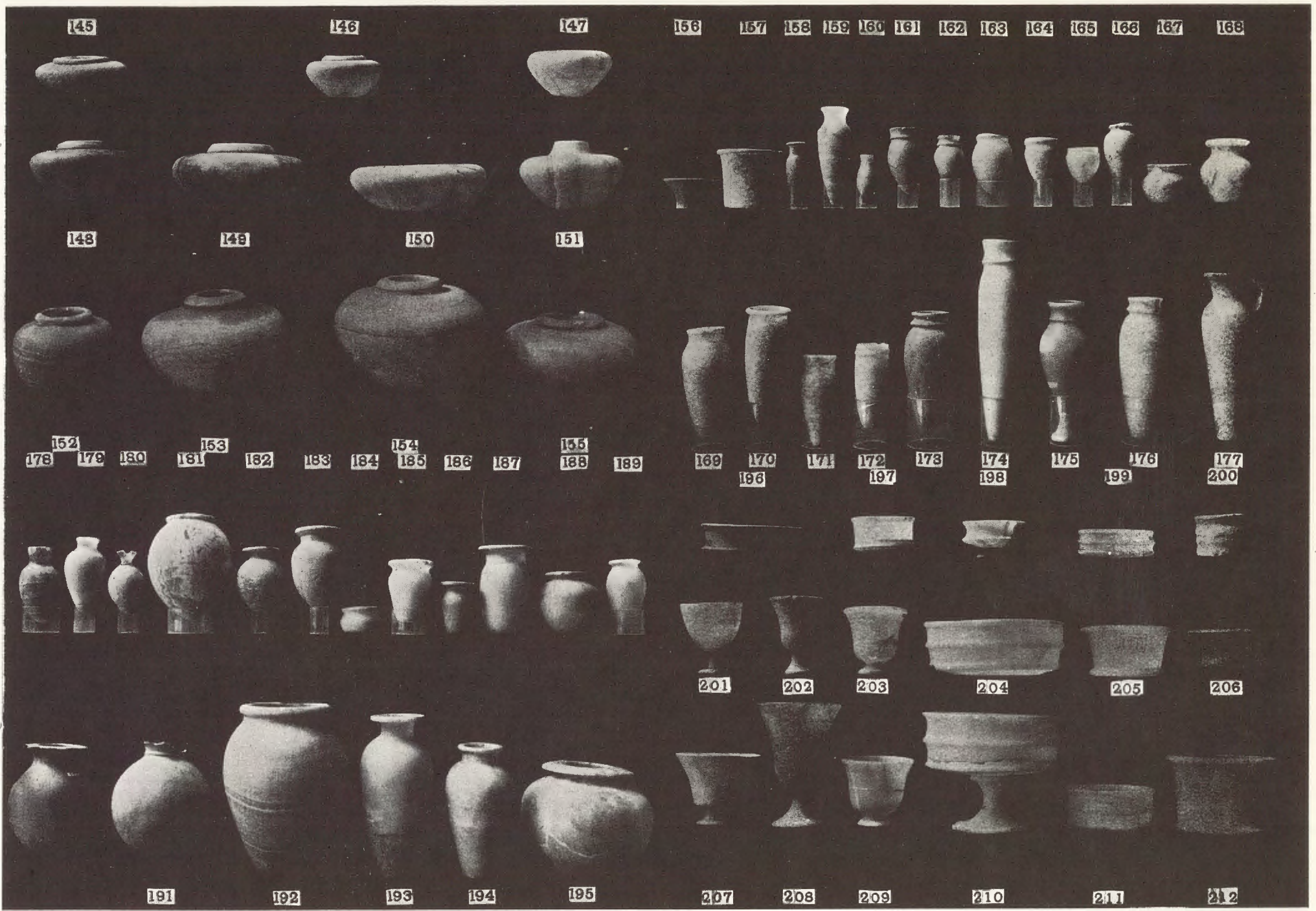
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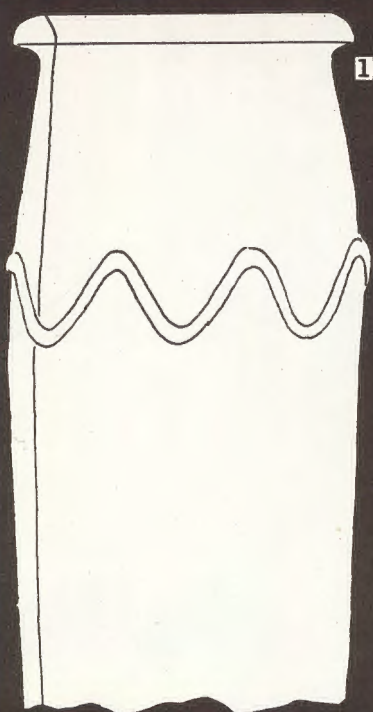
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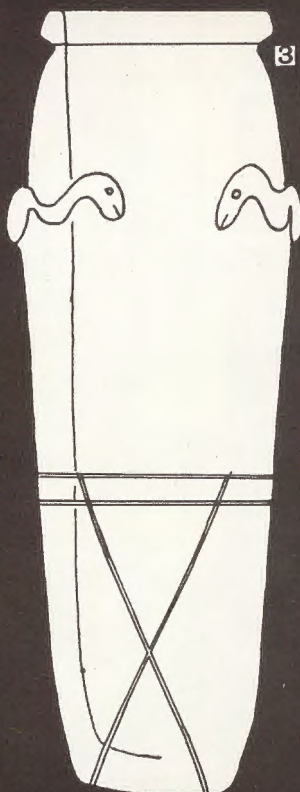




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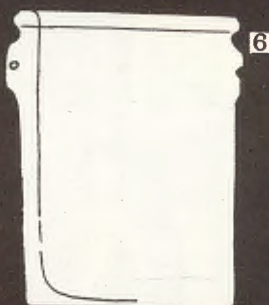
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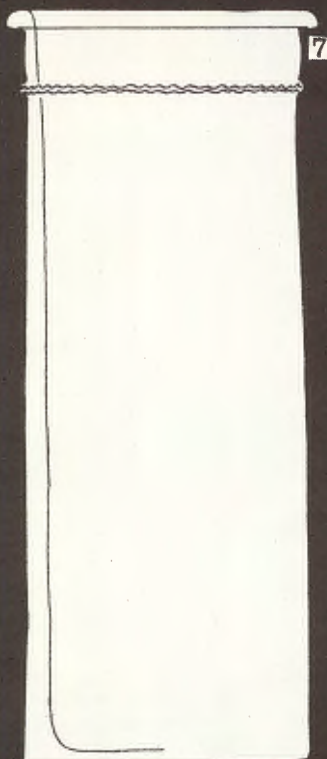
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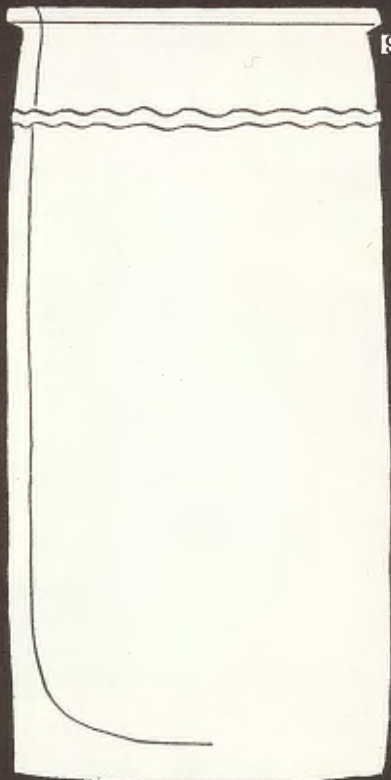
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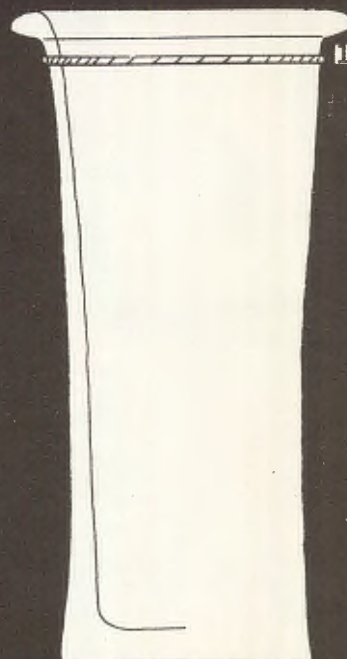
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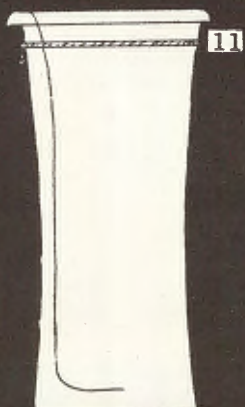
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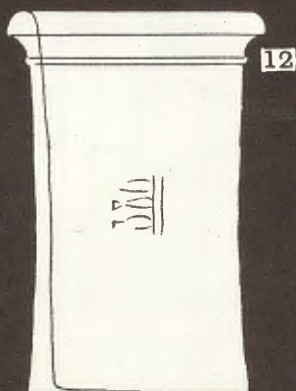
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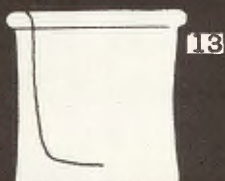
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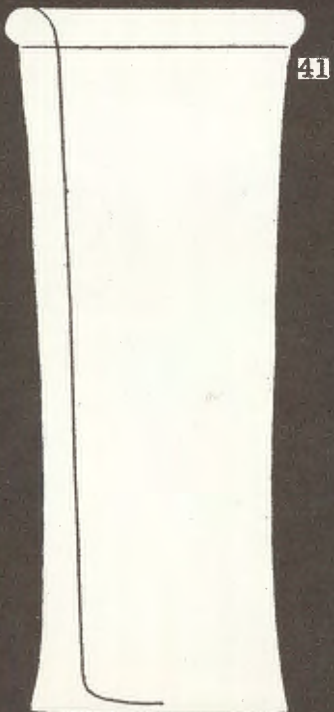
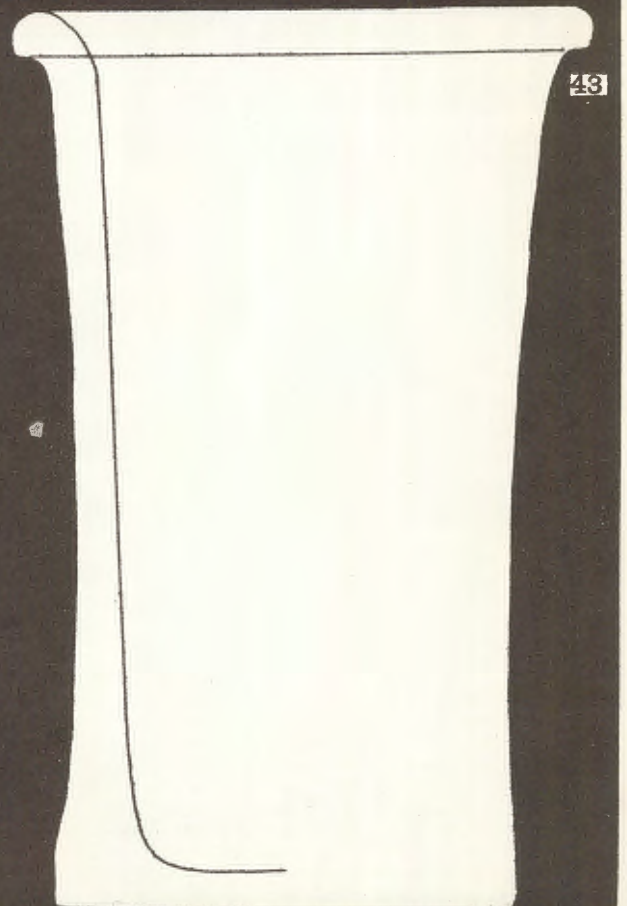
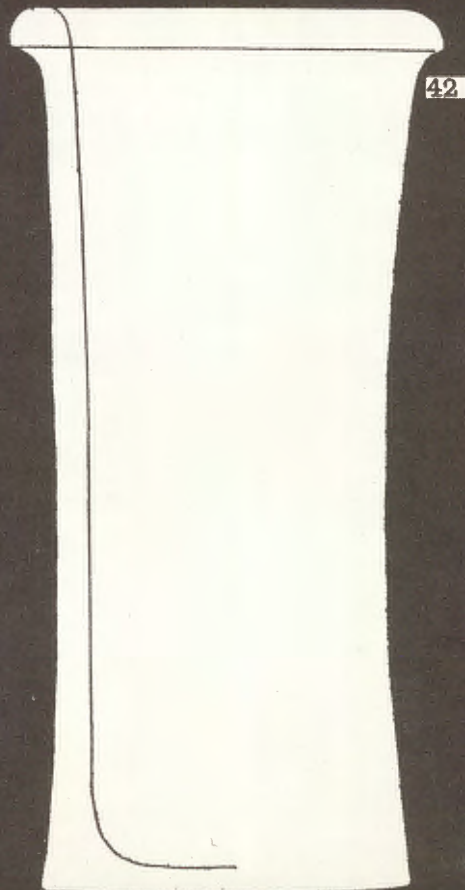
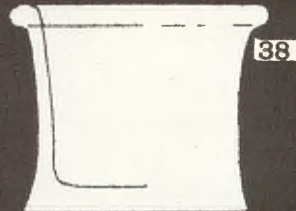
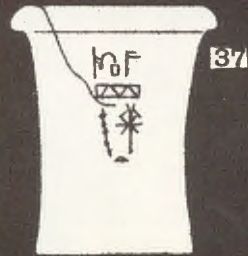
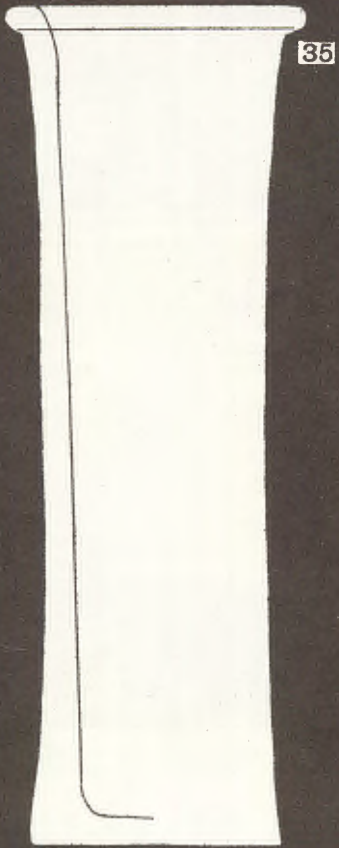
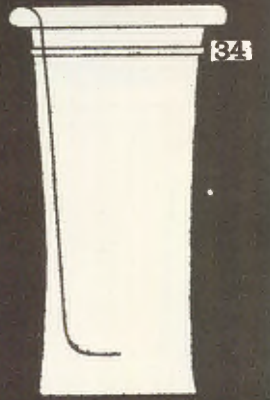
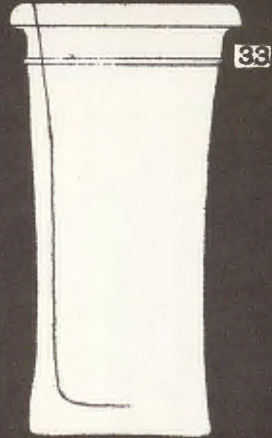
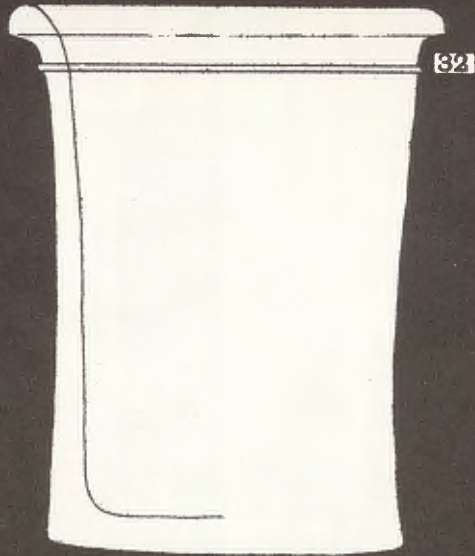


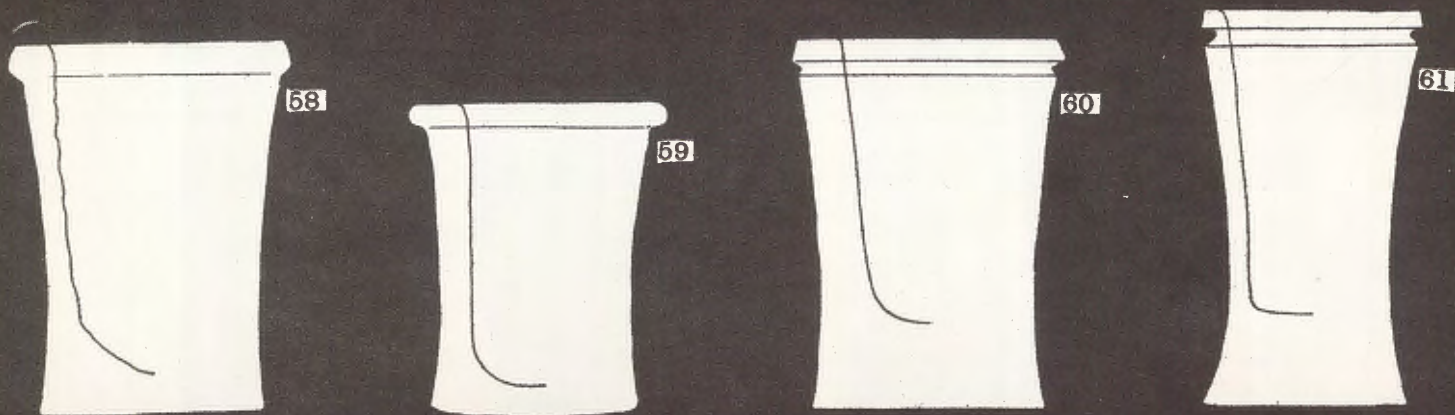
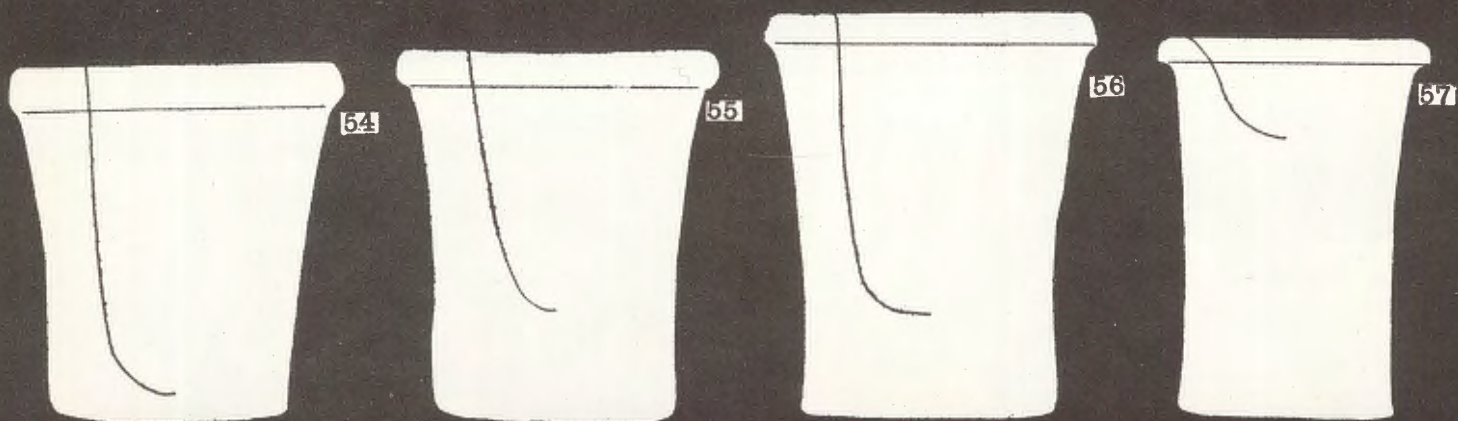
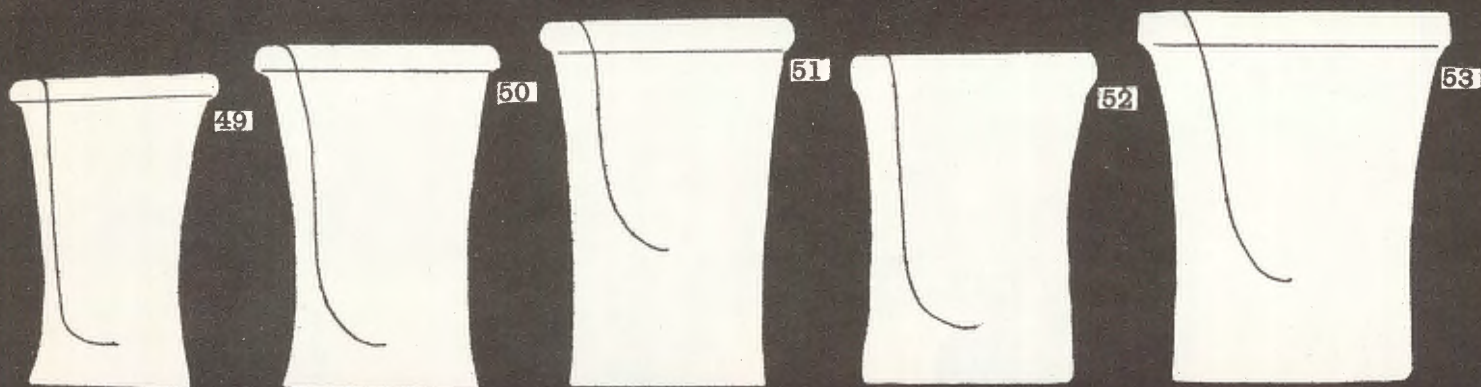
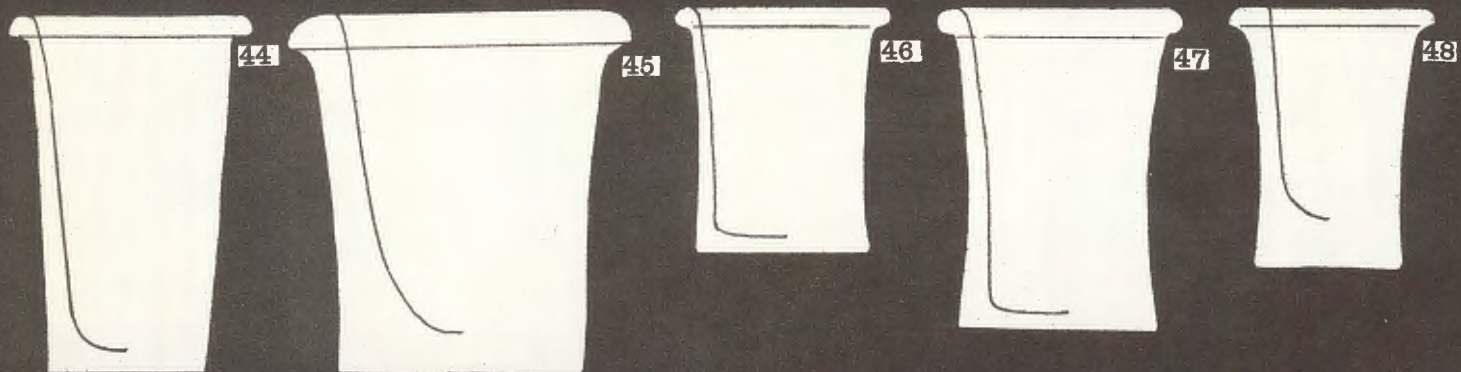
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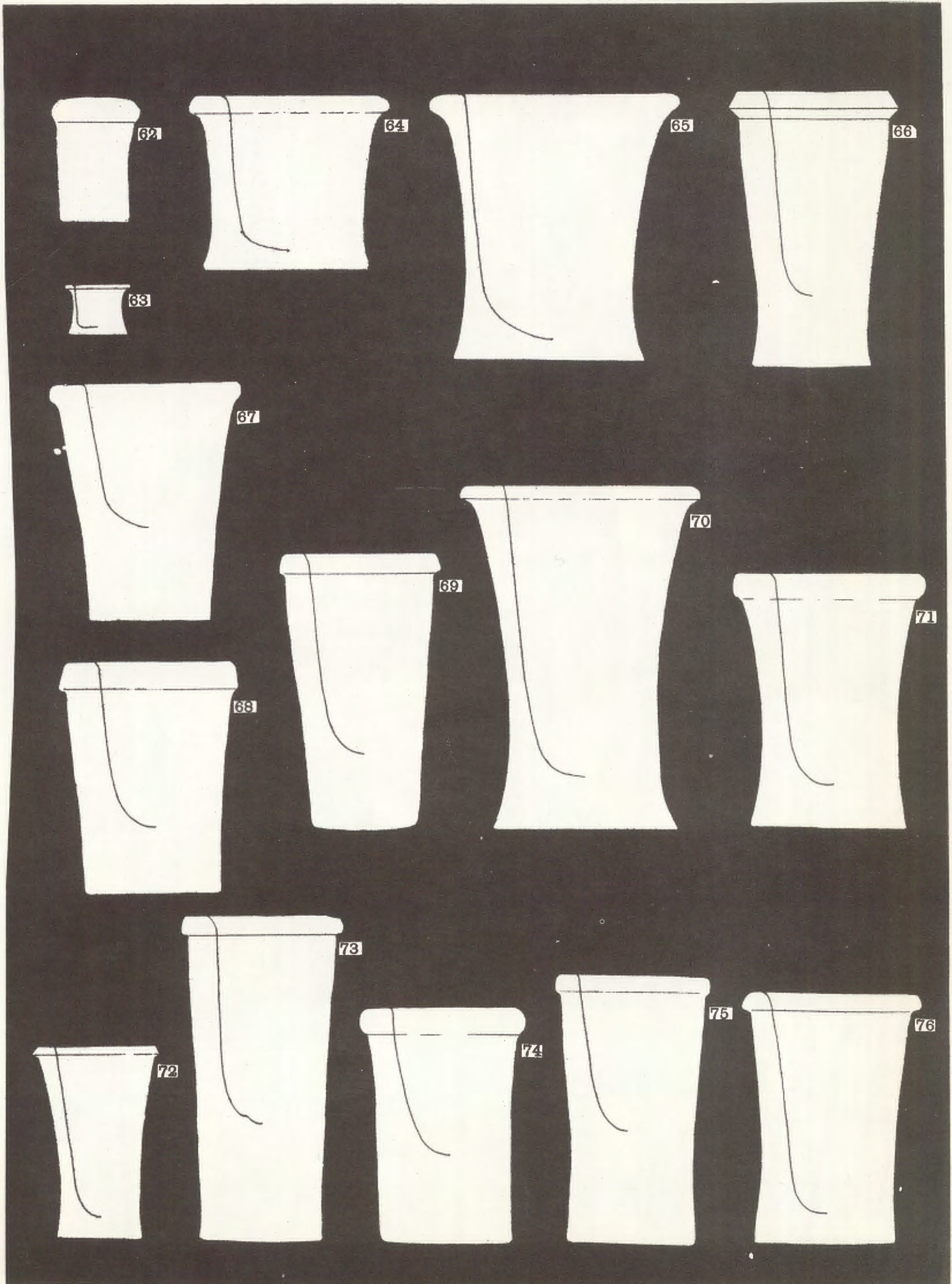


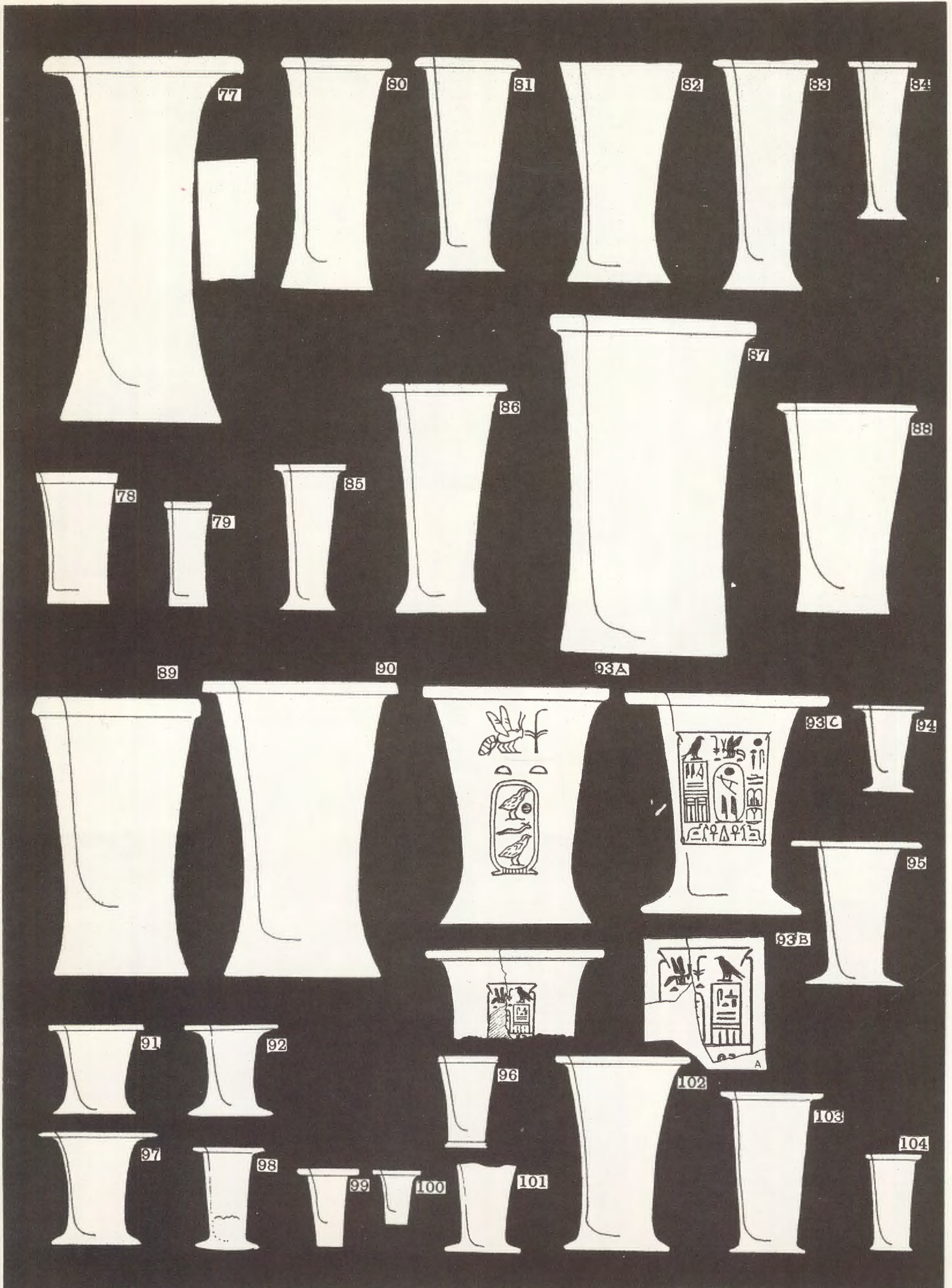
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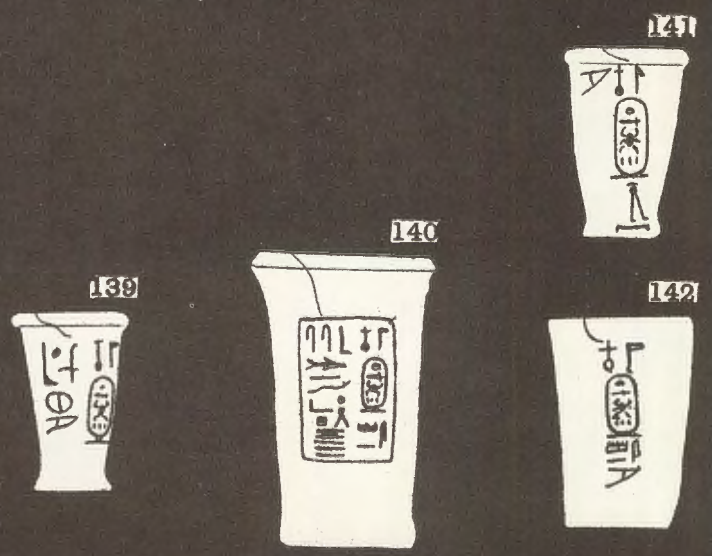
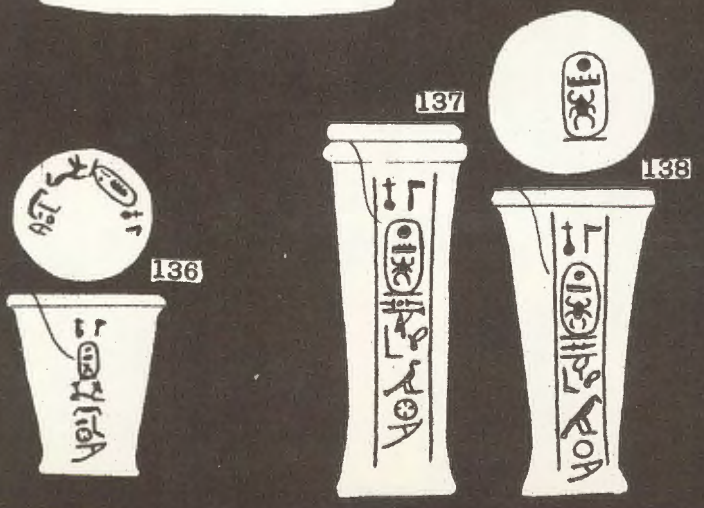
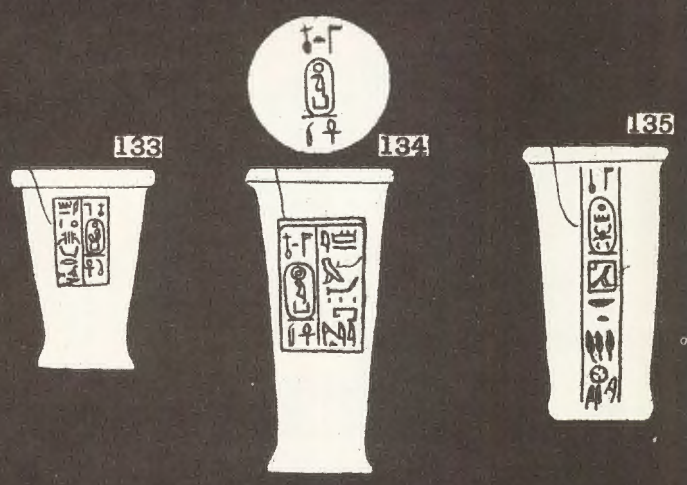
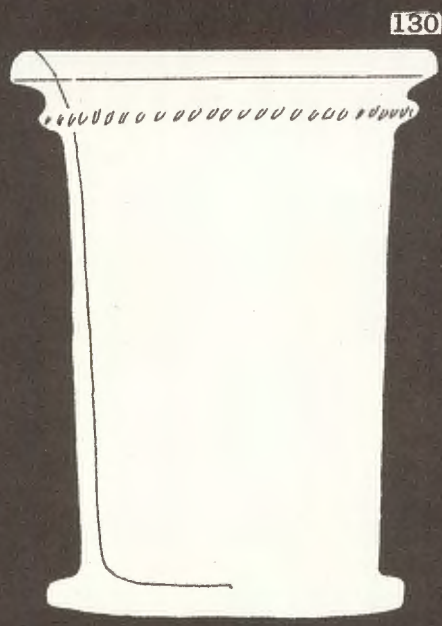
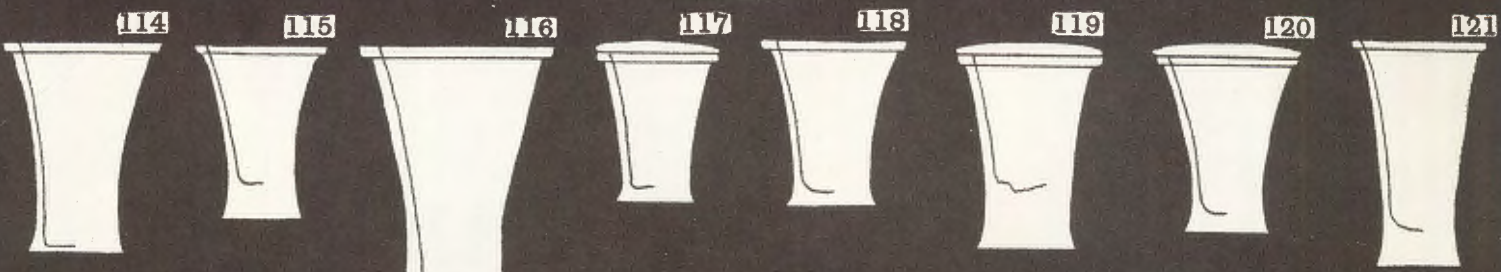




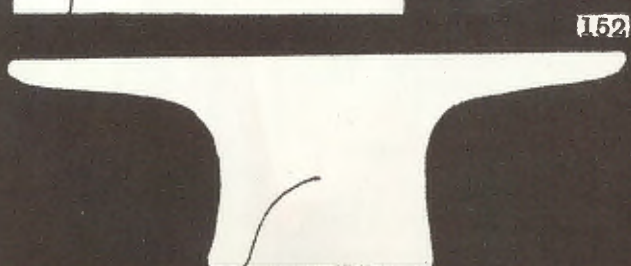
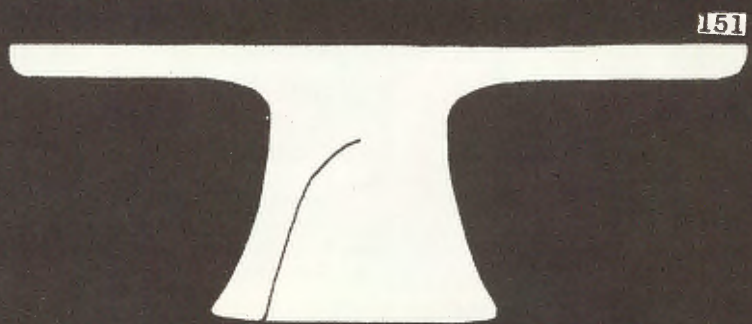
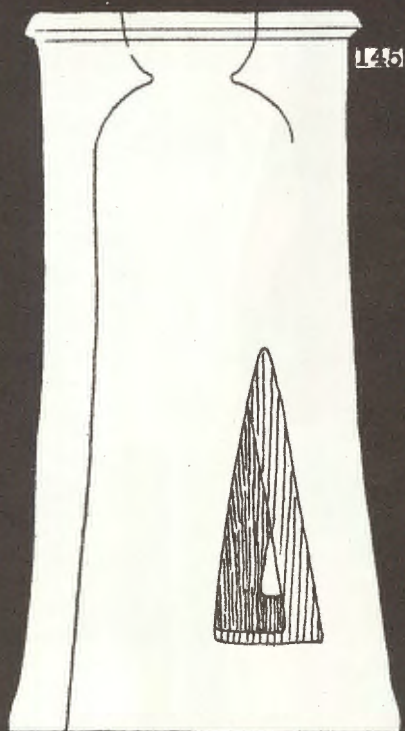
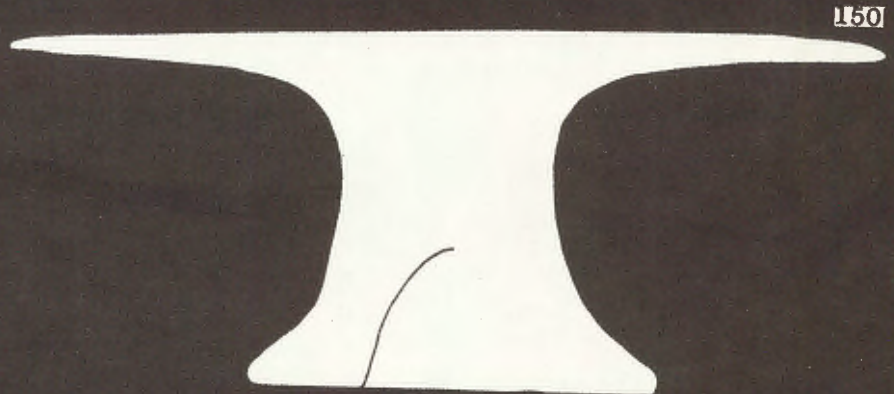
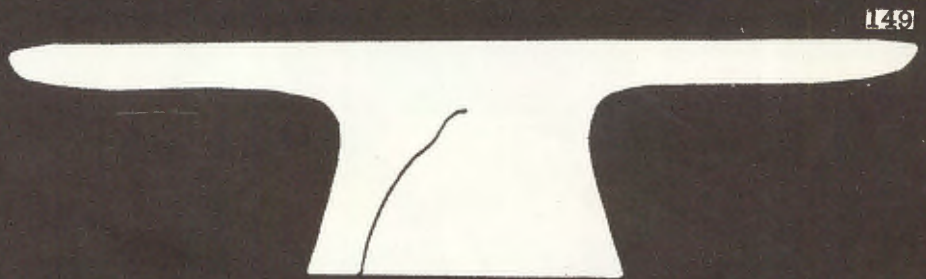
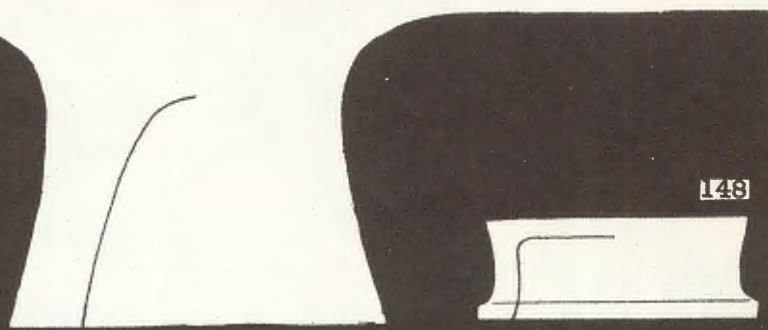
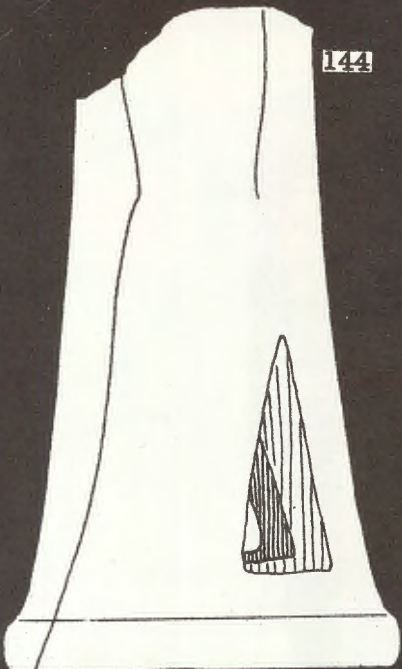
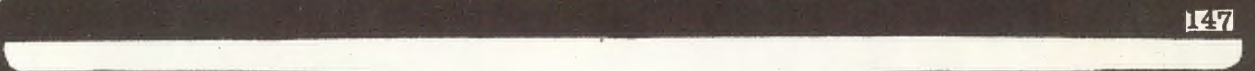
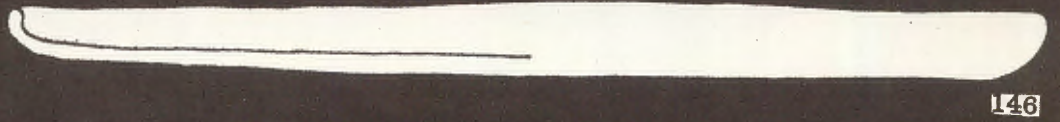
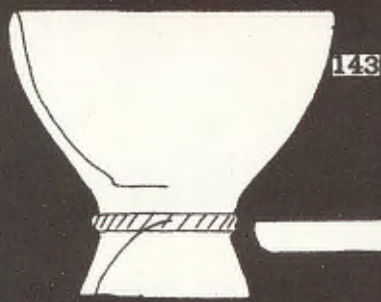


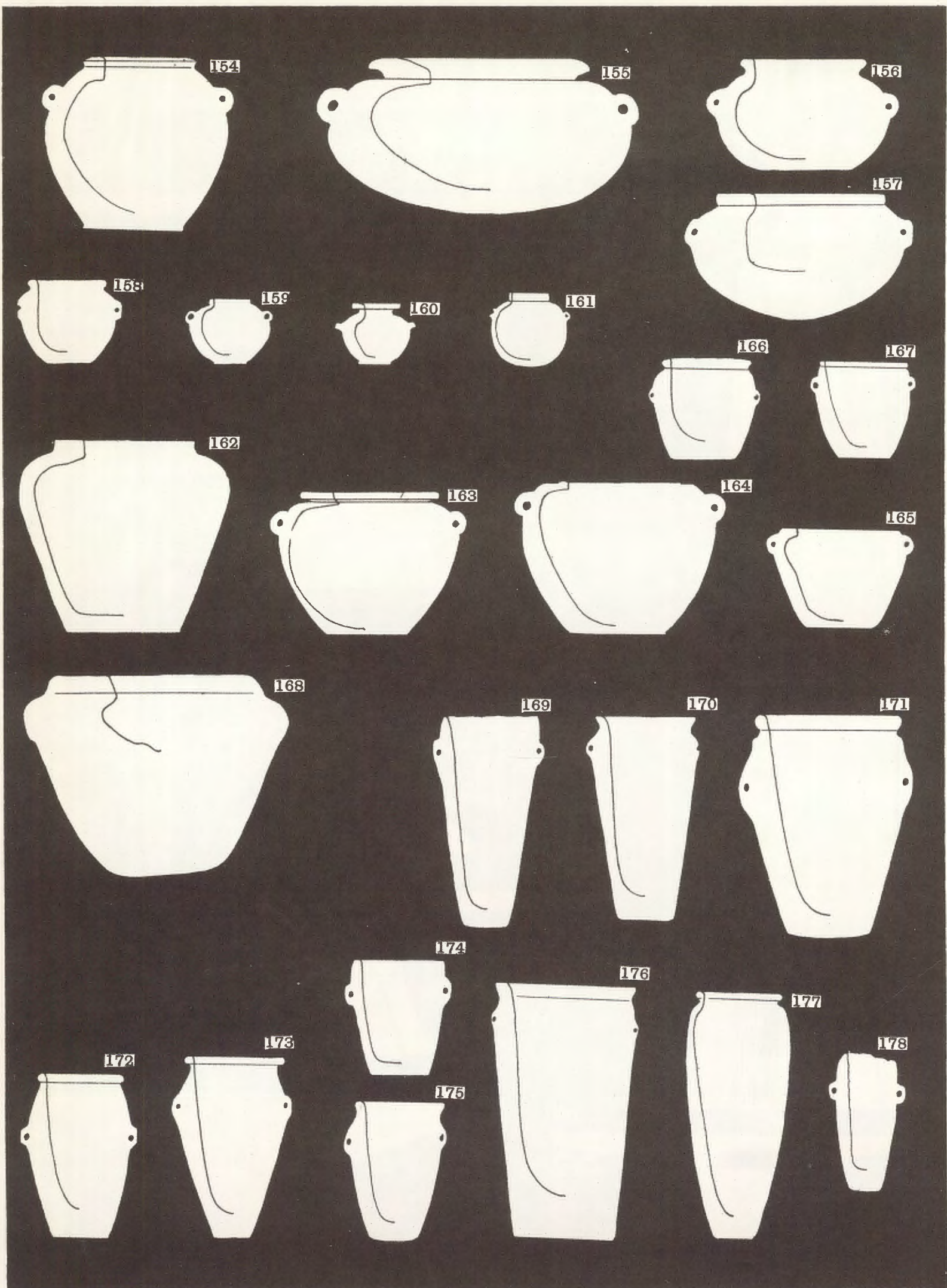


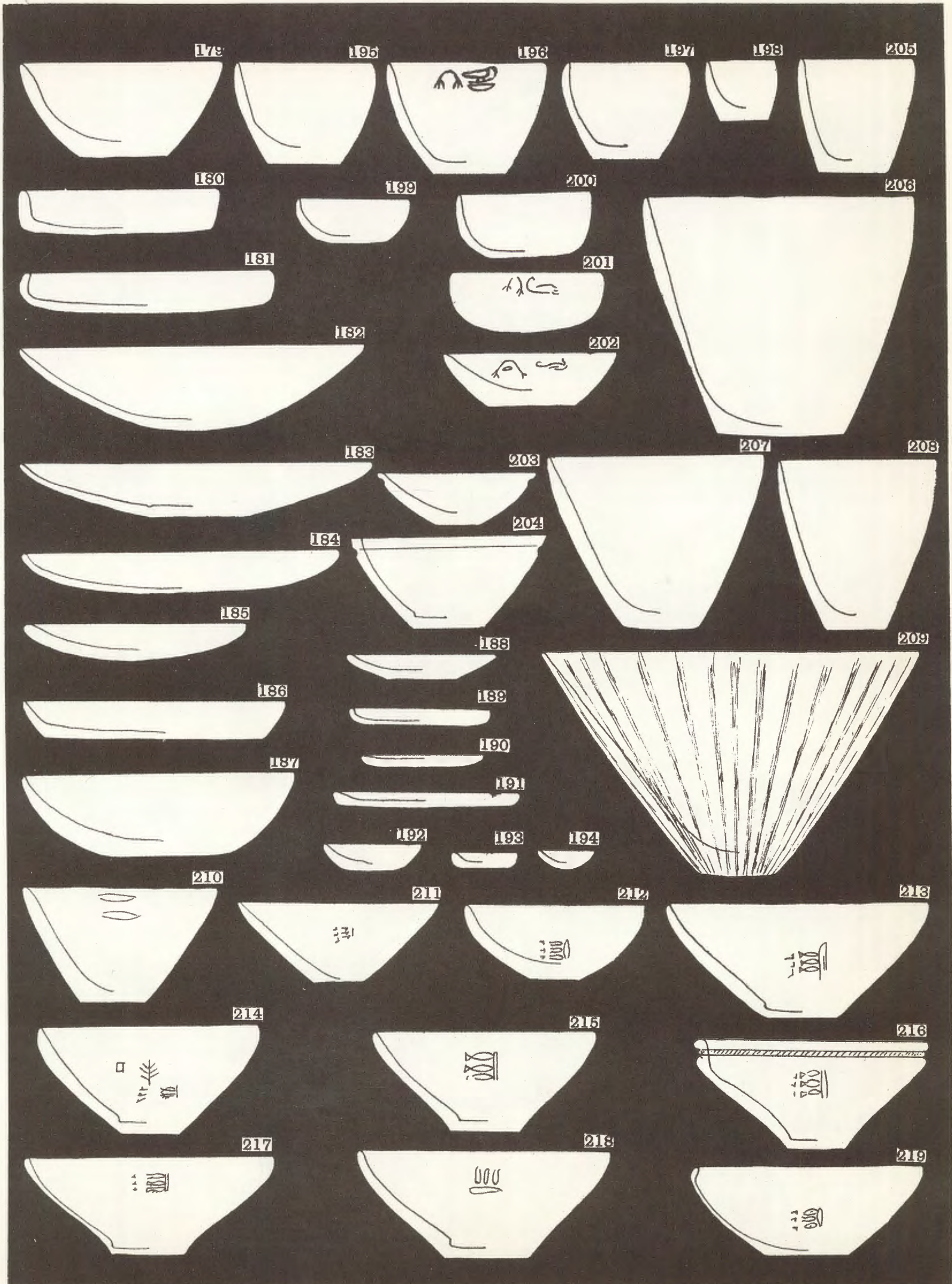




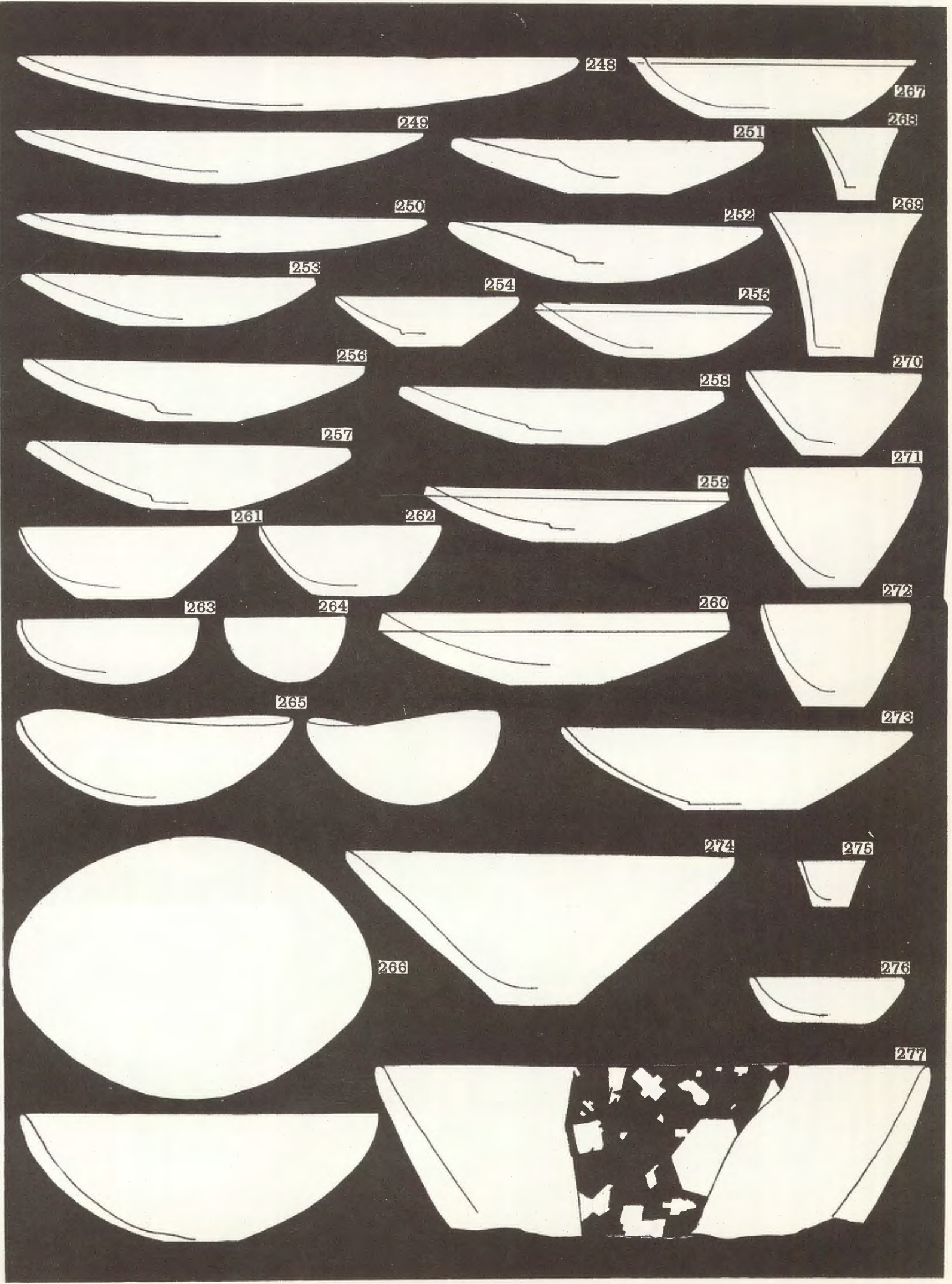


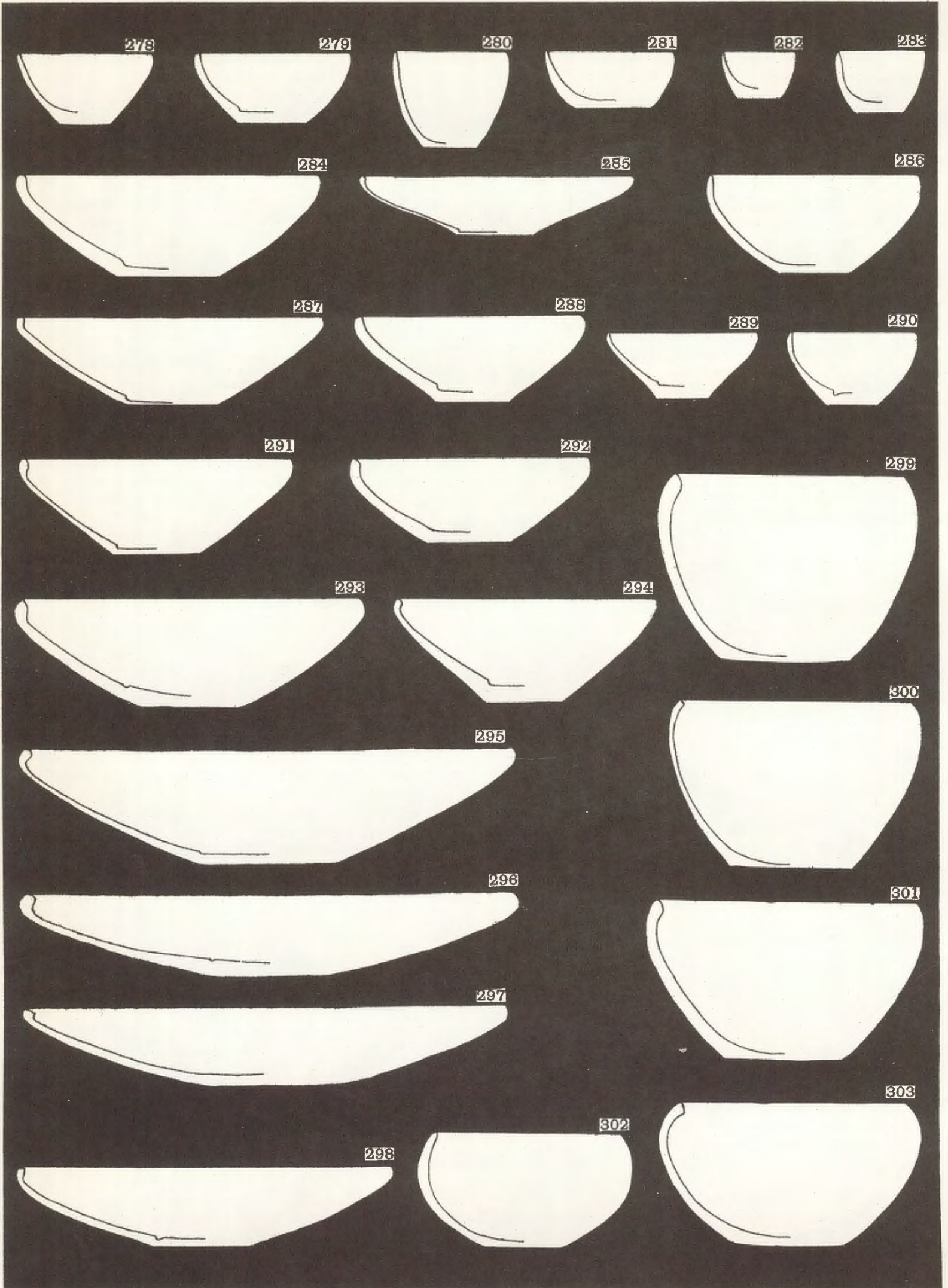




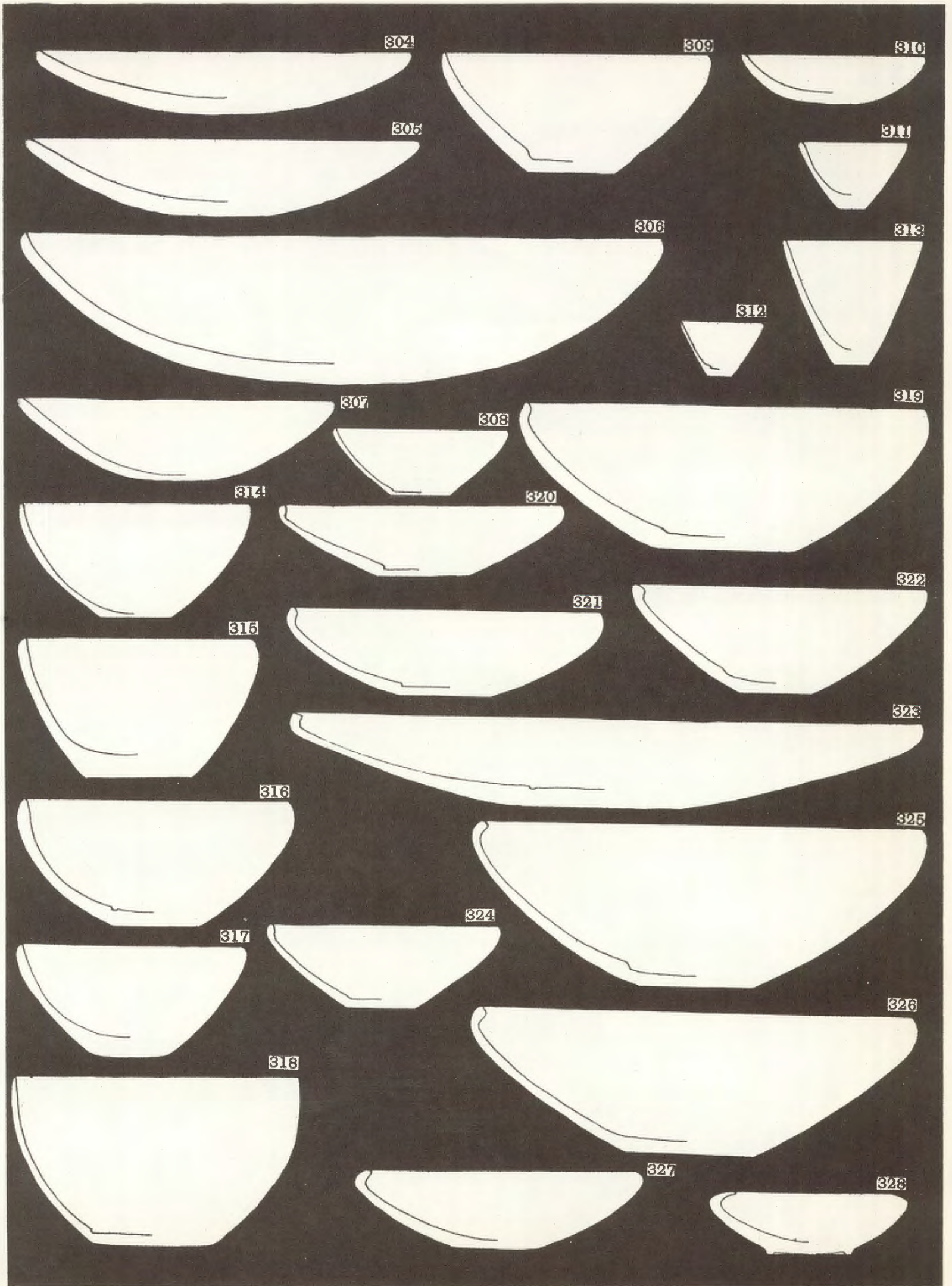


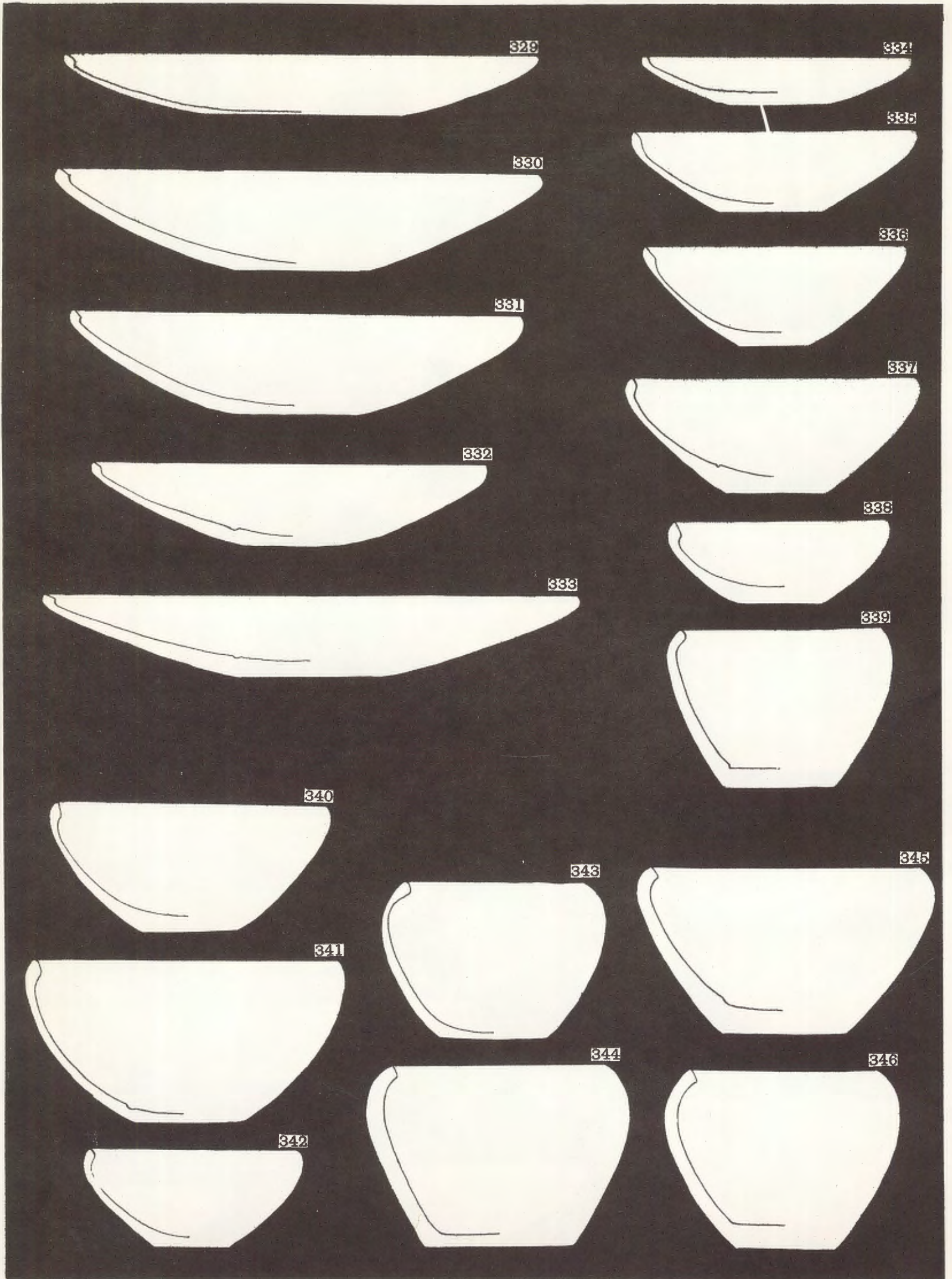


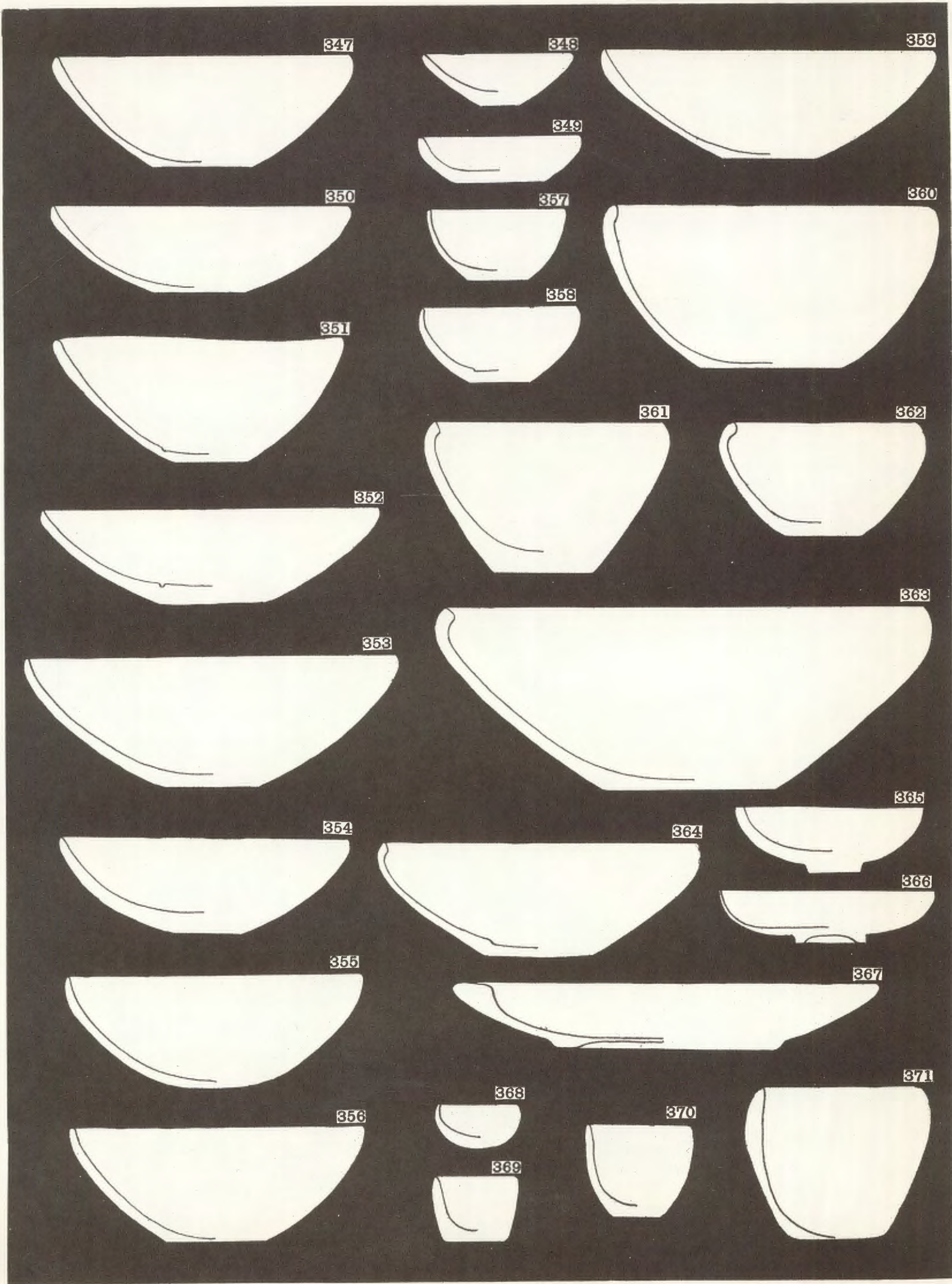


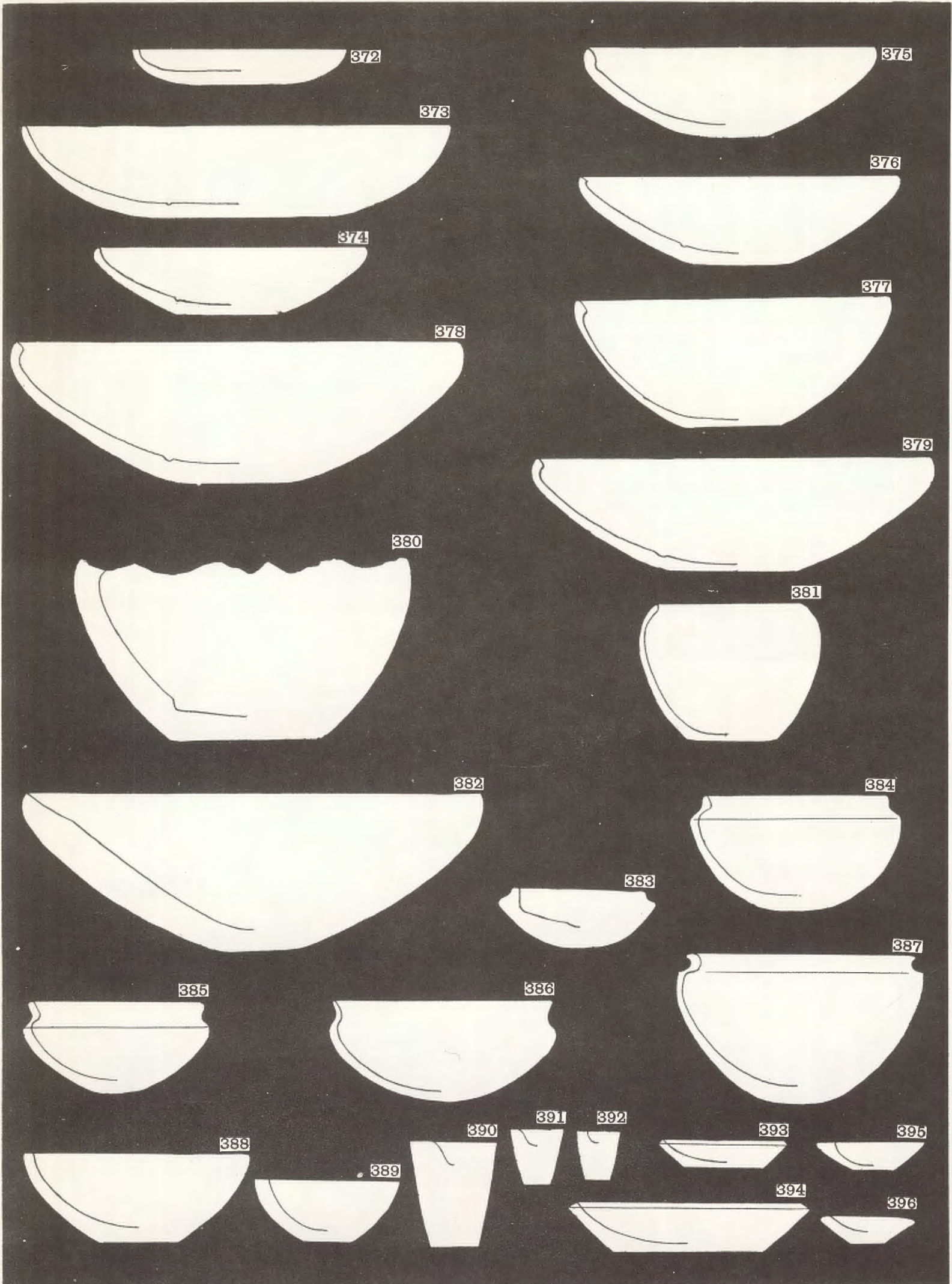


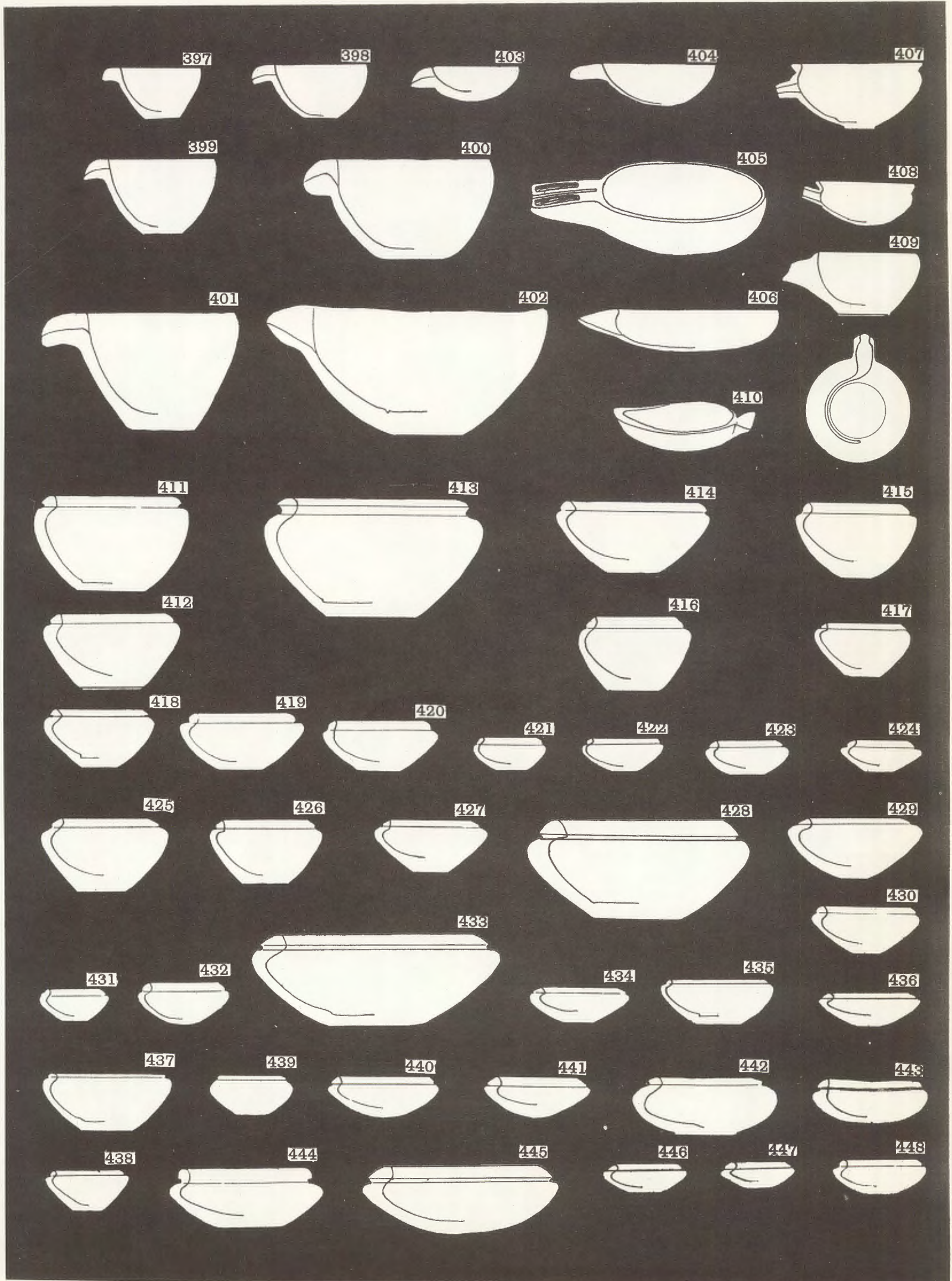




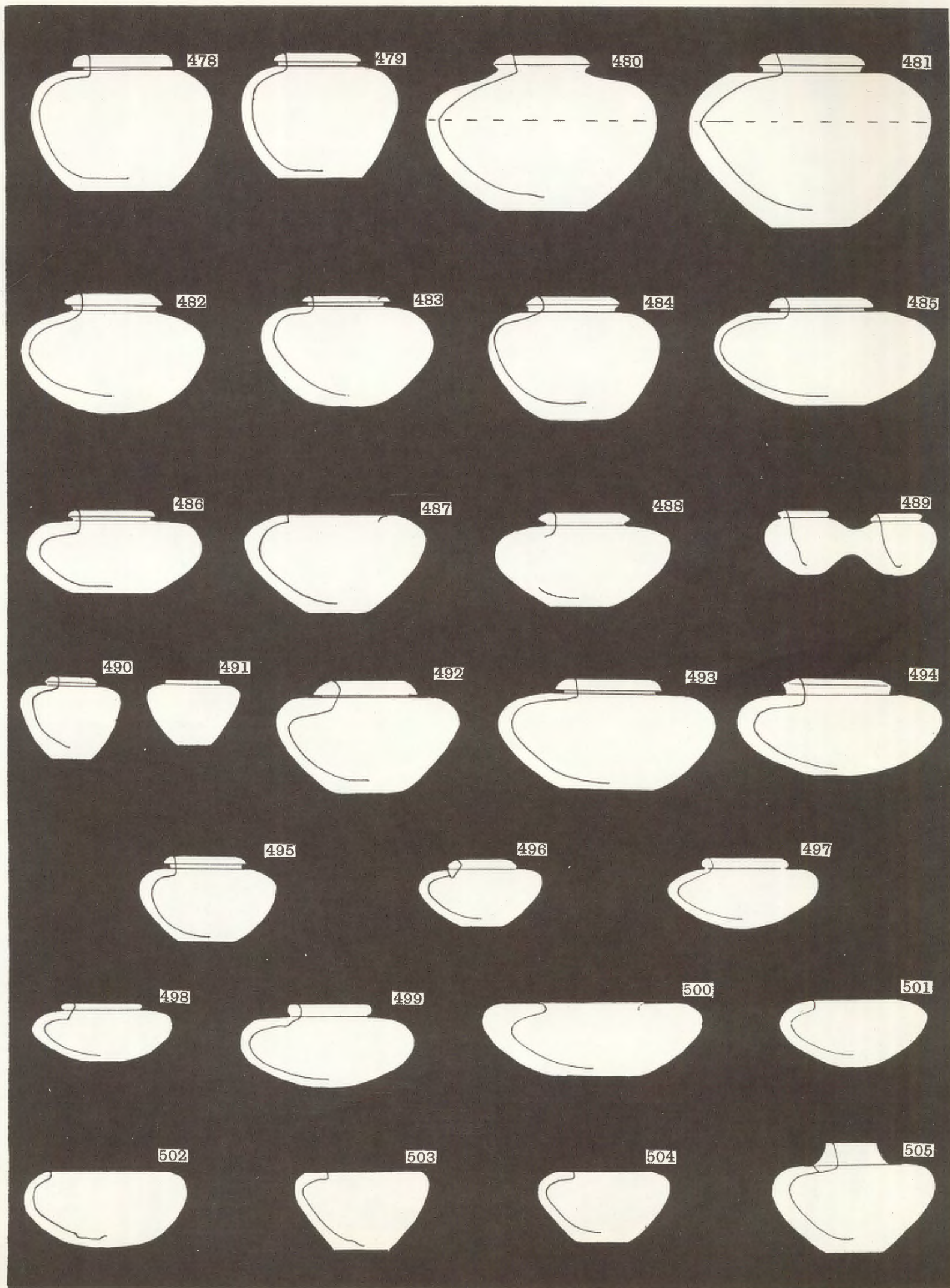


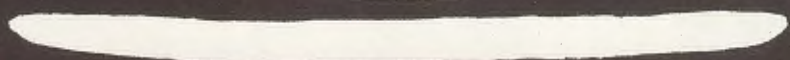
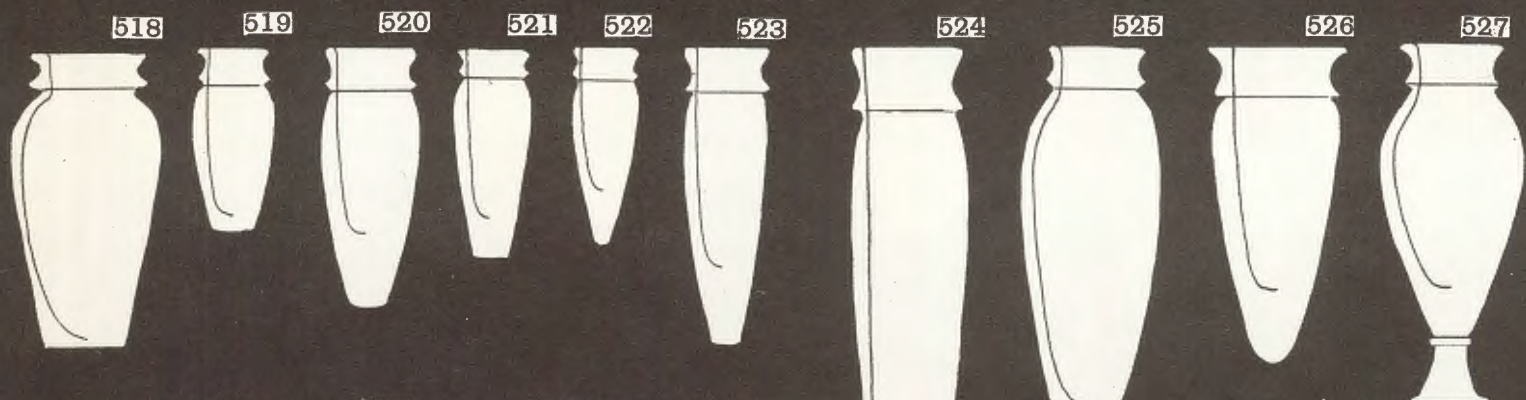
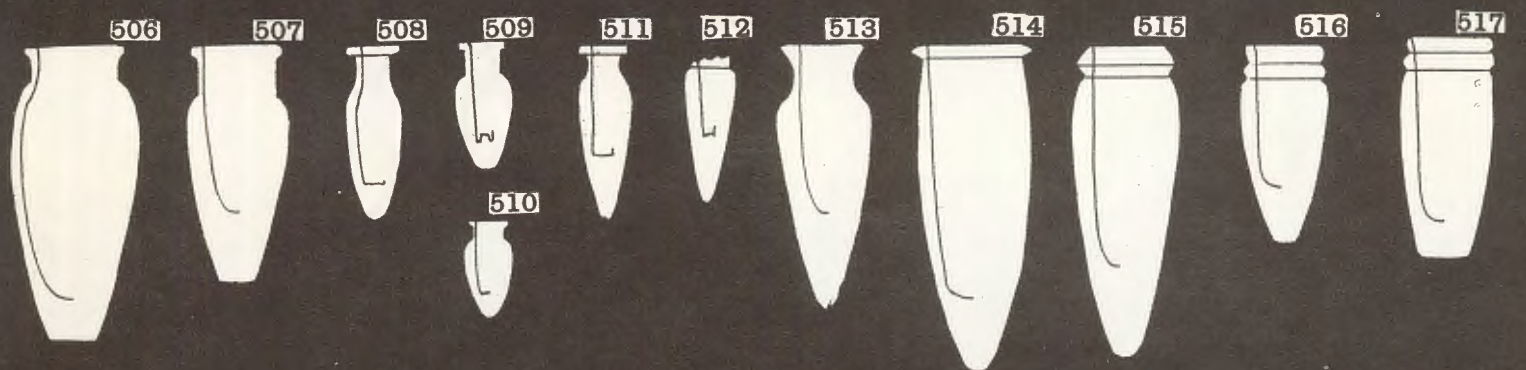




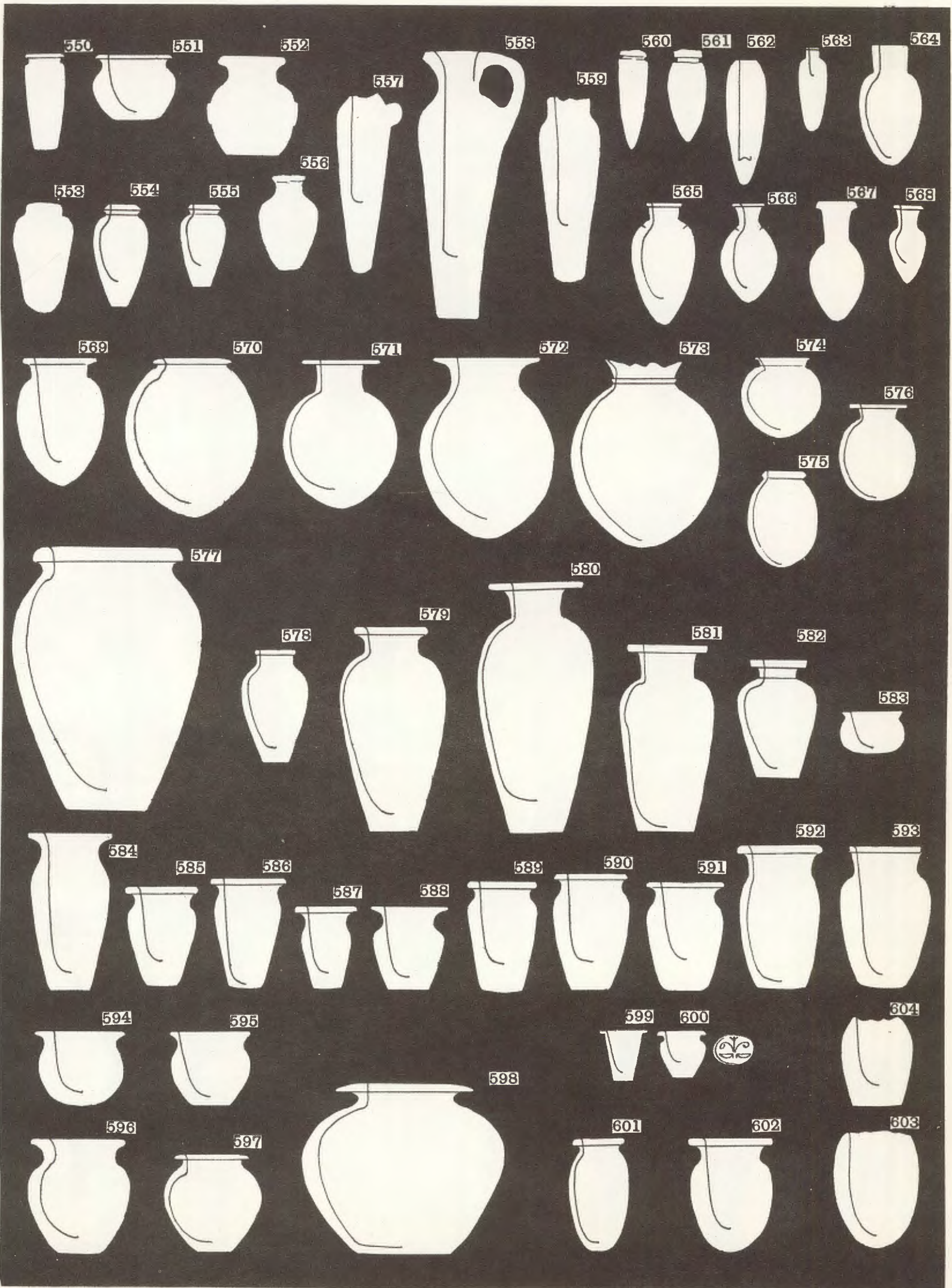




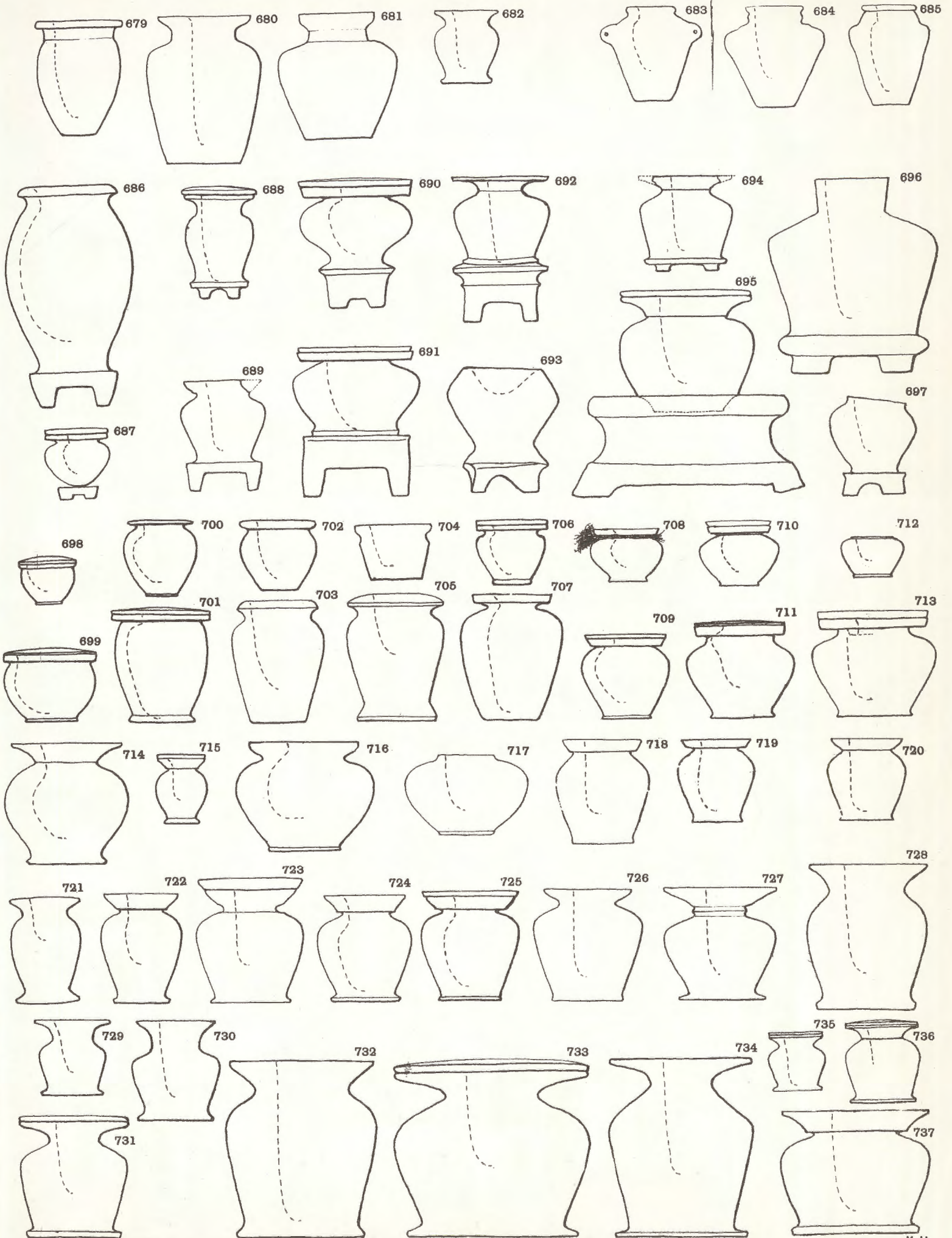


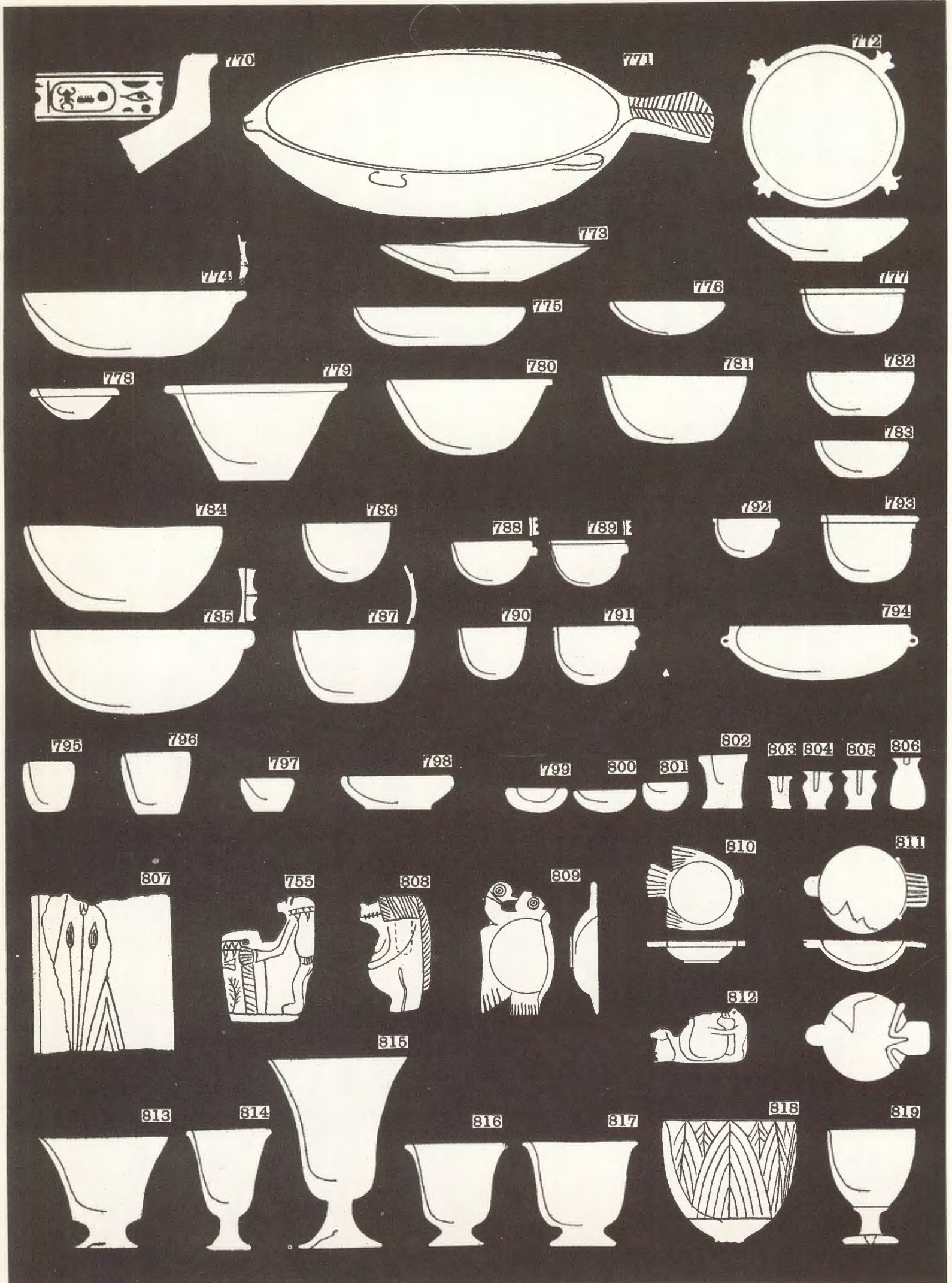


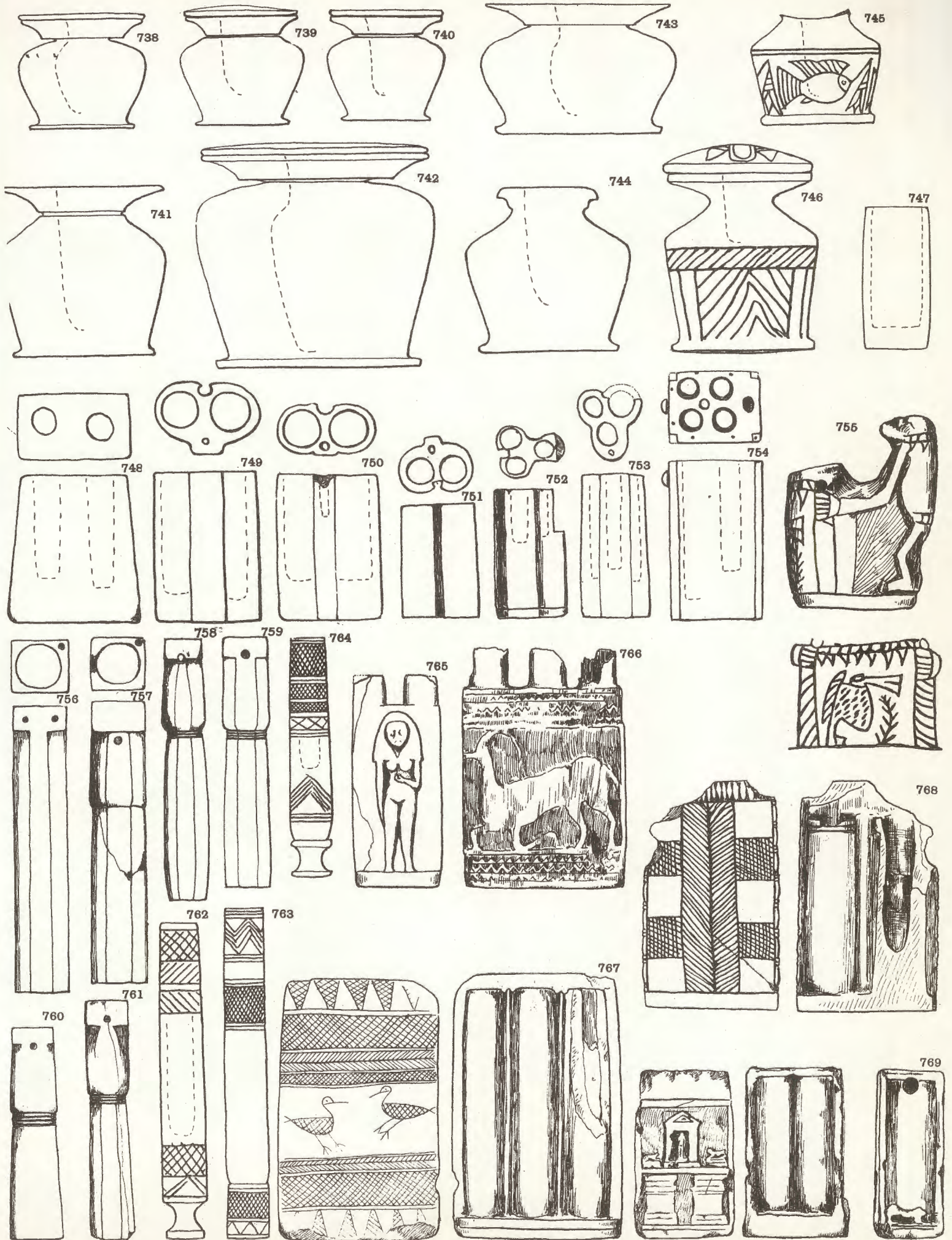


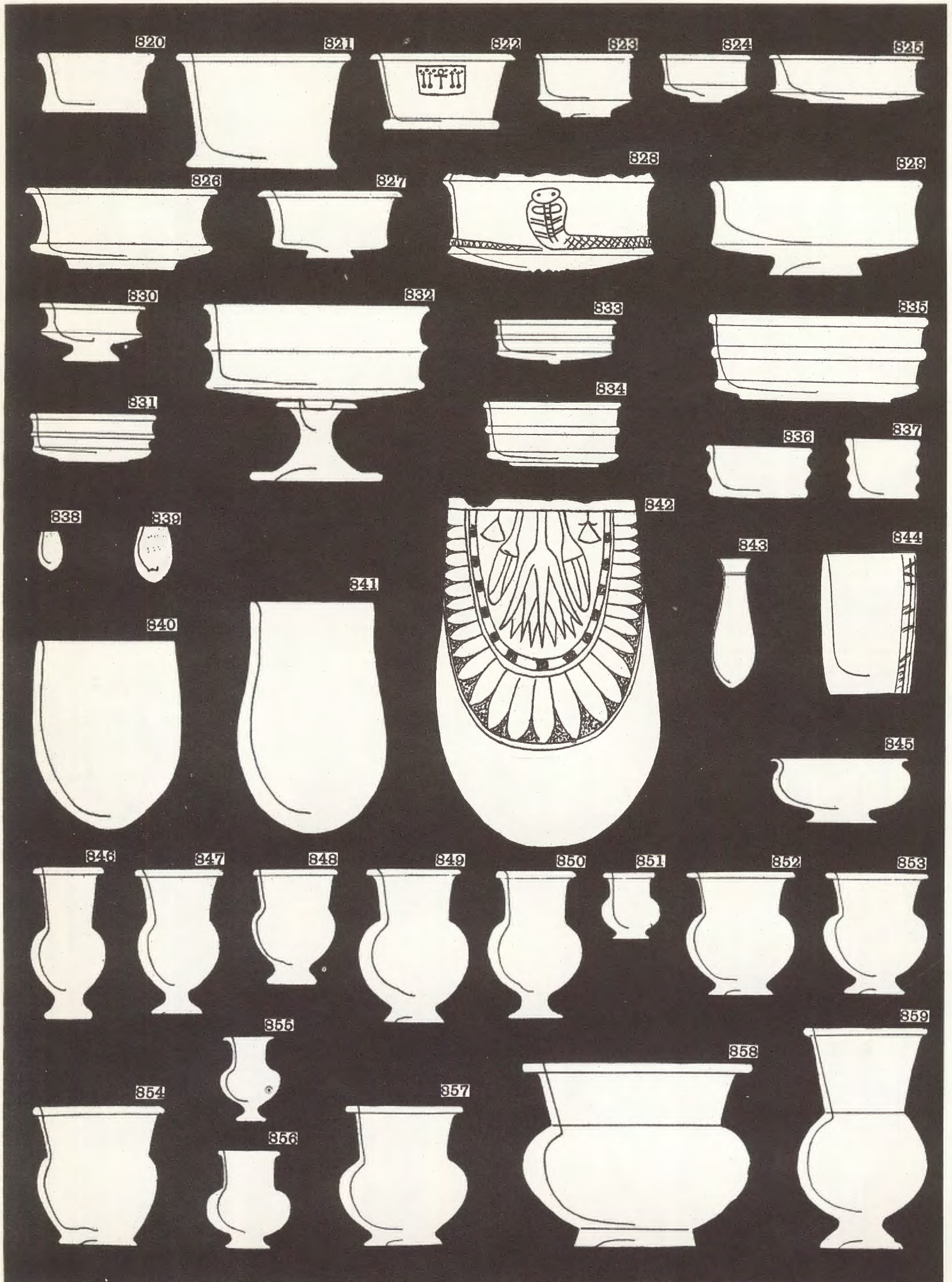


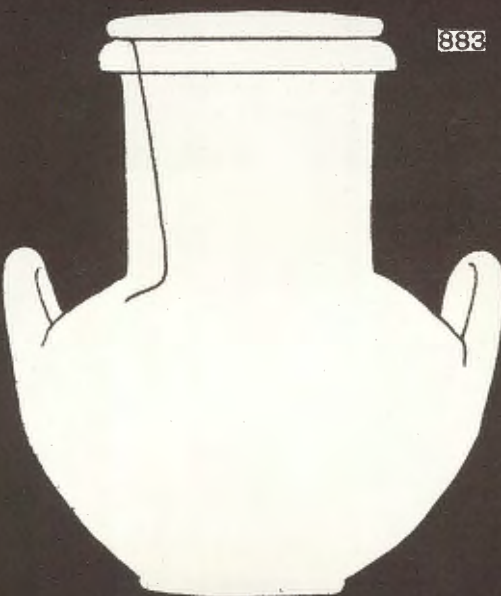












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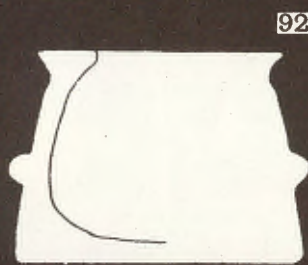
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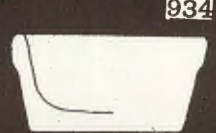
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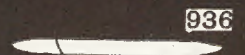
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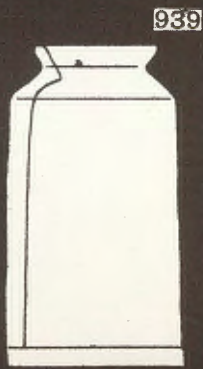
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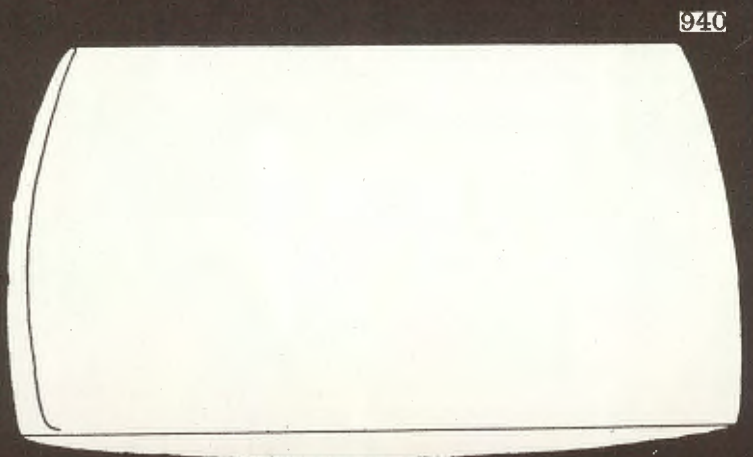
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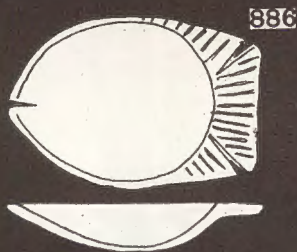


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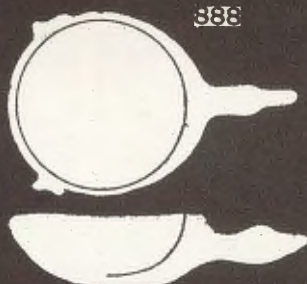




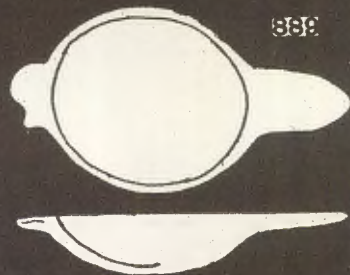
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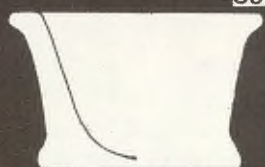
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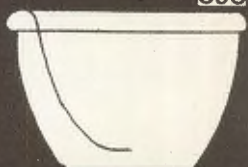
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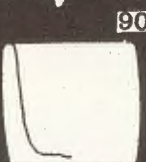
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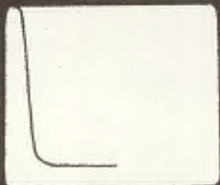
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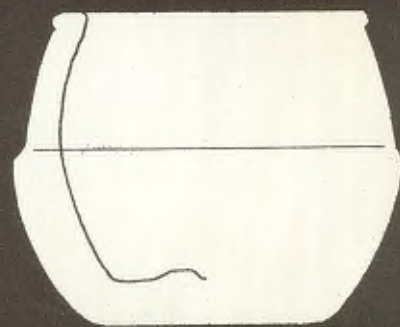
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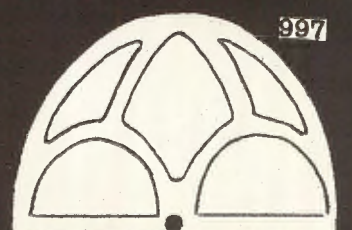
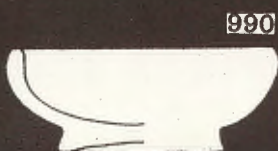
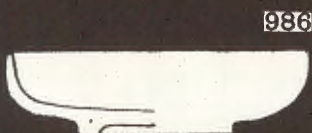
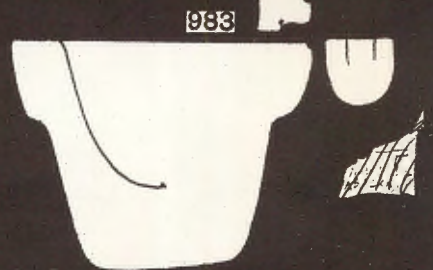
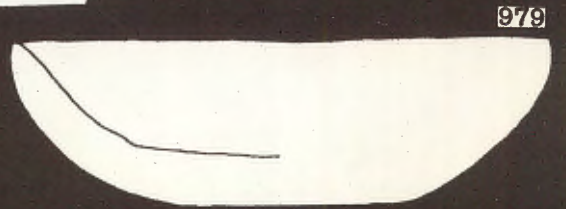
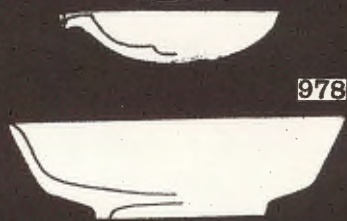
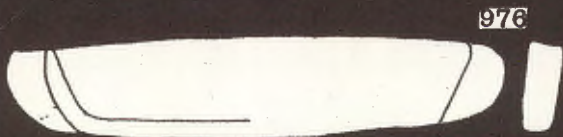


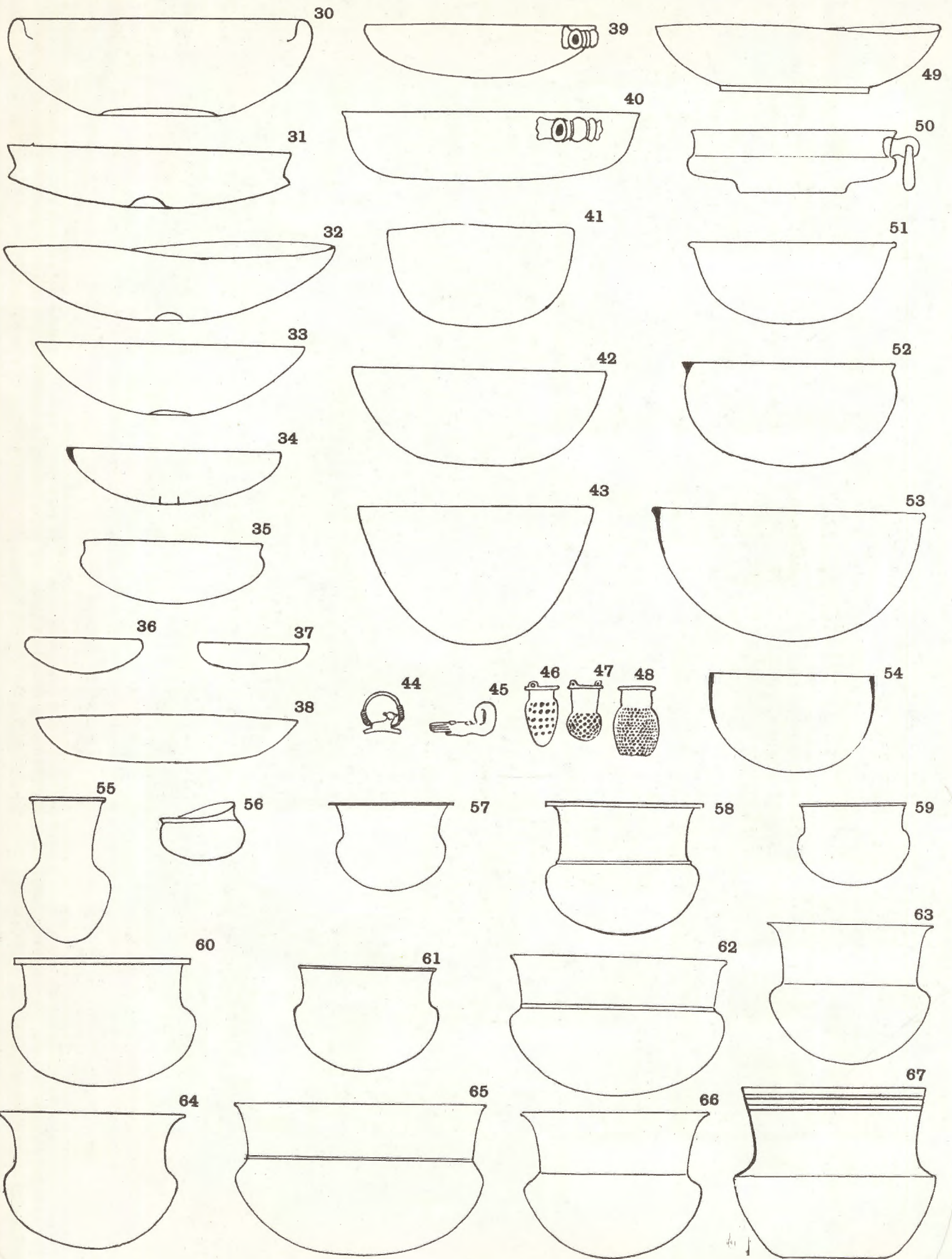
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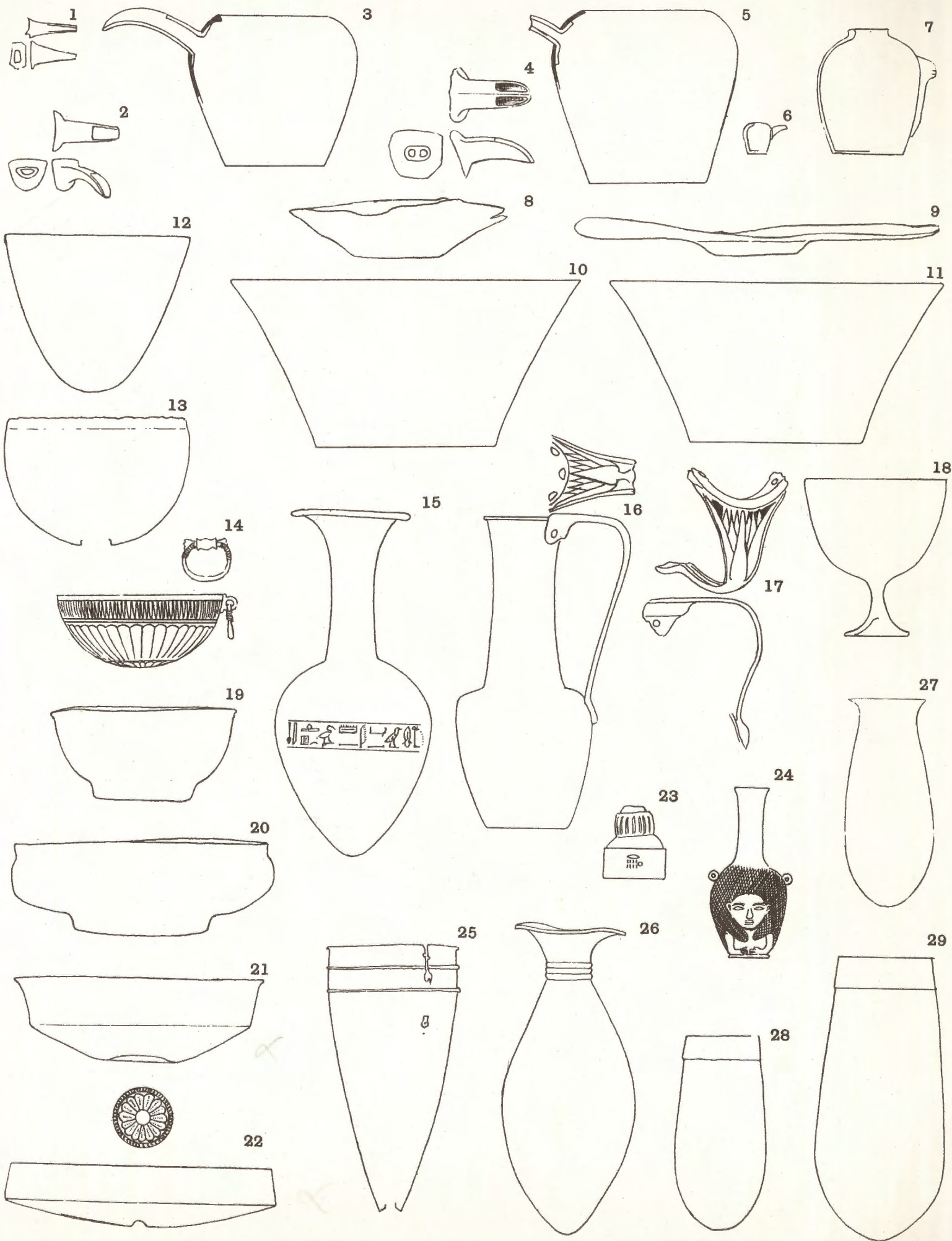


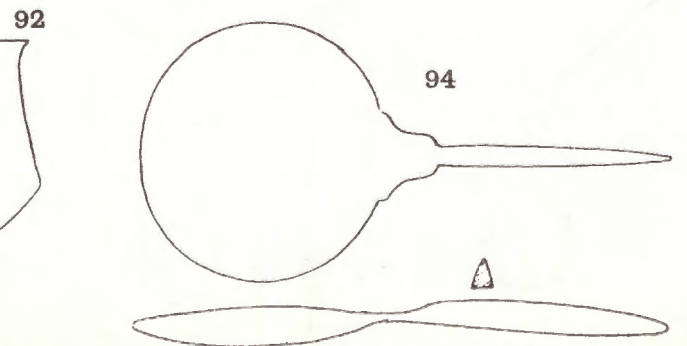
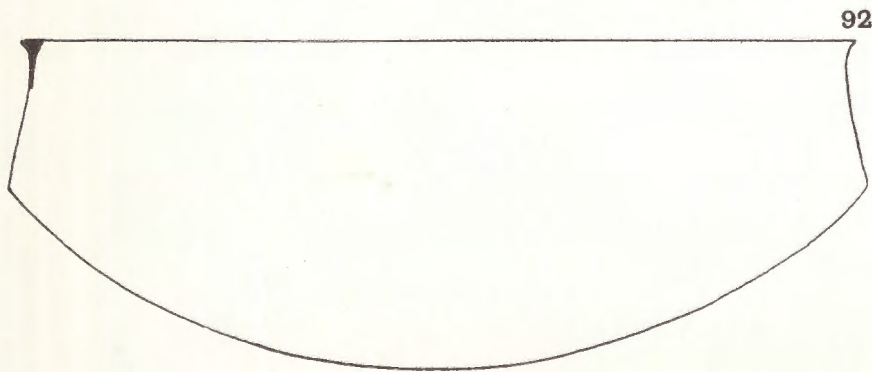
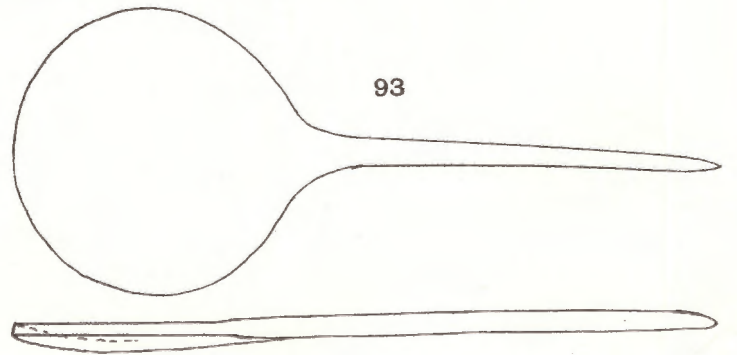
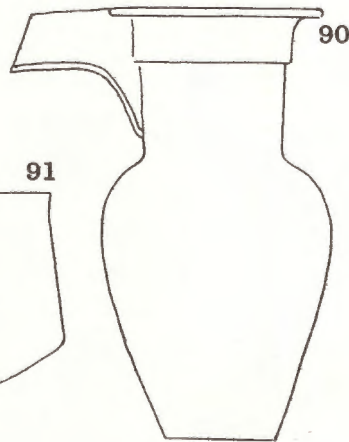
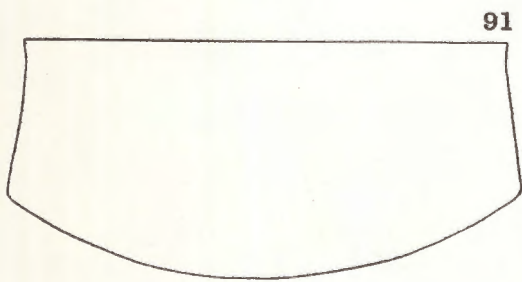
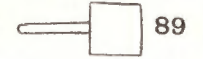
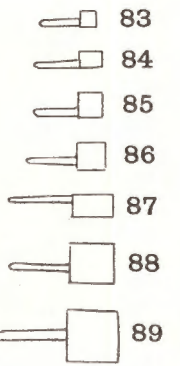
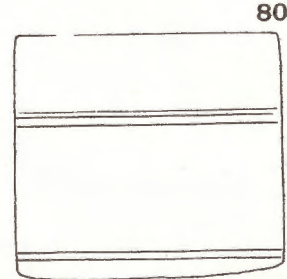
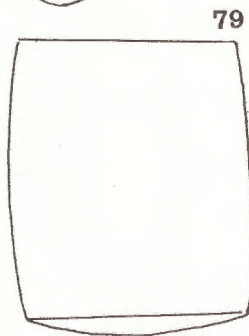
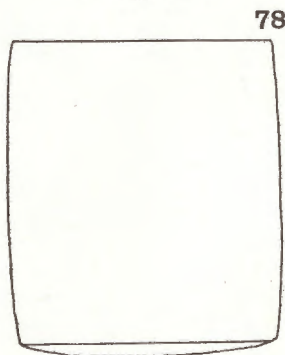
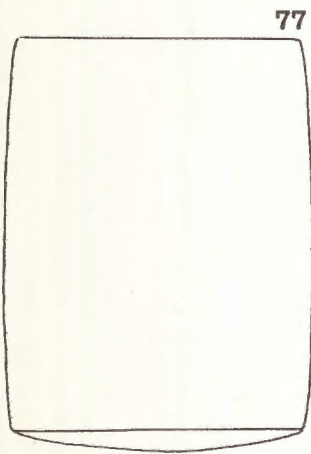
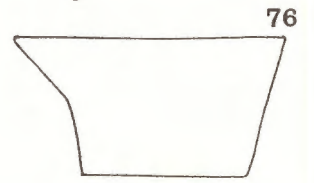
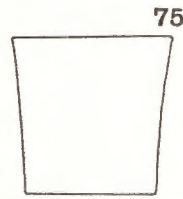
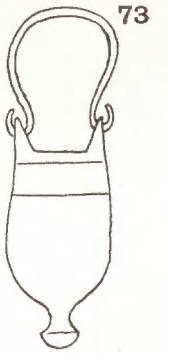
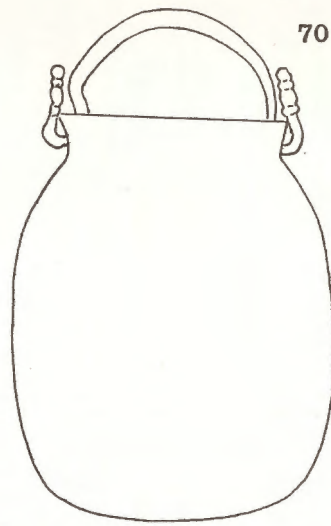
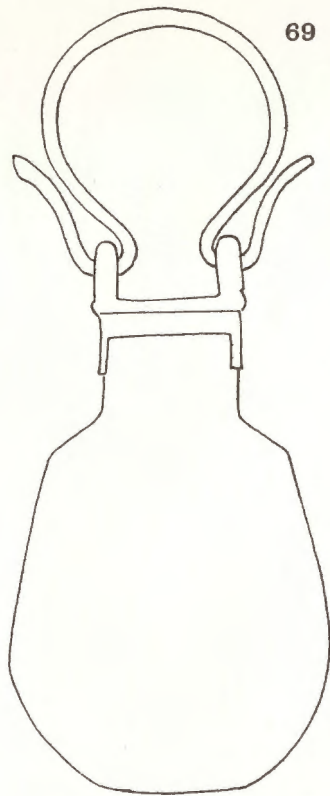
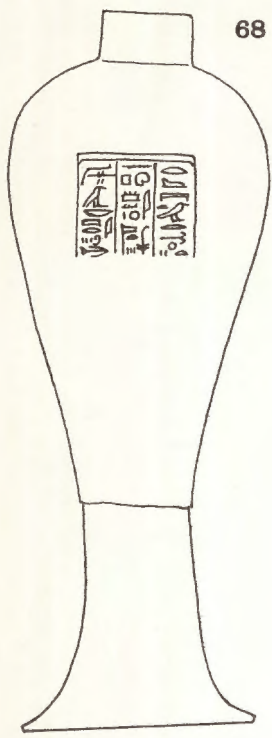
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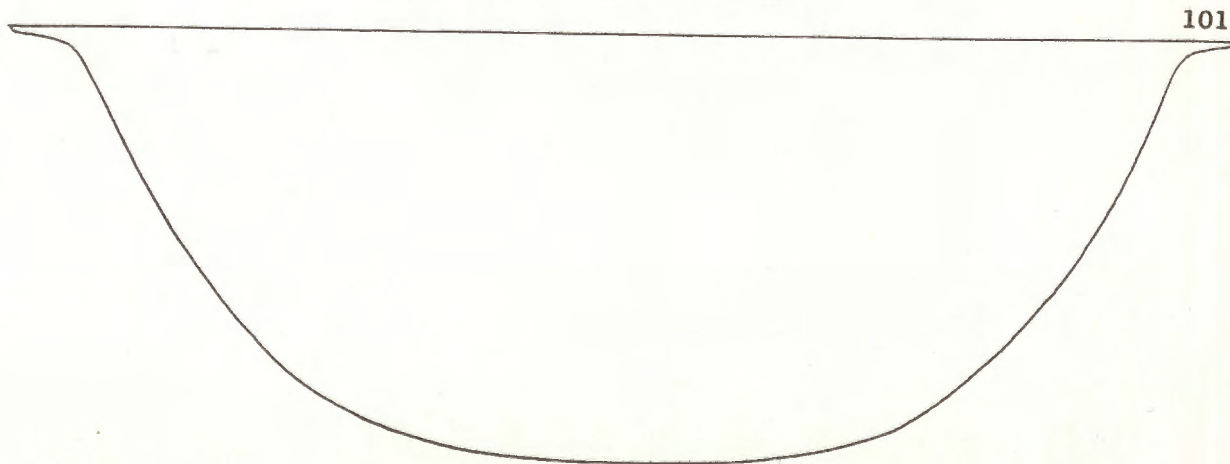
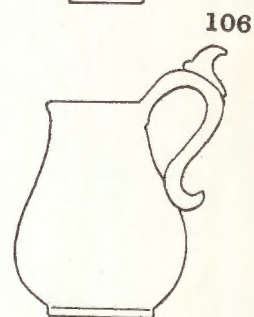
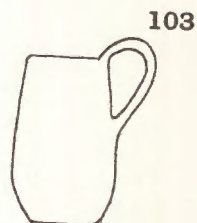
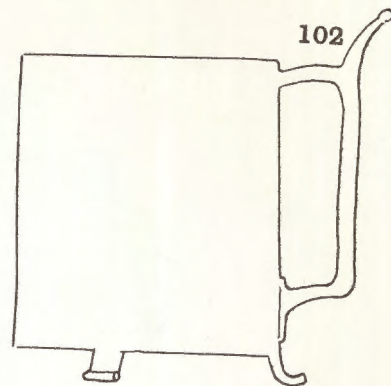
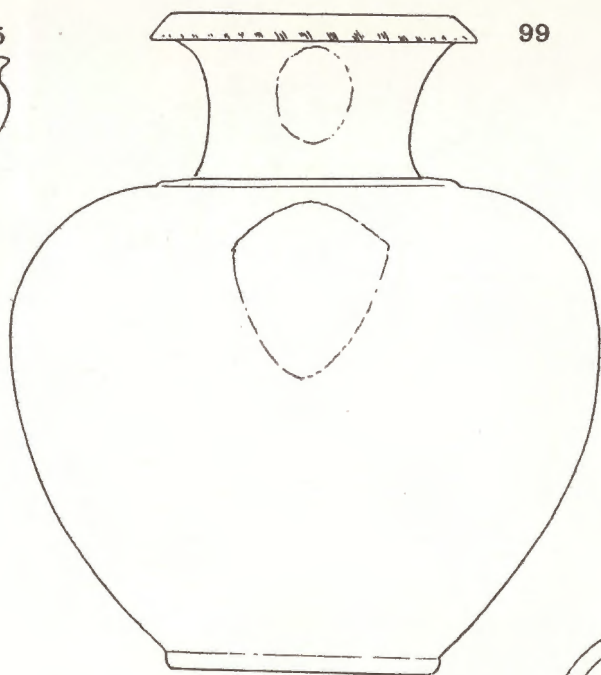
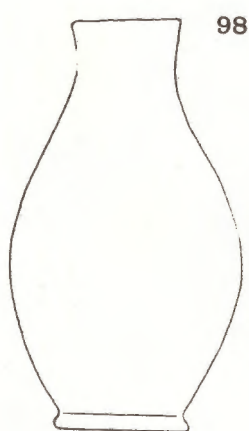
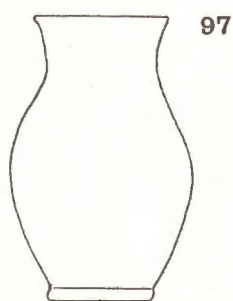
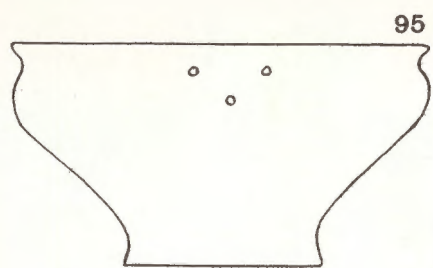


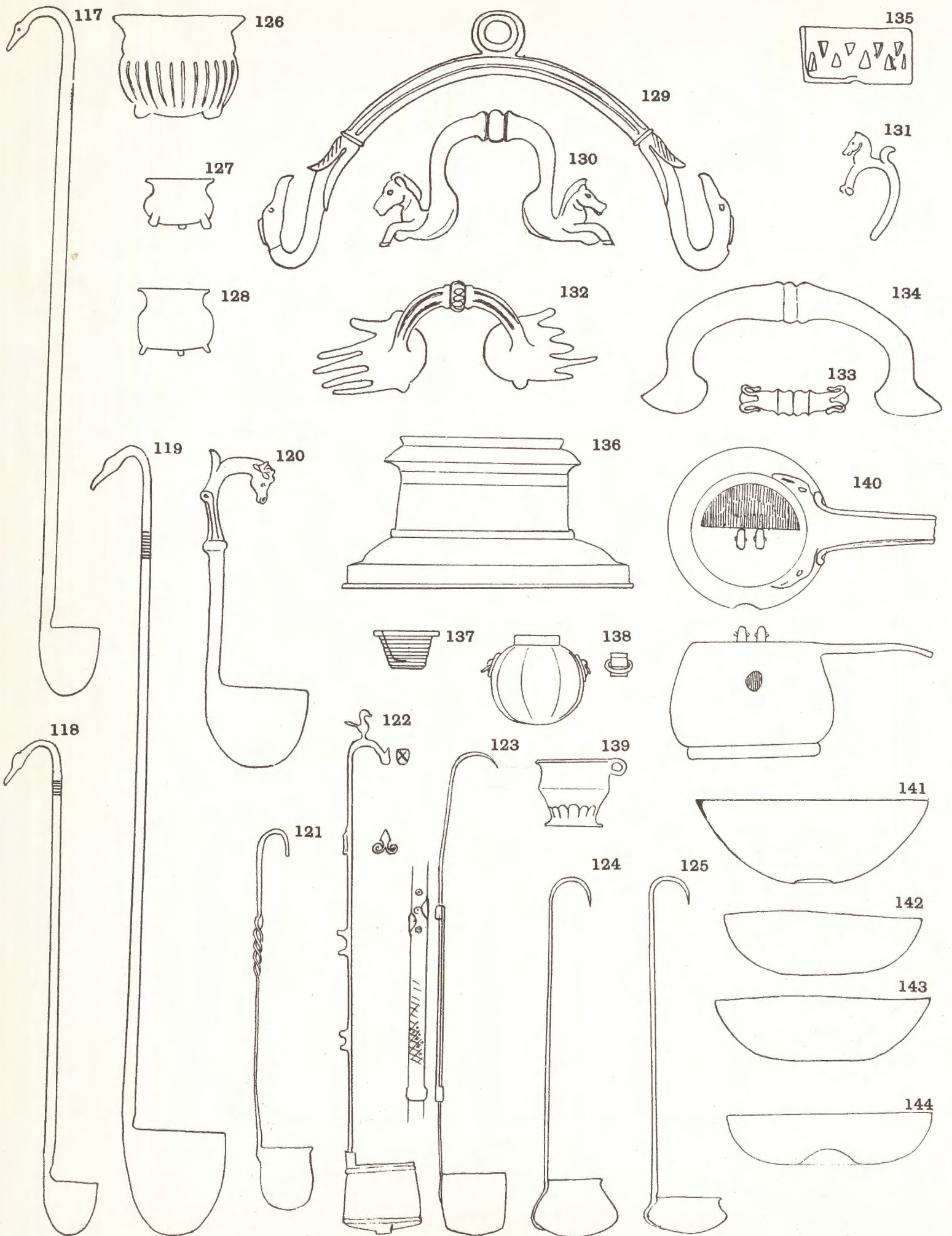




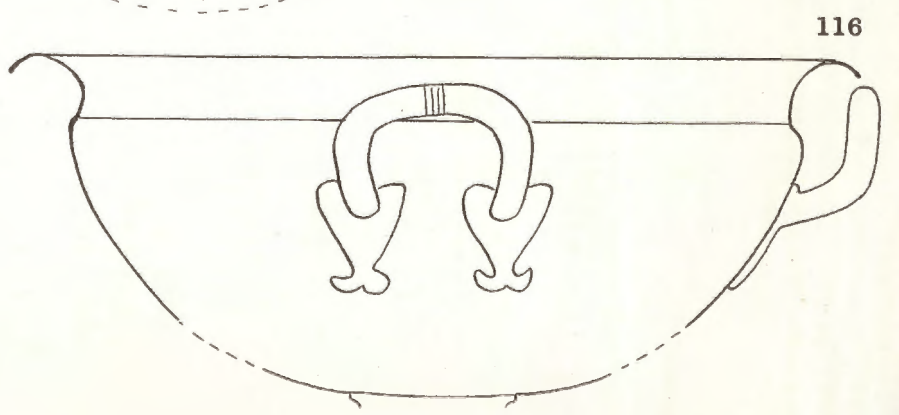
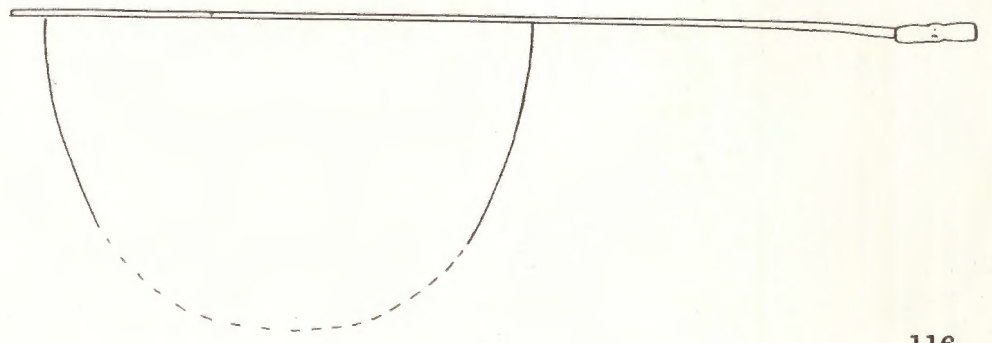
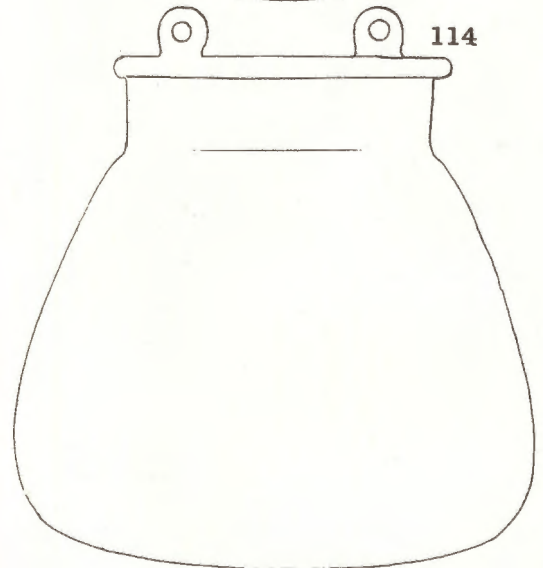
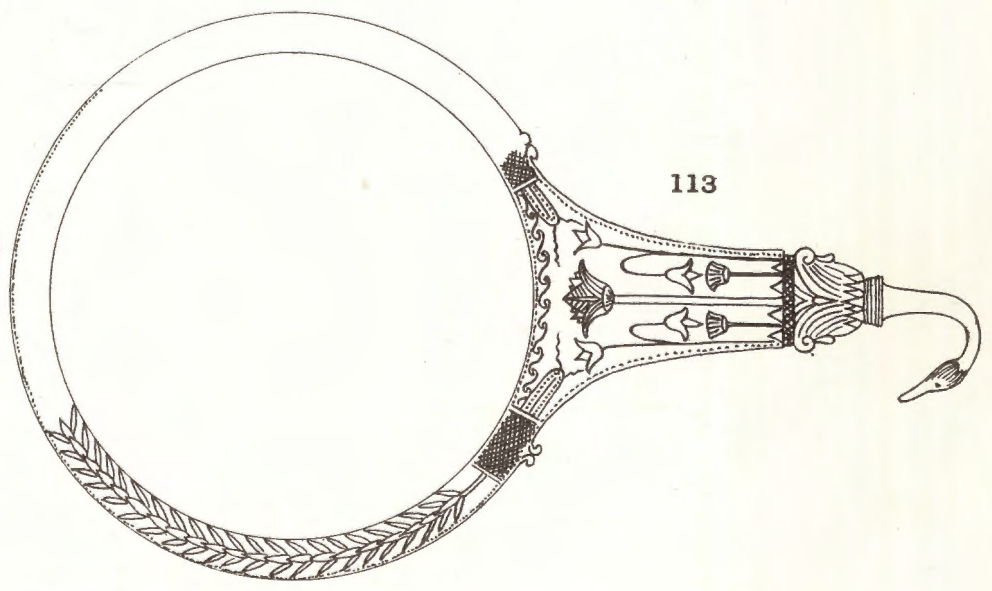
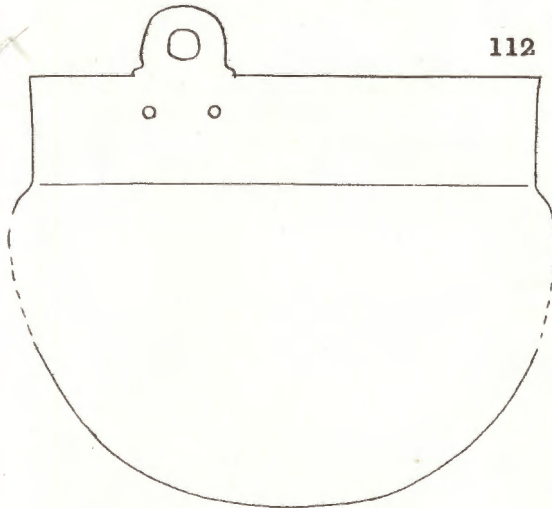
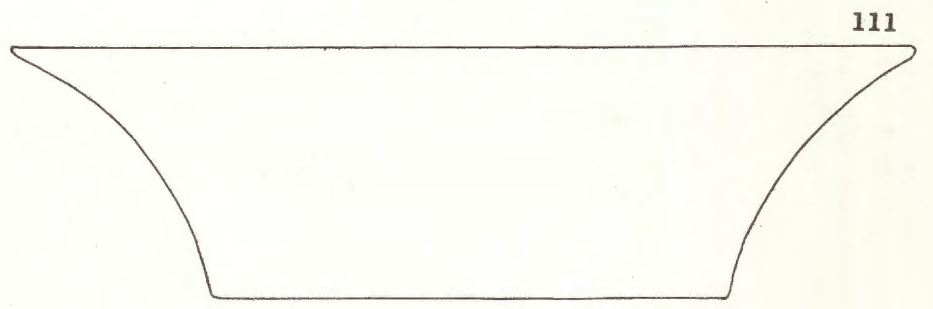
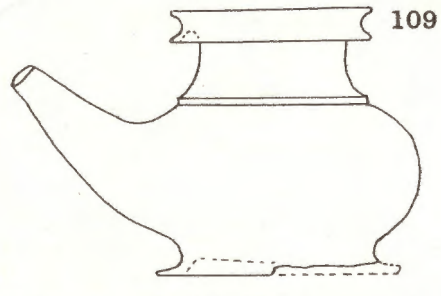
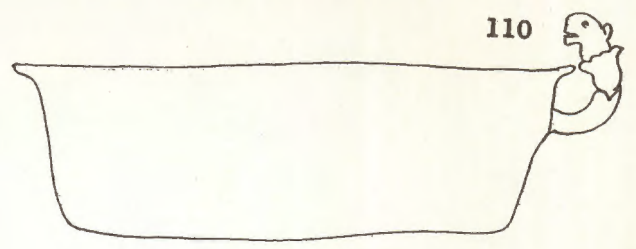
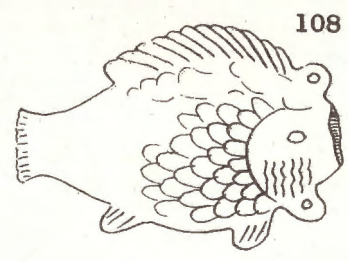












- 1 Liquid, "foreign".
- 2 cup,  $\frac{1}{2}$  hen,  $\frac{1}{2}$  c.i., 1168 c.i., 2300 c.i.
- 3
- 4 milk, wine. skin
- 5 beer. "stone vase"
- 6 "of Syrian work".
- 7 cup
- 8 measure 16 c.i. double handful small
- 9 for blood, water. to grind
- 10 beer. to pour out.
- 11 lotus cup.
- 12 beer. to water.
- 13 = = = = = libation for altar
- 14
- 15
- 16 SYRIAN MARIS = 1850 c.i.
- 17 vessels of silver
- 18 measure of incense and beer.
- 19 for eye kohl
- 20 golden
- 21
- 22 unguent
- 23 drunkenness
- 24 plate L.D. ii, 69
- 25 hen, 29 c.i.
- 26 honnu 117 c.i.
- 27 283 c.i. lake
- 28 basin, lake
- 29 Sek. Med. offering
- 30 var.

- 31
- 32 Med. ointment, one of 7 oils
- 33 oil
- 34  $\frac{1}{3}$  hon. leather bottle
- 35
- 36 Paonkhy  $\chi\omicron\upsilon\varsigma$ ? ointment
- 37 Med. Sek.
- 38 grain pot
- 39 cooking pot
- 40
- 41 some of  $\kappa\epsilon\rho\alpha\mu\lambda\omicron\upsilon\varsigma$ , 1610 c.i.
- 42 water jug, brewing. beer jug
- 43 wine
- 44
- 45 vase  $\mu\epsilon\tau\epsilon\omicron\upsilon\varsigma$  persea.
- 46 brewing wine
- 47 horn offering dish
- 48 ampulla, oil for lamp 128 c.i.
- 49 libation vase
- 50 vessel,  $\mu\epsilon\tau\epsilon\omicron\upsilon\varsigma$ ,  $\chi\omicron\upsilon\varsigma$
- 51 "servant of the ka"
- 52 Liquid measure. liquid
- 53 large, flat dish
- 54 largeness, quantity. large
- 55 cauldron, pot
- 56 metal jug, measure digit.
- 57 offering.
- 58 Med. Sek. measure
- 59 beer.
- 60 patena, cup

FUNERAL FURNITURE with STONE AND METAL VASES

Sir W. M. FLINDERS PETRIE

L2/236 Z