Туре		Inclusive limits of occurrence
V	Shouldered jar and quasi-shouldered jar	of occurrence
a	Same as type IV a and b, without handles	L P to Dyn O
a (1)	True-shouldered jar, larger forms	
a (2)	True-shouldered jar, miniature and small	
a	Extra. Large, round-shouldered wine-jar, pottery form	
b (1)	Truncated ovoid or barrel-shaped jar, large	
b (2)	Truncated ovoid or barrel-shaped jar, small	
c (1)	Broad-shouldered jar, high form	
c (2)	Broad-shouldered jar, squat form	
d	Jar with flaring foot, hes-vase form	
е	Type IV e, without the handles	Dyn. III to Myc.
VI	Swelling vertical jar with two knob handles	
a	Tall slender modification of type II c	M. P.
b	Tall form	Dyn. O to Dyn. I
с	Squat form	Dyn. O to Dyn. I
VII	Wavy-handled jar	
a	Two ledge handles, often pierced horizontally	Dyn. O to Dyn. I
b	Continuous wavy ledge, often pierced horizontally	Dyn. I
VIII	Pointed jar	
a	Miniature copies of pottery form with roll-rim	Dyn. O to Dyn. I
b	Short neck, convex base	
С	No neck or rim, wavy body	Myc.
$\mathbf{d}$	Neck with tapering base, pottery form	Myc. to Dyn. VI
IX	Round-bottomed saucers and bowls, plain rims	
a	Clumsy saucers and cups	M. P. to Myc.
a (1)	Shallow plates and dished table tops	Dyn. I to Dyn. III
a (2)	Flat table tops	Dyn. III to Dyn. IV
b	Round-bottomed bowls	Dyn. I to Dyn. IV
x	Flat-bottomed saucers and bowls	
a	Plain rims, clumsy forms	
a (1)	Fine forms, flaring plain rim or slightly contracted	
a (2)	Fine "conical" forms	
a (3)	Small slender "conical cup"	
b (1)	Flaring form, with concave sides	
b (2)	Contracted mouth, concave body	
b (3)	Cup with internal ledge	
b (4)	Shallow flaring form with cup hollow	
c	Contracted mouth, internal rim	
d	High bowl-jars with internal rim	
e (1)	Cups with contracted mouth and spout	
e (2) e (3)	Open cups with spout Bowl-jar with spout	
1.1.0		Dyn. III to Myc.
XI	Bowls and cups with external rims (isolated examples in PD)	D I
a (1)	Bowls with ledge rim Deep bowls with external roll-rim	
a (2) a (3)	Basin, contracted mouth, rim	
a (3) a (4)	Basin, contracted mouth, rim, short tubular spout	
$a^{(4)}$ b (1)	Bowl with grooved rim, cord often in relief	
b (1)	Bowl, upright recurved rim (relief-cord, Khas.)	
b (2)	Same as b (2), with round bottom	
b (3) b (4)	Flaring recurved rim, flat bottom.	
b (5)	Same as b (4), with round bottom	
b (6)	Exaggerated flaring rim, round bottom, spout	
c (1)	Small cup, with grooved rim, contracted mouth	
c (2)	Small cup, with band-rim on contracted mouth	•
XII	Tables and table tops	16
a	Dish-topped tables (see also type IX a (2))	Dyn. I to Dyn. III
b	Flat-topped tables (see also type IX a (3))	

Thus eleven of the twelve types are represented in Dynasty I, and forty of the seventy mentionable sub-types. Of the forty sub-types of Dynasty I.

```
14 are not found after that time, or only in sporadic examples;
2 persisted to Dynasty II;
1 persisted to Khasekhemuwy;
8 persisted to Dynasty III;
16 persisted to Mycerinus or later.
40
Of the thirty sub-types which do not occur in Dynasty I,
6 ceased in the Predynastic Period or in Dynasty O;
```

appears only in Dynasty II;
 were first noted in the tomb of Khasekhemuwy;
 were first noted in Dynasty III;
 was first noted in the time of Sneferuw;
 was first noted in Dynasty IV;
 were first noted in the Mycerinus collection, but may have been earlier.

30

These facts show clearly the dependence of all the later stone vessels on the forms of Dynasty I and in particular on those established in or before the reign of Zer, third king of the dynasty. The chief modifications of the forms of Dynasty I were introduced in the reign of Khasekhemuwy and in Dynasty III. The great modification of the early forms seems to have taken place in the reign of Khasekhemuwy, and all the vessels of Dynasties III and IV are dominated by the special forms of Khasekhemuwy.

# (1) Type 1-I. Cylindrical Jar

In Dynasty I the cylindrical jar, the descendant of predynastic type I, is second only to the flatbottomed bowls in numbers. Most of the early examples have a cord in relief around the shaft a little below the prominent rim. Among the earlier tombs, a good many of these jars have straight vertical sides and are distinctly wide in form; but later the more slender form with slightly concave sides predominates, and it is this concave form which persists into Dynasties II–IV. Examples occur in practically every tomb of Dynasty I:

(1) Reisner, Naga-'d-Dêr I, p. 101.

- (2) De Morgan, Tombeau royale, p. 180 (Fig. 26, Nos. 1, 2).
- (3) Petrie, R. T. II, Pls. XLVI-LIII (Fig. 26, Nos. 3-12).
- (4) Petrie, Abydos I, Pls. XLII-XLVII, Cemetery M.
- (5) Petrie, Gizeh and Rifeh, Pls. VA-VD.
- (6) MacIver, El-Amrah, pp. 25 ff.
- (7) Petrie, Tarkhan I and II.
- (8) Junker, Turah.

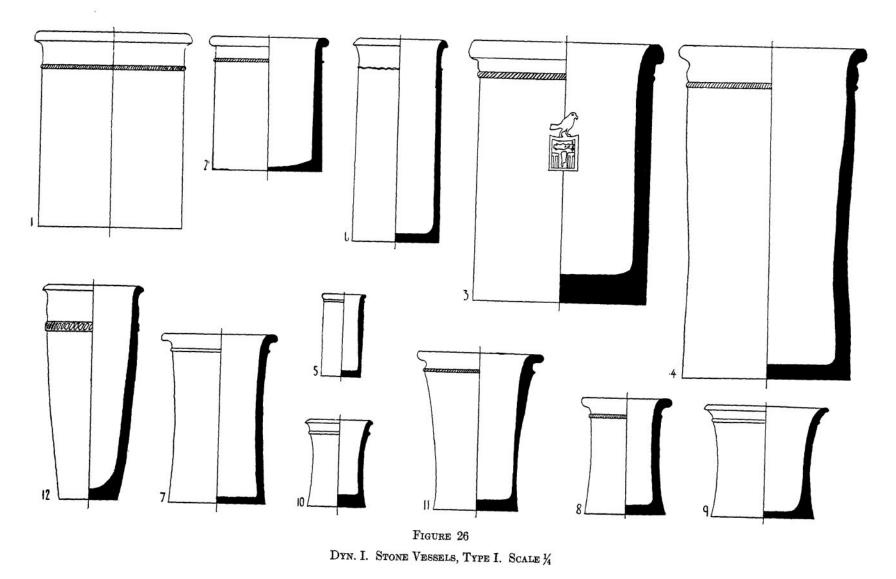
It is noteworthy that no example of this type was found at Hierakonpolis.

### (2) Type 1-III. Spheroidal Jar with Horizontal Handles

Type III of Dynasty I is the same as predynastic type III except that it occurs in two forms, (a) with round bottom and (b) with flat bottom, often with a ring base or a disc base. Both forms are also represented in miniature examples. The large examples occur exclusively in royal tombs, or at Hierakonpolis.

Type 1-III a, with round bottom:

- (1) De Morgan, Tombeau royale, Fig. 655 (Fig. 27, No. 1), five examples in hard stones altered by heat; Fig. 582, granite, unfinished.
- (2) Quibell and Green, Hierakonpolis, Pl. XXX, 1 and 2, porphyry, unfinished; Pl. XXXVII, syenite.
- (3) Petrie, R. T. II, Pl. XLIX, 129 (Fig. 27, No. 2), porphyry, tomb T (Den = Wdy-mw) and Q, three examples; 130, porphyry, tomb U (Mersekha = Semerkhet); 131 (Fig. 27, No. 3), syenite, tomb O (Zer); 132, syenite, tomb U (Mersekha = Semerkhet); Pl. LIII D, 455 (Fig. 27, No. 4), breccia, tomb Y (Merneit).



[143 ]

Type 1–III b, with flat bottom:

- (4) De Morgan, Tombeau royale, Fig. 657 (Fig. 27, No. 5), 664, and 656 (Fig. 27, No. 6), all of porphyry.
- (5) Quibell and Green, *Hierakonpolis*, Pl. XLVIII a, two diorite, one porphyry, and one serpentine, from main deposit.
- Cf. also Petrie, R. T. II, Pl. XLVII B, 72 and LI A, 203.

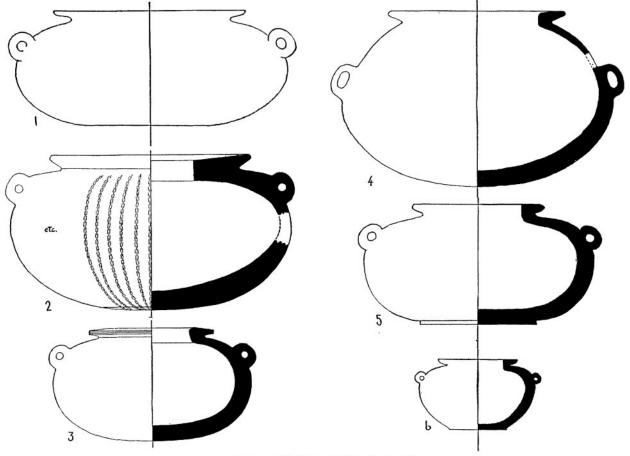


FIGURE 27. TYPE 1-III. SCALE 1/4

## (3) Type 1-IV. Swelling or Shouldered Jar with Horizontal Handles

In Dynasty I the old predynastic type of barrel-shaped jar with horizontal handles (type PD-IV a) has practically disappeared. One true example (Fig. 28, No. 1) was found in the tomb of Den (Wdy-mw) and a decorated ceremonial example in the tomb of Menes (Fig. 28, No. 2). Several examples have been recorded of the later form with the swelling above the middle and several of the true shouldered type. But these few examples are all from the royal tombs or from the Hierakonpolis temple. They have not been found in private graves of Dynasty I. Functionally, the type PD-IV was probably replaced in private graves by types 1–I and 1–VI. It may be noted that it was the true shouldered jar which persisted into Dynasties II and III.

Type 1–IV a (1), the barrel-shaped jar with two handles, disc base:

- (1) Petrie, R. T. II, Pl. XLVIII B, 125, porphyry, tomb T (Den = Wdy-mw) (Fig. 28, No. 1).
- (2) De Morgan, *Tombeau royale*, Fig. 659, pottery imitation; Fig. 665, pink limestone, decorated fat example. Type 1–IV b (1), the jar with swelling above the middle:
  - (3) Petrie, R. T. II, Pl. LI A, 204, 205 (Fig. 28, No. 2), serpentine, from tomb Y (Merneit); Pl. XLVIII B, 122 (Fig. 28, No. 3), 123, 124, 126, porphyry, from tomb T (Den = Wdy-mw).
  - (4) Quibell and Green, *Hierakonpolis I*, Pl. XXXIII, 2, 3, 6; Pl. XVII, serpentine, handles in form of animalhead.
- Type 1-IV c, broad form (see type 1-III b):
  - (5) Petrie, R. T. II, Pl. XLVII B, 72 (Fig. 28, No. 4), basalt, from tomb X (Azab = Andy-ib); Pl. LI A, 203, serpentine, from tomb O (Zer).
- Type 1-IV d, shouldered form:
  - (6) Petrie, R. T. II, Pl. XLVIII B, 127 (Fig. 28, No. 5), porphyry, from tomb T (Den = Wdy-mw).

### (4) Type 1-V. Bulging or Shouldered Jar without Handles

The shouldered jar and the bulging jar without handles are not necessarily connected with the older handled forms, but are probably derived from pottery forms of Dynasty I. Even the early examples do not have the disc base and are distinguished by the roll-rim, a detail natural to pottery, around the narrow mouth. The earliest examples are from Cem. B at Abydos and the tomb of Menes. A few are

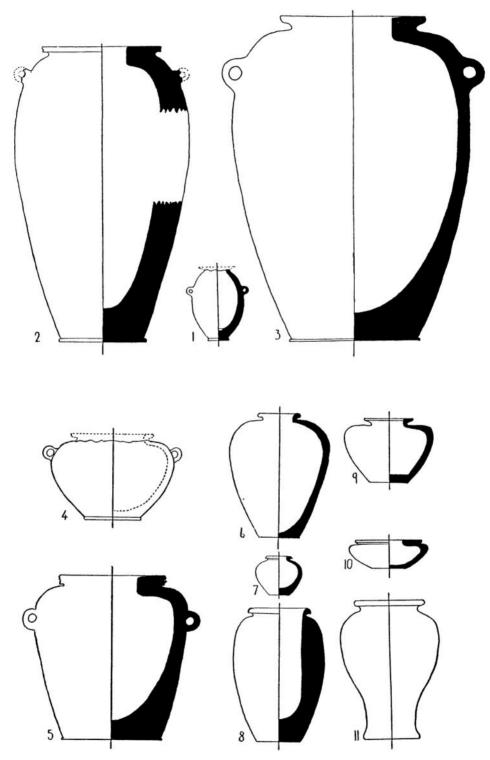


FIGURE 28. DYN. I. STONE VESSELS, TYPES IV, V. SCALE 1/4

recorded from the royal tombs of Abydos and a small number from the private graves at Naga-'d-Dêr and Tarkhan. But none was found in Cem. M at Abydos, or in our Dynasty I graves, while the only examples from Turah were from an unrecorded grave. The shoulder jar is designated type 1–V a.

Type 1-V a (1), true shoulder jar: Fig. 28, No. 6.

<sup>(1)</sup> Petrie, R. T. II, Pl. LI E, 278, 283 (Fig. 28, No. 6), and 284, marble, from Cem. B (two) and tomb T (Den = Wdy-mw), and three or four other fragments may be from similar jars.

Type 1-V a (3), true shoulder jar, miniature:

- (2) De Morgan, Tombeau royale, Fig. 661, 662, "géobertite."
- (3) Petrie, R. T. II, Pl. LI E, 281 (Fig. 28, No. 7), marble, from O 2, O, T, W, eleven examples, also alabaster, serpentine, and colored limestone; Pl. LI H, 329, alabaster, from tomb O (Zer).
- (4) Petrie, Gizeh and Rifeh, Pl. V D, 67, magnesite, from Giza tomb (time of Zer).

A small type of shoulder jar was developed for private graves and rapidly became traditional, so that it took on ruder forms, truncated ovoid or barrel-shaped. These small crude forms became especially common in Dynasty II and are here designated type 1-V b.

Type 1-V b (1), truncated ovoid or barrel-shaped jar, large:

- (5) Petrie, R. T. II, Pl. LI H, 330, 333, 334 (Fig. 28, No. 8), alabaster, from tomb Y (Merneit); Pl. LI E, 282, marble, from tomb T (Den).
- (6) Daressy, Annales VI, p. 104, from Giza tomb of the time of Zet; this is clearly a copy of the pottery form type IX of Naga-'d-Dêr I and type 94 of Tarkhan.
- Type 1–V b (2), truncated ovoid or barrel-shaped jar, small:
  - (7) Reisner, Naga-'d-Dêr I, p. 105, type III b 1, 3, 4, 7, type IV 2, and V 2.
  - (8) Petrie and Wainwright, Tarkhan I, Pl. XLIII and XLIV, type 77, nine to eleven examples of Dynasty I; type 78, four or five examples of Dynasty I; Mr. Wainwright dates the whole collection, I understand, to Dynasty I, but I am convinced that the greater part of the examples are later.

Another new type of shouldered jar which belongs to Dynasty I, but is more common later, is the squat jar with a narrow rimmed mouth and wide shoulders often flat on top. The form is a difficult one for stone, owing to the narrow mouth, and it is frequently made in two pieces. Probably the form is derived from pottery prototypes.<sup>1</sup> A few examples which may be dated as early as Dynasty I are grouped below as type 1-V c.

Type 1-V c (1), wide-shouldered form, higher form:

- (9) Petrie, R. T. II, Pl. LI E, 285 (Fig. 28, No. 9), marble, from tomb Q (Qa).
- (10) Petrie and Wainwright, Tarkhan I, Pl. XLIV, type 81 f, 81 h, 81 n, three examples of Dynasty I; see note under (8) above.
- Type 1-V c (2), wide-shouldered form, squat form:
  - (11) Petrie and Wainwright, Tarkhan I, Pl. XLIV, type 81 t, one example of Dynasty I, see (8) above.
  - (12) Daressy, Annales VI, p. 104, time of Zet (Fig. 28, No. 10).

A third type of shouldered jar introduced in Dynasty I is that with concave stem and flaring foot. The form is much more frequent in pottery than in stone, but in both materials was probably derived from a copper prototype. This is really the early form of the *hes*-jar and is designated type 1-V d.

Type 1-V d, shoulder jar with concave lower part and flaring foot:

- (13) Daressy, Annales VI, p. 104, time of Zet.
- (14) Petrie and Wainwright, Tarkhan I, Pl. XXXVIII, type 31, graves 176 and 178; Tarkhan II, grave 1973; all of late Dynasty I or early Dynasty II. Pl. XXVII, type 90 (Fig. 28, No. 11).

## (5) Type 1-VI. Swelling Jar with Two Knob Handles

The swelling jar with two knob handles pierced horizontally has been noted above under type PD– VI as occurring in Dynasty O. It is, however, more frequent in Dynasty I, when it was made in two variations, (a) the slender tall form of type PD–VI, and (b) a fat squat form. The squat form appears to present about the same relation to the spheroidal jar (PD–III) as the tall jar shows to the barrelshaped handled jar (PD–IV b). Neither variation is recorded by Professor Petrie from the royal tombs and both seem therefore to have been cheap forms used only for private persons. Amélineau gives one example "from Om el-Ga'ab," but does not deign any further information.

Type 1-VI b, tall form with knob handles:

- (1) Reisner, Naga-'d-Dêr I, p. 106, type XI, alabaster.
- (2) Petrie and Wainwright, Tarkhan I, Pl. XLIII, type 71, about nine examples of Dynasty I, alabaster (Fig. 29, No. 1).
- (3) Hearst Expedition, mss. notes on El-Ahaiwah, graves 26, 61, and 226, Dynasty O-I, alabaster.
- (4) Harvard-Boston Expedition, Fisher's mss. notes on Zawiat-el-Aryan, graves 113, 116, and 136 (Fig. 29, No. 2), alabaster, Dynasty I.
- <sup>1</sup> Cf. Reisner, Naga-'d-Dêr I, p. 95, types IX, XI-XIV.

## 146

- (5) Harvard-Boston Expedition, mss. notes on Mesa'eed, graves 229 and 679, alabaster, Dynasty O-I.
- (6) Junker, Turah, graves 72, 95, 184, alabaster, Dynasty I; another example said to be of volcanic ash is not discoverable in the tomb list.
- (7) Firth, Nub. Arch. Sur. 1908-09, grave 89:77, alabaster; grave 99:72, small, serpentine (?).
- (8) Amélineau, Fouilles d'Abydos 1895-96, Pl. XXII.

Type 1-VI c, squat form:

- (9) Petrie and Quibell, Naqada, Pl. IX, form S 56, no provenience.
- (10) Petrie, Abydos I, Pl. XLV, tomb M 16, alabaster.
- (11) Petrie and Wainwright, Tarkhan I, Pl. XLIII, types 72, 73, seven examples (Fig. 29, No. 3).
- (12) Harvard-Boston Expedition, Fisher's mss. notes on Zawiat-el-Aryan, grave 103, alabaster.
- (13) Junker, Turah, graves 179 (two examples), and 74, all of alabaster.

# (6) Type 1-VII. Wavy-Handled Jar

The wavy-handled stone jars of Dynasty I are of two forms, (a) should ered form with two ledge handles of wavy outline, being the same as PD–VII, and (b) tall jar with a continuous wavy ledge

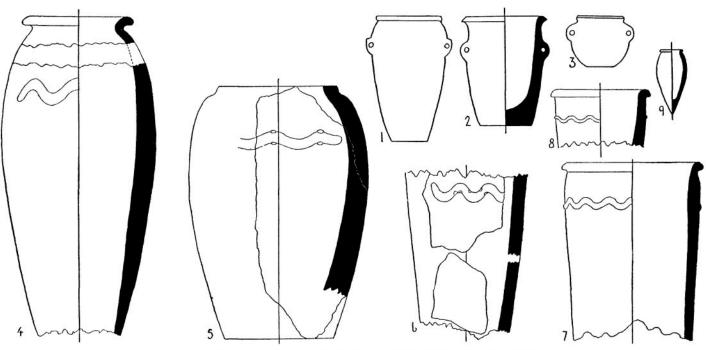


FIGURE 29. DYN. I. STONE VESSELS, TYPES VI, VII, VIII. SCALE 1/4

around the upper part. The ledges of both are often pierced vertically with two pairs of holes. The form with two wavy handles was copied, as stated above, from the late ledge-handled pottery jar (Petrie's type W 41). Associated with this type W 41, and also with still later pottery, occurs a taller pottery jar with a continuous wavy ledge or ridge around the swelling of the slight shoulder (Petrie's type W 51-62). This second pottery jar, W 51, also was copied in Dynasty I in stone and is here designated type 1-VII b.

The known occurrences of this jar constitute a curious record. No example was found in Cem. M at Abydos, in our Dynasty I tombs at El-Ahaiwah, Ballâs, Naga-'d-Dêr, Mesa'eed, Naga-'l-Hai, and Zawiat-el-Aryan, in Junker's cemetery at Turah, or in the subsidiary tombs of the Giza mastaba of the time of Zet. But at Tarkhan six examples were found, most of them, it is true, broken and incomplete. At Abydos, the only examples were five from the tombs of Merneit and Den. The records of the royal tombs are, however, far from complete, during Amélineau's work, and no conclusion can be drawn from the curious facts except that the wavy-handled jar is certainly a vessel of ceremonial ostentation not usually obtainable by private persons.

Type 1-VII a, jar with two wavy ledge handles:

- Petrie, R. T. II, Pl. A, 206 (Fig. 29, No. 5), serpentine; Pl. LII, 355 (Fig. 29, No. 6), alabaster; Pl. LIII F, 483 (Fig. 29, No. 4), grey limestone; all from tomb Y (Merneit); another example, No. 483, from tomb T (Den).
- (2) Daressy, Annales VI, p. 104, from the Giza tomb of the time of Zet.

- (3) Quibell and Green, Hierakonpolis I, Pl. XXXIII, Nos. 4 and 5, alabaster, from main deposit.
- (4) Petrie and Wainwright, Tarkhan I, Pl. XXXIX, type 50, from graves 53, 1023; Tarkhan II, graves 1804 and 1933.
- Type 1-VII b, jar with continuous wavy ridge:
  - (5) Petrie, R. T. II, Pl. XLVII B, 76 (Fig. 29, No. 7), basalt, from Y 5 (subsidiary to Merneit); Pl. LII, 353 (Fig. 29, No. 8), alabaster, tomb Y (Merneit).
    - (6) Petrie and Wainwright, Tarkhan I, Pl. XXXIX, 51, graves 36, 315, 1023.

# (7) Type 1-VIII. Jar with Pointed Base

The jar with pointed base is the same as that described as PD–VIII and was derived, as already stated, from a pottery form. Only a few examples have been found, and the type was not widely distributed.

Type 1-VIII a, jar with pointed base:

- (1) Daressy, Annales VI, p. 104, from the Giza tomb of the time of Zet (pottery ?).
- (2) Harvard-Boston Expedition, mss. notes on Mesa'eed, grave 948, Dynasty I (Fig. 29, No. 9).

## (8) Type 1-IX. Round-Bottomed Dishes and Bowls

Dishes, bowls, and cups are especially numerous in Dynasty I, but the round-bottomed forms are not common. They vary from flattish plates to shallow bowls, never very deep in proportion to the diameter. The rim is always plain and usually tapering to a blunt edge. The platters were surely functional tables and may have been mounted on low bases of the same or of a different material. In view of the deeply dished forms of the pottery tables, even the deeper, but still shallow, dishes may have served the same purpose as the platters. The materials recorded are basalt, volcanic ash, crystal, porphyry, limestone, and alabaster.

Type 1-IX a (1), shallow platters and dishes, round bottom:

- Petrie, R. T. II, Pl. XLVI, 1-6, crystal, from tombs T (Den = Wdy-mw), U (Semerkhet), Q (Qa), six examples.
  - Pl. XLVII A, 66, basalt, tomb Q (Qa).
  - Pl. XLVIII, 84-86, porphyry or quartzite, tombs Z (Zet), T (Den).
  - Pl. XLIX A, 137, 138 (Fig. 30, No. 1), 142, 143 (Fig. 30, No. 3), tombs Y (Merneit), U (Semerkhet), Q (Qa), five examples.
  - Pl. LI F, 289-294, alabaster, tombs B, O (Zer), Z (Zet), Y (Merneit), six examples.
  - Pl. LIII B, 399-402, fine limestone, tombs Q (Qa) and Z (Zet), four examples.
  - Pl. LIII G, 485, 486, No. 400 = (Fig. 30, No. 2), limestone, tomb Q (Qa).
  - (2) Petrie, Gizeh and Rifeh, Pl. V C, 34, alabaster, time of Zet.
  - (3) Junker, Turah, graves 372, 338, 549.
  - (4) Reisner, Naga-'d-Dêr I, p. 111, type XXVI a, 9.
  - (5) Petrie and Wainwright, Tarkhan I, Pl. XXXII, types 6, 7, six examples, four alabaster, one slate, one pink limestone; Tarkhan II, graves 1957, 2050.

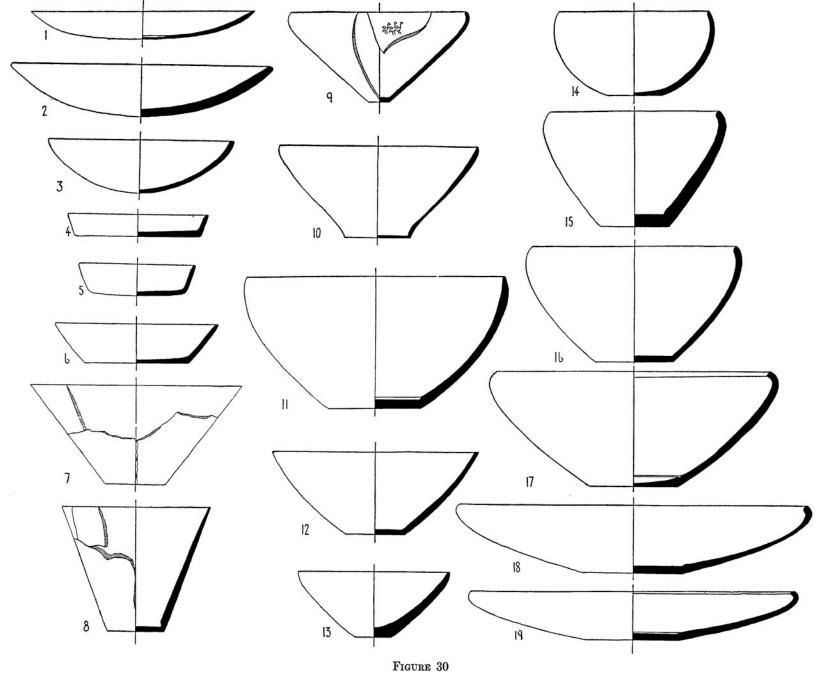
Type 1-IX b, bowls, round bottom:

(6) Petrie, R. T. II, Pl. LI F, 311, LIII B, 416, 417, LIII G, 492 — one limestone from tomb Q (Qa), one limestone from grave Q 21, and one dolomite marble, one breccia, one buff limestone from tomb U (Semerkhet).

## (9) Type 1-X. Flat-Bottomed Dishes and Bowls

The flat-bottomed dishes and bowls form the most characteristic feature of the corpus of early dynastic stone vessels and are even more numerous than the cylindrical jars. The new fine forms came in during Dynasty O as straight-sided bowls with plain rims or mouths. The forms with internal rim and those with sharply contracted mouth were probably introduced after the time of Menes, because no example of either is recorded from the tomb of Menes. But several bowls with gently contracted mouth are noted from that tomb. By the time of Zer, the third king, however, the forms with internal rim and contracted mouth had become common, and combinations of these details gave rise to a large number of forms:

(A) Plain rim, (1) with flaring mouth, and (x) straight sides; or (y) convex sides;
(2) with contracted mouth and (x) straight sides; or (y) convex sides;
(3) type X a (1)
(4) type X b (1)
(5) type X b (1)
(7) convex sides;
(8) type X a (2)
(9) convex sides;
(1) type X a (2)
(2) concave sides;
(3) type X b (2)



Dyn. I. Stone Vessels, Types IX, X, X c. Scale  $\frac{1}{4}$ 

(B) Internal rim, sharp or rounded, with contracted mouth, and (x) straight sides; type X c.

```
or (y) convex sides;
```

(C) External rim, see type XI.

These variations are multiplied by differences in the proportions, in the convexity of the sides, and in the exactness of the workmanship of the individual examples.

The examples are so numerous that I give first of all the general references:

Type 1-X a and c, bowls, with flat bottom, with both plain and internal rim.

(1) De Morgan, Tombeau royale, pp. 175-179 - all plain rims (Fig. 30, Nos. 7-9).

- (2) Petrie, R. T. II, Pls. XLVI-LIII (Fig. 30, Nos. 4-6, 10-19).
- (3) Petrie, Gizeh and Rifeh, Pls. V A-D.
- (4) Daressy, Annales VI, p. 104.
- (5) Reisner, Naga-'d-Dêr I, pp. 107-111.
- (6) Petrie, Abydos I, Pls. XLII-XLVII, Cem. M; also R. T. II, Pl. XXXIII.
- (7) MacIver, El-Amrah, pp. 25 ff.
- (8) Petrie and Wainwright, Tarkhan I and II, dating often incorrect.
- (9) Junker, Turah.
- (10) Quibell, Cat. gén., Archaic Objects, Nos. 11896-11935.

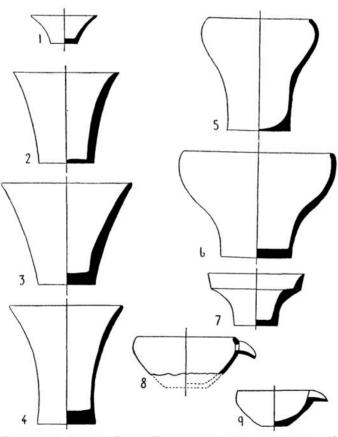


FIGURE 31. DYN. I. STONE VESSELS, TYPE X b, X e. SCALE 1/4

The general outlines of practically all these stone bowls are found in pottery forms; but the details, such as the sharply marked internal rim and the circular depression in the bottom, are peculiar to stone vessels, the results of technical processes.

Particular attention is to be directed to a deep bowl with concave sides, flaring mouth, and plain rim, derived apparently from older pottery forms.<sup>1</sup>

Type 1-X b (1), flaring, with plain rim and concave sides:

- (11) De Morgan, Tombeau royale, Fig. 615, crystal.
- (12) Petrie, R. T. II, Nos. 51, 52 (Fig. 31, No. 2), 140, 233, 234 (Fig. 31, No. 1), 235, 236, 302, 303, 304, 404, 405, 406, 459, 460; basalt (2), volcanic ash (1), marble (5), alabaster (3), fine limestone (3), grey limestone (2); from Cem. B (1), tombs O (7), Z (3), Y (3), U (1), X (1). Abydos I, Pl. IX, 3, alabaster (O) (Fig. 31, No. 4).

150

<sup>&</sup>lt;sup>1</sup> See Professor Petrie's types R 26, N 30, C 14, C 24-40, C 44, R 17, B 16-19.

- (13) Petrie, Gizeh and Rifeh, Pl. V D, 68, 72, 76, porphyry, serpentine, and syenite, time of Zet.
- (14) Petrie, R. T. II, Pl. XXXIII, one with concave-convex sides from grave M 1, porphyry. Abydos I, Pl. XLIV, from grave M 17, breccia (Fig. 31, No. 3).

The last example cited appears to form the transition to a modification of this type, which has a contracted mouth. Two of the examples with contracted mouth occurred in this very grave M 1.

Type I-X b (2), with concave-convex sides and contracted mouth:

- (15) Petrie, R. T. II, Pl. XXXIII, two of alabaster, from M 1; Abydos I, Pls. XLIV and XLVII, three examples, one breccia and two alabaster from Cem. M (Fig. 31, Nos. 5, 6).
- (16) Petrie, R. T. II, No. 488, common limestone, from tomb Z.

Both these forms appear natural to the technique of copper vessels and type X b (1) is well known in copper as early as Dynasty II. A third form with a ledge inside and an angle outside, also like a copper form, may be the ancestor of the flaring bowl with cup hollow which occurs in Dynasty III.

Type 1-X b (3), cup with interior ledge:

(17) Petrie, R. T. II, Pl. LI F, 305 (Fig. 31, No. 7), alabaster, from tomb O (Zer).

The small bowls or cups with open spout form an unusual but interesting group.

Type 1-X e (1), small bowl with sharply contracted mouth and open spout:

(18) Petrie, R. T. II, No. 265 (Fig. 31, No. 8), marble, from tomb T (Den).

Type 1-X e (2), cups with slightly contracted mouth and open spout:

(19) Petrie, Abydos I, Pl. XLVIII, grave M 24, pink marble (Fig. 31, No. 9).

(20) Junker, Turah, grave 372, alabaster.

(21) Petrie and Wainwright, Tarkhan I, type 25 c, grave 126.

## (10) Type 1-XI. Bowls with External Rim

Bowls with external rim were also new forms, introduced in Dynasty I. The forms present two sub-types, (a) flaring bowls with straight or slightly concave sides and ledge rim, and (b) cups and bowls with hollow groove between rim and body. The small cups with contracted mouth and a band rim in the top of the mouth are characteristic of Dynasty III. I know of no certain example before that time. The small magnesite cup registered in Professor Petrie's *Gizeh and Rifeh*, Pl. V D, 91, came from a "tomb on the hill" (on p. 5 a) and is of Dynasty III.

The bowls with ledge rim have been found only in Cem. B, in the tombs of Zer and Wdy-mw, and in Cem. M at Abydos. The form is clearly derived from the similar pottery bowls of the Late Predynastic Period (Petrie's type L 10) and Dynasty I.<sup>1</sup> The type begins and ends in Dynasty I, if the records can be trusted.

Type 1-XI a (1) (x), with straight sides, ledge rim:

 Petrie, R. T. II, No. 88 (Fig. 32, No. 1), red porphyry, from Cem. B; No. 53, basalt, from grave B 15; No. 54, basalt, and No. 194, serpentine, both from tomb O (Zer); Pl. XXXIII, alabaster, from grave M 1.

Type 1-XI a (1) (z), with concave sides, ledge rim:

(2) Petrie, R. T. II, No. 403 (Fig. 32, No. 2), fine limestone, from tomb O (Zer); No. 140 (Fig. 32, No. 3), volcanic ash, from tomb O.

Type 1-XI a (1) (y), with convex sides, ledge rim:

(3) Petrie, R. T. II, No. 412 (Fig. 32, No. 4), fine limestone, from tomb T (Den = Wdy-mw).

The cups and bowls with external rim and a hollow groove between rim and body were apparently so formed to permit the tying on of a cover of cloth or parchment by means of a cord passing around the groove. A number of examples have the cord represented in relief, as in the case of the cylindrical jars, and one example shows as many as three turns of the cord. The sides are generally straight, and the flat base is narrow. Two variations are found, (1) the large bowl, which afterwards developed into the bowl with recurved rim, and (2) the small cup, which afterwards gave rise to the cup with low band rim on the contracted mouth. There are two other minor variations, one a large basin with heavy rim

<sup>1</sup> See Cem. M in Petrie, R. T. II.