

## FIGURES

## FORM REPERTORY

The hundred-odd pages of illustrations presented here give a synopsis of pottery from the Yucatán collections. Five or six thousand individual specimens are illustrated out of an estimated original collection of somewhat under a million fragments. Chart 1 indexes these illustrations by site and by ware. Some indications of frequency of wares and forms are given in the graphs included in the sections on stratigraphy and seriation (charts 2-20). The ware descriptions should be consulted for detail whenever ware names are capitalized in the captions. Uncapitalized terms are meant merely as descriptive.

The use of line drawings as the sole medium of illustration has been dictated by the greater clarity and economy gained thereby. The great majority of material is sherd, and decoration if present is usually quite simple. Illustrative techniques are made simpler and comparison easier by a single method of presentation. Descriptions of surface appearances, never completely satisfactory when shown visually except possibly by color photographs, have been given verbally at times by reference to Ridgway color standards (Ridgway, 1912). Paste textures on fractures is shown photographically on plate I. Reconstructions of vessel forms have been made when they were believed certain, and are indicated on the drawings.

Drawings were made to full scale, save in a few instances. A camera lucida was used for some whole specimens; others were traced from project photographic negatives. Sherd profiles were nearly all drawn, oriented, and their diameters measured by me in the field. I drew most of the reconstructions. Ink

drafting and the arranging of the plates were done by various individuals, some seven in all, under my supervision. I am thus directly responsible for any inaccuracies in the illustrations.

### CONVENTIONS AND ABBREVIATIONS

Scale is one-quarter throughout, unless otherwise indicated.

Black, solid profiles indicate actual fragments; unfilled outlining indicates a reconstructed area of the profile. Reconstructions in some cases are made from fragments which may not have come from the same vessel.

Radius of the vessel is shown by solid horizontal line with a vertical dash showing the center line. If there is no vertical dash, and the line end is dotted, radius is unknown but is longer than the solid line.

Uncertain orientation is shown by a horizontally placed "V" between the radius line and the sherd profile.

Slipped areas are shown in many drawings by enclosing commas.

Painted areas are shown by hachure: orange by light diagonal hachure, red by heavier diagonal or cross hachure, black by black. Ware descriptions and captions often give closer color notations.

Indicating the location of museum specimens: PM = Peabody Museum, Harvard University; MM = State Museum, Mérida, Yucatán; MR = Regil Collection, Mérida, Yucatán.

FIGURE 1

Regional pottery from Cobá, Yaxuna, and elsewhere including calcite and vegetal tempered unslipped wares, incised monochrome and dichrome, Thin Slateware.

**a; b, 1-24, 28-40, c:** Unslipped jars. **b, 25-27:** Unslipped bowls. **d-f:** Unslipped basins. **g; i:** incised Dichrome. **h:** incised orangeware. **j:** Thin Slateware. **k:** incised Flaky Redware.

**a; b; j:** From Yaxuna. **c-f:** From Cobá. **g-i:** MR of unknown provenience, Yucatán. **k:** MR Chenes area. Notch rims **a, 3-8; b, 25-27** occur plentifully in Yaxuna III (late Regional) levels, cf. Thompson, 1939, fig. 66 (San José IV), the other rims shown here are of this and later date save for **a, 1**, and **b, 1**, which are probably Late Formative. Smith places **b, 13, 14, 16** as of Tepeu form. **b, 17** as Tzakol. The Yaxuna II Cenote deposits yielded no unslipped jar rims and but few unslipped fragments, and thus give us no clues to the striated jars of this period. **j:** This bowl technically belongs to the Thin Slatewares. It has a translucent slip of a dull orange color with painted red rim. It can

be dated as probably Early Florescent from the finding of similar ware at Sayil (fig. 60, **k, 7**) and in Chenes sites.

Cobá: Unslipped jar rims as well as basin rims from Cobá are similar to those on Trickle on Flaky Red from the Yaxuna Cenote, cf. fig. 7, **a, b**, suggesting an early Regional dating but cf. Thompson, 1939, fig. 46 (early San José III).

**c, 13** is of Yaxuna III type. **d, 1-4** are large, but otherwise very similar to Late Formative monochrome bowl rims. Sherds shown under **e** are tempered with vegetal fibre. Vessels identical with this come from Yaxuna, concentrated in the Cenote collection (Yaxuna II). The vertical loop handle is round in cross section.

**f:** These sherds are tempered with coarse crystalline calcite. **g:** incised Dichrome jar. **h:** incised under orange slip. **i:** incised under cream slip with red paint. **k:** incised over red slip. Note that all three bowls are shouldered with deeply rounded bottom. **g** and **k** have flaky slips, **h** and **i** have adherent slips.



FIGURE 2

Regional Coarse and Medium Redware from Cobá.  
Cobá Dichromes.

a-e: Regional Coarse Redware. f; g: Regional Medium Redwares. h: Cobá Dichromes.

a; b: Platters are normally slipped interiorly and nearly to base exteriorly. Assignment of legs and bottoms between plates and basins is uncertain. Note interior groove on plates and exterior fillet ridge, extremely even, on both plates and basins, often thumbbed on basins. Similarities with materials shown by Thompson (1939) from San José are notable; cf. b, 36, 37 with his fig. 38 (San José II), cf. many of these forms with his fig. 47 (San José III).

c; d; e: c, 1-3 are jar necks, d, 1, 2 bear trickle paint and form a connecting link between the flaky redwares and the slatewares in the use of trickle paint. Note that these basin rim forms are closer to the Yaxuna late Trickle on Red than on early Trickle on Red,

and they are similar to Medium Slateware of the Chenes area. For the thumbbed fillets (e, 1-5) cf. Thompson, 1939, fig. 59 (San José III-IV and IV) and Smith, 1936, fig. 10, 5, 6, 9 (Tepeu). Basins are either exteriorly slipped, c, 4-22, 32-35, or slipped only down to fillet, striated below, c, 25-28, e.

g-h: Slip covers basal molding, g, 1, 15 bear scratched designs; nearly this whole group is recognized by Smith as Tepeu 1 type. f, g are red with cream mottling on a fine to medium textured paste, h has same paste, orange slip with red horizontal striping. Black on orange, and black on red are rare, basal moldings common. cf. f, g with 8, h-k in Yaxuna collections which, however, lack the dichrome of h; high frequencies of these types point to local manufacture. Shepard (1951, p. 243) has suggested, from temper determinations, that part of group h is imported, part native.

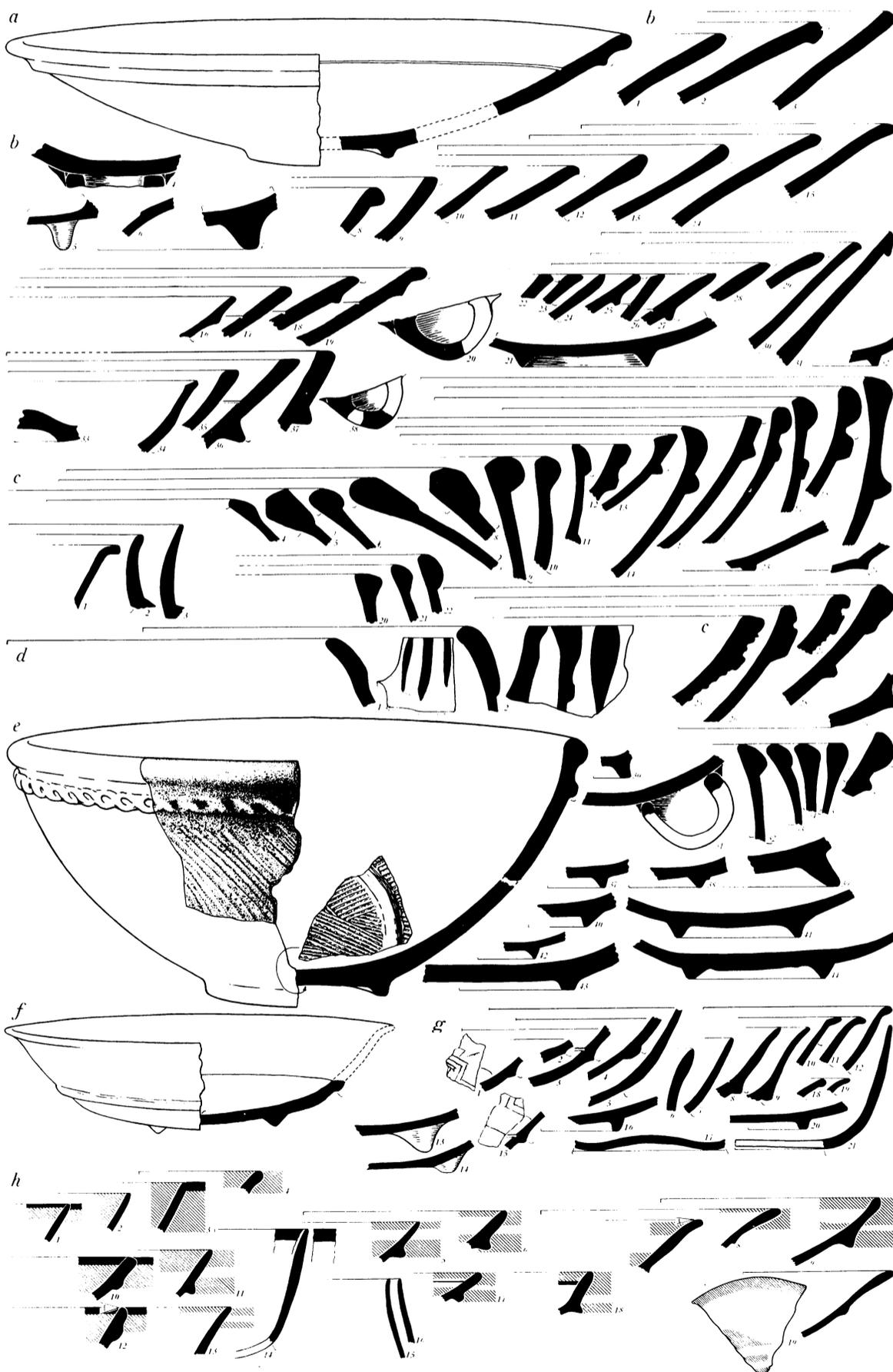


FIGURE 3

Cobá Polychrome and two polychrome vases from Labna.

a: This group from Cobá, with possible exception of 21, is placed as Tepeu 1 by Smith. They lie well outside the Yucatán ceramic tradition, but their frequency in rubbish suggests that they were made locally. Surfaces badly worn and powdery, orange paste. For

shapes, cf. Smith, 1936b, fig. 13, 12-14 (Tepeu 1).

b, c: These two vessels from Labna, b excavated from under a chultun collecting basin, c from a tomb, are from their accompanying material probably Florescent in date. Smith cannot place them in his Uaxactun sequence. Excavated by E. H. Thompson (Thompson, 1897). Peabody Museum.

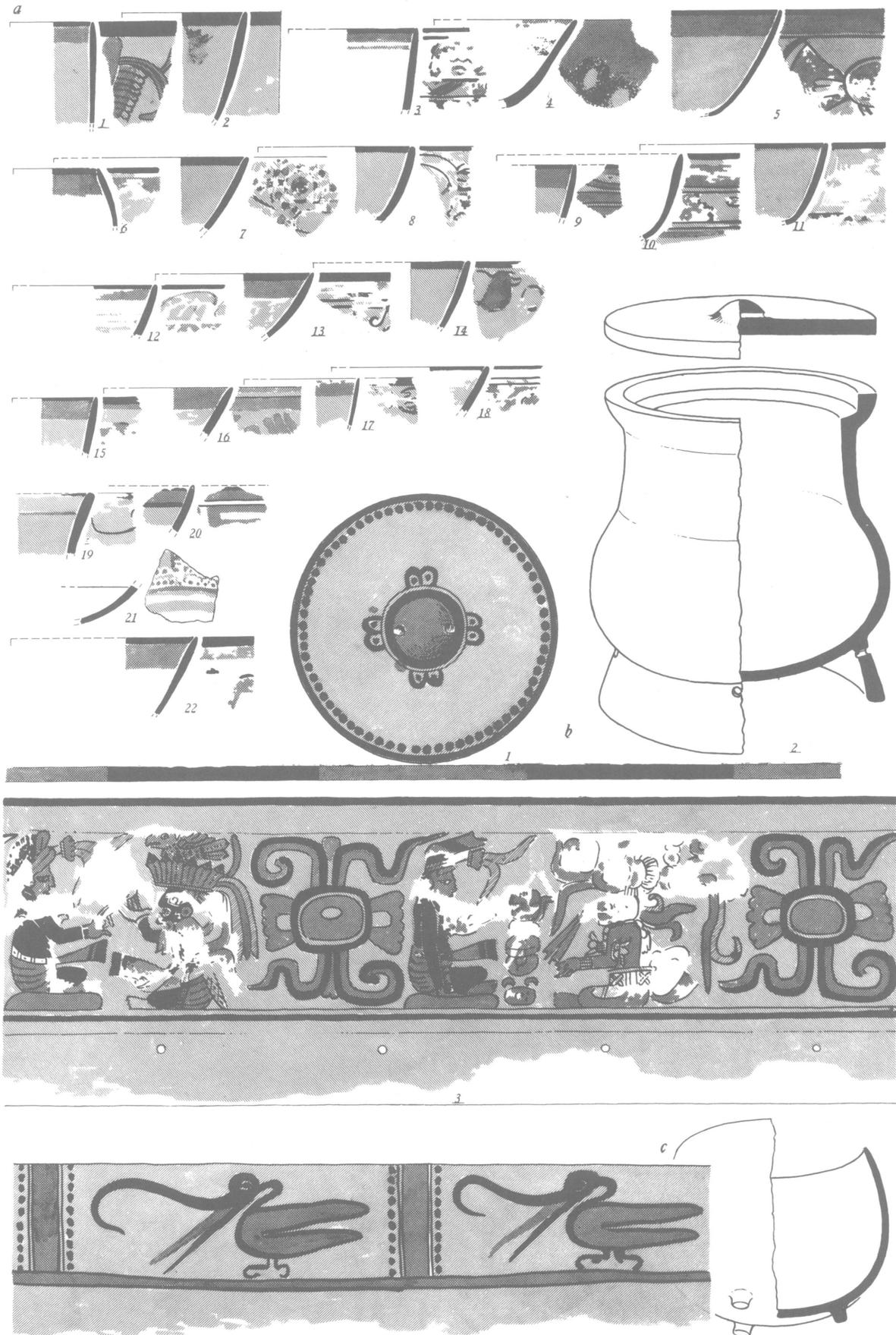


FIGURE 4

Flaky Redware, monochromes and dichromes, from Cobá, Formative Monochrome and Fine Slateware from Chichén Itzá.

*a-c*; *e*; *g-k*: From architectural groups at Yaxuna. *d*; *f*; *l*: From Yaxuna Cenote. *m*; *n*: From Cobá. *o*; *p*: From Chichén Itzá as follows: *o*, 1, 5, 10, 11, 15, 17, 19; From Caracol, *o*, 2, 4, 8, 9, 12-14; From Monjas, *p*, 1-44, 47, 48, 50, 58-61, 67, 68; From Monjas, *p*, 49; From Caracol, *p*, 62-66; From Hacienda Cenote.

*a-c*; *e*: Flaky Redware sherds, cf. fig. 5, *b*, *c* for corresponding Yaxuna Cenote material. *b*, 1-7, 9, 10 probably jars, *a*, *b*, 8, *c* basin rims, *d*, 1-8, *e*, 5-15 bowls. *f*: Regional Medium Redware. *g*: Polished orange with dull black paint, probably cf. fig. 50, *k*, 10. *h*: Medium Slateware bowl foot. *i*: Regional medium mot-

tled redware, 12 sherds of this shape came from the Cenote. *j*: Tepeu 2-style polychrome bases, according to R. Smith. *k*: These sherds resemble the black variety of Cxkintok Thin Monochrome, cf. fig. 12, *d*, *e*, *h*. Smith classifies them as Chicanel-like. *l*: Thin Redware, a rare type.

*m-n*: Cobá fine wares. *m*: Monochromes and dichrome bowls and jars. *n*, 1: Red on coarse paste. *n*, 2: Untempered grayish orange ware. *n*, 3-7: Medium blackware. *o*: Flaky Redware from Chichén Itzá. *o*, 9, 18, 20: May be of Regional stage remainder Formative. *p*: Chichén Itzá Thin Slateware. This ware bears more resemblance to that from the Chenes than to the Puuc wares. Color is medium gray, with brownish to yellowish green tones on some pieces. It is Florescent in date.

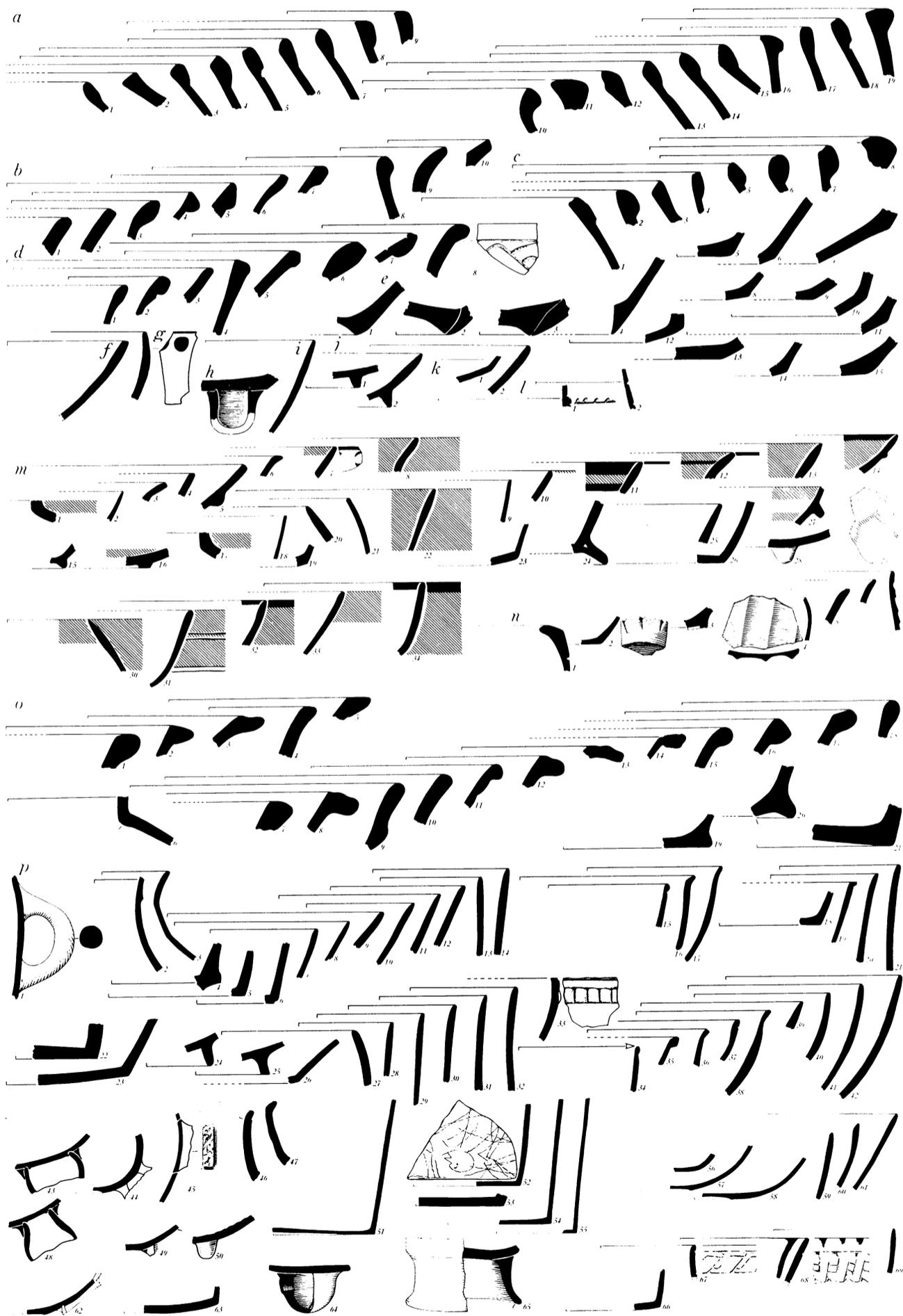


FIGURE 5

Yaxuna and Dzibilchaltun Formative pottery.  
a-e: Formative Monochrome from Yaxuna. f: Formative Flaky Redware from Dzibilchaltun.

a: Late Formative Monochrome bowl sherds, mainly flare side, outbent rim, flat bottom. a, 3 and a, 5 are cream color, a, 8 buff, others red (Rufous to Carnelian Red) shading to black. a, 4 is black, incised under slip.

b: Bowls all with interior slip. All red save as follows: b, 1, 26 cream; b, 25, 37 black; b, 21 buff; b, 33 has faint dark trickle paint; b, 39, 30 are unslipped exteriorly below the shoulder; b, 40 is decorated by gouged lunes made by a reed or similar implement. b, 41 is the only certain leg found; other cylindrical fragments may have belonged to legs or spouts although no restorable spouts were found at Yaxuna. Smith calls b, 6, 31, 32 Chicanel-like.

c: Jar sherds. All red except c, 4 black; c, 31 red interior, white exterior. Cuneiform pattern on c, 31 and c, 32 made by an angled wedge-shaped tool; c, 30 is incised on unslipped ground; c, 34 is gadrooned on

exterior. Smith calls c, 6, 7, 20, 21 Chicanel, c, 20 Mamom.

d: All red save d, 8 white interior, red exterior; d, 1 is deeply incised; d, 20 incised on unslipped ground; d, 21, 22 incised before slipping; d, 18 red interior, white incised exterior.

e: Formative Orangeware; 3, 10 have trickle paint; 14 seems to be part of the leg of a cylindrical vessel with unslipped interior. Leg cavity connects with vessel interior. Smith calls 9, 12 Chicanel-like, 8, 10, 11 Chicanel; 13 Tepeu.

The Formative phase has unfortunately not yet yielded material allowing a complete and reliable reconstruction of forms. The arrangement of sherds into vessel categories is at times uncertain.

f: Formative Flaky Redware. Slip is red, paste gray save for 1, 2 which have orange paste and may be Formative Monochrome. One fragment, not illustrated, seems an early Tzakol basal flange, surface color orange. These come mainly from the bottom of trench 2 (see map 7).

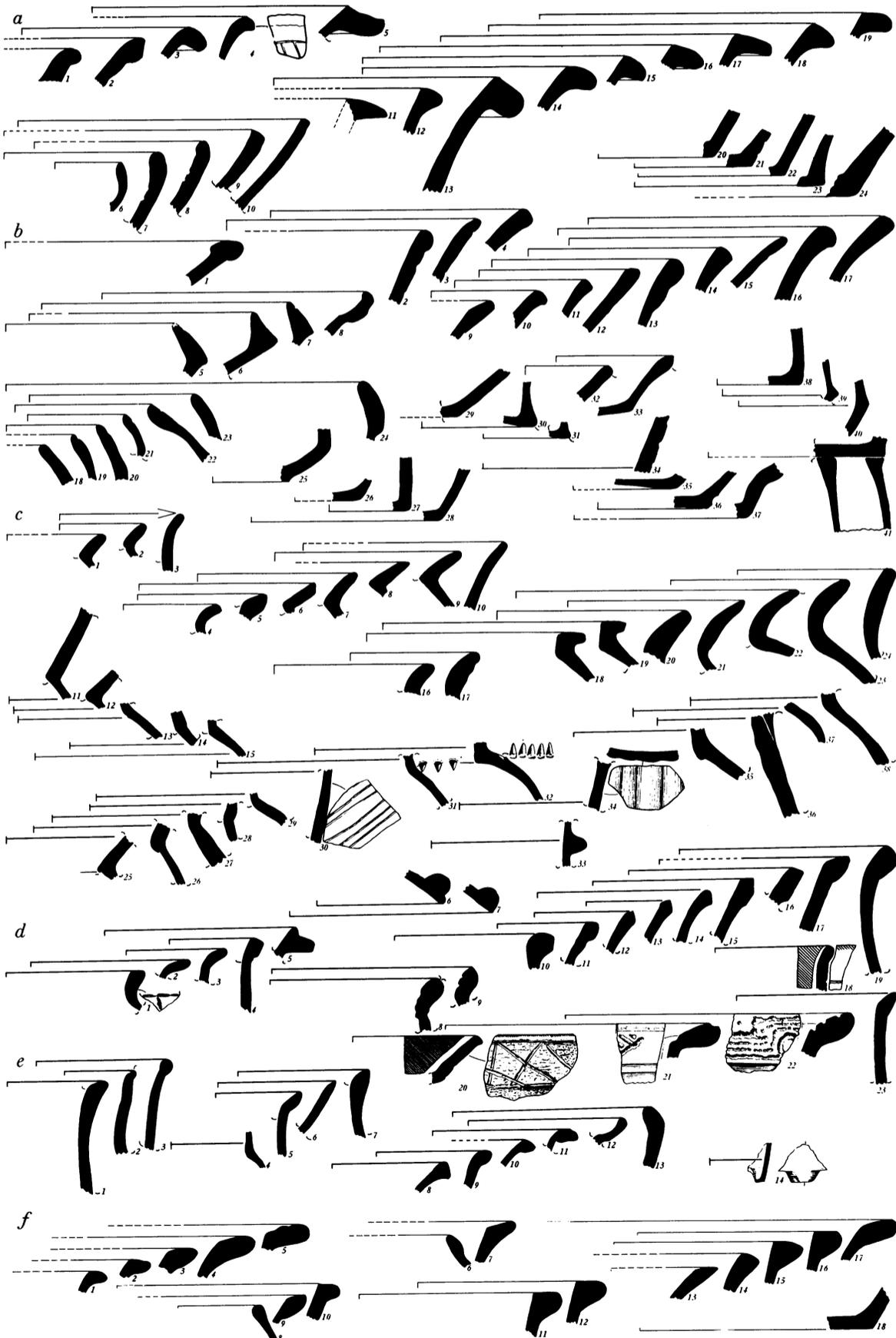


FIGURE 6

Flaky Dichrome and Flaky Redware with similar and associated wares from Yaxuna, Balam Canche Cave, and Chichén Itzá. Thin red on brown ware from Yaxuna.

**a**, **1**, **2**, **4**; **d**: Balam Canche Cave. **a**, **3**, **5**; **e**; **f**; **g**: Chichén Itzá. **a**, **6-16**, **21-29**; **b**; **c**; **k**; **l**: Yaxuna Cenote. **a**, **17-20**; **h**; **i**: Yaxuna ruin. **j**: Unknown provenience.

**a**, **8-15**, **22-29**; **b**; **c**: Flaky Redware. **l**: thin red on brown ware. **k**: Unique piece. Remainder Flaky Dichrome and similar wares.

**a**: Note unslipped neck exteriors **a**, **1**, **4**, **19**, interior striation and bottle type dimpled bottom with discurvate bottom-side juncture, use of incision, punctuation, gouging to fill design areas. Surface alteration seems usually done before slipping, paint often crosses incised outlining, cf. figs. 63, 64 and Brainerd, 1948, for general discussion. Sherds not from Yaxuna Cenote are of less certain typology; note that they also present more variety of form and decoration. **a**, **3** is orange brown in color, atypical in shape, **a**, **17** is

gouged, **a**, **18** shows the only twist design, **a**, **20** and **a**, **21** are curvilinear.

**b**: Probably shows a mixture of jar and bowl rims, to judge by their radii.

**c**, **1-7**: Basin rims, **c**, **8** bowl rim, **c**, **9-16** bowl shoulders.

**b** and **c** sherds bear all-over red slip. Form of the bowl bottom is unknown. Note that both jar and basin rim shapes approximate the Trickle on Red from Yaxuna Cenote (see fig. 7, **a**, **b**).

**d**: Two bowl sherds. **e**; **f**: Deeply incised through orange slip. **h**: Deep incising, black. **i**: Red used to accentuate incision, Smith identifies this as Chicanel. **j**: Orange below molding. **k**: Hand-modeled human face in brown clay, seems broken from a vessel side. This is the earliest anthropomorphic representation from Yucatán ceramics. **l**: Thin red on brown ware. Appearance is not far from Thin Slate of which it may be a prototype. **l** is cream colored with red paint.

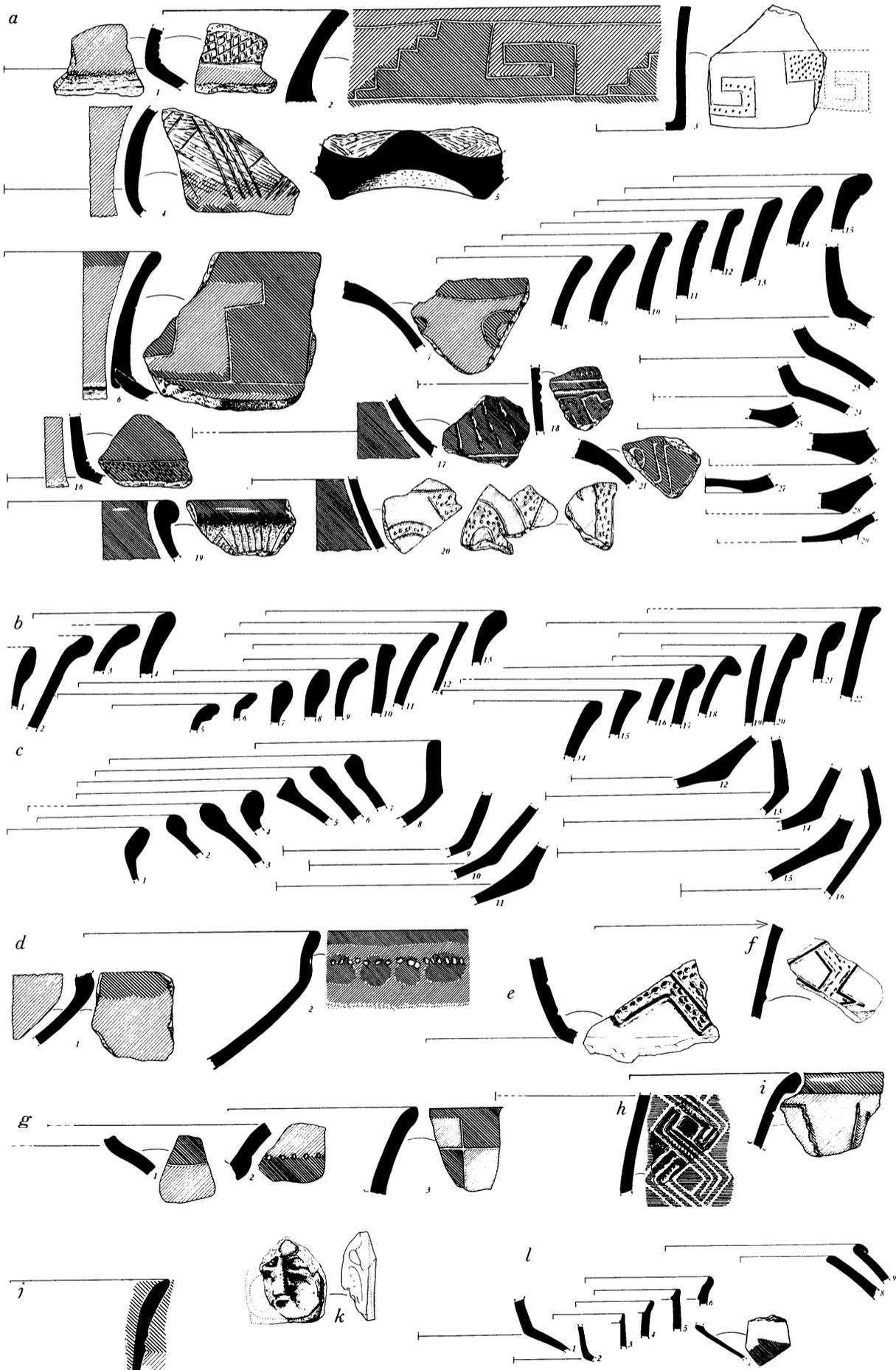


FIGURE 7

Trickle on Flaky Redware from Yaxuna and Balam Canche Cave.

a; b, 2-10, 12: Yaxuna Cenote, c: Yaxuna ruin, b, 1, 11: Balam Canche Cave.

a-b: Note similarity of jar neck form among the associated Flaky Red and Dichrome wares, cf. fig. 6, a, 8-15, 6, b. Also in basin rims between 7, b and 6, c. Basin bottoms were probably gently rounded, jar bottoms as in the Dichrome jars (fig. 6, a, 4). c-d: From trenches in Yaxuna north group (Yaxuna III). The jar necks, shoulders, and general shape in this group approximate those on the associated Coarse and Medium Redware, cf. fig. 8, a, b. The one bottom found is also similar to the Yaxuna III redware. Basin rims, however, are closer to slateware forms than to the local

basins of their period, cf. fig. 8, e, f, 7-13, g, 27, 28.

The chief interest of these groups lies in their position between the trickle paint found in the Formative period and the Florescent slateware trickle paint which followed them. The paint of Formative times is often reversed in color and always faint, used over the rims of bowls. The pottery paint on this ware is stronger in color than any Florescent slateware paint save possibly for that on Holactun Slateware. Paint is also used in the same manner as in later times. The earliest Florescent basin, with bolster rims, and unslipped exteriors are close to these forms of group d (cf. figs. 10, c; 32, g). The only other examples of this ware yet found come from Acanceh (fig. 18, c, 1, 3).

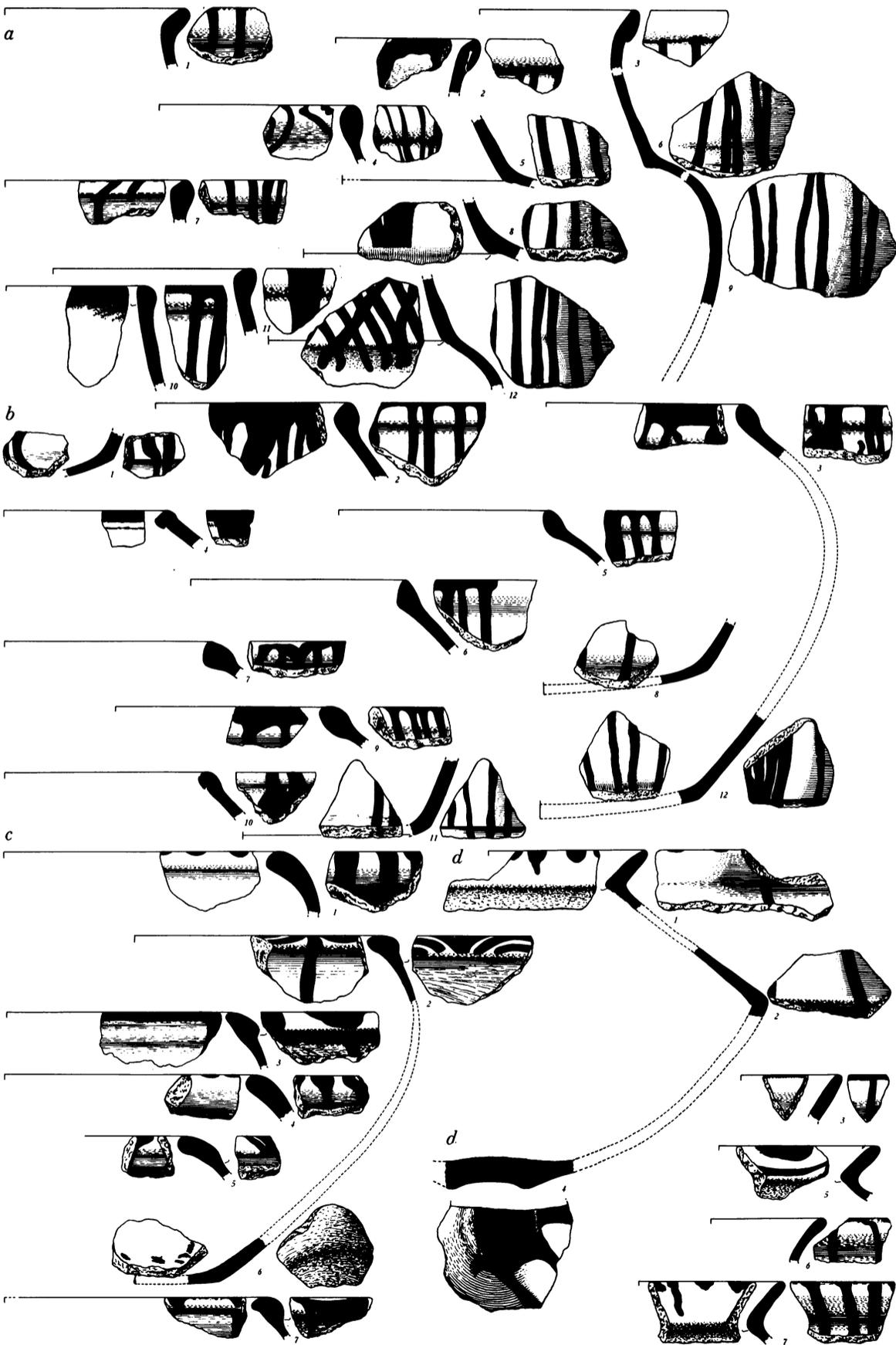


FIGURE 8

Coarse and Medium Regional Redware from Yaxuna.

a-c; e-g; l: Coarse Regional Redware. d; h-k: Medium Paste Redwares.

a-d: Jars. Types are close to Early Oxkintok Monochrome, fig. 11, a-c, which is Regional in date. Note notch rim, indented bottom, angular shoulder. e-f: Bowls and basins. Basin shapes are very like Early Oxkintok forms, cf. fig. 11, d-f, with sublial flange, striated exterior, and ring base. Bowls, fig. 12, h and fig. 13, m, 1-8 also are near g, 12-22. Both basins and hemispheroid bowls also show similarities to Acanceh forms (cf. figs. 18, c; d; g, 17-24; 19, g, 5, 6). i; j; k: Basal molding bowls are not duplicated in the Early Oxkintok collections, in which the base-side angle is sharper, the molding merely an extension of the

basal angle. The Acanceh Coarse and Medium Redware bowls show much closer affinities with these (cf. fig. 18, i-k). These Yaxuna bowls are closer to Peten forms, the Oxkintok bowls to Puuc forms. On the basis of Smith's identification of this ware and of the accompanying polychromes of the Cobá collections as Tepeu 1, the Yaxuna Medium Redware must be dated later than the Early Oxkintok Monochromes. These collections seem to show considerable time lapse during their deposition. The indications are that they were deposited during late Tzakol and Tepeu 1 times. The identifications of Uaxactun types in the trenches bear this out. l: Shapes of these approach those of Flaky Redware, bearing out the hypothesis of a long depositional period for these deposits.



FIGURE 9

Polychrome bowl sherds from Yaxuna, Acanceh, Oxkintok, Mayapan, Mani, and Chichén Itzá.

**a**, **1**, **3**, **5**, **6**, **8**, **11**; **b**, **4**, **5**, **7**: Yaxuna ruins. **a**, **2**, **4**, **7**, **9**, **10**, **12-17**; **b**, **1-3**, **6**: Yaxuna Cenote. **c**; **d**: Acanceh. **e**: Oxkintok (low deposit). **f**: Mayapan. **g**; **h**: Mani. **i**: Chichén Itzá (Monjas).

Uncolored areas designate white or cream-colored slip, light tint is orange, dark tint is red, black is dark brown or black.

**a**: R. E. Smith calls **a**, **5**, **6** Tzakol. These, like most of the polychromes illustrated here, bear a glossy, brilliantly colored slip.

**b**, **4**, **5**, **7**: Bear a dull orange slip, waxy like that of the slatewares. Note that Yaxuna lacks the thin-walled hemispheroid polychrome bowls so common at Cobá (cf. fig. 3, **a**).

**c**: Smith calls **c**, **2** Tzakol 2 or 3; **c**, **3**, **4**, **7-10** Tepeu 2; **c**, **5** Tzakol 3.

**d**: Smith calls **d**, **14**, **15**, **17**, **21-23** Tepeu 2; **d**, **1-6** probably Tepeu 1; **d**, **11**, **12** Tepeu 1 or 2; **d**, **18-20** probably Tepeu 2. **d**, **9** belongs to a type found in Chenes sites.

**e**: On grounds other than identification of these sherds, they should date Tzakol 3.

**f**: Basal flanges probably date these with Tzakol.

**i**: Bears a waxy slip like that of **b**, **4**, **5**, **7** and fig. 60, **k**, **7**.

The small frequencies of these polychromes in the deposits, save possibly at Mayapan, suggest that they are southern imports. As such, R. E. Smith's identifications provide valuable crossdatings with the Uaxactun chronology, which is in turn dated to the Maya calendar. It may be noted that a variable percentage, often high, from each site is not identifiable to Smith, suggesting origins other than the central Peten. For Yaxuna these polychromes do not give much aid in dating, but other sherds do. At Acanceh the samples are large enough to allow the placement of the period of dominance of Red on Thin Gray to be cross-tied to Tepeu 2, thus also dating the main Dzibilchaltun occupation, in which polychromes are absent, presumably due to its northern position. At Mayapan the presence of Tzakol-like polychrome unaccompanied by Regional monochromes is discussed elsewhere.

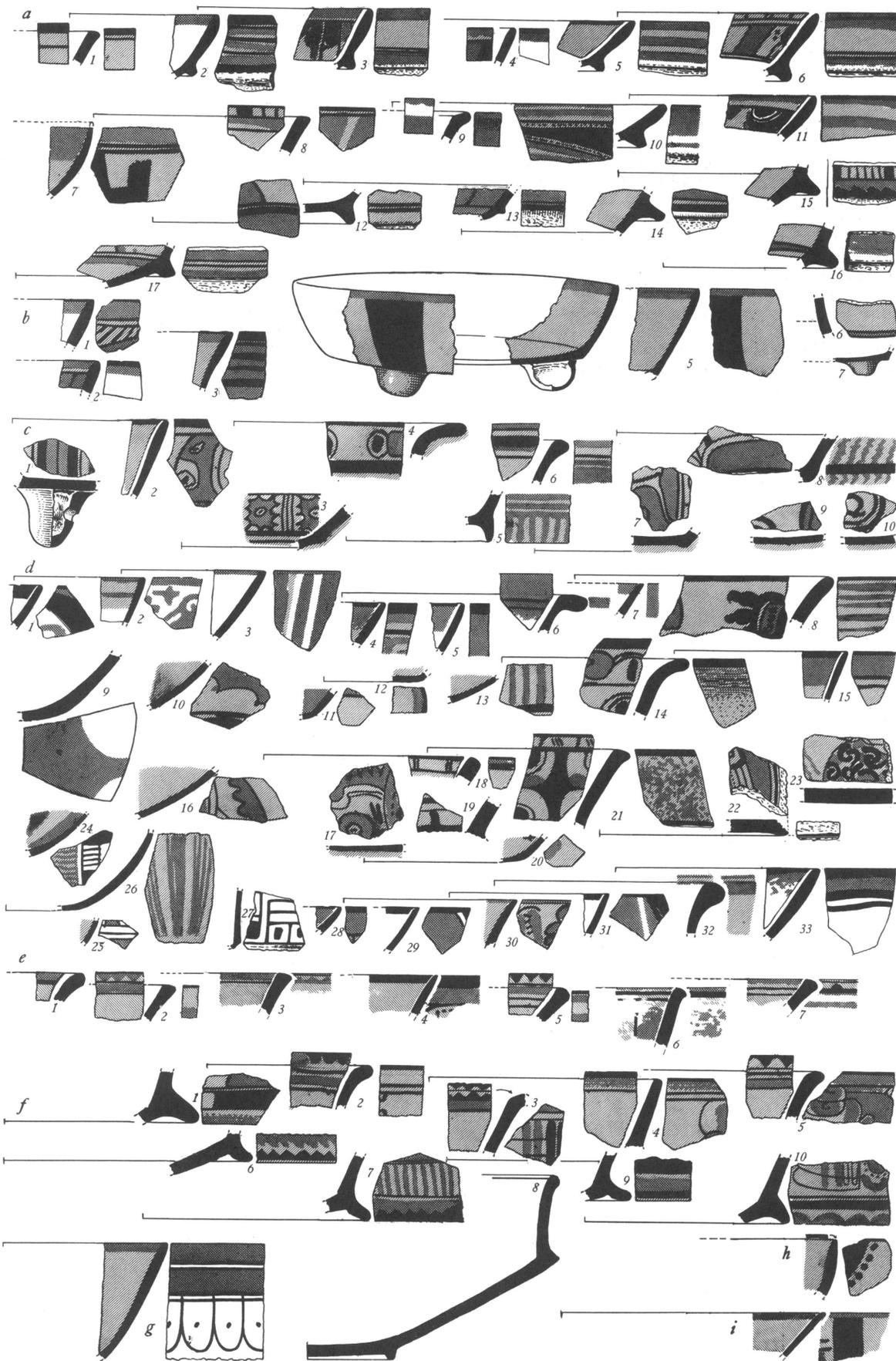


FIGURE 10

Florescent slatewares from Yaxuna.

The forms of slateware found here differ in several respects from those of the Puuc sites. The jar forms, concave interior basin lips, and slab bowl legs all argue for an early Florescent dating for most of this assemblage, although sampling has thus far not been extensive enough to completely rule out the possibility of regional variation rather than time as the major causal factor for these variations (see discussion, caption of fig. 67).

a-g: Medium Slateware. h: Thin Slateware.

b, 6, 2-11, 30: This rim type occurs at Dzebtun, cf.

fig. 35, a; and Mani fig. 32, a, b, 5, 6, 22, 25, 26, 32-37, c, 2-4, 15, 17: Basin rims with concave interior. This is the predominant form in Chenes, also occurs at Acanceh, b, 7-15; Mani, g, 2-7, 12, c, 19 is of Yaxuna III form, cf. fig. 2, c, 25-28; e, but in slateware. d-g: Thumb-nail decoration is frequent, also note flattened appliqué pellets and impressed circles. Note that all bowl legs found are slab. Cf. Chichén Itzá Florescent, fig. 67, Dzibilchaltun (fig. 15, a), Dzebtun (fig. 35, i-m), Cobá (fig. 49, m, 1, 8). h: Thin Slate is more like that from Chichén Itzá in color, than like that from the Puuc sites.

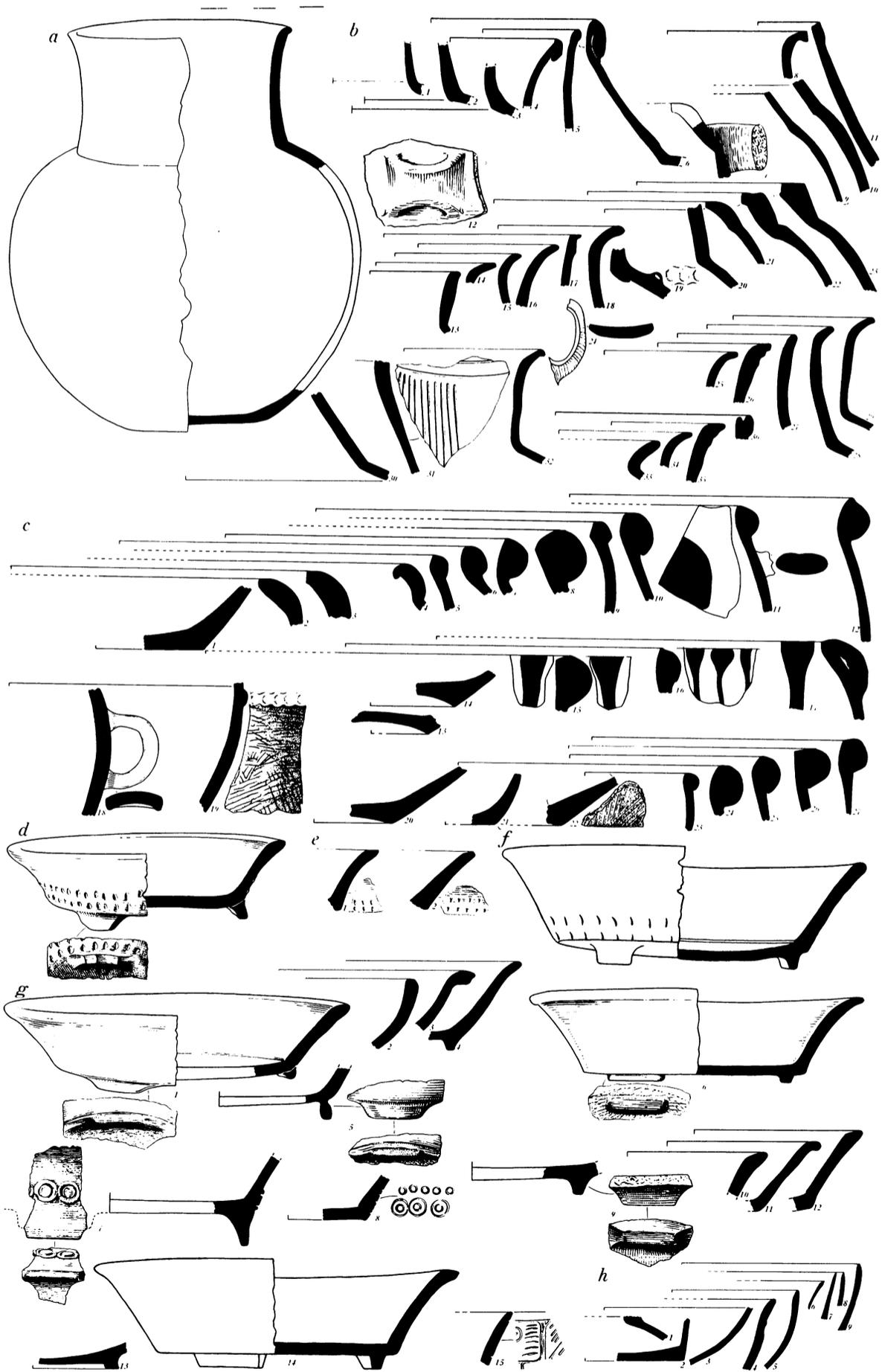


FIGURE 11

Oxkintok Coarse Monochromes of Regional stage.  
 a; b; c, 2-42: Jars ranging Cinnamon Buff to red.  
 Paint when present is black. c, 23-26: Probably fit  
 fragments like b, 10, 11; of these only 23 bears interi-  
 or slip, lower exteriors are horizontally striated like  
 c, 40, 41. Note similarity of the jar form a to that of  
 Yaxuna Regional Redware, fig. 8, a-c and trickle ware,  
 fig. 7, d; and less strongly to Acanceh Regional Red-  
 ware, fig. 20, c, d-f: Basins with sub-rim flange. Col-  
 or mostly in buff range. Occasional black paint striping  
 on rim. No flanges are thumbed. Cf. Yaxuna Regional

Redware, fig. 8, e-g, Cobá fig. 2, c-d, Yaxuna Slate-  
 ware, fig. 10, c, 19, Acanceh Regional Redware, fig.  
 18, c. Resemblances are closer between Yaxuna and  
 Oxkintok: unthumbd flange, subangular bolster rather  
 than rounded thumbd bolster rim as at Cobá.

This assemblage (figs. 11-13) stands nearly unique  
 in the Yucatán sequence. Its absence at all other sites  
 (save for a trace at Acanceh) suggests a localized west-  
 ern distribution. Its excellent stylistic development and  
 high technical quality suggests a long-term tradition.

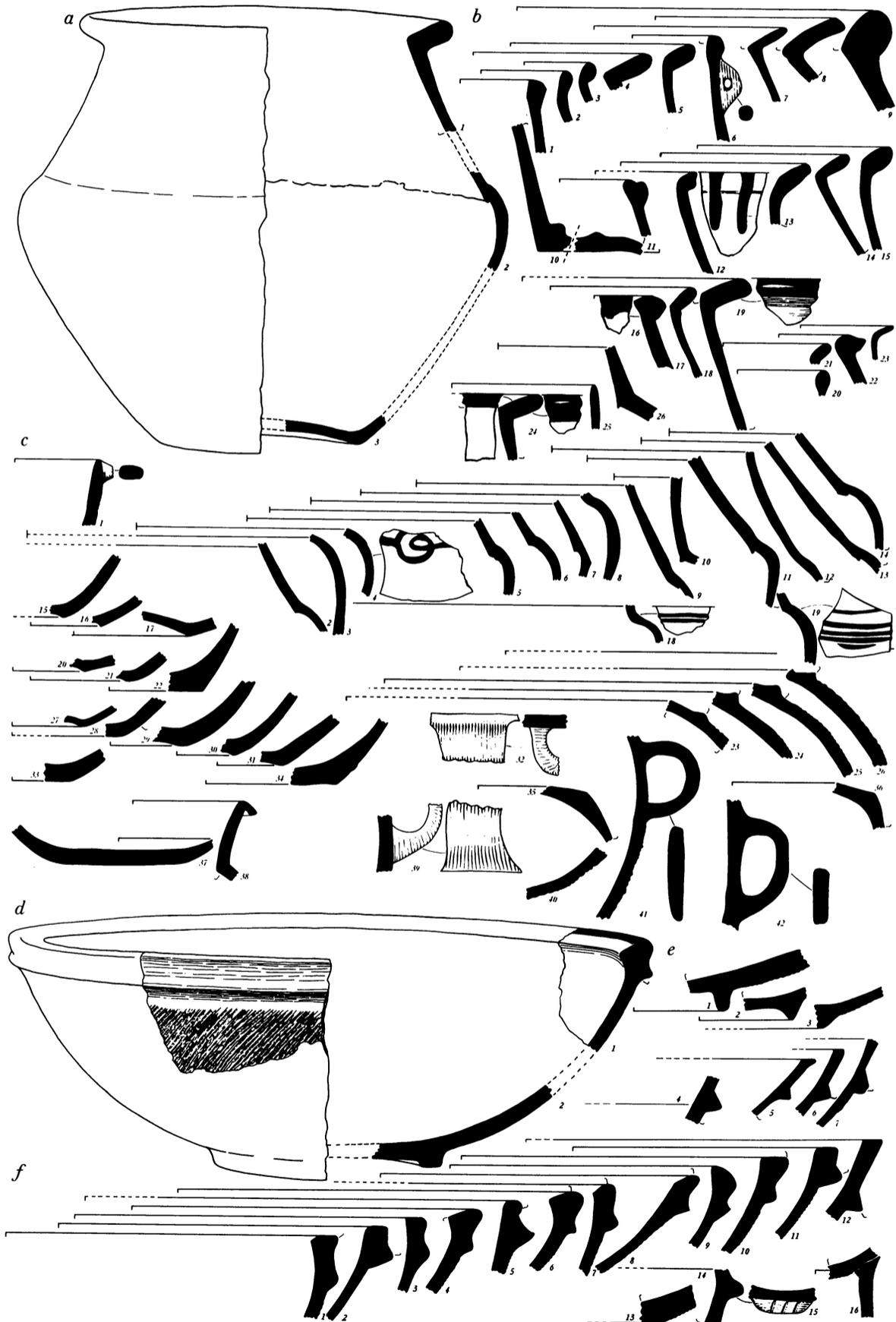


FIGURE 12

Unslipped, coarse slipped, and thin monochrome wares. Oxkintok Regional.

a-c: Unslipped. g: Coarse slipped ware. d; e; f; h-k: Thin Monochrome.

a: Large jars. Smoothed, unstriated neck and lip. Some shoulders round, a few striated, several handles at shoulder-neck juncture. 28 bears vertical striations. The largest and heaviest of these jars (a, 1-12) likely belong to unstriated jars similar to the slipped jars of fig. 11, a-c. The remainder seem to be from globular, striated jars; compare with notch necks from Yaxuna, fig. 1, b, 1-7, from Cobá, fig. 1, c, 13, Acanceh fig. 14, d, 15-35, Mani, fig. 14, c, 11-14, also cf. Smith and Kidder, 1943, figs. 17, e, 18 from the Motagua Valley. Notice occasional black painted rims in all these collections, which compare with painting on the Oxkintok slipped jars.

b-c: These massive flare-sided basins are well out of the tradition shown by the other sites. Most bear ex-

terior striation, some sherds may be from lids. Possible similarities may be with Yaxuna, fig. 1, b, 9, 10; Cobá, fig. 1, d, 1, also cf. Smith and Kidder, fig. 18, c from the Motagua Valley.

d; e; g; h: Blackware bowls, exteriors of some are reddish. f: Blackware bowl floor with resist technique red circles. g, 3: In both shape and form seems Late Formative stage. If so, it is the only sherd of this horizon recognized at Oxkintok. i: Black very thin ware, striated exterior up to a slip extending 8 mm. below rim. Smith dates this Tzakol 3.

j; k: Cinnamon Buff and Redware showing incised banding lines and design, vertical channeling, applied lozenges, and monkey faces (cf. whole specimen from Campeche, fig. 103, d). j, 3, 14, 18 are red with gray flecking. j, 18 is high polish blackware with preslip incising. A single blackware vessel from Kaminaljuyu (Kidder, Jennings, and Shook, 1946, fig. 70, e) is suggestively similar in form and decoration.

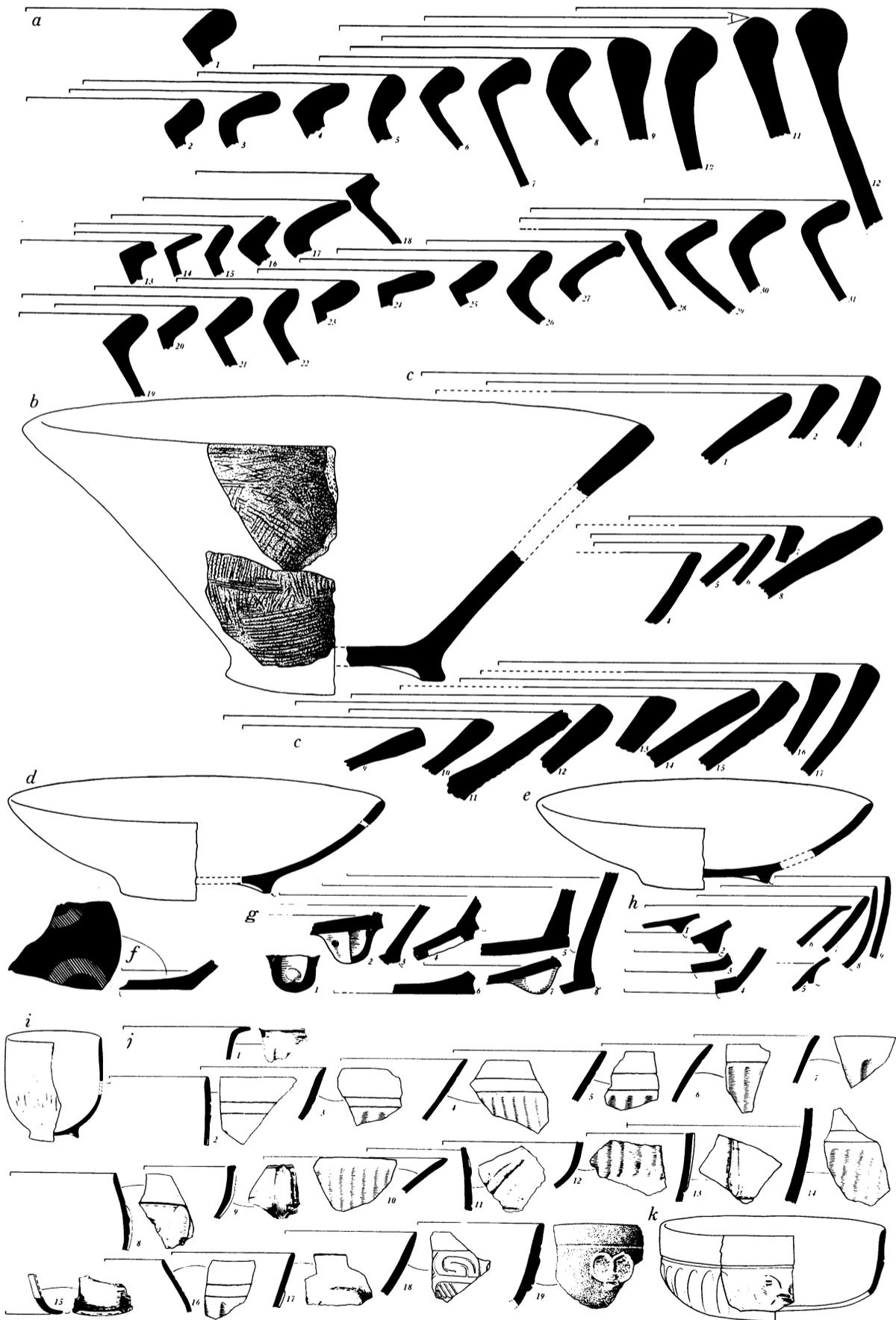


FIGURE 13

Slipped Regional monochromes from Oxkintok.  
a-g; i; j: Oxkintok Coarse Monochrome. h; k-m:  
 Oxkintok Thin Monochrome.

a: Basins, either with flattened bottom or ring base.  
b-i: Basal break bowls, several with black painted  
 border on interior of lip. Note variety of supports in-  
 cluding in g hollow perforated slab legs of oval cross  
 section. Hollow slab legs are a Teotihuacan trait; this  
 occurrence at approximately the same horizon is the  
 only suggestion of cultural similarity recognized at  
 Oxkintok; a leg which was probably similar comes

from Holactun, see fig. 45, e, g, a quite similar hollow  
 slab leg comes from Piedras Negras (Cresson, 1937,  
 fig. 47); I know of other rare specimens from Calakmul  
 and Santa Rosa Xtampak. Color of the bowls ranges Cin-  
 namon Buff to red.

j: Shallow bowl and basin rims, with uneven blotchy  
 gray to red firing color and rough slipped surface.

k-m: Rounded bowls, red with fine, evenly distributed  
 gray flecking, flecks average 1 mm. in size. Finish is  
 highly polished, ware of excellent hard quality.

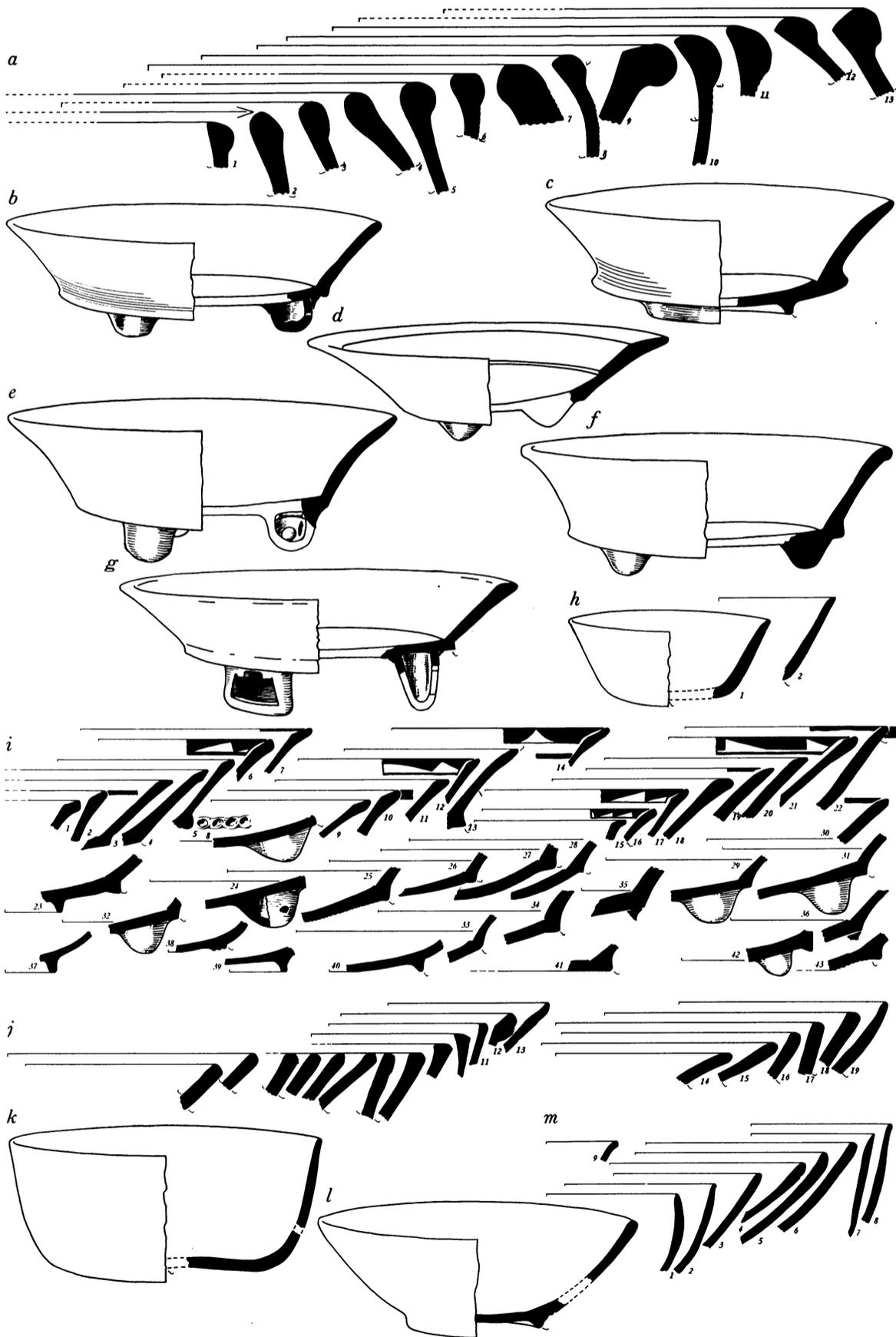


FIGURE 14

Unslipped pottery from Dzibilchaltun, Acanceh, and Mani.

**a; b:** Dzibilchaltun. **c; d:** Acanceh. **e-i:** Mani. All are striated body jars save **b; d, 42-46; g** and possibly **a, 28-32** which may be bowls and incensarios.

**a; b:** Nearly all Regional-Florescent date. Earlier types **a, 1-4**. Slab legs may belong either to jars or to the basin-like incensarios shown in **b** for which cf. fig. 19, **a, b**. Jar rims suggest certain Chenes and Río Bec area forms, and others, possibly of Chenes inspiration found in the Puuc cf. fig. 37, **a, 8-13; b, 30-36, a, 18, 27** are misplaced here; they come from Medium Slateware jars.

**c:** Approach Puuc style of unslipped jar rim, cf. fig. 38.

**d, 1-10:** are Regional. **d, 12-15, 20-35** resemble Oxkintok Regional, cf. fig. 11, **b**. Note use of black paint on rims of **d, 20, 32, 35**. **d, 16** seems to have been made by impressing a cob of corn. **d, 33** may be Middle Mexican in type.

**e:** Regional and Florescent stage forms. **e, 10-14** are certainly Regional.

**f, 2-9:** These forms, dating from the Middle and Late Mexican substages, were found associated with Coarse Slateware, cf. figs. 22, **a, b; 93, a-c**.



FIGURE 15

Slateware from Dzibilchaltun and Mayapan, unslipped ware and slatewares from Chanpuuc.

a-e: Dzibilchaltun. f-n: Chanpuuc. o-s: Mayapan. All Florescent save those designated below. a-e; i-l; o-r: Medium Slateware. j; r: Thin Slateware. m: Thin Redware. f-h; n: Unslipped ware.

a: Basal break bowls. b-c: Rounded bowls; both these forms similar to Puuc and Chenes. d: Jars. d, 5 resembles Red on Thin Gray from same site, cf. fig. 20, e, d, 8 almost certainly Early Mexican stage, cf. fig. 71, c. The heavy rim jars, d, 6-13, are commoner at Chenes than at Puuc sites. e: Basin rims. e, 4, 8,

10 have the interior concavity at lip which characterizes Chenes form, e, 9 is probably Early Mexican, cf. fig. 73, d, 14, 24, remainder are Puuc style characterized by angular lip, cf. figs. 43, 44. f-h: Jars, all probably Florescent save for f, 5 and f, 6 which appear to be Middle or Late Mexican. i: Thin Slateware. j: Jars. k: Basins. l: Bowls; l, 2 is basal break, others rounded. m: Bowls, m, 1 bearing black paint. n: Incensario, cf. figs. 19, a-c; 39, f, 10. o: Medium Slateware basins, o, 2 Early Mexican, o, 3 unique, may not be basin rim. p: Jars; p, 1 form is early, p, 7 is Early Mexican. q: Basal break bowls. r: Rounded bowls. s: Carved.



FIGURE 16

Holactun Formative Monochrome.

The collections from Holactun show a higher frequency of surface alteration than any other Formative collections obtained. In all cases it seems to have been done before slipping.

Slip adheres closely save in a few redware fragments, notably in *b*, 19; *c*, 6; *d*, 1, which show spalling and may be classifiable under Flaky Redware. Two types of paint occur: *b*, 4 shows marked similarity to later slateware painting technique. Painted areas are lighter than background. See fig. 31 for more Formative Monochrome with paint of this character. *b*, 19 bears opaque Walnut Brown paint over a flaky red slip. This fragment may be intrusive, cf. fig. 13, *i* for similar material from the Regional stage at Oxkintok.

All sherds are red, often showing buff or gray mottlings save the following: *d*, 3-6 white; 7-12, 14 black; 13 dull red exterior, black interior; 15, 23 black interior, white exterior; *d*, 2 red interior, white exterior; 18 black interior, red rim top, white exterior. These combinations seem to have been attained with two slips, a red and a white, with a greater or less degree of controlled smoke in the firing. It will be noted that when black slip occurs it is always interior; this could be obtained by inverting the bowl for firing and placing green fuel under it. Probably either red or white slip will permit a smoke black. Black, wherever appearing, shows crazing indicating slip shrinkage, white often shows dendritic discoloration, probably from roots during burial. Both white and red slips show dark mottling in areas as though from smoky firing.

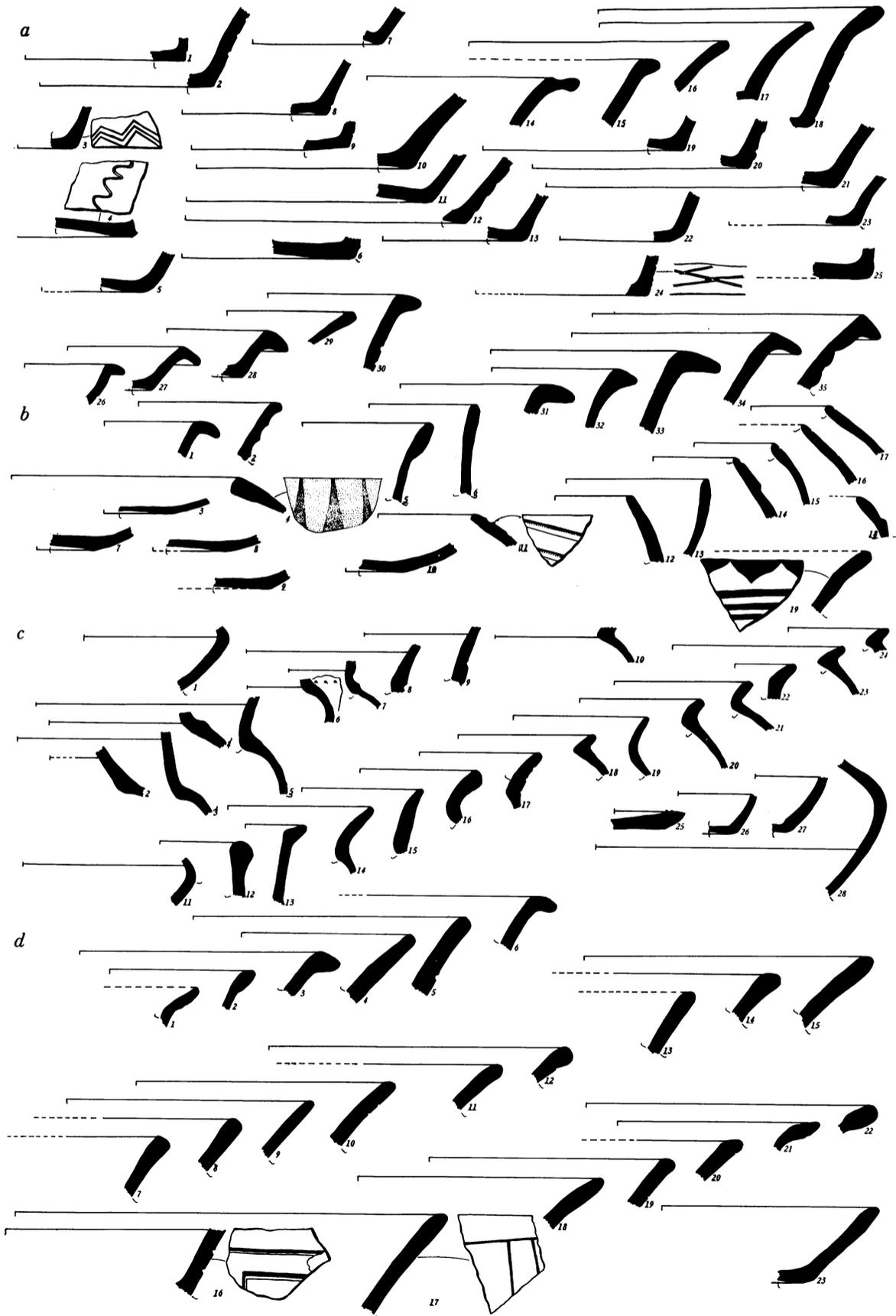


FIGURE 17

Formative Monochrome, Flaky Redware, and Dichrome from Holactun, Mani, and Acanceh.

a-d: Late Formative Monochrome from Holactun.

e: Late Formative Monochrome from Mani (for remainder of Mani Formative, see figs. 30, c, 31). f-h: Flaky Redware from Acanceh, including Formative and early Regional forms and wares.

a, 1, 7-13: Are blackware with preslip incision, all slips showing crazing. a, 2, 3, 5, 6 are white slipped, 3 with white interior, orange exterior. b: Sherds are all redware save for 10 which bears a brilliantly polished orange slip, and 5 which bears a buff slip. c: Formative Redware spouts, probably belonging to jars of fig. 16, c; all have oval cross section with no evidence of bridge to neck. d: 1, 3, 6 with black exterior, red orange interior slips, 2, 4, 5 black slip. d, 5, shown as a lid, may be a sublial flanged bowl rim. For further description of the above wares, see fig. 16 caption.

A single buff-colored, unslipped, thickened-lip bottle neck, similar to but thinner than those shown in fig. 30, c, 4-7, and identical with sherds found in Middle Formative deposits at the Chenes sites sampled in 1949 came from these Holactun deposits.

e: Formative Monochrome from Mani. 14-16 are black slipped, 16 bears incised lines, and spots of pink

unfired paint. All remainder are red to buff in color. 1, 2, 10, 18-20 show trickle paint design; 1, 10, 18 are slipped exteriorly only to the shoulder; 1 and 18 bear incised semicircles made by diagonally impressing a hollow cylinder.

f; h; g, 10-29: Flaky Redware save for f, 33, 34 which are cream slipped ware. Slip of the Flaky Redware parts easily from gray to orange powdery surface. Coarse tempered paste. Note heavy Formative style flare and outcurve rims, also, f, 36-46, basal break and basal flange rounded bottom bowls. The rim shapes of h, 5-11, 15, 16, 24-26 are characteristic of Flaky Redware and do not occur on Formative Monochrome at Holactun (see figs. 4, o, 1-5; 65, c, 2-6, 8 for more of these shapes); they do, however, occur on the trickle painted Formative Monochrome of Mani (see fig. 31, c, 3, 4, 7, 9, 11, 13-15, 27). Compare these rim forms with early Regional forms on Flaky Redware from Yaxuna Cenote (figs. 6, 7) to which there seem to be stylistic similarities. Trickle paint g, 10; h, 31, 32. No exterior slip on g, 18; h, 34.

g, 1-9: Flaky Dichrome. All these rims have orange slip and an encircling red stripe on top of the lip, extending variably over exterior or interior. Seem to be almost exclusively bowls and basins; some may be large jars.



FIGURE 18

Regional and Florescent slipped wares from Acahceh.

a-i: Regional-stage wares. j; k: Florescent-stage wares.

a, 1-7: Flaky Redware. c, 1, 3: Trickle on Flaky Redware. Regional Coarse Redware: a, 8-10; c, 2, 4-11; e. Regional Medium Redware: d; g, 1-7; h. f; g, 8: Cinnamon Buff slipped ware.

i: Unusual decorated wares (see also fig. 61, c). j: Thin Slateware. k: Thin Redware. a; b: Jars. c; d; e, 18: Basins. e; h; k, 11-22: Basal break bowls. f; g; i,

2-14; k, 1-8: Rounded bowls. j, 15-23; k, 9, 10: Beakers.

The Coarse Redware shows considerable dark mottling, the Medium Redware shows pale mottling. f and g, 8 are like Oxkintok Thin Monochrome in color and finish, but shape, incision, and paint are distinctive. i, 1 is incised blackware; i, 2 gesso over shinglelike appliquéd surface (note a surprising similarity to a Chavin style sherd from Northern Peru, Bennett, 1944, fig. 30, b); i, 3, 4 are probably incised Florescent Redware (cf. fig. 58); i, 5, 6, 7 bear a high gloss red slip over yellow paste, decorated by grooves and incised lines.



FIGURE 19

Acanceh incensarios and Stucco Façade Temple ceramics, Mani Coarse Slate and unusual wares.

**a-c:** Acanceh Regional-Florescent-stage transition incensarios. **d-g:** From Regional-stage deposit post-dating Acanceh Stucco Façade Building. **h:** Unusual Regional-stage pottery from Mani Cenote. **i:** Coarse Slateware, Middle Mexican substage, from Mani Cenote.

**a-c:** Nearly all these sherds come from a concentrated incensario deposit under a temple floor in trench 13, levels **b, c, d**. Forms, save **c**, more spheroid than Florescent-style incensarios, cf. figs. 39, 69, **b**. Plastic decoration on skirtlike encircling flanges and by applied conoid studs. Flanges vertically grooved, thumbed, impressed by hollow cylinder, gouged into segments. Base usually a high, flaring pedestal, **a, 13-18** also slab tripod, **a, 12, 22**. **c** is more similar to Florescent shape and decoration than are others, studded horizontal strap handles are unique. These incensarios all show evidence of a thick coat of white paint, applied after firing.

**d:** Unslipped jars. For shape cf. fig. 12, **a** Oxkintok Regional. Irregular black rim smudging occurs in

Chenes Regional stage (unillustrated) on unslipped lightly and heavily striated jars and may be related to these. **e:** 1-4 unslipped, remainder Flaky Redware bowl and basin fragments; for **4** cf. fig. 11, **f**. Also cf. figs. 6, 7, Early Regional Flaky Redware from Yaxuna Cenote. Several of these forms appear Late Formative. **e, 11** is probably a basal break bowl fragment, cf. fig. 13, **i, f, 2** also compares closely with black painted Oxkintok Regional basal break bowls.

**g, 3:** Unquestionably Tzakol polychrome basal flange. Whole collection, which postdates Stucco Façade Building, contains nothing later than Early Oxkintok assemblage.

**h, 1:** Medium Redware with black painted design; **h, 2:** Medium paste, high polished red-orange slip with delicate pressed vertical channeling, found as a rare type in Chenes; **h, 3** medium paste red slipped ware with black paint and lug; **h, 4** medium paste, red slip with black painted design; **h, 5, 6** Medium Paste Redware.

**i:** Coarse Slateware, Middle Mexican substage, jars, basins, rounded bowls, grater bowls, cf. figs. 20, **a, b;** 24; 92.

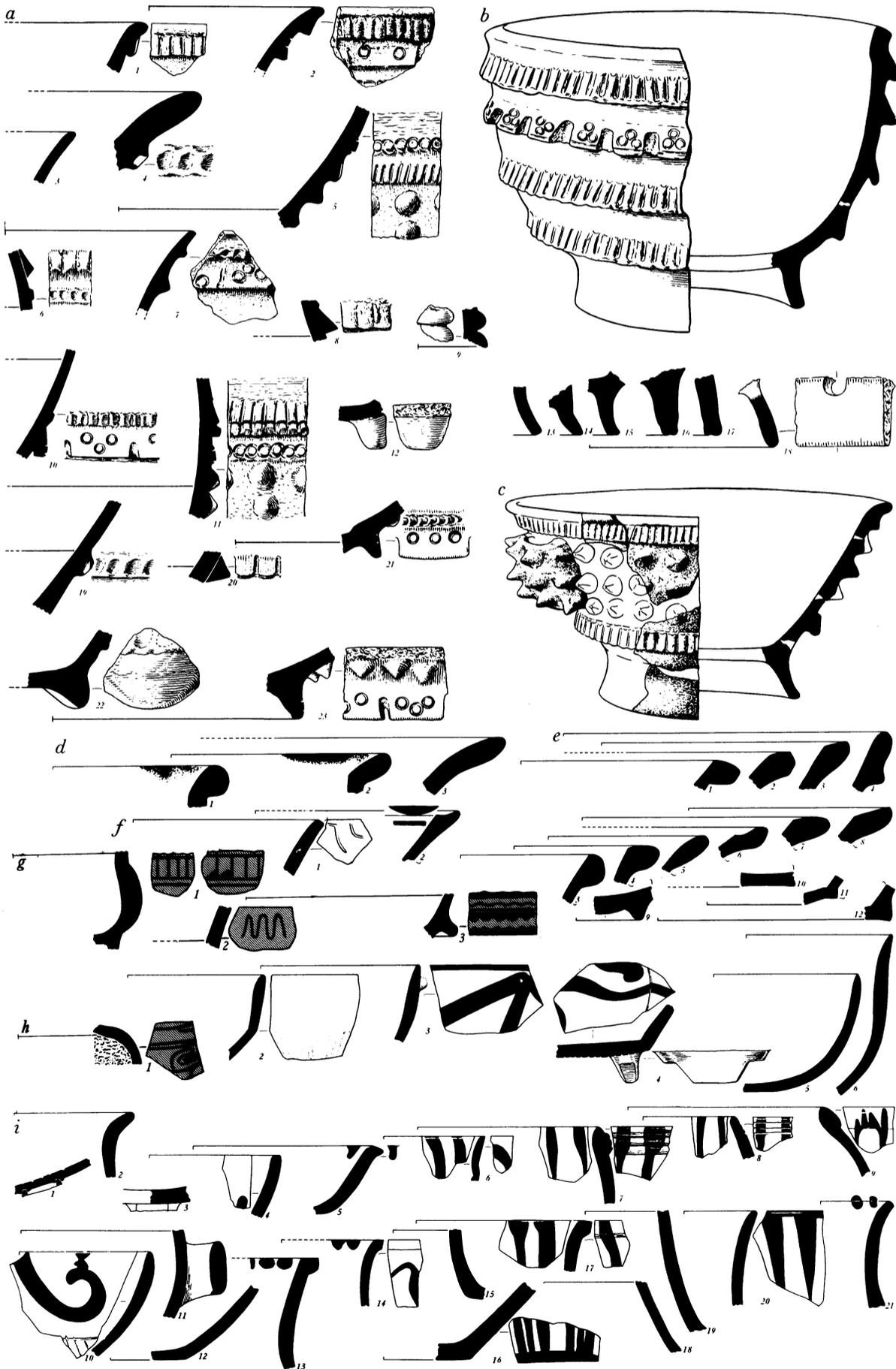


FIGURE 20

Coarse Slateware and Red on Thin Grayware from Dzibilchaltun and Acanceh.

**a:** Middle Mexican subphase Coarse Slateware from Dzibilchaltun. **b:** Coarse Slateware from Acanceh. **c:** Coarse Regional Redware jars from Acanceh. **d:** Regional-Flourescent Red on Thin Grayware from Acanceh. **e:** Regional-Flourescent Red on Thin Grayware from Dzibilchaltun.

**a; b:** For comparative material see fig. 19, **i, b**: Note folded-back basin rims 14, 16, 18, 19; rounded heavy lips on rounded bowls, a, 10-12, b, 33-37, cf. fig. 92, **m**; exclusive use of spheroid cascabels as tripod supports, flare-pedestal based cylinders, b, 22, 23, 35, cf. fig. 92, **b, j**; also greater elaboration of painted design than used in Early Mexican trickle paint decoration.

**c:** Coarse Regional Redware. This ware shows red slip often darkened, firmly adherent to reddish paste. **c, 1, 17** bear striated areas below a groove at the keel, cf. fig. 8, **a** for similar groove. See bowls of same ware, fig. 18. R. E. Smith notes a marked similarity between these jars and those of Uaxactun Chicanel in both ware characteristics and form, a puzzling similarity since this pottery must date late Tzakol-Tepeu 1. Also note similarity to figs. 8, **a-c**; 11, **a, b**.

**d; e; f:** Red on Gray Ware. R. E. Smith marks similarity between these groups and Uaxactun Tzakol wares,

although I believe this ware contemporaneous with Tepeu 2.

The pottery of group **c** is stratigraphically lower than that of group **d** and they are no doubt closely related; in fact, intergrading between the two wares is evident in slip, paste, and form. Note dent jar bottoms in common between these groups as well as with Yaxuna and Oxkintok Regional ware jars, figs. 8, **a-d**; 11, **a-c**. Although both these wares are associated with slateware in all samples dug thus far, some of the Coarse Redware occurs in nearly slate-free collections and likely precedes slateware in time at these sites. Note similarities in form between the Red on Thin Grayware bowls and Medium Slateware bowls, fig. 45, **g**, and between jars **d, 13-18** and figs. 10, **a, b**; 15, **p, 7, 8, 9**; 21, **a**; 40, **f, 13**. Dissimilarities between **d**, Acanceh, and **e, f**, Dzibilchaltun, are presence in **d** of outcurved cylindrical jar rims, **d, 13-18**, and of slab basal break bowl legs, **d, 19, 22** at Acanceh, both features pointing toward Medium Slateware. These features suggest that the Acanceh samples of Red on Thin Grayware represent a later-lasting occupation than those from Dzibilchaltun and suggest form criteria for distinguishing early Medium Slateware from late. Acanceh Coarse Redware seems to antedate the Red on Thin Graywares, and follow Oxkintok Regional.

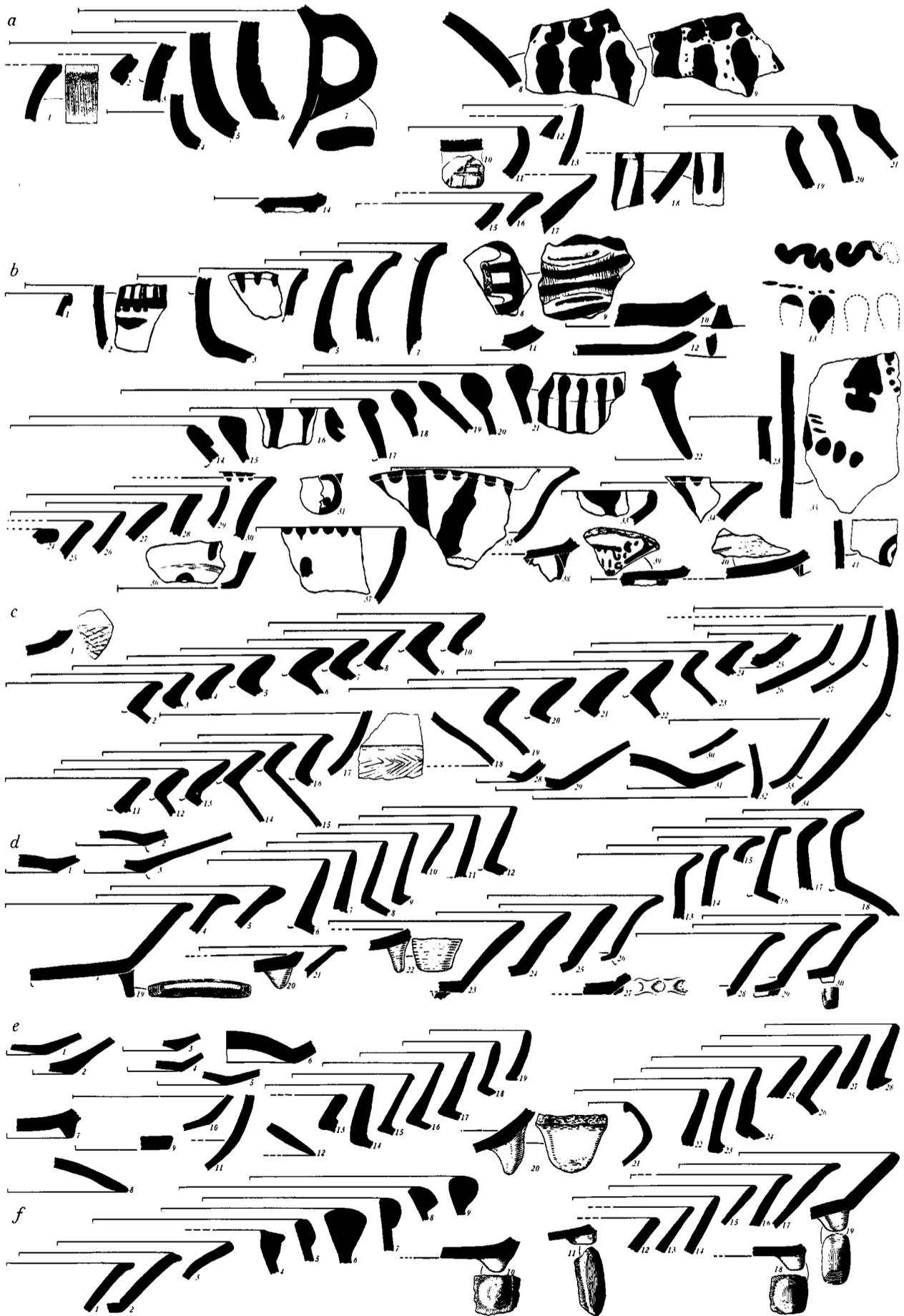


FIGURE 21

Medium Slateware and Thin Slateware from Acan-  
ceh.

a, 7, 8, 9: Early Mexican. e: Likely Early Mexican;  
remainder Florescent.

a-c; e; f: Medium Slateware. d: Thin Slateware.

a; e: Jars. b: Basins. c: Basal break bowls. d:  
Rounded bowls with taper lip. f: Rounded bowls with  
exterior bevel lip.

Several of the Medium Slateware forms are rare  
in Puuc collections, common in Chenes collections,  
and thus suspected of being early. Examples: a, 1-6,  
21-27; b, 8-15. In the basal break bowls the slab legs  
are similar to Dzibilchaltun forms (cf. fig. 15, a), and  
to Florescent Chichén Itzá forms (cf. fig. 67). The

flat-bottomed, taper-lipped Thin Slateware bowls (d)  
are similar to Regional Redware forms (cf. figs. 18,  
g; 19, h, 5, 6) and to Thin Slateware forms in the  
Chenes, and therefore may be early. These bowls are  
also thicker and darker in color than most Puuc Thin  
Slatewares, closely resembling the associated Medium  
Slatewares and the Chenes Thin Slateware. Other forms  
on this plate approximate those of the Puuc collections  
save for e, which is likely Early Mexican (cf. fig. 72,  
b, 3, 4).

For a fuller discussion of chronological and regional  
variation in Medium Slateware, see captions for figs.  
32, 67.



FIGURE 22

Unslipped jars, cauldrons, and incensarios from Mayapan. Middle and Late Mexican substages.

**a; c:** Jars. **b:** Cauldrons. **d; g:** Incensarios and bowl-like forms.

**a:** Save for **a, 11, 39, 41; c, 1:** Thin ware jar rims with vestigial to notch lip, characteristic of Late Mexican substage, cf. fig. 93, **a-c**. For the zoomorphic lugs **a, 36-38**, which come from jars of the above type, cf. Coarse Redware examples, figs. 94, **f, 21, 26;** 96, **c, a, 11; b; c, 9; c, 29-33:** Cauldrons with incurved rims, probably representing the beginnings of a tradition continued in the Colonial stage (see fig. 33, **f-i**) and which still survives in the modern, locally made pottery cauldrons. Rendon (1947, pp. 107-108) suggests that the modern Maya name for this form, *kum*, may come from Nahuatl *comitl*. I have no judgment as to the validity of this derivation. If true, it suggests a plausible origin for the form during this period. **c, 2-8, 10-16, 24-28:** Varied jar necks and rims, most of which are stylistically similar to the Early Mexican substage form (cf. fig. 68, **a-c**); on the basis of the absence of other wares of that horizon and presence of Coarse Slateware, they are probably Middle Mexican substage in date. **a, 39-41:** Regional-stage forms, cf. fig. 14, **d, c, 17-23:** These bottoms must belong to the shallower

vessels shown in **d** and **e**.

**d:** These medium-sized to small bowls seem to find their closest parallels in the unslipped bowls shown in fig. 96. Note a cascabel leg on **d, 17**. Absence of basal angles is notable. Thickness of wall and large diameter of some of these makes them intergrade with forms in **e**. See fig. 70 for comparable material from Chichén Itzá. **e:** Large shallow bowl or platter rims. The reconstruction of these vessels is uncertain. They may belong with the trumpet bases shown in **f** and **g**, or may have ring bases or round bottoms, see **c, 17-23**. Some, at least, probably belong to hourglass incensarios, cf. figs. 69, 70 for examples. No comales can be documented from the Mayapan collections. These forms are all too deep, diameters are not large enough, no lug handles were found.

**f; g:** Incensario rims and trumpet bases. Possibly some of these fragments belonged to drums. Differentiation between tops and bottoms of vessels is uncertain in most cases. Trumpet-base vessel junctions belonging with these fragments are shown in fig. 23, **d**. Both hourglass incensarios, see fig. 69, 70, and figurine incensarios, see figs. 29; 97, **f, 2-9;** 98-102, are probably included among the fragments shown here in **f** and **g**.

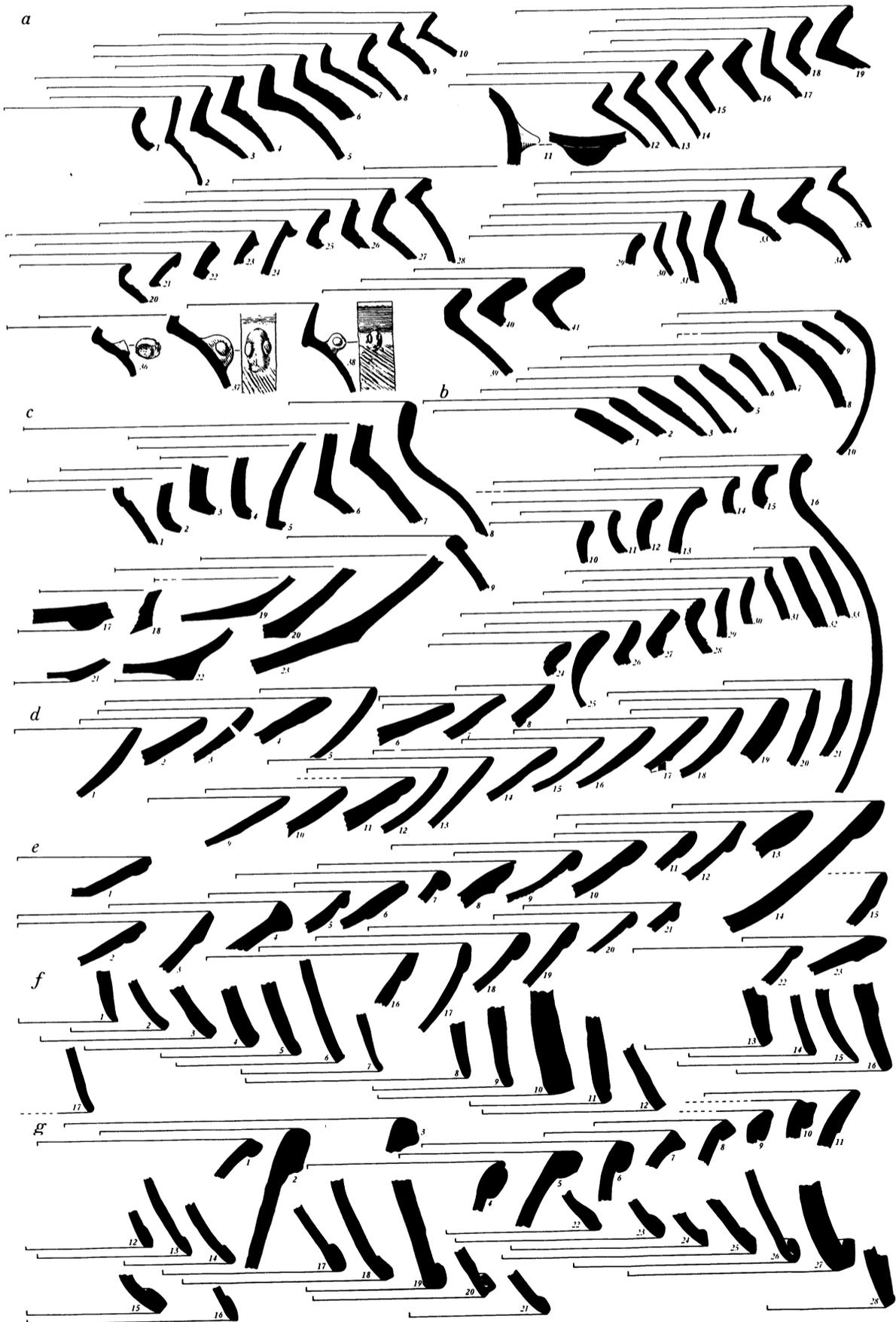


FIGURE 23

Coarse Redware and unslipped ware from Mayapan, dichrome from Acanceh, Mani, and Mayapan. Late Mexican substage.

a; b; c, 1-15, 29; d; e: Mayapan, c, 16-24, 26-28: Mani, c, 25: Acanceh.

a: A miscellaneous assortment of Coarse Redware. 14 and 15 are probably bulbous jar necks, others difficult to reconstruct. b: Also Coarse Redware. 1-3 seem to be incense ladle handles. 6-8 are secondarily ground fragments from jars. Remainder vessel legs.

c: This Red on Orange painted pottery differs from the Tzakol polychromelike pottery of various sites in several particulars. First it bears no black paint. Most reliable diagnostic is the slip which is not glossy, and ranges toward a buff color much less vivid than the orange of the Regional polychrome. Pottery of this Red on Orangeware was also found at Chichén Itzá, see fig. 94, a. One fragment of this pottery from Chichén Itzá, fig. 94, a, 47, bears black paint. Note the distinctively Late Mexican leg forms of c, 11. Jars and a

variety of bowl forms are shown.

Somewhat similar to this Late Mexican subphase painted pottery in ware characteristics, but showing difference in its design, is the Colonial pottery shown in fig. 34, c, 8, 9.

d: Incensario bottoms and pedestal junctions. Note evidence for perforation in bottoms and sidewalls in many specimens. See fig. 22, f, g for matching rims.

e: Cylindrical incensarios with trumpet bases and applied disc and fillet decoration, cf. fig. 97, a-e, from Chichén Itzá. This form, because of its presence at Mayapan, where Early Mexican substage wares are nearly absent, is suspected to date Middle Mexican substage or early Late Mexican substage.

f: Incense ladles, which came into use during the Early Mexican substage, continued through Middle, perhaps into Late Mexican times. This group differs from the earlier form, fig. 68, f, in their heavier construction and larger handle-bowl perforation.

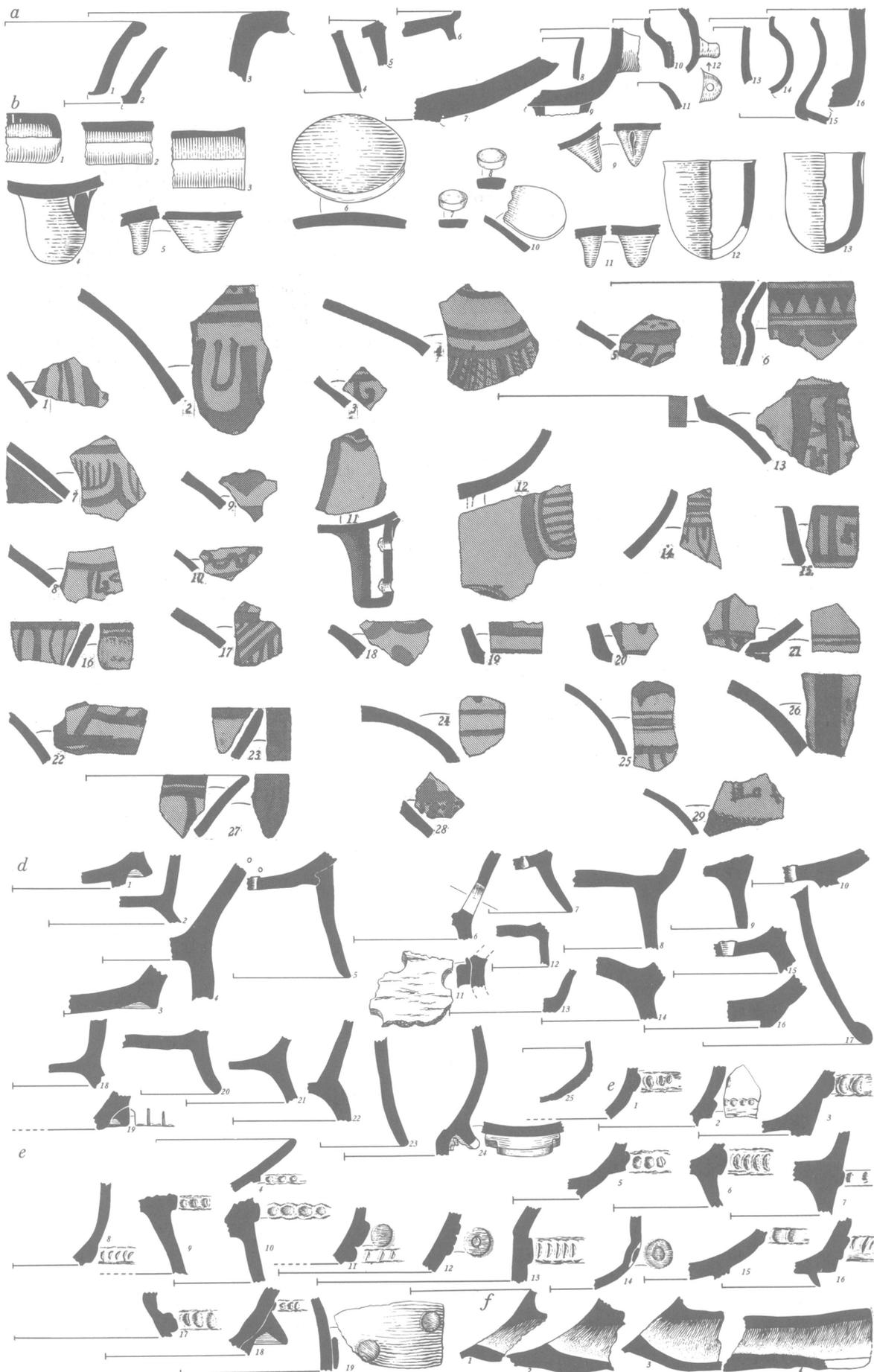


FIGURE 24

Coarse Slateware from Mayapan. Middle Mexican substage.

**a:** Basal break bowls and grater bowls, 7 and probably 16-18 are grater bowls. **b:** Resist smudged, colors reversed on bowl floor. **c:** Jar necks and shoulders. **d:** Pedestal (see discussion of this form in fig. 71 caption). **e:** Basin rims, handles, and bottoms. **f:** Painted designs from jar shoulders (for positioning see fig. 92, a).

This material is comparable to that shown from Dzibilchaltun and Acanceh (fig. 20, a; b), and from Chichén Itzá and elsewhere, fig. 92. A considerable carry-over in shapes and designs from the Medium Slat-

ware of the Early Mexican substage, cf. figs. 71, 72; 73, a-d; 74, may be noted. Bowl rims seem to have become more complex, as have jar shoulder designs. The ware is thicker, perhaps due to the coarser paste. Neck grooving on jars is not found in the Coarse Slateware at Mayapan, but has carried over at Chichén Itzá (fig. 92, f, 11-13). The elaborate bowl floor design of b is reminiscent of those on X Fine Orange bowls, cf. fig. 81, a; x. Several jar and basin rim shapes which carry over from Florescent to Early Mexican slatwares seem to have disappeared by the Middle Mexican substage. All of the above trends are made uncertain by the small size of the samples.

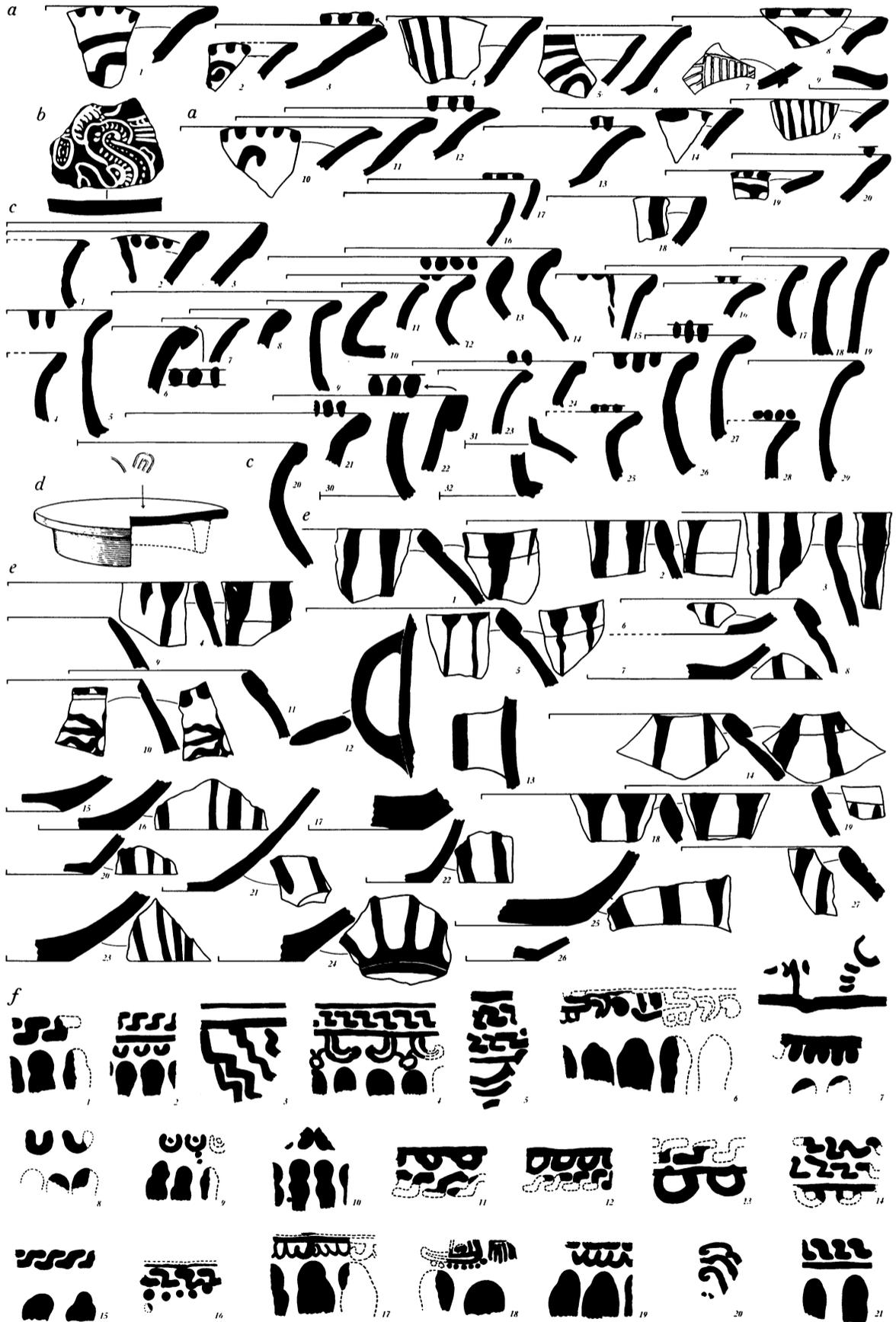


FIGURE 25

Coarse Redware jars from Mayapan. Late Mexican substage.

**a:** Vertical incised grooves on jar necks are absent in Coarse Slateware, but present in the Florescent stage and Early Mexican substage (see figs. 40, e, z, 20; 72, k, 4-20). Remaining neck types continue the trends shown in Coarse Slateware toward lower, more notchlike neck profiles, less certainty of curvature. The internal horizontal grooving is new, c, 1-4, and

unique to this horizon. The exterior offset which leaves a hooplike band, c; d, perhaps is a precursor to the Colonial bulbous lips; fig. 33, a, b, d, 1 might be considered stylistically an intergrade. p, 1-5 may not belong to jars.

**s**; **x:** Dented and inset bottoms continue in use through the Colonial period, and seem to have been in use in Middle Mexican times (fig. 24, e, 15). Early Mexican jar bottoms are not available for comparison.

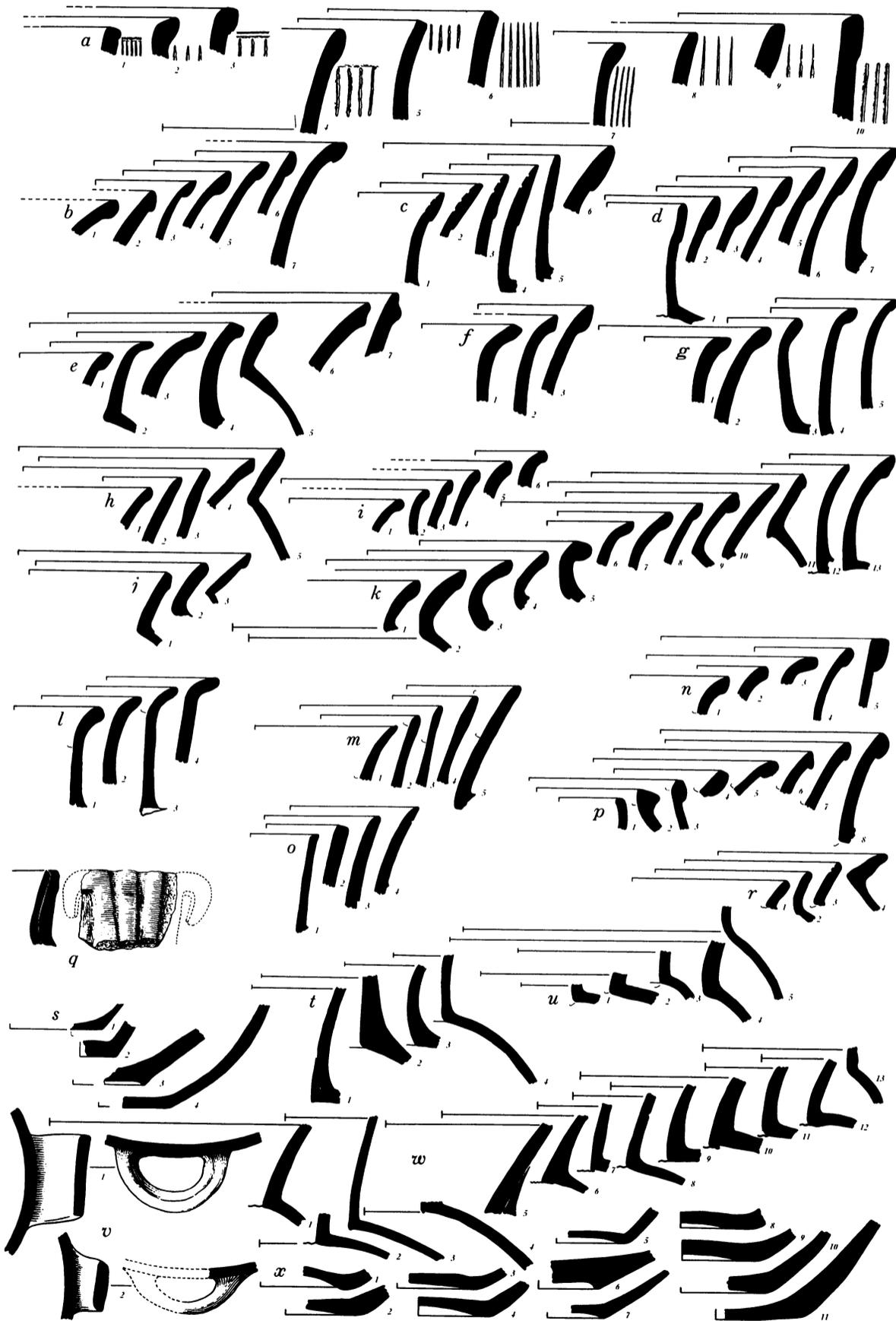


FIGURE 26

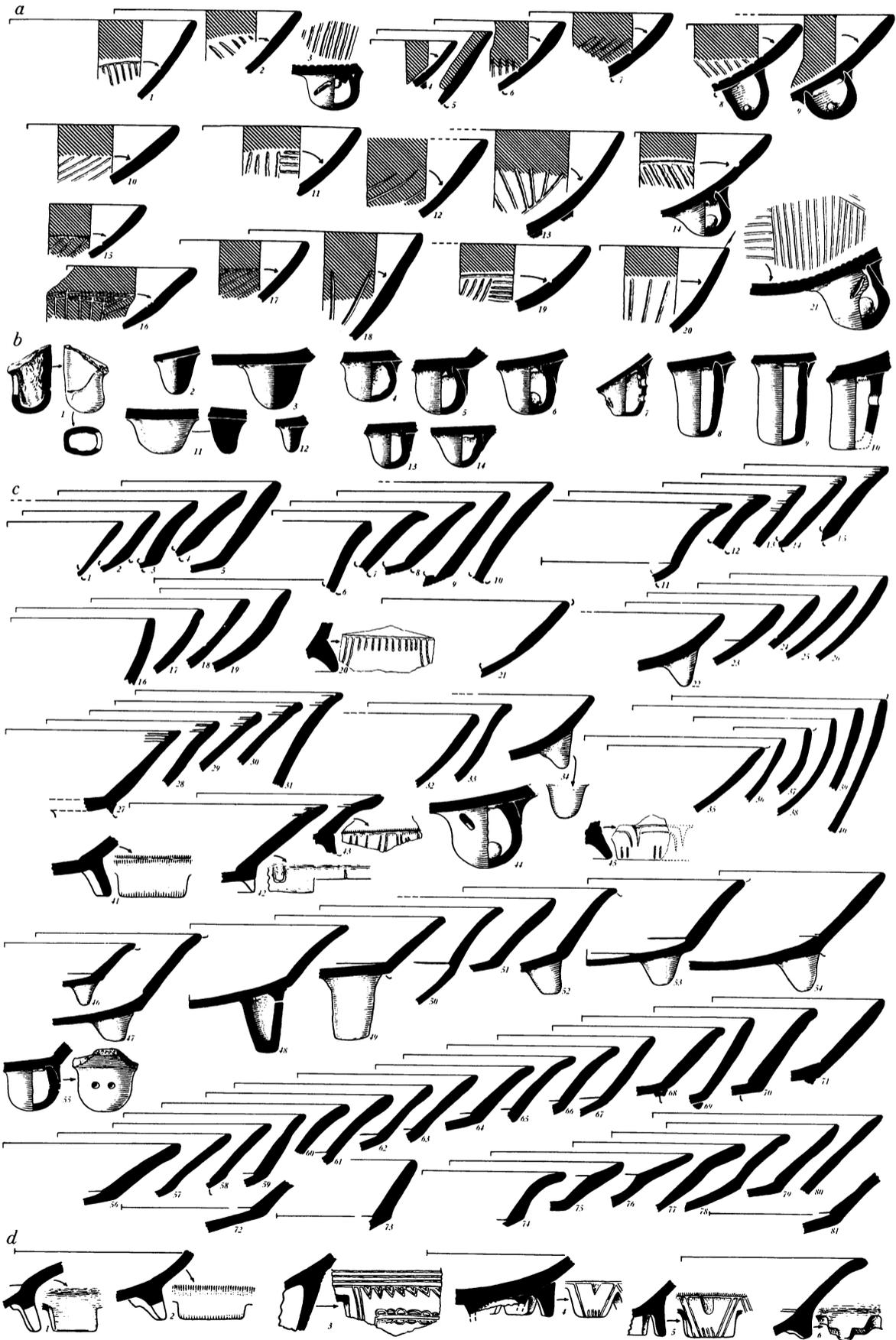
Coarse Redware bowls and grater bowls of the Late Mexican substage, from Mayapan.

a: Grater bowls. b; c; d: Rounded and basal break bowls.

The grater bowls have three rattle feet and an incised pattern on the floor, usually in an unslipped area. Note shallow open shape, as opposed to more incurved rim of Early Mexican grater bowls (fig. 74, i). For a discussion of this form, see fig. 74 caption.

The bowls are smaller in diameter and deeper in proportion than most of those which preceded them. Note interior grooving (c, 11-15, 27-31) not unlike that on the necks of the accompanying jars. Rounded bowls are less common than basal break; all seem to have borne tripod legs. For further discussion of this form, see fig. 94 caption.

The bowl skirts are of some interest. They may indicate influence from the imported Mayapan Fine Orange-ware (fig. 28, a-c), and their decoration seems definitely derived from it; but these seem more similar in form to skirts on barrel-shaped Medium Redware vessels of Early Mexican substage from Chichén Itzá (see fig. 86, a, b, and caption). The legs of this group show both variety and a series of distinctive characteristics. None have the constricted neck and spheroid form of the Early Mexican substage. Hollow and solid truncated cones are a major form; sometimes two perforations were placed vertically. Stepped slabs and effigy-head legs also occur on bowls of this ware (see captions for figs. 94, 95). Note that several of these legs are set into a circular groove cut into the bowl bottom (see fig. 85 caption for discussion of this technique).



Figurine incensario fragments from Mayapan and Mani. Coarse Redware from Acanceh and Mayapan. All Late Mexican substage.

**b:** Mani, **h**, **l**: Acanceh. Remainder from Mayapan.

**a**; **b**: Are unslipped, remainder of Coarse Redware.

**a:** Human head, from a figurine incensario, see Morley, 1946, plate 81, **b** for halftone. Paint in five colors applied after firing. For possible modern survivals of this practice on figurines, see fig. 93, **bb**; **cc**, also Lacandon incensarios (Tozzer, 1907). Blue was the favorite color used on such postfiring painting and occurs on small bowls as well as on figurines (see Tozzer, 1941, pp. 117-118 for origin and significance of this color). **b:** Figurine incensario, cf. fig. 99, **b**.

**c**, **l**-**3**: Orange slip color. Probably from a single vessel. No whole specimen with this postslip scraped background is known.

**d:** This is unique in the Mayapan collection. Classic-stage rectangular boxes are known. (See Smith and Kidder, 1943, p. 145, and Drucker, 1952, p. 112, for

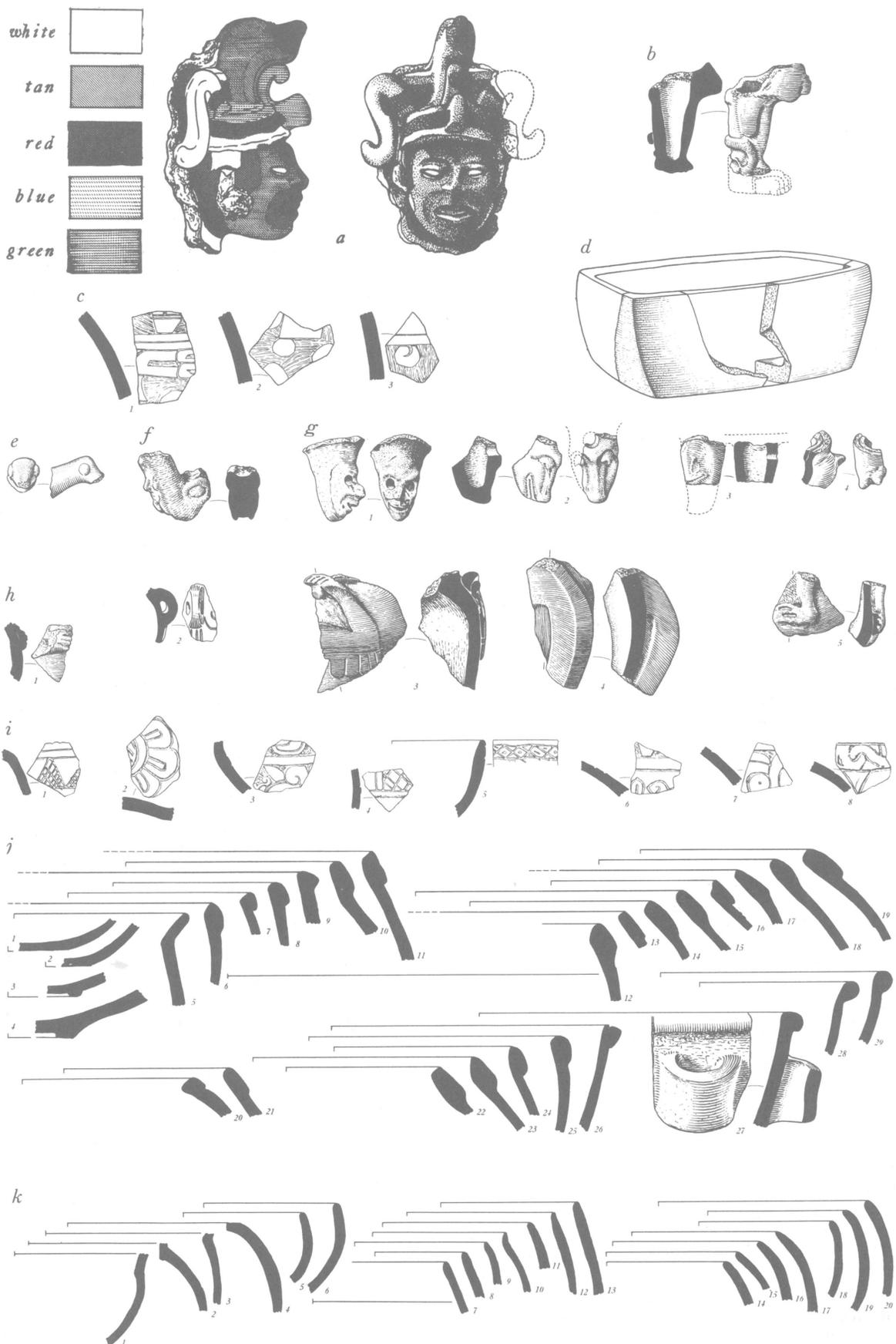
examples.) A Late Mexican bowl from the Chichén Itzá Cenote is rectangular (fig. 96, **o**).

**e**; **f**: Animal heads from effigy vessels. **f** is the upper jaw of a reptile and corresponds quite closely to a large carved stone fragment (as yet unpublished) from Mayapan.

**g**: See caption of fig. 95 for a discussion of effigy-head vessel supports. **h**: Fragments from effigy vessels. Cf. fragments in figs. 79, 88, 89 of Early Mexican wares, and plumbate effigy vessels in Shepard, 1948, etc.

**i**: Preslipped incised fragments, cf. fig. 95, **a**, 96, **c**.

**j**; **k**: Basin fragments. Cf. fig. 94, **g**, **5-10**, and the similar Coarse Slateware fragments in fig. 24, **e**, **k**, **1**, **2**, **3** are unrestorable on present evidence unless they belong to pedestal-base bowls similar to the Colonial type shown in fig. 34, **e**. If this style of vessel is of Mexican mainland inspiration, as Rendon (1947) believes, it is more likely that it was introduced before rather than after the Conquest, but these fragments are certainly no proof that the form was present in aboriginal Yucatán.



Fine Orangeware from Mayapan and Uxmal, Fine Grayware from the Puuc, Chichén Itzá, Acanceh, and Dzibilchaltun.

a; b; c, 8-13, 15, 16, 18: Mayapan Fine Orangeware from Mayapan. c, 1-7, 14, 17: Chichén Fine Orangeware from Mayapan. d: X Fine Orangeware from Uxmal. e: Fine Grayware, e, 1, 3, 4, 5, 6 from Uxmal, e, 2 Kabah, e, 7, 8 Holactun, e, 9 Chichén Itzá, Monjas. f: Fine Grayware from Acanceh. g: Fine Grayware from Dzibilchaltun.

a: Basal break bowls and effigy-head tripod vessel supports. cf. fig. 89, t for whole vessel, similar save that it has close-spaced notching on the skirt. Note that a, 23 and fig. 26, d (Coarse Redware) show notched skirts. cf. fig. 103, k; l for quite similar pottery from Cintla, Tabasco. Alberto Ruz has shown me many fragments of similar wares which he has excavated from the Campeche coast; Ruz (1945) mentions orange vessels with effigy legs from Xicalango (p. 68) and Tixchel (p. 69), and with skirts and effigy legs at Champoton (p. 70). These three sites all have strong connections in late pre-Conquest Yucatán history. Mayapan Fine Orange is almost certainly an import from the Campeche-Tabasco coastal area. Characteristics are the thickened lip with slightly concave profile interiorly at lip, and irregularity of wall thickness coupled with extreme wheel-like evenness of horizontal contours. The skirt is placed distinctly above the basal break; bottoms are quite flat, exterior decoration is by vertical incised lines and an incised banding line at the attachment of the skirt. Occasional interior line decoration in black paint links this group to c, 9-10. Effigy-head supports were made by pressing clay into a mold, then filleting legs to bowl bottom. cf. figs. 27, g; 95, b; for such supports on Coarse Redware, fig. 103, k, l, 8, 9 on orangeware from Cintla, and Wauchope, 1948, fig. 57, k, m-s for Zacualpa, Guatemala. Ruz (1945, p. 68) describes an orangeware from Xicalango which bears anthropomorphic and zoomorphic legs, and thus establishes this (which he dates with Toltec Chichén Itzá) as a Late Mexican deposit. See Wauchope, 1941, for closer description and for a discussion of the general distribution of effigy-head vessel supports, and fig. 95 caption for a discussion of their dating.

b, 1, 2: Rounded bowls with encircling red and white stripes; b, 3-9 cylindrical and pyriform vessel rims showing incised and plano-relief design. Cf. these forms with fig. 103, l, 11-16 from Cintla, Tabasco.

c, 1: Jar rim; c, 2, 7, 15, 16 plano-relief fragments; c, 4-6; a, 10 basal break bowl rims, resembling Toltec Chichén style (X Fine Orange), c, 5 incised through black slip, cf. c, 8 and fig. 81, a-v. It will be noted that vessel sides are heavier and lower than the majority at Chichén Itzá, and bottom is rounded rather than flat as are the majority at Chichén Itzá. Specimens at Chichén most closely matching these are fig. 80, c, d, i. A hypothesis that these shapes are late at Chichén Itzá is supported by the association of fig. 89, s with fig. 89, t, of definite Mayapan style, at Uaxac Canal. Although no fine orange pottery has been found certainly associated with Coarse Slateware in the small samples from that horizon. These styles of fine orangeware probably belong to that horizon.

c, 8-10: Rounded bowls with black painted decoration. a, 20 has similar rim shape. c, 13 incised grater

snaped fine gray vessels in simple geometric patterns, fig. 36, g, i, also in more elaborate curvilinear patterns including decorative glyph forms such as in figs. 28, g; 34-36, which may be related to designs on the fine orange which is found associated with fine gray at Dzibilchaltun (see fig. 59, g).

A second vessel shape is very close to the Medium Slateware Florescent-stage basal break bowls. Bottom is flat, rim is heavy with distinct outbend, e, 1, 6; g, 58-70. Evidence of cascabel supports show in e, 68-70.

bowl bottom, cf. fig. 26, a in Coarse Redware and fig. 80, l; n; o; p in Chichén Fine Orange. c, 18: Note that painted lines are approximately the thickness of those in c, 8-10 and are distinctive in design, whereas designs on c, 17 and d, 1, 2 resemble the Fine Orange of Chichén Itzá both in thickness and design, cf. figs. 75-81. These combinations of attributes allow the sorting into types listed at the beginning of the caption.

The above suggests that the span of X Fine Orangeware (Brainerd, 1941) outlasted the time span of Medium Slateware in Yucatán. The absence of plumbate at Mayapan suggests that this ware did not outlast Medium Slateware, although the evidence is not certain since plumbate never was as common in Yucatán as was fine orange, and our Middle Mexican samples are not large enough to make its absence definitive. Certainly, plumbate did not last into the Coarse Redware horizon; our collections of that horizon at Mayapan are large enough to be significant for absence of plumbate.

e-g: For other samples of fine grayware, cf. figs. 35, b; 36, b, d, e, g, i and possibly f which ranges to orange in color, and 53, k.

Pottery related in both form and decoration, but probably not in ware, comes from Yoxiha, Chiapas (Blom and La Farge, 1927, pp. 226 et seq.) and from Piedras Negras (University Museum, Phila., coll.), and more generalized similarities may be seen in Motagua Valley pottery (Smith and Kidder, 1943, figs. 27, a; 32). Tres Zapotes blackware (see Drucker, 1943, figs. 35, 36) shows enough form similarity to confirm the Piedras Negras and Yoxiha suggestion of western affiliations for this ware.

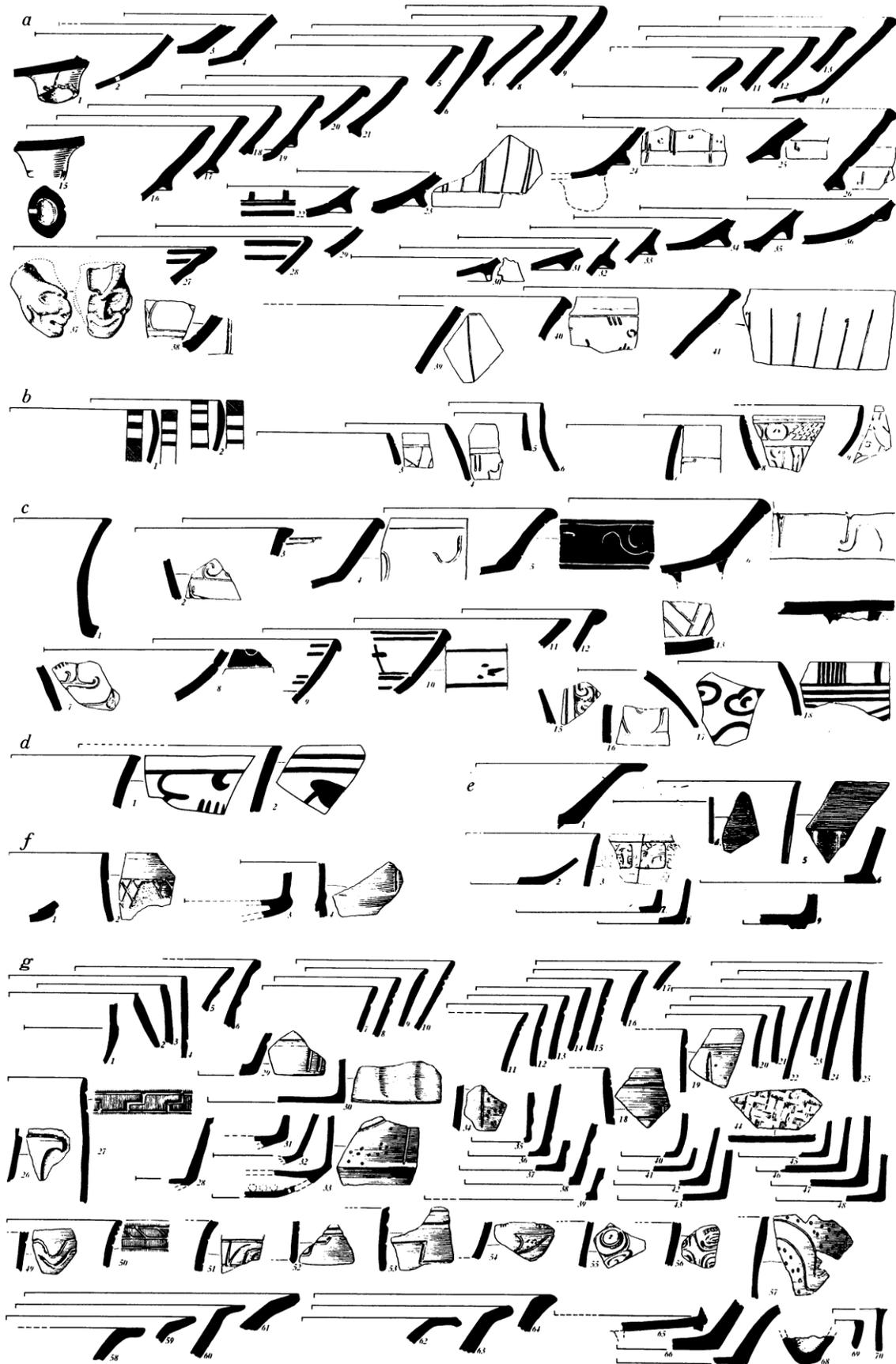
Vessel shapes of fine grayware may be classified into several groups with correlated decorative techniques. Most numerous are beaker-shaped vessels having either a flat base, fig. 36, i, a rounded base with spherical tripod cascabel legs, fig. 36, d, or a double rattle base with flat floor and convex, perforated bottom, centrally flattened to allow firm placement. Cascabel tripod fragments like those of Yoxiha were not identified in excavations, but one specimen from a Yucatán collection is known (fig. 36, d). One annular base fragment, fig. 53, k, 5, was found; paste may be atypical. Wall form most commonly faintly outcurved from a nearly vertical juncture with base. This form group is most commonly decorated by incision, line bordering the lip on the exterior, and by more elaborate incised patterns; most distinctive design shows a monkey incised in profile, enclosed by vertical panel forming lines, figs. 36, b, c; 28, g; 37.

Background is often relieved by punctuation, sometimes in linear patterns (cf. fig. 35, d and Blom and La Farge, fig. 189, Yoxiha specimens). See Thompson, 1939, pp. 121-122 for discussion of use of punctuation and note that his specimens (San José III-IV) approximate ours in time; also cf. his fig. 73 for similar shapes and incision in black ware. Also see Thompson, 1931, p. 227, pl. XL VIII, for a cylindrical vessel with markedly similar monkey design with rocker-stamped background and a glyph band resembling glyphs in fig. 57, b. This use of rocker stamping is later than most occurrences of this technique in the New World high culture area. Use of punctuation within areas enclosed by incision is also found in Incised Flaky Dichrome which dates earlier than these wares, see figs. 6, a, 3, 20; e; f; 66, a, 8. Incision is also found on beaker-

Only decoration known on this form is incision as shown in fig. 36, f, but this specimen may be either fine orange or a poorly fired fine gray.

Other vessel shapes are flat-bottomed basal break bowls and beakers with no legs, and walls which are horizontally fluted or channeled, figs. 35, b; 28, g, 5, 6, 35-39.

Rarer forms are g, 2-4 pyriform or barrel shape, g, 27 cylinder, g, 1 bowl with external overlap, figs. 35, e; 103, i; wide-mouth jars.



Figurine incensario fragments from Mayapan, Late Mexican substage.

a: Large heads. b: Small heads. c: Animal helmets. d: Mold foreface. e, 1-9: Parts of small figurines. f: Masks. Remainder miscellaneous.

See figs. 27, a; 98-102 and their captions for descriptions of figurine incensarios. Some of the earlier Late Mexican collections at Mayapan are free of these, suggesting that they were probably first introduced during this period. That they came from the west as paraphernalia connected with a new religion seems likely. The Maya at time of Spanish conquest claimed that worship of images had been taught them by Mexicans.

The majority of these fragments come within the repertory of the whole incensarios illustrated in this report. Exceptions are most of the small figurine fragments shown in e. There is enough similarity in scale to suggest that several of these may have belonged to the general style of small figurines shown in fig. 93, d-i. The masks, f and g (see also fig. 95, g) are quite distinctive; I know of no parallels save possibly for types from northern Veracruz and Sinaloa (Ekholm, 1942, p. 85; 1944, p. 452). A more definite Veracruz similarity may be seen between a, b, which probably also comes from a mask, and two Chichén Fine Orange heads (fig. 79, d, e). These all bear distinctive truncated cones projecting hornlike from the forehead.



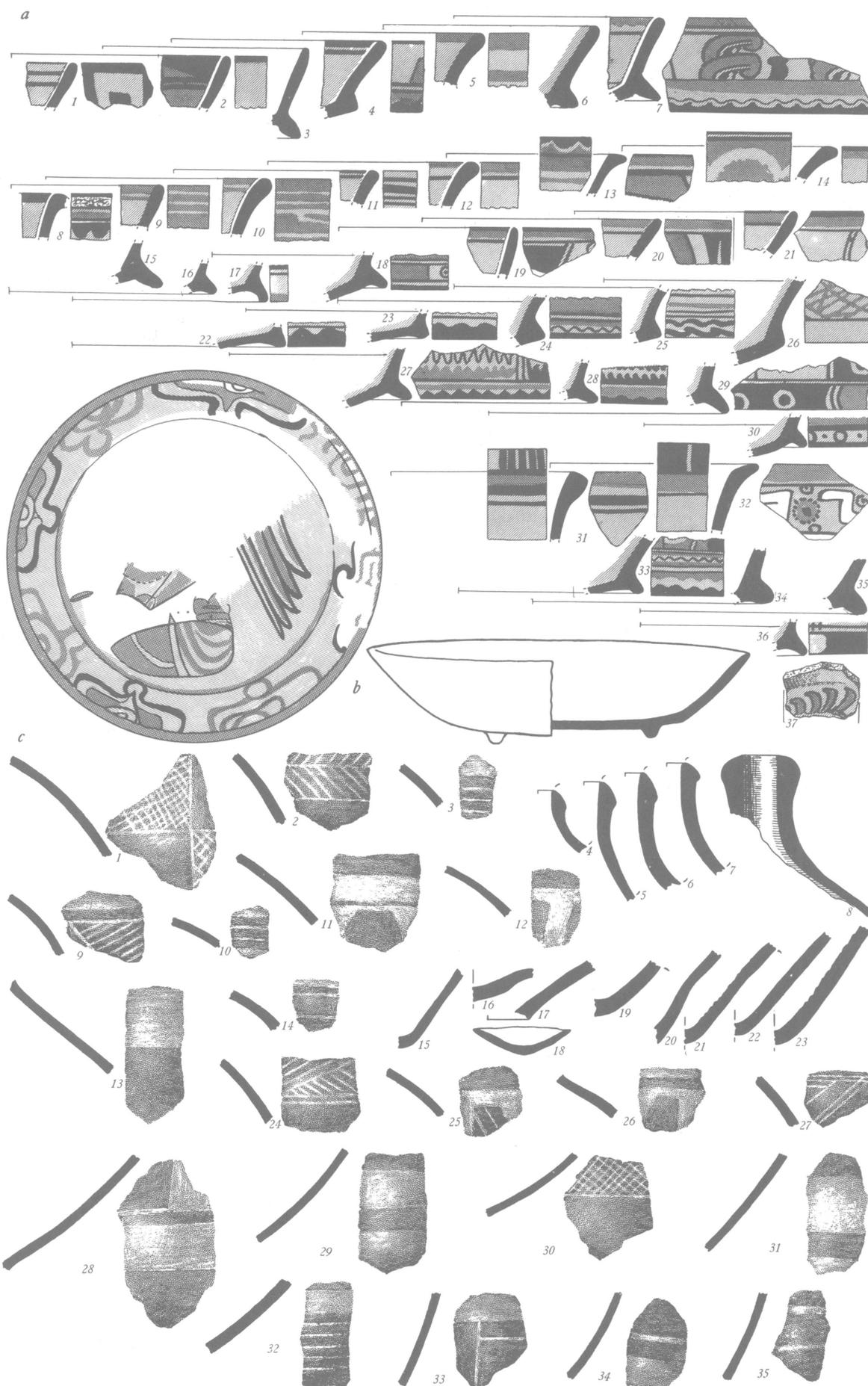
Regional polychrome and Early Formative pattern burnished monochrome sherds from Mani Cenote, polychrome bowl from Yucatán.

a: Tzakol-style polychrome from Mani Cenote. Robert Smith cannot place a, 5, 37 in the Uaxactun stylistic repertory, but states that all of the remaining sherds fit well into the Uaxactun Tzakol 2-3 repertory. These bowl sherds were found associated with the Regional polychrome jars shown in fig. 63, c-d but, surprisingly enough, not associated with any quantity of monochrome pottery dateable to the same age. This situation, paralleled to some degree at Mayapan, suggests that in this area, contemporaneous or nearly so with the Oxkintok Regional occupation, the ceramic repertory was very largely polychrome. The hypothesis of a period in Yucatán characterized by prominence of polychrome pottery is further supported by the stylistic evidence for an incised dichrome-polychrome developmental sequence (see caption fig. 63).

b: Black and red on orange polychrome, bowl MM. cf. border motifs with fig. 63, b, 5 for possible relationship.

c: Pattern burnished monochrome from Mani Cenote.

Burnished designs on smooth matte surface visible only in direct, strong, very oblique light. Designs in illustration are much more emphasized than on the pottery. Color of surface, which seems unslipped, ranges Pinkish Buff to Light Grayish Olive. Paste ranges light Vinaceous Cinnamon to dark brown. These illustrations include the whole repertory of variation noted for the ware. They all seem to belong to globular, narrow-mouthed, pointed-bottomed bottle forms, save for c, 18 which was made complete as shown, of watch glass shape. Since pure deposits were found, this represents a complete repertory of the period, but obviously restricted to water vessels by the nature of their provenience. A rim fragment (unillustrated) similar to bottle necks c, 4-7 but with thinner wall and lip was found at Holactun. Other bottle rims similar to the Holactun specimen were found at Dzibilnocac and Xpuhil Campeche in 1949. Paste and surface, but not burnished designs nor necks and bottoms, are matched in the Campeche Middle Formative deposits sampled in 1949.



Late Formative stage monochrome pottery from Mani.

a: Basins and large, flat-bottomed bowl rims. b: Bowl bottoms, interior slip. c: Large flat-bottom bowl rims. d: Jar rims. e, 1-18, 21-24: Designs incised through slip on jar shoulders; e, 21-23 are black, others red. e, 15: Design incised through slip on basin rim. e, 25: Red painted design on orange. e, 19, 20, 26, 27: Red over striated jar sherds.

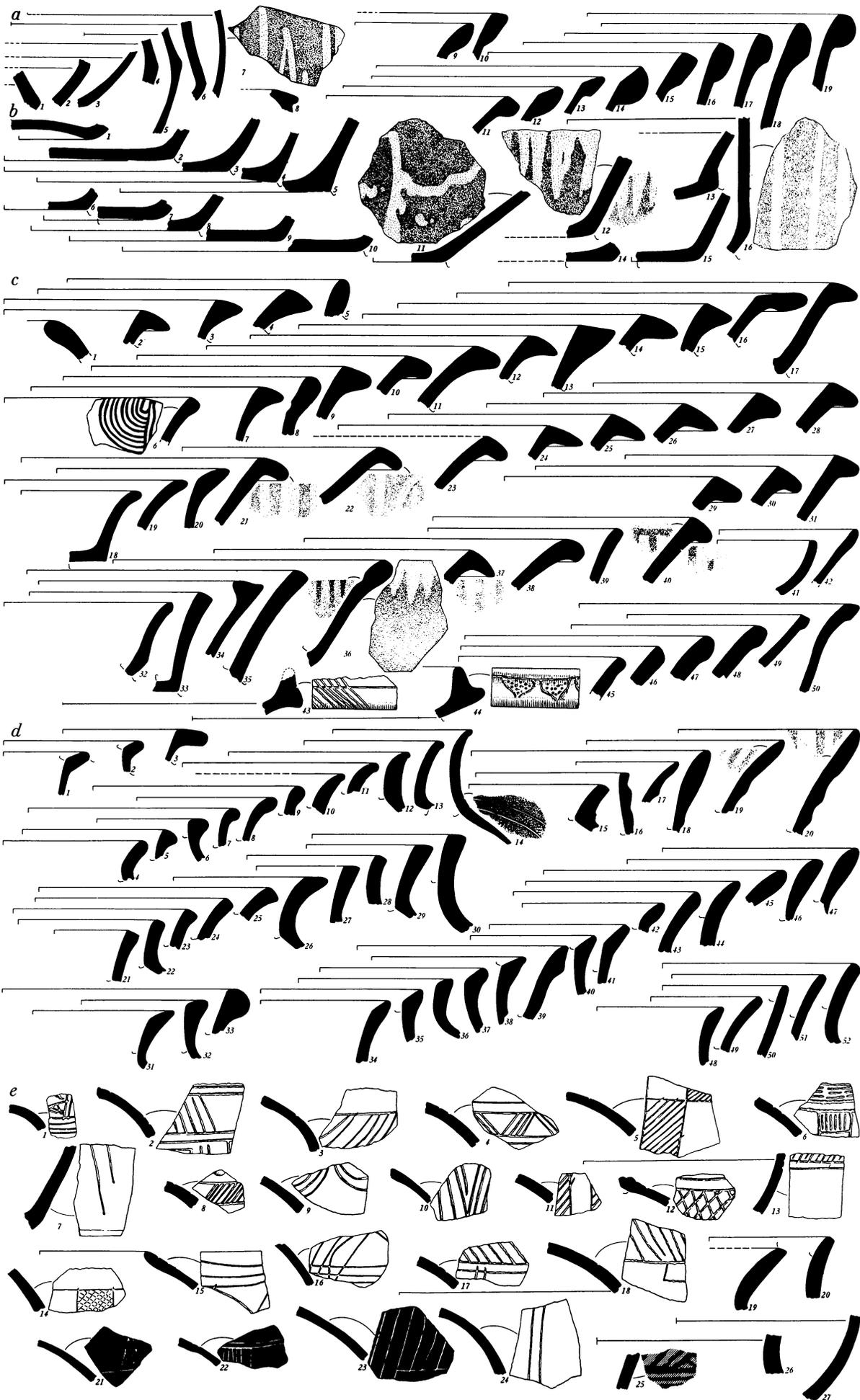
The Formative pottery of Mani differs from that of other Yucatán sites in the relatively large amount of trickle paint used. There is also considerable intentional use of different slip colors on interior and exterior of vessels, cf. fig. 16, incised jar necks, Usulután decoration and red slip over striation are thus far unique at Mani for Yucatán.

a, 2-7: This vessel form, which often bears interior and always bears exterior slip, has not been certainly determined as to rim or base, cf. fig. 17, e, 1, 8-12, 18, but probably can be classed as a wide-mouthed, heeled-shoulder jar. a, 9-19 vary from the outbent rims shown as the commonest form in c in having a thickened club-shaped rim, cf. Regional Flaky Redware figs. 4, b, 1-10; 6, b, 1-13; 8, 1, 7-17, and thus may date somewhat later than the rims shown in c; their color is red to blackish save for 19 which is cream colored; sherds with this rim form never bear trickle paint. b, 1 red interior, orange exterior; b, 2 pinkish interior, smudged orange exterior; b, 3 red interior, cream exterior; b, 4 red interior, black exterior; b, 5 gray interior, black exterior, unslipped striated bottom; b, 6 red interior, cream exterior; b, 7 black both sides; b, 8 red interior, black exterior; b, 9 red interior, cream exterior; remainder show equal color variation. Note that most of these bottoms are unslipped, whereas at Holactun bowl bottoms are

usually slipped (cf. figs. 16, 17). c, 6 seems to be a definitely Usulután style of decoration, color dull red-brown over orange-red. Sherd is unique, paint strokes much narrower, outlines more definite than those in trickle paint. Trickle paint on most fragments is lighter than the ground color, although in a number of cases the paint is darker than the ground. As at Holactun (figs. 16; 17, a-c) there is a suggestion of the use of two slips, a white and a light orange red. At Mani the white slip is streaky, not highly opaque, often showing tints of the paste color. Paste color Vinaceous Cinnamon to Cinnamon Buff, red slip color ranging Onion Skin Pink, Cinnamon Buff, Rufous at its brightest. Colors on painted areas usually about one tone Ridgway lighter, and one prime Ridgway more intense than the background. Both the red and white slips grade into grays and blacks on areas of vessels. Also whole vessels, exteriors or interiors, may be gray or black, due to smudging, most of it intentional. A pronounced difference in interior and exterior tones or hues is characteristic and predominant in the sherds.

Note sublabial flanges with incised designs, c, 43, 44, and horizontal fluting on d, 16-20. For Uaxactun similarities to incised jar sherds in e, see Ricketson and Ricketson, 1937, fig. 150; Smith, 1936, fig. 1, 4-6. e, 19, 20, 26, 27 are sherds from rather thick-walled jars which bear a glossy slip ranging Morocco Red, Brick Red, to black over a striated exterior surface. Robert Smith reports no ware like this from Uaxactun. Red over striated jars were found in 1949 in Chenes Formative-stage deposits.

The Formative pottery of Mani is characterized by Robert Smith as having close resemblances to Uaxactun Chicanel, with some affiliation to techniques but not to types found in the Mamom phase.



Florescent medium slateware and thin slateware from Mani Cenote.

a; b: Jars. c; d; e: Rounded bowls. f; g: Basins. h: Basal break bowls. All this ware falls within the darker color range of slatewares, Ridgway colors run 15<sup>1111</sup>, 15<sup>11</sup>, 13<sup>11</sup> with areas showing high lustre 5<sup>1111</sup>. Black paint is sometimes dull, sometimes lustrous. For light-colored slatewares from Mani, see fig. 49, j-k. e: On basis of form is classified as Thin Slateware. Ware is identical with that of the other forms shown.

a; b: Jars of two major types. a (also see figs. 35, a; 36, c; 49, j) is large, with loop handles arranged for carrying on the back by a line across the shoulders or forehead. A miniature jar of this form, which perhaps was part of a figurine (Regil collection, unillustrated), shows a cord passing through the handles. Neck is conic, emerging from a rounded body at a point well above the greatest diameter. Bottom is slightly concave. This jar full of water should weigh 30 to 50 lb., containing from 4 to 7 gallons, and is well adapted for carrying water home from a cenote. Modern jars are of less than half this capacity, cf. fig. 33, a-f, and are carried on the hip. In modern villages, wells have probably shortened the carrying distance, decreasing the advantages of a full capacity load. Modern practice is for women to carry the water; men often draw it if wells are deep.

The second important Florescent jar type is much smaller, see figs. 40, a, g; 42, c, d, capacity about two quarts, with either small, heavy, loop handles or pierced lug handles firmly set in the neck body juncture. Walls are thick, relative to size, and neck is usually heavy with a massive, thickened lip; bottom is usually flat. Area of greatest diameter of the body often shows marked abrasion on this small form. This jar is well suited for drawing water from a cistern. It is compact, strong, with handles suited only for rope attachments; center of gravity when empty is high in the body; facilitating overturning it by releasing tension on the drawing rope. Cisterns, or *chultunes*, were the sole water sources of many Florescent sites, particularly in the Puuc area. These jars are very abundant there. Thus there seems good reason to hypothesize different uses for the two types. Note that Thompson (1939, plate 21, a) finds one of each Yucatán type in San José V.

Unfortunately, these two jar types are not easily separated by rims alone, and we have nothing but rim sherds for the Puuc sites. The neck, shoulder, and handle fragments here show that the large type is common at Mani, b, 25, 26, 32-39, and many bottoms are

too large and flaring for the small type, b, 39-51.

b, 1, 3, 16, 19, 21 show the characteristic small jar handles and b, 11, 13, 14, 17, 20, 29 are also probably from small jars. c: Hemispheroid bowls with exterior bevel lip and annular bases (e, 1-9) characteristic of Puuc sites. Also see figs. 21, f; 35, g; 49, a-f, d; Hemispheroid bowls with taper lip, also see figs. 21, d; 35, d; 49, d, 9-13. Bottom often flattened, d, 1, 2, probably never with annular base. Body shape usually shallower and wider than exterior bevel-lip bowls, strongly curved at base-wall junction. f; g: Bolster rim basins. Note that all have interior lip angles, a differentiating characteristic between Florescent- and Mexican-stage basins. Medium Slateware basins may be divided into two main groups; one has a concave interior sublip profile, g, 1-7, 12, sometimes with a perceptible inner ledge, g, 1-3, 5, 7. The bolster on this type is often deep and narrow with the mass greater toward its bottom, g, 7. Slip often extends only partly over the exterior, g, 2-6; bottom is often concave, f, 1, 2, 4, 5. External flanges on slateware basins, g, 13, 14, are very rare—the form is earlier, cf. Regional Oxkintok monochrome, fig. 11, e, f. A second type of Medium Slateware Florescent-stage basin (f, 8-11), the one preponderant in the Puuc sites, has a straight to convex interior sublip profile, and slip extending exteriorly to the bottom, which is usually flat. h: Basal break bowls. Note long, narrow slab legs, often terraced. Conoid legs, h, 15, and truncated conoid legs such as h, 10, 29 are found on Regional monochromes, cf. figs. 8, 13. Narrow slab legs are not. Hollow rattle legs also appear here, h, 9, 14.

The large jars, concave interior profile bolster rim basins, and taper rim bowls described above are all commoner in our Chenes collections than in our Puuc collections. That this difference is not geographic seems likely, since Mani is on one side of the Puuc, Chenes on the other. Presence of these "Chenes" forms at Acanceh and Dzibilchaltun in association with Regional wares, and of the jars and bowls at Dzebtun with fine gray which is a prominent part of the Dzibilchaltun Regional ceramic repertory, all point to the Early Florescent placement of these three forms, as contrasted to a later Florescent-stage placement of their contrasting Puuc forms. There is, however, much evidence of overlap. The analysis of Chenes collections, as yet incomplete, should shed light on the exact interrelationships of these forms.

For further Medium Slateware from Mani, see fig. 49, j, k.

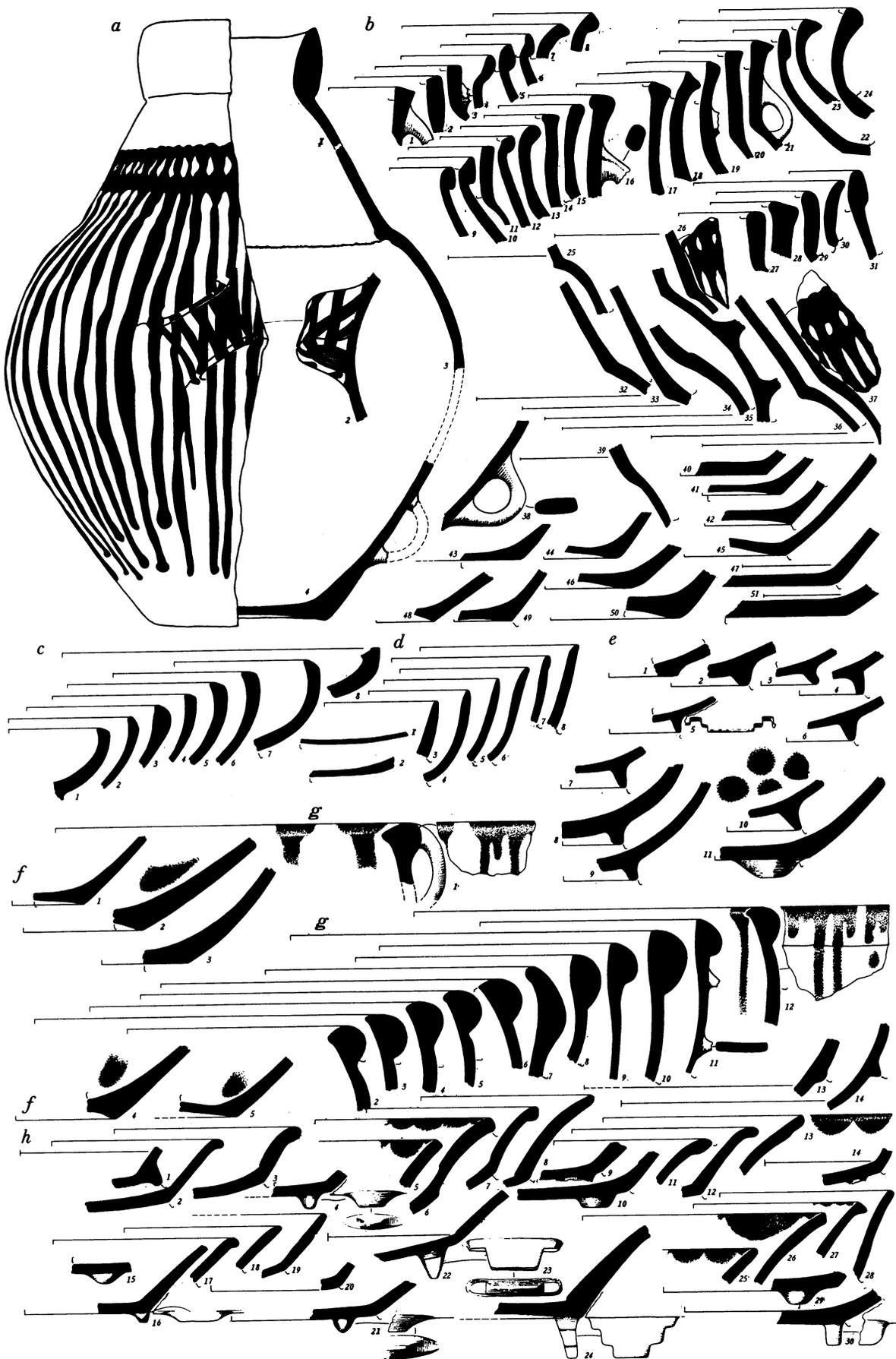


FIGURE 33

Colonial unslipped and Coarse Redwares from the Mani Monastery and Cenote.

a-e: Slipped jars. f: Slipped basins. g-i: Unslipped cooking vessels (ollas or calderones).

a: Bulbous-lip necks. This neck form, dominant in these deposits, is still made in Yucatán but has been displaced to a great extent by the simpler outcurved lip form c, 1-4. Slip and body paste show little change between the Late Mexican substage and now. c, 5 is unique if a jar rim, but may have belonged to a form similar to fig. 34, g which also is unslipped interiorly. The concave cylindrical jar neck, a, b, has been the predominant type in Yucatán from the Early Mexican substage, cf. fig. 71, until the present. The large loop jar handles all seem to have been horizontally placed slightly above point of greatest diameter, as are the handles of modern jars. Diameters range 30-35 cm. The Colonial jars are slimmer in proportion to height than are the Mexican-stage jars. Our earliest documentation for this type of handle is Oxkintok Regional, fig. 11, c, 32, 39, 41, 42. The flat bottom with angular side junction, e, 1-13, 25, 27, 28, carries through from Florescent till now. Inset bottom, e, 14-22, occurs in

Late Mexican substage but has not been noted in modern jars.

Information on jar bottoms for earlier Mexican substages is not available. The function of the perforated bottoms e, 24, 25, is unknown; these were the only such specimens found.

f: Red slipped basins, f, 1-8 slipped on both sides, remainder slipped on outside only. Omission of slip on basin interiors is a new departure with the post-Conquest stage, cf. fig. 27, k for Mayapan basins.

g-j: These unslipped cooking pots probably had round bottoms with perhaps a small flattened zone. The shape has persisted to modern times. Most of them are undecorated; only lips and thumb-pressed or cut fillets were added. Color was a medium brown with considerable smudging, some of which must have resulted from use on a fire. At Becal and Maxcanu, Campeche, where similar vessels are now made, a harder, more crystalline quality of soft limestone is used for temper than that used in slipped water vessels; the relative quantity of temper used is also higher. Archaeological sherds have not been checked to see if these customs were current during the Colonial period.

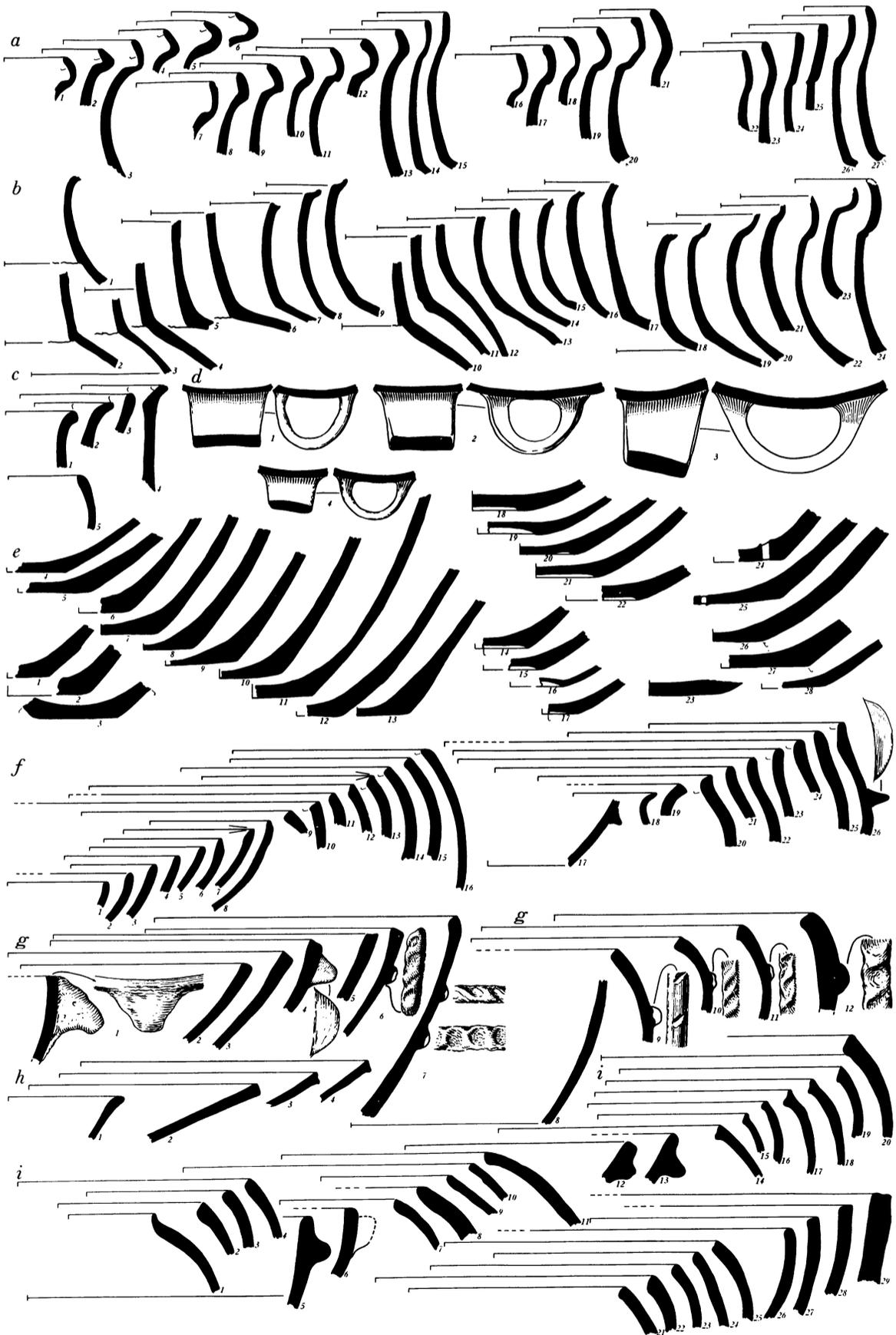


FIGURE 34

Colonial redware from Dzibilchaltun and Mani, modern redware from Becal and Ticul.

**b**: Dzibilchaltun. **g**; **h**: Becal. Remainder Mani Monastery.

**a**; **b**: Large wide-mouth jars or tinajars from **a**, Mani Monastery, **b**, Dzibilchaltun near curate's residence with date of 1593 (?) A.D. These vessels may possibly have a parallel in vessels used ceremonially by the modern Maya of Xcacal, Quintana Roo, at the fiesta of the Virgin of the Conception (Villa, 1945). In these vessels, holes in the rim were used to hold sprigs of basil. The holes in the flange of this vessel may have been similarly used, **c**: Decorated wares. **c**, **1**, **2** with white paint on red. Roys, 1943, p. 48, mentions an early Spanish description of a bowl "painted with small white pebbles," and called *choo lac*. This correspondence seems too close for coincidence. **c**, **3**, thumbbed fillet at lowest extension of red slip. **c**, **4** impressions of a hollow cylindrical tool at edge of red slip. **c**, **5**, **6**, **7** black paint on buff ground, **c**, **6** also has red slip. **c**, **8**,

**9** red painted floral designs on unslipped area, also red slip. **d**: Candlestick fragments. This general type was widespread in Spanish colonies; see Kidder and Shepard, 1936, pp. 276-277, figs. 237, 238; Montgomery, Smith, and Brew, 1949, fig. 30, especially **i** is probably from such a candlestick; Noguera, 1934, pl. XIII. John Griffin informs me that somewhat similar types have been found in Florida mission ruins. A similar fragment is illustrated by Noguera (1934) from excavations in Mexico City. The form may stem from a metal Islamic prototype. **e** and possibly **i**, **1**, **2**, **3**: Pedestal-base bowl fragments. **f**: Miscellaneous jar and bowl fragments. **g**; **h**: Modern, **g** purchased at Becal, **h** at Ticul, **g** has a mold-pressed motto in relief in an unslipped band, *no mi olvidas*. It may be a modern version of the form above (**e**, **13**, **14**), also cf. fig. 66, **f**. All specimens of **e** and **f**, **23**, **24**, **30**, **38-45** bear a red slip of color more saturated and purplish than the rest, bearing minute specular granules (specular hematite?). This pigment was probably imported.



FIGURE 35

Collection of pottery from Dzebtun, near Cenotillo, Yucatán.

a; d; g; i; m: Medium slateware. b: Fine grayware. c: Unslipped, striated. e: Thin slate with yellowish slip and black paint. f; h: Florescent Thin Redware of atypical orange hue.

This group, including several near duplicates which have not been illustrated, reputedly come from a tomb or an associated group of tombs. A plumbate fragment of obviously later date was in the collection (see fig. 91, e). It is in the Mérida Museum (top views of basal break bowls are at 1/12 scale). It comes from a region and time span not well sampled by us. Although most of the vessels are easily classifiable as Florescent, there are various reasons why it should be placed very early in the stage. a: Shows similarity to fig. 32, a, see caption for discussion. b: Belongs to a ware commonest at Dzibilchaltun (cf. fig. 28, g). d: See fig. 32,

d and discussion. e: Is closer in color and thickness to thin slateware of the Chenes area than to that of the Puuc. f; h: Are similar to fig. 18, g and nearly identical with fig. 19, h, 5, 6 in ware characteristics. These comparable sherds come from Regional or Regional-Florescent transition deposits. The basal break bowls i-l with slab legs and thumbbed decoration are closest to those from Yaxuna, fig. 10, d-f, which occur in collections judged early Florescent or Regional-Florescent, also close to those from Dzibilchaltun (fig. 15, a). Thus there are several independent reasons to believe this collection comes from a relatively short time span in the early Florescent stage. This allows us to use it for reference in placement of other vessels, and for criteria of form, ware, and decoration. Another mass of material from Actun Xkyc which may be of comparable date is shown in Brainerd, 1953a, fig. 1.

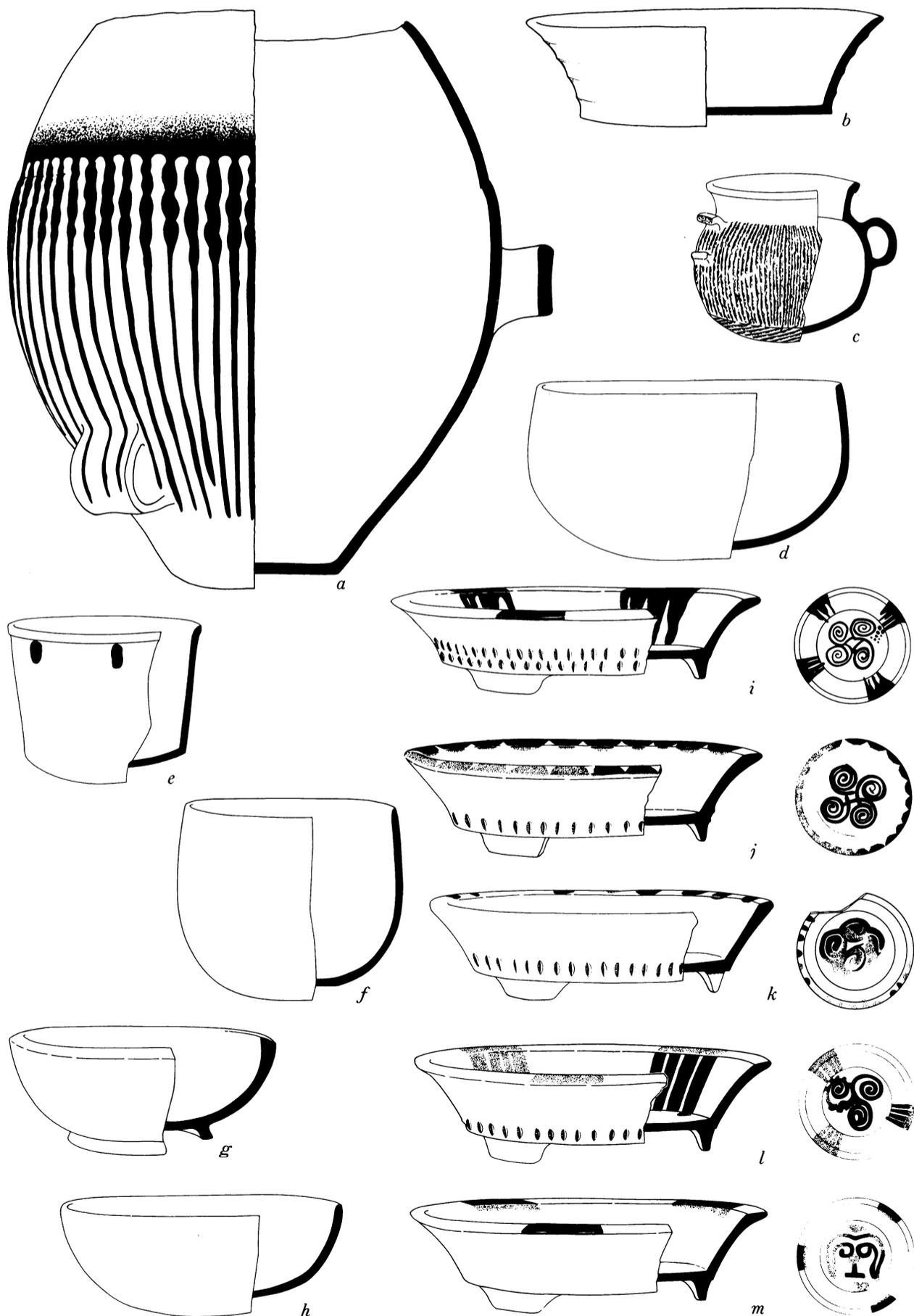


FIGURE 36

Medium slateware, fine gray, and fine orange vessels from collections.

*a; d; e; f; i; MR. b; c; g; h: MM. j: Collection of Sr. D. Jesús Cervera, El Carmen, Campeche (after Maler, 1910).*

*a; c: Medium slateware. b; d; e; g; i and possibly f: fine grayware. h; j: (and possibly f) fine orangeware.*

All these vessels are of the Florescent stage or Regional-Florescent.

*c: Has handles arranged as has fig. 32, a. For fine grayware vessels, see fig. 28, e-g and caption. For shape of e, cf. Thompson, 1939, fig. 73, e in blackware. h: Bears glossy, incised white slip exteriorly and*

stripes of black paint on interior. Although unique in interior paint arrangement and in leg form, it resembles Dzibilchaltun Fine Orange, fig. 59, *g, h*, in body form and general decorative style. Incising is done with considerable virtuosity, superb finish, better workmanship than any Dzibilchaltun specimens. Note similar profile and use of double circles within diagonal bands, also absence of cut out areas for background. *j: Although texture of the paste is unknown, marked similarity in the style allows nearly certain identification with Z (Puuc) Fine Orange, cf. fig. 59, a-f. Design and a band at the border have been cut through a white slip into the orange paste.*

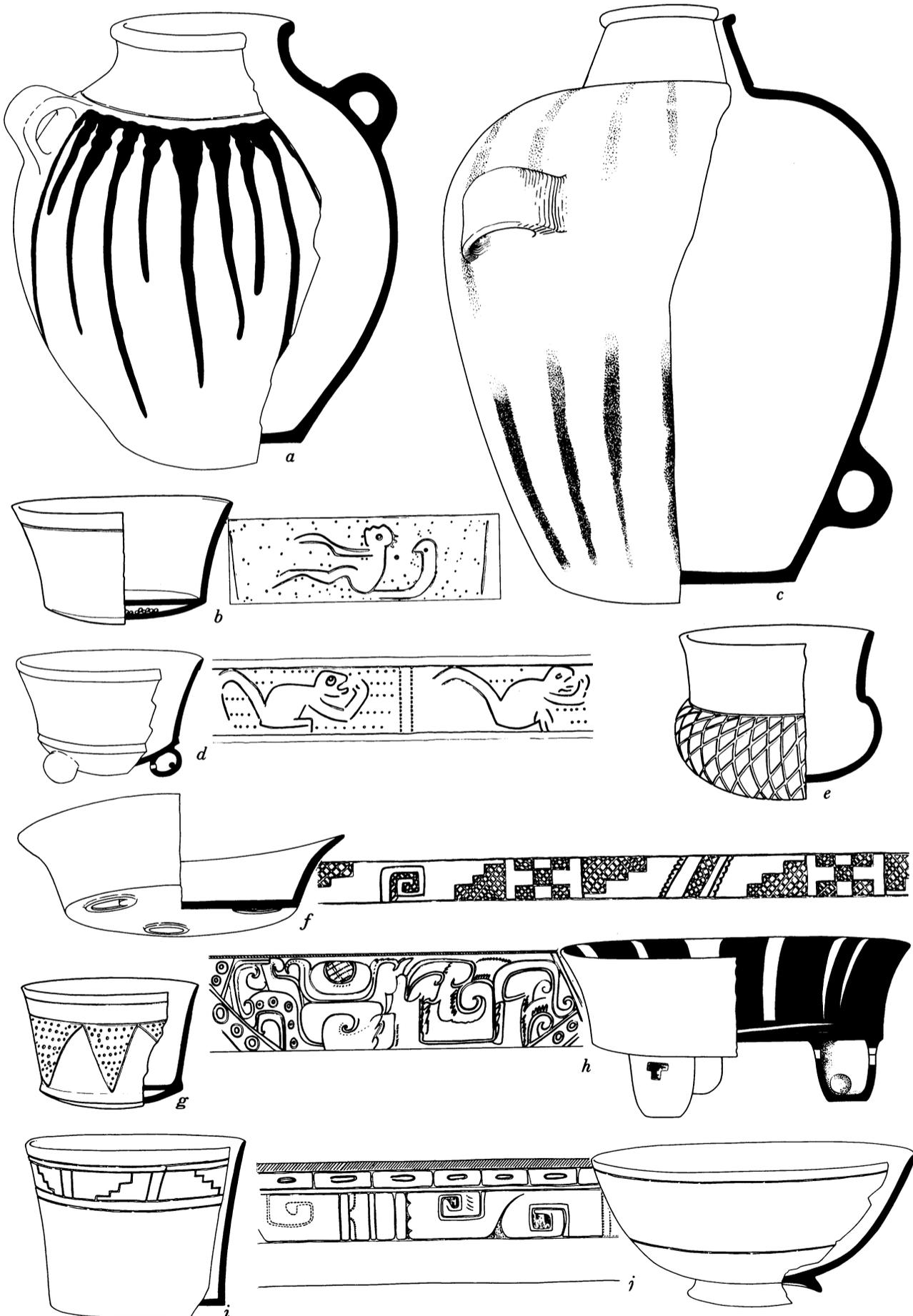


FIGURE 37

Unslipped jars and bowls from Holactun, Uxmal, and Dzan.

a: From Holactun. b; c: From Uxmal. d: From Dzan.

a, 18, 19, 28-30: Probably of Regional type. b, 11, 12, 19-36, 40-42, 45-50, 52-54: Of Dzibilchaltun Regional-Florescent type. Remainder of groups a and b Florescent. Note that the beginning of the occupations of Uxmal and Holactun at an earlier date than those of Kabah, Labna, and Sayil is suggested by comparison of the rims here and in fig. 38. c, 1-7, 20 are misplaced here; they are Medium Slateware with exteriorly striated rim and probably belong to drums, cf. fig. 62, i, c, 8-12, 16-19, 25-29 may belong either to incensarios or to basins. d: Probably Florescent, less likely Early Mexican.

In unslipped jars, reconstruction of a style succession in the Regional-Florescent time sequence may be reasonably made. Oxkintok Regional rims are short, heavy, and flared, with a sharp break into a conoid shoulder zone. Yaxuna B. jar rims, of somewhat later period, are similar, with possible neck change to a more incurving form, fig. 1, a, 3-8, b, 2-7. These rims are paralleled at Acanceh, fig. 14, d, 1-40, and are also quite closely paralleled in the slipped mono-

chrome jars of these three sites. Next in order comes Dzibilchaltun, Regional-Florescent, with high standing flare to outcurve rims, often with an exteriorly thickened lip area which is triangular in form, and ranges from round to angular cornered, see fig. 14, a, 3-16, and cf. Thompson, 1940, fig. 52, Benque Viejo IV. This rim retains the sharp, angular shoulder junction, the conoid shoulder zone having been entirely suppressed, leaving a spheroid body. Both this type and the above Regional type normally bear horizontal striations on the interior of the rim, readily differentiating them from the smooth interior Florescent type. Following these comes the major Florescent type which differs from the Dzibilchaltun type in having a much shorter neck; it is also inclined to have an unbroken or only slightly broken curve from body to lip. The Yaxuna forms, fig. 1, a, b, 1-17, 28-40, classified by Robert Smith as Tzakol (also cf. Thompson, 1939, fig. 36) are thinner than those from the Puuc. Their presence at Yaxuna confirms the strong Peten influence shown by their associated slipped wares. The three major rim forms described above are also present in the Chenes and Río Bec sites, suggesting that cultural homogeneity in the Yucatán Peninsula was not restricted to the religious hierarchy.

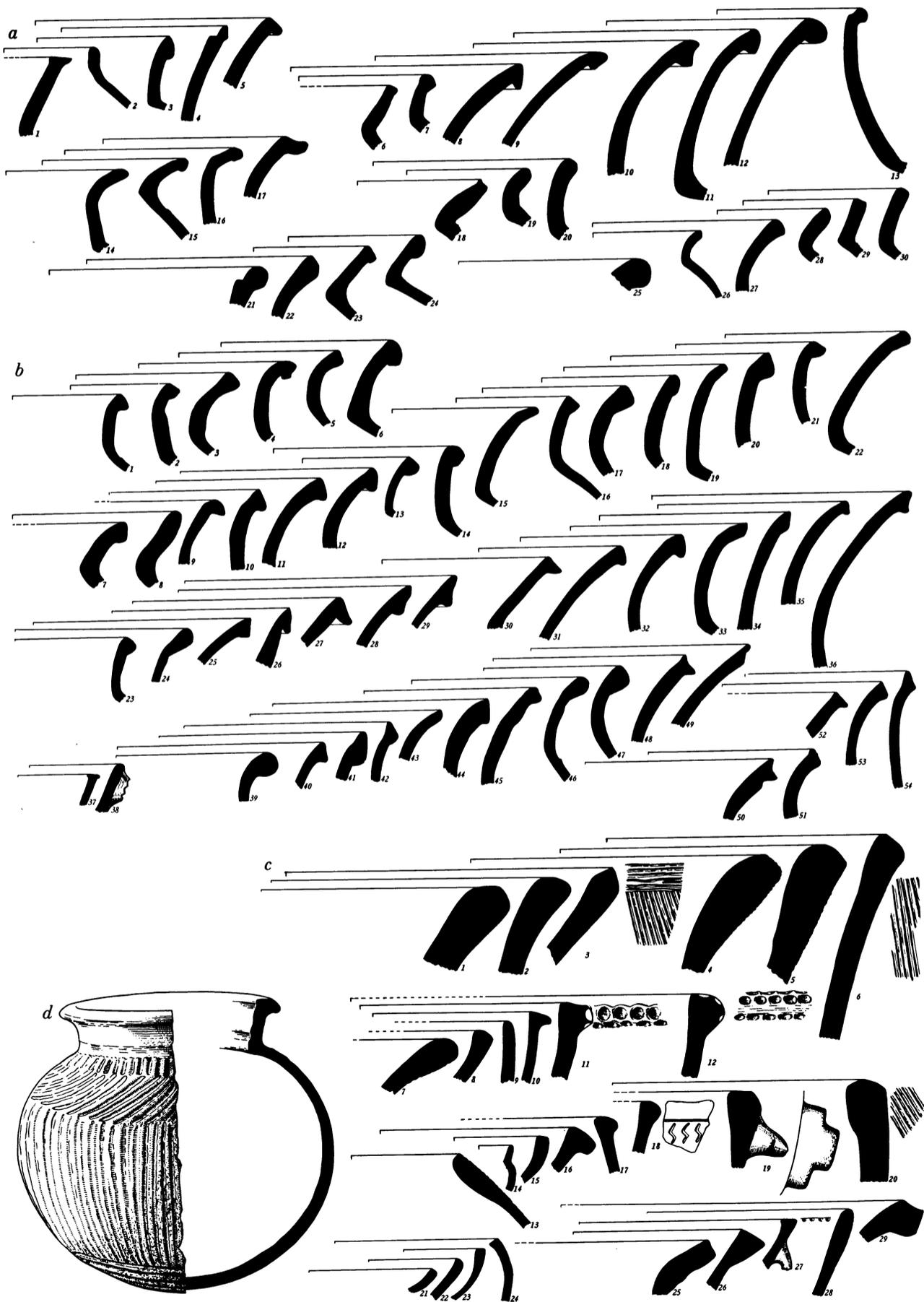


FIGURE 38

Unslipped jars from sites of the Puuc area.  
a; b: Sabacche. c: Kabah. d: Labna. e: Sayil. f: Oxkintok.

a: Body shape and decorative pattern of unslipped jars are not known from the Puuc excavations since only rims are available from them. Pattern of the exterior decoration seems to have been in horizontal zones of diagonal striations. A slight break in curvature between the rounded bottom and the sides is normal, cf. figs. 35, c; 37, d; 65, d; 68, a, d, e. Bottom

striations are irregularly placed. Interior is smoothed, as is exterior rim to a point just below neck-body break. Some unusual forms are listed below; remainder may be considered as typically Florescent. b, 3: Regional. c, 4: Atypical in form and black paint, probably Regional. f: These Oxkintok specimens, although not fitting exactly any one of the three divisions of the time sequence outlined (fig. 37 caption), seem closest to Regional-Florescent. See discussions on Oxkintok Slateware which seem to support this placement.

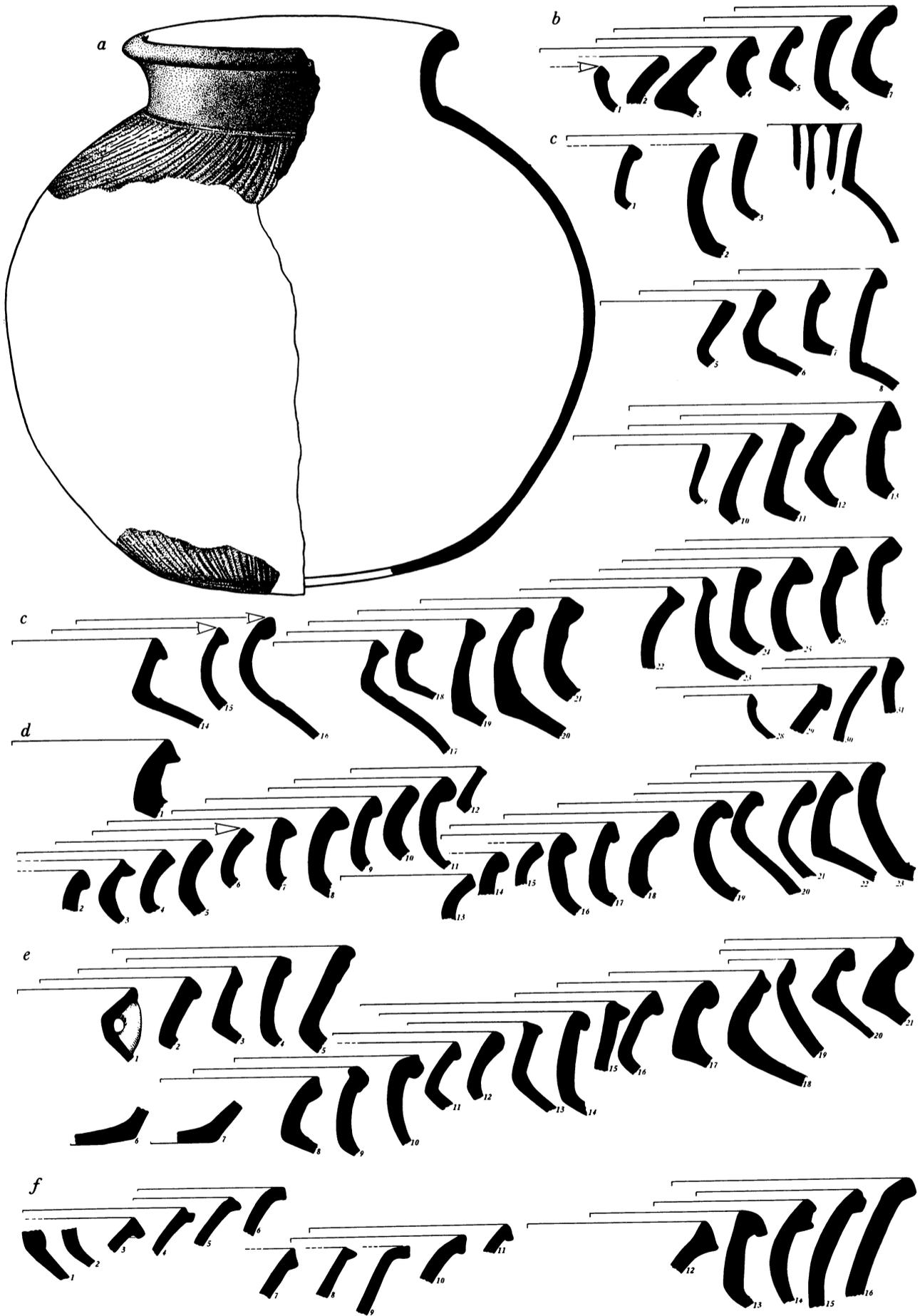


FIGURE 39

Incensarios and other unslipped pottery from Florescent-stage deposits.

a-d: Uxmal. e: Kabah. f; h: Sayil. g: Labna. j: Oxkintok. k: Holactun.

a; b; c; d, 3-12; e, 15-30; f, 8-10; j; k, 5-11: From incensarios. d; f, 1; g; h, 7: From incense ladles. k, 1-3: Possibly ornamental incensario handles. e, 2, 4, 5, 7-14: Medium Slateware. f, 7; g, 2, 3: Misplaced here; are rims of slateware drums, cf. fig. 62, i, j. i, 6: Is probably of Middle or Late Mexican stage.

Our earliest recognized incensarios are of the "hourglass" form typical of this collection and come from the Regional-Florescent deposits (fig. 19, a-c). This general form lasted through the Florescent and part of the Mexican stage; see figs. 22, 23 for latest examples. Widest variety of decoration seems to have been attained in the Florescent stage. It includes: (1) encircling flanges often with various types of notching such as paired cuts, a; stepped (terraced) notching, c; close-spaced triangular notching to produce a series of pyramids, d, 8, 9; e, 16; f, 2. Flanges also may be thumbed as is e, 29 or impressed either with a blunt rod, c; d, 10, or with a hollow cylinder, f, 10; i, 3. (2) applied finger-pinched tetrahedrons showing a wide variety of form, cf. d, 4; k, 13, and arranged in encircling bands, see b, c, or vertical bands, a; k, 11. e, 19 is a variant of the encircling pattern produced by overlapping in the tetrahedrons to form serrated bands. No handles have been found certainly belonging to Florescent hourglass incensarios, though they occur on both earlier and later forms. This may possibly be due to

the fact that our Florescent collections are incomplete, with body sherds discarded, but more likely represents an actual lack of handles. Cf. discussions on incense burners in Wauchope, 1948, p. 116 *et seq.* for comparisons.

Incense ladles are a common type in the Mexican stage. The presence of several in Puuc deposits suggests that they may also have been used to a limited extent during the Florescent stage. None were found in the Florescent deposits sampled in the 1949 Chenes-Río Bec survey. All types recognized in Yucatán have hollow, tubular handles, some with open, some with closed end, set at a slight downslope from a flat-bottomed small bowl. There is often a perforation between bowl and handle. It seems quite possible that these were used to bear incense in ceremonies, allowing an additional draft of air on the incense by blowing air through the handle. Ladles of this type were found at Zacualpa in the pre-plumbate horizon, Wauchope, 1948, p. 126, and a seemingly related solid-handled type much earlier. See caption fig. 68 for further discussion. Vaillant (1927) reports a similar ladle from Tomb 10, Copan. That these vessels precede the Mexican stage in Yucatán is made unlikely by lack of evidence for them in the deeper levels of Florescent deposits. All major ruins in Yucatán show evidence of the breakage of ceremonial pottery on them at late periods, and these ladles may possibly be of late date. i, 6: From Oxkintok is of the Mexican stage; cf. figs. 23, d, e; 97, a-c. A plumbate sherd also was found in debris of fallen buildings at Oxkintok.



FIGURE 40

Florescent medium slateware jars from sites of the Puuc region and Holactun, Holactun Slateware jar. *a-c*: Sabacche. *d*: Kabah. *e*: Labna. *f*: Holactun. *g*: MR.

*b*: is a miniature. *c*, 10, 11; *d*, 26, 27, 64: are lids. Note the two types, with and without flange. Certain of the jars are designed to take a simple disc lid: *c*, 4; *d*, 22, 23, 58; *e*, 19, 30; *f*, 3; some of these have tie holes about the rim which, particularly if sealed with

wax, would allow easy transportation of liquids such as honey (see Roys, 1943, pp. 50-56, for an account of trade in honey and wax at Conquest times).

Most of these jars are of the small, thick-rimmed type, see fig. 32 caption. Exteriously vertically striated rims such as *d*, 25, *e*, 2; 20 probably come from drums (see fig. 62, *i*, *j*). *g*: is a typical Holactun Slateware jar, cf. fig. 53, *a*, 12-20.



FIGURE 41

Florescent Medium Slateware jars and basins from Uxmal and Sayil. Unusual pieces from Holactun.

a; b; c: Uxmal. d: Sayil. e: Holactun. f: MM.

a; b; c; d; e, 2; f: Medium Slateware. e, 1, 4: Oxkintok monochrome. e, 3: Holactun Slateware.

a-c: Note miniature jars a, 32-34, probable drum rims b, 16-18, 53; jar lids a, 1, b, 19, 60, c. All jar rims in a save for a, 8-16 probably belonged to forms other than the Puuc "chultun jar" (see figs. 40, 42). Several of these jar rims show similarity to the Medium Slateware jars of Yaxuna (fig. 10, a, b), Dzibilchaltun (fig. 15, d), Acanceh (fig. 21, a), Mani (fig. 32, a,

b), and Oxkintok (fig. 42, a, b), which are suspected to date earlier than the major Puuc occupation. The Uxmal collections come mainly from the vicinity of "Chenes style" buildings, and this fact may account for a greater proportion of early material there, at the same time supporting an earlier dating for Chenes style buildings. d: The Sayil basin rims show somewhat more variety than those from other Puuc sites (see figs. 43, 44). d, 8, 9, 10 an aberration from known basin bottoms; I cannot reconstruct the vessel shapes of these. e, 3: Shows vertical striation on a narrow, unslipped zone adjoining the bottom.



FIGURE 42

Florescent Medium Slateware jars from Oxkintok and the Puuc.

a; b: Oxkintok, c: Peabody Museum; chultun between Labna and Chunkatzin, d: Peabody Museum; chultun, ruins near Xul, e-g: Sayil.

a; b, 1-14, 37-40: A rim not common elsewhere. The presence of this rim at both Oxkintok and Uxmal (fig. 41, a, 17-31) on sherds with very similar slip and paste, light color, calcite temper, suggests trade as does presence of similar jars at Actun Xkyc (Brainerd, 1953a, fig. 1). General similarity of these forms to Dzibilchaltun unslipped jar rims suggests Regional or

Early Florescent stage, cf. fig. 14, a. Shoulders b, 23-26, 41, 42, 45 are of Florescent large jars, see fig. 32 caption, c; d: Typical small Florescent jars, or "chultun jars." Note heavy modeled handles. e-g: Note conoid necks of Florescent large jars, especially e, 12-19, f, 1. Large decorated necks, f, 2, 3, are similar to those from Chenes sites (see fig. 41, c, 54). Lids show, in addition to the disc type (cf. fig. 40), a curved type, g, 2, 6, 8, similar to several obtained from Chenes sites. One disc lid, g, 1, shows a pierced lug handle. f, 9-12: Likely drum fragments.

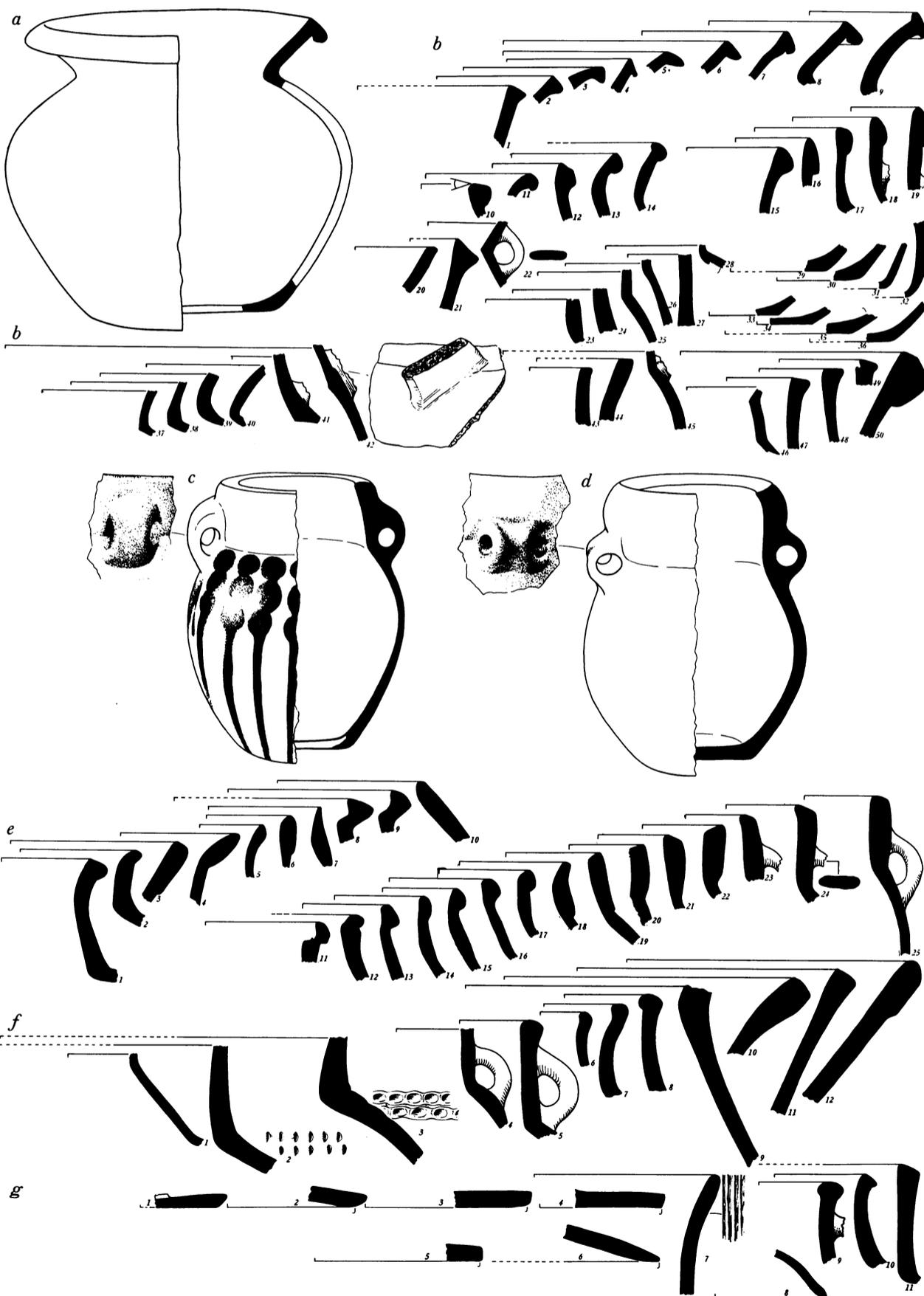


FIGURE 43

Florescent Medium Slateware basins from Puuc sites and Oxkintok. Florescent stage.

a: Labna (see also fig. 44, e). b: Sabacche. c: Kabah. d: Oxkintok.

These selections, with those in fig. 44, give a form range but a poor idea of frequencies, since the number of straight to convex interior, angular-rimmed bolsters of medium to large size (such as c, 3-10) far outweighs all other variants. The Oxkintok group, d, is aberrant in having lighter-colored slip than average, and less commonly showing paint; a further atypical feature of Oxkintok Medium Slateware is the nearly exclusive presence of calcite temper. In this group there is also a definite tendency toward vertical compression of the bolster, producing forms approaching those of Holactun Slateware basins. For example cf. d, 1, 12, 15, 16, 21, 27, 28, 45, 46 with fig. 53, c, d.

Ware of the Oxkintok Slateware basins, however, varies sharply from Holactun Slateware in slip color, paint, and temper. Rims with concave interior are also more common at Oxkintok than in the Puuc sites (d, 4-5, 17). This form is common in the Chenes area, where it may well antedate the Puuc form. Some of these Oxkintok basin rims may date Early Mexican, cf. d, 9, 19, 32, 44, 48 with forms of fig. 73. For other evidences of Early Mexican occupation at Oxkintok, see fig. 39, j, 6 caption.

The large basin shape with exteriorly thickened rim lasts from the early Regional stage through late Mexican. Use most likely was for water or grain storage; it is quite close in capacity to the agateware basins in which the women now keep the day's supply of *masa*. The marked decrease of basins in favor of the basal break bowl, a smaller vessel, during the Florescent stage in the Puuc sites is so far unexplained.



FIGURE 44

Florescent Medium Slateware basins from Puuc sites.

a, 1, 5, 7: Kabah. a, 2, 3, 4: Uxmal; 5, misplaced here, is a jar shoulder fragment. b-d: Uxmal, e: Labna.

Sherd shown in a, 1 bears horizontally incised pellets overlying a heavy flange; a, 2-7 all bear incised designs; a, 4, 7 hollow cylinder impressions; a, 5 finger nail impression; a, 4 plano-relief carving and specular red paint striping.

Note that all loop handles found for these basins are placed vertically in opposed pairs. Chief variant large rim profiles are triangular, b, 36, 37, 39, and wedge, b, 41, 43. Smaller rims more commonly show variation and elaboration, d, 16-23, for example.

Chenes-style rims, b, 19; d, 23, 26, 27, are very rare; d, 28, d, 12, 29, 31 are likely early Mexican stage, also represented sparingly in other wares at Uxmal. For more of both these types, see caption, fig. 43.



Medium Slateware basal break bowls from Puuc area.

a: Tabi (near Sabacche). b-i: Uxmal.

The form may be generally described as having a slightly rounded bottom, unslipped below. On the top of the outer edge of this bottom has been luted a side wall, usually thicker at its base than is the bottom. Tripod legs of varying form support the vessels, very rarely a ring stand is used. Changing styles of basal break bowls present potentially the most interesting sequence of any of the vessel forms. Their variety, amount of intergrading of various features, and variability of combination in such features as leg, rim, and bottom forms give a rich and complicated field for stylistic analysis. Some hundreds of whole museum specimens have helped in the determination of combinations of form traits upon single vessels.

The Puuc bowls have probably drawn upon several earlier traditions: (a) the Oxkintok Monochrome forms, fig. 13, b-i; (b) the Dzibilchaltun Red on Thin Grayware bowls, fig. 20, e, (c) The Yaxuna, fig. 8, i, j, k, and Acanceh, fig. 18, e, 19-25, h, Regional Redware bowls. Of these three groups, (b) is probably a development of (a) and runs concurrently with the earlier slateware horizon. Group (c) represents a separate tradition, perhaps closer akin to the Peten than are (a) and (b).

Four styles, defined by prevailing trait combinations, can be extracted from the mass of material. That represented in greatest numbers in the total material is shown in c and fig. 46, a, b. Size is small, walls flaring or faintly outcurved and relatively slightly tapered with rounded lip. Basal junction is rounded both interiorly and exteriorly, the angle about 135°. Bottom is gently curved and of nearly constant thickness throughout; tripod legs are in the form of small, solid conoids or short, heavily rounded and tapered slabs, and are inset from the edge. Decoration, if present, is faint, painted on bowl floor and occasionally on interior of rim; no incised decoration occurs. This type is found in high frequency in the Chenes area, sometimes bearing thumbed decoration on exterior of angle.

A second style, markedly different from the first, fig. 58, a-d, has a greater bottom diameter and outcurving, sharply tapered wall. Lip is usually thin and may be angular, flattened on top or complicated. Basal junction is usually angular both exteriorly and interiorly, angle about 120°. Exterior of angle often bears a ridge or molding and/or a pendant skirt. Ridge may be notched or thumbed, molding may bear a mold pressed repeat design and pendant skirt, if present, is usually cut to crenellations or scallops, fig. 58, j. In-

cised designs, some done before but most after slipping, occur on bowl exteriors. These designs are all rectangular and geometric, line width 1-2 mm. Bands of specular red paint are often used on lip or wall exterior. Legs are exclusively cascabel, often or always bearing mold-pressed designs on exterior, fig. 58, e, g, h.

A third style common in the Puuc area, fig. 57, a, b, f, is taller in proportion than the second type, has the same tapered, outcurved wall, usually unornamented, hollow spherical tripod legs, may bear a thumbed ridge at basal junction. Bottom is usually quite deeply curved. Ornamentation is in preslip incising of 2-3 mm. line width, designs sometimes curvilinear, often including glyphlike forms, fig. 57.

A fourth style found in the eastern part of the Peninsula and at Dzibilchaltun bears large high-terraced slab legs set flush with the wall and curving with it, figs. 10, d-g; 15, l; 20; 24; 28-30; 67. These bowls seem to have been tall in proportion like those of style 3. They commonly bear banding rows of vertically placed finger nail impressions made before slipping, placed toward base of sidewall and continuing on contiguous external surfaces of legs.

These four styles have not been placed stratigraphically but their chronology may be delimited to some degree. Style 1 is commoner in the Chenes than in the Puuc area, and style 4 seems to center to the east and north. Styles 2 and 3 are more prominent in the Puuc. Since the horizons containing style 4 at Dzibilnocac and Dzebtun are Regional-Florescent, this style is known to be earlier than Puuc, but it may last through the Puuc occupation in other parts of the country. Style 1 likewise comes from Chenes horizons which are probably pre-Puuc but also may last to the end of the Florescent stage. Styles 2 and 3 are found only very sparingly or not at all in collections from occupations classified as Early Florescent or earlier. Thus they should be classed as beginning later than 1 and 4 but likely with overlap. Vessel proportion and design technique and style suggest that type 3 may be earlier and more eastern than style 2, but this is conjectural.

These form styles are not presented as a satisfactory classificatory device. More excavation in the Puuc area or a careful technical study of tempering materials, or both, would allow a clearer typology and a consequent improvement in interrelating the styles.

Note typical style 1 specimens, g, 2-6. Use of red paint band, c, 18. Variety of skirt decoration, e, 22, 24, 26, 30-33, i, 3. Complicated rims, e, 5, 29, g, 10. Unique bowl handle, g, 14. Capped cylindrical cascabel legs with pellet made by punching, i, 12-14. Note that cascabels are all attached to plane surface luting, reinforced by an added fillet.

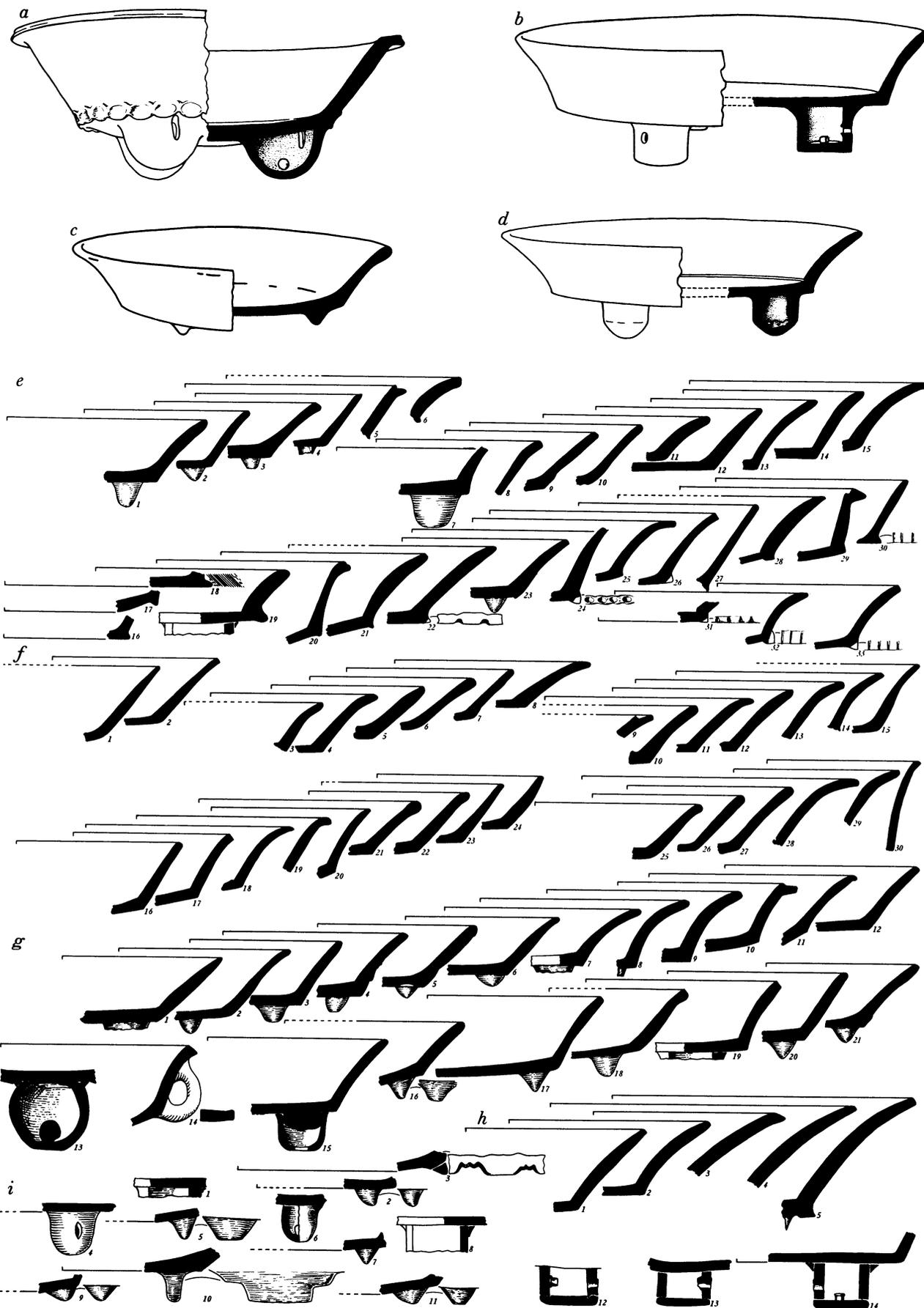


FIGURE 46

Medium Slateware basal break bowls from Puuc sites and Holactun.  
 b; c: Kabah. a; d: Labna. e: Holactun. f: Sayil.  
 For discussion of the subclassification of this vessel shape, see fig. 45 caption.

Note thumbbed fillets c, 39, 40, 52; d, 1; f, 17-19.  
 Gouging c, 23; e, 3, 4. Style 2 thin-line incising e, 10, 11. Red paint band f, 23. Probable oval cross section hollow slab leg e, 9, cf. fig. 13, g. Style 4 terraced slab leg f, 37. Style 1 legs on a; b; c, 2, 3; e, 5, 6.



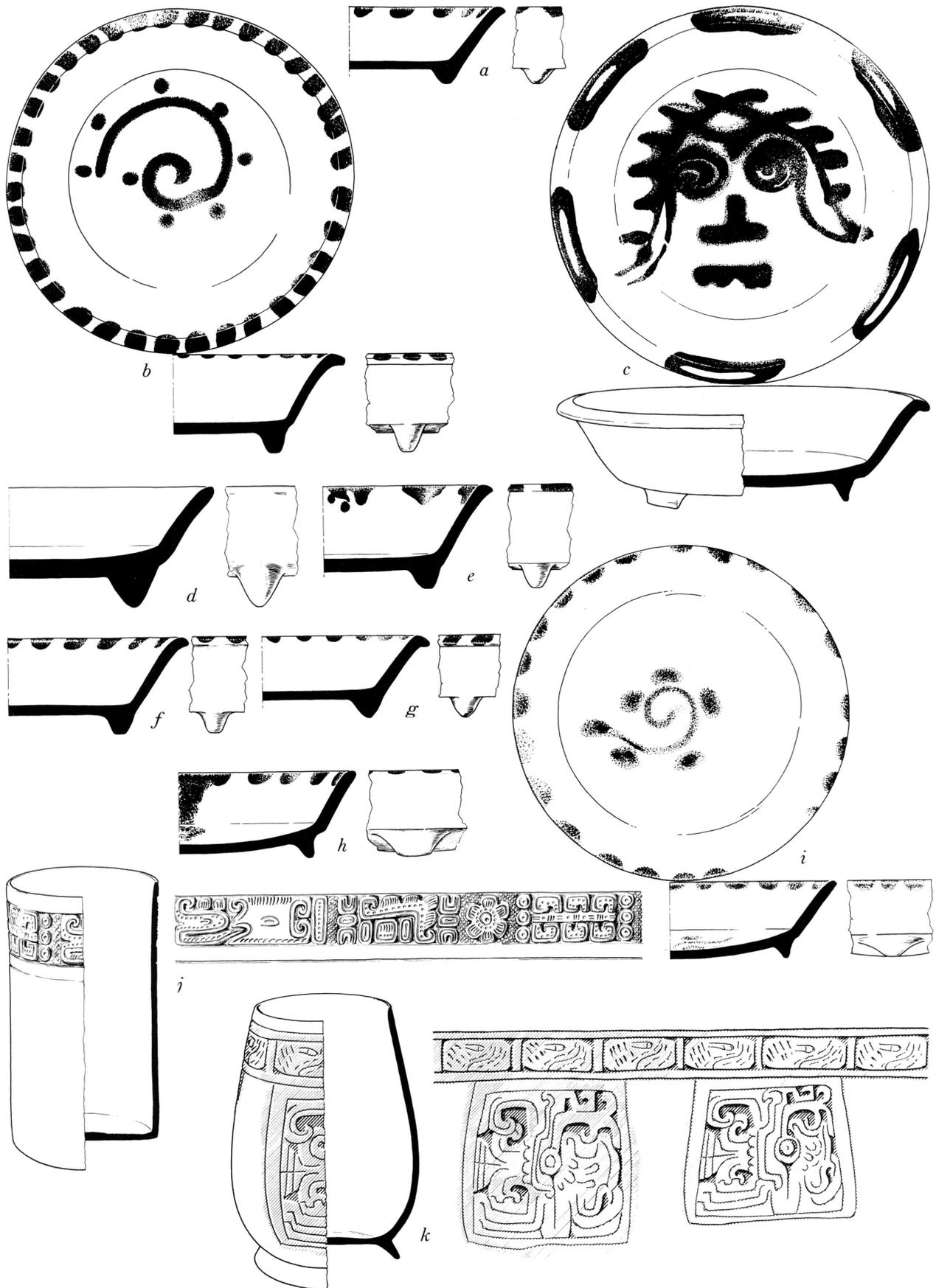
FIGURE 47

Florescent Medium Slateware from Peabody Museum collections, Cambridge.

a; b; g: Uxmal. d: Dzibalchen, 15 miles west of Ticul. e: Between Labna and Santa Rosa Hacienda. f: Kabah. h: Tabi Hacienda. i: Near Ticul. j: Hunab-

chen, k: Near Labna.

j: Is elaborately carved, cf. fig. 57. k: Bears a plano-relief carved serpent mask, carved areas subsequently red slipped. Remaining bowls undecorated save for trickle paint.



Florescent Medium Slateware from Oxkintok and Dzan. Slateware and blackware from collections in Mérida.

**a:** Slateware basal break bowl fragments from late occupation of Oxkintok. **c:** Medium Slateware from Dzan. **d; e; i; o-w:** Medium Slateware. **b; f; h; j; k; l; m; n:** With ware characteristics which in one way or another do not fit the typology used in this monograph. Colors are grays and buffs. **q:** Probably fine grayware.

**a:** Oxkintok Medium Slateware is distinctive in the exclusive presence of fine calcite temper and light-colored slip, although Uxmal shows Oxkintok-like ware in smaller frequency. These bowls show a suggestion of influence from Oxkintok Monochrome basal break bowls (fig. 13, **b-g, i**) in occasional thickening of the wall toward the lip, faceted lip profile, basal ridge, oven-shaped rattle legs. Solid teat legs are present (**a, 17, 18, 30, 34**), and two slab legs (**a, 38, 43**). Rattle legs show evidence of luting from their interiors, with a bottom added later. Basal ridges are thumbed (**a, 33, 35**). As mentioned before (fig. 45 caption), Medium Slateware basal break bowl forms may be considered as influenced by the earlier Oxkintok monochrome bowls. This influence was certainly stronger than that from any other Regional ceramics we know from Yucatán. Unfortunately, we know little of the origins and relationships of the Regional-Oxkintok assemblage, but it seems evident that it represented a strong and advanced western cultural development which contributed more to Puuc ceramic developments than did the more Peten-like Cobá-Yaxuna-Acanceh Regional Redware assemblages.

The smallish, beakerlike vessel exemplified by **b, d-m** is found in the Puuc sherd collections only in Thin Slate and Thin Redware; in Dzibilchaltun and Holactun it occurs in Fine Gray and medium blackwares

which are sometimes carved much as are these vessels. These specimens are of the type which Vaillant classed as carved slateware and carved grayware, and which he and others have placed chronologically between the polychrome and plumbate horizons. The near absence of such vessels in Puuc collections, although carved vessels are present (see fig. 57), and similarities between these forms and decorative techniques and shapes from Dzibilchaltun, suggest their tentative placement in Regional-Florescent, and early in the Florescent stage, although this cannot be conclusively proved from our excavated materials.

Decoration includes thumbed fillets (**b, j**), punching with a hollow cylinder (**b, d, i**), fingernail punching on unslipped body (**m**), carved-out areas (**i**), trickle paint decoration (**e**), incising or plano-relief on many specimens. The incising and carving seems to have been after slipping on all the slateware. On other wares, some of the incising has been done after slipping, some seemingly on a dry vessel. On **g**, for example, the sub-rim band is scratchy in appearance while the body decoration was impressed into soft clay. The similarities between **d** and **e** and certain vessels from the Motagua Valley (Smith and Kidder, 1943, figs. 44, **d, 47, d**) are close enough to suggest that the Motagua specimens were traded in from Yucatán.

The small vessels **n-x** may be divided into two groups. **n, q, t, u, w** are probably models or toys. For form of **n**, see fig. 3, **b**; others lie within the slateware jar form range, cf. fig. 32, **a** with **q** and **w**, for example. **o, p, r, s, v** were probably made as containers for some precious substance such as cosmetics. Gordon (1898, figs. 11-13) illustrates markedly similar small vessels from Honduras, as do Smith and Kidder (1943, fig. 52) from the Motagua Valley.

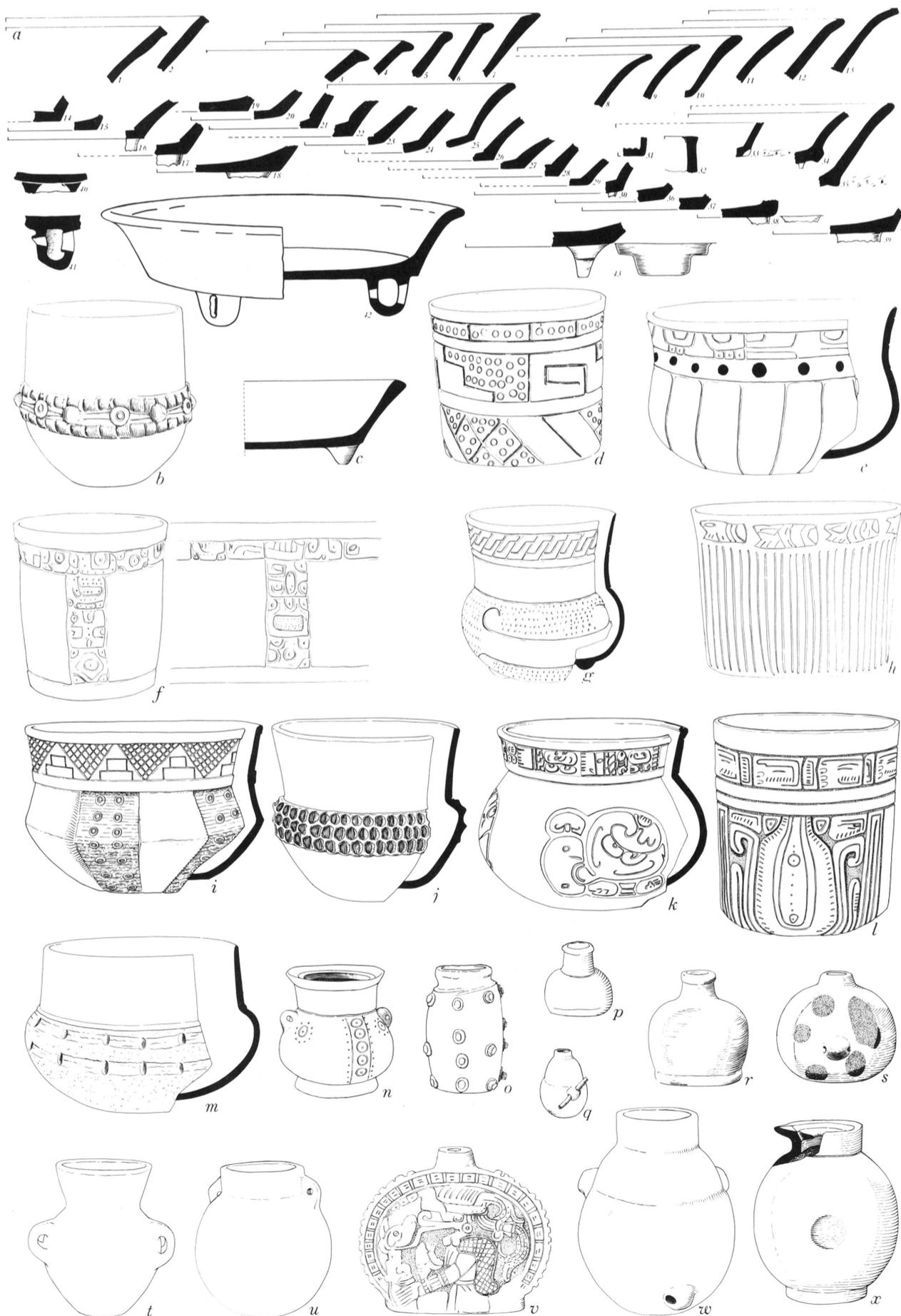


FIGURE 49

Medium Slateware hemispheroid bowls from the Puuc region; Medium Slateware from Mani, Cobá, Oxkintok, Holactun.

a: Kabah. b: Chultun between Akil and Labna, Peabody Museum. c: Labna. d: Sayil. e: Uxmal. f: Kabah. g: Uxmal. h: Holactun. i: Oxkintok. j-l: Mani. m: Cobá.

a-i: Medium Slateware hemispheroid (rounded) bowls. j: Jar rims. k: Bowl rims 1 from a grater bowl. l: Basin rims. m, 1, 6: Slab-legged basal break bowls. m, 2: Jar. m, 3-5: Basins. k, 1-9; l, 1, 3-5: May be of Early Mexican substage, cf. figs. 60, g; 74, i. Remainder of page all Florescent stage.

a-d: This bowl form is distinctive in the Florescent stage ceramic assemblage and also occurs rarely in Thin Redware of the same period, see fig. 51, n. Trickle paint is often present, slip usually extends nearly to the ring base. Similarity to the San José IV-V redware form is notable (Thompson, 1939, fig. 71). Ring base seems invariable on bowls having exterior bevel lip; taper rim bowls such as d, 9-15 may on occasion have a flat base and intergrade on some sites with Thin Slate bowls, see fig. 50, a, b, k, o. There is some evidence toward the taper-lipped form being earlier

in the Chenes sites, and at Dzibilchaltun; see fig. 15, b, c. The Oxkintok Redware bowls (fig. 13, k, m) may be earlier related shapes. The size and shape of these bowls is not far from that of the hemispheroid gourd bowl used by the modern Maya milpero for mixing pozole for his midday meal. Possibly these bowls had the same use, although there is a hiatus in the production of this shape during the Mexican stage. j-l: See fig. 32 for other Mani slatewares. The pottery shown here bears slip color within the Thin Slateware and Oxkintok slateware ranges (see fig. 48). k, 1-9: Are distinguished by white, opaque slip, and reddish paste. (Early Mexican Medium Slateware characteristics). Remainder have light-colored paste, as do Florescent slatewares. j: The predominance of large jars (cf. fig. 32, a, b) at Mani adds evidence for Early Florescent placement of the site. Some of these rim forms may be Early Mexican (cf. i, 18, 23, 24 with fig. 71); but these may also belong to Holactun Slateware (cf. fig. 53, a, 7-10; b, 10-13). k, 1, 4, 5: On basis both of form and paste are likely Early Mexican, as are l, 1, 3, 5 on basis of form. m: This small collection shows two slab legs (cf. fig. 10 from Yaxuna).

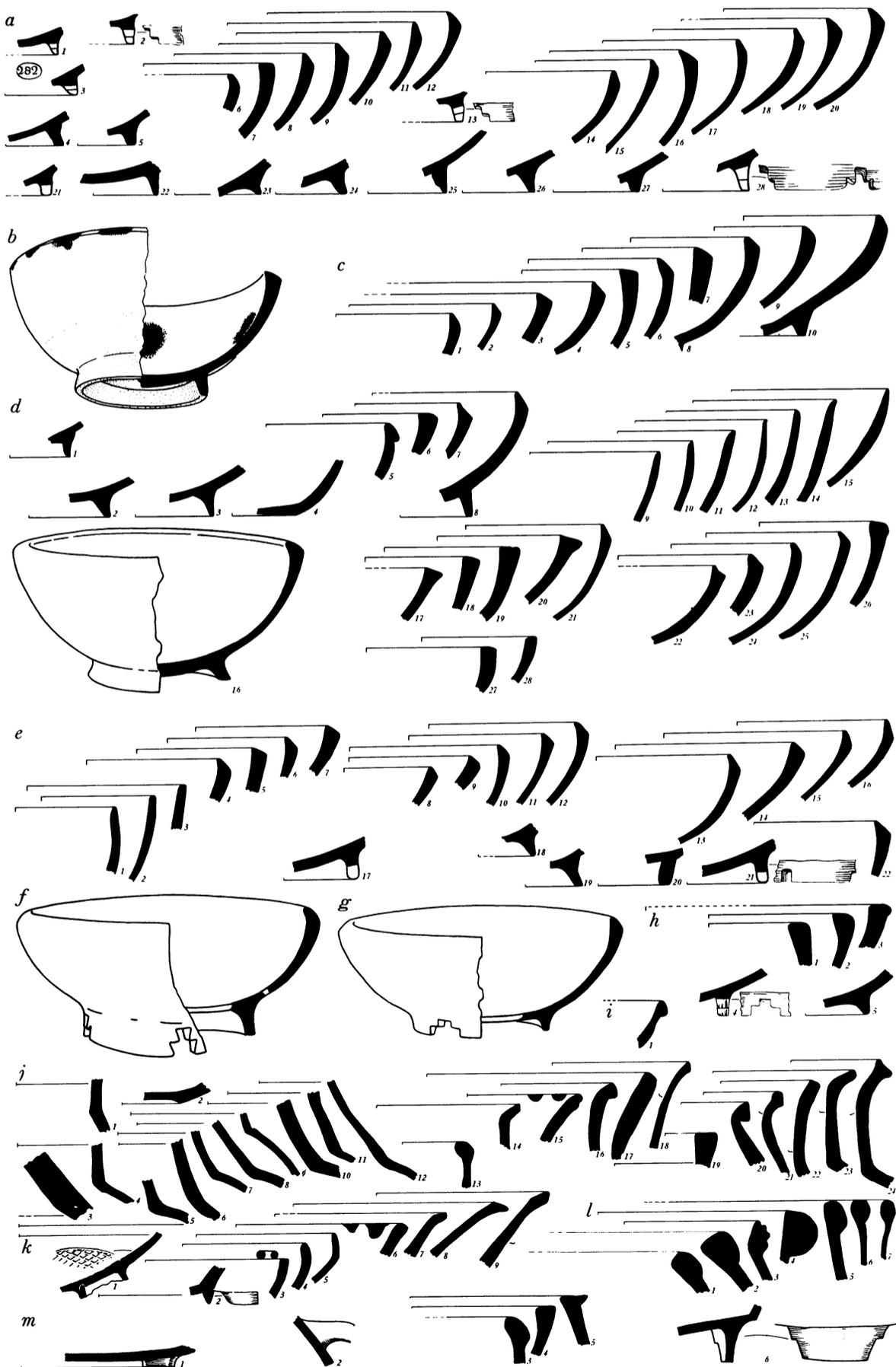


FIGURE 50

Thin Slateware from sites of the Puuc region.  
a; f: Kabah. b: Labna. c-e; g-q: Uxmal.

This ware is limited to the Florescent stage and seems to have grown both more frequent and more clearly defined toward the close of the stage. The difficulty in sorting it completely from Medium Slateware is discussed in the text; vessel shape is the easiest criterion. Typical shapes are beakers and hemispherical bowls. Beakers seem to have ranged from tub shaped to tumbler shaped in proportion, though little restorable material is available. The low beaker form is of course standard in the earlier Fine Gray and medium blackwares. Bowls are close to those of the contemporaneous Z Fine Orange in shape, see fig. 59, a-f, but the beaded lip, a, 4-15, k, 31-49 is limited to this ware and to the closely similar Thin Redware. The deep rounded bowls, o, 1-10, are similar in contour and wall thickness to Chenes Medium Slateware forms, and to fig. 73, e, f from Chichén Itzá, which are probably of Early Florescent date. The thick-walled, taper-lipped bowls a, 24-26; b, 8-14 are strikingly similar to Medium Slateware forms (figs. 21, d; 32, d;

35, d; 49, d, 9-13) and are placed in Thin Slateware solely on basis of light slip and paste color.

The trumpet base, c, f, g, fig. 51, c, 5, appears first during this period, save for an exception in Medium Blackware at Dzibilchaltun (fig. 53, k, 5). This base is confined to cylindrical, barrel-shaped and pyriform vessels such as fig. 47, k. It is a frequently used form of base in the X Fine Orange and related local wares of the Early Mexican period. The occurrence of trumpet bases on tall, narrow vessels might be ascribed to Mexican mainland influence more certainly were it not for its relatively earlier occurrence at San José (Thompson, 1939, figs. 63, 67, 79). The cascabel trumpet base, c; g, 1-3, is found in Thompson's fig. 63, dated earlier in San José III-IV transition.

Incised ornament is limited to bordering bands, usually showing a two-strand twist, i, 2, 3, i, 1 with its allover incised design and cakepanlike central cone is unique. Vertical preslip grooving as in f is rare, but widespread in collections. For a halftone reproduction of d, see Morley, 1946, pl. 83, a.

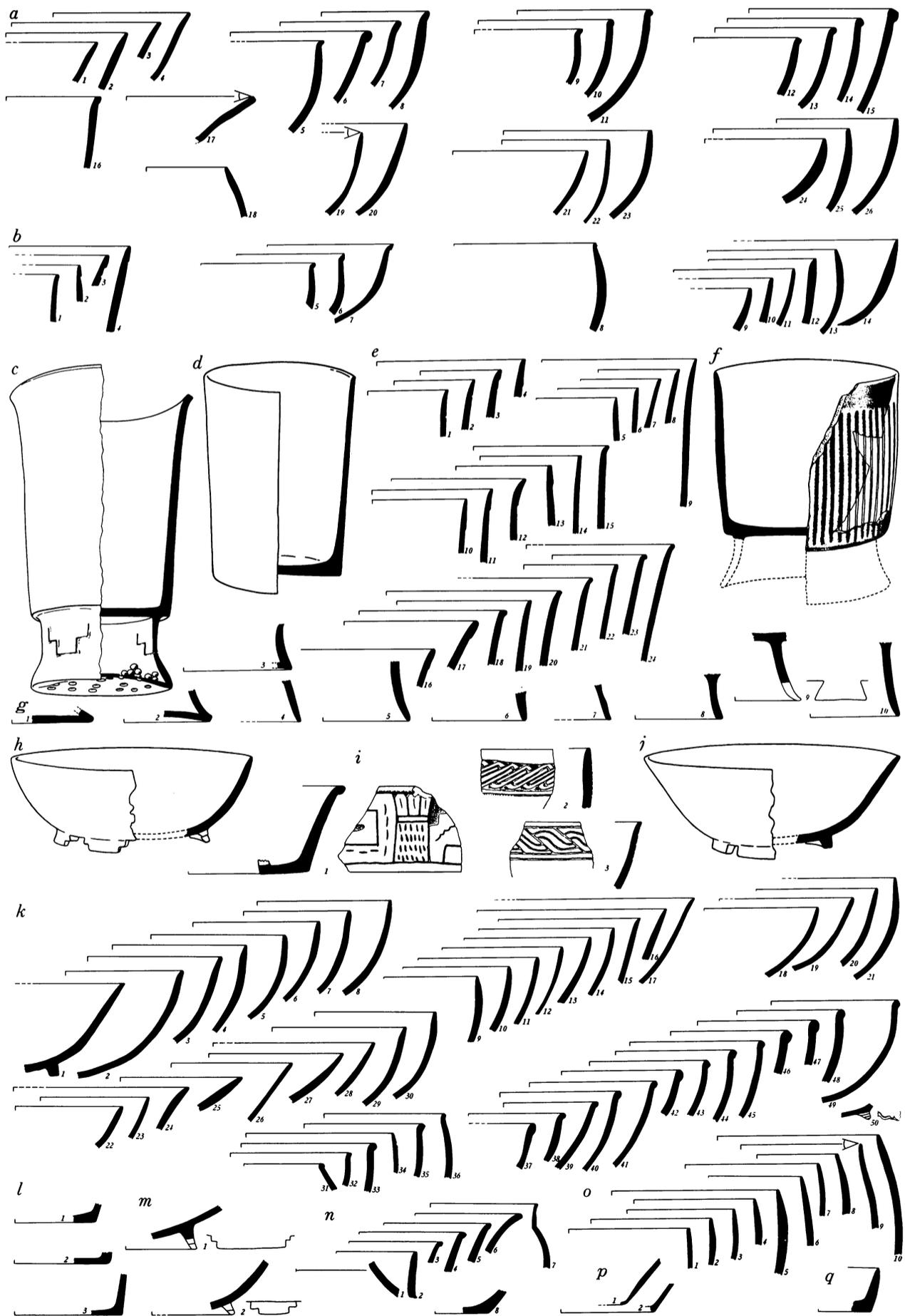


FIGURE 51

Thin Slateware and Redware from sites of the Puuc region.

*a; b; j; k; Sayil. c; i; Oxkintok. d; Sabacche. e; Kabah. f; Chunkatzin near Labna, P.M. g; Labna, mound 6, P.M. h; Labna. l-n; Uxmal.*

*a-c; Thin Slateware. d-h, 2; k-m; Thin Redware. h, 3, i, n; Medium Redware. All of Florescent stage.*

Redware, which grows increasingly more frequent in the later Florescent collections in the Puuc area, although it does not intergrade into the slatewares in

surface characteristics, shows marked parallelism in forms. It shows the varieties of thin-walled hemispheroid bowls and beakers which allow a subdivision into Thin Redware. The thicker-walled basal break bowls and basins (fig. 52) and exterior bevel-lip hemispheroid bowls (*i, n*) are present, and closely parallel Medium Slateware in form (see fig. 52). Shape and design of *g* is unique; grooves made prior to slipping occur on *g* and *l, 20*.

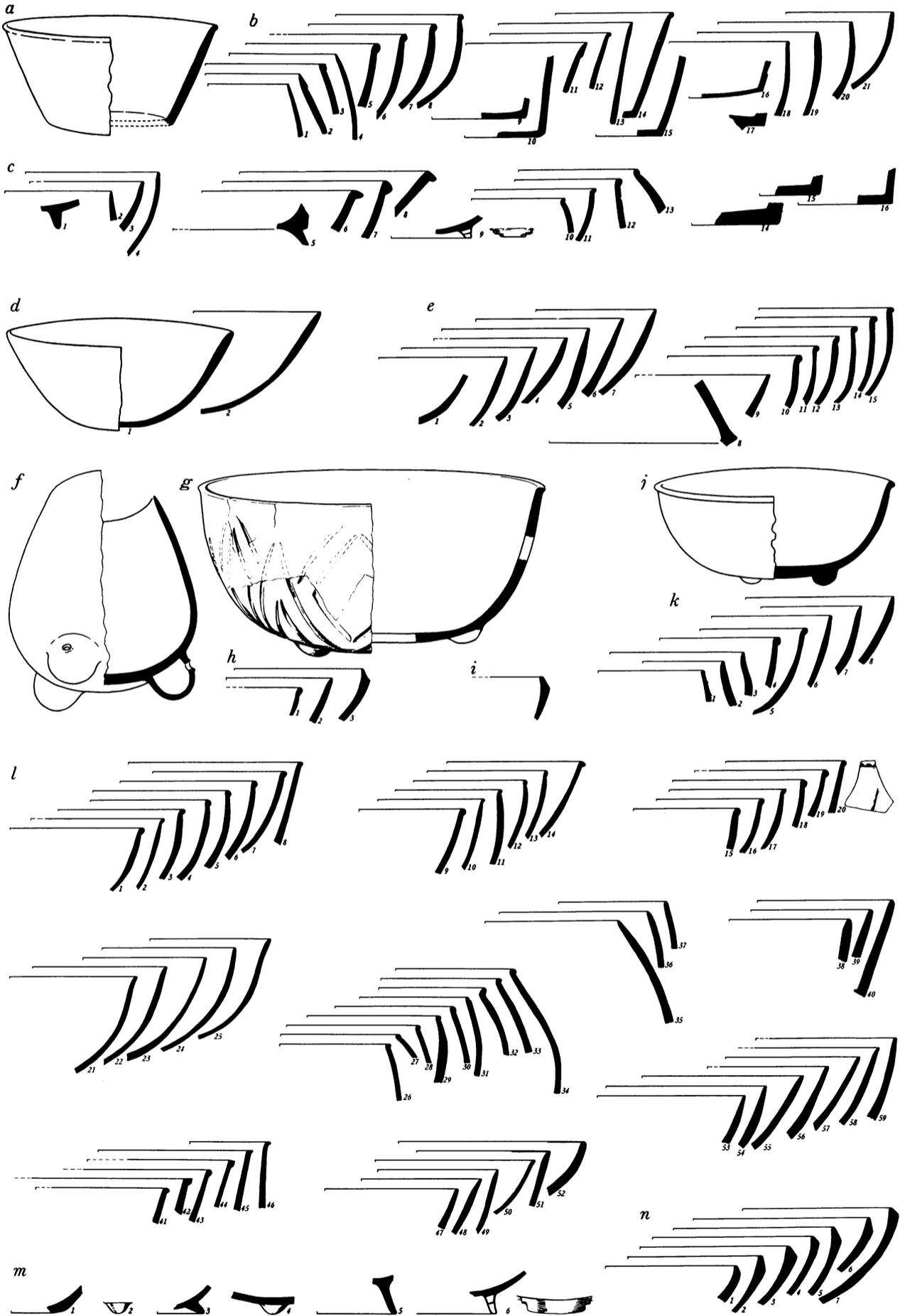


FIGURE 52

Redware from sites of the Puuc region.  
a; g: Sabacche. b; f; m: Uxmal. c; i; j: Kabah. h:  
 Labna. k, l: Sayil.  
a; b: Jar fragments. c; e; f: Basins. d: Concurvate-  
 sided bowls. g-m: Basal break bowls. 1, 2: Concurvate  
 grater bowl fragment. All these specimens are classed  
 as Medium Redware on basis of vessel shape save possi-  
 bly for d.

All incising seems to have been done before slip-  
 ping. d, 1-3 bear thin black slip exteriorly; 1, 16 bears  
 a black painted design on its floor. h, 7 bears an appli-  
 qué mold-pressed head, hollow cylinder impressions  
 on bolster top, incised designs on exterior. 1, 11 with

a cut skirt, 1, 12 with thumb-pressed skirt. m, 36 with  
 slotted base, m, 39 with cut-terraced ring base.

Since this type of redware is nearly absent from  
 Chenes sites and seems to increase markedly in fre-  
 quency in late Florescent stage Puuc deposits, the  
 forms represented may logically be assumed late. Note  
 sharp side-bottom angle of basal break bowls, marked  
 outcurve sides, and relatively constant sidewall thick-  
 ness as compared with Medium Slateware bowls, cf.  
 fig. 45 and 46. Jar sherds a, 1-3 may be of Regional  
 stage, cf. figs. 11, b, 20, c, jars b, 5-8 are probably  
 Florescent, b, 1-4 of uncertain date. Florescent Red-  
 ware jars are exceedingly rare.



FIGURE 53

Holactun Slateware from sites of the Puuc region. Fine Grayware and Thin Blackware from the Puuc, Holactun, and Dzibilchaltun.

*a-f*: Uxmal, *g*: Labna, *h*: Sayil, *i*: Dzibilchaltun, *j*: Kabah, *k*: Holactun.

*a-b*: Holactun Slateware jars. *c-d*: Holactun Slateware basins. *f*; *h*; *k*: Fine Grayware. *e*; *g*; *i*; *j*: Thin Blackwares.

Holactun slateware differs in surface characteristics from Medium Slateware of Florescent stage. The predominant forms of Holactun Slateware are also distinctive, but there is considerable overlap of Holactun Slateware forms into the form range of Medium Slateware, and suggestions of overlap in the other direction. The jar rim form shown in *a*, 12-14, 17-20, and fig. 40, *g* is preponderant, with *a*, 7-10, *b*, 10-13 coming next. These forms are rare in Medium Slateware, cf. figs. 40-42. Although lid samples are small, the convex lid is possibly commoner in Holactun Slateware, the flat lid certainly in Medium Slateware. The basin rim form is more constant than that of the jars. The tendency toward a T shape is preponderant, although occasional rims are quite close to Medium Slateware forms; cf. *d*, 18-27 with figs. 43 and 44. Holactun Slateware probably is abundant at Etzna (see Ruz, 1945, pp. 50, 61), but was, surprisingly, nearly

absent in the Chenes region collections made in 1949.

The placement of Holactun Slateware relative to the Puuc chronological sequence is of particular interest because of the 9.16.0.0.0 date found at Holactun. The Holactun collections were taken from locations near the dated temple. Stylistic criteria of form suggest that the basin rims may be of the same horizon as the Early Florescent Dzibilchaltun, Acanceh, and Mani horizons; although the jar forms do not contradict this view they give but little reinforcement, and the prevalence of the chultun jar in Holactun Slateware argues against a very early date.

The Fine Graywares are duplicated by many whole vessels in the Mérida collections, see fig. 36, *b*, *d*, *e*, *g*, *i*, but specimens from Puuc sites and Chenes sites are too rare to give a cross placement with those sites.

The Thin Blackwares from Dzibilchaltun stand nearly isolated in the Yucatán collections but, surprisingly, seem to be nearly duplicated in ware by certain fragments in collections taken in 1949 from Xpuhil in the Río Bec area. These Río Bec collections have not been worked up as yet. Thin Blackware, Fine Grayware, and Dzibilchaltun Fine Orangeware all show suggestions of relationship and contemporaneity through similarity in forms and decorative techniques; low beaker forms and incised design characterize all three.



FIGURE 54 (half scale)

Florescent anthropomorphic and zoöomorphic fragments, mainly from the Puuc region.

g; r; dd; ll: Uxmal. ij; ee; jj; mm: Kabah. k; n; x; y; bb: Holactun. m; w; z; cc; hh; kk: Sayil. ff: MM, reconstructed areas from Gates, 1937, p. 35. Remainder of specimens provenience Yucatán. v: fine yellow paste with white slip, ff: blackware; others seem to belong with Medium Slateware group.

The faces and often the whole front of most of these fragments are mold-pressed; that is, the clay is pressed into a single-piece mold such as those shown as fig. 56, t and v. Usually the sides and backs have been hand-modeled, and the molded portion has often been improved by later sharpening of detail or by addition of appliqué elements. The representations are in the round and show no dorsoventral flattening or simplification of the back of the figurine. Rarely a whole piece shows only hand modeling, see fig. 55, x. The paste seems usually the same as that used for the accompanying slateware; specimens are often slipped, sometimes left plain but with a very smooth surface.

The following types of objects are recognizable with reasonable certainty: Flageolets, see 54, ff, and note that 56, m has a closed end. Whistles, single with exposed tongue, 55, dd, two-tone with exposed tongue, 55, aa, single with internal tongue, 55, cc, double with internal tongue. All of these whistles have closed sound chambers, though often with one or more stops thus making them ocarinas. Simple pendant, 56, a. Bead, 56, f. Molds, 56, l, v. Bell-shaped objects, of unknown use, may be reconstructed without much certainty from various fragments. 55, w shows an upper end which might be completed by such fragments as 55, gg. If this reconstruction be favored, the considerable number of heads which bear vertical perforations may be placed in this group. Any of the large number of heads with vertical perforation may have belonged to such objects. The possibility that these forms may be related to some of the objects which de Borhegyi (1952) has dubbed "Duck-Pots" should be noted. There is no evidence of figurines used as jar-lid handles, or for any other use on vessels save for the head shown as fig. 52, h, l. There is no evidence of wheeled toys. Evidence for jointed dolls is slim, see 54, k, l. Hollow legs for basal break bowls may be included, cf. 54, p, r with fig. 58, e, h.

These anthropomorphic and zoöomorphic heads seem to be confined almost completely to sites of the Puuc region, and others of the same horizon. We obtained no figurine material from the Chenes and Río Bec excavations in 1949 and have seen few figurines in collections from those areas. In very late times in Yucatán the so-called figurine incensarios, see figs. 98-102, occur commonly, preceded by such Mexican-stage animal figurines as those of fig. 93, d-h, and perhaps preceded slightly by the Santa Rita animals (Gann, 1900). The appliqué hand-modeled human face, fig. 6, k, is quite surely of Early Regional date, the dissimilar appliqué monkey faces from early Oxkintok, fig. 12, k, l, probably date somewhat later in the Regional stage. Incised monkey figures occur at Dzibilchaltun in Regional-Florescent transition deposits, see figs. 28, g; 36, b, d. Figurines on figs. 54-56 which may precede Puuc times are 54, y, from Holactun; 55, w from Yaxuna and 56, p, probably from Labna, seem aberrant in style from the Puuc finds.

time, and that they date before Early Mexican times. Although Ruz gives no evidence to support these figurine datings, his estimates may well be correct. The two styles seem mutually exclusive on single figurines, and this suggests that they were not contemporaneous; also, hand-modeled figurines in general precede mold-made in Mesoamerica. Although the mid ninth-cycle ceramic samples from western Yucatán are not large, the absence of Campeche coastal pottery in them, as well as in the Chenes collections, still seems surprising. This absence must be taken as additional evidence of the isolationist tendencies already noted among human groups of the Regional stage. The Jaina figurines are worth much more study than has thus far been given them. In addition to their high aesthetic merit, they are a real storehouse of detailed information on Maya costume and personal adornment.

As has been said above, the Puuc figurine heads show resemblances to those from Uaxactun (R. E. Smith, 1936b, last two figures), and to certain figurines of San Marcos type from Tres Zapotes (Drucker, 1943, pls. 49, b-f, 52, e, h). Smith (personal communication) places the Uaxactun figurines of this type in Tepeu 3, the Tres Zapotes figurines are of the "Upper" period; both of these chronologically approximate the Puuc horizon, although Drucker's recognition of a stylistic transition between his San Marcos and later Lirios figurines is difficult to relate to the Yucatán sequence where the equivalents of these two styles are separated by some 500 years of figurine-free ceramic development (see caption fig. 98).

The Uaxactun Tepeu 3 figurine material seems to correspond to the Puuc in technique of manufacture and in emphasis on whistle and flageolet forms, although the specimens of both collections are quite fragmentary.

One of the surprising results of the ceramic work in Yucatán has been the complete absence of figurines of Jaina type in the excavations. Even allowing for the sparse coverage inherent in a survey covering 35,000 square miles and two millenia, a few fragments were to be expected. The clay of the figurines from the Island of Jaina is very like the clay characterizing the fine orange pottery found in sites dating from Regional-Florescent transition (Dzibilchaltun) through Late Mexican (Mayapan), but so different from local clay that the smallest fragment would have been conspicuous. The Jaina figurines are of two general major types, one solid and largely or completely hand-modeled, the other with mold-pressed front and a thin clay slab luted on for the back, forming a thin-walled, flattish slab shape with flat bottom. No Puuc figurine fragments found suggest stylistic similarity to either of these types. For the comparison in addition to an examination of the specimens on display in the museums at Campeche and Mexico City, I have examined photos of 40 furnished by Sr. Paul Pavon, Director of the Campeche State Museum, 140 from a private collection photographed and described by Mr. Hasso von Winning, and some 60 of Jaina type which I photographed in Mérida collections. An examination of over 100 pounds of pottery from the 1942 excavations at the cemeteries at Jaina, kindly allowed me by Sr. Pavon, showed some 8 Medium Slateware sherds, all seemingly of early types, one sherd of Fine Gray, one Holactun Slate basin rim, one sherd of X (Early Mexican stage) Fine Orange, and no other Yucatán types.

This assemblage, except for the single fine orange sherd, might well date not far from the time of the Jaina Initial Series stela, 9.11.0.0.0 as far as Yucatán tradewares are concerned. The local Jaina wares are made of an orange-colored clay, distinguishable even in small fragments from the Yucatán wares. The absence, or practical absence, of this ware in the larger Puuc collections, as well as dissimilarities between the two figurine styles, argues against contemporaneity between the Jaina and Puuc deposits. The lack of contemporaneity is made more likely by the fact that figurines from Uaxactun, Guatemala, and Tres Zapotes, Veracruz, show more stylistic similarity to the Puuc figurines than do the Jaina figurines of either type. The evidence for pre-Puuc dating is not contradicted by evidence from San José, where Thompson places four figurines of hollow moldmade style, not unlike those from Jaina, in San José IV, which is roughly contemporaneous to Tepeu 2, dated by Smith as 9.12.5.0.0 to 9.19.0.0.0 (Thompson, 1939, fig. 92, i, j, pl. 22, b). Sr. Pavon told me in 1942 that no difference in horizon had been to that time discernible between the hollow molded and the solid modeled types; he believed that they seemed to be contemporaneous.

Roman Piña Chan (1948) also attempts no temporal division of the figurines, and states (p. 12) that no stratigraphic relationships have been found among the tombs. Associations of objects within burials, unavailable from his report, might allow chronologic placements. Ruz in his summary report on the state of Campeche (1945, pp. 71-72), by comparison between the Jaina collections and stratified collections he has excavated in the city of Campeche and Etzna, dates the modeled Jaina figurines as apparently Tzakol-Early Tepeu, and believes the moldmade figurines follow the hand-modeled in

In both, the heads and faces are mold-pressed but solid, and are in full round with no dorsoventral compression, and with allover modeled detail. On the other hand, one style is hand-modeled to a greater degree with full figurines rather than whistle or flageolet forms, the other usually being dorsoventrally flattened, with surface detail in low relief and undecorated back, always hollow and thin-walled, and generally in form of a rattle or ocarina. At Tres Zapotes all these variable forms and techniques seem represented in the Upper period, although Drucker states (1943, p. 82) that the majority are of low relief front-modeled style. This Upper period covers a long time span at Tres Zapotes, and all these styles may not have occurred contemporaneously there.

A somewhat uncertain clue to interconnections among Puuc sites, Uaxactun, and Jaina may be afforded by a carved column from a Puuc-style building at Oxkintok (Shook, 1940, fig. 7), a figurine from Uaxactun (Smith, 1936b, last plate fig. 5), and a figurine from Jaina (Piña Chan, fig. 12). These three representations are all of a fat man dressed in what may be quilted armor or a featherwork garment. The figure suggests the Mexican Fat God. The Oxkintok and Uaxactun figures seem more similar to each other than to the Jaina specimen in head-dress and abdominal protrusion, but this distinction is slight and seems inconclusive. The presence of jointed figurines at Jaina (Piña Chan, 1948, fig. 20, also in private collections) as well as various other Mexican Highland traits found in Jaina figurines by Hasso von Winning (unpublished manuscript at UCLA) strengthens the suggestion of cultural contact between the Mexican mainland and Jaina in pre-Mexican phase times, and suggests the possibility that both at Jaina and at Isla de Sacrificios, the people buried were brought by coastal water traffic from over considerable areas.

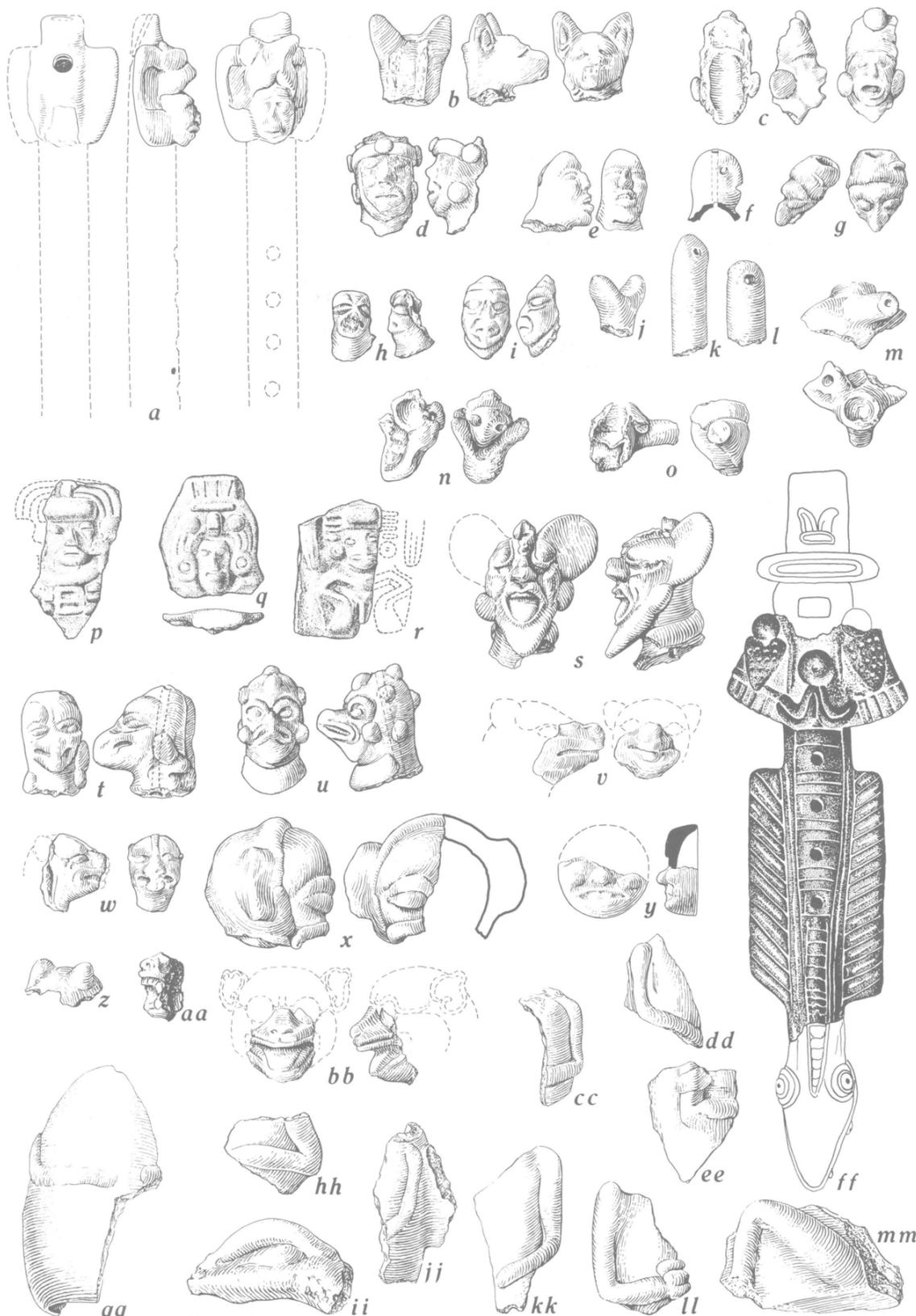


FIGURE 55 (half scale)

Florescent-stage anthropomorphic and zoöomorphic fragments. Mainly from Puuc sites.

a; c; e; f; h; i; q; r; x; y; z; cc; dd: Uxmal. g: Dzibilchaltun. w: Yaxuna. bb: Kabah. Remainder general Yucatán.

a; j; cc: Highly glossy blackware, remainder of medium slateware paste, with or without slip.

s and w may antedate the occupation of the Puuc sites; stylistically they are somewhat aberrant. For e, cf. Drucker, 1943, pl. 49, a-c, for p, cf. *idem*, pl. 62, e. x is thin-walled and hollow, hand-modeled save for hollow cylindrical punching of eyes. Details are appliquéd fillets. Paste and slip are those of the gray-white thin slateware. The figurine may have been either a rattle or ocarinalike whistle. The internal-tongued

whistle, cc, is probably found at Jaina (on appearance of photo of specimen furnished by Pavon) although evidence is not absolute. The type may be historically related to the internal-tongued whistles which characterize many of the whistling jars which are common in Peru (Steward, 1946, vol. 2, pl. 60) and are rare, but of early origin and long persistence, in Middle America (Kidder, Jennings, and Shook, 1946, pp. 190-191, list twenty Middle American specimens and discusses their typology and range. Brainerd, 1951b, Digby, 1951, and Porter, 1953, p. 77, give further data and opinions on these vessel and whistle-type distributions which are among the most promising evidences of early Peruvian-Mesoamerican contact).



Anthropomorphic and zoöomorphic fragments, molds, whistles, and a bead, all from Labna.

All PM, collected by E. H. Thompson, All but n and v excavated from chultunes (vide Thompson, 1897). f; g; h; i; o; q with glossy black slip. Remainder seem to be of medium slateware paste. p is stylistically dis-

tinct from all others, a conventionalized mask, in that the design is confined closely to a plain surface. The molds t and v demonstrate the local manufacture of figurines. v has no draft; the clay must have been allowed to dry before shrinkage would have allowed it to be drawn from the mold.

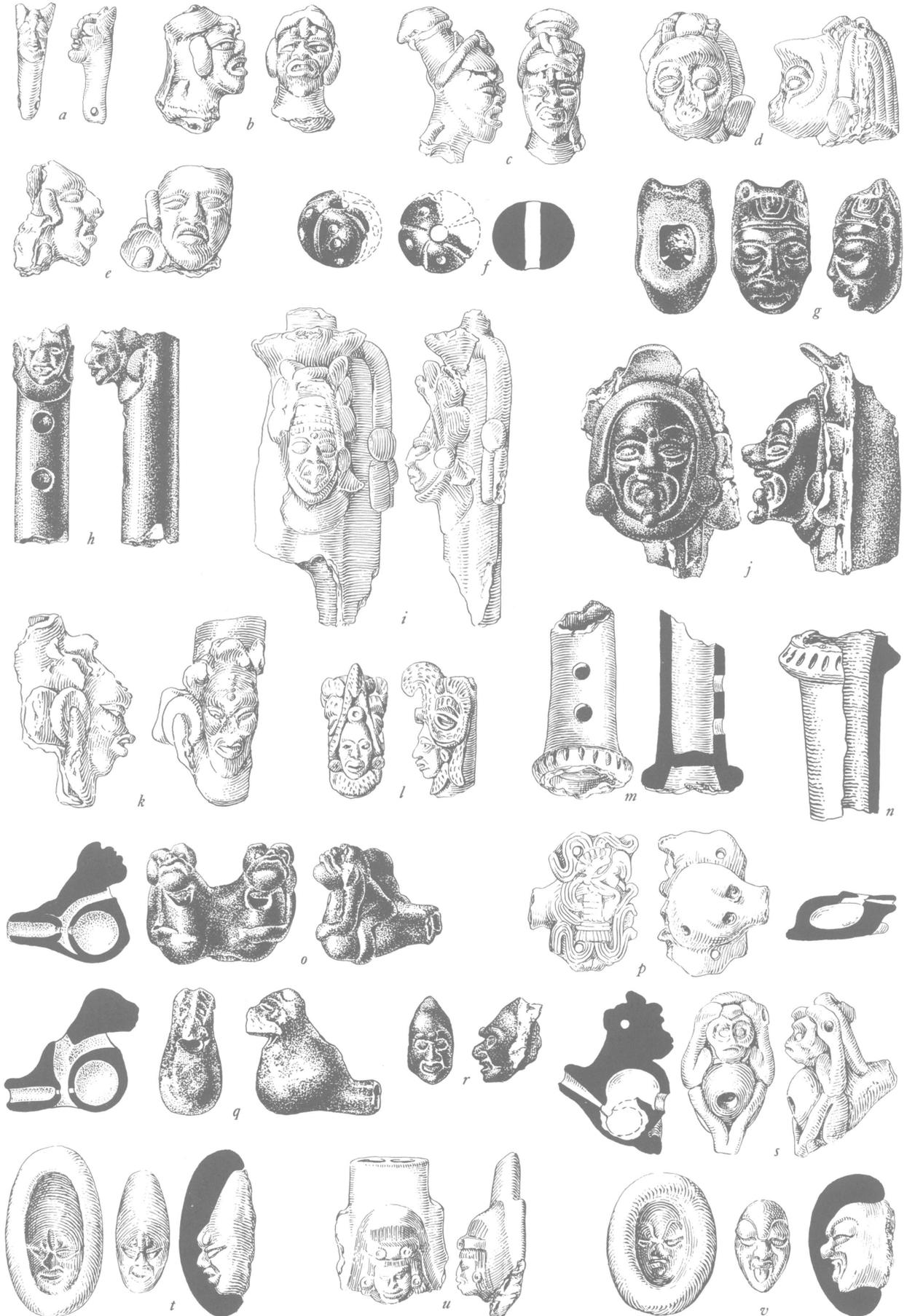


FIGURE 57

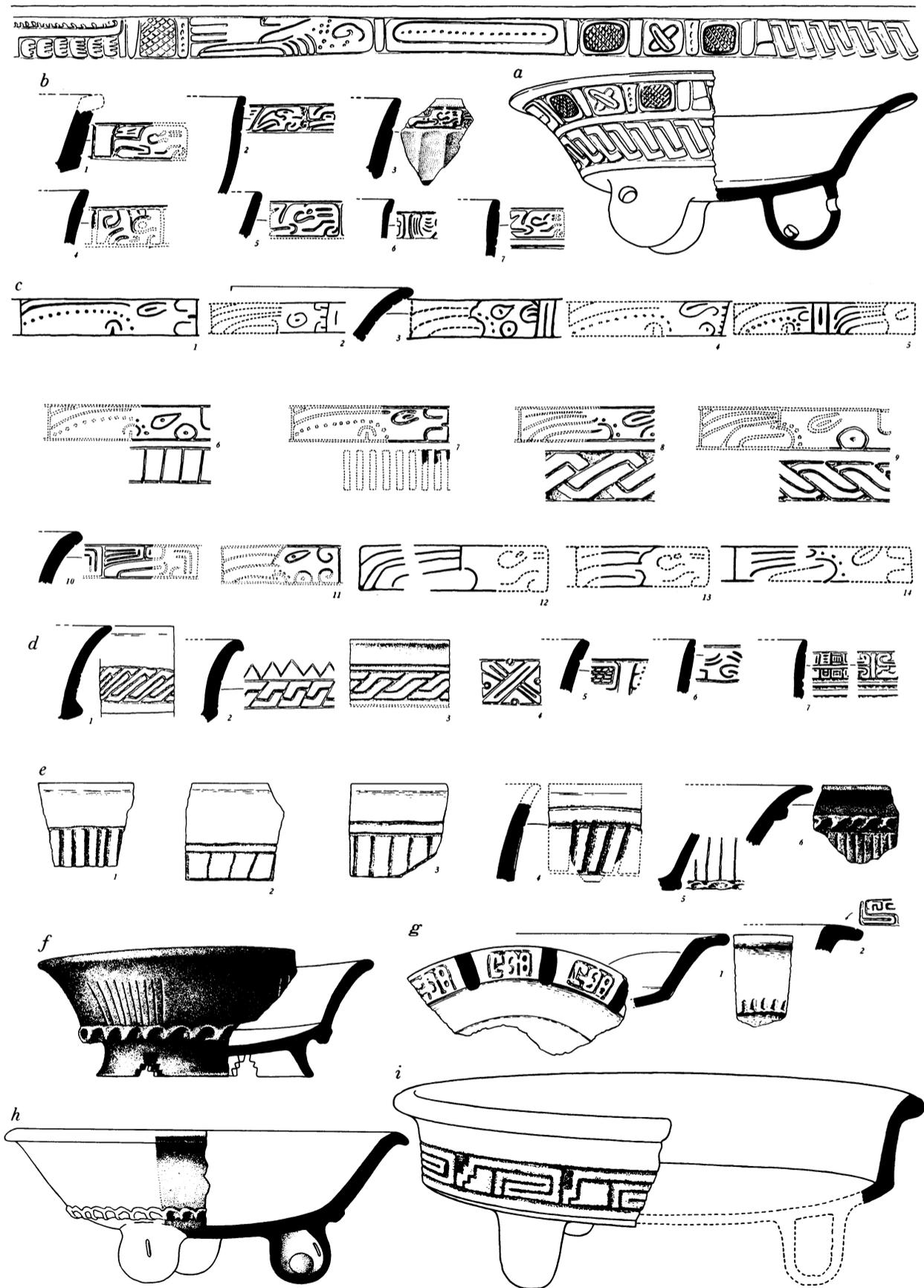
Basal break Medium Slateware bowls, showing incised underslip, grooved and thumbbed designs.

a: PM near Uxmal. b, 1, 4; c, 9, 10, 11, 13; d, 1, 4: Uxmal. b, 2; c, 8; d, 3; e, 1-4, 6; f, i; Kabah. b, 3, 5; e, 1, 6, 7, 12, 14; d, 2, 6, 7; g, 2: Sayil. b, 6, 7; c, 2, 4, 5; Labna. c, 3; e, 5; g, 1: Acanceh.

The underslip incised designs of this group are in general coarser than those of fig. 58, i, 1-10. All are found on more or less typical Puuc-style basal break bowls save for b, 1-7, where shape variability is matched by variation in style of the design element. These sherds may well date earlier than the others. Thumbbed fillets occur on e, 6; f and g, 1 and 2, thumb-

ing above the basal break in g, 1, which also bears trickle paint; the design on this specimen may have been mold-pressed, then smoothed over.

The elongated, leftward-facing bird face which appears often must be a decadent copy of a glyph, of which the proportions of b, 1-7 and fig. 62, a are closer to original form. For similar incised birdhead glyphs, see Thompson, 1931, fig. 14, p. 310. Double-cord, two-ply twists are shown, both right and left hand. This device is found on Thin Slate of the same period (cf. fig. 50, i, 2, 3); apparently three-cord plaiting incised on pottery is limited to the Early Mexican stage (cf. fig. 77, a, d).



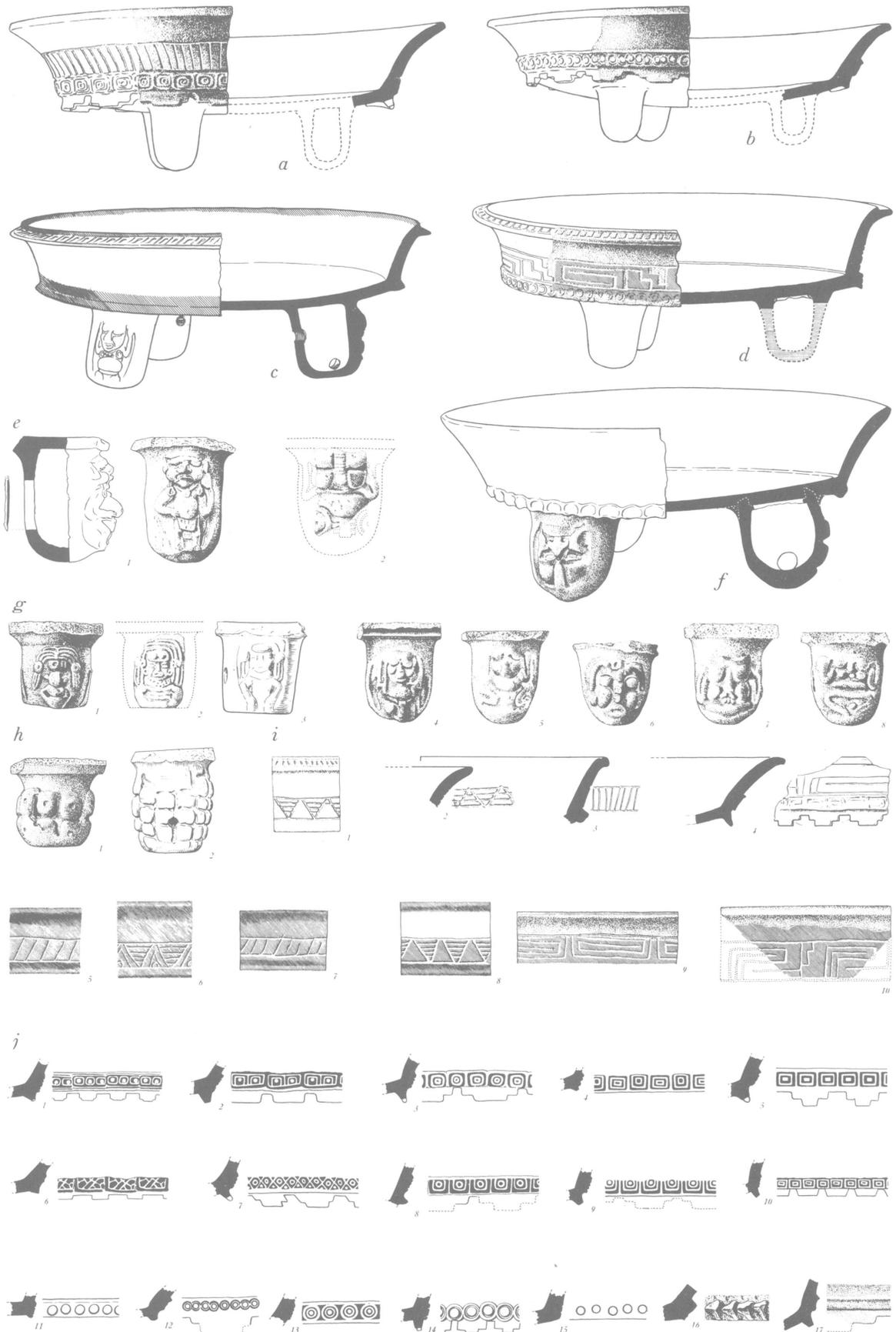
Decorated Medium Slateware and redware basal break bowls. Florescent stage.

a; b; d; i, 1, 5-10; j, 3, 4, 8-10, 12: Kabah. c: PM, Temax. e, 1, 2; f; h, 2: Dzan. g, 1, 2, 4-8; h, 1: Uxmal. g, 3: PM, Yucatán Peninsula. i, 2, 3: Acanceh. i, 4; j, 7: Labna. j, 5, 13, 16, 17: Sayil. j, 2, 6, 14, 15: Chichén Itzá, Monjas Building.

h, 1, 2; i, 5, 7: Medium Redware, remainder are Medium Slateware. a; b; d; h, 4; j, 1-15: Stamped fillet. f: Thumbled fillet. j, 16: Applied tetrahedral bosses (cf. fig. 39, e, 19). j, 17: Plain fillet. a; c; d; i: with fine-line postslip incised designs, c, d, i, 5-10 with specular red paint, c; e; f; g; h mold-pressed designs on hollow rattle legs. a; b; h, 4; j, 1-3, 5-10, 12, 14, 17 with cut skirts. c; d: rim flange with incised design on upper face.

The hollow legs with anthropomorphic decorations divide readily into two types: g, 1-3 is cylindric with a luted disc-form bottom, full-length human figures with a distinctive headdress appear, cf. fig. 62, n. Remaining legs are round-bottomed, all showing obese

faces and obese bodies when present. This "Fat God" figure appears also on a column at Oxkintok (Shook, 1940, fig. 7), on a Tepeu 3 whistle from Uaxactun (R. E. Smith, 1936b, fig. 17-5), and on a molded figurine from the Island of Jaina (prior to collection). Incising shown here is done through the slip, and through the specular paint where present (cf. fig. 44, a, 4). The fillets and skirts are very evenly made, suggesting kabal work. None have split or cracked off, suggesting that they were thrown from the original clay mass, not luted on. Fillet stamping is done with a hollow cylinder (reed?) in b; d; j, 11, 12, 14, 15, with a decorated stamp in other cases. The stamp in several cases bore two or three repeats of the design, see j, 1, 2. Cut skirts often show striations on the cut surface, almost certainly demonstrating the use of a shell tool. Cut ring bases and terraced slab legs often show this same patterning. To my knowledge, none of these decorative techniques are paralleled closely in pottery elsewhere. Their distribution in collections, though scanty, suggests a late Florescent dating.



Z (Puuc) Fine Orangeware from Puuc sites, Dzibilchaltun Fine Orange from Dzibilchaltun.

a: PM Yucatán. b; c, 4, 6, 10-12, 15-18; d, 1, 2, 7-9, 15, 17, 19, 21, 22; e, 1-4, 7, 8, 10-15, 17, 20; f, 2, 4, 7, 11, 15-18, 23-25, 29, 30; Uxmal, c, 2, 7, 14, 20; d, 3, 6; e, 5, 6, 19; f, 3, 5, 6, 19, 21, 22, 26, 27; Kabah, c, 8; d, 14; Labna, c, 3, 21; f, 20; Holactun, d, 3, 12, 20; e, 9; Sayil, g: Dzibilchaltun, h, 1; Mani, h, 2-12; Acanceh.

a: Atypical specimen, possibly best classifiable as Dzibilchaltun Fine Orange. b-f: Z Fine Orange. g: Dzibilchaltun Fine Orange. h, 1: X Fine Orange. h, 6: Dzibilchaltun Fine Orange. Remainder of h: all probably Z Fine Orange.

a: Incised through black slip band, b: Incised through black slip band; rest of exterior and interior white slipped. Cf. Lothrop, 1936, fig. 78, a for a reclining figure similar to this. Very similar figures occur on orange paste pottery from Piedras Negras and in the Burkitt collections from Alta Vera Paz in the University Museum, Philadelphia. Also cf. Smith and Kidder,

1943, fig. 19, e from the Motagua Valley. c: White slipped interior and exterior. d: Red slipped interior, white exterior; d, 2, 6, 11, 14 with black paint bands. e: Both interior and exterior red slipped, e, 5, 6 are probably from drums. e, 11 bears a gesso coating with rose-colored paint. f, 1-7 with scalloped border of unevenly colored grayish-red slip, f, 7 with additional black painted dashes, f, 8-30 bear red slip or no slip. Smith, 1936b, pl. 11-19 is almost certainly the same type as f. For description and discussion of Z Fine Orange, see Brainerd, 1941. See also plate 103, m for an elaborately decorated vessel related to these. g: All interiors are red slipped, exteriors either red, black, or white slipped as shown. Incision, through slip and paint, is coarser and cruder in execution than in Z Fine Orange. g, 15 is similar in shape to fine grayware (cf. fig. 28, g, 58-70) with which it was associated. It may be misfired Fine Grayware.

Ruz (n.d.) illustrates many fragments of these types of fine orangeware from sites along the Campeche Coast, notably from Los Guarixes.

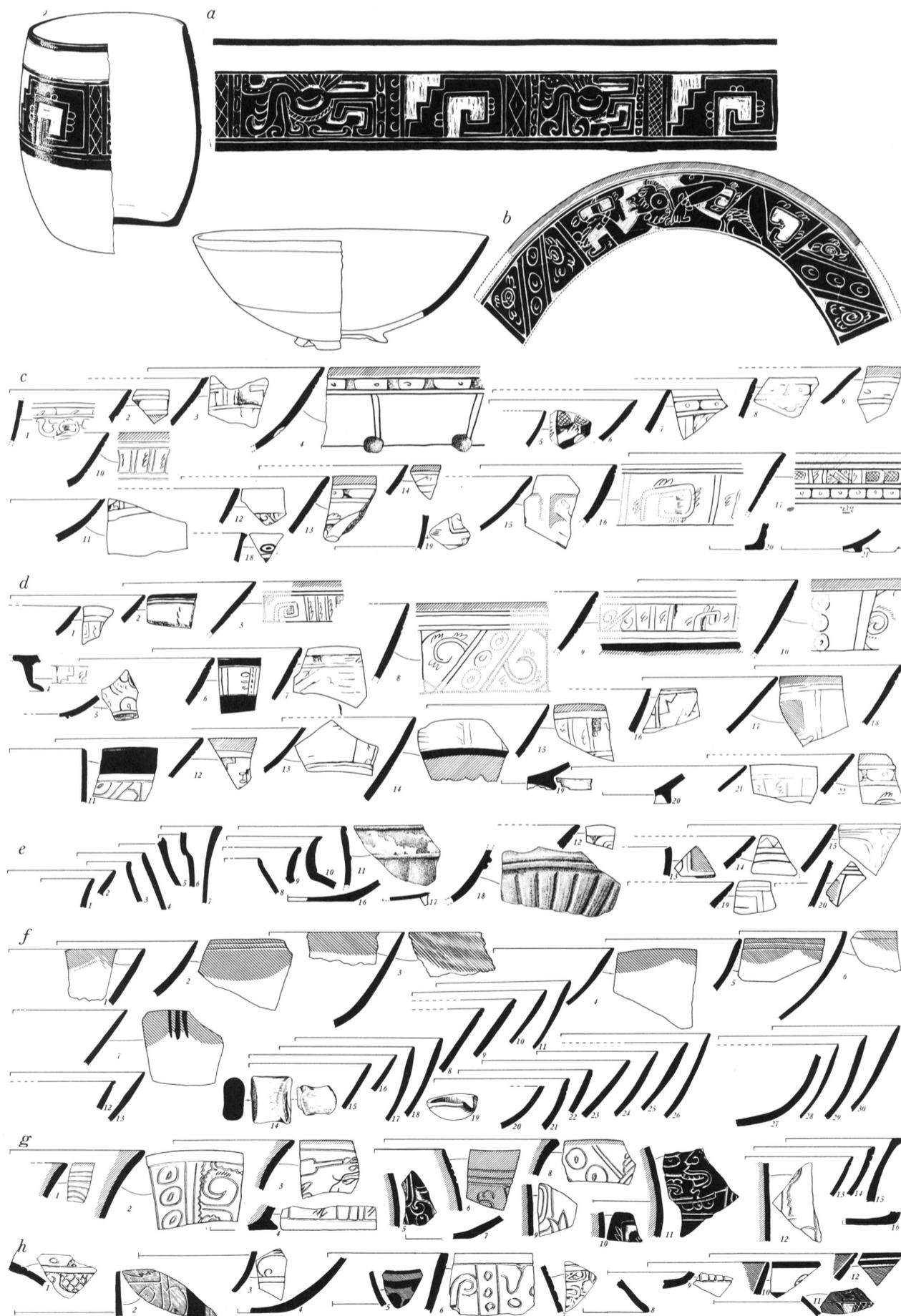


FIGURE 60

Late Formative pottery from Puuc sites. Polychrome ware from Kabah. Rare decorated wares from Puuc sites.

a, 1-30, 32, 33; b, 1-4, 6-10; k, 13: Kabah. c, 1-4, 6, 7; d, 1; g, h, 4; i, 1-11; k, 1, 2, 8, 10, 11, 14, 15: Uxmal. a, 31; b, 5; h, 2, 3; k, 4-7, 9: Sayil. d, 4; e; k, 12: PM Labna. f: Oxkutzcab (private collection).

a: Late Formative Monochromes were found widespread although rare in the Kabah trenches, suggesting a sizeable occupation of that subphase, smothered by extensive later occupation. R. E. Smith makes the following assignments: a, 1-8, 11, 13-17, 23-26, 28: Chichanal-like; a, 9, 10, 12: Mamom-like. b: Polychrome specimens which seem Tzakol-like. c: Medium paste orangewares, some bearing black or white slips and paint. Incising, when present, is through slip. On evidence of colors, technique, and design, these may be imports from the same area as Z Fine Orange. d, 1-3: Orange paste with grayish painted areas, d, 2 likely untempered as is a very similar sherd from Uaxactun (Smith, 1936b, pl. 11-8) and one from Xpuhil, 1949 collection. Figure 103, m seems nearly identical, and suggests that this sherd is classifiable to a type very similar to Puuc Fine Orange. e; f: Medium Grayware. f: is somewhat unusual in decorative style, constituting almost our only suggestion of Antillean interconnection, and this is probably fortuitous, cf. Fewkes, 1907, pl. 79 (western end of Puerto Rico). Ware, shape, and incising technique are local, cf. fig. 53, f, g, k. g: Medium Slateware probably from a grater bowl, likely Early Mexican (cf. fig. 74, i, j) though this shape seems

present among Florescent-stage ceramics in the Chenes, and also occurs in Uaxactun during Tepeu times (Smith, 1936, p. 17). h, 1-6: Modeled appliqué decoration on Medium Slateware. For more squash representations like g, 3, cf. fig. 90, c, m, i, 1: Sigmoid pierced lug, i, 2 grooved fragment, both slateware. i, 3, 4: With incision bordered with precise, fine punctation on brownish thin slipped ware. The punctations may have been made with a notched rocker stamp. I have observed similar rocker stamp decoration in simple straight lines on similar pottery from Palenque, on which Robert Rands plans to report. It is conceivable that these sherds are trade pieces; no direct comparison was possible. j, 1-6: Brilliant, high-gloss orange slip exterior and interior save for sunken unslipped panels which seem to have been mold-stamped (some of these may have untempered paste). j, 7: Plano-relief incised through orange slip. j, 8-11: Carved redware; j, 8 postslip incised, remainder are slip covered and may be mold impressed rather than carved; cf. Thompson, 1939, fig. 83, a, and Smith, 1936a, 12:3, which seem to show similar technique but different vessel shape. k, 1-4: Medium texture red paste and slip with shallow incising. k, 1, 4 with black rim paint, k, 4 with oyster gray exterior slip, cf. Smith and Kidder, 1943, fig. 42, i, k, 5, 6: Orange-red slip with burnished grooves. k, 7: Translucent orange slip with red rim similar to fig. 9, b, 4, 5, 7; i, k, 9-15: Red slipped with black paint and incising. All sherds in k have medium red paste, and show similarities in shape and decoration to Puuc Fine Orange.

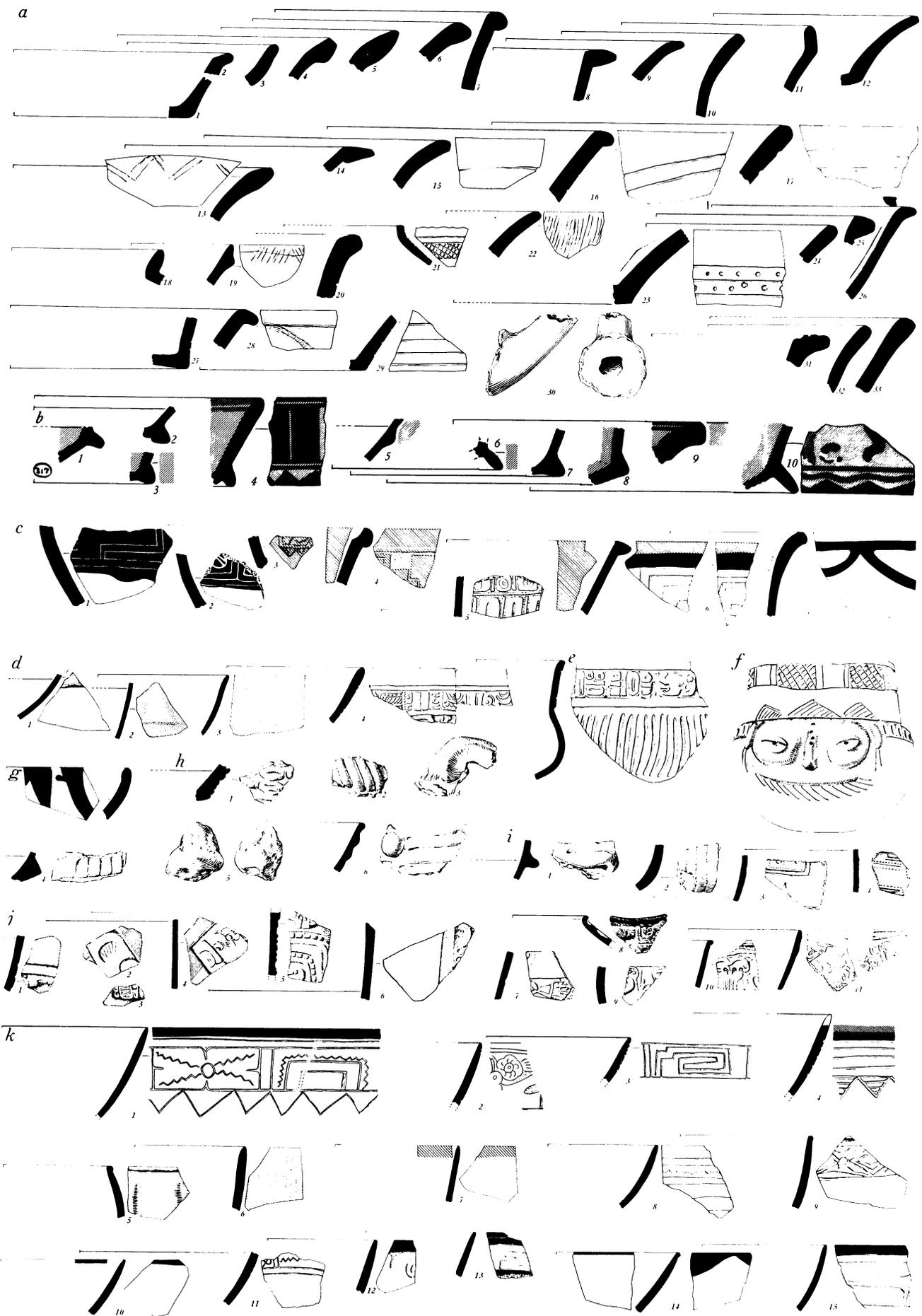


FIGURE 61

Decorated medium slate and other Florescent-stage pottery from Yucatán.

**a:** MM. **b:** MR listed "Campeche." **c:** Acanceh, large pyramid. After Selser, 1915, vol. 5, pl. 10. **d:** Private collection. **e:** MR: Ake. **f:** Morley collection. Dzan. **g:** Morley collection. Ichmal, near Dzitas, Yucatán. **h:** MR, Uxmal. **i:** MR. **j:** MM. **k:** MM. **l:** MM, Mayapan. **m:** MR, Acanceh.

**a;** **d;** **g;** **h;** **k;** **m:** Medium Slateware, **c** is either Medium Slateware or medium grayware. **b;** **e;** **f;** **j:** Thin Slateware. **i:** Medium blackware. **l:** Thin deep-brownish slateware. **d:** Differs from such specimens as **a** and **c** in having been incised after, rather than before, slipping. Several beakers of this style and quality are known. One is illustrated by Stephens (1843, vol. 1, p. 275) from Ticul. One from Peto, PM, is shown by Spinden (1913, fig. 185) and by Morley (1946, pl. 83, **d**), two additional but somewhat variant specimens, both from Sotuta, are shown by Vaillant (1927, figs. 288,

291). Carving seems to be of top quality in all specimens, and unusually free in execution. Paste and slip of the PM specimen is typical for Thin Slateware of the Puuc type, and black, trickle-type paint is used for the spots of the feline. No sherds of this style were found in excavations, and trickle paint very seldom occurs on Thin Slateware. This type is unquestionably the highest development of the Florescent slateware pottery tradition. **f** and **g;** Cross-hatching was not found on excavated incised slatewares, but on Fine Grayware, which is likely, but not certainly, somewhat earlier. For half-tone reproductions of **f** and **g**, see Morley, 1946, pl. 83, **b**, **c**, **l;** **m:** Unique. **i:** Cf. figs. 48, **f;** 62, **a**. The arrangement of elements suggests the Uaxactun wall painting (A. L. Smith, 1950, fig. 47) which is of Tzakol date. This piece does not seem to be of the Medium Blackware which occurs in Regional-Florescent context at Dzibilchaltun. **k:** The recessed panels may be mold pressed.



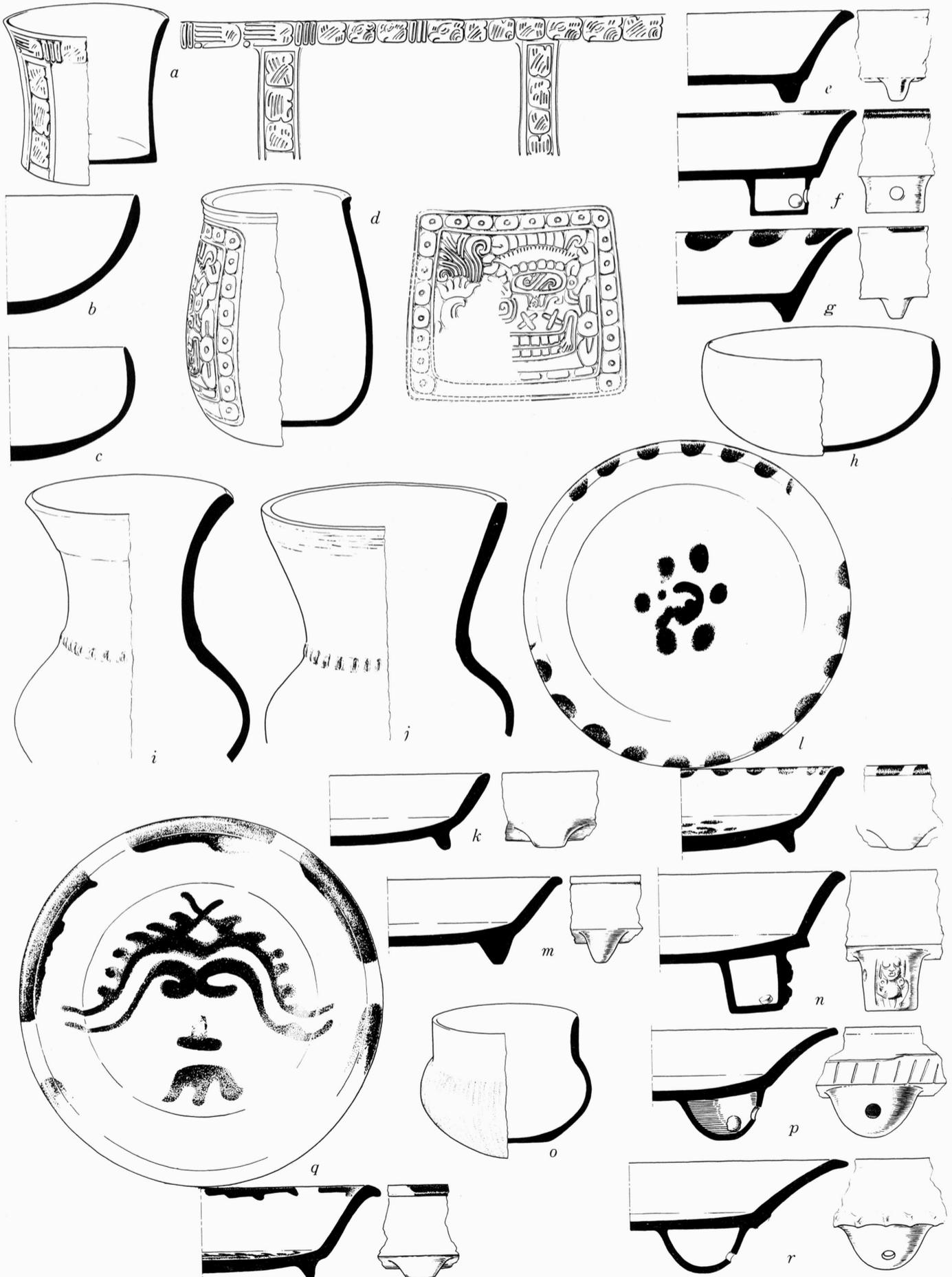
Florescent-stage pottery from Labna.

All specimens shown PM, excavated by E. H. Thompson (see manuscript in PM) from burials and rooms in mound 6, Labna, 1888-1891. Also included in this lot was fig. 3, *c*.

*d*: Medium Redware. *o*: Highly polished red-orange with burnished vertical grooves (cf. fig. 60, *k*, *o*). *b*; *c*; *h*: Thin slate. Remainder all Medium Slateware.

*a*: Very dark in color, cf. caption for fig. 61, *i*, *b*; *c*; *h*: Thickness, dark color, and lack of ring base suggest that these Thin Slate pieces are Early Florescent. *d*: Shown by Vaillant, 1927, fig. 308. Form like Uaxactun Tepeu 3 specimens (Smith, 1936a, p. 12) and San José V (Thompson, 1939, figs. 83, *a*, 84) but on this vase decoration is limited almost completely to incision; little background area is cut away. *e-g*; *k-n*; *p-r*: Note the small teat legs and short, shallow slabs. These are probably the commonest early slateware

leg form for the Puuc and Chenes regions, whereas to the north and east the large slab leg, often stepped, is early. Cf. figs. 15, *a*; 35, *i*; *j*; These are drums. Alberto Ruz has excavated a nearly complete specimen from the building next to our trench 17 at Uxmal, see map 15. The drum excavated by Ruz stands upon a flare rim much like that which surmounts the top, save that the flare base, unlike the top rim, is slipped. The thumbled flange is common on these drums. Drum rims are common in Puuc sites, see for example fig. 39 for exteriorly striated drum rims, figs. 40, *d*, 25, *e*, 2, 20; 41, *b*, 16-18, 53; 42, *f*, 10-12, *g*, 7 for more drum rims and bases. This style of drum occurred in my Santa Rosa Xtampak (Chenes area) excavations, where it is believed to antedate stelae reading 9.16.0.0. See captions for figs. 69, *e*, 1 and fig. 72 for probable carryovers of this form into the Early Mexican substage.



Incised and punctate dichrome and three-color polychrome. Regional stage.

**a:** PM, collection of 12 sherds from "Mound near Mérida" made by E. H. Thompson. **b, 1-8:** Sherds collected by E. M. Shook from "Chac" cave near Sayil (Stephens, 1941, vol. 2, pp. 31-35) which contains a spring 420 meters from the mouth through narrow passages. **c;** **d:** Mani.

**a:** The complete collection is illustrated. Exact provenience is unknown. Paste, slip, and paint seem similar in all fragments, a strong red on orange, save **a, 7**, the slip of which is cream rather than orange in color. **a, 7, 10, 11** are Incised Dichrome jar fragments, cf. fig. 64. Design of **a, 1, 2** and shape of **a, 4** are similar to Balam Canche specimens, fig. 6, **d**, and to Yaxuna Flaky Redware bowls, fig. 6, **c**, also to fig. 6, **g, 2**. **63, a, 3, 5, 6, 8, 9, 12** are classifiable as typical Tzakol polychrome bowls according to R. E. Smith, who comments that lines of dots as fillers for rectangular areas, see **a, 5, 6, 9**, are confined to his Tzakol 1 subphase. Note that Incised Dichrome and the associated Flaky Redware bowls are shouldered or keeled, with sometimes a bulge just below the bottom-side angle (figs. 1, **i; k; 6, c, 8-16; d, 1, 2; g, 2; 63, a, 1, 2, 4**) and that the dichromes and polychromes of fig. 63, **a** grade from this conformation into a characteristic Tzakol basal flange, as shown in the Tzakol polychrome bowls illustrated by Smith (1936, pp. 13-21). The most economical hypothesis to explain this collection is to assume the near contemporaneity of the Flaky Dichrome and Tzakol 1 horizons. The evidence

for placing this material in the Early Regional sub-stage, contemporaneous to the disjunction at Uaxactun, is given in the text. Such placement would date the end of the Incised Dichrome horizon prior to 8.12.0.0, and to the Tzakol horizon, according to estimates of A. L. Smith (1950, p. 87).

**b-d:** All fragments shown are from jars and bear a highly glossy, clear-orange slip, indistinguishable from the orange slip of the Incised Dichrome and from that of the Tzakol-style polychrome bowls (fig. 30, **a**) which accompanied these jars in the Mani Cenote trenches. The jar interiors are unslipped and striated as shown, cf. Incised Dichrome jar interiors fig. 64. The jar bottoms, however, are different in shape from those of Incised Dichrome, rather resembling those of the large early Medium Slateware jars, figs. 32, **a, 35, a, 36, b** which have a low, vertically placed small loop handle. Note, however, that the jar handles, fig. 63, **b, 8; d, 5, 31, 34** have the form of pierced lugs, rather than of straps. This style of handle appears on Medium Slateware in the Chenes area and is presumably earlier than the strap handle. Note the single flanged basin fragment, **d, 31**, with slip extending exteriorly only over the edge of the flange (cf. fig. 2, **c** from Cobá). The stylistic evidence may be taken to indicate the placement of this ware toward the middle of the Regional stage, following the Incised Dichrome horizon, contemporaneous with Tzakol in the Peten, and probably preceding the Regional redwares and the earliest Medium Slateware.

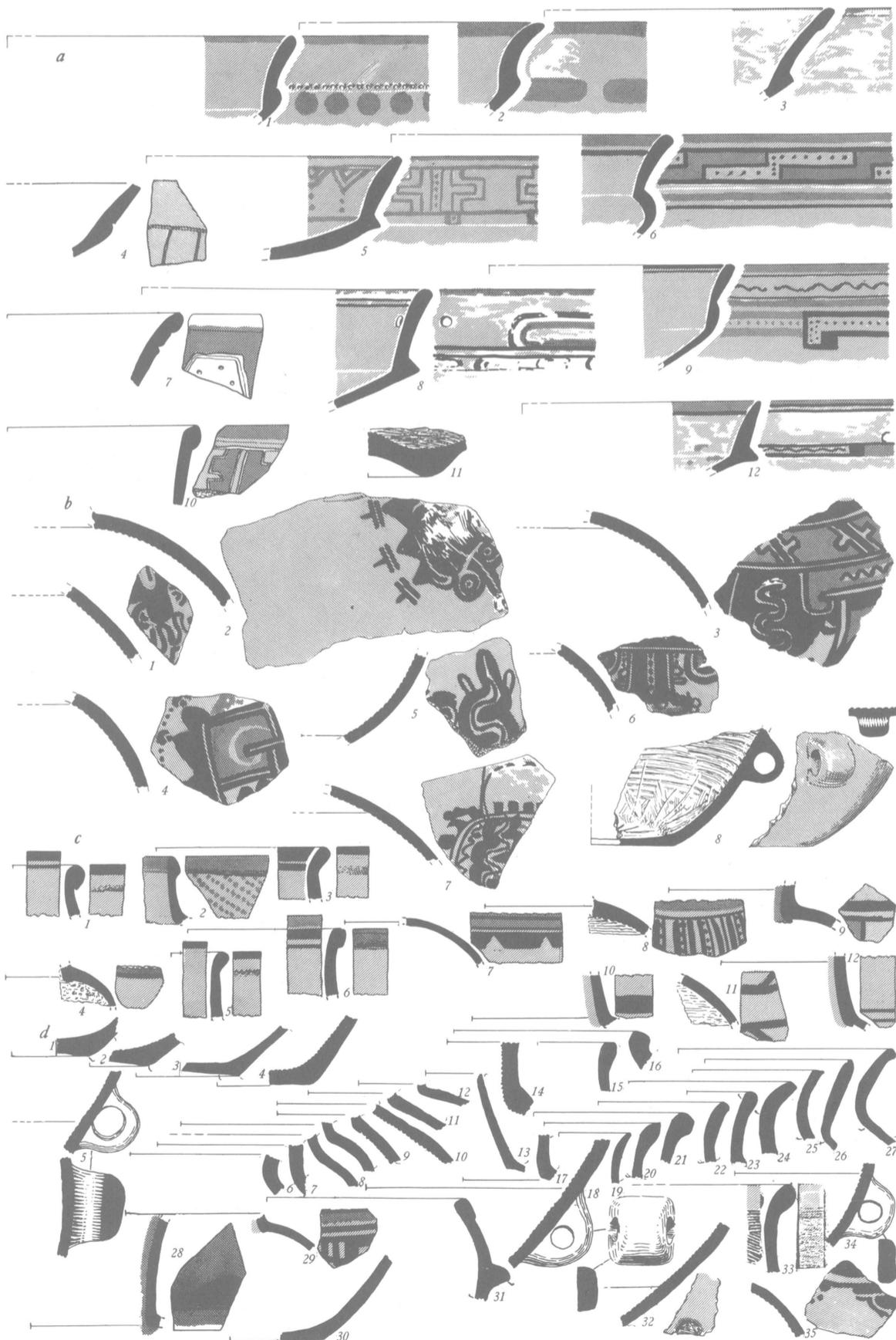


FIGURE 64

Incised Dichrome jar sherds from Balam Canche Cave.

a-m: Incised after painting. n: Lacking incised outline. This cave is described in Pearse, Creaser, and Hall, 1936. Spring is 170 feet in from cave mouth. Near the cave mouth is a small site, thus far unexplored. Cave is about two kilometers east of the main ruin groups at Chichén Itzá. For more material from

this cave see figs. 6, a, 1, 2, 4; d, 1, 2; 7, b, 1; 65, i, j. It is not known whether this collection has been selected from a much larger mass of undecorated Flaky Redware pottery such as was found at the Yaxuna Cenote. Note prevalence of step-foot figures, the earliest found in Yucatán. The chronological position and cultural affiliations of this ware are discussed in the text.



FIGURE 65

Formative and Early Regional wares from Chichén Itzá. Puuc-style unslipped jar. Slateware from Balam Canche.

*a*, *1*; *c*, *1*: Tenth scale, remainder quarter scale.  
*a*, *1-6*, *8-10*; *b*, *1-13*, *15-21*; *c*, *1-19*, *23-50*: Chultun west of Monjas, Chichén Itzá. *b*, *14*: Caracol. *c*, *20-22*: Monjas. *d*: MR. *e*: Chultun west of Monjas. *g*: Trenches south of Southeast Colonnade. *h*: Caracol. *i*; *j*: Balam Canche Cave.  
*a*: Unslipped wares of Late Formative and Early Regional stages. *a*, *1* is reconstructed from *a*, *6* and *b*, *1*. *b*; *c*: All or nearly all are Flaky Redware. *b*, *1-5* bear slip only as a stripe at the rim, and almost certainly go with bottoms such as *a*, *6*, *7*, *11*; *b*; *c*: Flaky Redware. Many shapes are certainly Late Formative, for example *c*, *2*, *4-13* (cf. fig. 17, *f-h* from Acanceh), others such as *c*, *31-36* are Early Regional. The Early

Regional assignment is reinforced by the incised dichrome sherds found associated and shown, fig. 6, *d-f*. The clustering of early pottery about the Monjas, Caracol, and Hacienda Cenote suggests an early locus of occupation there. The unslipped ware as well as jars *b*, *1-5* are unusual enough to suggest an otherwise unsuspected occupational phase which most likely could be placed early in the Regional stage, but our sample is too small and heterogeneous for definition of an assemblage. The chultun west of the Monjas is probably the earliest chultun thus far located in Yucatán, although Uaxactun has produced earlier evidence of such features. *d*: Florescent stage unslipped; the neck is markedly symmetrical, body as markedly asymmetric. This jar must have been made on a kabal. *e-j*: Medium Slatewares.



Pottery from the Hacienda Cenote, Chichén Itzá.

a, 1-22: Incised Dichrome and related wares, all with orange slip. Note variety of decorative techniques and forms. Probably only a, 13 comes from a bowl, remainder being from large jars. Note loop handle and dent-bottom bases. b: Jar fragments of a somewhat crudely slipped ware of Cinnamon Buff to yellow to white color range. Slip is opaque and matte in finish. The thinned lips and peculiar handle cross section (made as a pierced lug), as well as slip characteristics, place these outside the known Yucatán range; a few suggestively similar pieces occurred in the 1949 Chenes collections and those as well as these intergrade into wares with slateware slips. The ware and forms show similarity to the Red on Thin Grayware of Dzibilchaltun and Acanceh (cf. fig. 20, d, e) as well as to early slatewares. c: Holactun Slateware; typical. d: Probably Early Mexican Medium Slateware. e: Red slipped wares, e, 2 cream mottled, of dubious affiliation. Remainder probably Early Mexican Medium Redware. f: Appears to be a modern Yucatán Coarse Redware fragment, cf. fig. 34, g, g, 1: Unslipped shallow plate fragment, g, 2: Handle fragment, perhaps from a comal; if so, this is the only fragment of such a vessel I have seen in Yucatán (but see Smith and Kidder, 1943, pp. 141-142, figs. 20, 21, c, d from the Motagua Valley; and Drucker, 1943, fig. 42, f from Tres Zapotes, Veracruz, which show similar comales of the Initial Series period, and Kidder, Jennings, and Shook, 1946, p. 208 for a discussion of their distribution, which includes Miraflores phase in highland Guatemala). The fragment is also similar in form to modern basin-shaped vessels made in Yucatán. h: Fine orange paste, red slipped. Appears to be part of a modeled turtle plastron; no comparable vessels known, paste and finish very similar to that of X Fine Orange. i: Unslipped ware. j: Slateware with medium texture paste. j, 1, 3, 5, 18-21 are probably Early Mexican; j, 2, 9, 10, 12 are probably Florescent; j, 4 is likely Late Formative white-slipped monochrome. j, 11 bears the rough slip characteristic of the jars shown in b. k: Medium redware, much of it Early Mexican, cf. figs. 85-88. However, cf. k, 2 with fig. 64, b, 16 with fig. 8, a-c, all of Regional date. k, 4-6 are probably drum fragments, likely of Regional date, k, 39 is unique in shape and manufacture.

tom of which is 15 feet higher than water level in the nearby Xtoloc Cenote. From Henry Roberts' notes, there were five trenches dug here. These produced a level-lying deposit which was defined by five recognizably different soil strata which extend over the whole bottom of the cenote, and which rest upon masses of large stones mixed with pottery. From a depth of over two meters, in the lowest of the five strata, came two animal teeth. These were found in two trenches, seemingly some 20 or more feet apart. Dr. Gerrit S. Miller, Jr., Curator, Division of Mammals, United States National Museum identified these (letter of May 16, 1932) as one of a bovid right lower third molar, the other an equid left third upper premolar. Dr. Miller emphasized that the material did not allow a closer identification than that given, and that Yucatán is within the range of Pleistocene bison and horse from which these teeth may have come, and further that extinction dates of these Pleistocene animals are unknown. On the other hand, there is no archaeological evidence for these animals in American ceramic cultures until the European conquest.

My tabulations of the Hacienda Cenote collections showed no significant ceramic change by level, and fig. 66, f, the most certainly post-Conquest fragment of the collection, came from the lowest level. If the teeth be assumed modern, it is difficult to imagine how they arrived at two widely separated low locations. Roberts' 1932 diary records a local story that a Maya well was located in the Hacienda Cenote. Maya wells usually have stone casings, and it seems unlikely that later material could have been introduced in filling such a well since no stone is reported from the excavations. It does seem possible, however, that in post-Conquest times an excavation may have been made in this depression in search of water. It is conceivable to me that the disturbance made by such an excavation might have upset the stratigraphy of the trenches, but still have left good stratigraphic profiles along parts of their walls. Soil stratigraphy is notoriously difficult to determine in Yucatán, doubtless due to the constant churning action of plant roots. Evidence of ceramic placement is well enough supported by other excavations in Yucatán to make virtually certain the identification of the deposits in this trench as mixed. The ceramic evidence of mixed deposits is strong enough to invalidate the evidence for early dating of the teeth, and they may be assumed modern.



FIGURE 67

Florescent Medium Slateware bowls from Chichén Itzá.

a: Caracol, covering jar illustrated as fig. 68, a, d; Near causeway leading to Sacred Cenote, with 87, w (leg form reconstructed as shown). b, 1, 2: Trenches south of Southeast Colonnade. c; e, 1, 2, 7-12; f, 1-22; g, 1-12; h, 1, 3-15: Monjas complex. e, 3-6; g, 13-15, 18-22: Akadzib. g, 16, 17, 23, 24: Caracol. h, 2, 17-19: Phalli group.

b, 1 and b, 2: Florescent hemispheroid bowl fragments of Puuc style from collections otherwise of pure Early Mexican subphase. c: Spout, unique, probably Mexican.

a; d-h: These specimens have been selected as of Florescent stage, most of them from collections obviously of long period of deposition, or containing debris of more than one horizon. Criterion was sharp basal break as opposed to the curve characteristic of composite silhouette bowls of the Early Mexican subphase, see fig. 74, a, b. Concentrations of this material occur in the East Building, Monjas complex, mixed with Middle Mexican subphase debris; in the remainder of the Monjas mixed with Early Mexican debris; in the trenches in front of the Akadzib in nearly pure Florescent, though small, deposits.

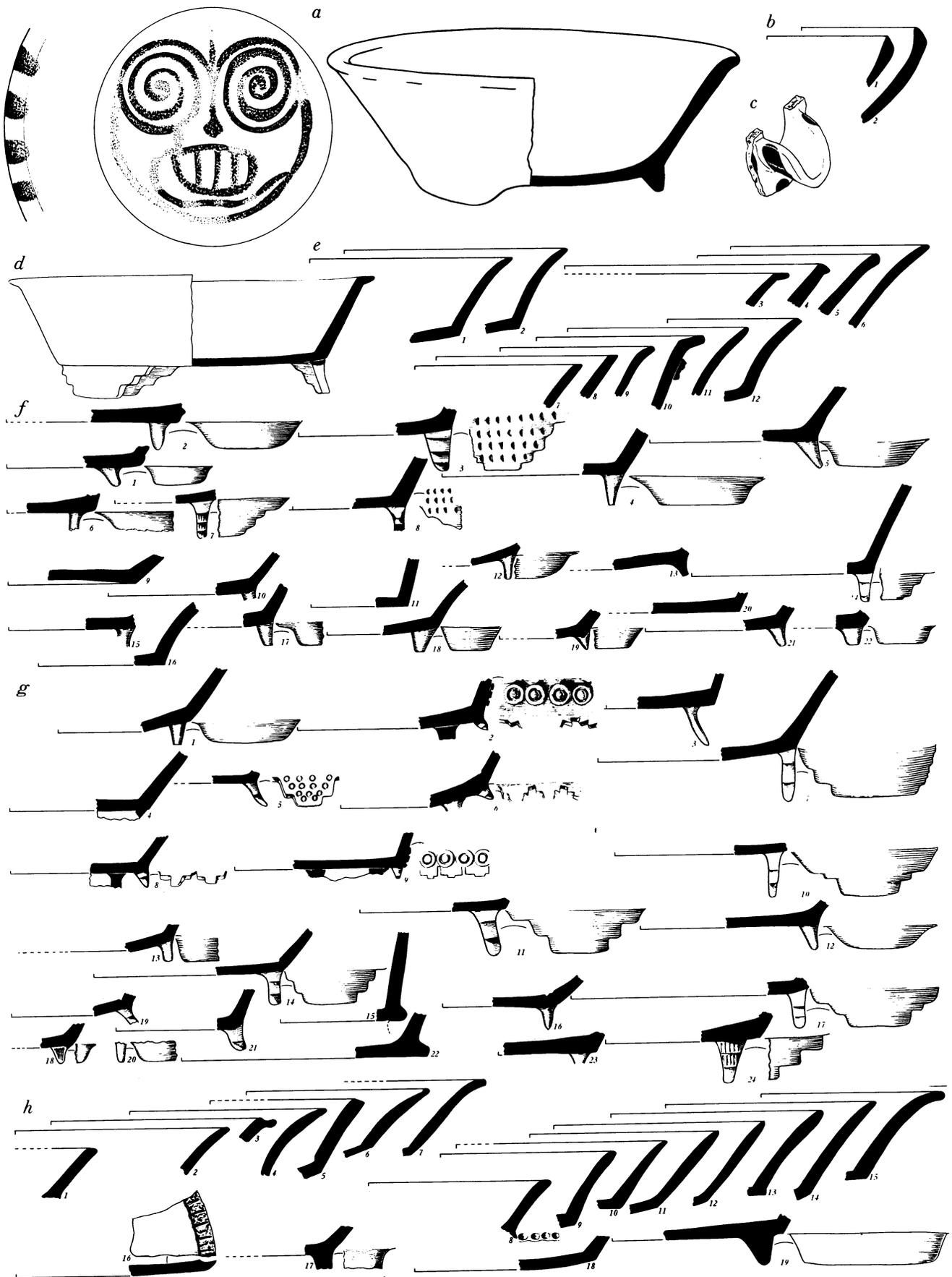
The detail of these bowl shapes varies from those of the Puuc area (figs. 45, 46). Closest similarities are with Yaxuna (fig. 10, d-g), with Dzebtun (fig. 35, i-m), and with Dzibilchaltun (fig. 15, a). These sites all show slab legs set flush with and curved to fit the bowl side. Those from Dzebtun and Yaxuna lack the cut terracing; at Dzibilchaltun the slab legs, although terraced, approach the small Puuc type more closely than do those from Chichén Itzá. Vertical thumbnail incised decoration is common to all these four groups of bowl legs, and is very rare in the Puuc; hollow cyl-

inder stamping links Yaxuna and Chichén. Dzibilchaltun, Acanceh (fig. 21, c), and Mani (fig. 32, h) also show curved, nearly flush, terrace-cut slab legs. In the Puuc sites only one characteristic Chichén-style slab (fig. 46, f, 37), and one of intermediate type (fig. 45, i, 10), were recorded out of the hundreds of leg specimens of this bowl shape collected. The Chichén Itzá basal break bowls with terraced skirt are suggestive of Puuc style bowls (fig. 58, j) which seem to date late in the occupation there. Such skirts are not found in the other sites which have slab-legged bowls. At Chichén Itzá one skirted bowl (fig. 67, g, 2) has slab legs.

At Dzibilchaltun, Dzebtun, Acanceh, Mani, slab-legged basal break bowls were found associated with jar and basin forms believed to date from a horizon covered by the main Chenes occupation, but preceding the main Puuc occupation. The Chenes bowl leg form of this horizon, however, is close to that of the Puuc, and basal break bowls show marked increase in frequency toward the end of the Florescent stage. Regional-stage redware bowls at all sites sampled show a preponderance of small solid conoid legs.

As a generalization from these varied facts, it seems that the stepped slab leg had a northern, perhaps north-eastern, distribution in the Yucatán Peninsula at its earliest documented appearance in Early Florescent-stage deposits. It probably continued dominant at Chichén Itzá until displaced by the Mexican mainland leg forms introduced in the Early Mexican stage.

Note that these legs were luted onto the flat base of the bowl (d, g, 2) and were probably cut to terraces by a fluted shell such as a Pecten. The walls were luted to the top of a flat bottom which had been roughened by deep incisions (h, 16).



Florescent and Early Mexican unslipped jars, Florescent Medium Slateware jars, and Mexican unslipped incense ladles from Chichén Itzá.

a; d; e; f, 6: Caracol. b, 3, 12-21, 23-26, 31; c, 4-10, 16-18, 20-22; f, 5, 10-12: Monjas complex. b, 4; c, 1, 15; f, 7, 13, 14: Mercado. b, 5-8; c, 7: Southeast Colonnade, Room B. b, 22, 27-30; f, 9, 15: Trenches south of Southeast Colonnade. b, 9-11: Group of Phalli. f, 8: Temple of the Wall Panels. c, 2: Zumpulche.

a; b; d; e: Unslipped jars of the Florescent, Early, and Middle Mexican substages. c: Florescent-stage Medium Slateware jars. f: Incense ladles, Mexican stage.

a; b; d; e: The lack of large pure collections of Florescent and Middle Mexican stages at Chichén Itzá hampers the chronologic definition of unslipped jar forms there. Changes through time of the shapes seems to have been gradual. Florescent-stage jars of the Puuc area (figs. 37, 38) incline toward sharp neck-shoulder junction, and subangular, usually thickened, lip. Late Mexican unslipped ware is quite distinctive (see fig. 22, a, b) and the jars associated with Coarse Slateware at Mayapan (Middle Mexican subphase, fig. 22, c, 10-16) show a neck form with a tight outward curve from the body, with rounded lip markedly thickened exteriorly. Fragments 68, b, 27-30 are probably typical of the Early Mexican substage, as are likely b, 1-11, b, 15, 17-20 are likely Florescent in date. The Early Mexican form seems to approach the Middle Mexican but to have a more gradual neck outcurve. Samples are not considered satisfactory, definitions only tentative.

c: The Florescent Slateware sherds shown here have been chosen from the Early Mexican variety on

the basis of translucency and darker color of slip. Most of them are distinctive from the Mexican phase concave cylindrical necked form, figs. 24, 25, 71, 92, by the absence of a sharp neck-shoulder junction and by a tapered lip. At the same time, beyond a general suggestion of similar size and shape of jars they are not close in form to the Puuc Florescent Slateware jar necks, figs. 40-42. The smallness of this sample emphasizes the scarcity of Florescent pottery in the Chichén Itzá collections.

f: These incense ladles or censers are absent, save for stray finds such as fig. 39, d; f; g, from the Puuc Florescent collections. They are also probably absent in the Late Mexican substage in Yucatán; see fig. 23, f, 1-4 for the thicker, coarser later form from Mayapan. They are illustrated in use in Mexican codices (see Codex Mendoza, fol. 63), occur in Monte Alban IV (Caso, 1935, fig. 55), and Ray Thompson points out to me that they seem to be shown in paintings at the Temple of the Warriors (Morris, Charlott, and Morris, 1931, pls. 157, c, 164, b, fig. 322, e). Note that all but one specimen, f, 12, has a perforation between handle and bowl, and thus could be used to blow clouds of incense smoke by applying the lips to the handle end. As far as I know, such ladles are absent from the central Maya area during Old Empire times. They occur during that period in the Motagua Valley (Smith and Kidder, 1943, fig. 41, a, b, b, 1) and Guatemala Highlands (Wauchope, 1948, p. 126; Kidder, Jennings, and Shook, 1946, p. 209, fig. 201, a), but have trough-shaped rather than hollow cylindrical handles, at least nearly until the effigy plumbate horizon. The Chichén Itzá examples probably demonstrate a Mexican mainland influence; cf. fig. 75, e, a slipped-ware example.

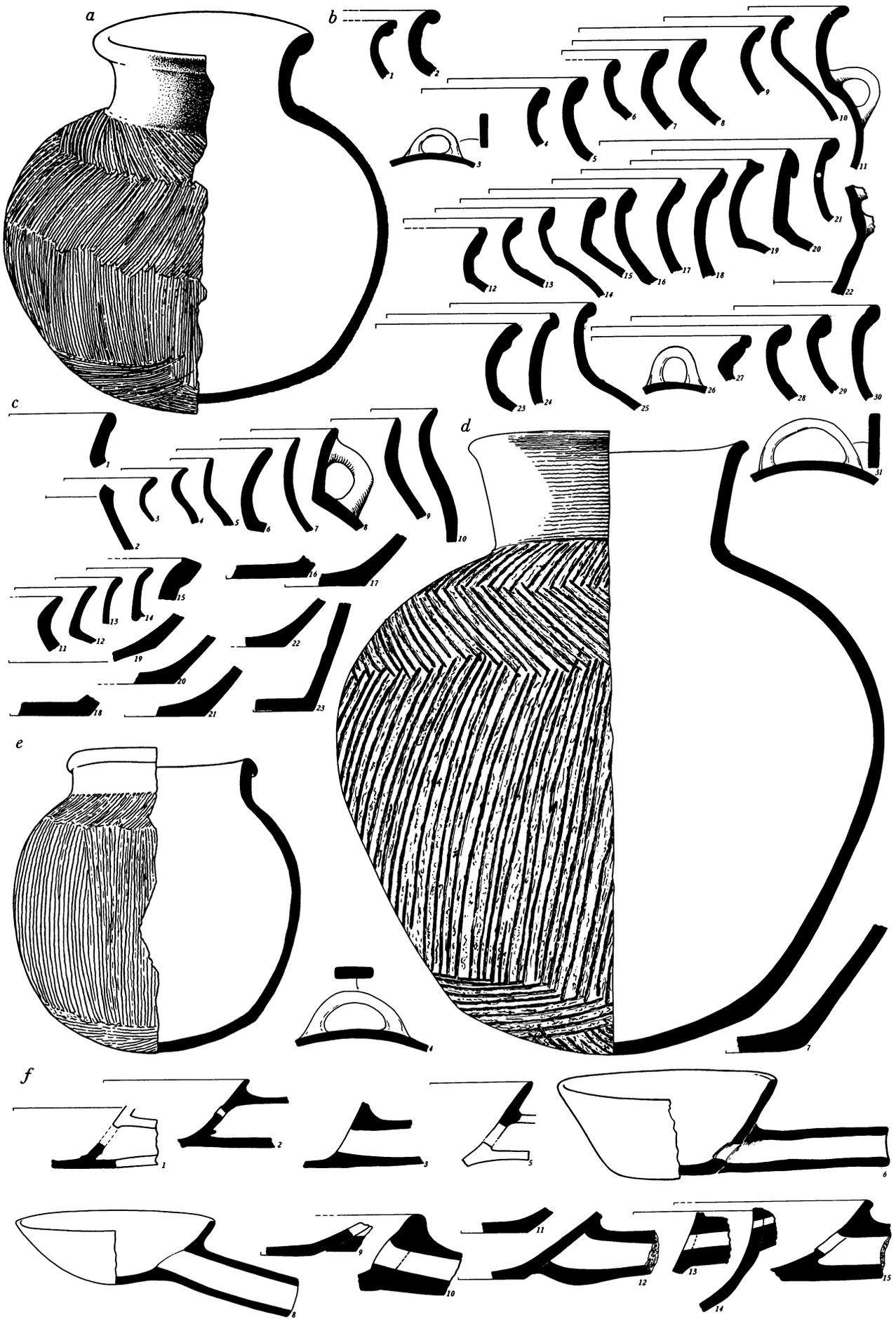


FIGURE 69

Trumpet-footed bowl incensarios from the Monjas Complex, Chichén Itzá.

**b:** Of Florescent style (cf. fig. 39, *a-c*). Remainder probably of Early Mexican substage.

**a:** Quite similar in shape and decoration to a Tula specimen (Acosta, 1945, fig. 20, *n*). Two unpublished Tula specimens, of which photos have kindly been furnished me by Sr. Acosta, show shape similar to *c* save that they are proportionately much higher, with height 1 1/2 to 2 times rim diameter. One of these Tula specimens bears stud decoration and thumbed fillets, the other bears vertical ridges and a human face composed of appliquéd ridges. Neither has handles. It seems likely, though far from adequately demonstrated, that the incensario style change from Florescent to Early

Mexican times may have been caused by Mexican mainland influence. A notable increase in size characterizes the Chichén Itzá specimens; the Tula incensarios are even larger. Absence of information on Veracruz coastline ceramics of this period is a major difficulty in tracing these forms. Loop handles, cut flanges, stud decoration, and the trumpet-footed bowl shape, all appear in the Florescent stage and thus are holdovers, although decorative treatment seems to have declined in frequency and variety.

**e, l:** May be a drum fragment. If so, it is the only unslipped drum known to me. These fragments, in common with all incensario fragments known from the Yucatán phases, often show evidence of a crude coat of white stucco.

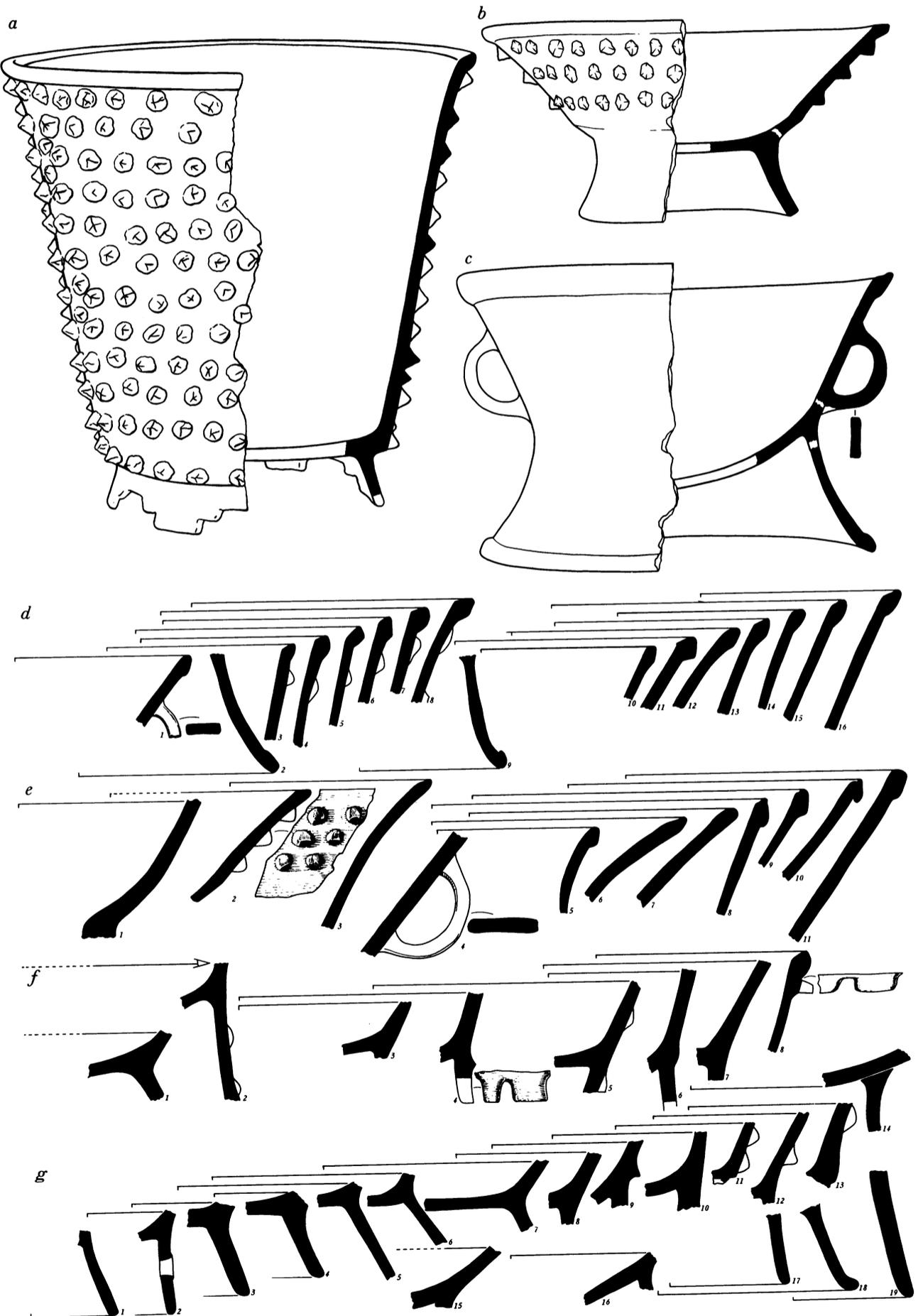


FIGURE 70

Unslipped incensarios, bowls, and basins from Chichén Itzá. Chiefly Early Mexican substage.

**a; c, 1, 3-14, 16; h, 1; i, 1-3, 8, 14:** Trenches south of Southeast Colonnade. **b:** In eastern doorway of Temple of Four Lintels; may date late; temple stood until modern times. **c, 2, 15:** Akadzib. **h, 3; d:** Unknown location. **e; g, 1-5; h, 2, 4, 5; i, 1-6; j, 4-7, 9-13, 15-17; k, 1-2:** Monjas complex. **f:** Temple of the Initial Series; subtemple, west room. **a; c-j:** Are Early Mexican substage. **b; k:** Are probably Late Mexican substage.

Several of the Early Mexican vessel forms are certainly dated from the short-term deposits from the trenches south of the Southeast Colonnade. These forms include the incensario form of **a** with variants shown in **c, 1, 3-14, 16** and the unslipped bowl sherds shown in **j, 1-3, 8, 14**. This bowl form, with which the legs shown, fig. 96, **g, 2, 8, 9**, and the perforated brazier necks, fig. 96, **10, 11**, were associated, is thus of Early Mexican substage.

The series **a, c** are discussed in caption of fig. 69. **b** in shape and clay approximates the vessel form of the late Figurine Incensarios, cf. figs. 99-101 and is probably of the same date. **f:** Bears postfiring red paint on the rim; it is unique, probably Early Mexican. The handle has been restored from a stub. **e; g, 1-5:** Are either Classic or Early Mexican. **h, 1:** Cross shaped perforations in incensarios are known from Tula (Acosta photo), and from Quen Santo, Guatemala (E. Seler, 1901). **d; h, 2-5:** Fragments of appliquéd faces, all but **h, 4** with evidences of a lyre-shaped element flaring outward under the eyes. This element is

found painted on X Fine Orange, fig. 79, **d; e; f**, and is generally considered an attribute of Tlaloc, the Mexican Rain God. A circular eye (likewise a characteristic of Tlaloc) of appliquéd filleting occurs on a Tula incensario, and a face of this general type on a red-painted slateware lid from Chichén Itzá, fig. 75, **d, i**: This hollow, tubular handle, with disc ornamentation may have come from one of the incensarios, similarly ornamented, shown in fig. 97. Only other highly ornamented incensario handles are early Florescent, fig. 19, **c**. This handle is probably shown upside down by error.

The unslipped, small bowls shown in **j** are in about 50 per cent of occurrences painted with a red paint after firing. Some, as **5** and **6**, bear a red-painted rim. This paint appears as a thin wash, not masking the rough, unslipped surface, much different from the lustrous red slip which covers the otherwise similar Late Mexican Coarse Redware bowls, cf. fig. 26, **c**. Many sherds of this group bear white plaster, some show pale blue and black paint. These surface treatments suggest that the bowls were used for sacrificial purposes, as were their later counterparts found in the Sacred Cenote. Legs of the type shown in **j, 17** supported some or all of these bowls. The similarity of these legs to those known from "Mixtec braziers" (cf. fig. 97, **h-j**) suggests that this form is Mexican mainland inspired, as are so many others of this substage.

The unslipped basins shown in **k** are doubtless for the most part Late Mexican in date, cf. fig. 27, **k**; the shape has lasted to modern times. **k, 3** is unique in form.

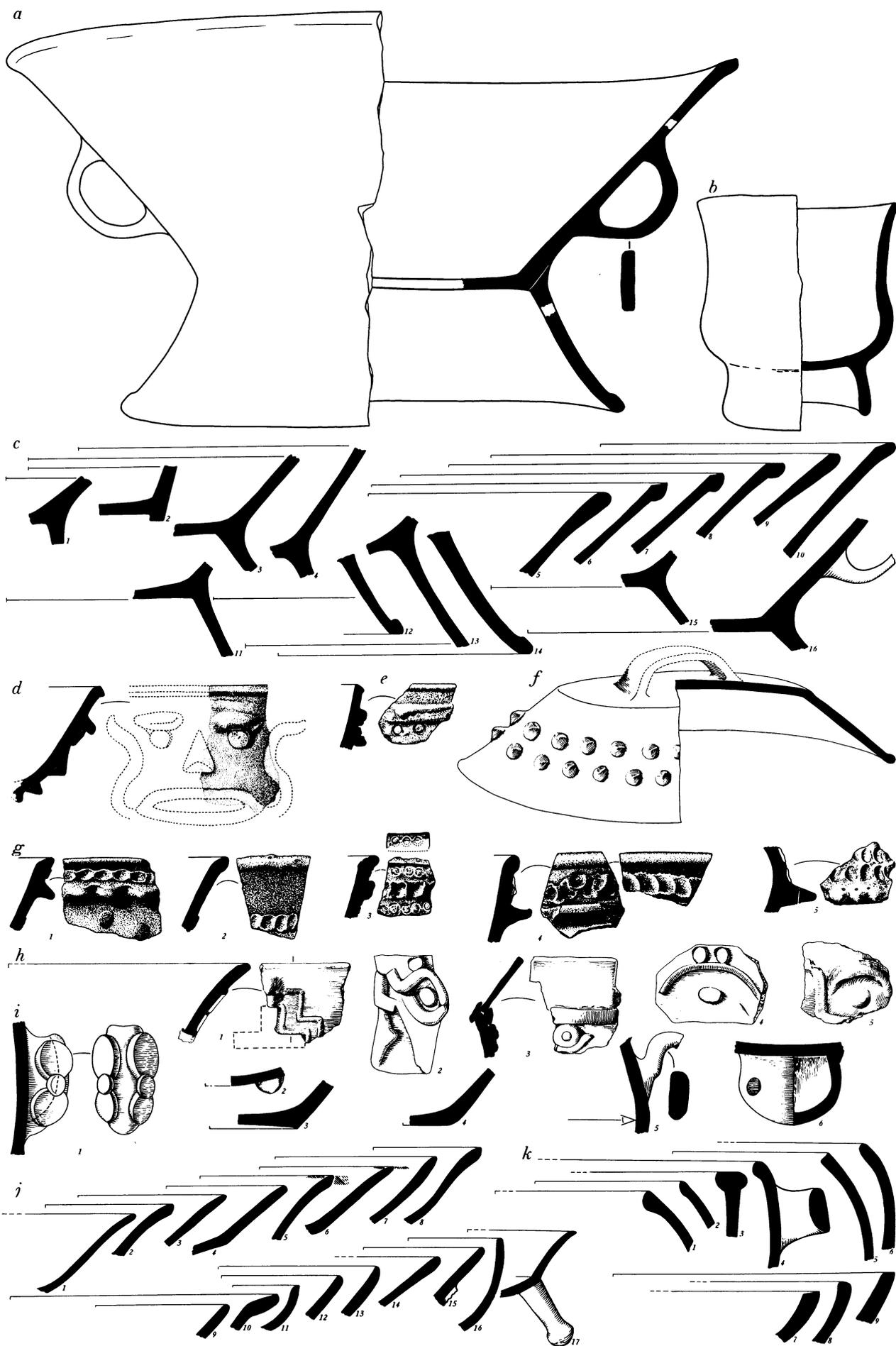


FIGURE 71

Medium Slateware jars and pedestals from Chichén Itzá. Early Mexican and Florescent.

a: MM. b, 1-4, 6, 8-10, 12-15, 19, 21, 25; c, 1-9, 11-13, 19-20, 24-26, 29-37; d, 1-7, 9-12, 16-20, 23-26; Monjas complex. b, 5, 7, 26-29; c, 16, 27; Hacienda Cenote. b, 11; d, 13, 14, 21, 22; Zumpulche. b, 16, 20; c, 14, 18; d, 8, 15; Mercado. b, 30; Akabdzib. f; h; Temple of the Phalli. e; g; i; Chichén Itzá, unknown location.

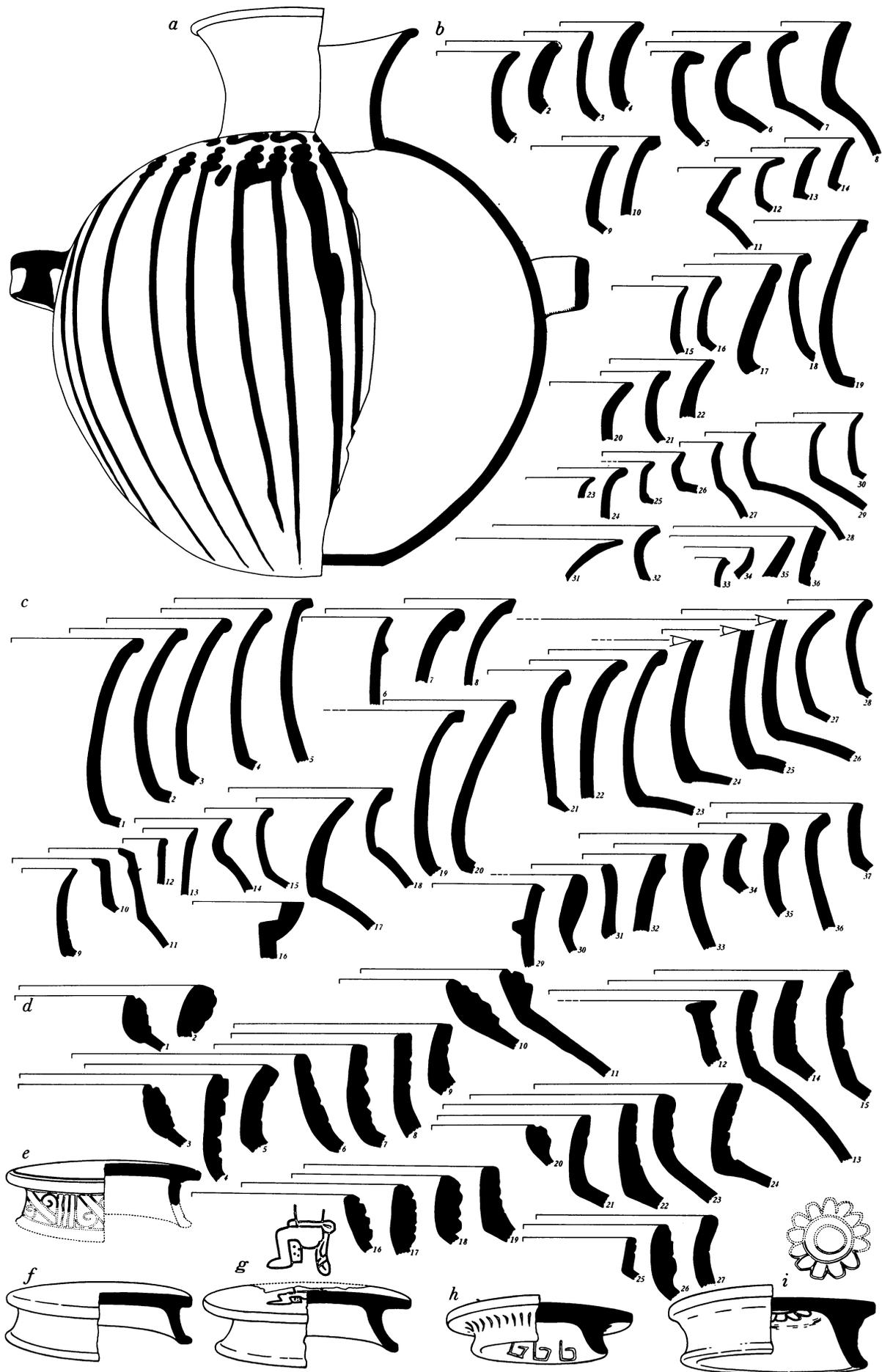
The sorting of the Medium Slateware at Chichén Itzá suffers, as does all sorting there, from lack of pure deposits of Florescent date. The Puuc collections were substituted for such a standard in the sorting and non-Puuc-like Medium Slateware assumed to be Early Mexican. The 1949 Chenes and Río Bec collections have turned up Florescent-stage forms not found in the Puuc, and which thus, by elimination, were classed as Early Mexican at Chichén Itzá. One of the most striking of these is the pedestal, e-i.

The jar rim shapes which must certainly belong to the Early Mexican subphase are (a) the high concave-cylindrical neck, c, 1-5, 19-26, and (b) the heavy incised necks, d. Both these forms continue through the Middle Mexican substage, (a) until modern times, and neither is known during Florescent times. It is reasonable to assume that (a) was introduced by copying from X Fine Orange jar necks, cf. fig. 76, a, b, and this chronologically links the appearance of the two types. Smaller, usually squattier concave cylindrical necks such as b, 11-16, 23-30 may have the same origin, and are nearly absent in the Puuc collections, but their similarity to Florescent forms from Yaxuna, fig. 10, a, b, and to forms probably early from the Hacienda Cenote, fig. 66, b, suggests that their assignment to the Early Mexican substage had been remain tenta-

tive. Certain rims here shown are almost certainly earlier than Early Mexican. The series c, 29-37 is probably all Florescent. For c, 16, cf. fig. 3, b (Florescent).

The pedestals e-i (also see fig. 72, b, 2-5) are so called because the term is noncommittal as to function. These are not lids; they would be difficult to use as such. Only noticeable wear is on the tops, the incised designs on which would limit their usefulness as tortilla forming tables (the making of tortillas is uncertain for pre-Conquest Yucatán). The absence of this form in the Puuc collections led us to believe it of Early Mexican age, but discovery of fragments in the Chenes area in sites free of other Mexican-stage ceramics makes a Florescent dating possible.

A much more startling occurrence of this pottery form is from the Island of Marajoa, at the mouth of the Amazon (see Meggers, 1948, pp. 156-157; 1951, fig. 3, lower right). These Marajoa "offertorios" or "stools" resemble the Yucatán Peninsula specimens so closely in shape and size that it is difficult not to believe that they indicate cultural diffusion, even though the distance involved is so long (about 5,000 km. by coastal route). Miss Meggers has kindly furnished me with several additional references to the distribution of this form. It belongs to the Marajoara Phase which she dates 1200-1400 A.D., and it is also recorded from various locations in Ecuador. Lothrop (1942, pp. 254-255) gives convincing evidence of ceramic design interconnections between Marajoa and the early period of Cocolé, Panama. Less similar to the Chichén Itzá form is a group of specimens from La Venta (Drucker, 1952, p. 121, fig. 40, c) which have a much higher base and a perforated disc.



Medium Slateware, Early Mexican substage and Florescent stage from Chichén Itzá.

a; f, 4, 6-8; i, 1, 6-10; k, 1-3, 5, 6, 8, 11, 16-18, 20; l, 1-8; m, 1-13; n, 1; o, 4-8, 10: Monjas complex. b, 3: Sacred Cenote. c; f, 1-3; g, 1, 3, 5; k, 7; n, 5: Phalli complex. c; MM, Maxcanu. f, 5, 10; k, 4, 9, 10, 19; n, 2, 3; o, 1, 3, 9: Mercado. f, 9; i, 3-5; k, 15: Trenches south of Southwest Colonnade. i, 1-3: PM "near Chichén Itzá." i, 2: Akadzib. n, 4: Zumpulche. g, 4: Temple of the Atlantean Columns and House of the Grinding Stones. g, 2: Caracol. b, 1, 2, 4; d, 1-4; h: Chichén Itzá general.

a: Incised under black-painted band. b, 1-4; c; h: Incised before slipping with some background areas excised. i and j of probably Florescent stage, remainder Early Mexican or indeterminate between Florescent and Early Mexican. d, 1-4: Scratched after firing. g, 1-5: Hand-modeled with incised details and punched basal face. e; l, 1-8: With trickle black paint. k, 1-20; o, 10: Incised before dry upon an unslipped zone.

a: Obviously copies X Fine Orange in design, but note that here, as on the local redware copies, the traditional underslip incising technique is used rather than incising through the slip, which is the technique on both X and Z Fine Orange. The thin-walled spheroid feet with sloping perforation are also in X Fine Orange style, and the basal break area is thin, a foreign idea. c; f; h: Seem copied from X Fine Orange shapes, figs. 77, 78. d: The scratching was probably a form of doodling; it may have been done on sherds. e; k, 4-20: Neck area left unslipped. The use of painted S elements enters the Yucatán repertory at this time, and is extensively used during Early and Middle Mexican substages; cf. this figure with figs. 20, a; 24, f; 74, c; 92, etc., where it often takes Z variants and is associated with U forms such as in l, 1. The U is found painted on X Fine Orange occasionally (see fig. 77, m), but the S element seems absent unless 76, a be considered re-

lated. f, 9, 10: May be from drums. g: These pottery pestles are unique in Mesoamerica, so far as I know, to the Early Mexican phase at Chichén Itzá. The punched working surface suggests their use with grater bowls, very likely in grinding chili. In addition to the specimens illustrated, others come from the Phalli complex, the Northeast and Southeast Colonnades. Stone pestles with naturalistic heads occur on Santo Domingo and other islands of the Antilles (Fewkes, 1907, pp. 99-105). Quite surprisingly, pottery pestles appear in Colombia in the Tairona culture (Mason, 1939, p. 373) with approximately the same size and shape, roughened working face, and animal head. The Colombia specimens figured seem not to have a curved stem, like those from Chichén Itzá. Grater bowls (fig. 74, i) are also found in the Tairona culture. I believe this similarity is too close for a chance parallelism, and I venture to suspect that similar artifacts will eventually be found over some of the intervening territory. A single ornament of gold in Colombian style was found in the Chichén Itzá Cenote (Lothrop, 1952, pp. 94-95). i, 1-3: Miniature jars of Florescent-stage form. i, 2: Is a copy of the large three handled form, cf. 35, a. j: Florescent-stage jar sherds; cf. figs. 40, 42, c-e; rims and handles are characteristic, walls rise more steeply than do the Early Mexican forms, cf. m, k, 1-3: Jar bottoms indeterminate between Early Mexican and Florescent; the low handles suggest Florescent forms. k, 4-20: Belong with the Puuc and Chenes fragments which are probably rims of drums, cf. figs. 37, c; 39, e, 10-14; 52, i; j. The thinness and somewhat different form and slip color of these specimens suggest that this style of drum may have lasted into Early Mexican times. l, 1-3, 4, 8: cf. 71, a, l, 6-7 with high vertical handles represent a vessel unknown from whole specimens. m, 1-13: From Early Mexican substage jug, cf. 71, a, n; cf. 71, e-i, o, 2, 3: are likely from drums, remainder from varied forms of jars.



FIGURE 73

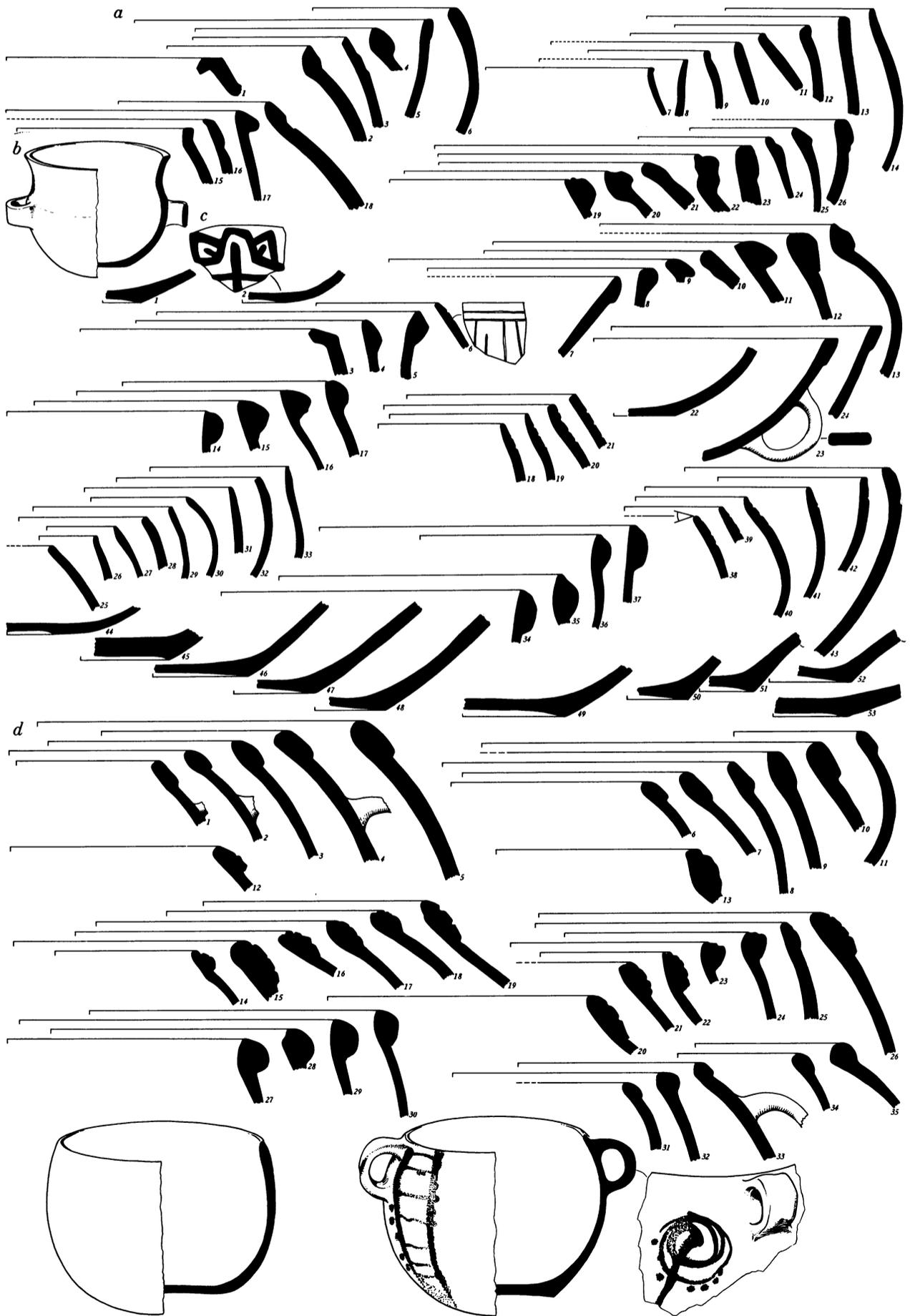
Medium Slateware basins from Chichén Itzá, of Florescent stage and Early Mexican substage.

a, 7-14; b; c, 14-17, 25-36; d, 27-30; e; f: Are probably Florescent, remainder probably Early Mexican.

a, 1: Akadzib, a, 2-6, 19-26; c, 1, 2, 14-23, 25, 30-49; d, 1-8, 10-12, 15-35: Monjas complex, a, 7-14: Sculptured Jams. a, 15-18: Mercado. b; e; f: PM, Sacred Cenote. c, 3-6, 50-53: Caracol. c, 7-13; d, 9: Trenches south of Southeast Colonnade. c, 24, 26-29: Phalli complex. d, 14: Zumpulche.

A considerable number of the sherds illustrated are indeterminate between Florescent and Early Mexican horizons. Groups of horizontal incised lines on rim exteriors are characteristic of the Mexican sherds, c, 18-21; d, 14-26. Exteriously thickened (bolster) rims with rounded lip, d, 1-12, are also Mexican; this style of bolster usually has its outer surface flattened and parallel to the inner surface as opposed to such sherds as b, 14-17 which are in typical Puuc (Florescent) style, cf. figs. 43, 44. The Mexican type was formed by eversion of the rim during shaping; the Puuc type seems always to have been formed by the addition of a fillet and often fractures along the line where the fil-

let was luted. The Mayapan Coarse Redware basins, fig. 27, j; k, demonstrate but little change from Early Mexican times. The slip of the thin-rimmed basins, which actually range closer to bowls in size, b, 7-14; c, 25-33, is variable, some being quite close to that of the forms shown in fig. 4, p, which somewhat resemble Florescent Thin Slateware in vessel form and thinness of wall. There are close resemblances in both form and ware characteristics with Red on Medium Slateware of Early Mexican date, cf. fig. 75, k, and in form with the Coarse Redware of Mayapan, fig. 27, k. The vertical loop basin handle, c, 23; d, 1, 2, 4, 33; f, holds over from Florescent times, contrasting with the horizontal loop jar handles which seem to have lasted from Early Florescent times until now, with a single horizontal loop basin handle at Mayapan in Coarse Redware, fig. 27, i, 27. b; e; f: From the Sacred Cenote; are all probably Florescent. b seems to be a miniature of a basin similar to fig. 44, b, 43. f is nearly identical in shape and ware, though not in painted design, to a vessel found under a room floor in the "palace" at Santa Rosa Xtampak, Campeche.



Medium Slateware bowls and grater bowls from Chichén Itzá.

a, 1-3, 10-13, 18-26; b, 1-3, 5-10, 14, 16, 19, 24; c; e; g; h; i, 1-6, 11: Monjas complex. a, 4-9, 14, 15, 17; b, 15, 17, 20, 21, 23, 25, 27: Trenches south of Southeast Colonnade. a, 16; b, 4, 11-13, 22, 26; d; i, 10: Phalli complex. f; i, 1-9; j, 1-3: Caracol.

b, 26; h; i; j: Have scored floors, remainder do not. Bowls of the Early Mexican substage show a divergence in form from those of the Florescent stage. This divergence may well have resulted from a change in the technique of construction. In a number of observed cases, Late Florescent basal break bowls were formed by first building a disclike bottom having a slight spherical curvature, then adding a flaring rim, probably while the bottom was in the leather-hard stage, and, perhaps later, the tripod legs. The result is a marked angle, usually accompanied by a change in thickness, between side and bottom. The bowls illustrated here, a, 1-26; b, 1-17, 19-23, 24, 25, 27, 28; c; d; e; f, vary in profile from an unbroken curve to a curve showing a marked localized change of direction, but without a sharp angle, or change in wall thickness. b, 18, 23 are probably Florescent in date. The Early Mexican bowl form was probably produced during a single continuous forming operation, rather than by the two-stage technique of the Florescent basal break bowls. Florescent hemispheroid bowls are distinguishable from this Mexican group by their greater depth (cf. fig. 50). Unfortunately, these criteria are not diagnostic for all small fragments. Legs are also in several criteria diagnostic between the bowls of these time stages.

Grater bowls or molcajetes, defined here as bowls with roughened floors, do not seem to be a part of the Puuc pottery repertory, and are almost absent from the collections. Accordingly, in the Chichén Itzá collections we had considered this form as a Mexican introduction. Molcajetes seem to have been absent from the Teotihuacan repertory (see for example Linne, 1942, p. 186). Sr. Acosta tells me that they occur in the Mazapan horizon at Tula (probably Acosta,

1945, fig. 20, b represents a molcajete), and the type attains a major development during Aztec times, exhibiting mold-pressed floor designs. The situation is not completely clear for the Valley of Mexico Middle Cultures. Boas (1912, pl. 38, 3) shows an Archaic roughened bowl floor from Zacatenco; Tozzer (1921, p. 48) references this type as allied to his "cuneiform" from Coyatlatelco, which he believes is also Archaic. Vaillant (1930, p. 42) finds this type of roughened surface in his Middle Zacatenco period, but shows the roughened surface external. In the Huastec, the molcajete appears, seemingly as an abundant form, in all periods from Formative times on (Ekholm, 1944). It is present in X Fine Orange, fig. 80, 1, 2, 3, but seems absent in plumbate. It does not seem to occur in Highland Guatemala. At Uaxactun in the Peten, one grater bowl of form close to the Chichén Itzá specimens occurs, dated Tepeu 3 (Smith, 1935a, p. 17); this may be of the same horizon as our Early Mexican, since a Chichén Fine Orange bowl comes from the same sub-phase. Other than this occurrence I know of no molcajetes from Initial Series period Maya sites, save for the quite disturbing discovery in 1949 of several incised-floor bowl sherds from Xpuhil, Campeche, two of them from near ground level within the substructure of Structure 1 (Ruppert, 1943, frontispiece). If this structure dates between 9.12.0.0.0 and 9.19.0.0.0, as we suspect at present, the molcajete distribution suggests an earlier Mexican mainland influence than we had suspected for the Yucatán Peninsula, and raises various puzzling questions, discussion of which had best be postponed until the Xpuhil pottery is published (in this connection, also see the caption of fig. 80). Grater bowls also occur from far south of the Maya area, for example in the Tairona culture of Colombia (Mason, 1939).

The incised cross-bones, g, appear on the bottom exterior of a painted floored bowl. The incised patterns of grater bowls show considerable depth. They were done in wet clay, and have raised, ragged edges. The slip, applied later, does not always cover the entire pattern. i, 10 with slab legs is unique.



Red on Medium Slateware and similar pottery, and two imported bowls from Chichén Itzá.

a; f, 1-3; i, 2; k, 1-5; Phalli complex. c; d; e; i, 1, 3-5; j, 1, 2; k, 6, 7; l; o: Monjas complex. h: Caracol. n: MR. b; g; m: General, Chichén Itzá.

This group is heterogeneous in slip and paint color, and quite possibly on careful analysis with more comparative material than is yet available would prove to be a mixture of imported pottery and local copies. Slip color ranges from a lustrous orange, as in o, to a matte oyster gray. Paint colors range orange-red to purplish-red. o is quite certainly imported from the Mexican mainland, as must be m. The shape of these two, with the distinctive leg form and red leg decoration, resembles the Tula Mazapan style, cf. Acosta, 1945, figs. 20, b, 32, No. 1, ceramic table Pozo 3, "rojo sobre café." The ware of this specimen is not Mazapan, but shows a high gloss surface, perhaps burnished over the paint. e also has a slip of orange cast and very markedly resembles the Tula "sahumedores" in both shape and design (*ibid.*, p. 37, fig. 20, q). Our reconstructed handle length is probably too short. It is very likely that these Chichén Itzá pieces are imported, perhaps from as far away as the Mexican highlands, or perhaps to Tula and Chichén from an intermediate point. g is definitely of local manufacture and is probably the rim of a drum of similar shape to Florescent-stage specimens. d seems also to be of local manufacture; in form it resembles a unique unslipped lid from Chichén Itzá, fig. 70, f. The large decorated jar h is unique; the design is more naturalistic than any other found, the ware and shape are local. l is of particular interest because of its close similarity to a fine orange vessel from Isla de Sacrificios (Du Solier, 1943, p. 76, i). This arrangement of animal limbs and

head also occurs in plumbate ware (Shepard, 1948, fig. 14, b, b, l).

The painting of slateware pottery with crudely drawn circles and bars of red paint seems likely to have come into Chichén Itzá as a Mexican fashion. The marked similarity between c and the Tula specimen suggests this. This decorative technique seems to have been limited rather closely to small vessels, many of them probably for ceremonial usage. Mention should also be made of the similarity between various of these specimens and ceramics from Xochicalco (Noguera, 1947). Closest ware similarities are with Sr. Noguera's "Anaranjado B" and "Crema." Striking similarity is evident in the use at Xochicalco of circular blobs of red paint and use of red border lines at the rims. In form, his period II shows greater similarities with the Early Mexican substage at Chichén Itzá. These are buttressed by similarities between Xochicalco I forms and the Puuc, and III and the Late Mexican substage in Yucatán. These similarities are general, as might be expected due to normal diffusions of style over such a distance. Miss Anna Shepard has checked for technological similarities in materials between this Chichén Itzá material and a group of Xochicalco sherds which I selected for similarity, and which were kindly furnished by Sr. Noguera. She reports no similarities close enough to document trade. It is of interest that the Xochicalco pottery supports, in a general fashion, the long-remarked Maya similarity in the Xochicalco bas-reliefs. If the ceramic similarities between Xochicalco and Yucatán ceramics claimed above be acceptable as evidence of cultural connection, a diffusion toward the mainland during Puuc times is indicated, since the forms concerned seem to have been long indigenous to Yucatán. This hypothesis I consider far from verified on present evidence.



Early Mexican fine orange jars and bulbous vessels from Chichén Itzá.

a; b, 2-8, 10-13; c, 2, 4, 10, 12, 14; d, 1, 2; e, 1, 2, 4-10; h; i, 1, 2, 5, 6; m: Monjas complex. b, 9; c, 3: Mercado. c, 7, 8; i, 4: Caracol. e, 3: Trenches south of Southeast Colonnade. n: Zumpulche. Remainder of unknown location at Chichén Itzá.

a-e: Jar necks, sides, and bottoms, decoration in black painted designs alone. The tripod rattle feet of d may have belonged either to the jars in a and b, which have a sharp neck-shoulder junction, or to the vessels shown as f-t; f-t: Bulbous vessels with restricted orifice, but without a sharp body-shoulder junction. Assignment of body and base fragments between these two groups is uncertain. It may be noted, however, that no evidence for incised design on sharp angle neck-shoulder jars was found.

Decoration: a; c; f; g; i; k-m: Black paint decoration. h; o; p; q; r: Incised through allover red slip, with additional black-painted decoration. n; s: Incised through a black slipped band, with additional black

painted design. The freely drawn designs under a and c have counterparts on the floors of flat-bottomed bowls (fig. 81, a, x) and are markedly distinct from the symmetrically organized and largely abstract design which forms the bulk of fine orange decoration of this period. Certain similarities suggest design sources in Aztec I, rather than its neighboring chronological periods in the Mexican highlands. For this design repertory, cf. c, 11-13 with Brenner (1931) fig. 3; c, 10 with Brenner fig. 12; a with Brenner fig. 15; fig. 81, x, 6 with Brenner fig. 2 (these sherds all previously published in Boas Album). This dating is admittedly shaky, based on meager materials. If an Aztec I assignment be granted on this evidence, the Early Mexican ceramic substage must be considered as lasting later than the Mazapan occupation at Tula, since there was no Aztec I occupation there (see Acosta, 1944, p. 153).

This fine orange pottery was probably manufactured somewhere on the Veracruz littoral. For a description, see Brainerd, 1941. For a discussion of Mexican affiliations of this ware, see Brainerd, 1953.

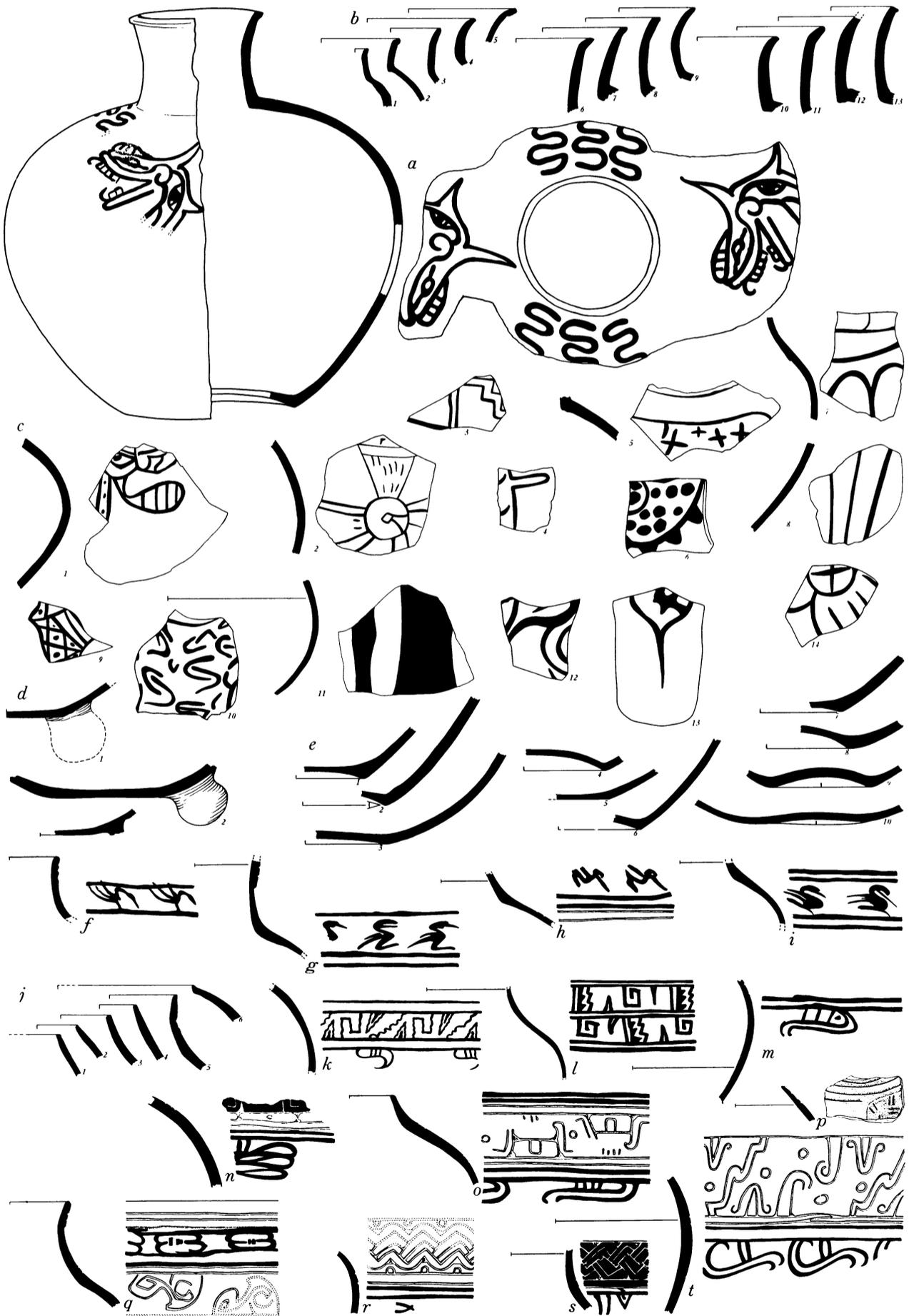


FIGURE 77

Early Mexican fine orange bulbous and pyriform vessels from Chichén Itzá.

b; c; k; l; m; p; r; t; v; y; aa; cc; dd; ee, 1-3, 5, 6; hh, 1-3; ii, 1-5; Monjas complex. d; g; ee, 4; Mercado. o; Trenches south of Southeast Colonnade. ff, 3; Caracol. gg; jj: Temple of the Atlantean Columns and House of the Grinding Stones. Remainder: Location unknown.

a-l; y-bb; gg: Incised and plano-relief on red slip, no paint used. m-p: Incised through black slip with black painted decoration. g-w: With only black painted design. x; z; aa; ee; dd: Incised through allover red slip, with black painted decorations. jj: With appliquéd boss bearing a mold-pressed human face.

The specimens f-l are notable for their more in-

olved, somewhat naturalistic design, in which more background area has been removed than in other types. The fact that no black or white paint occurs on sherds with this type of decoration suggests that these sherds come from a separate group of vessels. The rattle in the side-wall of the vessel g is unique in the collection. Some of these vessels show a faint neck-body juncture (c; d; i; t; ff, 1) which intergrades into certain jars which do not show a sharp neck-shoulder break (cf. fig. 76, g; h; i; j, 5). There is a possibility that such bases as hh, 1-3 belong to cylinders (cf. fig. 86, f in Medium Redware), but there is no proof for this form in fine orange. The incised circle on gg, which suggests a maker's mark, is unique.

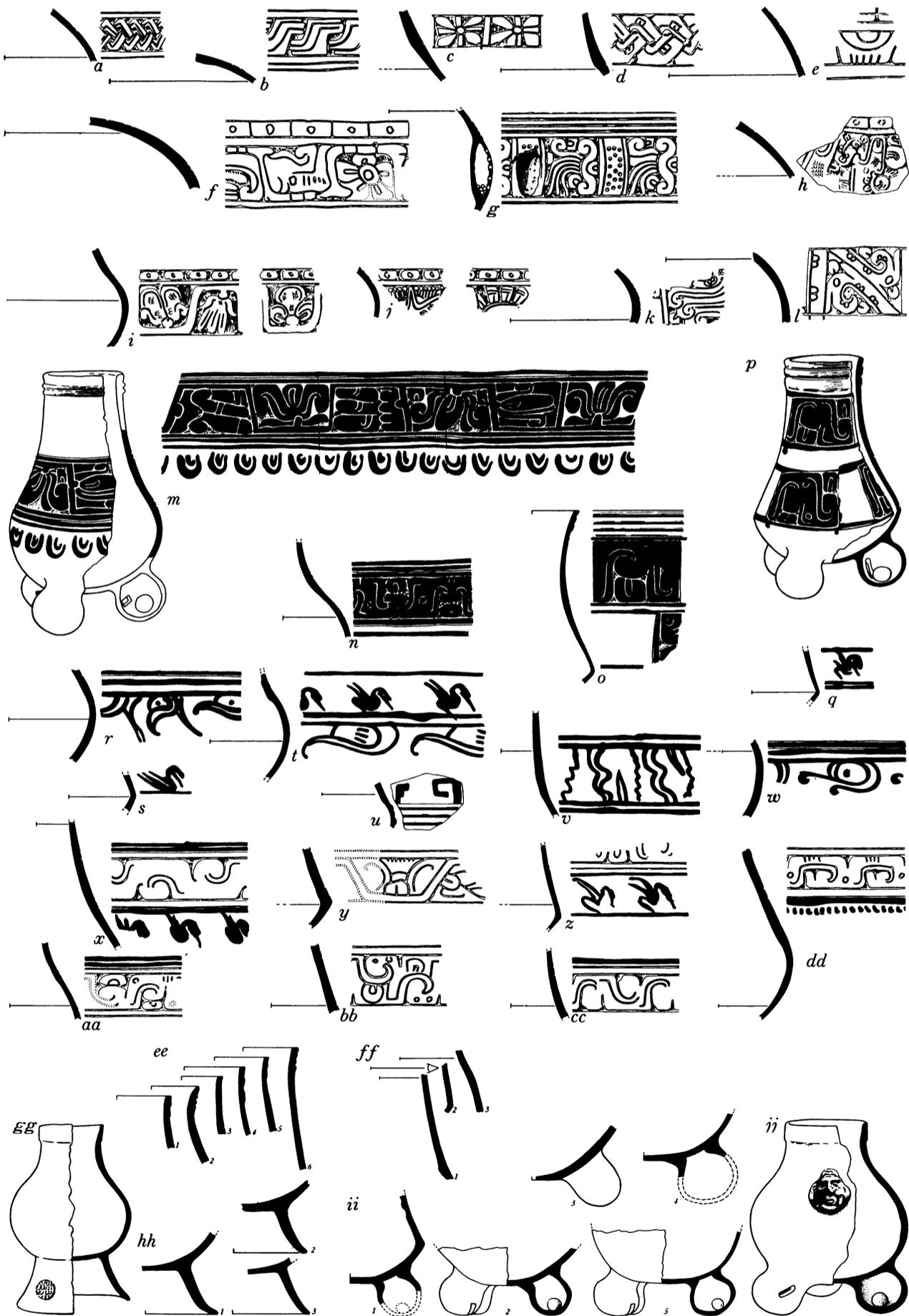


FIGURE 78

Early Mexican fine orange cylindrical vessels from Chichén Itzá and the Mexican mainland.

*a; b*: Isla de Sacrificios (private collection). *f; g*: Tlaxcala (after Marquina, 1928, scale uncertain). *c*: Temple of the Phalli. *d; j; q; s; w; y; 2-4; aa, 4*: Monjas complex. *y; 1; aa, 2*: Mercado. *z*: Temple of the Sculptured Jambes.

*a; c; h*: Incised through black slipped area. *d; e; z*: Incised through red allover slip. *g*: Incised through

white slipped area with additional black painted designs. Remainder bear only black painted designs.

As far as is known, the cylindrical vessel form in this ware always bears a trumpet base. The serpentlike head of *j* is comparable to fig. 76, *a* but seems attached to a seated anthropomorphic body. The masked human figure of *h* is closely analogous to fig. 79, *s* although proportions are quite different.

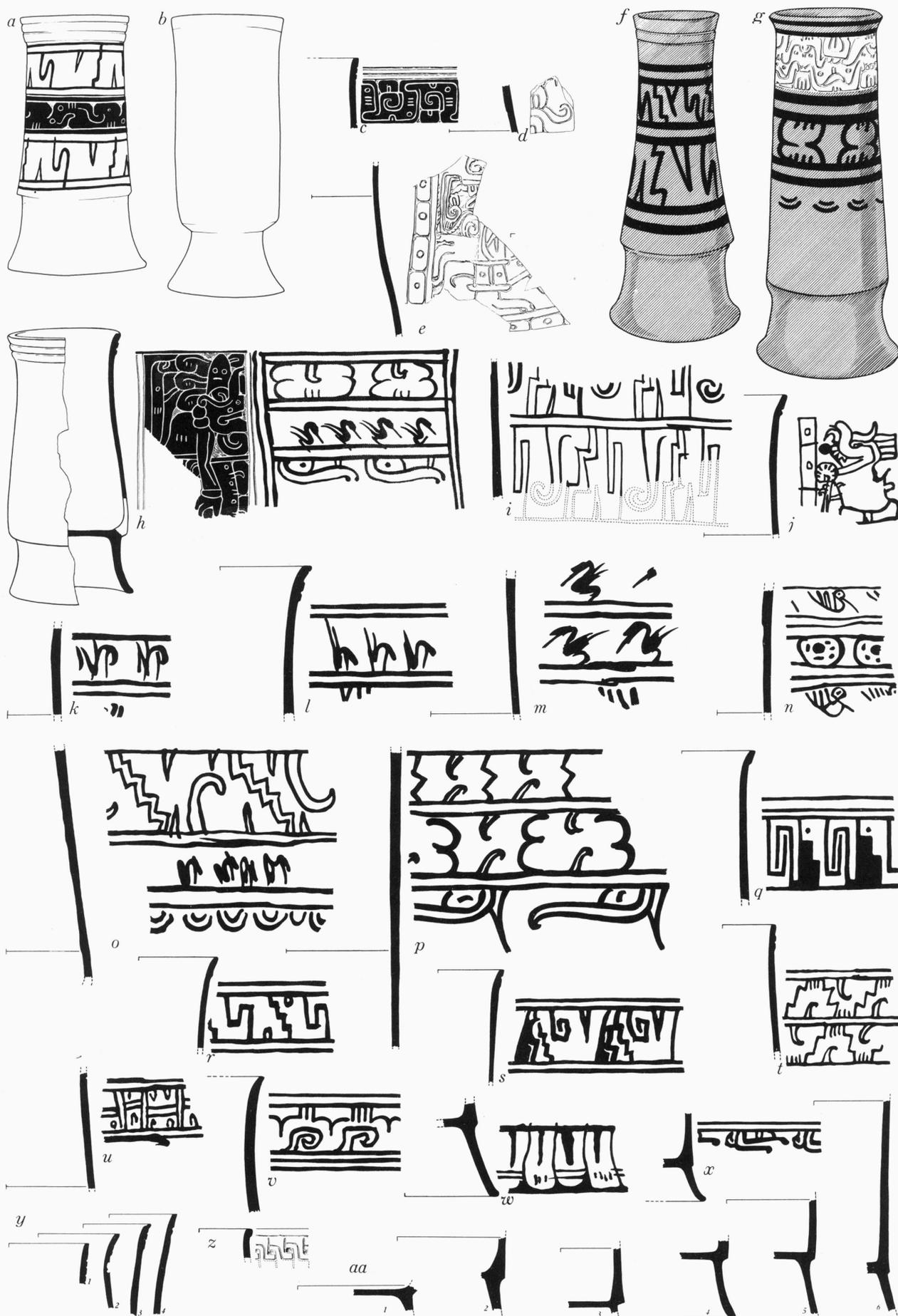


FIGURE 79

Early Mexican fine orange vessels from Chichén Itzá and elsewhere in Yucatán.

a: Chunkatzin, near Labna, PM, b; d; e; f; k; l; c, 1, 2: Monjas complex. j: Caracol. n; r; s: MM. o; q: MR. m: Probably from Temple of the Interior Atlantean Columns. Remainder from unknown locations at Chichén Itzá.

a; b; c: Belong to a sharply marked typed which never shows painted or incised decoration. Shape and color variation on surface (orange rim and smudged gray body) are distinctive (see Brainerd, 1941, taper lip bowls, p. 167 for descriptions). Drucker (1952, p. 101) describes this decorative technique on ash tempered fine-textured orangeware bowls at La Venta, but unfortunately does not give sufficient data on vessel shape to allow close comparison. d-i; k; l: Effigy-vessel fragments. See Dutton and Hobbs, 1943, fig. 81, d, for a roughly similar form in a Guatemalan highland ware; Shepard, 1948, figs. 20-22 for other similar vessels in plumbate; and du Solier, 1943, p. 76, fig. g for a similar vase in fine orange. e: Shows the head restored in d. i; k: Seem to have come from globular vessels. h: Seems to have been an attachment for a hollow,

modeled mask. Note lyre-shaped painted figure under eyes of d-f which is duplicated on a large, cylindrical incensario from Tula (photo courtesy of J. Acosta). i: Is a chin showing the teeth of the lower jaw. l: Probably represents a spear thrower and darts, at least the left hand does not hold a bow. The painting on d-i includes a deep, maroon red, with specular sparkle, a clear, glossy white, and black resembling that used on other fine orange vessels. j: Unique, incised decoration. m: Also unique; mold-pressed panel. h; q: Painted shouldered pyriform vases, cf. fig. 77. o: Unique vessel proportions but decoration is within the local range. p; r; s: Incised cylinders, cf. figs. 78, e; 90, e-g; Charnay, 1887, p. 375; Weitlaner, 1948, pl. 2, 15, etc. (most of these specimens bear no black paint). This vessel form with mask design in a rectangular panel was among the most widely traded and most elaborate of its ware. The design panels show considerable variety as well as close correspondences in various details. They form a group with considerably more internal similarity than similarities with other groups such as, for example, the early Classic stage Kaminaljuyu masks illustrated by Kidder, Jennings, and Shook (1946, figs. 97, 98).

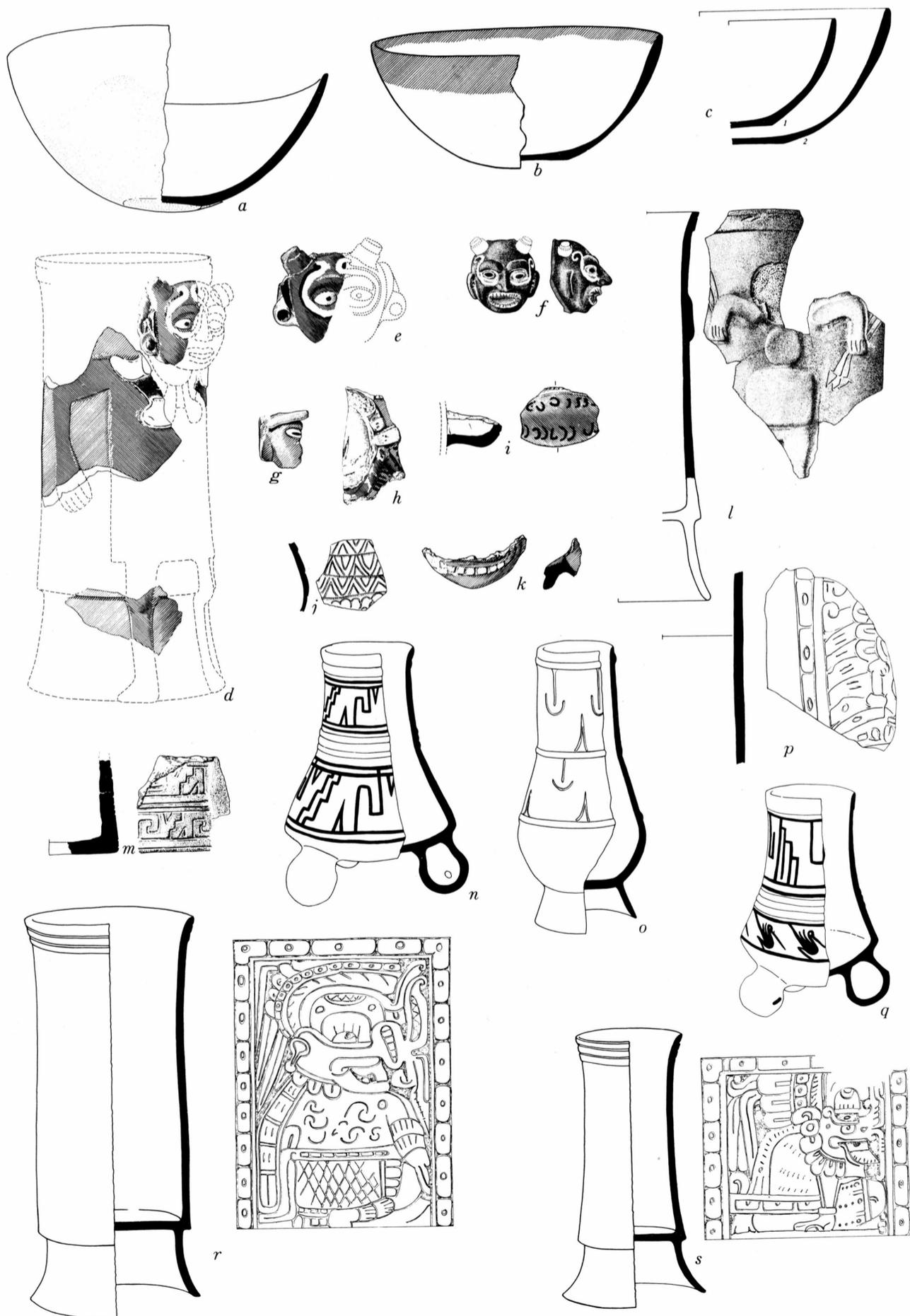


FIGURE 80

Early Mexican fine orange bowls from Chichén Itzá.

a; c; e; g; h; k; l; v; z; w; ff: Monjas complex. b; r: Phalli complex. j; s; t: Mercado. g: Initial Series group. aa: North Colonnade. cc: Northeast Colonnade. Remainder Chichén Itzá unknown location.

a-p: Round bottom basal break bowls, some with incised grater pattern on floor. Note much greater concavity of floor than that on Florescent bowls, also that walls are more vertical, lip squared, and vessel profile more constant in thickness. h: May belong with hemispheroid bowls. q-y: Hemispheroid bowls; this group may grade into the round bottom, basal break bowls; the one reconstructible specimen, however (q), has a shallow flaring, annular base rather than the spherical tripod cascabels commonly found on the above shape. z-gg: Globular vessels with restricted orifice, bb and cc are dubious but probably belong to this shape; ee is unique in both shape and decoration. g; t; bb; dd; ff; gg: Incised through black slip. a-c; e; s; w; z; cc: Incised through black slip area with additional black painted design. w: Incised through white slipped area. j; x; y; aa: Incised through white slipped area with additional black painted design. d; f-i; k; l: Black painted design. l; n-p; ee: Incised into orange paste.

The grater bowl bottoms shown here, l; n; o; p, originally suggested that this feature had been introduced with X Fine Orangeware, presumably from the

Veracruz littoral. The likelihood that the grater bowl existed earlier in this area has been mentioned elsewhere (fig. 74, caption).

It may be noted that the locally made grater bowls at Chichén Itzá (fig. 74) are of a shape not copied from Fine Orange, although their characteristic incurved rim is not of local derivation. The incurved rim is a Tepeu-phase marker at Uaxactun, and incurved rim grater bowls dating Tepeu 3 have been found there (for form, see Smith, 1936, fig. 17). Tepeu 3, the terminal period at Uaxactun, also contains Chichén or X (Early Mexican subphase) Fine Orange, so the Uaxactun grater bowls may equate with our Early Mexican subphase. Our specimens from Xpuhil, Campeche, which seem to be of Florescent date, do not show incurved rim and tripod rattle legs. Thus grater bowls seem to have remained localized on the east side of the Peninsula until early Mexican times, missing the Puuc area.

The hairpin loop handled specimen z is unique in Yucatán. These handles occur on late Huastec Black on White pottery, on a vessel from Isla de Sacrificios (Mayer, pp. 94, 95) but vessel form in neither of these cases resembles that illustrated here.

Globular vessels showing a markedly restricted orifice (hole-mouthed vessels) are not found in Yucatán prior to this period. Their appearance here in Fine Orange as well as in Red on Slateware (fig. 75, k, l-3) suggests a Mexican mainland influence for this form, although I do not know of examples found there.

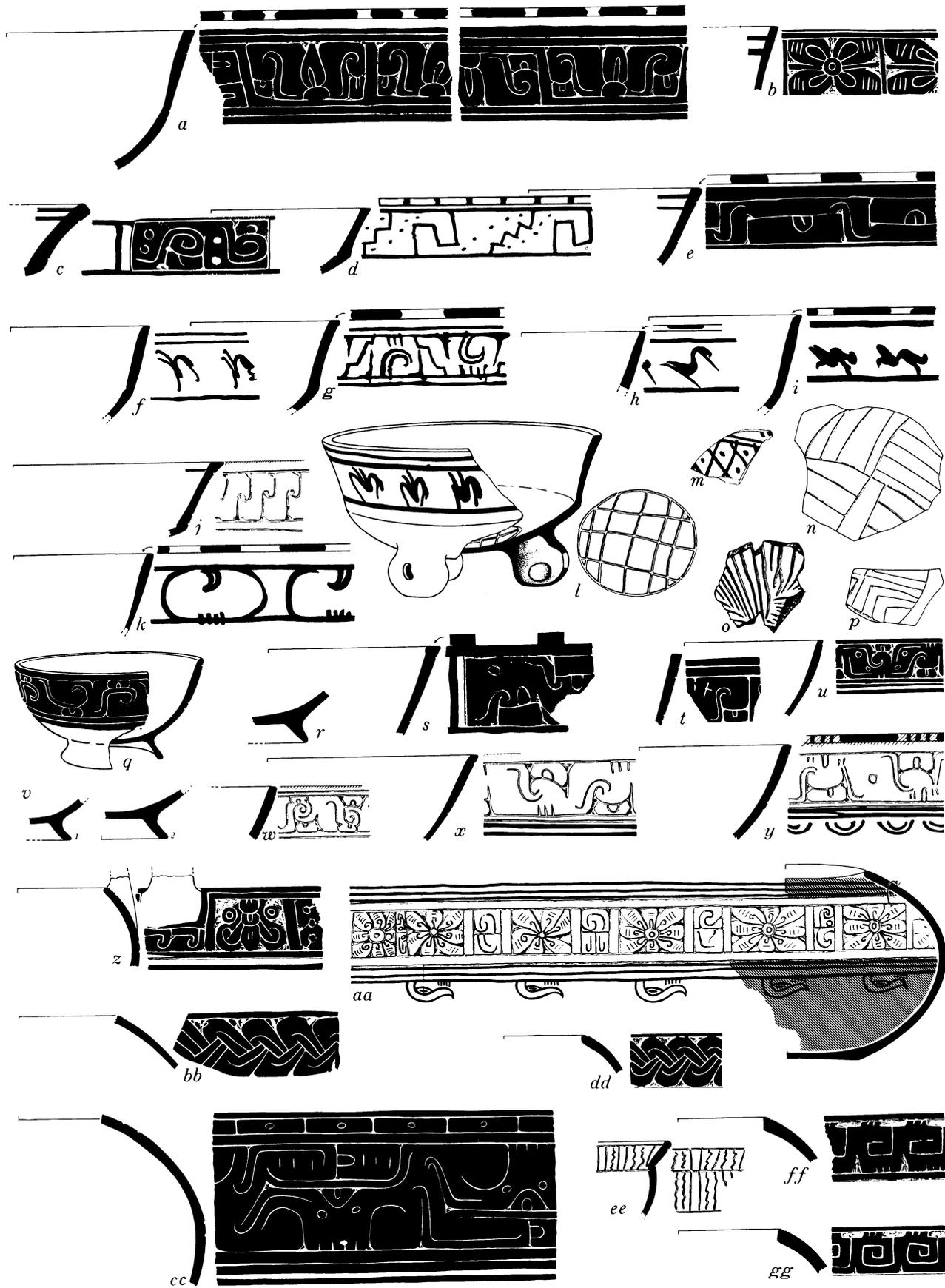


FIGURE 81

Early Mexican flat-bottom basal break fine orange bowls and unusual fine orange fragments from Chichén Itzá.

*a; i; w, 1*: Phalli complex. *b*: North Colonnade floor. *j*: Temple adjoining the Northeast Colonnade to the south. *k, 1*: Zumpulche. *m; n; w, 2*: Southeast Group. *p; t; dd*: Mercado. *g; v; aa; bb; ee*: Monjas complex. Remainder Chichén Itzá unknown provenience.

*a-i; l; o; p; r; s; x, 1-6*: With black painted designs only. *i; j; l; n-v*: Incised through white slip band, usually with additional black painted design. *i* and *n* show additional incision through red slip. *a*: Has shell-shaped ornament appliqué on the rim. *m*: Incision through red slip. *x, 1-6*: All show painted designs on flat bowl floor fragments.

The lack of incised design through black slip on this bowl form is notable and suggests possible chronologi-

cal or regional difference for the origin of these vessels. The form has a wide distribution; one Chichén Fine Orange specimen was found at Uaxactun, others at Tampico (Ekholm, 1944, fig. 21), a probable local copy at Tajumulco, Guatemala (Dutton and Hobbs, 1943, fig. 88). *b*: Unique in having been resist smudged, thus the colors are reversed from those in the drawing, orange design on dark gray ground. This probably was unintentional, a fault in the firing. *y*: A Veracruz region handle form (cf. Strebel, vol. 2, pl. 30, *1, 4*; Mayer, p. 95). *ff*: This doughnut form is found in Puuc-style Fine Orange at Utatlan (Lothrop, 1936, fig. 78) but there the cross section is circular. Alabaster vessels of the cross sections illustrated here are known from Isla de Sacrificios. Legs of effigy vessels, *bb-dd*, are similar in general to plumbate forms (cf. Shepard, 1948, figs. 14, 15).

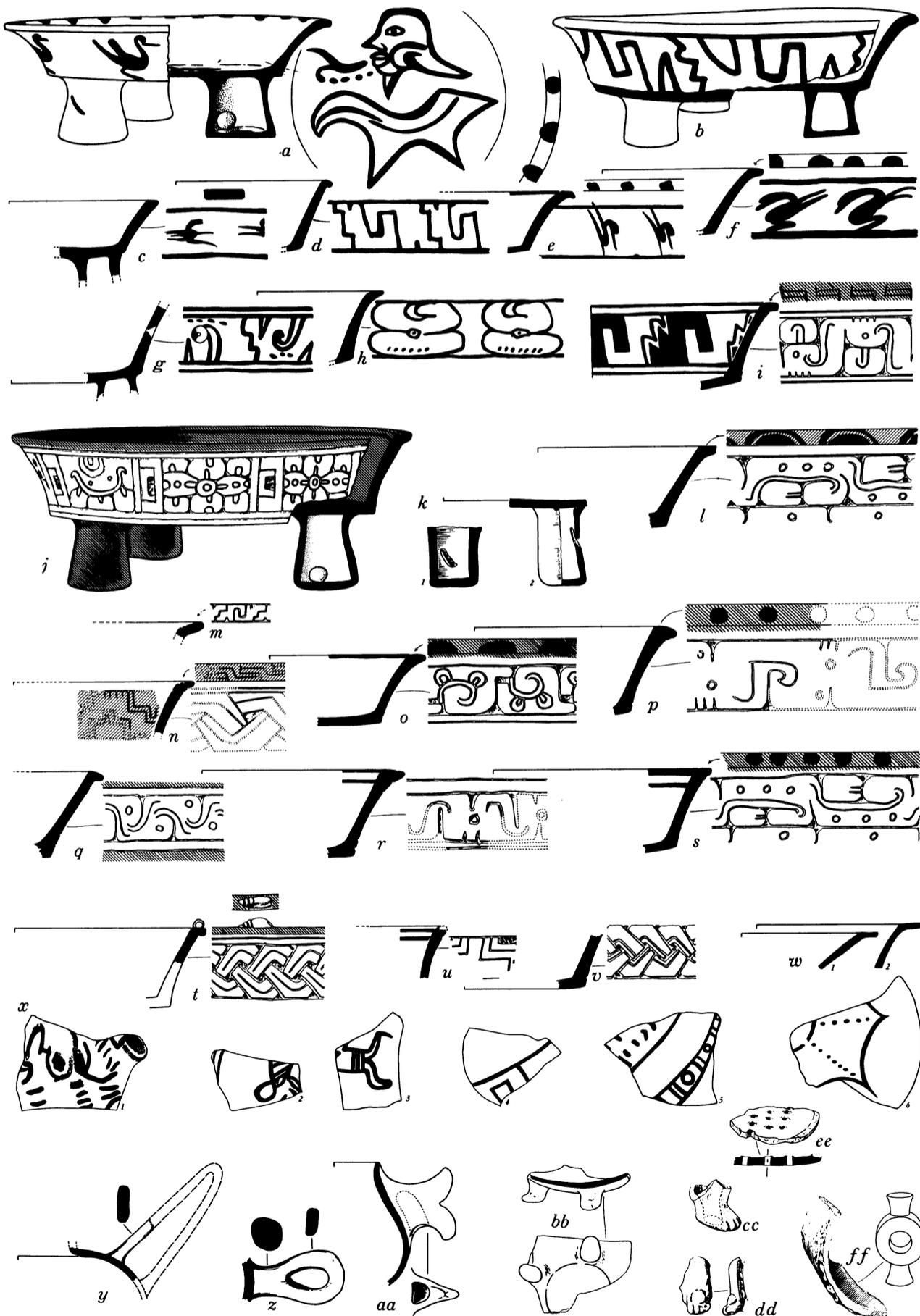


Exhibit comparing incised designs on Mexican-stage wares from Chichén Itzá (continued on fig. 83).

Designs have been restored when possible and are limited to one design repeat. Scale is not uniform; size of design has been made uniform to allow easier comparison. The specimens from which these designs were taken are all illustrated in other figures; validity of restorations may thus be checked by the reader. All variations of repeating band design which were recognized in the pottery are included.

a: Chichén (X) Fine Orangeware. b: Medium Redware. c: Medium Slateware. d: Coarse Redware. These wares are all known to have been contemporaneous (Early Mexican substage) save for Coarse Redware, which reached its peak of popularity during Late Mexican times. From evidence of close copying of Chichén Fine Orange in these designs, and their absence from Mayapan in the rich Late Mexican deposits there, the ware may be suspected to have been first made during the Early or Middle Mexican subphase at Chichén Itzá.

The design seems to have evolved in the state of Veracruz (Brainerd, 1941, 1942, 1953). The known distribution of Fine Orangeware of the Chichén Itzá repertory is discussed elsewhere. Although the history of this style of pottery design is nearly undocumented in its native area, it probably stems at least in part from the so-called Tajin style (Kidder, Jennings, and Shook, 1946, pp. 237-238, 250, fig. 15) common to stone carving on Totonac yokes, palmas, and architectural bas-reliefs at the type site, but suspected to have originated by early Classic times. Common to most Tajin style material is the filling of fields with scrolls or hooks, usually subangular, with outlining composed of two closely spaced parallel lines. The scrolls in Tajin sculpture are often pendant to ribbonlike elements in plano-relief "entrelace" design which is used to fill panels, often of irregular shape, or in running bands. This style of hook is a basic element of X Fine Orange incised design and is the single best connecting link between the sculptural and ceramic styles. The decorative style of X Fine Orange pottery shows more regard for abstract symmetry than does stone sculpture of the earlier Tajin style, the predominant type being slide reflection (offset mirror, Brainerd, 1942). Whatever may be the historical development of this design, it arrived at Chichén a well-integrated style, overlaid with solid conventions and showing ease and variety in its application.

The historic relationship between this design and that on plumbate pottery is uncertain; we lack documentation. That the design of the two wares shows enough similarity to denote relations of some sort between the two contemporary and not far-distant peoples who made them seems to me clear upon comparison of the series shown here with Miss Shepard's excellent design array of plumbate (Shepard, 1948, especially figs. 35-41). The use of scroll and reverse curve designs, usually in double line and with the reverse curves usually asymmetric, is striking in both sets of material (note table, *ibid.*, p. 58). There are, of course, equally obvious differences in the masses of designs from the two wares. The plumbate seems to show less regard for symmetric arrangement, and a more varied assortment of elements, a tendency toward vertical compression of scroll designs, a softer sweep of curve, and a variation of surface which sug-

gests differences in technique and materials. Certain plumbate specimens also may share with Cerro Montoso polychrome a somewhat greater stylistic similarity to Tajin stone-carving design than does X Fine Orange, although this impression is admittedly based on small samples.

Plumbate vessel shapes, the pedestal cylinders and tripod cascabel pyriforms, the round-bottomed tripod cascabel basal break bowls, the constricted cylindrical necked jars (Shepard, 1948, figs. 1-7), also resemble X Fine Orange forms more markedly than do most other Middle American wares. Plumbate, in form as well as in design, bears a softness of outline in marked variance to the delicacy and precision of X Fine Orange. This variance seems due to the use of a kabal in the forming of X Fine Orange, as well as to differences in materials between the two wares. These statements may answer the understandable objections which Miss Shepard has raised to my finding of an "obvious relationship" between plumbate and X Fine Orange without explaining what sort of relationship I meant to specify. (See Shepard, 1948, pp. 133-137.)

Both X Fine Orange and "developed" or "Tohil" Plumbate were widely traded, and the ornate decoration, careful manufacture, and small vessel size of both wares suggest that they well may have been made specifically with trade in mind. They were traded contemporaneously into markedly overlapping areas. Each of them is found in the area where the other was probably made. It is certainly not surprising that there should be similarities in their form and decorative style, though the craft traditions and materials in which the two wares were made seem to have been quite distinct.

These similarities may with reason be ascribed to copying between the makers of the two wares. To me, the style of the incised design on X Fine Orange seems more thoroughly integrated by convention than that of plumbate. If this may be interpreted as evidence of maturity in the development of a style, the majority of the incised design elements and arrangements common to the two wares may be assumed to have traveled from X Fine Orange to plumbate. Effigy shapes, on the contrary, are commoner in plumbate and may have been copied in the other direction despite the fact that they are not found in the earlier San Juan Plumbate. But these styles may well owe much to traditions outside either of their areas; our information is still fragmentary.

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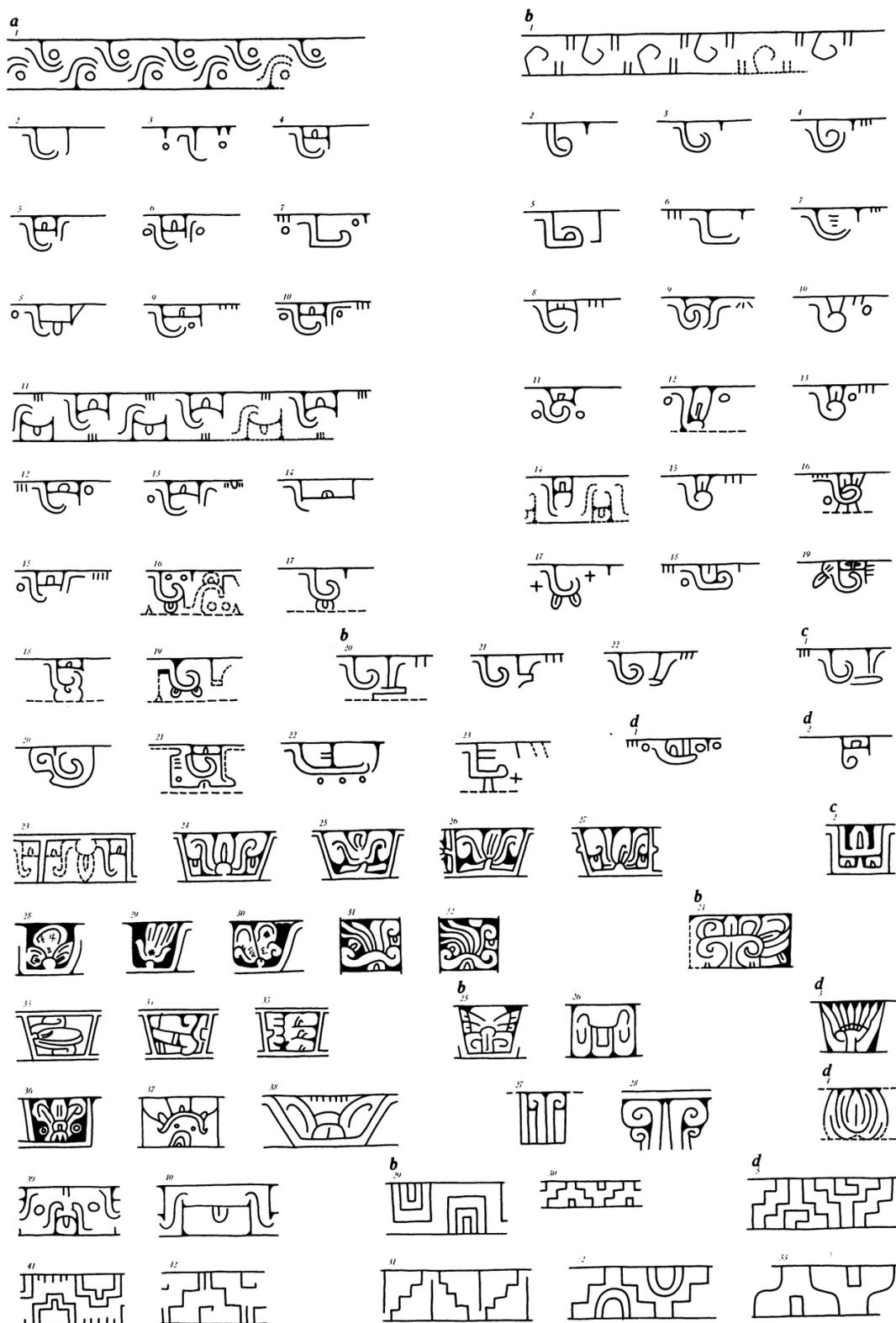


FIGURE 83

Exhibit comparing incised designs on Mexican-stage wares from Chichén Itzá (continued from fig. 82).  
**a:** Chichén (X) Fine Orangeware. **b:** Medium Redware. **c:** Medium Slateware. **d:** Coarse Redware. **e:**

Thin Slateware, Florescent stage (?). **f:** Sand tempered foreign ware (see fig. 91, p. 2). For discussion of this figure, see fig. 82 caption.

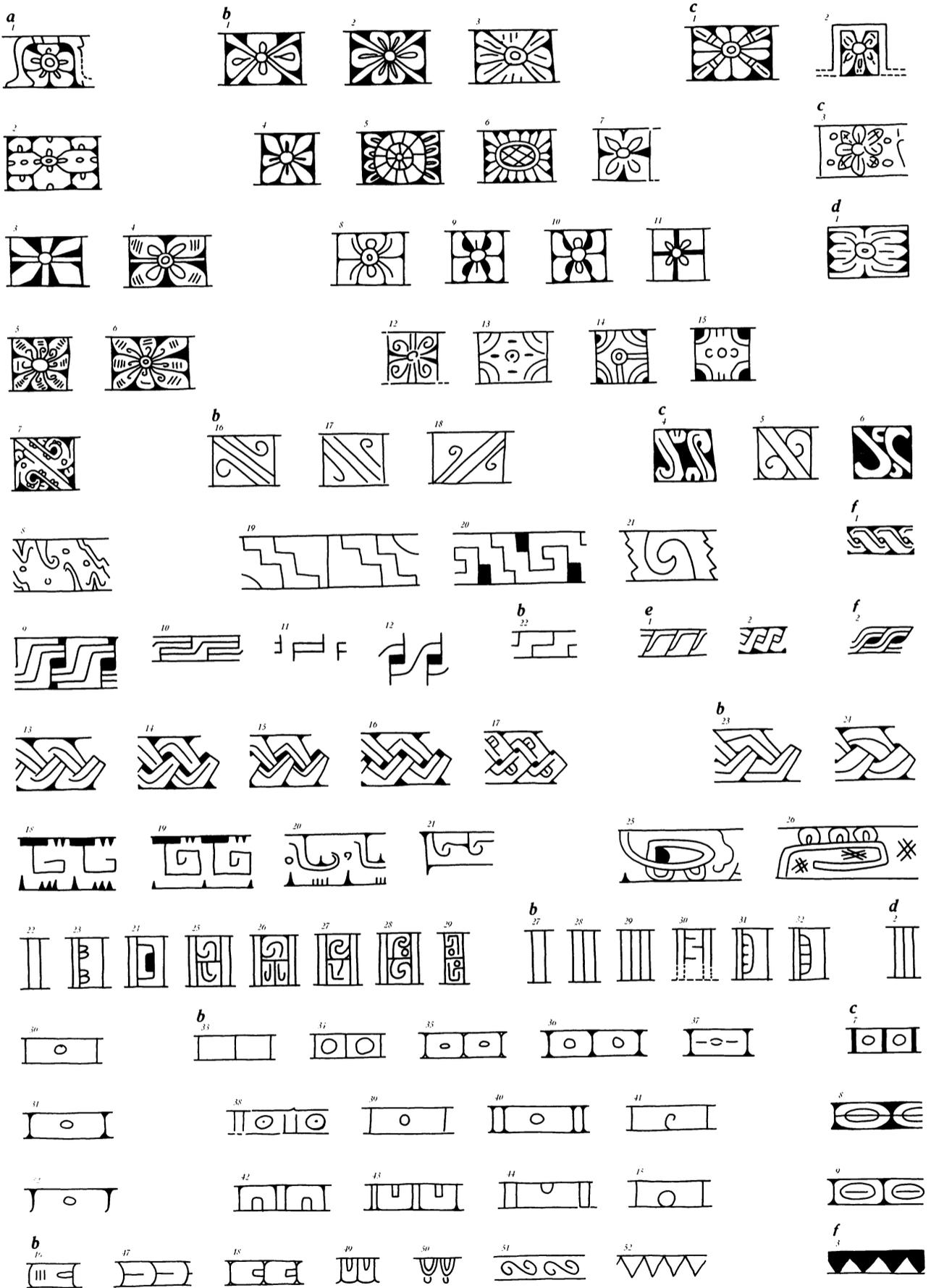


Exhibit of black painted design from Chichén (X) Fine Orangeware, Early Mexican substage, Chichén Itzá. This design is all taken from specimens separately illustrated. Reconstructions are only of parts which seemed certain to the author, and can be checked against the original figures.

Drafting is neat but free to the point of carelessness. Painted areas are of same surface texture as background. Paint appears to have been thin, easy to handle, and quite opaque. One specimen shows resist smudging (fig. 81, *b*), the rest show a clear, dark, gray-black color. Two degrees of line thickness may be discerned. The two thicknesses are not normally used on a single vessel. Examples of the commonest thickness are 56-60, of the thinner type are 22, 29, 30, 48, 51.

I know of no good parallels to the freely drawn birds, 61-82, save for specimens of local wares exhibited in the Universidad de Veracruz, Jalapa, in 1951. The execution has been formalized, see 61, into seven strokes, but this procedure was obviously not rigidly adhered to and considerable variation is seen even on single specimens (fig. 80, 1 for example). The device shown on 22-32 is here always found pendant to the lower border of a band, and with many variants, is found from Middle Culture into Aztec times in the Valley of Mexico. (See Vaillant, 1930, pl. IV, j, and Franco C., 1945, lamina 4.)

The abstract, geometric design in this series, 43-60, is of particular interest in the differences it shows from the incised design which, fig. 81, 1, for example, sometimes occurs on the same vessels. First, none of these painted designs is in slide reflection, which is the commonest type of the incised series (fig. 82, a, 1-22), and those which technically are in slide reflection, 49, 51, 54, 60, contain elements which suggest origins in the bifold rotational system (see Shepard, 1948a for usage of these symmetry terms). For this origin we may analyze step-fret band designs.

Designs belonging to the step-fret system are very widespread in the New World (see Brainerd, 1942, p. 165). They characteristically consist of interlocking scrolls alternating with stepped figures of some sort, and are often composed in bifold rotational symmetry. Very little evidence of this design system appears in X Fine Orange incised design. The reversed curve scrolls and pendant hooks common in that system never interlock, stepped elements (82, a, 41, 42) are mirror symmetric, and are rare. Single or grouped pendant lines, pendant U's and circles are common in the incised design. Armed with these contrasting elements,

and assuming their origins in the systems where they seem to fit (Brainerd, 1942, pp. 165-166), we can demonstrate that the painted design of X Fine Orange is a blend of at least two origins.

Fig. 84, 48 bears a mixture of elements; pendant hooks with adjacent double curves and probably the pendant V's belong to the incised style, while the double stepped lines and simplified rectangular interlock scrolls are members of the step-fret system. Dissecting the design, we have a bifold rotational step-fret band to which have been added extraneous elements in simple repetition from the incised repertory. Designs 43-47 show added V's which do not destroy the symmetry. 56-59 show variations and departures from the prevailing bifold rotational symmetry of step-fret design, without any sure evidence of elements taken from the incised repertory; the remainder of this series all show varying degrees of introduction of elements from the slide rotational design system of the incised ware. Since some of these designs are free of intrusions from the incised design style, but none are free of step-fret elements, it seems reasonable to assume that the step-fret style is native to the painted design and that it shows influence from the incised style with which it occurs in combination. Step-fret bifold rotational design is best known from the Anasazi area; I know of no other area nearer where a ceramic style shows it in pure or nearly pure form. Its presence as a live style in Mexico during this period is clearly attested, however, in the mosaic wall decorations at Mitla. Perhaps ceramics of hitherto undescribed wares bear it, or it may have been common on perishable objects of eastern Mexico at this date; it is still commonly used on weaving in this area.

Other elements painted on X Fine Orange pottery are easier to relate to contemporaneous ceramics. The element shown in 22-32 is common on Culhuacan (Aztec I) ceramics. Other elements common to painted designs on X Fine Orange and Aztec I painted design are described elsewhere (see caption, fig. 76). It will not be completely clear whether these resemblances show contemporaneity until we know more of the wares antecedent to Aztec I painted pottery. These designs may have been in use at an earlier date, and it has been suggested that they may have originated in styles of the east Mexican mainland. From the design repertoires of Aztec II design given by José Luis Franco (1945), it seems unlikely that X Fine Orange dates this late. Design resemblances to Aztec I pottery are considerably greater than to Aztec II.



Medium Redware jars and bulbous pyriform vessels, Early Mexican subphase, Chichén Itzá.

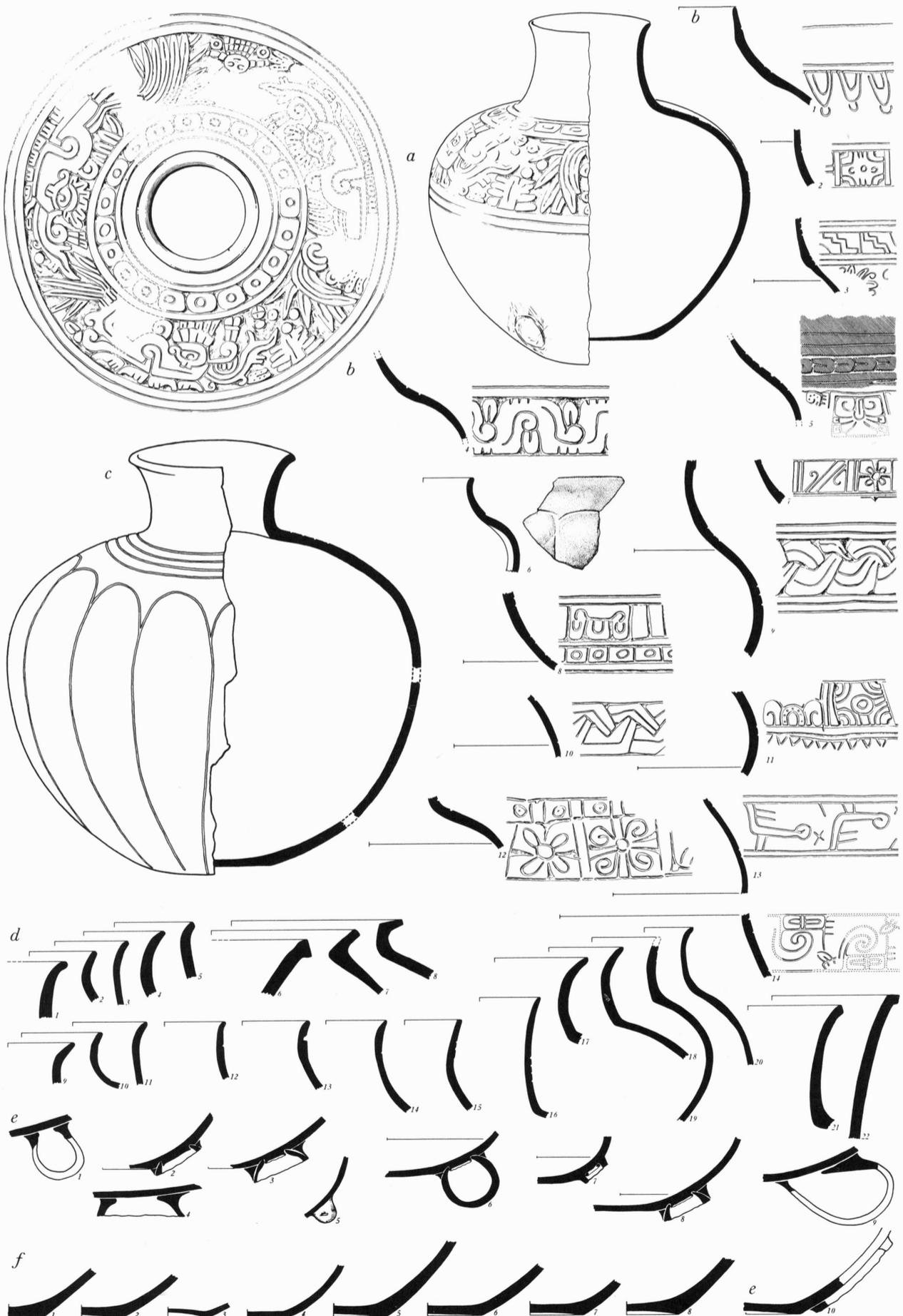
a: Sacred Cenote, PM. b, 1, 4, 5, 9-11, 13; d, 2, 5, 7, 8, 12-14, 16-18, 21, 22; e, 1, 6-8; f, 1, 2, 5-8: Monjas complex. b, 3, 14; d, 9, 10; e, 5, 9; f, 4: Caracol. d, 1, 3, 4, 6, 11, 15, 20; e, 2, 3: Trenches south of Southeast Colonnade. d, 19: Southeast Colonnade, Room B. Remainder: Location unknown.

a; b, 1-4, 6-14: Incised under red slip. b, 5: Incised under white slip band. a: Shows typical Yucatecan technique of grooving to receive lip or tenon of cascabel leg. However, the legs on this vessel were never added. b, 6: Has been formed by embossing the gadroons from the interior by pressure, and outlining them with a flat-ended incising tool. These operations were performed, of course, while the clay was soft. c: Bears incision, but no embossed gadrooning.

The great majority of these vessels must be copies of X Fine Orange jars and pyriform vessels (cf. figs. 76, 77). A few are similar to Medium Slateware jars of the subphase (cf. d, 8, 22 with fig. 75, h), while the tall, elegant neck of d, 16 seems to link most closely with plumbate forms (cf. Shepard, 1948, fig. 3, f; h; y).

Tripod cascabel rattle legs are here applied to concave cylindrical neck jars (cf. fig. 76, d, 1, 2 for similar X Fine Orange jars) as well as to the bulbous jars and pyriform vessels. The technical conservatism of the local potters is well demonstrated here in the common habit of tenoning the cascabels to the body as well as in the use of preslip incising. X Fine Orange bears designs in postslipped incising on vessels with simple luted cascabel legs. These bits of conservatism contrast markedly with the ready copying of X Fine Orange form and designs. A further detail of X Fine Orange vessels which the Maya seldom copied is the forming of delicate moldings around necks of pyriform vessels (see fig. 77, o; p; ee, 1-6). Most Medium Redware vessel necks simulate these moldings with incised encircling lines as in d, 13-16.

For proper reconstruction of the sherds shown here, the cylindrical vessels of fig. 86 must be considered. Although present evidence is negative, it is possible that some pyriform or bulbous vessels bore trumpet bases (cf. fig. 77, gg) and, conversely, that cylindrical vessels may in some cases have borne rattle feet.



Medium Redware cylindric and bulbous vessels and basal break bowls, Early Mexican subphase, Chichén Itzá.

**c; f:** Phalli. **d:** Wall Panels. **g, i; h, 1, 2, 3, 5; j, 3:** Southwest Group. **h, 4, 6, 11:** Sculptured Jambes. **g, 2, 3, 8; h, 9, 10, 14, 15, 24, 26, 30-36; i, 1, 7:** Monjas complex. **h, 7, 8, 12, 13, 19, 21, 22, 28, 29; i, 2, 6:** Caracol. **h, 16, 17, 20, 23:** Trenches south of Southeast Colonnade. **h, 27, 35:** Mercado. **i:** Temple of Atlantean Columns and House of the Grinding Stones. **j, 2:** Fitting sherds from Monjas and Caracol excavations. Remainder with location unknown at Chichén Itzá.

**a; b; c; g, 5, 7-11:** Incised under red slip. **g, 1-4; j, 1, 3, 7:** Incised under white slip band. **j, 2:** Incised under black slip band.

**a, b, and c** are classifiable apart from the remainder. The churn shape is more like that shown on a late San José IV vessel (Thompson, 1939, fig. 8, **3, b**) than to those common to its ware, and the terraced skirts of **a** and **b** resemble those of Florescent basal break bowls (cf. fig. 58, **a; b; j**). The ornamented rattle legs

are unique. Design repertory of **b** and **c** show no exclusively Mexican mainland motifs, but design of **a** must have been X Fine Orange copy, and this supports the ware determinations in placing this group in the Early Mexican substage. **d** and **e** belong more properly with the bulbous and pyriform cascabel vessels of fig. 85. **f-h** demonstrate the range through bulbous to cylindric vessels which characterizes these forms. The tall pedestal or cascabel footed forms are foreshadowed in Yucatán only by certain Z Fine Orange forms, but by nothing in the locally made Florescent-stage ceramics. These forms have been made in Yucatán, if one allows wide latitude in shape, through all successive substages until the present time (cf. figs. 23, **a; 34, e; g; 90, e; i; 92, b; c; j**).

The basal break bowls are close to those of the contemporaneous Medium Slateware (fig. 74). Cf. **i; j, 1, 3, 5** with fig. 81, **a-w**; cf. **j, 2, 4, 6, 7** with fig. 80, **a-p**; also note more of these forms on fig. 87, **a-t** where **d; i; k** belong to the latter group, the remainder to the former group.

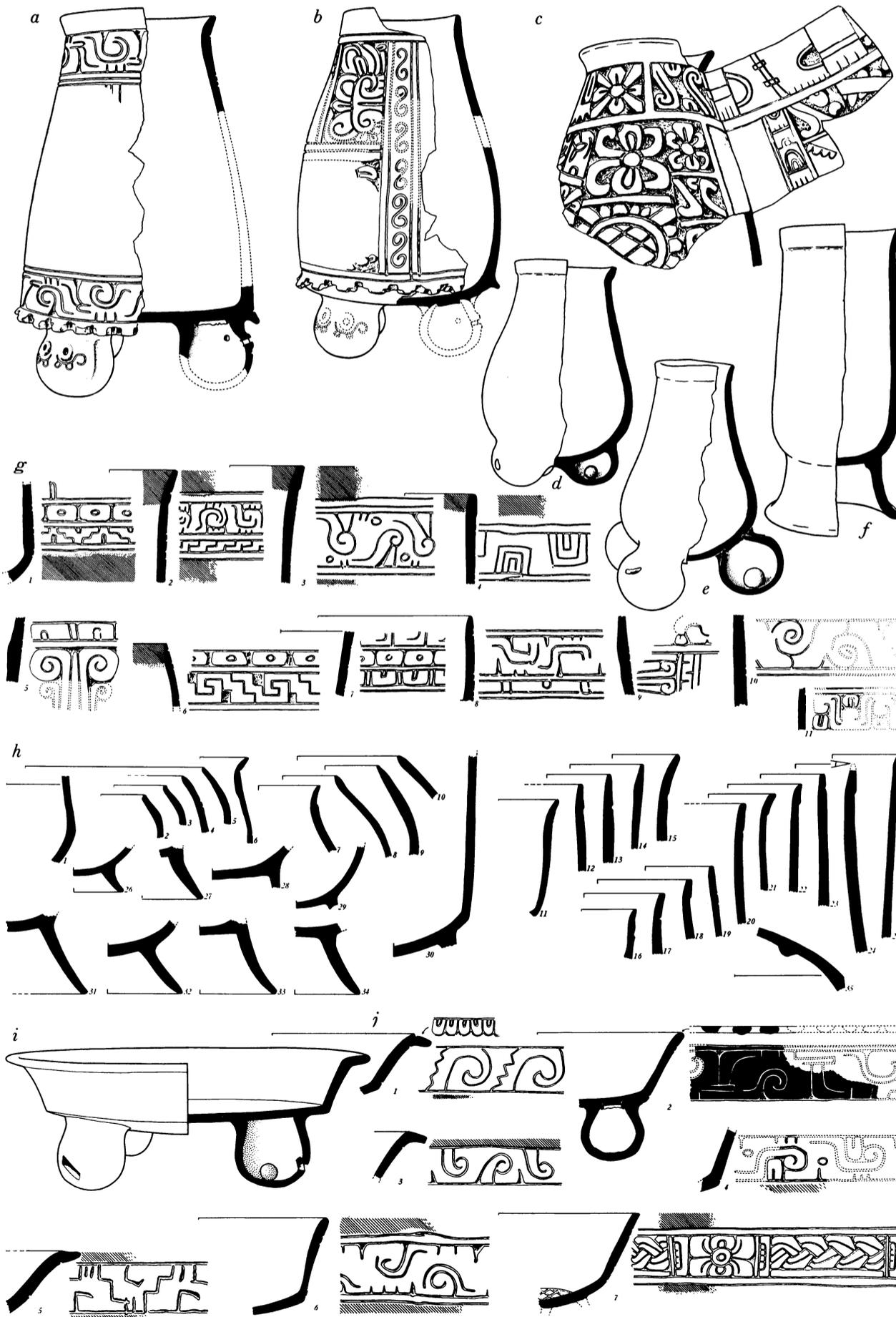


FIGURE 87

Medium Redware basal break and rounded bowls, Early Mexican subphase, and two specimens of Florescent phase, Chichén Itzá.

**b; u:** Phalli. **c; t, 12, 13:** Southwest Group. **d; i; j; l; s; t, 6-10, 14, 16, 18; v; y:** Monjas. **e:** Sculptured Jams. **p; q; t, 1-3, 5:** Caracol. **t, 11, 17; aa; bb:** Trenches south of Southeast Colonnade. **w:** Near Sacbe north of Castillo. **cc:** Mercado.

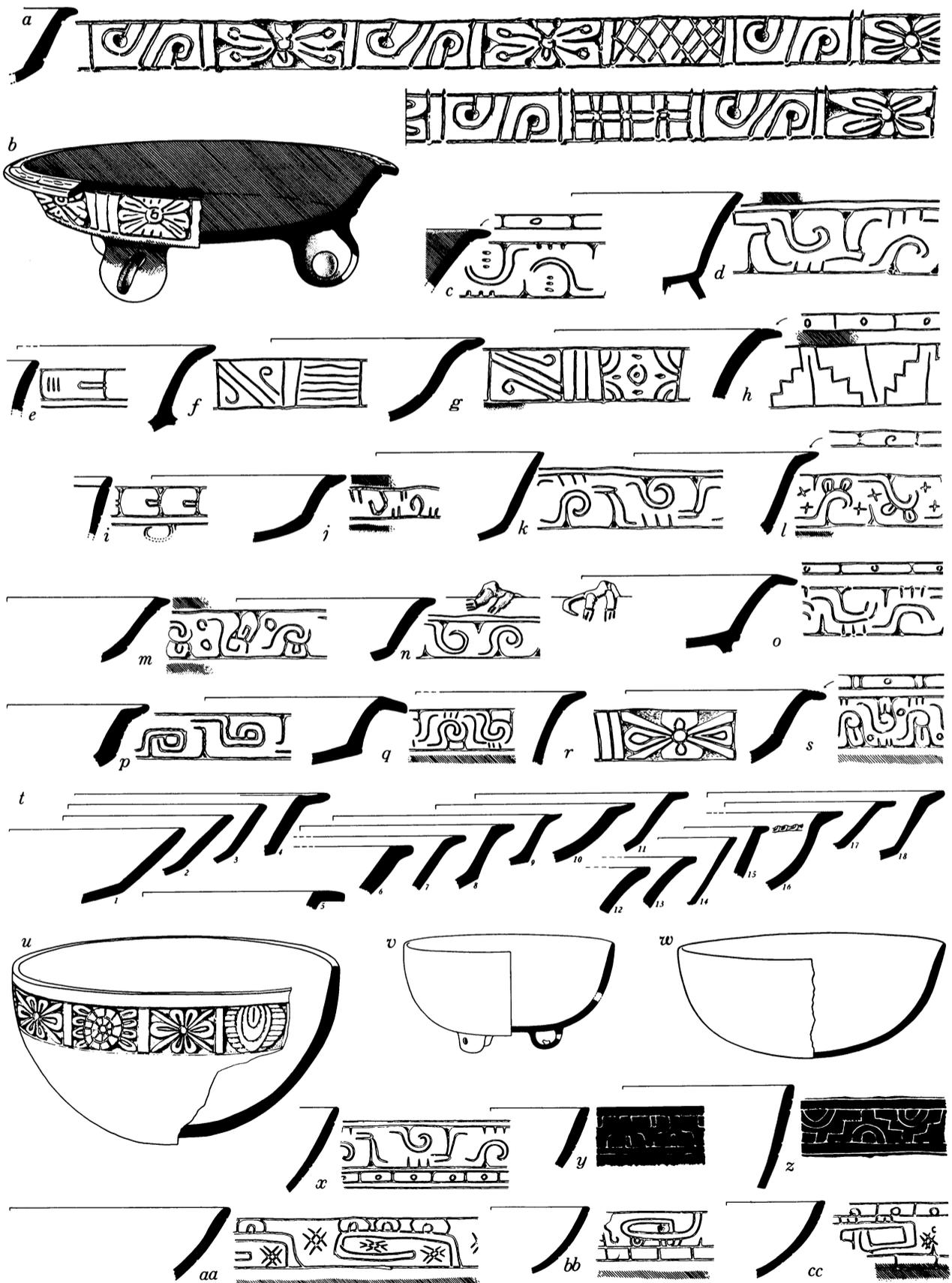
**a-s; x-cc:** Incised under white slip band. **u:** Incised under red all-over slip. **y; z:** Incised under black slip band.

**a-t:** These basal break bowls show suggestions both of their Florescent predecessors and of style influence from Fine Orange imports (cf. fig. 81). The trumpet-shaped cascabel of the X Fine Orange form seems never to have been adopted, but the black and white slip bands were taken over, and incised exterior designs, which, however, were done in the local preslip-incised tradition, although the designs are exclusively of X Fine Orange deviation. The monkey on the bowl lip, **n**, finds its closest parallel in the shell on the X Fine

Orange bowl lip, fig. 81, **t**. It is of interest that here as elsewhere in Medium Redware, although the black slip band was used, the X Fine Orange practice of drawing in black line was not used (only exception to this rule is use of black line in fig. 88, **f, 4**). Medium Redware is considerably darker in color than the red slip of X Fine Orangeware, making the black paint less effective. The black slip bands also show a tendency to spall off; the black paint for Medium Redware seems not to have attained a sound technical development.

The rounded bowls **u; x-dd** are similar to the X Fine Orange forms on fig. 80, **q-y**. Base form is unknown. Walls are in general less constricted than Florescent forms (cf. **v, w**). See fig. 88, **a** for more of this Florescent form.

The two Florescent-stage bowls **v, w** are of a type rather rare in the Puuc collections, cf. fig. 51, **147-159**, perhaps more commonly found in the Chenes area. **aa-cc** bear designs suggesting Z Fine Orange, cf. fig. 59, **c, 16; d, 3, 9**, and thus are perhaps Florescent in date.



Medium Redware rounded bowls, effigy fragments, graffiti, mainly of Early Mexican substage, Chichén Itzá.

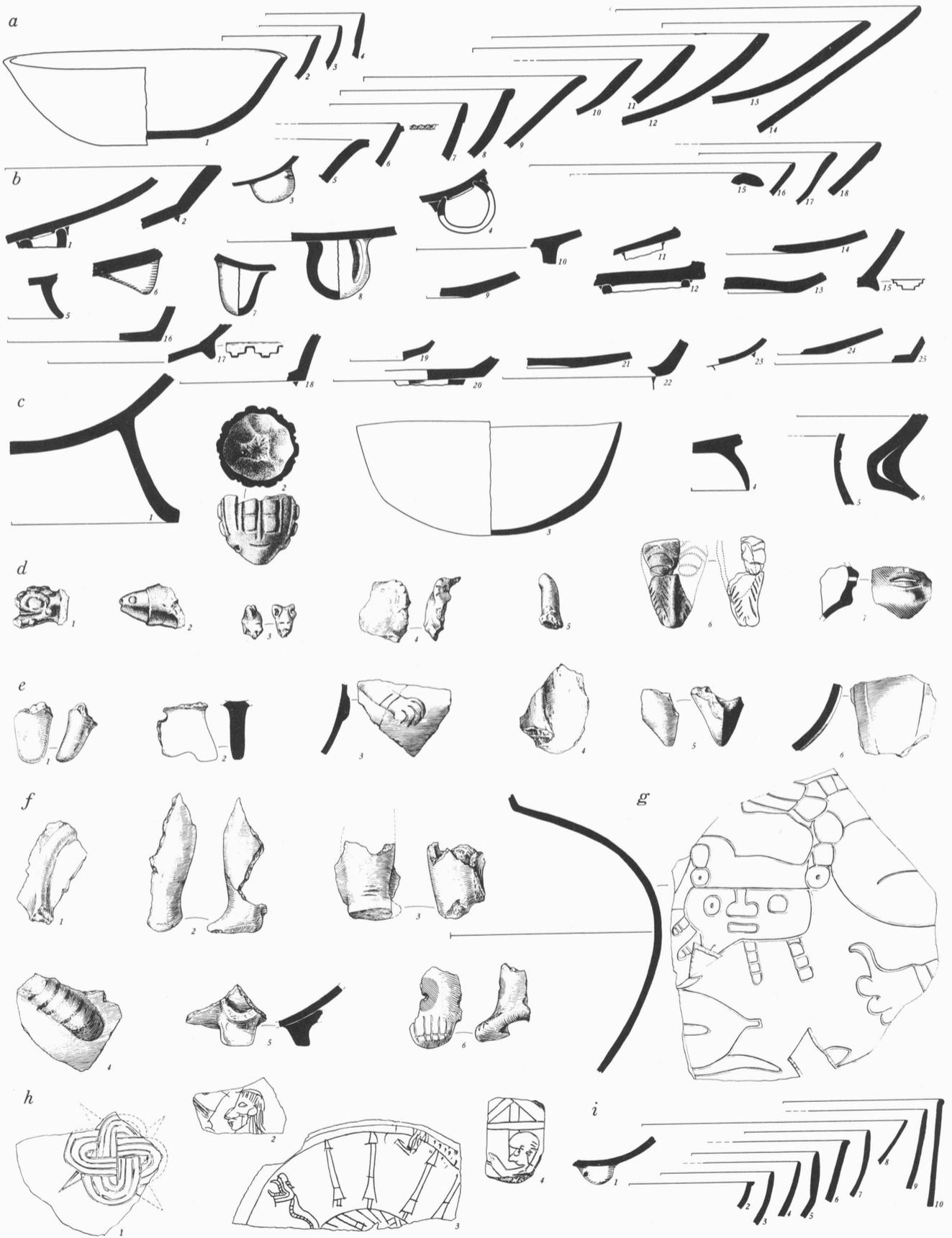
a, 2, 7, 13, 15-18; b, 4, 14, 23, 25; e, 1, 2: Caracol. a, 3, 5, 9-12; b, 2, 6, 7, 10, 13, 21, 22; d, 1, 6; e, 5; f, 4; i, 1, 3-8, 10: Monjas complex. a, 6, 14; b, 1, 9; c, 1: Trenches south of Southeast Colonnade. b, 16, 97, g; h, 4: Phalli. c, 3: Sacbe north of Castillo. h, 1: PM, Sacred Cenote. Remainder with location unknown.

d, 6; e, 3; f, 6; g: Bear incising under the slip. c, 2: Was certainly mold pressed. Design on many fragments of d; e; f was done by hand-modeled appliquéd elements. Designs on h, 1-4 were scratched after firing. f, 4: Bears black paint. d, 7; f, 6: Are painted, Red on Slateware, cf. fig. 75.

Forms a, b, and c and i show a wide variety of bowl base and leg forms. Some of these are certainly of Regional and Florescent stage. Compare such forms as a, 9-14; b, 1 with fig. 2, a; b of Regional stage from

Cobá. Cf. b, 11, 12, 17-20 and fig. 52, i-m, Florescent from Puuc sites. Cf. a, 1-4; c, 3 and i, 1-10 with fig. 51, 1, Florescent from Puuc sites. c, 1: Belonged to a larger, trumpet-based basin, c, 6 possibly to a drum.

Most of the fragments shown in d; e; f come from effigy vessels, many of which closely resembled plumbate forms (cf. Shepard, 1948). d, 6: May be an animal-head leg of the general type illustrated by Wauchope (1948, fig. 57, a-h), although it seems somewhat large. If so, it is the only animal-head vessel leg of our Early Mexican substage, save possibly the plumbate specimens fig. 91, c, e (see discussion on captions of figs. 27; 28; 95). The elaborate and rather naturalistic designs of g are suggestive of fig. 89, h, 4, which is a Mexican mainland import. The graffiti designs, h, 1-4, seem to have been contemporary doodlings similar to those found scratched into many walls of Maya buildings (cf. h, 1 with Morris, Charlott, and Morris, 1931, fig. 261, b).



Imported and rare pottery, mostly from Chichén Itzá.

a: Trench 1 south of Southeast Colonnade. b, 1, 2: Room B, Southeast Colonnade. d, 1, 2; f, 1, 2, 6; g, 1, 2; i, 1; n; p, 1-3; q; r: Monjas complex. e, 1; i: Akadzib trenches. e, 3; h, 1, 3, 4: Caracol. f, 3: Hacienda Cenote. f, 4: Southwest Group. f, 5: Sculptured Jamb. o; s; t: Redrawn from Seler, 1901, from figs. 23, 27, 25 respectively, Uaxac Canal. w: Phalli. x: Uxmal.

a-e: Have fine orange paste. a and b belong to the four-color polychrome group often called Cerro Montoso Polychrome after the pieces collected by Strebel (1887-1889) at that site. More of these specimens, from the Nepean Collection from Isla de Sacrificios, have been illustrated by Nuttall (1910, pls. 11-14) and by Joyce (1914, pls. 18, 19; and 1937, p. 113). A vessel nearly identical in both design and shape with that shown here was excavated by W. du Solier at Isla de Sacrificios, Veracruz (1943, p. 78, n, o). More remote but perceptible resemblances occur with certain polychrome vessels found at Guasave, Sinaloa (Ekholm, 1942, figs. 49, a, 5, a), which show, as does this vessel, elaborately costumed men in profile with masks held before their faces. The chronological placement of this polychrome compared to that of X Fine Orange needs more work on the Mexican mainland. The original published description of the Nepean collection (1844) described bronze bells and a gold leaf at the same level as the fine pottery, just at water level under 10 to 14 feet of overburden. The Nepean collection preponderates in four-color polychrome, to judge from illustrations, but also contains considerable X Fine Orange. E. Spinden (1933) illustrates what seem to be four-color polychrome sherds of this type from Tajin, but these may be surface material. Garcia Payon (1949, p. 473) states that Isla de Sacrificios ceramics do not appear at Tajin. From the context he seems to include four-color polychromes in this category. There is additional separate evidence that the Tajin occupation coincides at least in part with Teotihuacan II-III (see Kidder, Jennings, and Shook, 1946, p. 257 for a discussion). Drucker (1943a, fig. 210) presents a puzzling sequence, with Isla de Sacrificios equated with Aztec III-IV and following Cerro Montoso. This placement has been made (*ibid.*, p. 84) because of the presence of Drucker's "Tan Polychrome" in his Upper II deposits, and his identification of similarities between this ware and pottery from Isla de Sacrificios. I believe Drucker's Fine Line Black-on-White Ware (p. 54, pl. 4, a, b) seems closer both to Isla de Sacrificios wares and to the four-color Chichén Itzá ware; all of these show a characteristic use of broadline white with black and red bordering. I have not been able to find a period placement of Fine Line Black-on-White in Drucker's report. Perhaps the Isla de Sacrificios materials may include the span from Mazapan to the Conquest, but we know they are at least partly of the Plumbate-Tula-Early Mexican substage horizon. Therefore Drucker's period series must be inaccurate in time placement if not reversed in sequence. In view of its presence at Isla de Sacrificios and at Tampico (Ekholm, 1944, figs. 21, 22), the apparent absence of X Fine Orange of the incised varieties at Cerro de la Mesas suggests either an exclusively northern distribution of the type or a temporal disjunction in the Cerro de las Mesas ceramic sequence.

ants; the white and orange paints are thin and streaked. q has a chalky white slip which bears a thin orange overslip exteriorly, with what is probably a resist circle with black dots and paint as shown. The sherd is quite abraded. r bears a lustrous orange slip with red and black overpaint of type not unlike the Regional polychromes. Paste, however, is finer and orange in color (cf. fig. 60, c). o, s, and t are copied from Seler, 1901. They come from Uaxac Canal, Guatemala. o fits well into X Fine Orange, cf. fig. 78. s does also, save for the perforations, but also fits with the restricted heavy bowl rim form range from Mayapan, fig. 28, c, 4-6 and thus may date late in the X Fine Orange range. t can with good reason be called Mayapan Fine Orange on the basis of its human-head leg form and basal ridge, cf. 28, a. No concise data as to association of

In his conclusions, du Solier (1943) reports redware pottery and cherry-on-coffee pottery in burials below a stucco floor, and that fine orange pottery and polychromes were limited to upper levels. The "cherry-on-coffee" pottery is very close in form and ware to Tula pottery of the Mazapan period; thus it would seem that all X Fine Orange and the four-color polychromes postdate the Mazapan period. However, a difficulty arises in that du Solier reports (p. 65, burials 3 and 3a) fine orange from burials below stucco floors, but his lack of cross-referencing to the previously published description of Chichén Itzá Fine Orange pottery (Brainerd, 1941), as well as lack of concise fine orangeware descriptions, makes attributions of the pieces from these potentially valuable excavations uncertain. Du Solier's redware probably comes within the designation X Fine Orange, and his distinction possibly is based upon a difference in weathering, a factor which was also very marked in the Chichén Itzá collections. The few vessels illustrated from du Solier's Isla de Sacrificios subfloor burials do not include the characteristic decorative treatments of X Fine Orange. The burial samples are unfortunately too small for reliability, and no under-floor sherd listings are given to supplement them. The sherd counts from the abovefloor level (p. 67) evidence a complete absence of cherry-on-coffee, a tremendous preponderance of polychrome, and rare Aztec I black-on-orange ware. A general surface collection made by the author in 1942 was strong in cherry-on-coffee and sparse in fine orangewares; most of the sherds came from washed-out levels at the water line. Du Solier's data, although not definitive, seem to support the thesis of X Fine Orange and Aztec I equivalence, arrived at on grounds (see captions to figs. 76 and 84) that the Chichén Itzá Fine Orange pottery shows design resemblances to that of Aztec I, thus probably fitting into the later end of the Mazapan period. It also seems likely that the four-color polychrome dates at least no earlier, and may well be later than X Fine Orange.

The above chain of conjectures should emphasize the difficulty of comparing pottery between publications, as well as the fact that little is known of Mexican east coast ceramics of these periods. Comparative work with the already excavated Tajin and Zempoala ceramic sequences should help this situation.

c and d, 1-3 also are made of a fine orange paste. d, 1 is similar in decoration to ceramics found at Mayapan, cf. fig. 28, b, 1, 2, although shape is different. Sherds shown as e, 1-4 have the thinness and powdery surface characteristic of Z Fine Orange; f, 1-7 fit typically into that category. g, 1, 2 have a gray-cored paste, a white lustrous slip, and matte paint varying from black to chocolate brown when thinly applied. h, 1 is white slipped with matte orange figures outlined in black. The shape as restored is Huastec. h, 2-4 are of the same ware, 4 is an irregular constricted cylinder. i has a gritty brown paste and is markedly like the Isla de Sacrificios type described by du Solier (see above) as cherry-on-coffee of Mazapan date. j; 1-m all have medium-textured orange pastes and orange slip, red and black paint as shown. k bears an irregular, thin red slip on gray paste. n is badly abraded, but shows a thin, irregular white slip with traces of orange paint on orange paste. p, 1-4 all have a glossy finish overlying both slip and paint, and in finish resemble the Cholula lacquer wares, though colors and designs are vari-

these three vessels are given by Seler. If they were found associated, they should date Middle Mexican substage in our chronology, and suggest late dating of cylinders like o. This is weak evidence. u and x; of a rather fine-textured neutral gray paste, unslipped, and exteriorly shallow striated. Reconstruction hypothetical; a spout or other protuberance may be correct. A similar sherd is illustrated by E. Noguera (1940) from Quintana Roo, and sherds identical in ware, and of somewhat similar form, came from Chenes sites in 1949. v is of medium-textured paste with high gloss and a design in red, seemingly in resist technique on a brownish black ground. w; with dark-gray paste, brown slip interiorly, matte-red exterior slip with glossy black and matte-white designs.



FIGURE 90

Miscellaneous pottery, mainly of Early Mexican substage from Chichén Itzá and elsewhere.

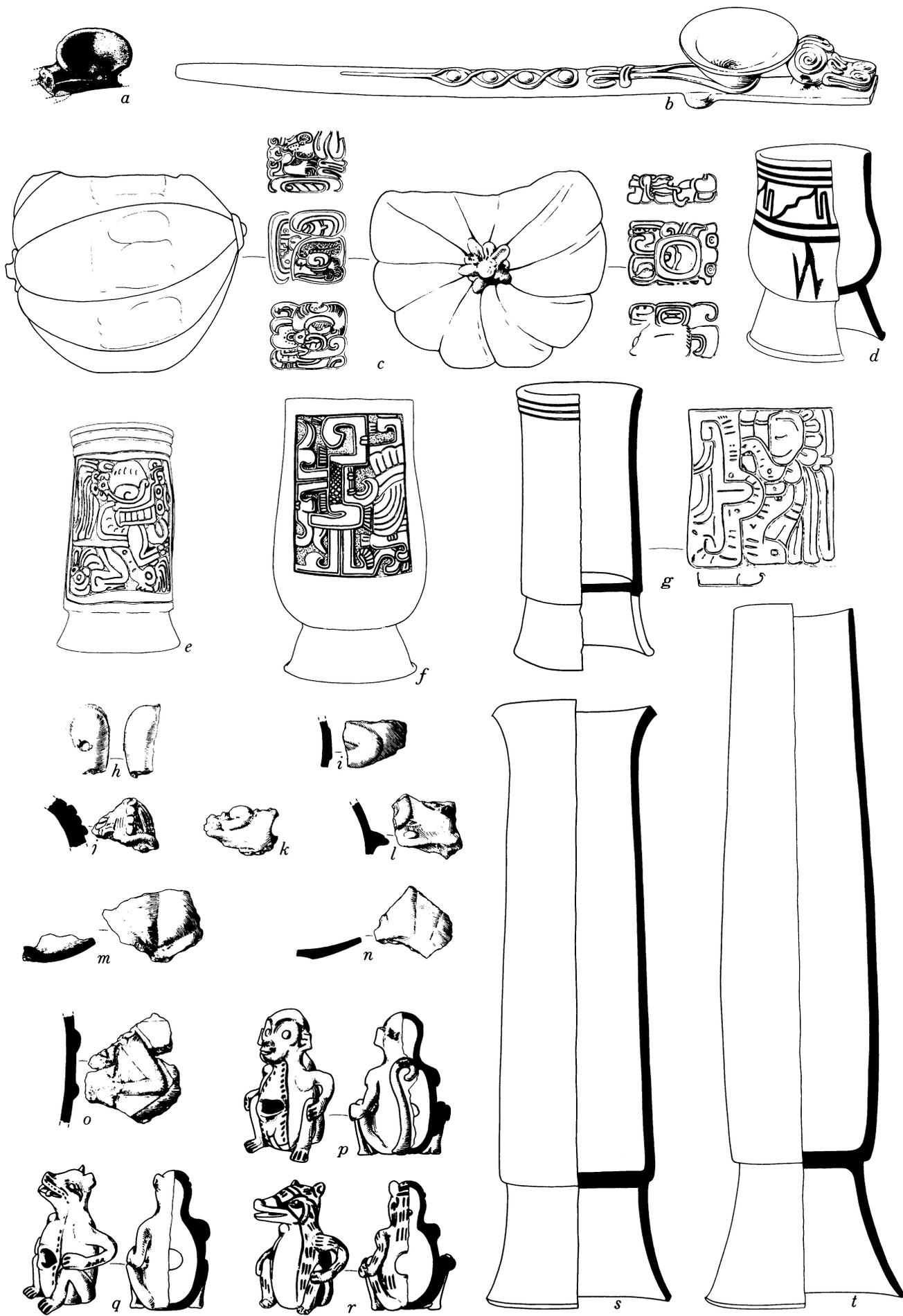
**a:** Zumpulche. **b:** Northwest Colonnade, Temple of the Warriors (see Morris, Charlot, and Morris, 1931, pp. 177-179, pl. 21). **c:** MM: "High Mound," Mayapan. **d:** MR. **e:** PM Yaxchilan. **f:** Tlamimilolpa (Teotihuacan) from Linne, 1942, figs. 274-275. **g:** MM, Yucatán. **h:** **o:** Monjas complex. **p:** **q:** **r:** PM, Chichén Itzá. **s:** **t:** Temple of the Warriors, see Morris, Charlot, and Morris, 1931, fig. 114, p. 101. Remainder: unknown locations at Chichén Itzá.

**a** and **b:** Unslipped, of red-brown clay. **c:** Bearing a lustrous orange slip which allows its placement as Regional Polychrome like that from Mayapan (see fig. 9, **f**) and elsewhere. Glyphs are incised through slip, mouth area missing. **d:** Appears to be X Fine Orange. **e:** **f:** X Fine Orange. **g:** Of coarse brownish clay, a copy of X Fine Orange. **h:** **j-o:** Of Medium Slateware. **i:** Specular purplish-red slip on medium-textured paste. **p-r:** Of coarse gray paste with postfiring paint; **p:** has red body, white chest and face, outlining in bluish gray; **q:** with red rear legs and lower body, remainder white with blue-gray linework. **r** bears blue-gray linework on white painted body. **s** and **t** bear a red slip on coarse textured paste (Coarse Redware).

**b** and probably **a** may well be Mexican imports, so close is their resemblance to certain pipes on exhibit at the Museo Nacional, Mexico, excavated by Isabel Kelly from Yacata 5, Tzintzuntzan, Michoacan. **c** is a unique piece, its reported provenience is the Mayapan main pyramid, within which Andrews (1943, p. 81) states there is an earlier building. This provenience should, however, be considered questionable. The three trumpet-foot cylinders, **e;** **f;** **g**, from widely separated localities, show interesting points of similarity and difference. To this series may be added fig. 78, **e;** **h**

a specimen from Corral Falso, Guerrero (Weitlaner, 1948, pp. 81-82, pl. II, 15) and Charnay's specimen from Ticul (1887, p. 375, reillustrated by Hamy and by Vaillant, 1927, fig. 315). The effigy-vessel fragments **h-o** are in general similar to those of fig. 88, **d-f**, and seem to be local copies of plumbate and X Fine Orange imports.

**p,** **q,** and **r** are unfortunately documented only as to site. Their interest is heightened by their marked similarity to those published by Gann from Santa Rita, British Honduras (Gann, 1900, pls. 23-27). The Santa Rita figurines were found with pottery vessels (*ibid.*, fig. 7) which suggest Late Mexican shapes (cf. figs. 22, **a;** 93, **a,** **b**), and one of the figurines (pl. 23-3) is close to a type common on figurine incensarios (cf. fig. 27, **a**). The Santa Rita murals have long been believed late; Andrews (1943, p. 78) suggests their late dating on stylistic grounds, at 1450-1525 A.D. The turtle effigy from the Caracol (fig. 93, **e**) probably also belongs to the Late Mexican substage or to the post-Mayapan period, but the tiger from the Caracol (fig. 93, **d**) and the tiger foot (fig. 93, **f**) are made of hard, medium-textured paste which does not occur later than Early Mexican times in Yucatán. Further possible evidence of earlier tradition for hand-modeled animals occurs at Tres Zapotes (Drucker, 1943, pls. 53, 54) in a context which Drucker places at least as early as Early Mexican, although the association of these figurines with others of Drucker's Lirios type suggests to me that they may date Late Mexican (see fig. 54 caption). The tall cylinders, Late Mexican derivatives of X Fine Orange shapes, are not paralleled by shapes in the Mayapan collections. They were probably deposited after the fall of the main temple of the Warriors, and perhaps were made especially for an offering.



Plumbate pottery, stamps and rare wares from Chichén Itzá and elsewhere, Early Mexican substage.

*a*, 1, 4, 5, 7, 10, 16, 18, 21, 22; *t*, 1, 3: Monjas complex. *a*, 3: Northeast Colonnade. *a*, 9: Sculptured Jamb. *a*, 23, 24: Zumpulche. *b*: MR, Yucatán. *c*: Temple of the Wall Panels, Caracol complex. *d*; *g*: Trenches south of Southeast Colonnade. *e*: Dzebtun, Yucatán. *f*: Caracol tower, west side, just under five-member cornice in talus slope. *i*: PM, Chichén Itzá, Sacred Cenote. *k*: House of the Shells, Initial Series Group. *l*; *o*: MM. *m*: MR. *p*, 2: Mercado Patio. *s*: Yucatán, site uncertain. Remainder from Chichén Itzá, exact location unknown.

*a*, 1-19, 22-24; *b*; *d*-*f*: Plumbate. *a*, 20, 21: Highly lustrous brilliant orange slip, not plumbate. *c*: Fragment not examined; photos look like plumbate. *g*-*o*: "Fabric stamps" of unslipped medium-textured clay. *h*, *o* seem heavily worn. *p*, 1, 2: Brown and tempered with quartz sand, incised after slipping. *q*: Orange surface and paste seems mold stamped. *r*: Looks like a Southwestern black-on-white sherd; gray slip with vague darkish paint design. *s*: Brown unslipped clay. *t*, 1: Gray paste, reed stamped. *t*, 2, 3: Brilliant black on reddish paste.

The plumbate wares fall within Miss Shepard's vessel shape repertory (1948). *c*, which may not be plumbate, does not. Animal-head vessel legs have not been found in plumbate, although an effigy-head legged bowl has been found associated in a grave with a plumbate vessel at Tajumulco (information from B. Dutton). *c* seems to belong to the general type of animal-head leg which belongs to the plumbate horizon (see caption fig. 95). *e* was included in the collection brought to the Mérida Museum from Dzebtun, the other specimens of which all seem to belong to a single, much earlier pe-

riod (see fig. 35). It has been broken off of an effigy pot, and the fracture ground smooth.

*f* is an important dating piece. Its position unbroken in debris from the fallen Caracol tower seems to assure that it was placed there after the collapse of the tower masonry (see Thompson, 1941, p. 100). If so, the Caracol tower had begun to fall in ruin while plumbate pottery was still in use. Ceramics of probable later date were found under the last floor within the tower (fig. 93, *e*).

The stamps *g*-*o* seem to have been introduced to the Peninsula in Early Mexican times, likely from Veracruz. It is notable that Ekholm (1944, p. 472, fig. 48, *k*-*n*) finds similar stamps limited to the plumbate horizon, his Huastec V. A fabric stamp very similar to these was found in a Middle Formative deposit in the Chenes in 1949. Such stamps also occur in the earliest Formative phase known from the Guatemala Highlands (Shook, 1951, p. 97). *p*, 1 and 2 are certainly imported, since silica sand is not found in Yucatán. *r*, which looks remarkably like a Southwestern black-on-white sherd, would be more worthy of comment if it had been found with some record of provenience. As detailed in the introduction, these ceramics have passed twice through archaeological sortings, and have been long in storage. This sherd may be merely evidence of the passage of a Southwestern archaeologist through the site of Chichén Itzá or may be an atypical local sherd. *s* is either a labret or an ear spool. It is thin and carefully modeled.

Sherds of plumbate pottery have been found either on the ground surface or in top levels of excavations at the following sites: Oxkintok, Mani, Uxmal. None of these is associated with contemporaneous local pottery, and thus none is acceptable as evidence of a true occupation of its site during the plumbate horizon.



FIGURE 92

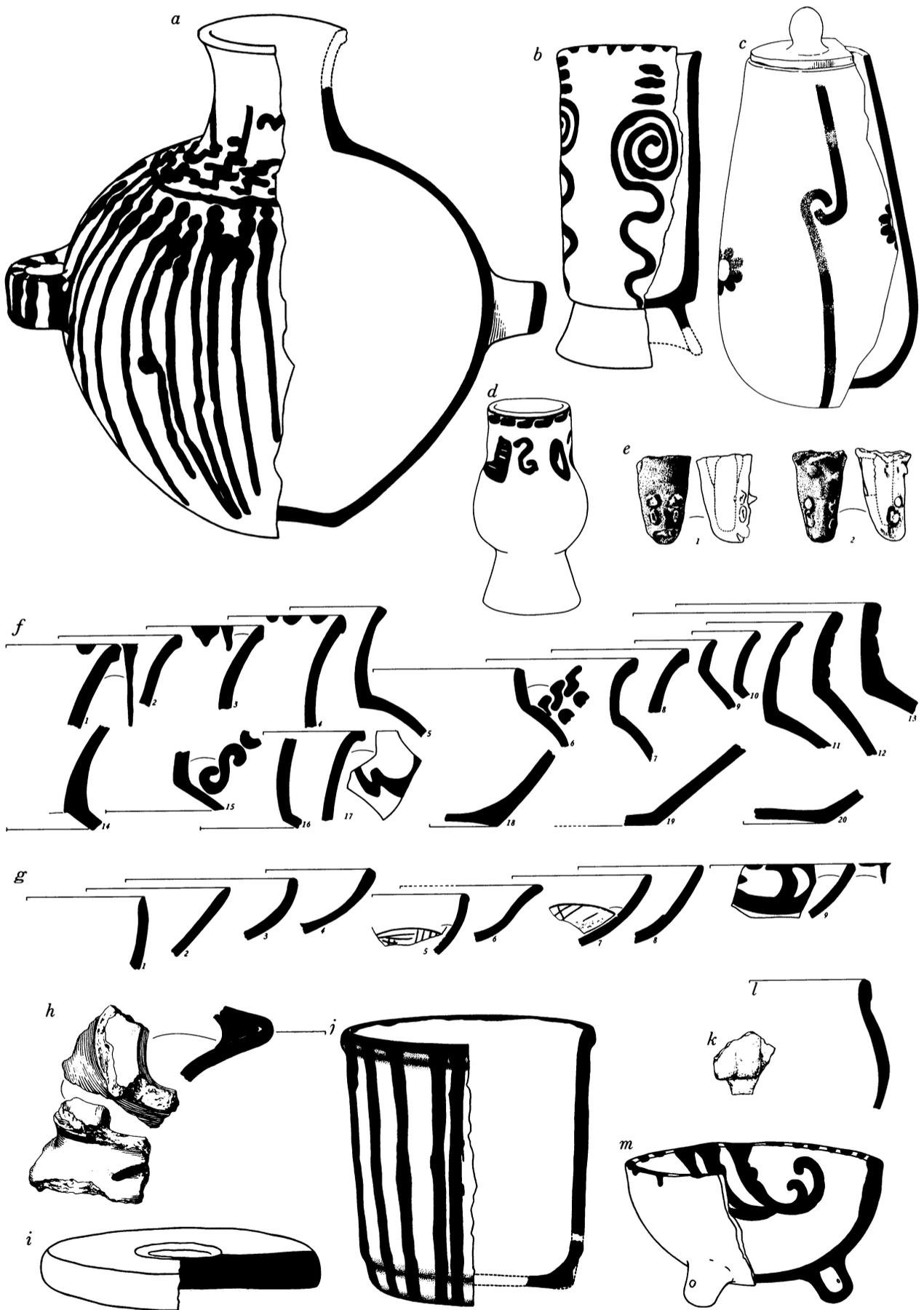
Coarse Slateware, Middle Mexican substage, Chichén Itzá and elsewhere.

**a:** Monjas, East Building. **b:** House of the Little Heads, Initial Series Group. **c:** MM. Hacienda Esperanza, Maxcanu. **d:** MR. **e, l, f, 6; h; i; k; m:** Monjas complex. **f, 1-3, 7-9, 14-16, 19; g, 5-9:** Mercado. **f, 4, 5, 11, 18; g, 1-4:** Southeast Colonnade, Room B. **f, 12:** Zumpulche. **i:** Sculptured Jamb.

With few exceptions, these vessels bear black trickle paint. Designs are quite similar to those on Early Mexican Medium Slateware, figs. 71-74, the use of the S and Z, the question-mark-shaped figure shown on **b**, and groups of swirls pendant from the rim as in **m**, distinguishing them from designs in the Florescent stage in trickle paint. Somewhat more painted design seems to have been used than in Early Mexican times,

and paint-slip color contrast is striking. **e, l, 2** are unslipped and show coarse notching and appliqué work, all hand-modeled. **e, l** bears slip, thus definitely placing it as Coarse Slateware (see caption, fig. 95, for a discussion). **g, 5, 7** bear incised grater designs. **h** seems to have been oval in exterior cross section at the constriction, circular in interior cross section. Whole form is unique, therefore unreconstructible. **i** is crudely finished, all-over slipped. **k** bears a modeled, appliquéd skirt.

The repertory of Coarse Slateware also includes fig. 19, **i** from Mani Cenote; fig. 20, **a** from Dzibilchaltun; fig. 20, **b** from Acanceh; fig. 24 from Mayapan; fig. 93, **p** from Chichén Itzá. Form repertory, as may be seen by comparison with figs. 71-74, follows that of Early Mexican Medium Slateware quite closely.

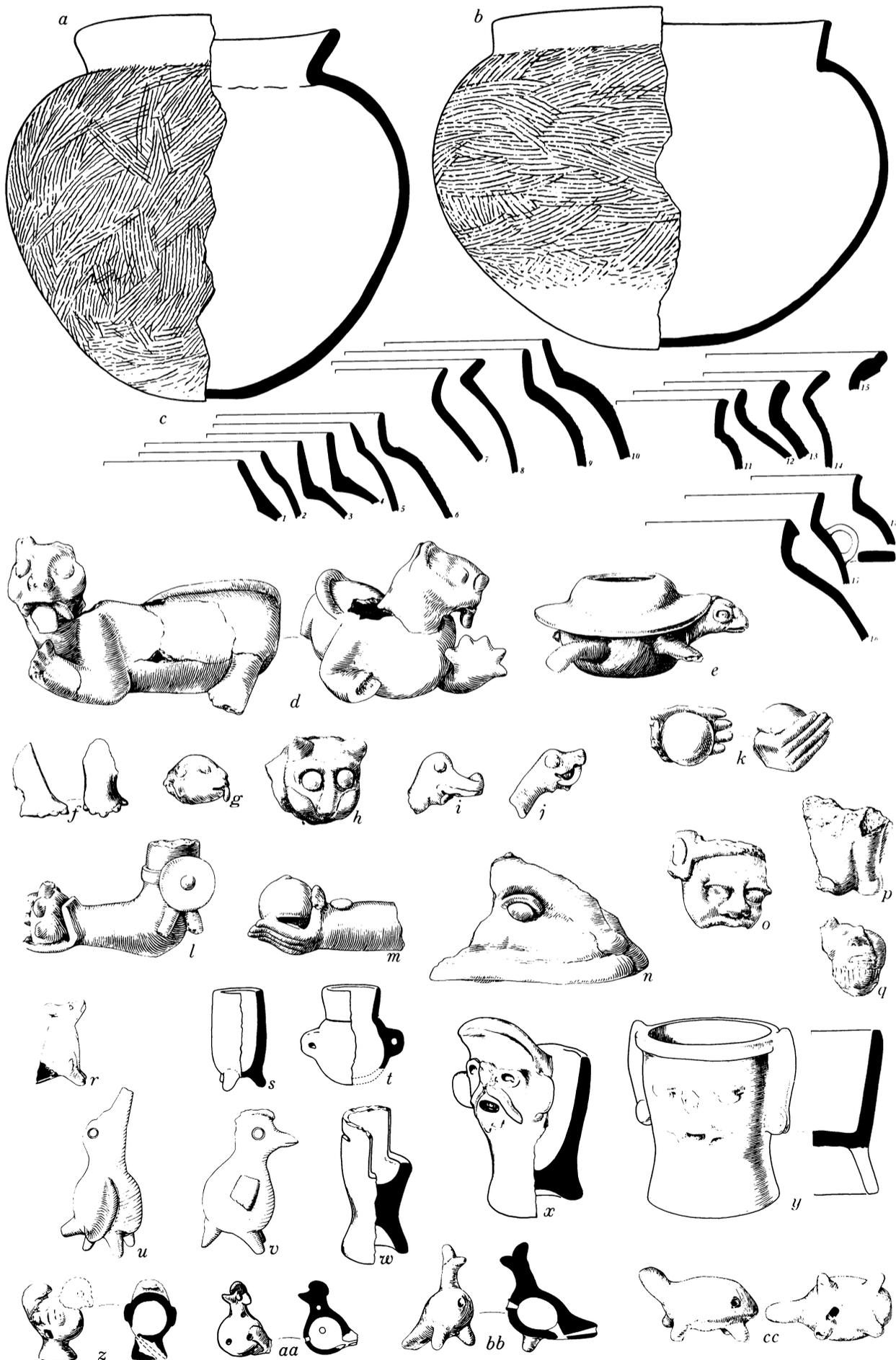


Mainly unslipped pottery from the Mexican stage, Chichén Itzá.

**a; b:** Temple of the Wall Panels. **c, 1-4, 6:** Mercado. **c, 7, 8, 15-18;** **p; s:** Monjas complex. **c, 10:** Trenches south of Southeast Colonnade. **c, 11, 13:** Zumpulche. **c, 12, 14:** Southeast Colonnade, Room B. **d; g; i; j:** Caracol. **h; m; o:** Phalli. **m; g:** Initial Series Group. **k; l:** Warriors. **r; u; v:** MR, Yucatán. **w; y; aa:** PM, Sacred Cenote. **x:** PM from near Labna. **z:** Southeast Colonnade. **bb; cc:** Modern from Maxcanu Camp. Remainder from Chichén Itzá, exact provenience unknown.

**a; b; c:** Unslipped, exteriorly striated jars of Middle and Late Mexican substage, cf. fig. 22, **a-c**. The small, straight, wide diameter rim and thin walls are diagnostic. **d:** Had been painted white after firing. Paste texture not seen. **f:** Is medium paste; provenience seems to indicate placement after parts of Caracol tower had fallen (see Ruppert, 1935, p. 221, fig. 128, **c**). **e:** Found underneath the floor of a chamber of the Caracol Tower (see Ruppert, 1935, p. 219, fig. 278, **d**). Paste not seen, but seems coarse in photographs. After-firing paint in green, yellow, black, bluish green.

**g-o:** All seem to have been parts of figurine incensarios save possibly **h, l**. **l:** The object clasped in the hand may be an ear of corn (cf. Angel Fernández, 1942, figs. 54, **c**, 55). **k; m:** May represent a heart held in a hand. **n:** Cf. fig. 100, **a** for placement of this element on mask helmet. **p:** Misplaced here; is Coarse Slateware, probably comes from an extraordinarily thick-walled effigy vessel. **q:** Paste not examined, ware unknown. **r; z-cc:** Are whistles, all hand-modeled. Beginning date of this modeled whistle type is unknown, but the tradition still carries on. **bb** and **cc** are of a type still made for seasonal holidays in Yucatán. They are ornamented after firing by a coat of white watercolor with added details in imported colors, red, green, yellow, and black; cf. with the largely mold-pressed whistles of Florescent times, figs. 54-56. **u** and **v** are solid bird figurines resembling the hollow whistle **r**; date and provenience unknown. **s; t:** Represent a considerable number of unslipped crude miniature vessels found at Chichén Itzá. **w, x,** and **y** may show transitional stages between the pre-Conquest figurine incensario and the modern Lacandon god pot, fig. 100, **f**, but are completely undocumented in place and time, see also fig. 100, **d, g-i**.



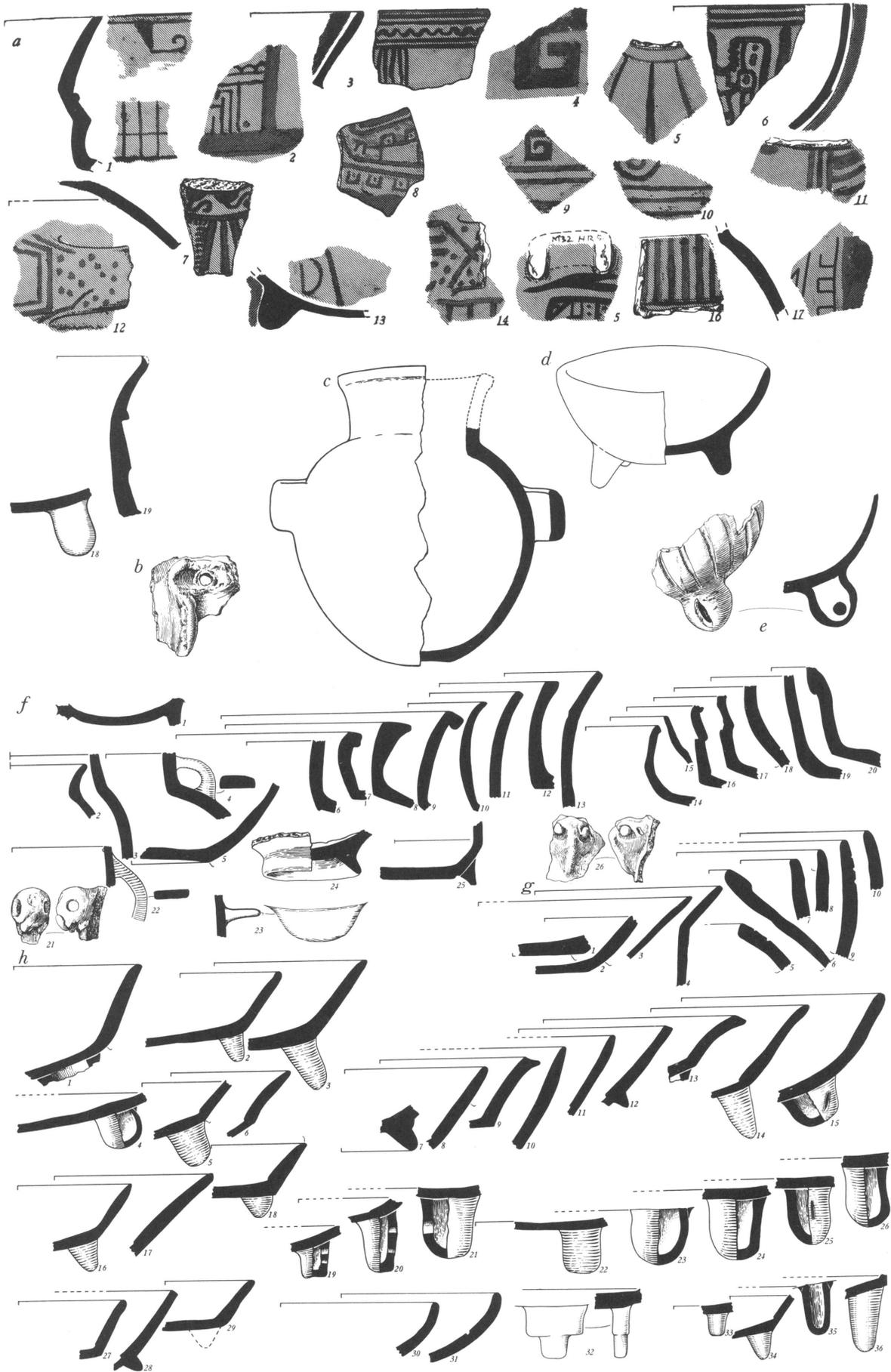
Coarse Dichrome and Redware from Chichén Itzá, Late Mexican substage.

a, 1, 2, 4, 5, 9-12, 14-17, 19; f, 4, 10-13, 19, 22, 25; g, 9; h, 8, 11, 14, 27, 32: Monjas complex. a, 13, 18; c; d; f, 14-18, 20; g, 5; h, 1-3, 5, 16, 18, 22, 24-26, 35: Caracol. f, 1, 2, 5; h, 10, 15: Mercado. f, 7-9: Phalli. g, 1, 2, 8, 10; h, 13, 30, 31: Southeast Colonnade, Room B. g, 4: Wall Panels. g, 6; h, 9: Zumpulche.

a: Fragments of red-on-orange dichrome jars and bowls; a, 15 and a, 17 in addition bear black lines. This ware (also see fig. 23, c) differs from the much earlier Regional polychrome (fig. 63) in having a matte surface, and a buff-orange slip color like that of its contemporaneous buff variants of Coarse Slate and Coarse Redware. a, 3 may not belong here (cf. similar squiggle design on fig. 63, a, 9 and 12). The majority of these sherds come from surface collections. b: Coarse Redware, perhaps from an effigy vessel. c: Was found in postoccupational debris of the Caracol Tower (see Ruppert, 1935, p. 220, fig. 128, b). d: From talus of Caracol lower platform (see Ruppert, 1935, fig. 48). One of six, this bore blue paint on the unslipped exterior, as did many bowls of its type. e: Jar fragment, pseudo-gadrooned effect by preslip grooving. f: Sherds with unslipped interior, mostly jars (cf. fig. 25 sherds from Mayapan). Heads like f, 21, 26 appear on unslipped jars from Mayapan (cf. fig. 22, a, 36-38). The elaborate neck forms shown here (f, 16, 17, 20) as well as on the dichrome, a, 1, 19, do not occur in the Mayapan collections; I know of no resemblances save to the Tres Zapotes "complex necks" (Drucker, 1943, fig.

28, h-k) which concentrate in his Middle period (see Drucker's Table 3) at a much earlier date than these. g: These basins (cf. fig. 27, g; k from Mayapan) carry on an older form.

h: The bowls are of smaller diameter than those of preceding periods. Some small bowls of this sort were used for copal incense offerings, many of these bore blue paint. At Chichén Itzá they are common in the Cenote finds as well as on top of the fallen masonry of buildings (cf. figs. 26, 95, 96). Most of these bowls bear tripod supports. Few of them are of the spherical casabel form of the Early and Middle Mexican periods. They are often solid conical, or when hollow they are often truncated cones with two vertically placed perforations on the outer surface (see h, 19, 20). Also compare Angel Fernández, 1941, pp. 175-177 from Tulum. The tau-shaped slab h, 32 (also see figs. 97, o; 103, l, 7, 9) is in form not unlike occasional solid slab legs on Teotihuacan III cylinder tripods. (For example, see Linne, 1942, fig. 287.) Slab legs do not seem to occur on Mayapan or Aztec I and II ceramics, see for example Franco, 1945, pl. 15; they do occur on Aztec III bowls (Boas Album, pl. 31); also see Brenner, 1931, pl. A, for notched slab legs of Aztec period, and Griffin and Espejo, 1950, where they are listed as an Aztec III (Tlaltelolco Black on Orange) characteristic. Notched slab legs also are found in a collection of this period at Cintla, Tabasco (see fig. 103, l and caption). If these slab legs are evidence of culture contact, as seems probable, they provide a dating link between the Aztec III period and the Yucatecan Late Mexican substage.



Coarse Redware and unslipped ware vessels and a mask, majority from Chichén Itzá, Late Mexican substage.

a, 1, 2, 5, 9; c, f; Merca-  
do. e: Temple of Warriors. h: Temple of the Wall Pan-  
els. f: Caracol. m: PM Sacred Cenote. b, 6: PM from  
Ticul. Remainder from Chichén Itzá, g is PM.

d; g; k; and m are unslipped; remainder slipped.  
Coarse Redware basal break bowl. a, 1-2: These  
fragments all bear exterior white slip bands on the  
vessel wall. a, 2 in addition bears black trickle paint  
interiorly. The legs of a, 3 may be incorrectly recon-  
structed, since this shape is characteristic of Early  
Mexican times rather than Late (see fig. 94, h for  
more likely leg forms). Note that designs on a, 2, 3, 4  
belong in the X Fine Orange range, and that the other  
designs may also be X Fine Orange copies. All incision  
is preslip, as on the locally made Early Mexican in-  
cised design wares (cf. figs. 76-87 for comparative  
material on this style of design). The presence of this  
decorative style on Coarse Redware suggests a tempo-  
ral overlap between this ware, characteristic of the  
Late Mexican substage, and Fine Orange and its local  
Yucatán copies, Medium Slateware and Medium Red-  
ware. An alternative explanation of these close simi-  
larities in decorative style would be the continuing of  
the earlier style as a tradition. I am inclined to favor  
the former explanation; unslipped small coarse paste  
bowls and incense ladles, both occasionally covered  
with a thin red wash, are present in seemingly pure  
Early Mexican deposits, and it seems quite possible  
that Coarse Redware may occasionally have been  
manufactured then. Certain Early Mexican traditions  
in building plans have carried over closely at Mayapan,  
according to Andrews (1942, p. 261), but buildings are  
longer lived than pottery and may thus be expected to  
be copied for a longer time. However, there is also  
evidence that X Fine Orange may have outlasted the  
Yucatán Early Mexican ceramics; see fig. 28 caption.

The classification of effigy-head legs (Wauchope,  
1941; 1948, pp. 137-139, fig. 57) deserves reexamina-  
tion in view of the chronologic distribution of this form  
in Yucatán. Wauchope's original article discusses cer-  
tain forms dating earlier than his plumbate horizon.  
To these should be added our Florescent-stage speci-  
mens, although resemblances between them and the  
ones assembled by Wauchope is not strong (see figs.  
58, c, e, f, g; 62, n). Several of these Florescent-stage  
figurine legs include a human body as well as a head.  
In the Early Mexican stage in Yucatán, effigy vessel  
feet are absent save for a possible fragment of Medium  
Redware, fig. 88, d, 6, and a fragment from Chichén  
Itzá, Temple of the Wall Panels, catalogued as "Vessel  
leg? Plumbate." Although I have not seen this speci-  
men, the photograph from which the drawing, fig. 91,  
c, was made does not contradict this description, but  
the form does not match any known effigy-head speci-  
mens. Miss Shepard writes me that she has seen no  
effigy legs among the hundreds of plumbate vessels  
she has studied. Two effigy-head vessel legs from Chi-  
chén Itzá (fig. 92, e, 1, 2) seem to come from Coarse  
Slateware bowls of the Middle Mexican substage. These  
crudely made legs seem to have been hand-modeled,  
with appliqué eyes. Effigy-head legs, in both human  
and animal form, come from the Late Mexican sub-  
stage, in both Coarse Redware and Mayapan Fine

Dutton, seven effigy-head legged bowls were found as-  
sociated in graves with plumbate pottery. To these  
may be added animal-head legged bowls found asso-  
ciated with plumbate at Zaculeu. At Zaculeu, a post-  
plumbate-pre-Conquest pottery phase has also been  
recognized (see Woodbury, 1948, p. 122, pl. 17, c).  
All of the effigy-head legged vessels which have been  
illustrated bear legs which resemble certain of those  
figured by Wauchope (1948, fig. 57, a-h) in bearing  
series of prominent ridges and grooves above the eyes.  
Wauchope (1948, p. 139) states that this type comprises  
over 80 per cent of his total. It will be noticed that  
among the Yucatán specimens, only the Medium Red-  
ware fragment (fig. 88, d, 6) and the plumbate leg (fig.  
91, c), both of the Early Mexican substage, exhibit this  
peculiarity. Two of Wauchope's Tohil-phase specimens,  
his fig. 57, r and s, closely resemble our Late Mexi-  
can types, and several others in his group of aberrant  
forms may be variants of our type of that period. Thus  
Wauchope's Tohil-phase deposits would seem to con-  
tain a minority of material which dates from the peri-  
od of our main Mayapan samples, which are definitely  
free of plumbate pottery, and as definitely follow the  
plumbate horizon, and thus may well cover a period of  
four or five hundred years.

Since Wauchope's first excavations at Zacualpa, the  
presence of a widespread postplumbate white-on-red  
pottery phase has been well established (note, for ex-  
ample, Woodbury, 1948), which presumably either pre-

Orange (figs. 27, g, 1-3; 95, b, 1-6; 96, g; and 28, a,  
37, also probably 28, a, 1, 13). These all bear mold  
impressed faces and are remarkably constant in type.  
Within this same typological group seem to come also  
Seler's Uaxac Canal bowl, fig. 89, t, and certain of the  
Cintla effigy-head legs, fig. 103, 1, 8, 10. Additional  
stylistic similarities linking these Cintla and Uaxac  
Canal ceramics to Mayapan Fine Orange are discussed  
in their respective figure captions. Effigy-head legs  
are also found in the later periods in the Mexican High-  
lands, see Wauchope, 1941 for references, and are  
characteristic only of the final period, Aztec IV, in the  
Valley of Mexico sequence (Griffin y Espejo, 1950). At  
least some of these legs were made as a single piece  
in a mold; I have seen such a mold in a private collec-  
tion from the vicinity of Puebla. An effigy head very  
close to that in fig. 27, g, and therefore certainly con-  
temporaneous with the Yucatán Late Mexican substage,  
comes from La Venta where its late date has not been  
recognized (Drucker, 1952, p. 125, pl. 21, a, a, 1). Sev-  
eral more of these distinctive legs have been illustrated  
from Campeche coastal sites (Ruz, n.d.).

From his 1935-1936 excavations at Zacualpa, Wau-  
chope (1948) has described an archaeological phase  
called Tohil, which seemed to follow without disjunc-  
tion upon his Late Classic Maya Pokom phase, and is  
characterized by the presence of plumbate pottery and  
by certain stylistic resemblances which also link it to  
our Early Mexican substage. Following his Tohil phase,  
Wauchope determined his Yaqui phase, represented  
only by crematory jars of distinctive ware, and by cer-  
tain typologically related specimens obtained from the  
soil surface or from plowed areas which also contained  
Tohil material (Wauchope, 1948, p. 155). By assuming  
that the beginning of his Tohil phase, which shows Mexi-  
can mainland influence, coincides with the traditional  
Quiche migration south from Tula, and that his Yaqui  
phase, characterized by cremation burials, represents  
the influx of Mexican mercenaries with the Spaniards  
at the time of the Conquest, Wauchope has been able  
to estimate the time lapse between the plumbate horizon  
and the Conquest.

This estimate, based upon an average reign of 30  
years each for the succession of traditional Quiche  
kings, places the Tohil phase as beginning at 1250 A.D.  
Adopting J. E. S. Thompson's estimate of 10.8.0.0.0  
Maya as the time of the introduction of plumbate to  
Yucatán, Wauchope finds that an 11.3.0.0.0 correlation,  
as opposed to the more generally accepted 11.16.0.0.0  
correlation, fits his data, but that the acceptance of the  
11.16.0.0.0 correlation would require excessive average  
lengths of reign for the Quiche kings.

This is an ingenious scheme, fairly presented, and  
is subject to no greater order of errors than the Yuca-  
tecan and Mexican documentary reconstructions now  
current. However, it is difficult to reconcile with the  
Yucatecan archaeological record, where at least one,  
and probably two, major ceramic phases are known to  
have preceded 1450 A.D. and to have followed the plum-  
bate horizon. Added to this discrepancy are reconstruc-  
tions of both the Mexican and Yucatán chronologies  
from documentary sources, both of which seem to sup-  
port a lengthy postplumbate time span.

A resolution of this difficulty seems to lie in the  
typology of effigy-head vessel legs. At Tatumulco, ac-  
cording to a tabulation kindly furnished me by Miss

cedes or is contemporaneous with Wauchope's Yaqui  
phase. The Guatemala Highland evidence still is con-  
tradictory but, as Wauchope points out, the Quiche  
kings may have come in postplumbate times, or the  
king list may be abbreviated, or the kings may have  
been long lived. The effigy-leg crossties with Yucatán  
remove one of the stronger arguments for a short  
(11.3.0.0.0) correlation.

d is a unique piece. g is matched to some degree by  
masks from Mayapan (fig. 29, f, 1-3), although these  
do not show skulls. h is one of a pair found at an im-  
provised shrine in the inner sanctuary of the Temple  
of the Wall Panels (Ruppert, 1931, pp. 125-126, pl. 17,  
b). These seem to date well after the construction date  
of the building, probably after the period of its official  
use. A cache of similar vessels, seemingly deposited  
under similar circumstances, came from the Temple  
of the Warriors (fig. 90, s-t). 1 bears the notched basal  
ridge characteristic of Mayapan Fine Orange (fig. 28,  
a) and of Coarse Redware at that site (fig. 26, c, 41-43,  
45; d). k and m are similar both in their somewhat  
atypically refined form and in their lack of slip. They  
may date from the Early Mexican substage.

Of these vessels, i and n bear a buff-orange slip  
quite distinct from the commoner red. Slips of this  
same color occur in deposits of Coarse Slateware,  
sometimes bearing trickle paint. They are rare at  
Mayapan. This slip may tentatively be placed as transi-  
tional Middle-Late Mexican.

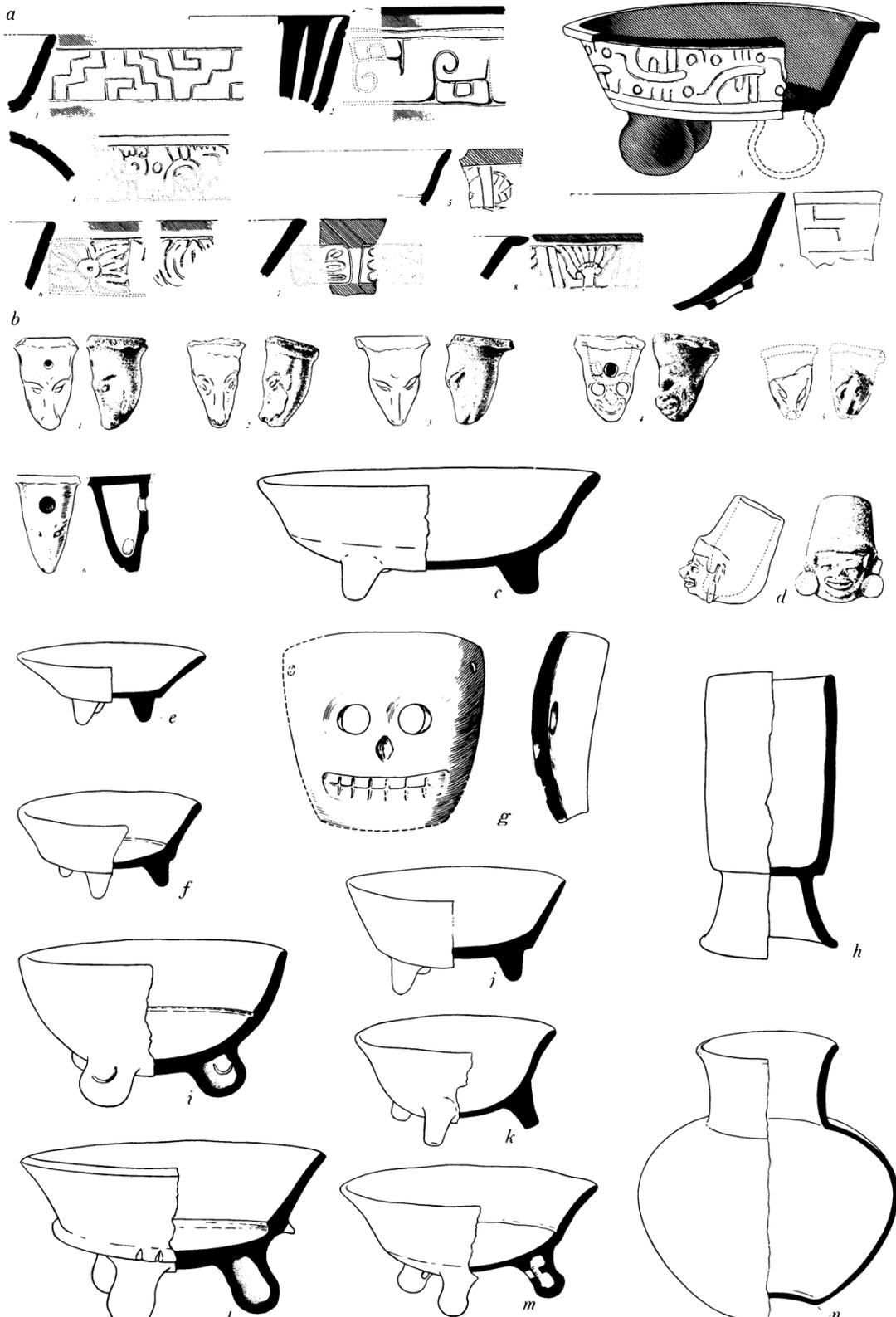


FIGURE 96

Coarse Redware and unslipped ware from the Sacred Cenote, Chichén Itzá. Late Mexican substage.

All from Peabody Museum Collection.

a; c-f; i: Coarse Redware. Remainder unslipped.

h: Bears postfiring black paint. e; o: Bear a blue wash; exterior walls of b and g bear alternate blue and ochre yellow vertical stripes 4 to 6 cm. wide; eyes and mouth of b are painted.

The effigy vessel b seems to represent a rabbit; the paws and ear size distinguish it from a deer, but mouth and nose are definitely deerlike. I know of no other vessel very similar to this; perhaps Seler's plumbate bowl from Teotihuacan (Seler, 1915, fig. 260; Vaillant, 1927, fig. 423) is the closest. c: cf. Lothrop, 1936, fig. 5, from the Pipil area, Guatemala; Noguera, 1940a, pl. 9, j. Sherds from the PM collection gathered by Lothrop at Tulum also resemble this vessel. Design was prob-

ably inspired by X Fine Orange. For discussion of g see fig. 95 caption; Butler (1940, fig. 22, p) illustrates a bowl strangely similar to this, but dates it in her Chical 1 period, much earlier than we place this vessel. h: If the Maya number 8 painted here represents a katun ending date, which of course cannot be proved, and the chronology presented in this report be acceptable, the date shown must be either at the departure of the Itz'ás from Chichén or the fall of Mayapan, both fateful dates for the Maya (see Morley, 1938). The legs of k, m, and n are longer and more splayed than average, approaching those of Mazapan bowls (cf. fig. 75, n, o). The rectangular bowl, o, has an approximate equivalent from Mayapan, fig. 27, d; the stepped slab leg has late parallels on the Mexican Highlands, cf. fig. 94, h, 32 and caption.

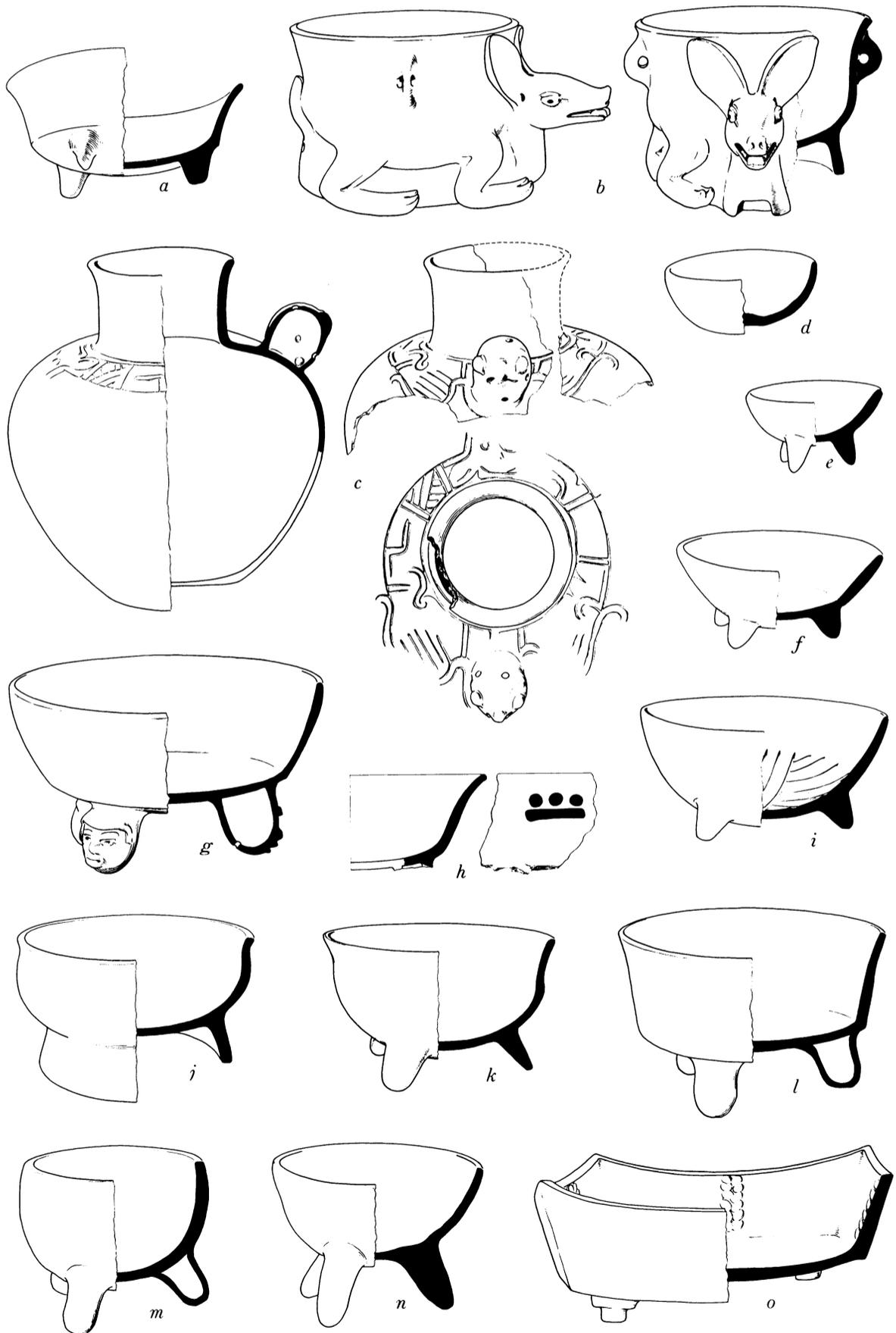


FIGURE 97

Unslipped incensarios, censers, comales, from Chichén Itzá and elsewhere, Early and Middle Mexican substage.

**a**; **h**; **i**: PM, Sacred Cenote. **d**: PM, Chichén Itzá. **b**, **5-7**; **c**; **f**, **2**, **4-8**; **k**, **6**; **l**, **2**: Caracol. **e**: MM, provenience unknown. **f**, **1**; **g**, **1**; **k**, **1**, **7**, **9**; **l**, **3**, **6-9**: Monjas complex. **g**, **2**, **8-11**; **k**, **2**; **l**, **1**, **4**, **5**: Trenches south of Southeast Colonnade. **g**, **3-7**; **k**, **5**: Mercado. **g**, **12**: Southeast Colonnade, Room B. **k**, **3**, **4**: Zumpulche.

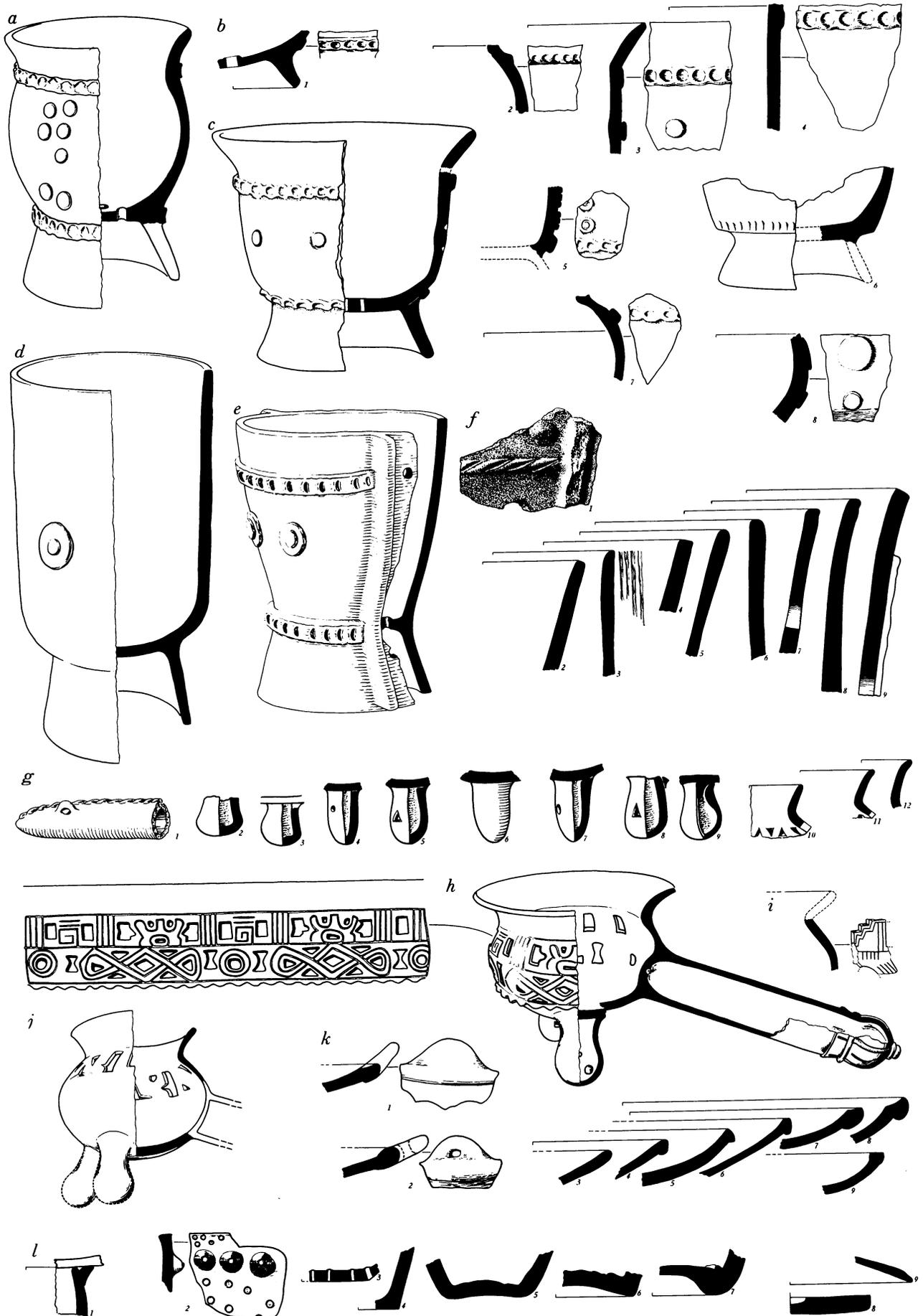
**h**: Bears a specular, purplish-red slip, **i** is of Medium Redware, remainder are unslipped. All pottery shown in **a**, **b**, **c** and several other fragments are covered with a rough postfiring white wash.

The pedestal-based cup form with applied discs and thumbled fillets shown in **a**, **b**, **c** must belong in the Middle and/or Late Mexican repertory, since it occurs in some quantity at Mayapan (see fig. 23, **e**). It is of interest that a vessel of identical form comes from the Motagua Valley (Smith and Kidder, 1943, fig. 22, **b**). **d** and **e** also may correspond to forms found at Mayapan (see fig. 23, **d**, **e**). **f**, **2-9** are probably wall fragments of figurine incensarios (cf. figs. 99-102). Vertical flanges on incensarios, as shown in **e**, **f**, **1**, **9**, appear first in the Mexican stage in Yucatán, but are much earlier in the Guatemala Highlands (see De Borhegyi, 1950, fig. 8; Kidder, Jennings, and Shook, 1946, p. 213). **g**: The handle, **1**, certainly the rim sherds, **10-12**, and likely the legs, **2-9**, come from perforated, ladle-handled censers like **h-1**, **i** and probably **j** are of local manufacture, **h** is likely a Mexican import. This style of censer was found with a vase of fine orange-ware, probably of the plumbate horizon, at Zaculeu in Highland Guatemala (Woodbury, 1948, p. 122). Wauchope

calls this form "Mixtec type" and suggests a close relationship between these and certain Tarascan pipes from Michoacan. He finds the Mixtec censer in his Tohil phase at Zacualpa, and gives references for its distribution (Wauchope, 1948, pp. 148-150).

The comal fragments shown under **k** (see also fig. 66, **g**) document only a very sparse appearance of this form in Yucatán. The Mayapan collections lack comales entirely, as do all other collections from Yucatán. Kidder (Kidder, Jennings, and Shook, 1946, p. 208) summarizes briefly the occurrences of this form, which was common in both the Guatemala Highlands and the Motagua Valley (Smith and Kidder, 1943, pp. 140-142) in pre-Classic and Classic times. It is described from Tres Zapotes in Late Classic times (Upper Tres Zapotes), but absent from Cerro de las Mesas; it is found at Classic Teotihuacan and is mainly post-Classic in the Huasteca, where it shows a progressive increase in frequency. It seems to be absent from Tula. The early distribution thus seems to have been southern, and a progressive northern spread may be hypothesized from the rather spotty data available. It seems possible that the above distribution listing may be marred by confusion of two forms, the comal and a low casserole. The Tres Zapotes specimens may well be casseroles, and a somewhat similar casserole shape is shown from Tula (cf. Drucker, 1943, fig. 42 with Acosta, 1945, fig. 20, **1**). But Weiant shows what seems to be a comal from Tres Zapotes (Weiant, 1943, fig. 25, **c**). It is likely of post-Classic date.

**l**, **2** shows appliquéd bosses and impressions of a hollow cylinder. **l**, **3** is a collander bottom; **l**, **8**, **9** seem to be lids.



Figurine incensario fragments from Chichén Itzá. Late Mexican substage.

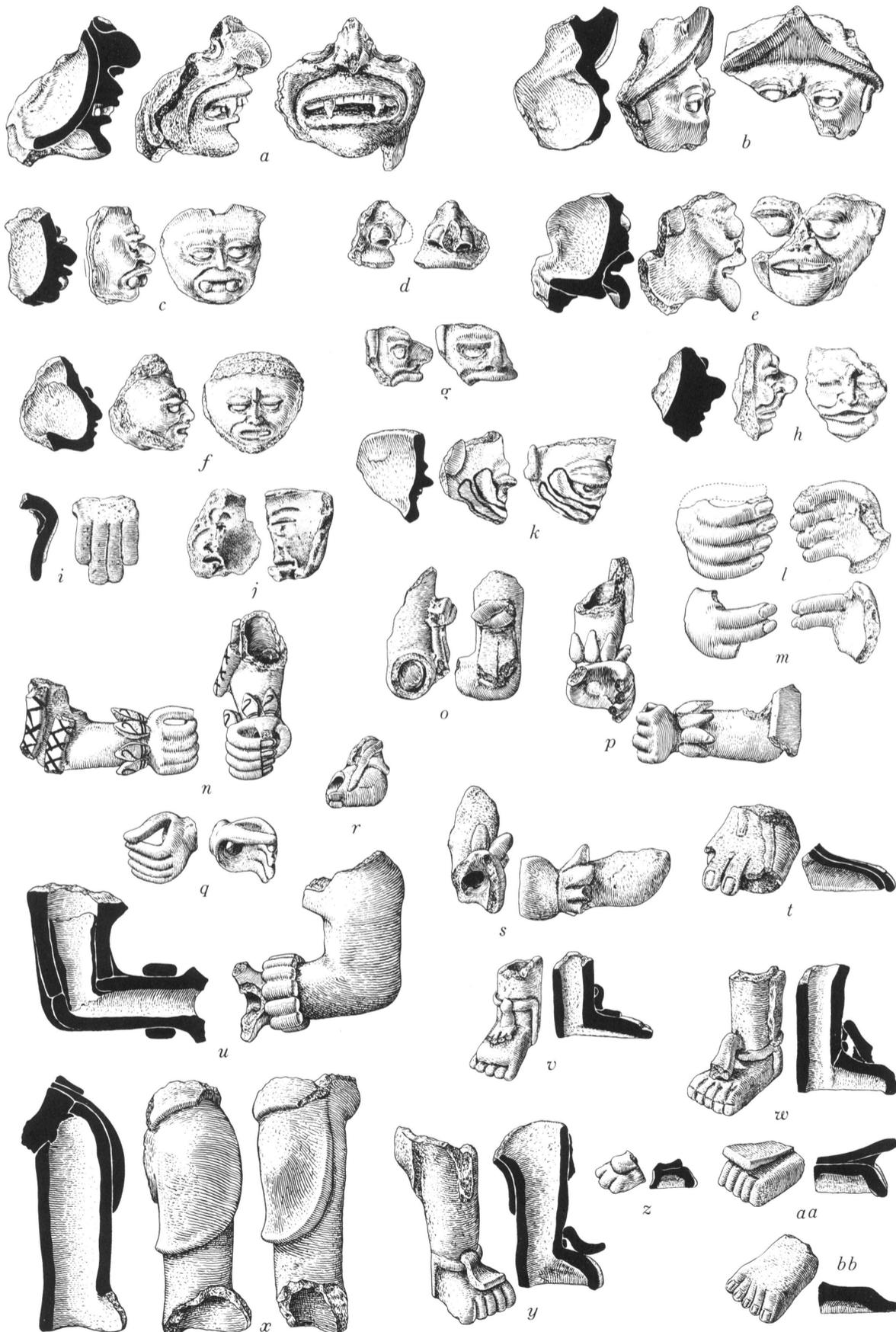
c; e; k; m; s; u; v; w; aa; bb: Caracol. j: Mercado. All others from unidentified collections from Chichén Itzá.

All buildings excavated at Chichén Itzá yielded fragments of this sort; none seem to have been found under floors; most were found on top of, or mixed with, fallen masonry. Cf. at Mayapan, figs. 27, a; 29, where this ware was found toward the tops of stratigraphic trenches, suggesting that its use was limited to late in the Late Mexican substage, perhaps continuing until after site abandonment.

The figurines are made of coarse, gray paste. Buff variants were not noted either at Chichén Itzá or Mayapan, but are common in the collections from some other areas. All parts of these figurines are hand-modeled save for the faces, which invariably seem to be mold-pressed; note molds j and fig. 29, d. Molded faces frequently show secondary handwork in deepening of features, adding undercuts, and teeth (note c). Bodies and limbs are formed of modeled plates and tubes of clay,

luted together, often with an added fillet for strength. Considerable attention seems to have been given to prevent closed spaces, perhaps to avoid air pressure explosions in rapid firing, although the clay seems too porous to have made this a danger. Arms and legs are characteristically formed with open ends, see, n, p, s, u, v, w, y. Fingers and ornaments are formed from rolled fillets, balls, and other bits of clay; toes, fingernails, and other details were added by grooving while the clay was still quite plastic. Surfaces were probably customarily coated with a wash of white marl or slaked lime after firing, and painted both in areas of color and with black details and outlining. Traces of this treatment survive on several fragments, see k; n; fig. 27, a.

The selection shown is an exceedingly small proportion of the total fragments recovered, and has been chosen for intelligibility in the drawings. There seems to be enough stylization among these figurines to allow most fragments to be identified as to placement on the figure, and thus to permit a study of variation in costuming, facial character, etc., although such a study cannot be attempted here.



Figurine incensarios, Late Mexican substage.

a; c; d: MR. b: South of Chankom, near Chichén Itzá.

a: The Diving God is holding a dish of copal. For other Diving Gods on figurine incensarios, see fig. 101, d; e and see fig. 61, h for a possible Florescent-stage example of the Diving God. See Lothrop, 1924, pl. 23, and Angel Fernández, 1941, figs. 53, a; 55, b for examples in stucco at Tulum; Thompson, Pollock, and Charlot, 1931, p. 84 for examples at Cobá. See Tozzer, 1941, pp. 143-144 for a discussion of the distribution and meaning of this figure. Stephens (1843, vol. 2, p. 394) describes the diving figure at Tulum, which belongs to the Mayapan period, and notes its similarity to the Sayil figures. b: Showing a standing

figure applied to a cylindrical vessel, is one of the common types of this period, cf. c; figs. 100, a, b; 101, a, b, c. The pendant end of the headdress of the figure forms a vertical flange on the vessel. Flanged incensarios have an earlier vogue in Guatemala, and may have in some way influenced this style. (Kidder, Jennings, and Shook, 1946, pp. 209-210; De Borhegyi, 1950, p. 80.) d: Is unusual in vessel form. The tall, slim vessel neck is found on one incensario at Kaminaljuyu, Esperanza phase (Kidder, Jennings, and Shook, 1946, fig. 90), at Teotihuacan (Linne, 1942, figs. 316-317), and in many Zapotec funerary urns. Although the Zapotec urns are closer than the others to this form, all these resemblances are general.

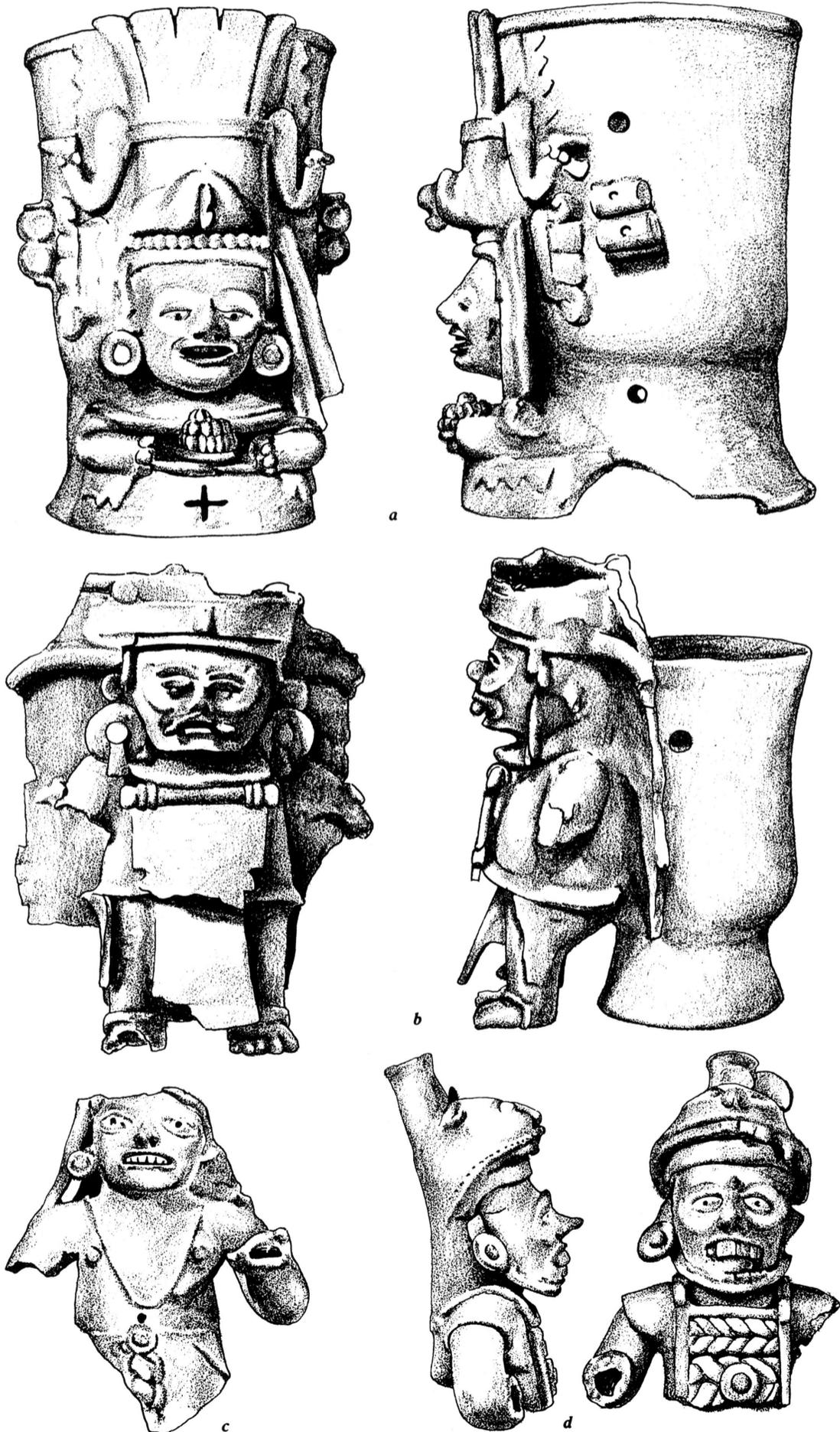


FIGURE 100

Figurine incensarios ranging probably from Late Mexican substage to modern.

a; b; f; h; i: MM. c; e; g: MR. d: Surface find at a shrine near Cobá, collected by J. E. S. Thompson.

a and b fit well into the Late Mexican substage repertory, c and e vary in having faces only, rather than complete figurines, but faces are similar to Late Mexican types, and vessel form does not differ greatly. Also, vertical postfiring paint striping occurs in this horizon on fig. 96, b; g as well as on these two speci-

mens. d; g; h; i: All probably are of late pre-Conquest or early post-Conquest date. This placement is based on the fact that no types similar to these have come from excavations, and that human faces appear on incensarios only in Late Mexican times. These specimens also show a suggestion of stylistic similarity to the modern Lacandon incensario f. The use of these small specimens, g; h; i, remains uncertain; they fall well below the size range of all earlier and modern specimens.

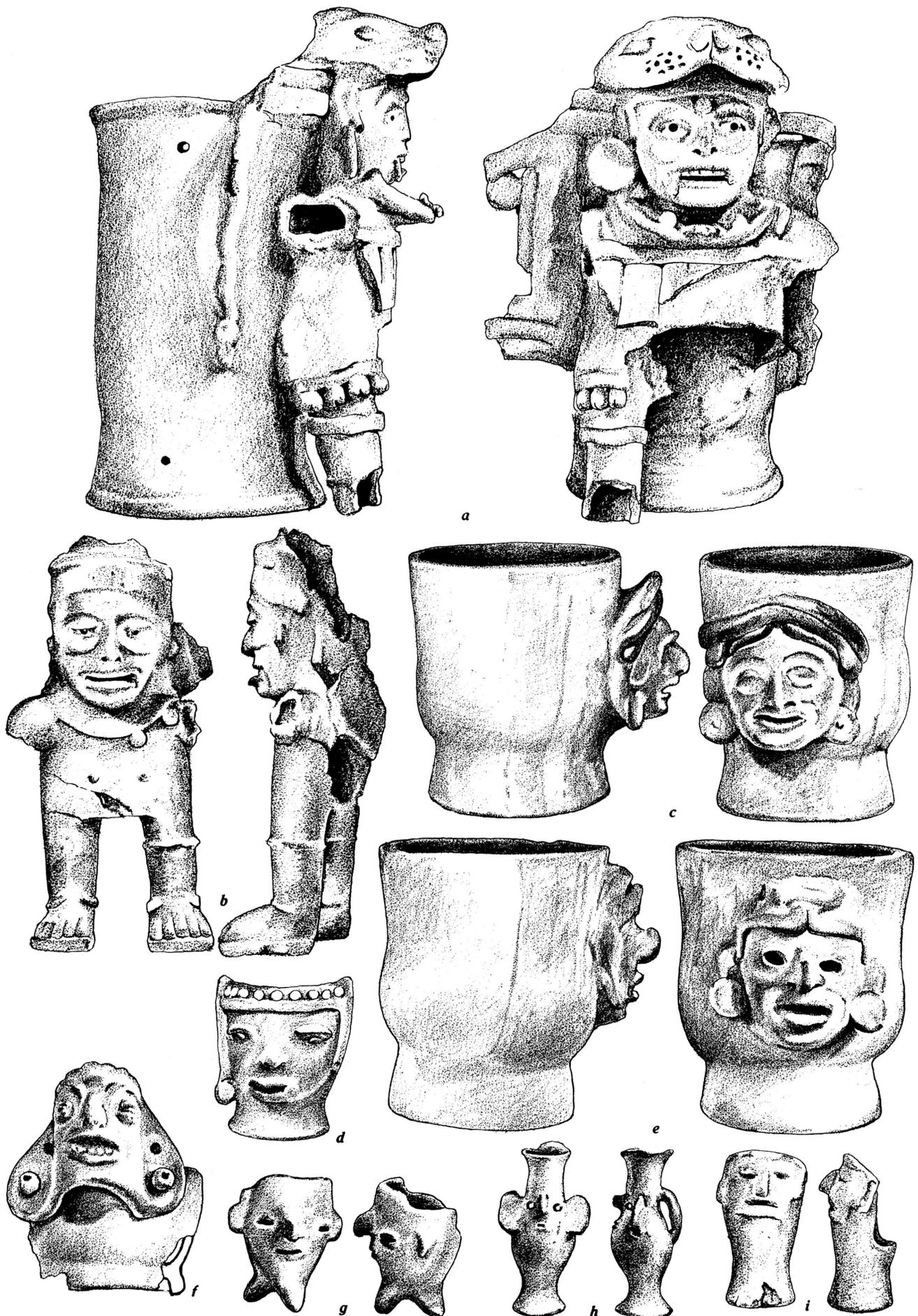


FIGURE 101

Figurine incensarios, Late Mexican substage.  
a: MM, b-d: MR, e: Unknown location.  
a: Figure is perhaps seated or kneeling, b: Beard and knotted breast ornament are unique. c; d: Note

triangular forehead ornament. c: Note close correspondence of breastplate with that in fig. 99, d; d; e: Diving God, see caption fig. 99, a.

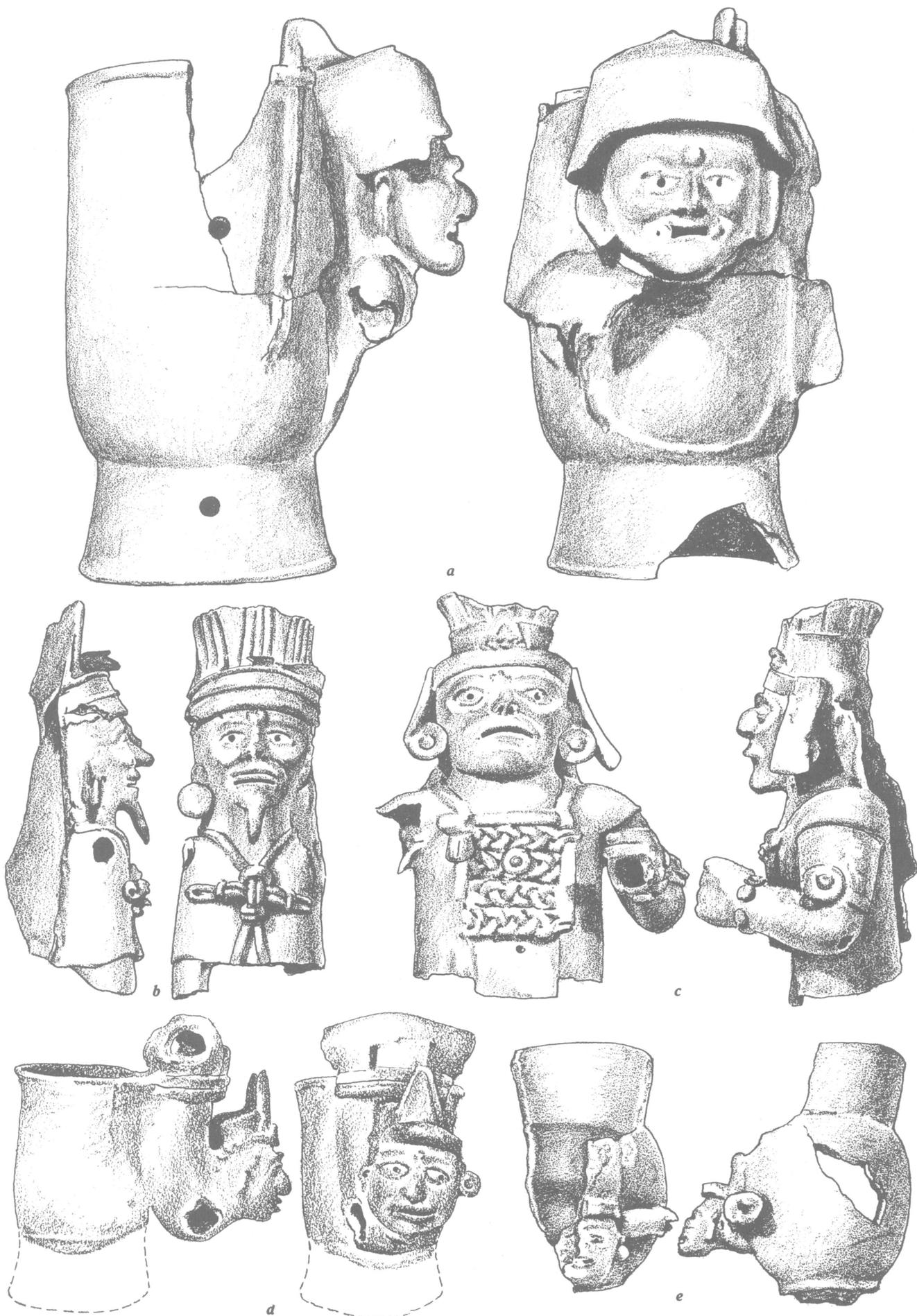


FIGURE 102

Figurine incensarios, Late Mexican substage.  
a; d: MR. b: Probably from near Chichén Itzá. c:  
 MM.

All fit stylistically into the Late Mexican range of types. a and b are noteworthy for the horizontal orientation of their supporting vessels, characterized by a neck projecting almost horizontally to the rear. The

head and other appendages of a are not done in characteristic manner but are crudely hand-modeled, with little of the elaborate ornamentation common to the Late Mexican type. This specimen can at present most logically be dated as immediately pre- or even post-Conquest, with fig. 100, d; g; h; i.

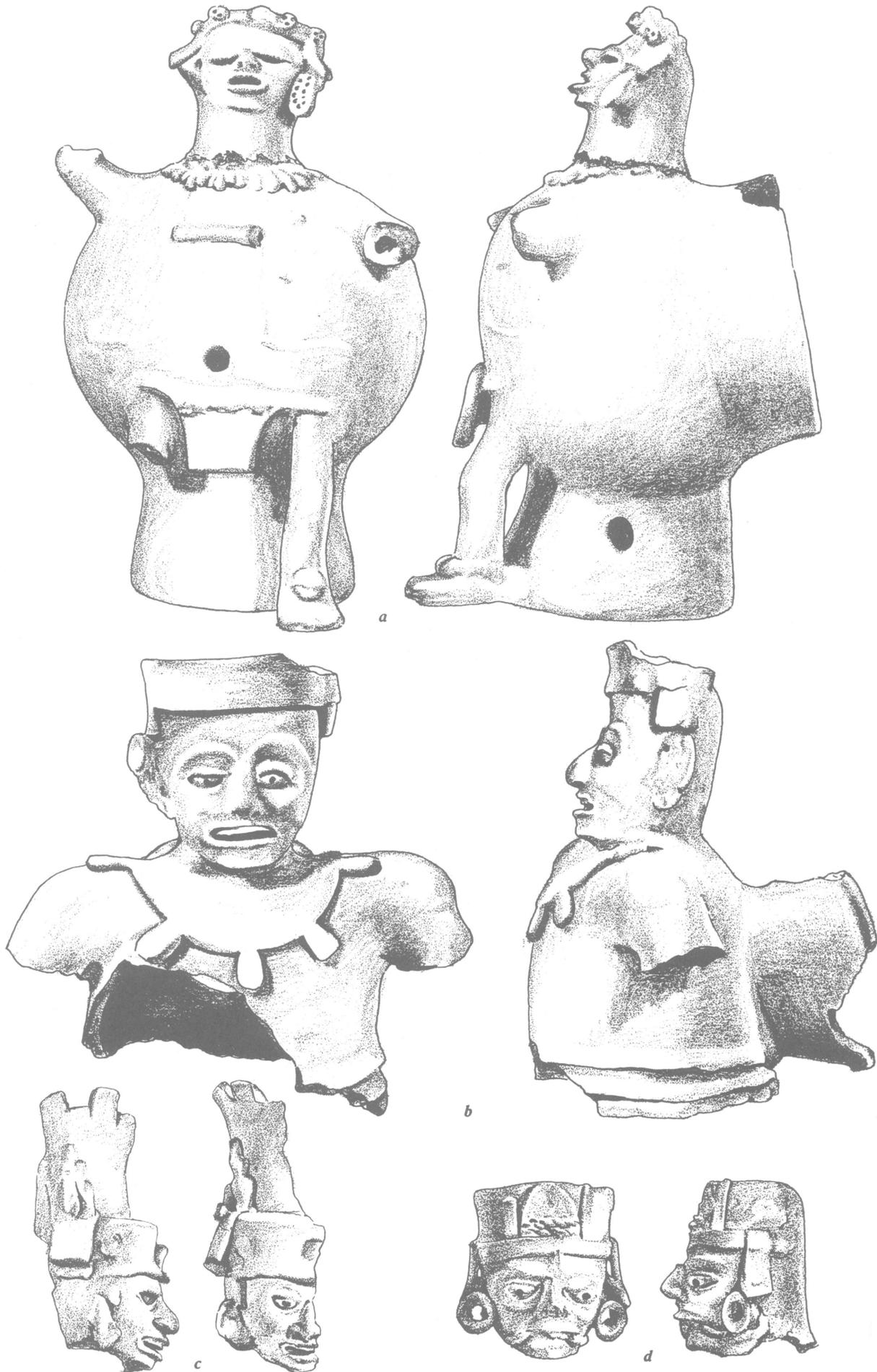


FIGURE 103

Miscellaneous ceramics from Yucatán and neighboring areas.

**a:** Slateware cylindrical vessel from a grave at Chichén Itzá, PM. **b:** Crude slateware from Mérida, PM. **c:** Chichén Itzá, unslipped, PM. **d:** Oxkintok Fine Monochrome bowl, cinnamon buff color (cf. fig. 12, **j**, **k**), from Campeche, MM. **e:** Slate slipped double whistle with bat face, from Yucatán, private collection. **f:** Miniature bottle with highly burnished black slip, from Labna, PM. **g:** Fine Grayware beaker, Yucatán, private

collection. **h:** Medium Blackware vessel with reground base, Yucatán, private collection. **i:** Miniature Redware jar with black paint, from Labna, PM. **j**, **k:** Powdery surfaced orangeware (perhaps untempered) from Cintla, Tabasco, PM. **l:** Slateware vessel with incised design; from vicinity of Dzibilchaltun, private collection. **m:** Fine Orange cylindrical vase. Band below lip is white with postslip incising; panels are maroon with postslip incising. Crosshatched areas are painted in a weak, irregular black color.



FIGURE 104

Synopsis of Yucatán unslipped incensarios.  
a: Regional-Florescent stage. b: Florescent. c; d,  
3, e, 5: Early Mexican substage. d, 1, 2: Middle Mexi-

can substage. e, 1-4: Late Mexican substage. All re-  
 drawn from illustrations in this report 1/8 scale.

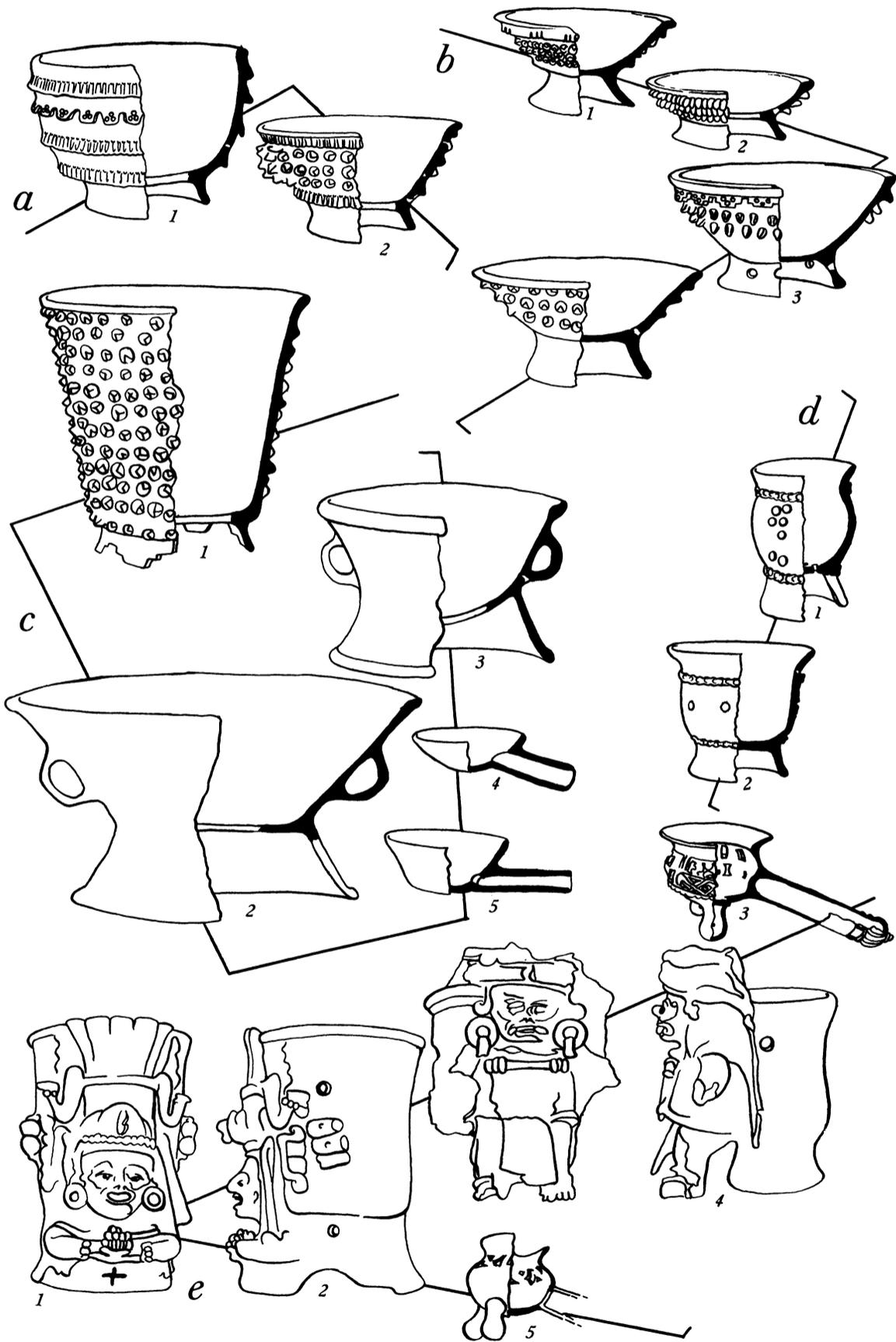


FIGURE 105

Synopsis of Yucatán jar forms.

a, b: Early Regional. c: Regional. d, e: Regional-Florescent. f: Early Florescent. g: Florescent stage. a, 1: Incised Dichrome. a, 2: Trickle on Flaky Redware (Yaxuna II style). b: Oxkintok Coarse Monochrome. c, 1, 2: Regional Redware from Yaxuna. c, 3: Trickle

on Flaky Redware (Yaxuna III style). c, 4: Regional Coarse Redware from Acanceh. d: Red on Thin Grayware; d, 1, 2: from Acanceh; d, 3: from Dzibilchaltun. e: Early Medium Slateware from Yaxuna. f: Early Medium Slateware. g: Medium Slateware "chultun jars." h: Holactun Slateware "chultun jar."

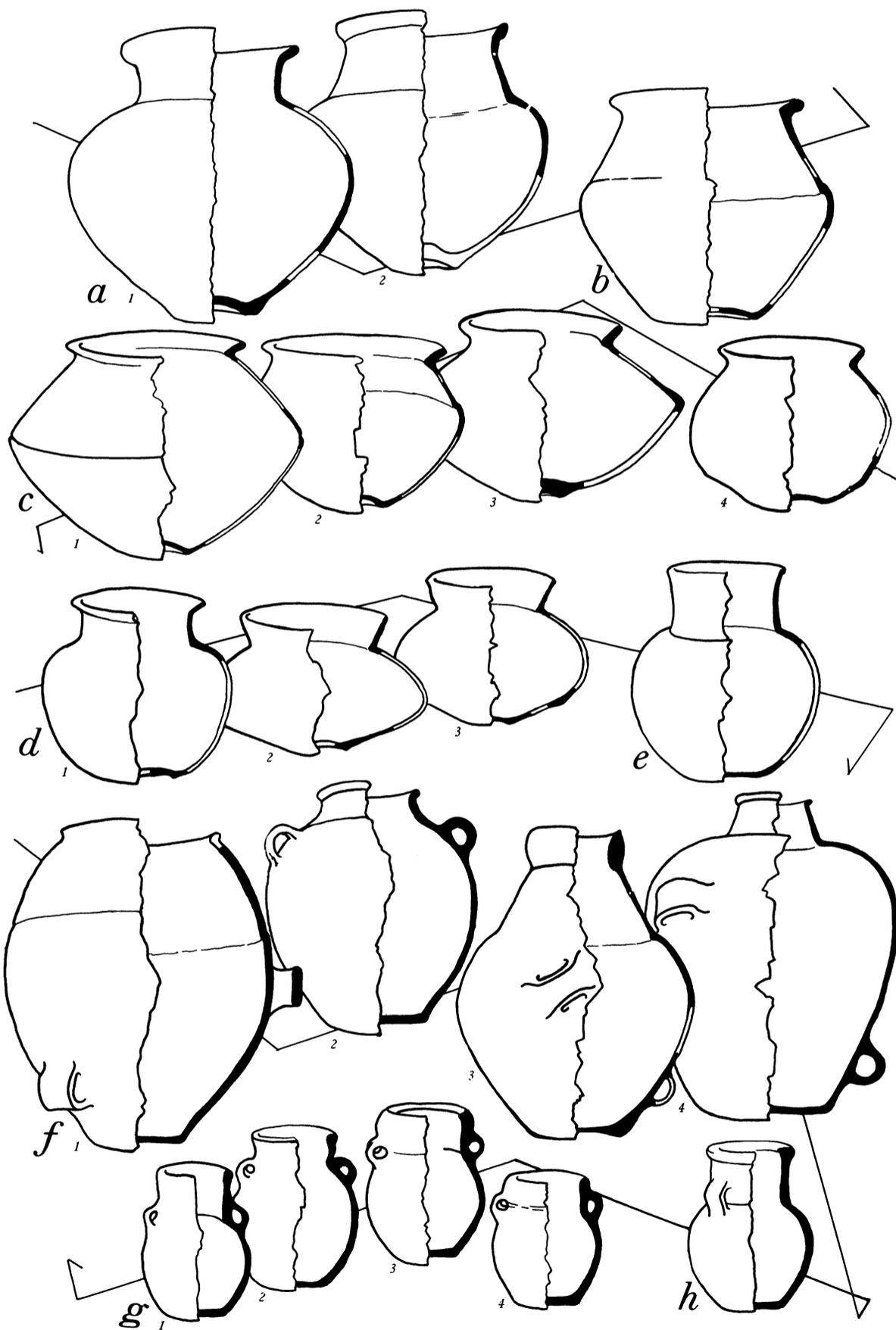


FIGURE 106

Synopsis of Yucatán jar forms (concluded).  
a: Early Mexican. b: Middle Mexican. c: Late Mexican. d: Post-Conquest. a, 1, 5, 9: Medium Slateware.

a, 2, 7: Red on Medium Slateware. a, 3: Fine Orange-ware. a, 4, 6, 8: Medium Redware. b: Coarse Slateware. c, 1-4, d: Coarse Redware.

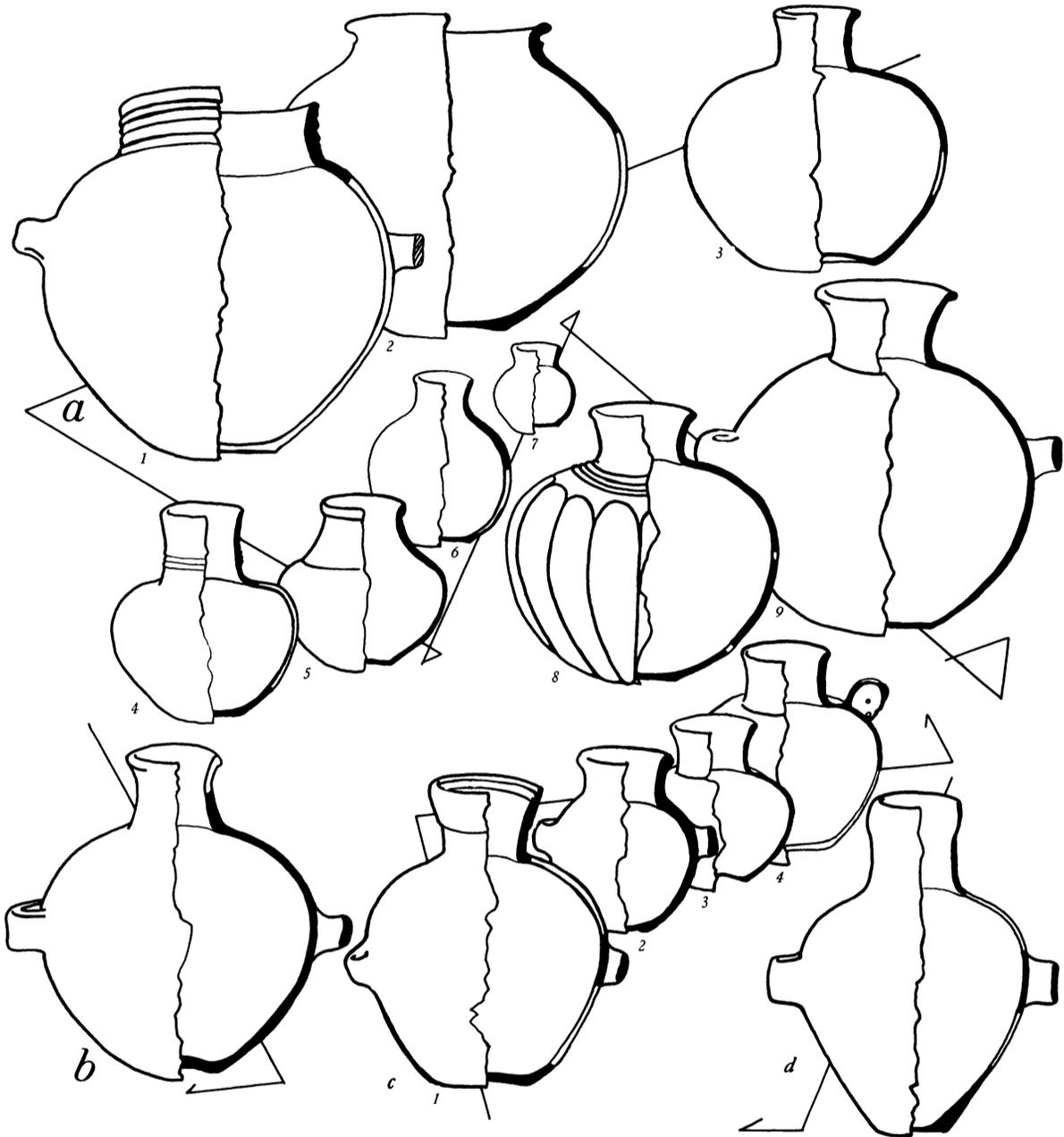


FIGURE 107

Synopsis of Yucatán basal break bowls.  
a: Formative Monochrome. b: Incised Dichrome  
and related wares. c: Oxkintok Medium Monochromes.

d: Red on Thin Grayware. e: Early Florescent Medium  
Slateware. f: Regional Redware. b, 1, 3, 5, 8, 9: Incised  
Dichrome, remainder of b Polychrome.

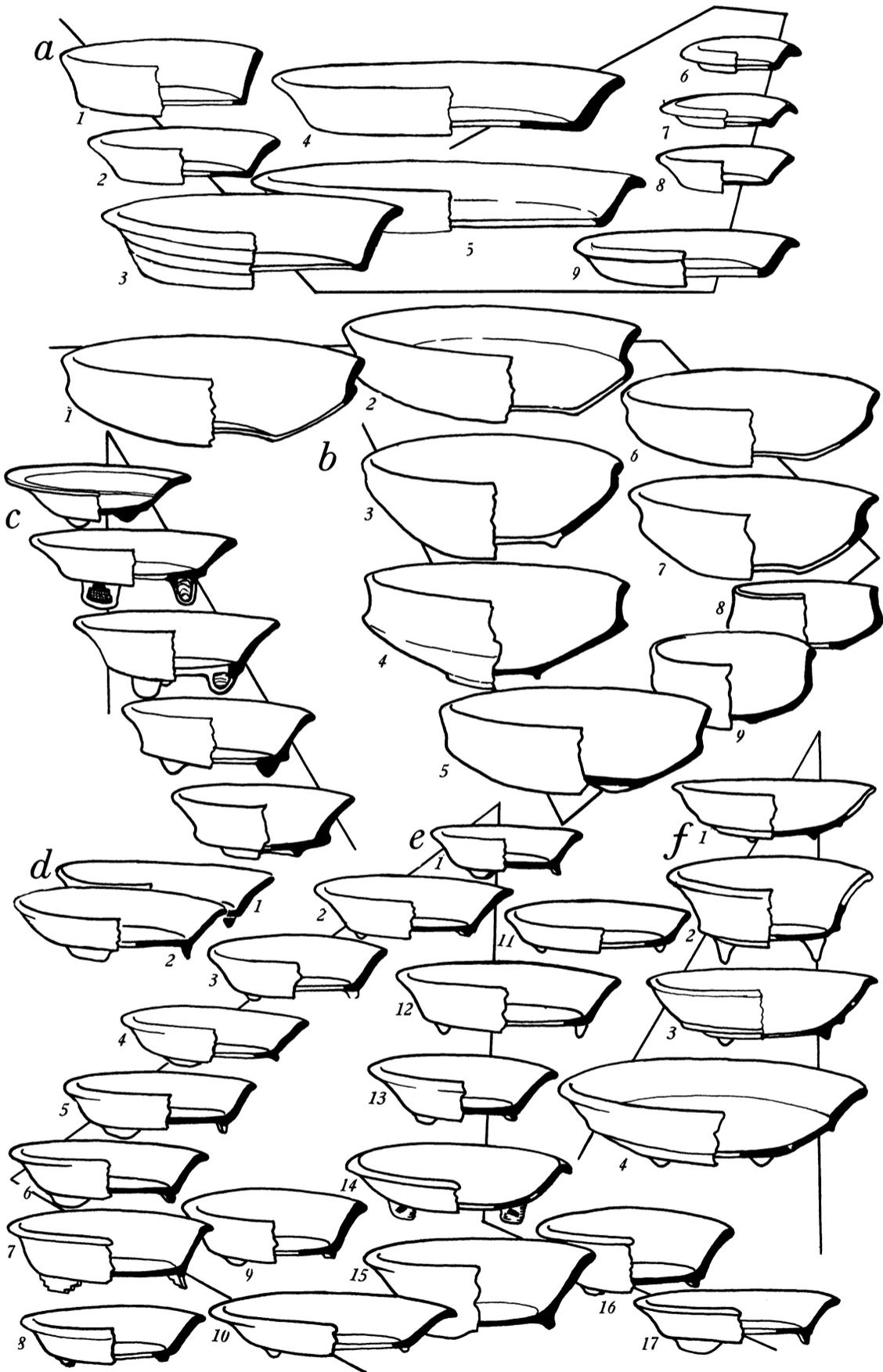


FIGURE 108

Synopsis of Yucatán basal break bowls (concluded).  
a: Florescent-stage Medium Slateware. b: Chichén  
Itzá Fine Orange. c: Early Mexican; 1, 3, 5: Medium

Redware; 2, 4: Medium Slateware. d: Middle Mexican  
Coarse Slateware. e: Mayapan Fine Orangeware. f:  
Late Mexican Coarse Redware.

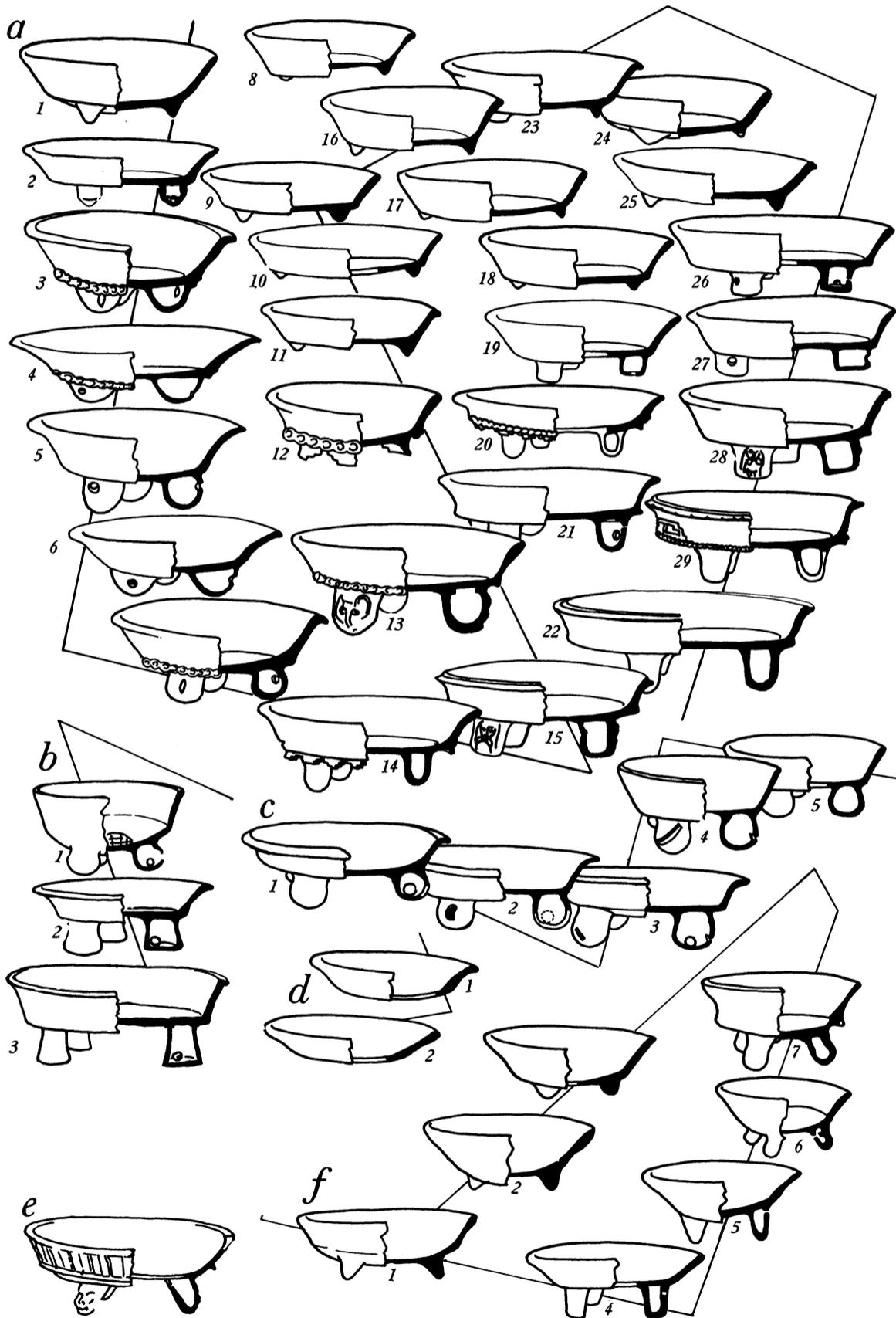


FIGURE 109

Synopsis of Yucatán cylinders and beakers.  
a: Late Formative and Early Regional. b: Fine Gray-ware beakers. c: Medium and Thin Slateware vessels, Florescent stage. c, 5, 7; d, 5-11: Thin Slateware, re-

mainder Medium Slateware. Several of these vessels, not illustrated elsewhere in this report, are from the Mérida State Museum.

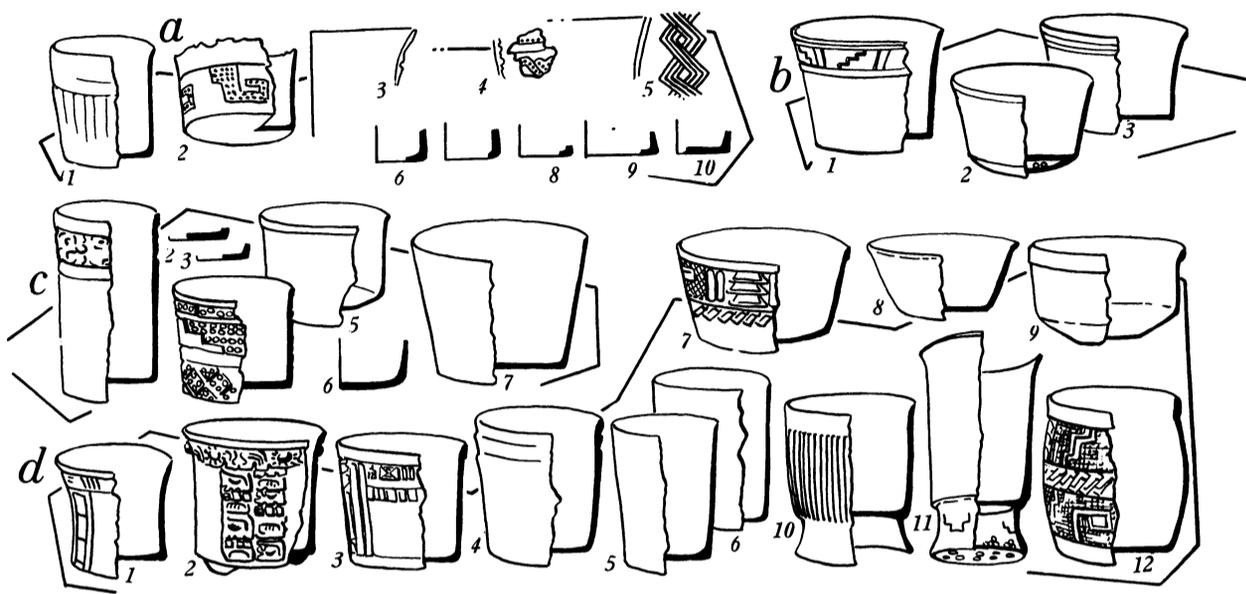




Fig. A. Stela found at south end of trench 28, Yaxuna (see map 4). Carved on two planes with slight rounding of the edges of the relief. Background is recessed only 5 mm. See text for further description. Probably dates from Regional stage.

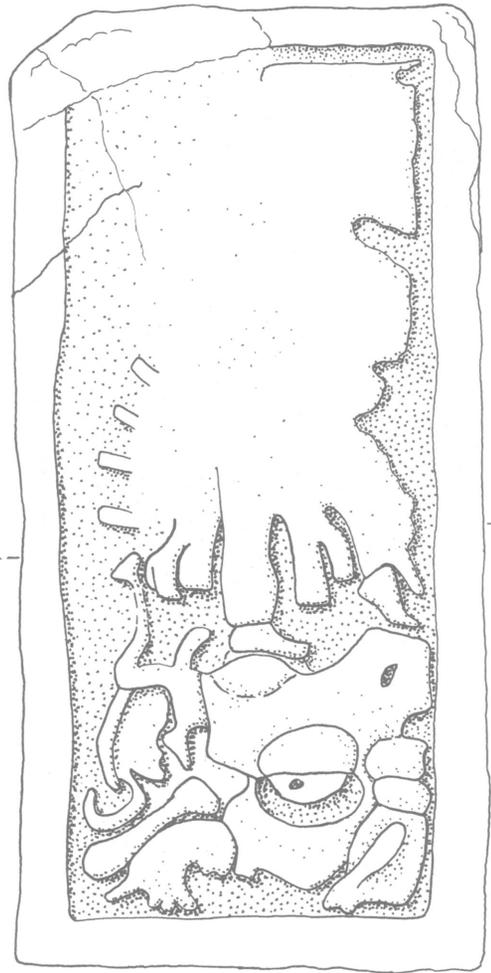


Fig. B. Carved jamb found in place near the south-east corner of the smallest of the buildings to south of Yaxuna north building group (see map 4). Height 1.14 meters, width .56 meters. Probably of Florentine stage on evidence of the masonry of the building containing it.

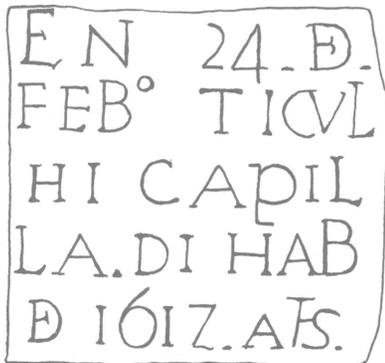


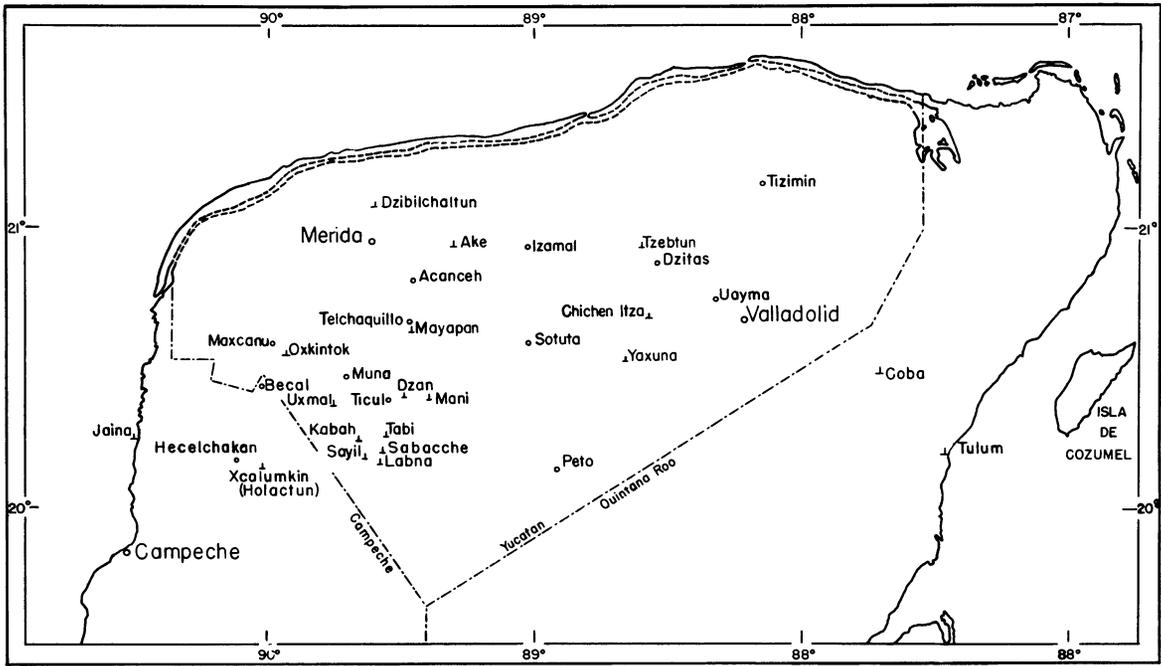
Fig. C. Inscribed stone set in wall to the right of the church doorway at Chablecal. The surface of the stone was pecked to a plane, the inscription rather crudely incised. Depth and narrow width of lines suggest a steel tool. Height 395 mm.



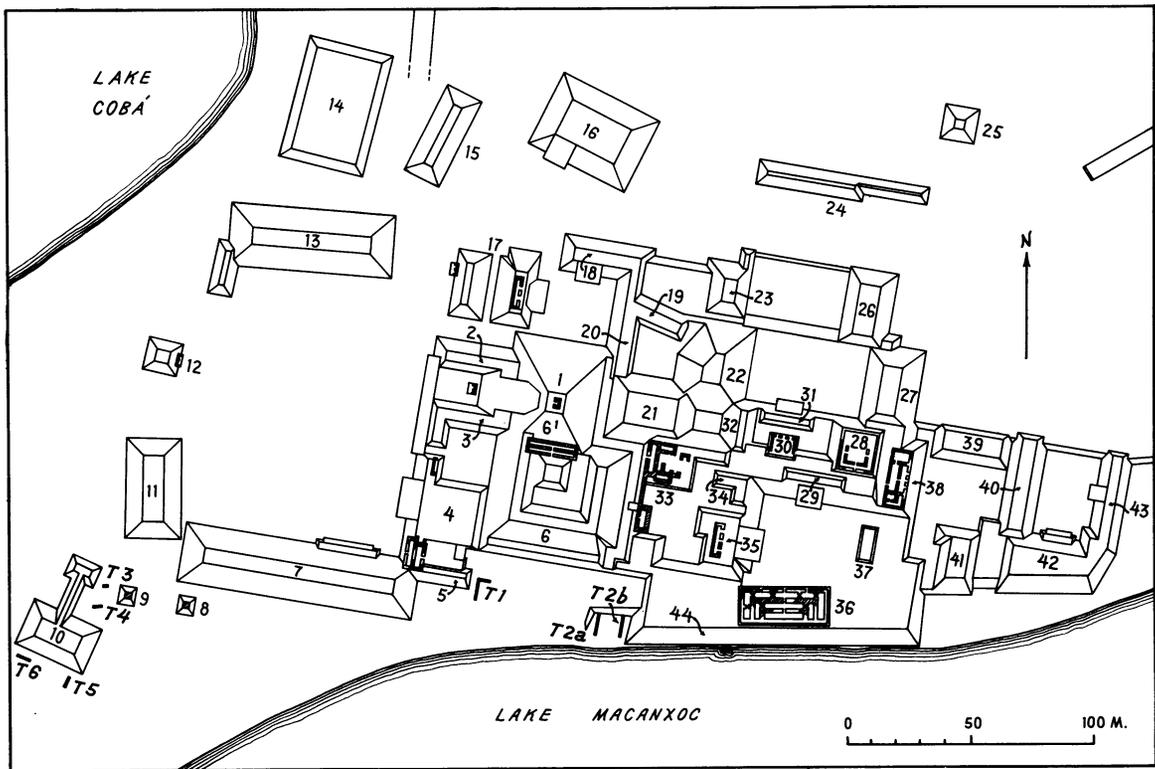
Fig. D. Pottery-carrying frame is use in Mérida. The frame is of saplings tied with henequen cordage.

MAPS

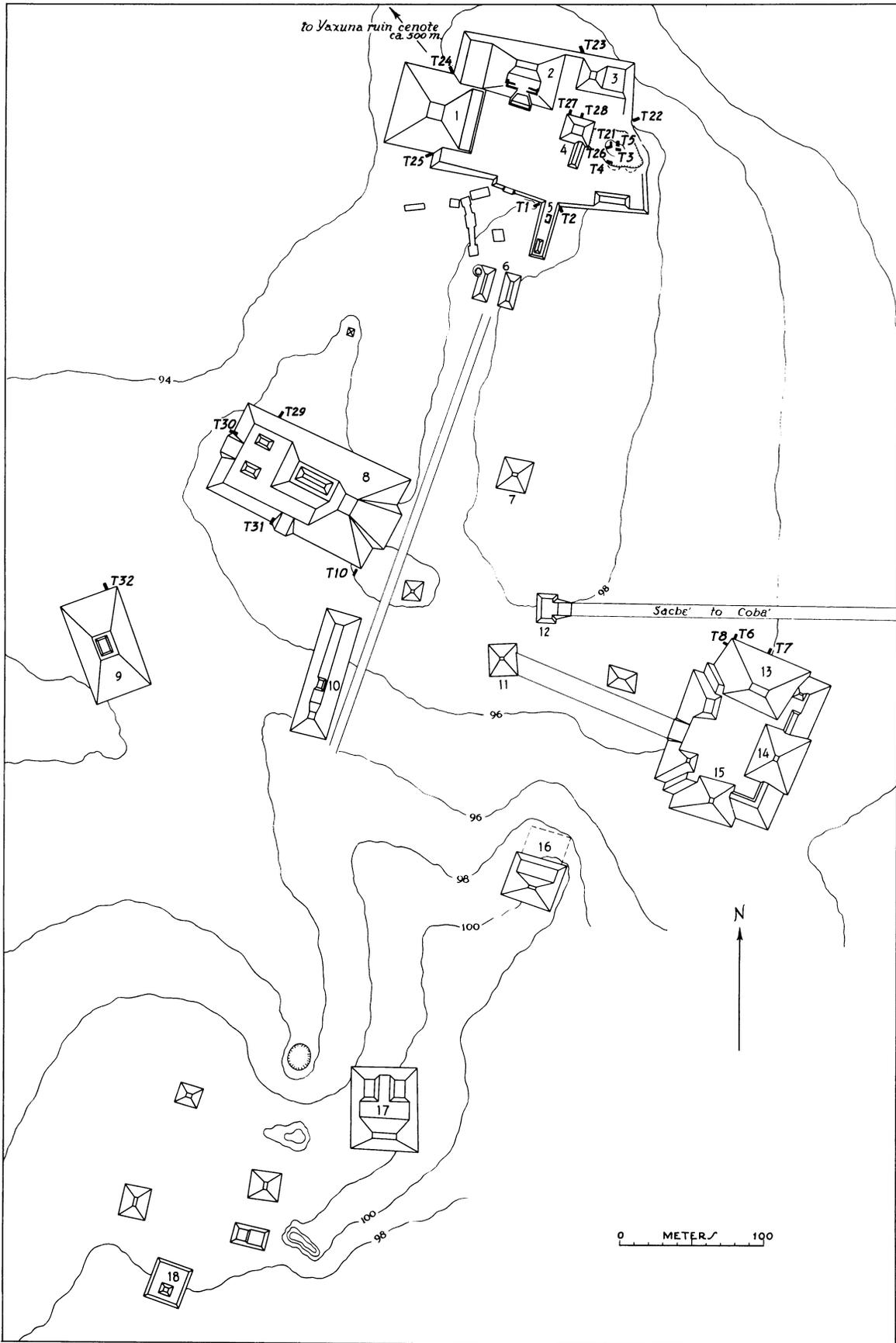




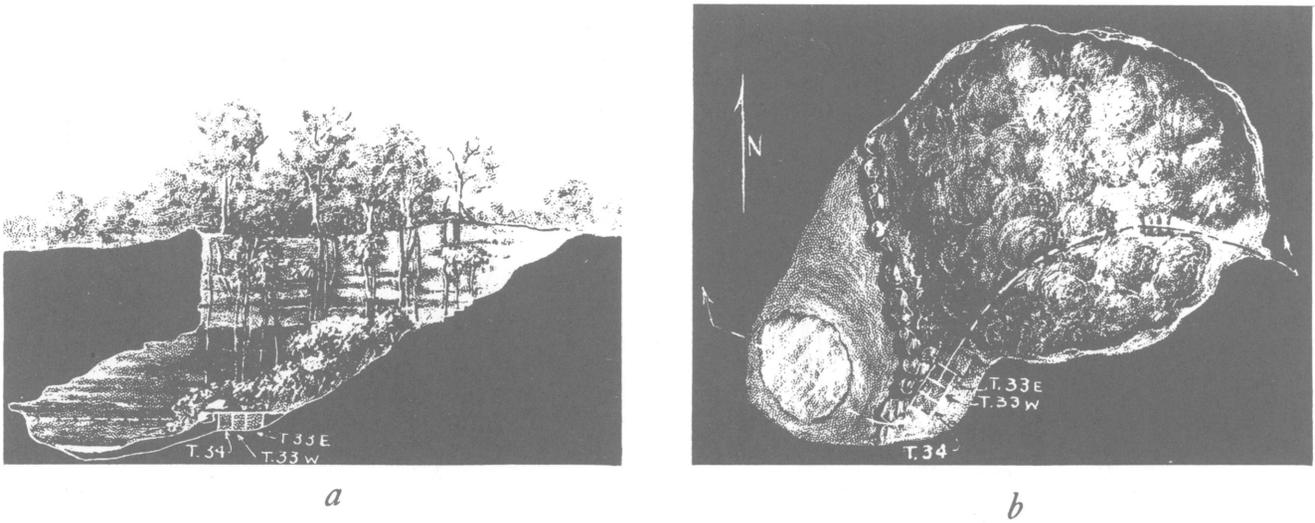
Map 2. - Yucatecan archaeological sites.



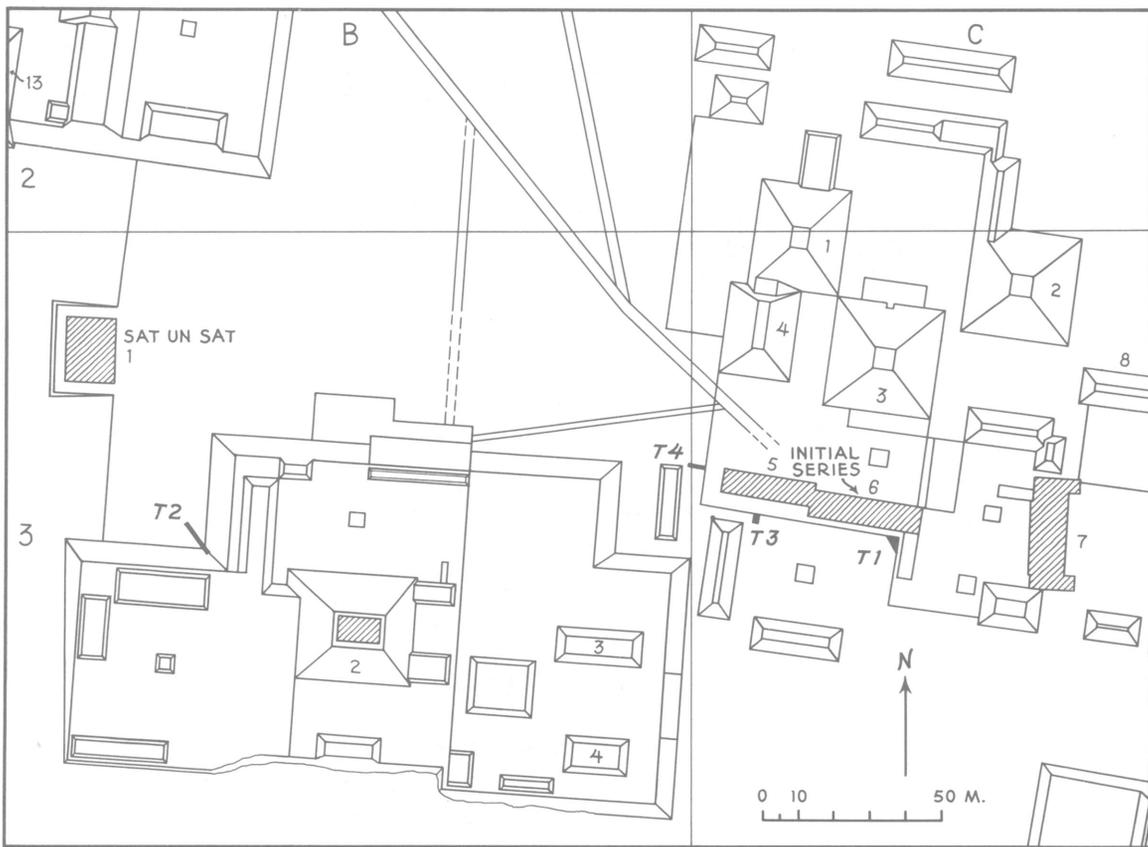
Map 3. - Cobá, Quintana Roo, Group B. Redrawn from Thompson, Pollock, and Charlot.



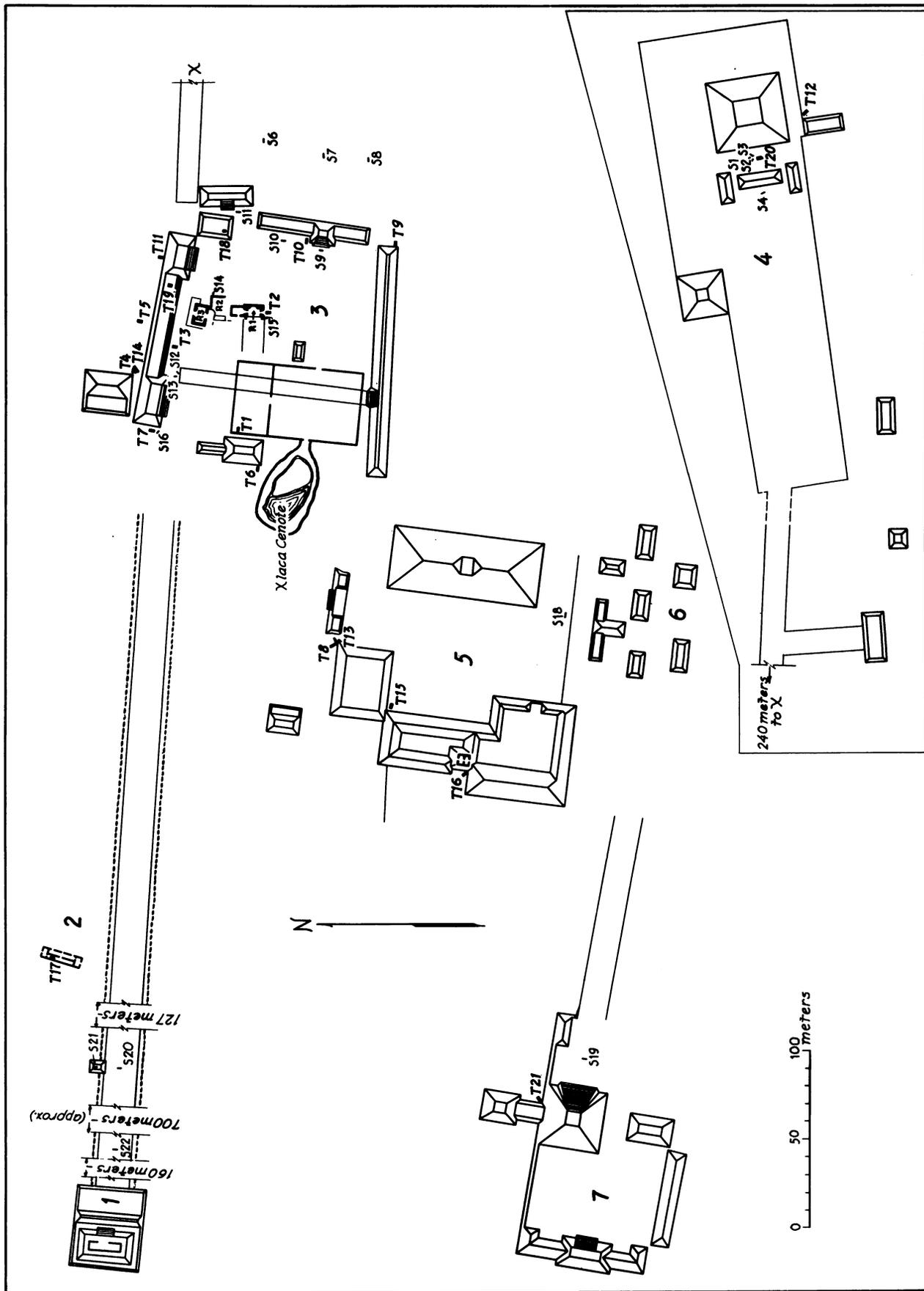
Map 4.—Yaxuna. Revised and amplified from map by O'Neill and Stromsvik, 1933.  
 [342]



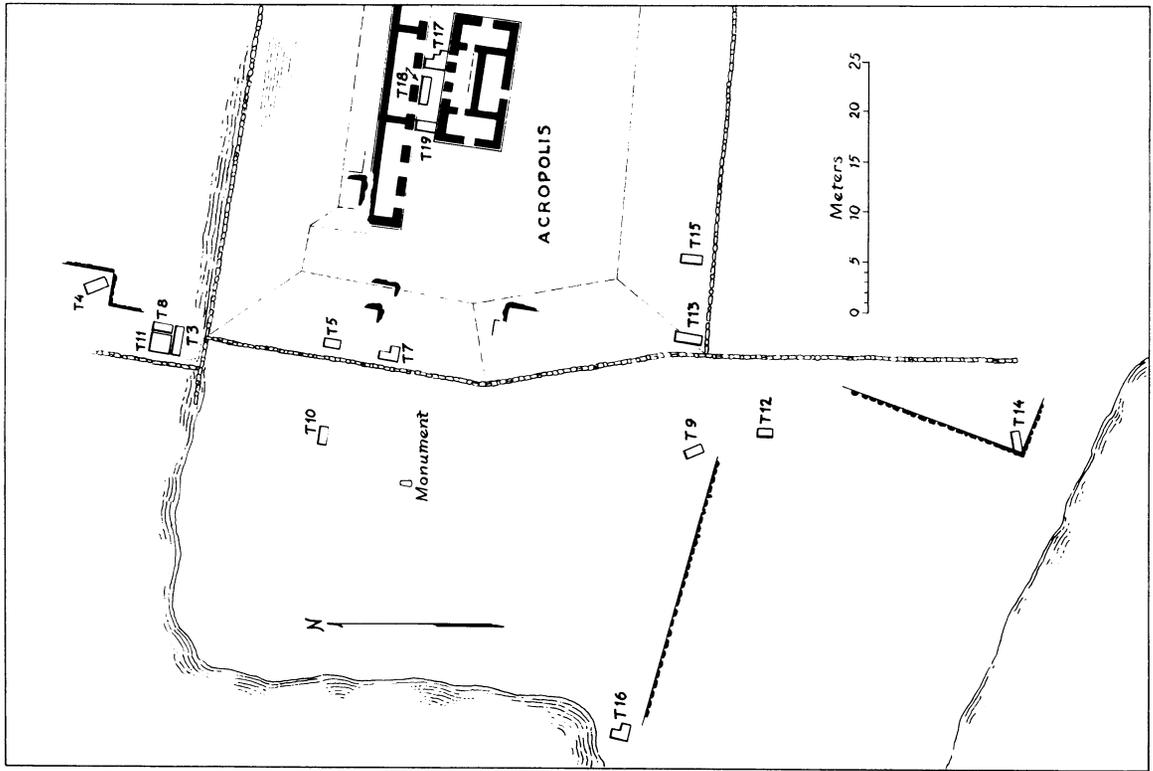
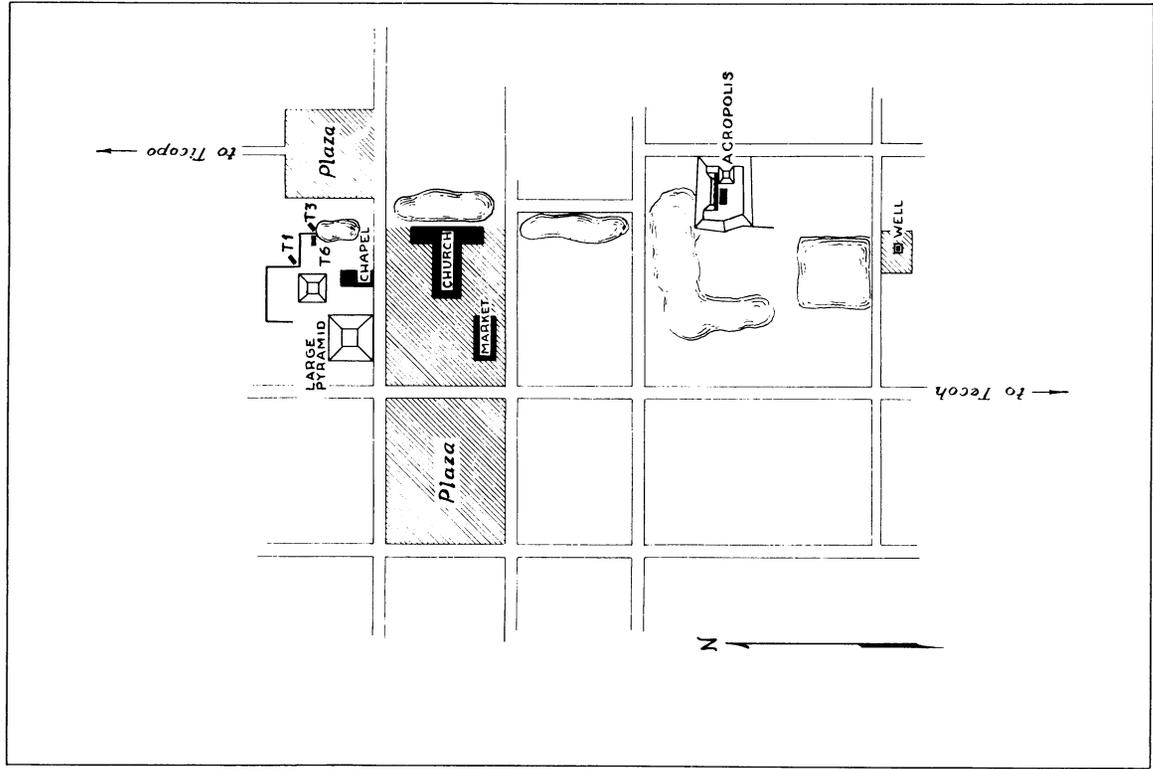
Map 5.—Yaxuna ruin cenote. Plan and vertical section showing trenches 33, 34.  
 For location of this cenote, see map 4.



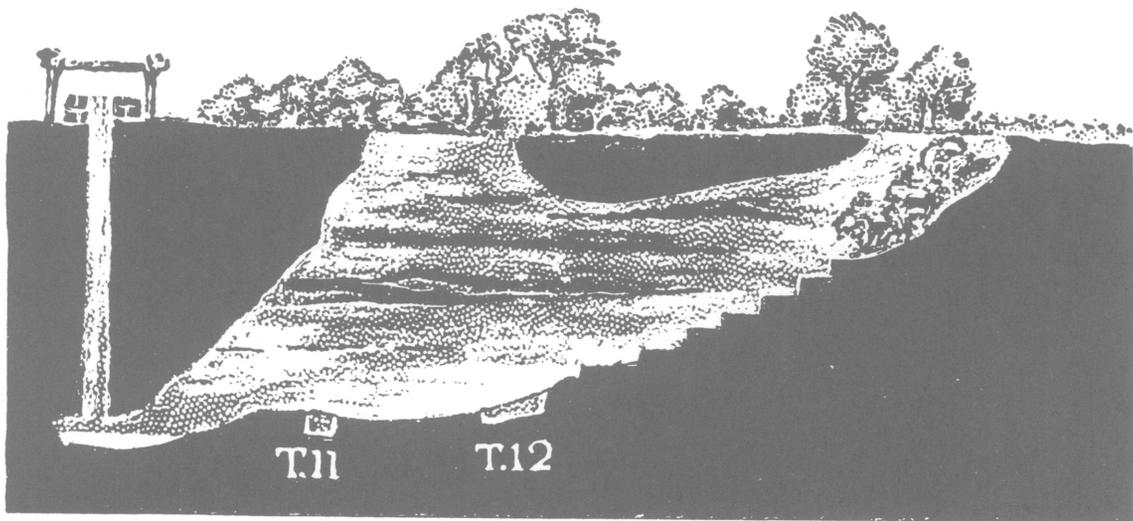
Map 6.—Oxkintok. A portion of the ruin showing locations of pottery trenches. Redrawn from Shook, 1940.



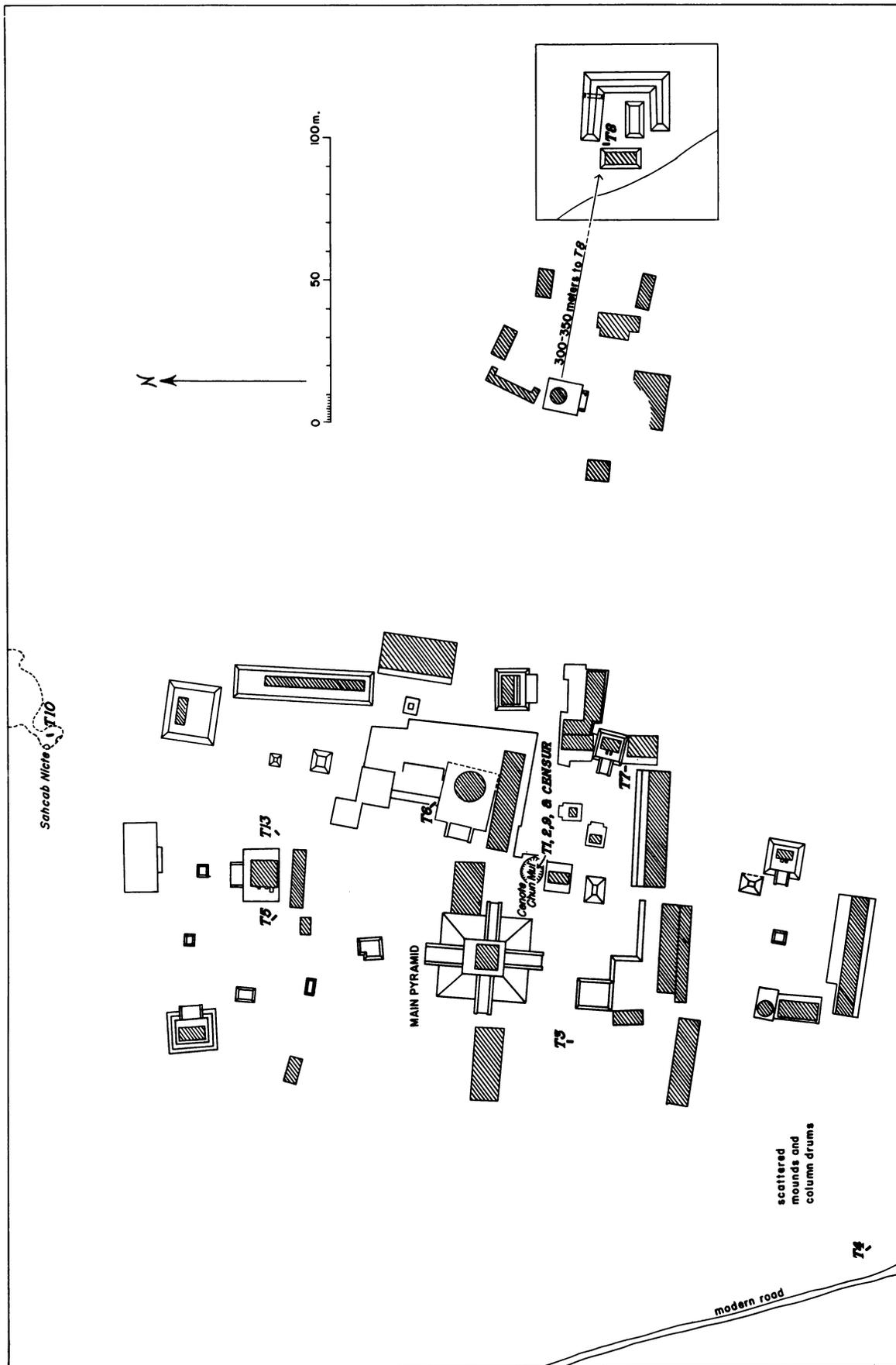
Map 7. — Dzibilchaltun.



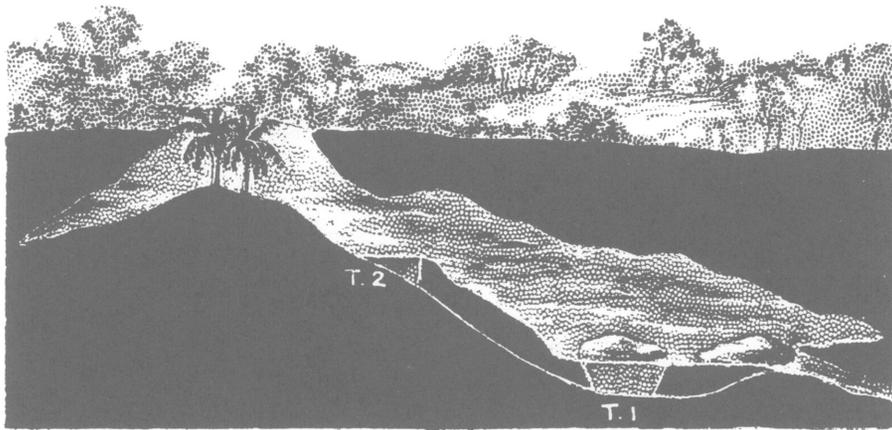
Map 8. — Acanceh. a: Central area of the town. Irregular rounded areas are badly robbed ruins. Two pyramids and the acropolis are shown. b: Acropolis and adjacent areas. Stucco façade is on the north wall of the southern structure.



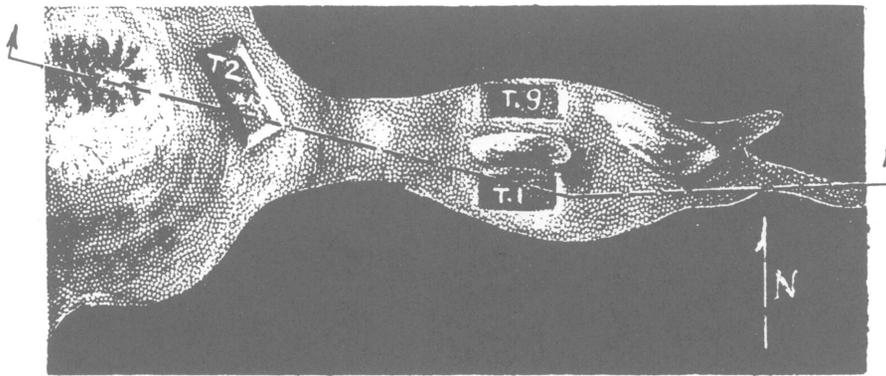
Map 9.—Telchaquillo Cenote. Vertical section showing pottery trenches.



Map 10. — Mayapan, main ceremonial group. Redrawn from Patton following revision by Andrews.

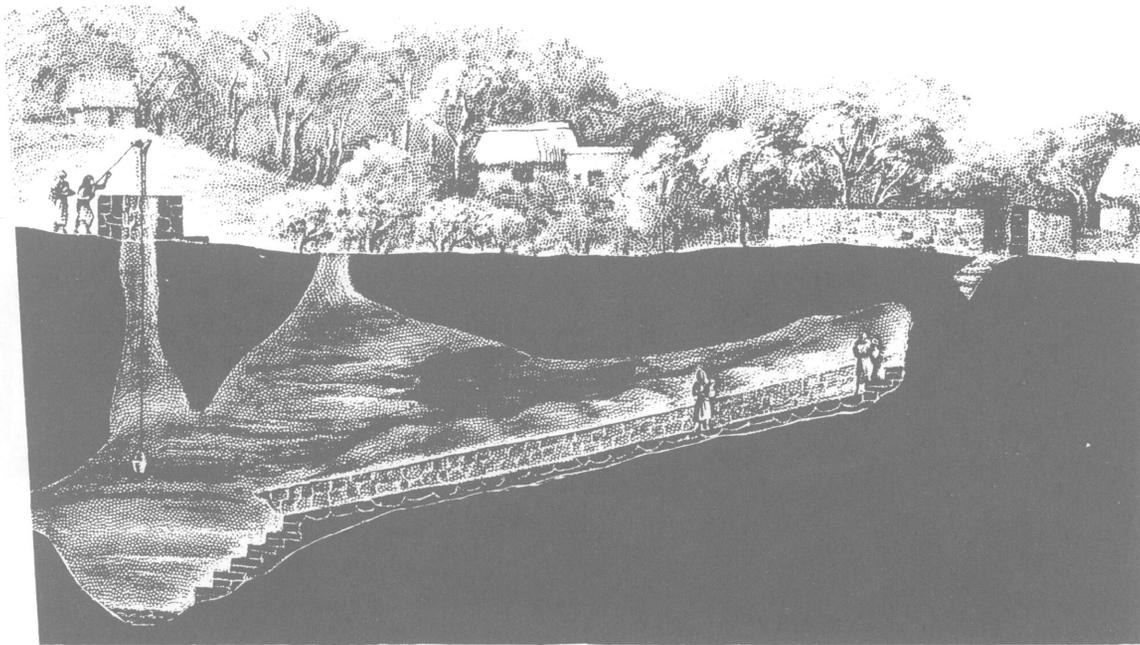


*a*

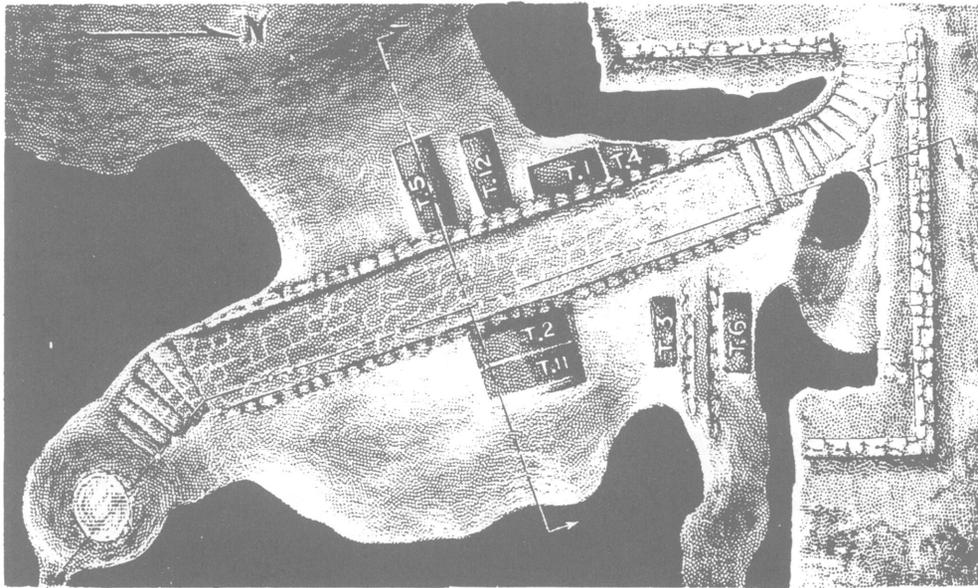


*b*

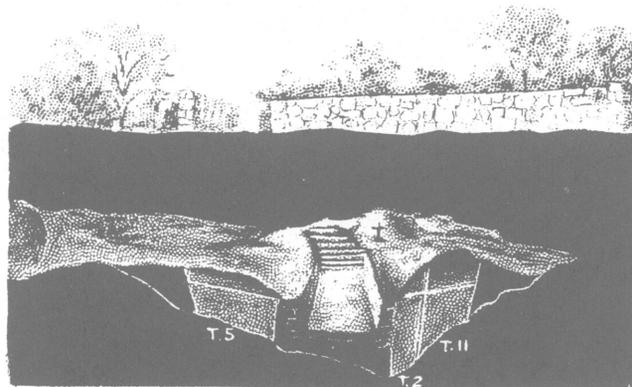
Map 11.—Mayapan. Cenote Chun Mul. Plan and vertical section. For location, see map 10.



*a*

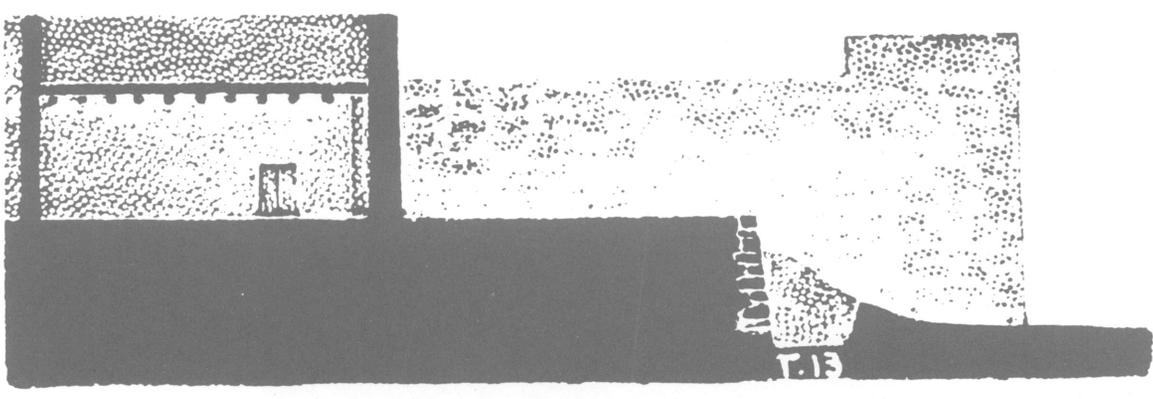
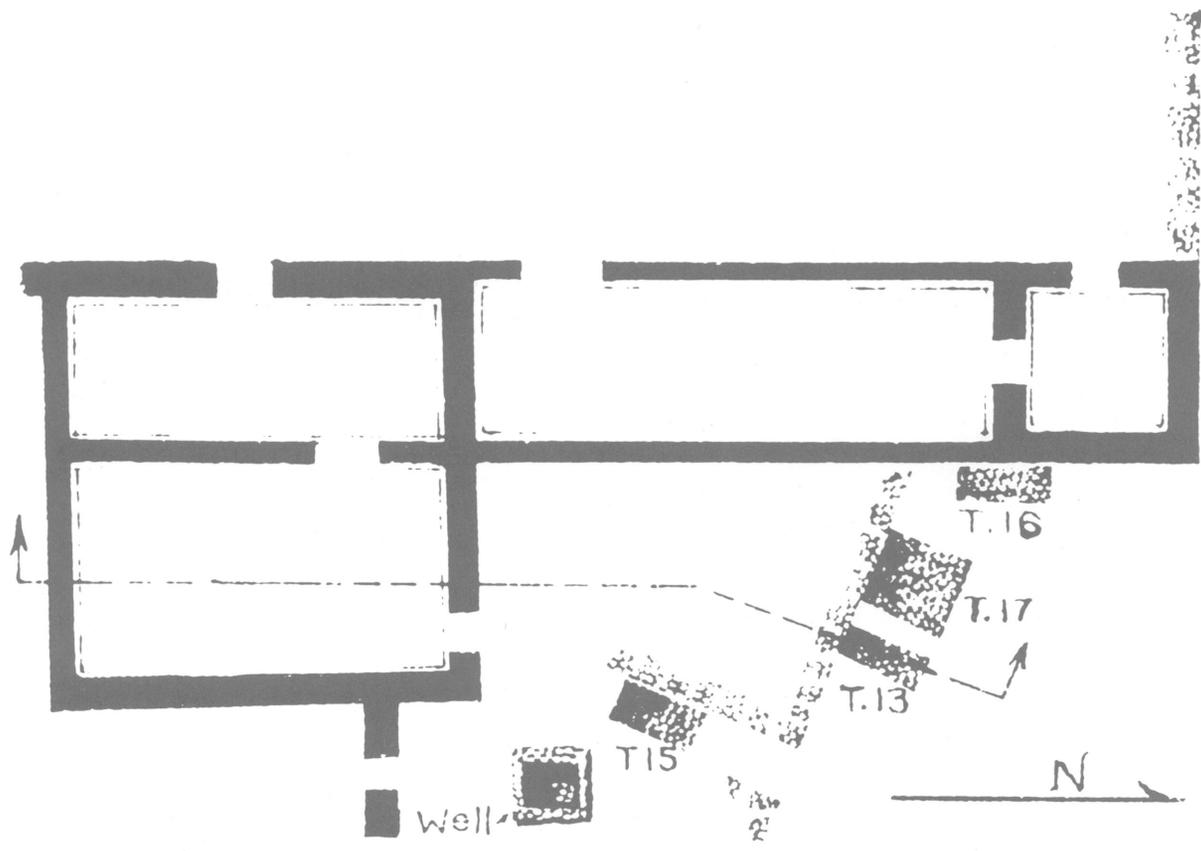


*b*

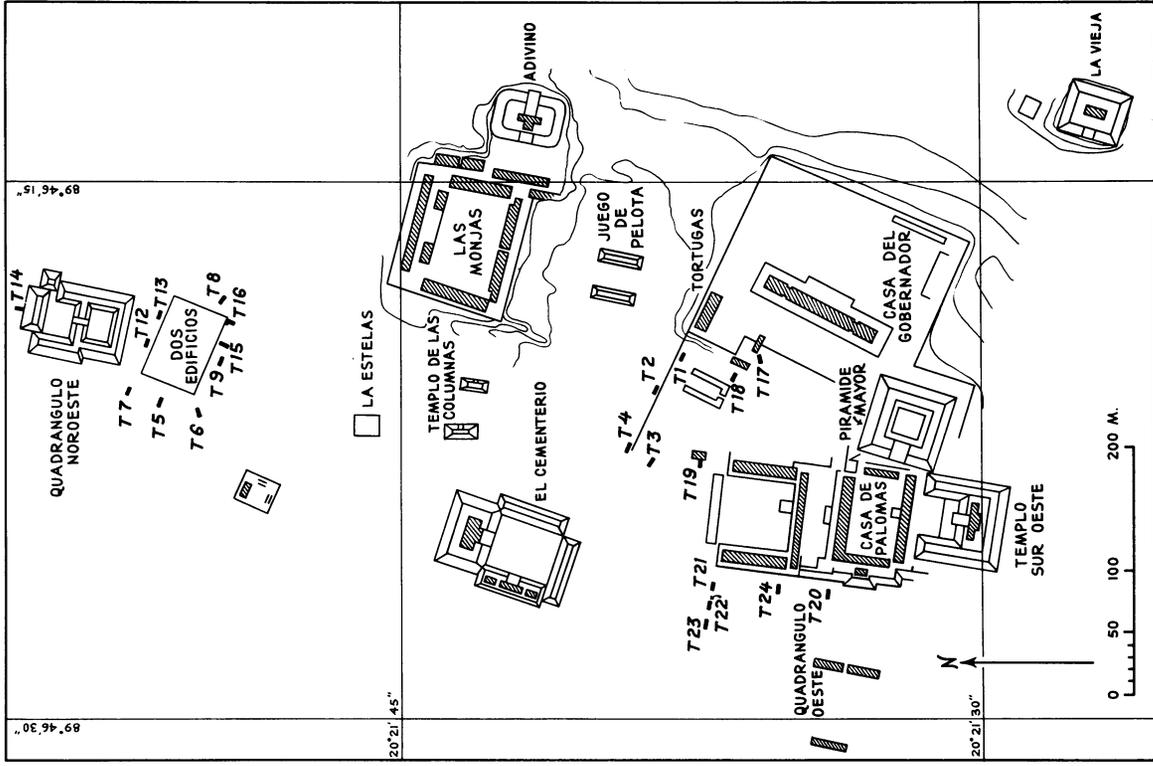


*c*

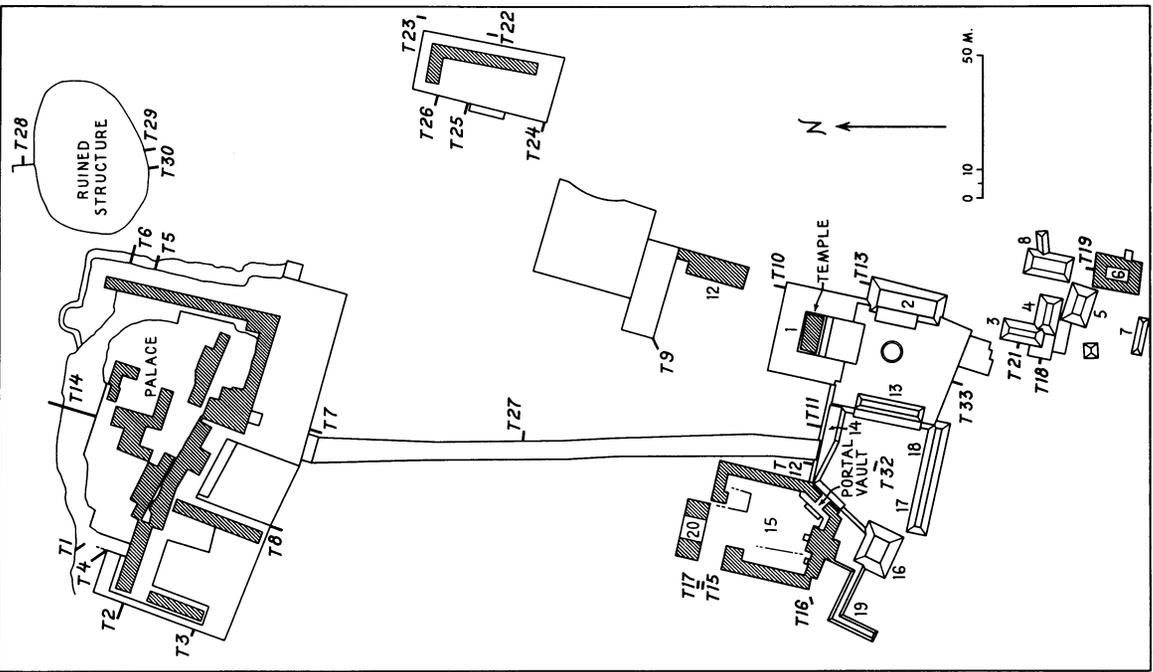
Map 12. —Mani cenote. a: Longitudinal section. b: Plan. c: Transverse section.



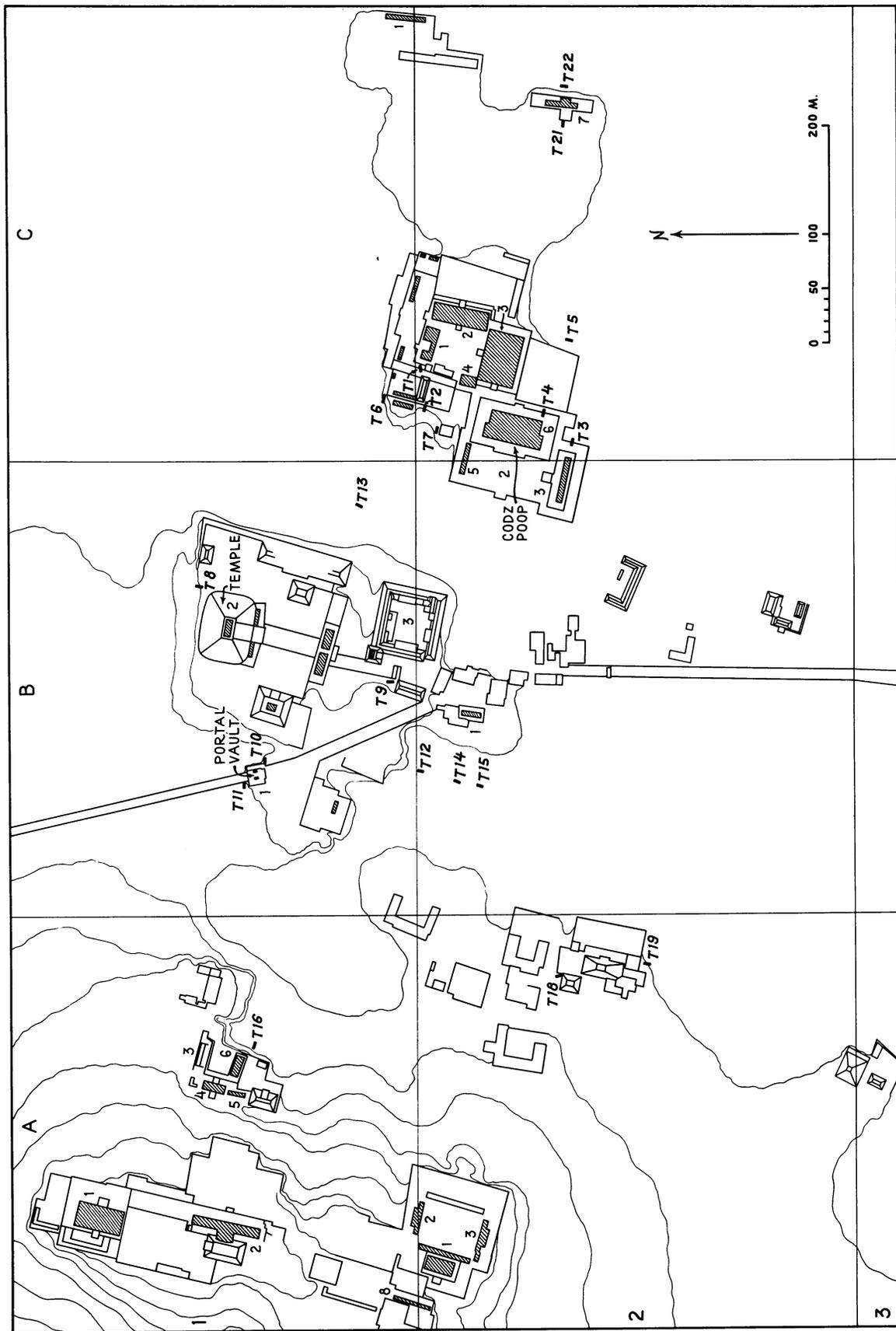
Map 13.—Mani. Northwest corner of the church platform on the main plaza, Plan and section.



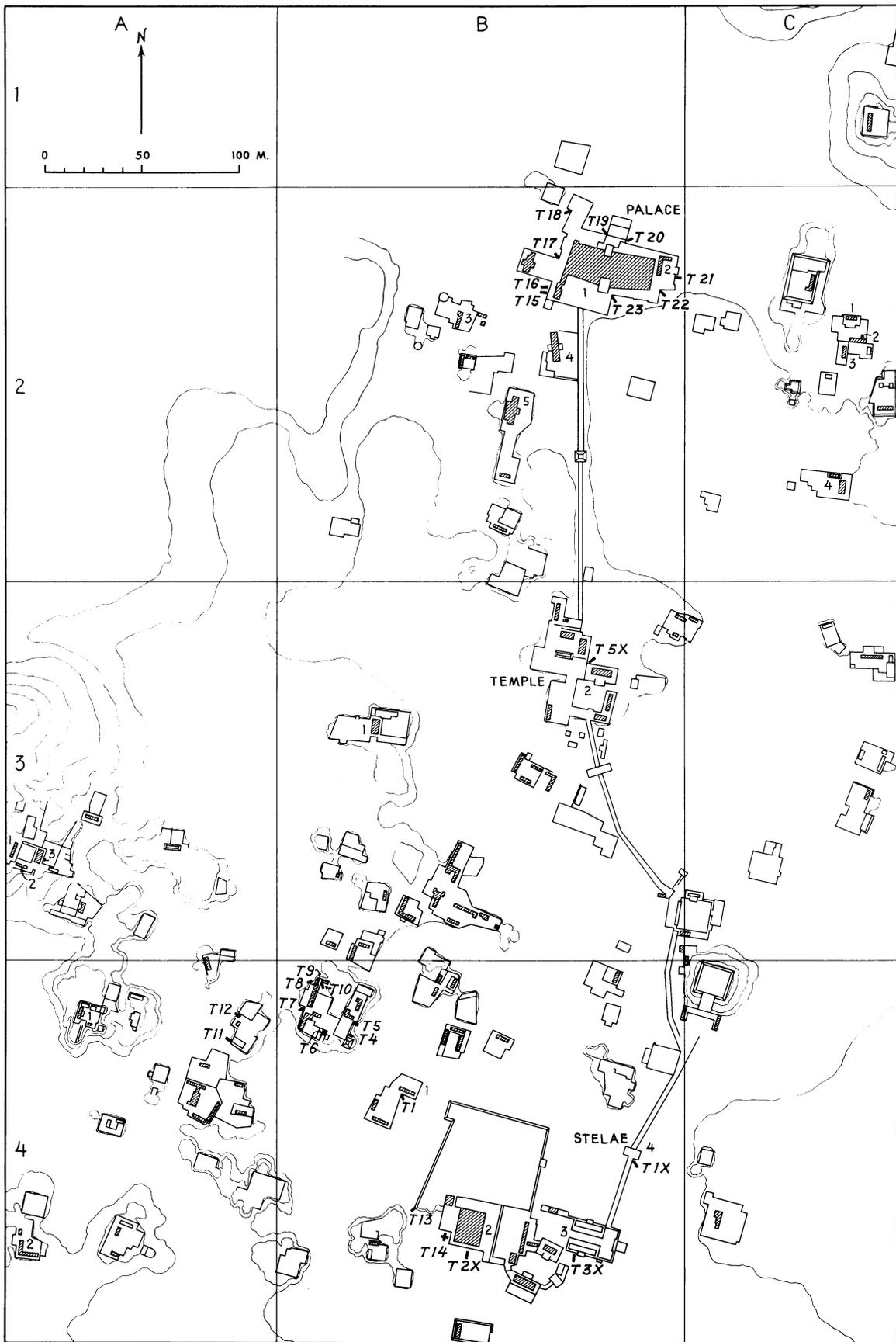
Map 15.—Uxmal. Redrawn from map in Morley, 1946.



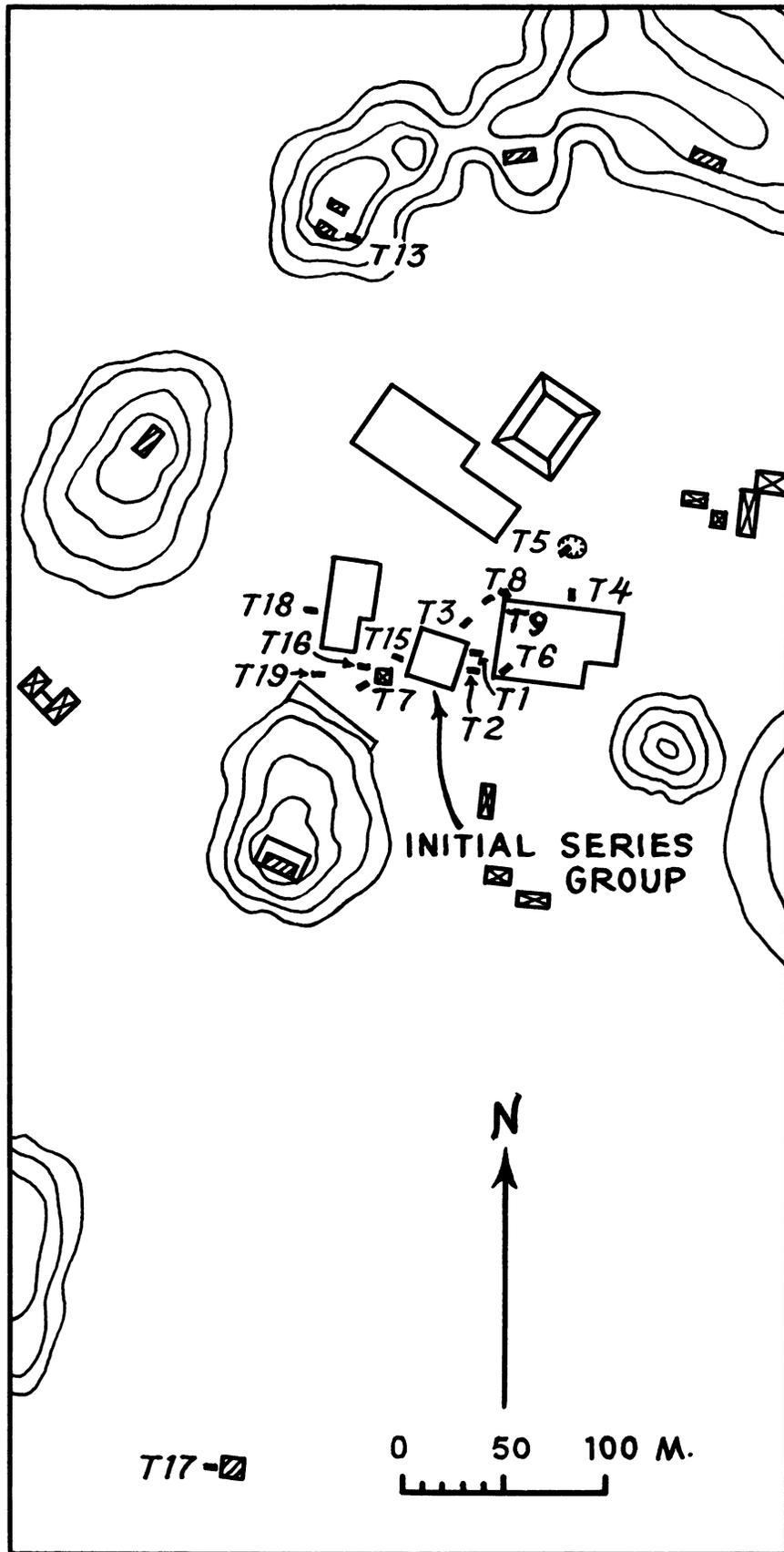
Map 14.—Labna. Redrawn from E. H. Thompson with advice of H. E. D. Pollock.



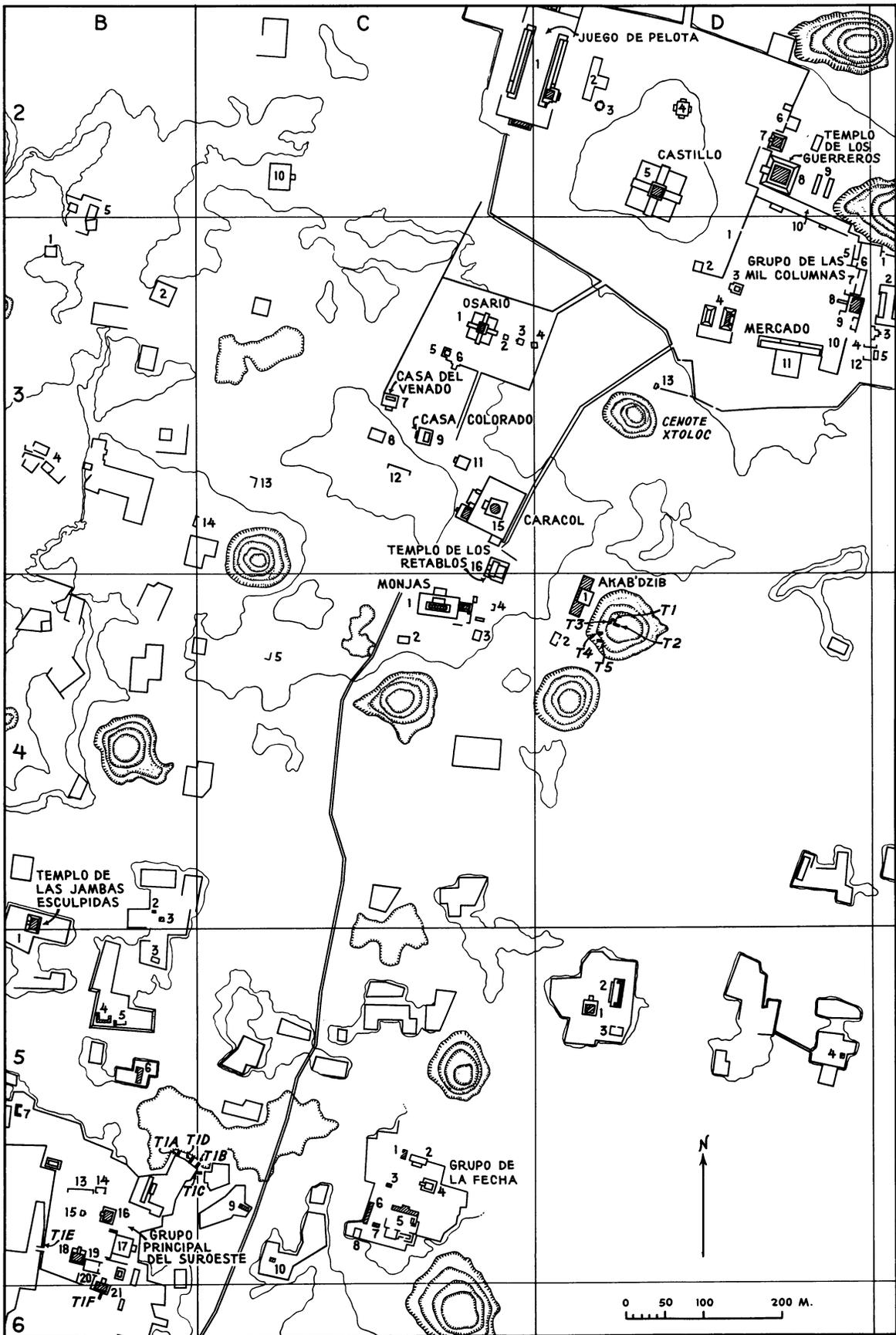
Map 16. - Kabah. Redrawn from E. M. Shook.



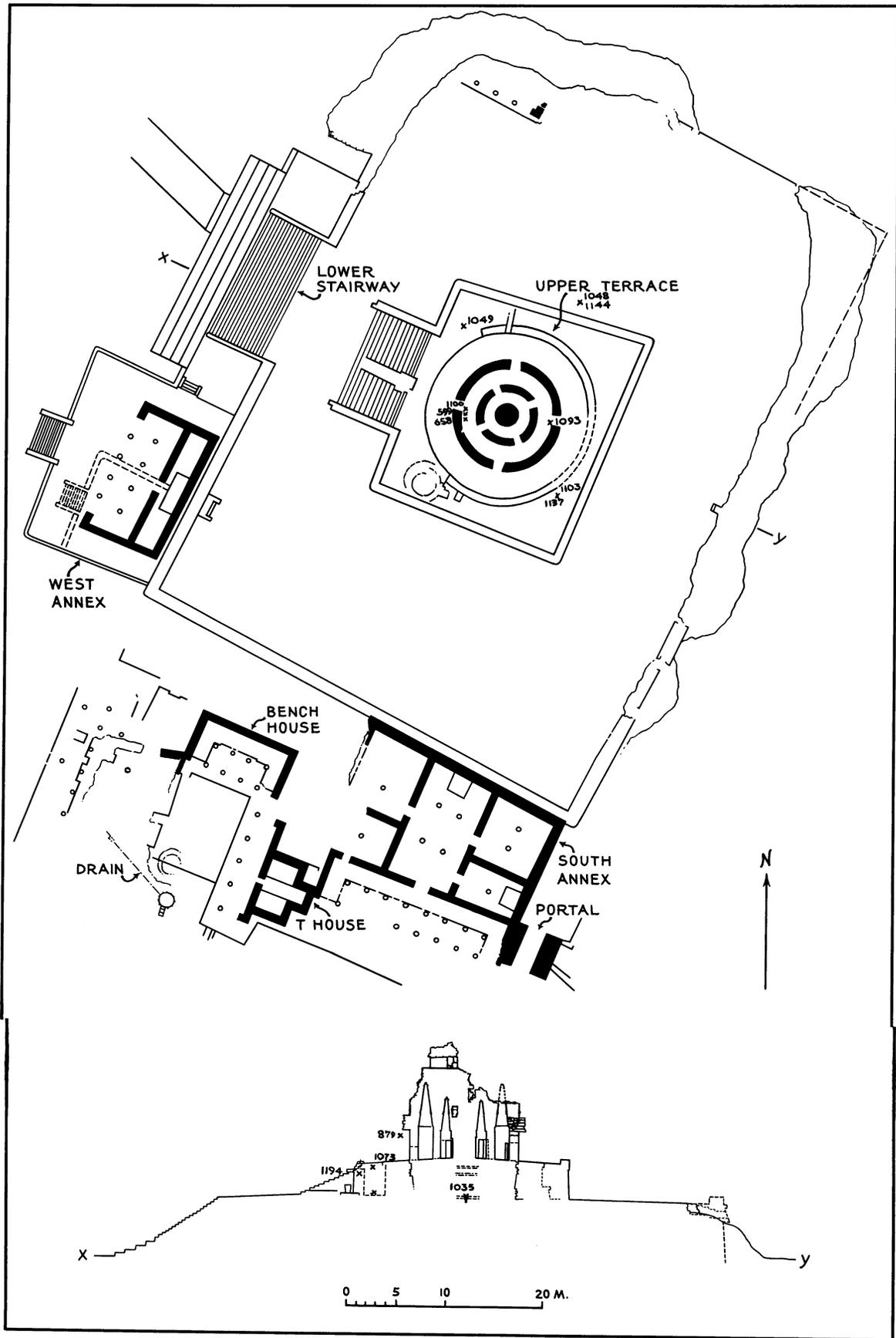
Map 17.—Sayil. Redrawn from E. M. Shook.



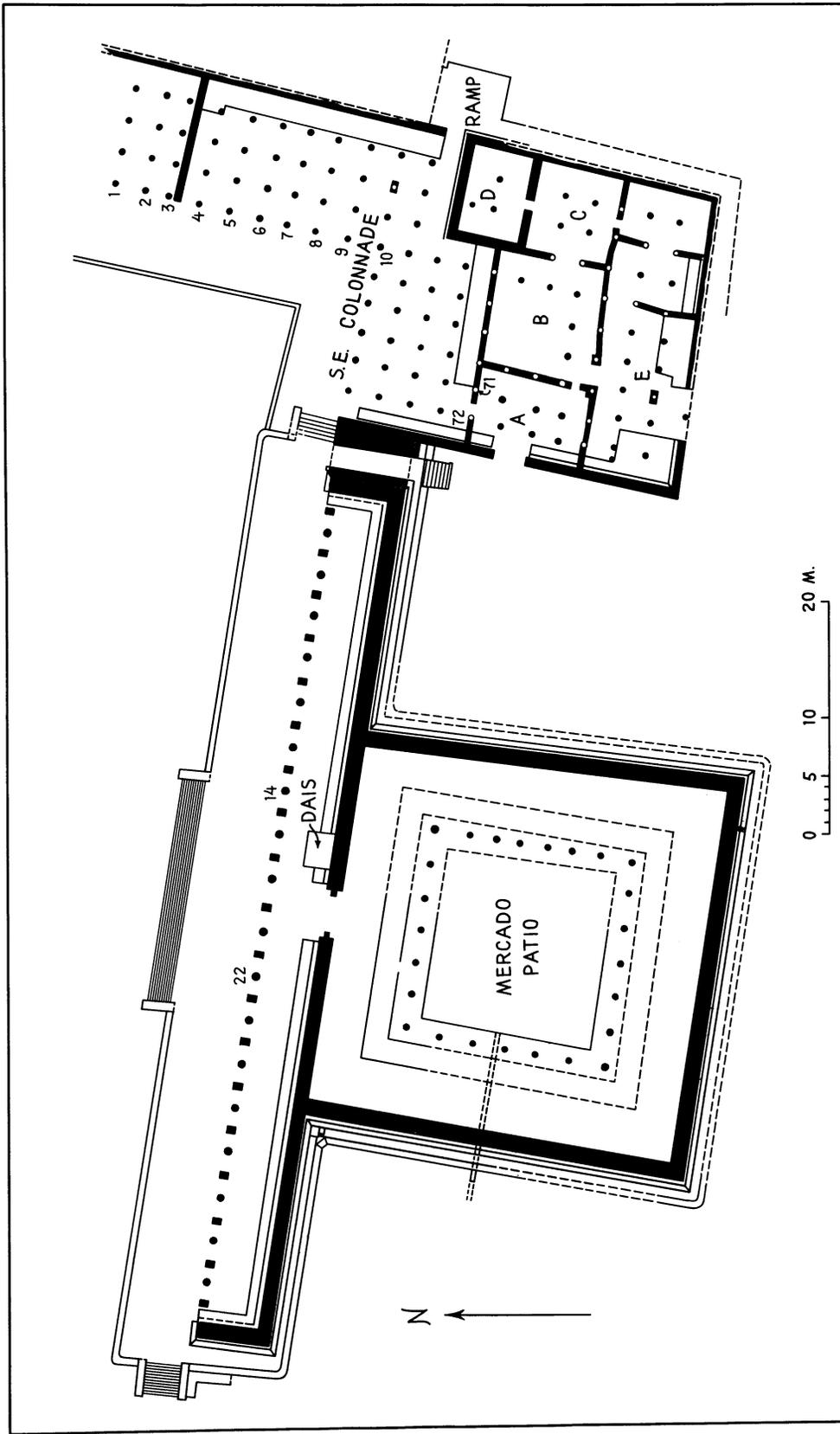
Map 18.—Holactun. A part of the site redrawn from Patterson.



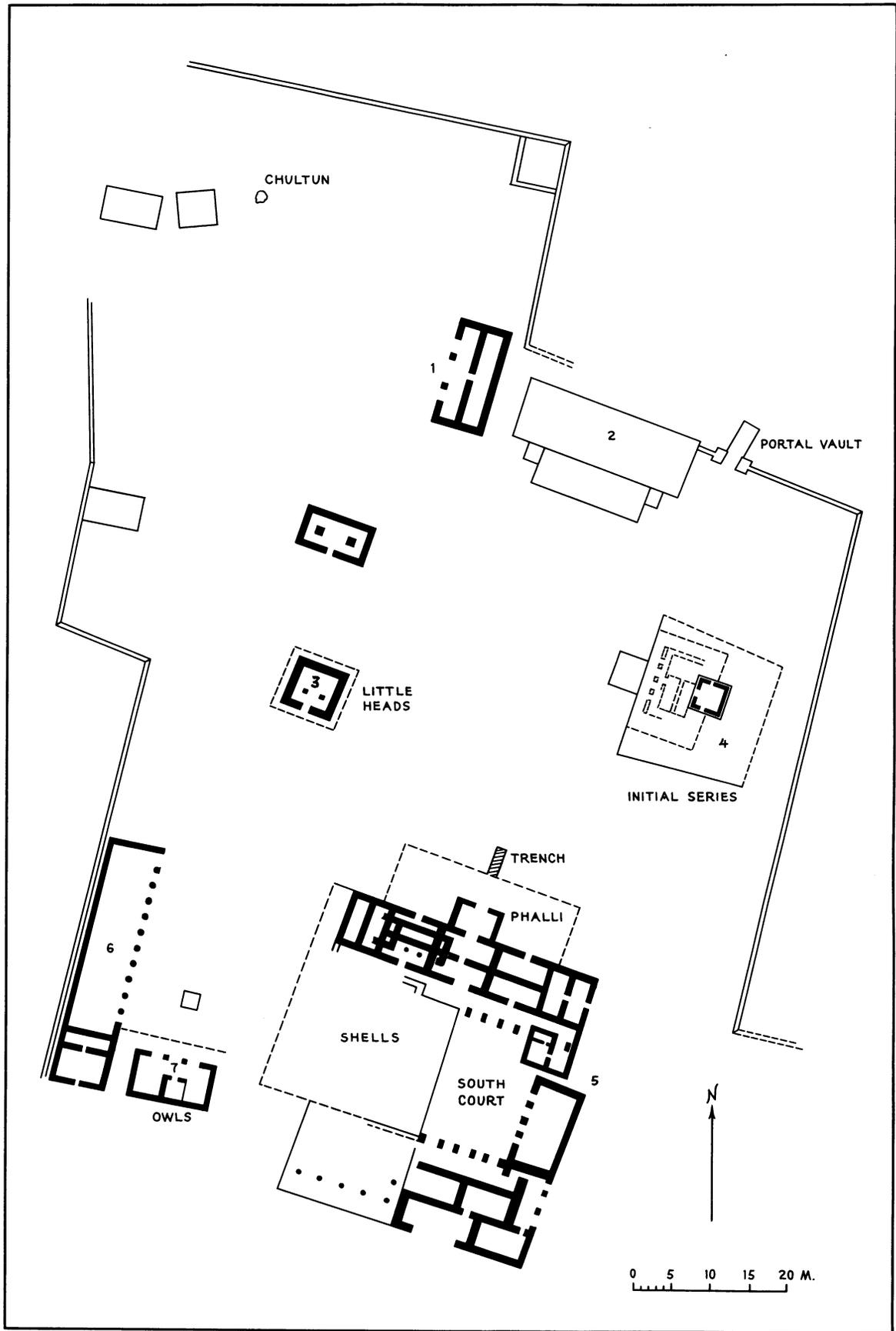
Map. 19. —Chichén Itzá. A part of the site. Redrawn from Kilmartin and O'Neill.



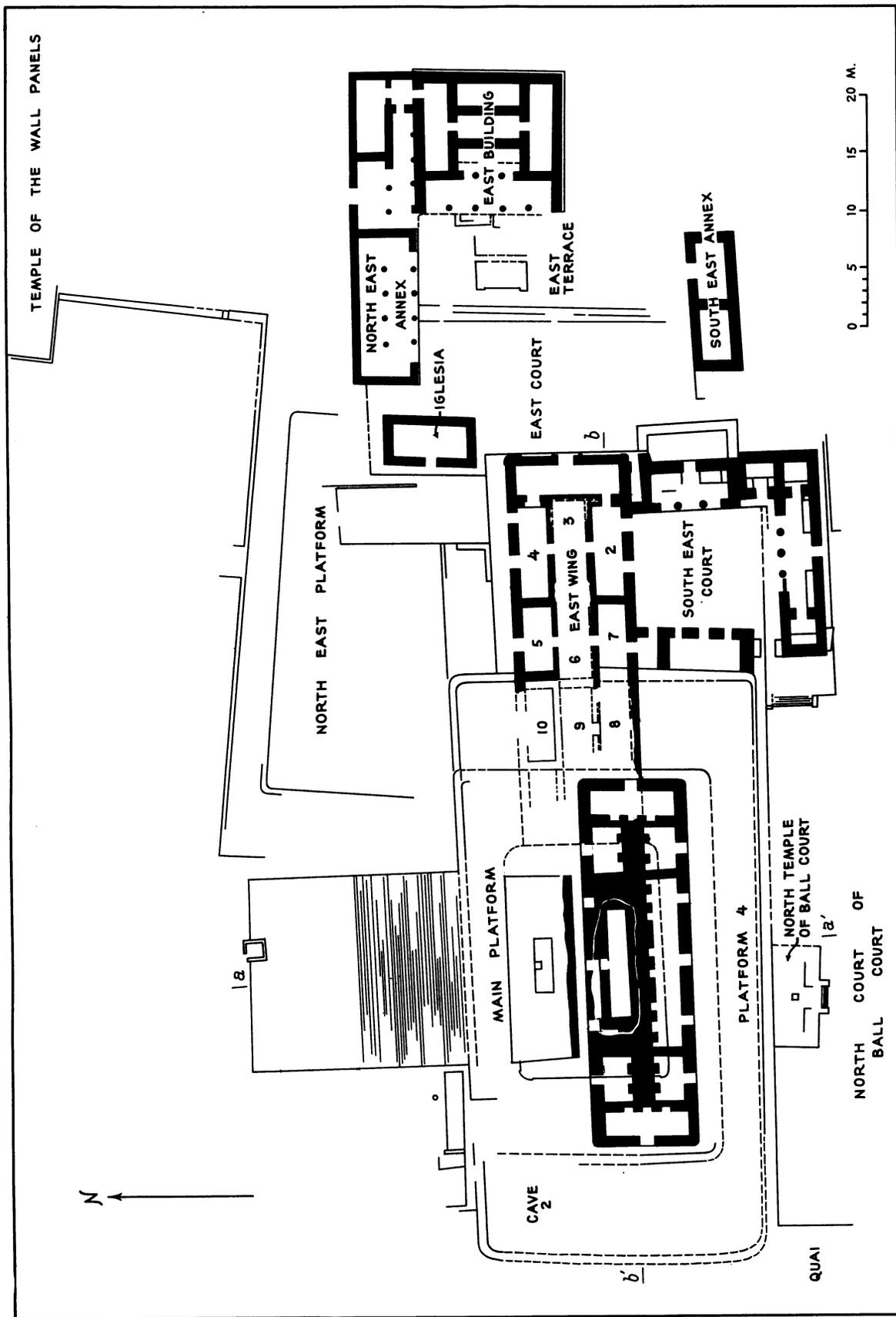
Map 20. —Chichén Itzá, Caracol Complex. After Ruppert.



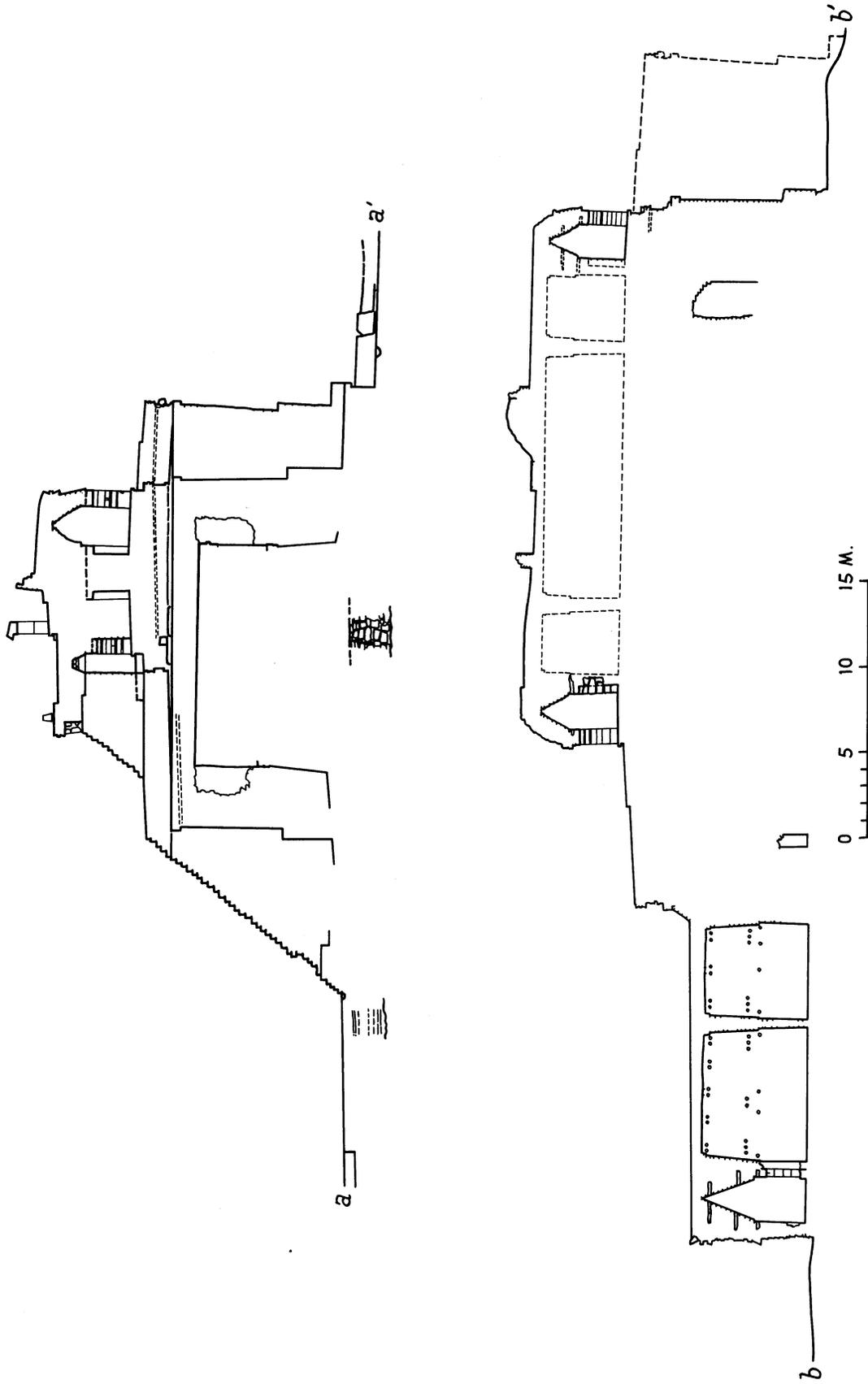
Map 21. — Chichén Itzá. Mercado and adjoining colonnade. After Ruppert.



Map 22. — Chichén Itzá, Initial Series Group. Compiled from maps and data by Vaillant and Ruppert.



Map 23. — Chichén Itzá. Monjas Complex. Compiled from maps by J. S. Bolles.



Map 24. — Chichén Itzá. Monjas Complex. Sections.

## CHARTS

	YAXUNA		DZIBILCHALTUN		MAYAPAN		UXMAL		LABNA		HOLACTUN		ELSEWHERE	
	COBA	OXKINTOK	ACANCEH	DZAN	MANI	KABAH	SAYIL	CHICHEN ITZA						
Pattern Burnished							30c							
Formative Unslipped							30c							
Red over Striated							31e							
Formative Monochrome		50-e					17e,3l	60a	60a	60a	16,17a-d	66j		
Formative Flaky Red			5f	17f-h							16b,9, c6,d1	40,65c		
Regional Unslipped	1c,d,f	1a,b	12a-c	14a,b	14d;19a-e		14e,g-i					65a,b		
Regional Flaky Red	4a-e	6b,c			17f,36-44; 18a1-7;19e							40,65c,66a		
Flaky Dichrome & Related		1g,i,k,6a			17g1-9							6a,e-g	6a,d,j,63a,64	
Regional Polychrome			9e	19g3	9f;90c		30a, 63c,d	60b	3b,c	60b			63a,b	
Trickle on Flaky Red		7a-c		18c1-3									7b	
Thin Red on Brown		1j												
Oxkintok Coarse Monochrome			11,12g, 13a-g,lj								41e1,4			
Oxkintok Thin Monochrome			12d-f,h,k, 13h,k-m											
Coba Dichrome & Polychrome	2h,3a; 4m													
Fiber Tempered	1e													
Regional Coarse Red	2a-e	8a-c,e- g,l		18a,c,e;20c										
Regional Medium Red	2f,g	4f,j;8d, h-k		18d,g,h; 19h,5,6								66k		
Fine Gray			28g	28f			28e,53f	28e		53h	28e,53k	28e	35b,36b-d,e,g,i, 48q	
Thin Black			53i				53e	53j	53g				54ff	
Red on Thin Gray			20e	20d										
Dzibilchaltun Fine Orange			59g	59h6										36h
Florescent Unslipped		38f,39j	14c		37d	14e	37b,c 39a-d	38c,39e	38d,39g	38e; 39f-h	37o,39k	68,69b	35c,38gb,65d	
Florescent Medium Slate	4h,10a-g 49m	42a,b; 43d,48a 49i	15a-e; 55s	21a-c,f,61c,m; 57c,3e,5,g,l; 58i,2,3	15o-r	58g),2, 4-8,hl	32,49j-l	37,4i; 44,45; 47,49; 54,55; 57,61	40,43; 44,47; 49,54; 55,57; 58,59	40,43; 44,46; 46,49; 54,57; 58	41,42; 46,49; 46e,49h 54,58	40f,41e	66j,67;68c,71,72,73,74	35g,d,g,i,m; 36a,c,40a-c; 41f,42c,d,43b; 45a,47d,e,h
Florescent Thin Slate	10h,55w	51c		18j,21d	15s	15i,61f	32e					4p	35e	
Florescent Thin & Medium Red				18k			51l-n; 52b,f,m	51e; 52c,j	51g,h, 52h		52k,l	87v,w	35f,h,51d,f,52a,c	
Holactun Slate							53a-d				41e3	66c		
Puuc (Z) Fine Orange				59h			59hl	59b-f	59c-f	59c,d	59d,e	59c,f	89e1-4, f1-7	36j,59a
Early & Middle Mexican Unslipped					22,23d,e								68,69;70a-c,j,93,97	
Mexican Medium Slate				21a7-9,e									66d,j;71,72;73;74,90h,j-o	
Red on Medium Slate													75;88d,7,16	
Mexican Medium Red													66e,k;82b;83b;85;86; 87;88;97i	
Chichen (X) Fine Orange					28c	59hl		28d					66h,76;81;82a;83a;84; 89a,c	89a-a,90d-f
Plumbate												91a-f		
Mexican Coarse Slate			20a	19i;20b	24							92	92c,d	
Late Mexican Unslipped					22,23d,e 27c,29		14f,27b						70b,k;93;95d,g,k,m; 96b,g,h,k,o,98	99-102
Mexican Coarse Red				27h1	23a,b,25; 26,27q,c,k								90s,1,94,95,96a,c-f,i	
Late Mexican Polychrome					23c								94a	
Mayapan Fine Orange					28a,b,c									
Postconquest Unslipped							33gi						93bb,cc	
Postconquest Red			34b		33a-f; 34ac-f,i		33a-f; 34ac-f-i						66f	34g,h
Rare & Imported	4n	4g,j,k,l; 6k;9a,b		9c,d;18f,g8; 19g1,2,h1-4	61l		9g,h	60c,d,g, h,i,k	60k13	60d,e,k; 62o	60h,k	54g	91,66b;75o;89;90;91g-1; 97h	30b

Chart 1. Key to illustrations of pottery by ware and site.

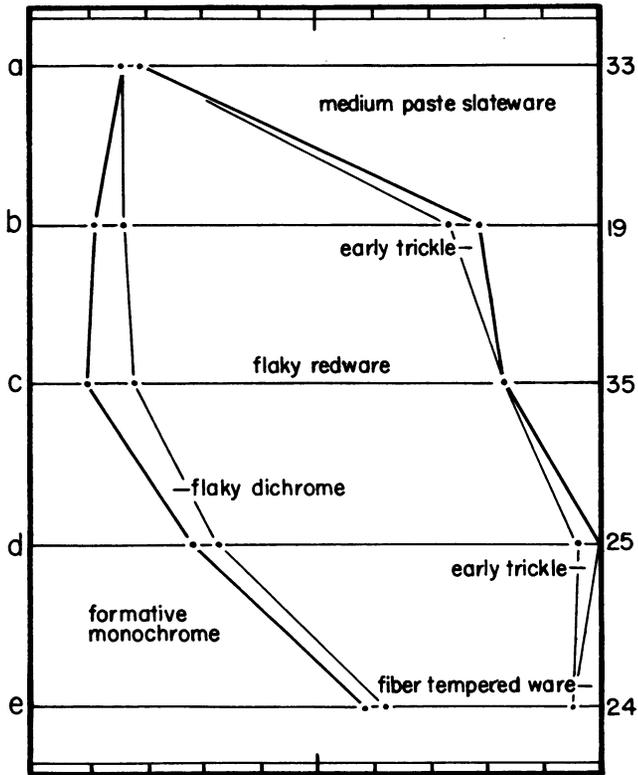


Chart 2. Yaxuna, trench 25. Frequencies of slipped wares by cut. Numerals in the right margin give size of sample.

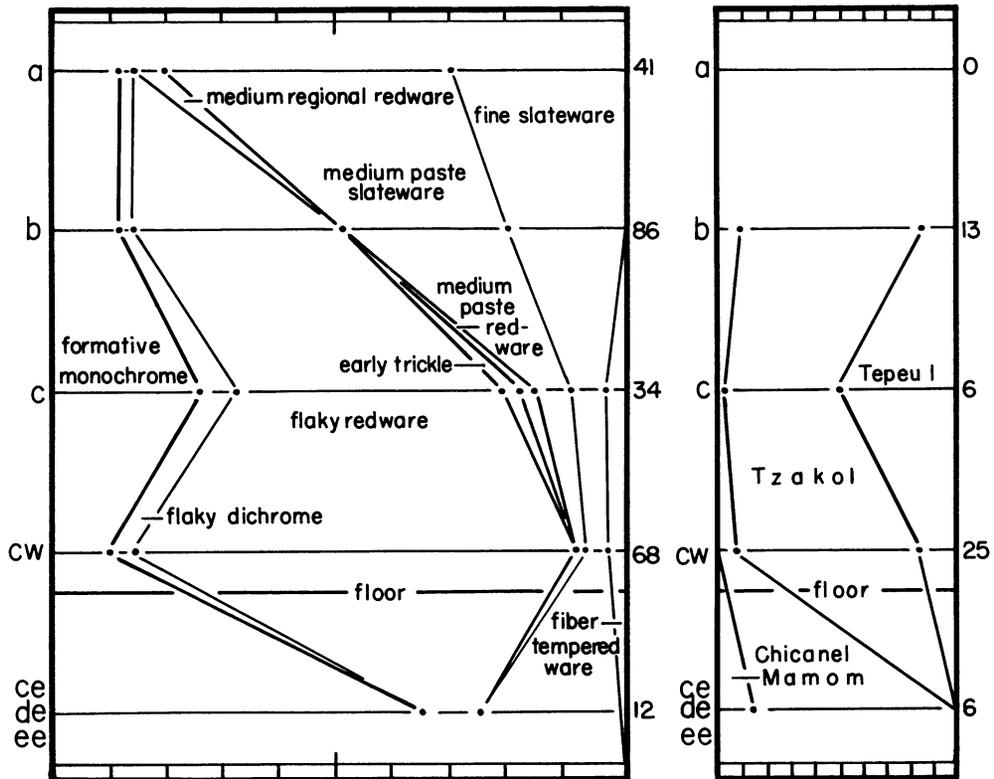


Chart 3. Yaxuna, trench 24. To the left are frequencies of slipped wares, to the right are frequencies of pottery classified by R. E. Smith as similar to pottery of the phases designated at Uaxactun, Guatemala.

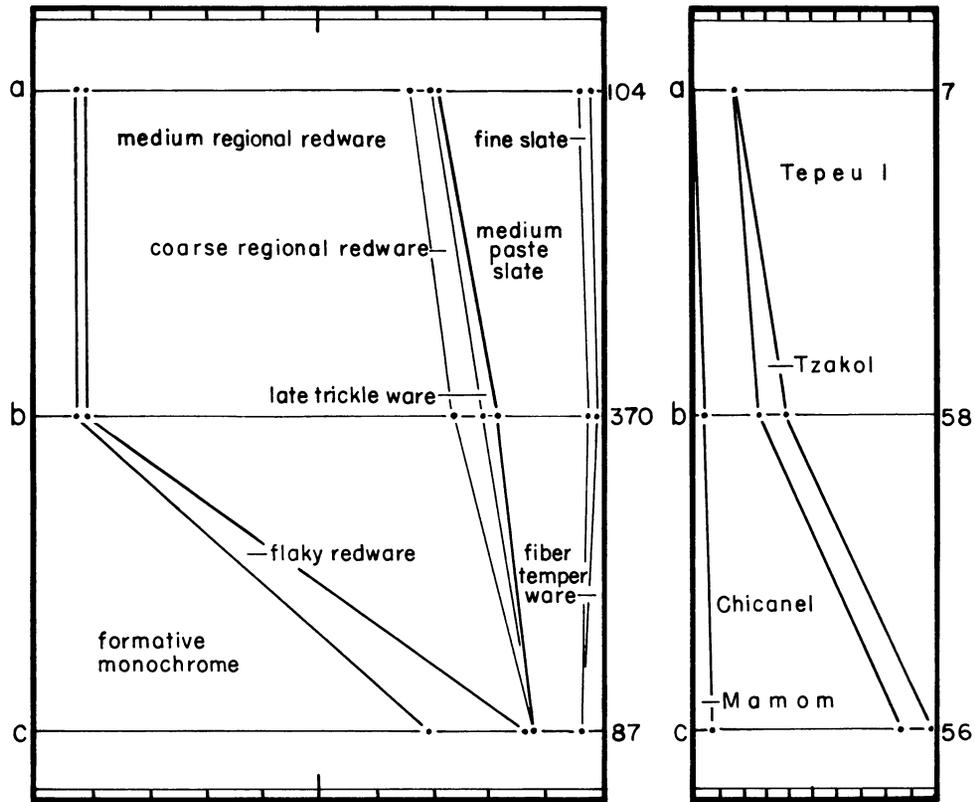


Chart 4. Yaxuna combined collections from trenches 21 and 26. To the left are frequencies of slipped wares, to the right are frequencies of pottery classified by R. E. Smith as similar to the pottery of the phases designated at Uaxactun, Guatemala.

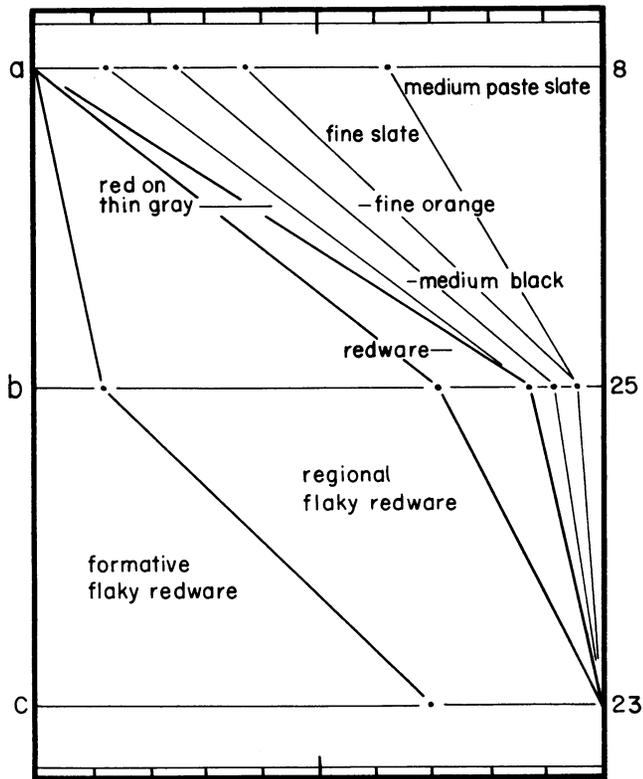


Chart 5. Dzibilchaltun, trench 2. Frequencies of slipped wares.

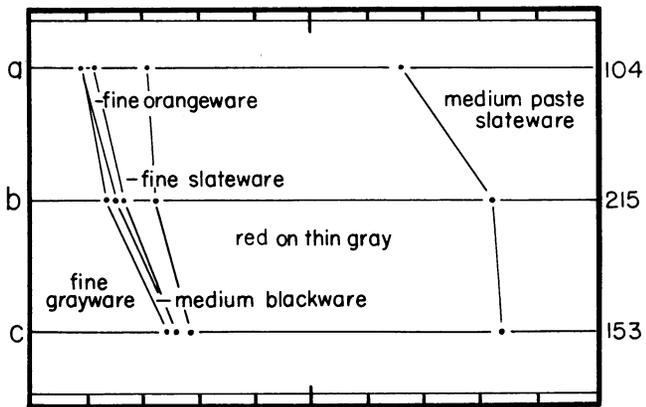


Chart 6. Dzibilchaltun, trench 14. Frequencies of slipped wares.

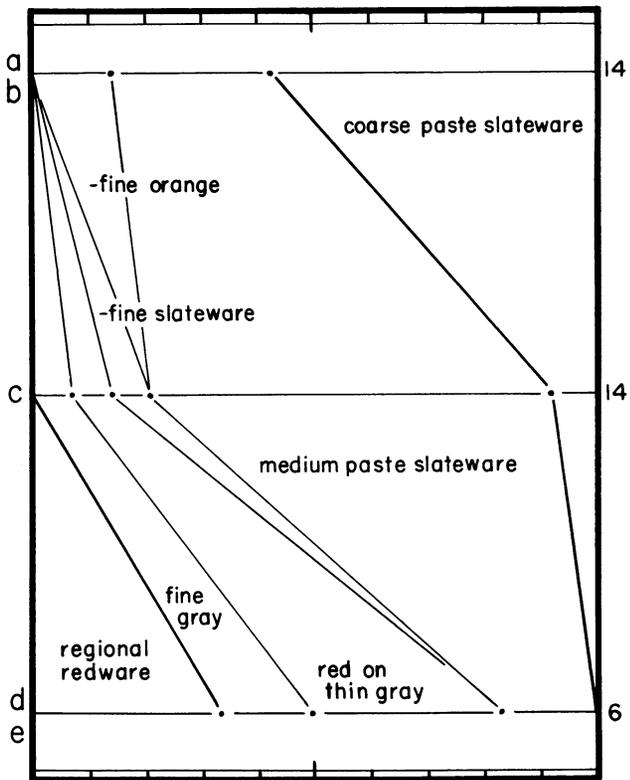


Chart 7. Dzibilchaltun, trench 3. Frequencies of slipped wares.

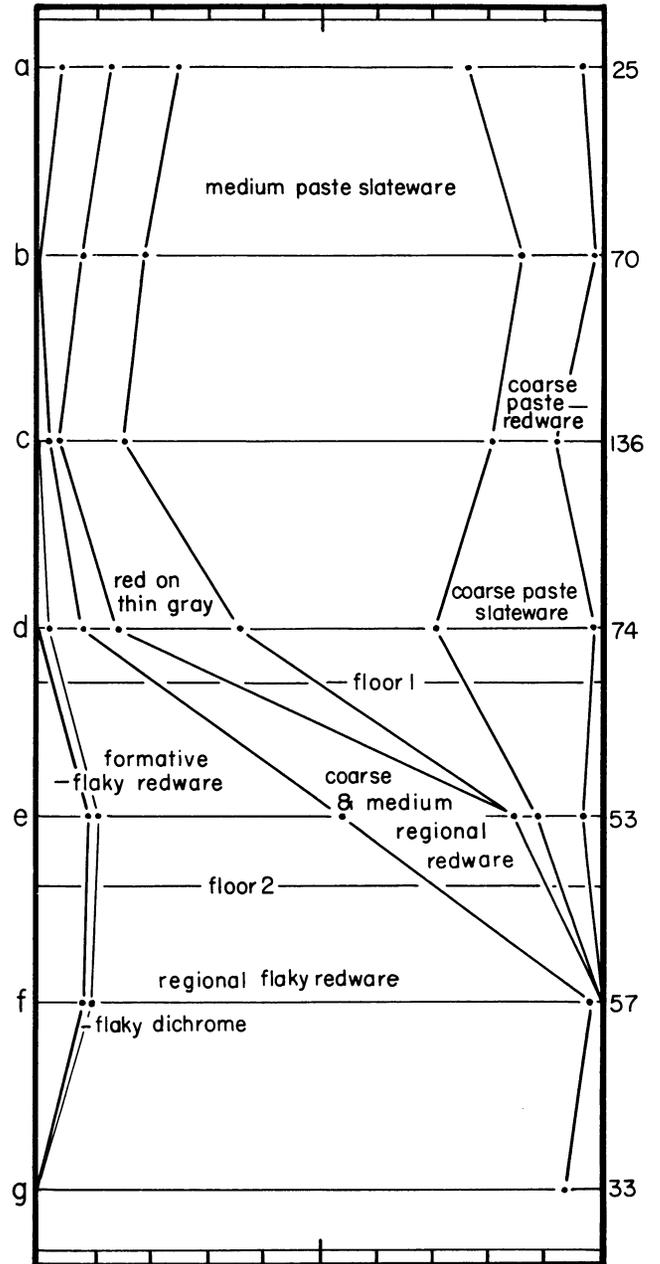


Chart 8. Acanceh, trench 5. Frequencies of slipped wares. New excavation cuts were begun at each floor level.

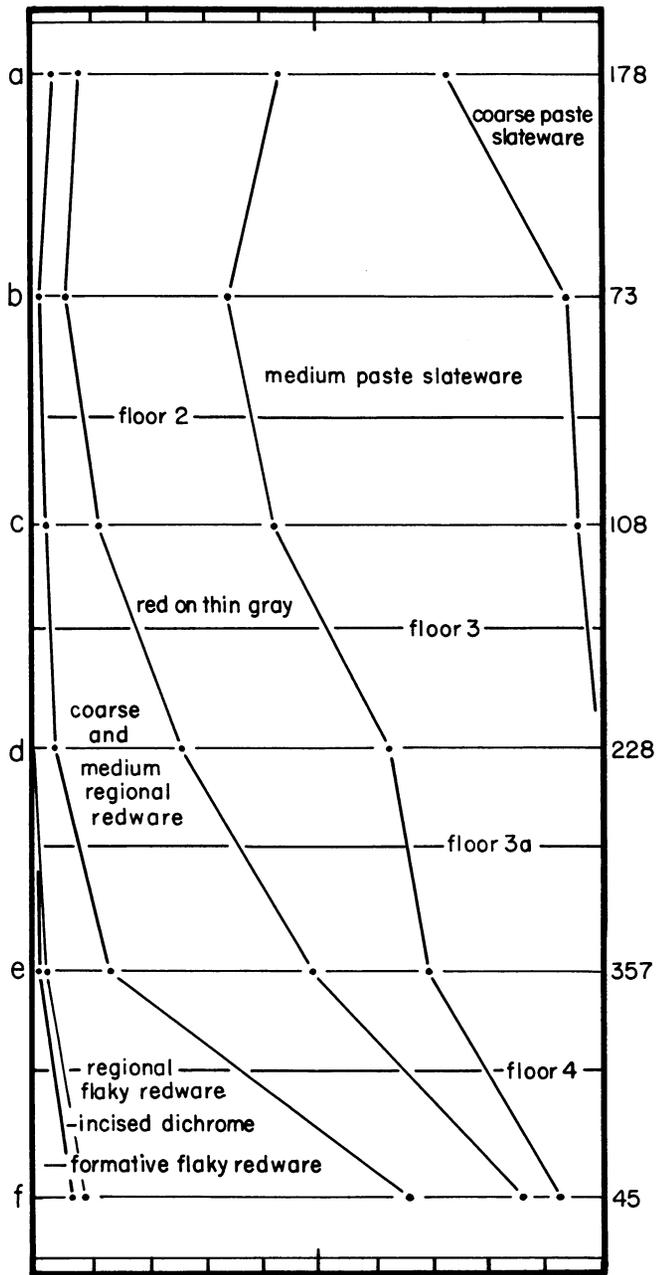


Chart 9. Acanceh, combined collections from trenches 8 and 1. Frequencies of slipped wares.

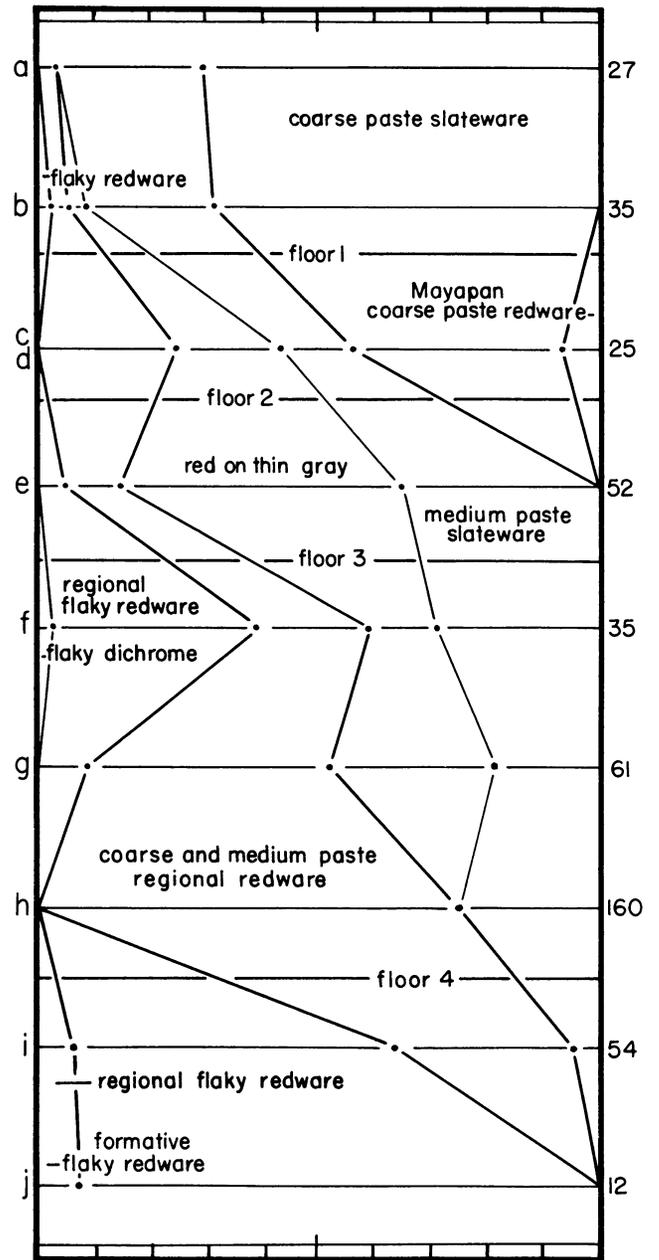


Chart 10. Acanceh, trench 3. Frequencies of slipped wares.

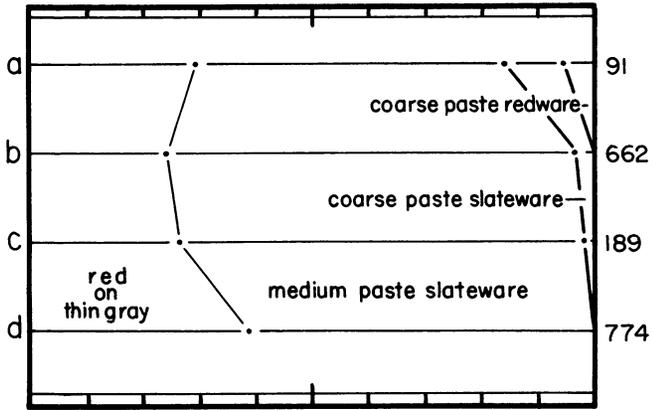


Chart 11. Acanceh, trench 13. Frequencies of slipped wares.

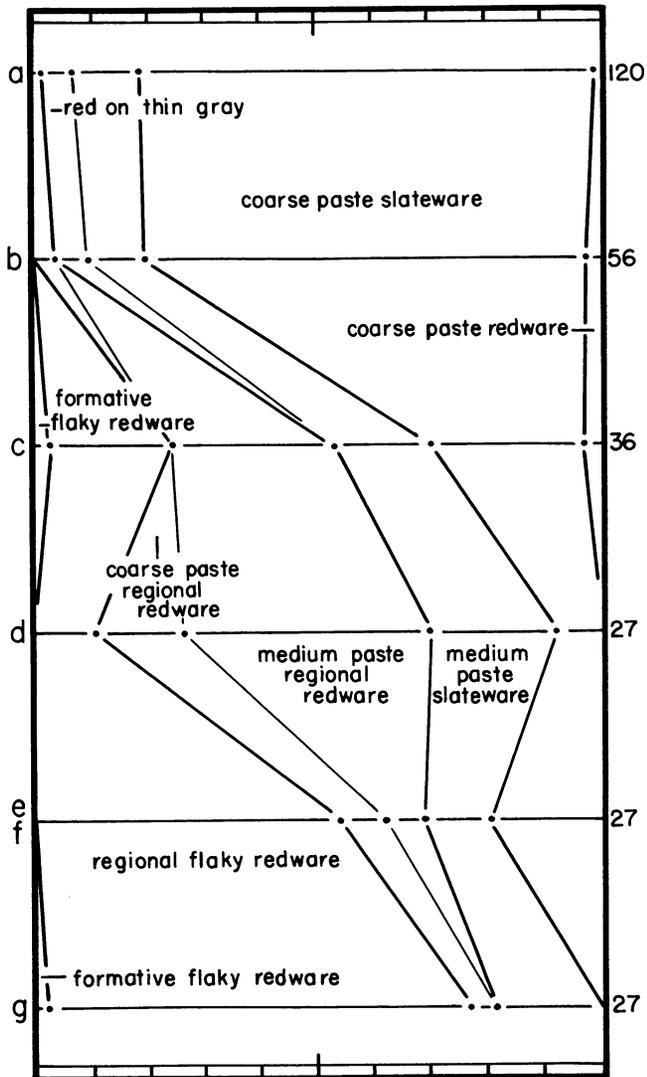


Chart 12. Acanceh, trench 4. Frequencies of slipped wares.

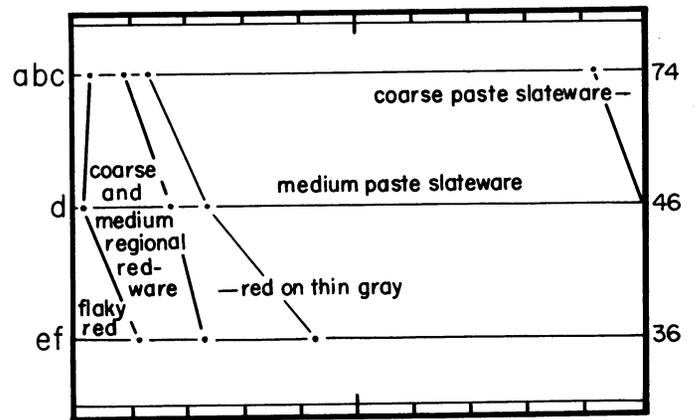


Chart 13. Acanceh, trench 16. Frequencies of slipped wares.

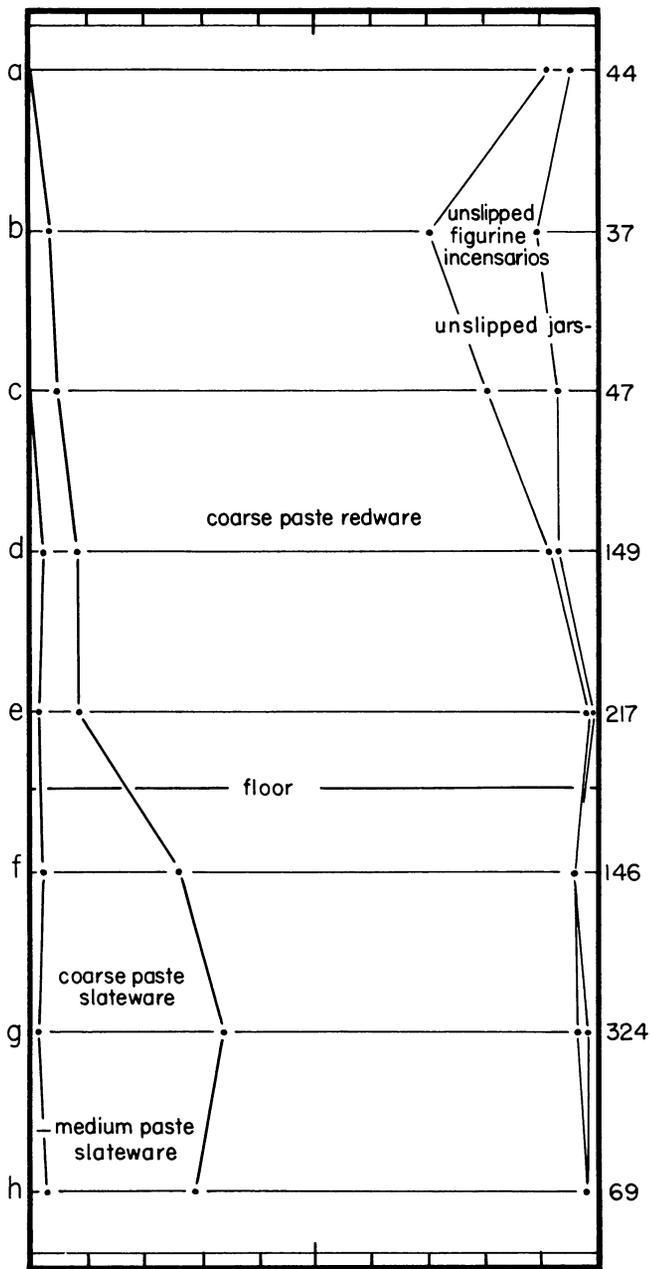


Chart 14. Mayapan, trench 7. Frequencies of slipped wares.

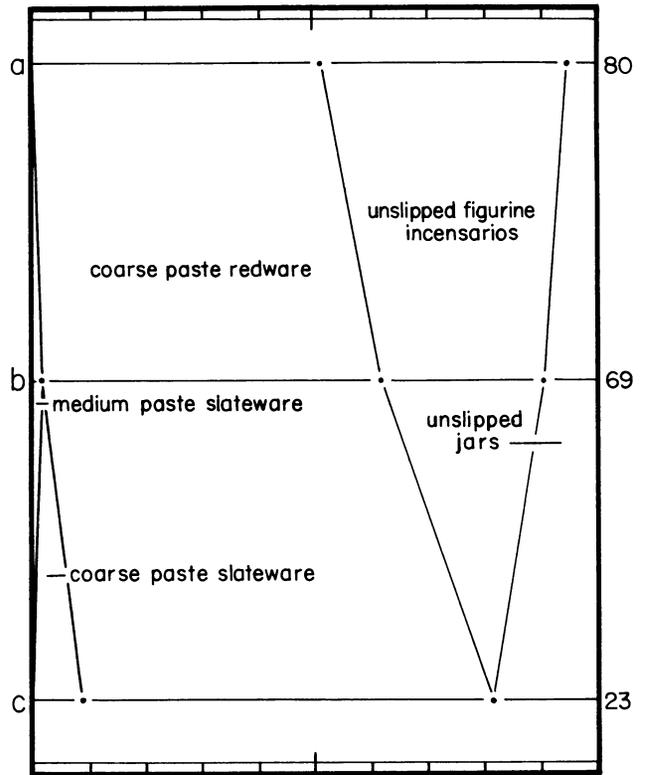


Chart 15. Mayapan, trench 6. Frequencies of major wares.

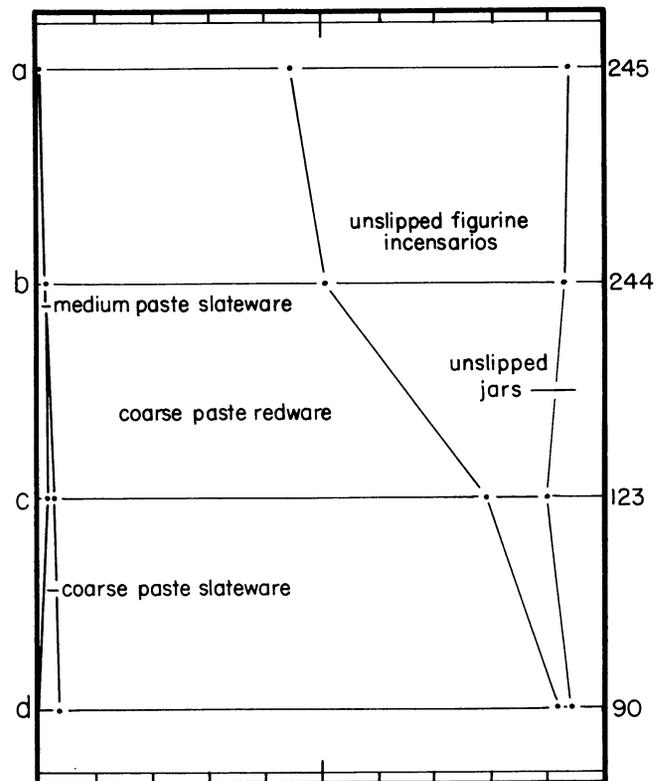


Chart 16. Mayapan, trench 5. Frequencies of major wares.

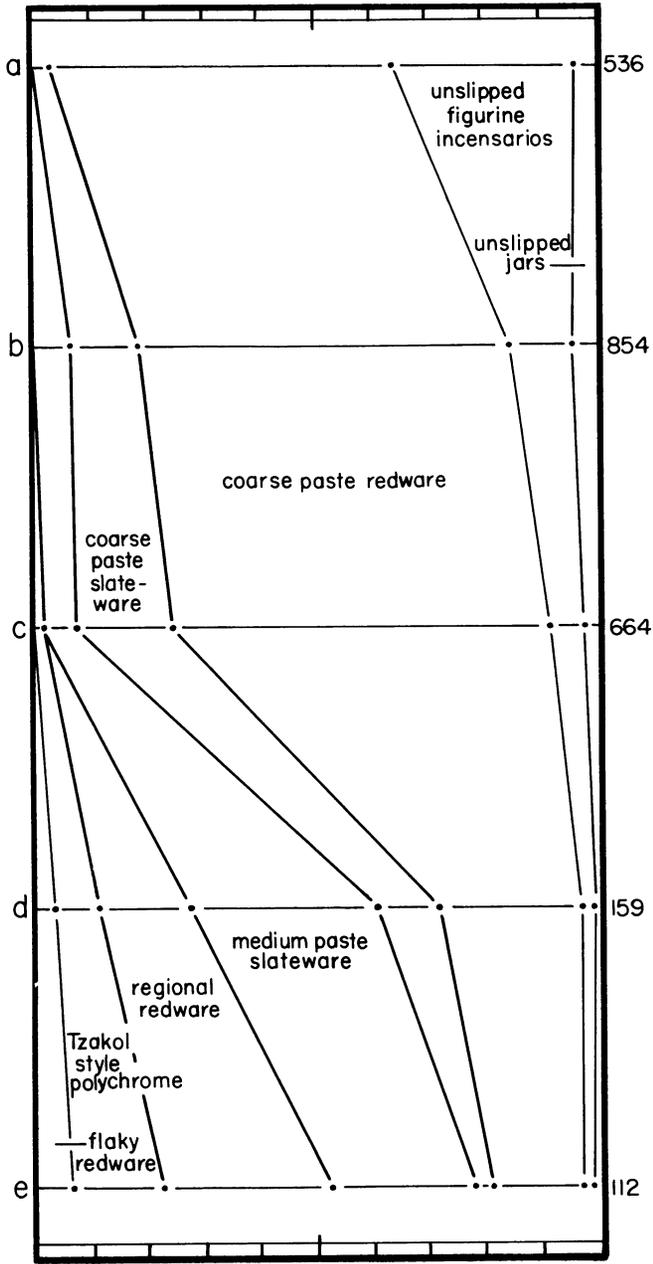


Chart 17. Mayapan, trench 2. Frequencies of major wares.

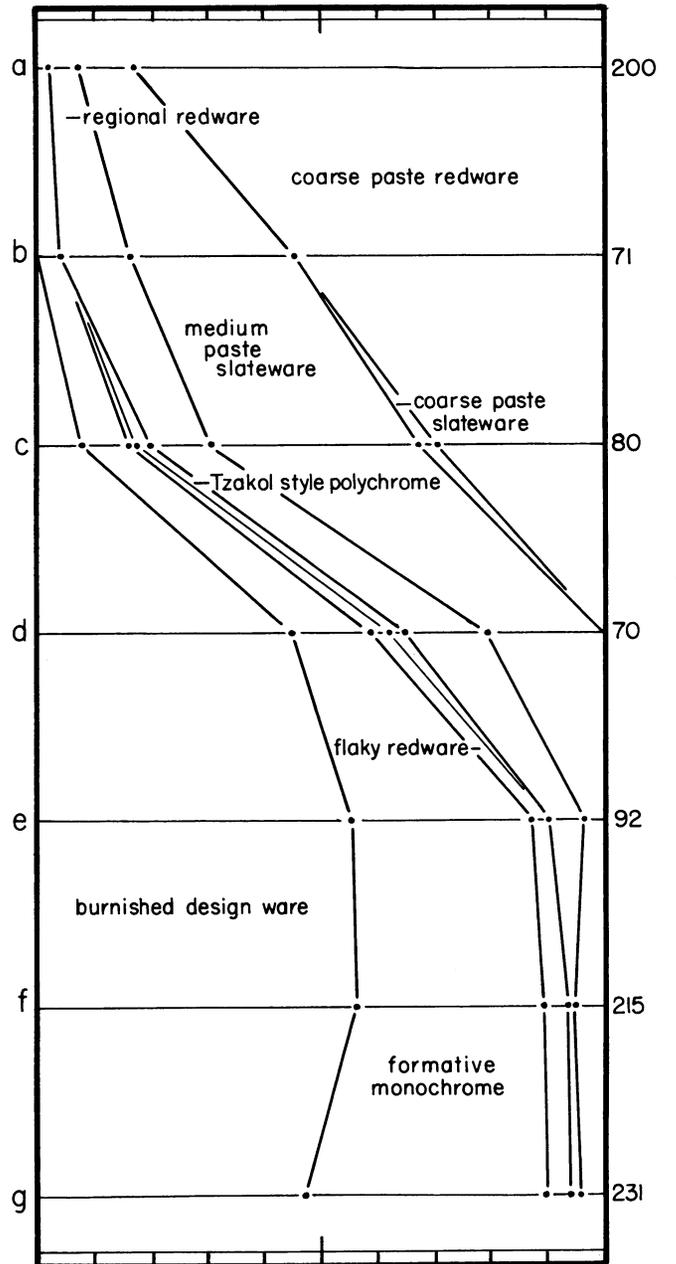


Chart 18. Mani, trench 4. Frequencies of slipped wares.

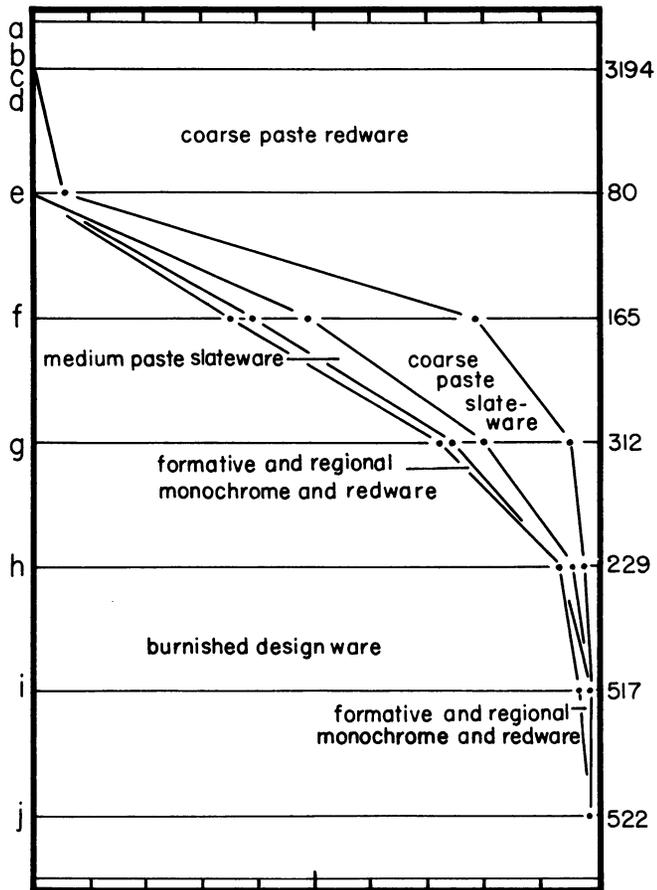


Chart 19. Mani, trench 2. Frequencies of slipped wares.

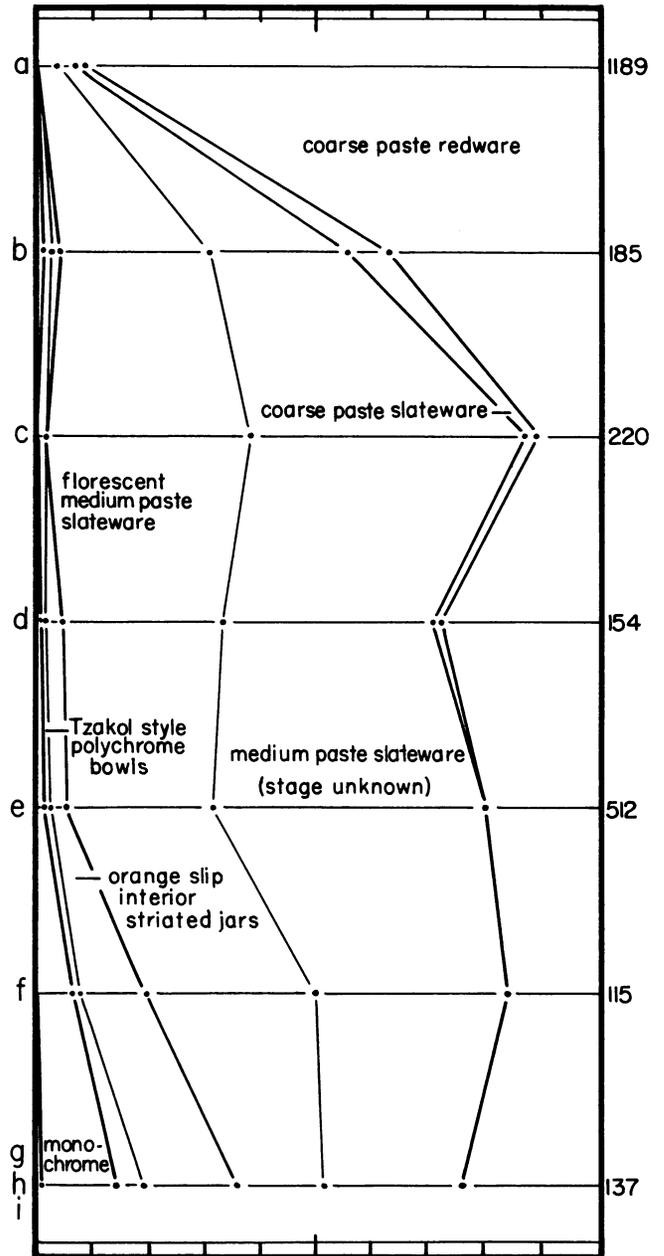


Chart 20. Mani, trench 12. Frequencies of slipped wares.

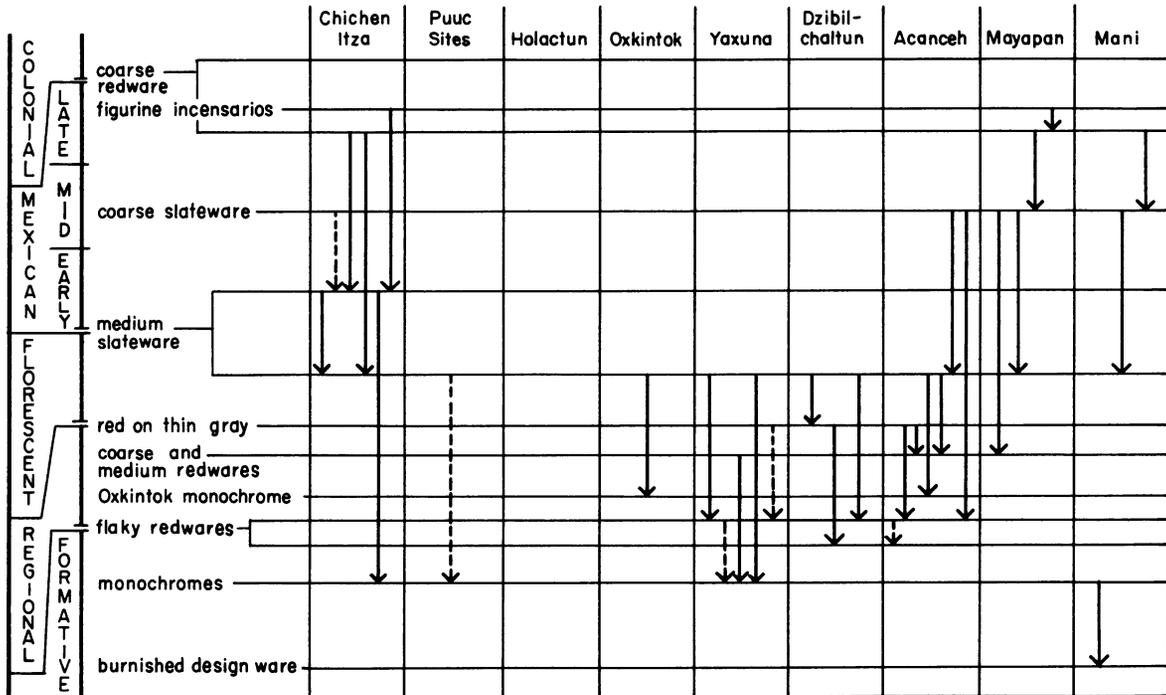


Chart 21. Stratigraphic placements in the Yucatán pottery sequence.

To the left are the stages which are characterized by the wares listed immediately to their right. Vertical scale and distances between wares have no significance in this graph. For chronology, see chart 22. Only wares which occur in large percentage in collections, and which have proved to be sensitive in dating, are included. Note that Coarse Redware, Medium Slateware, and Flaky Redware overlap on two stages each. In these cases form and decoration provide the means of determining the stage to which specimens belong.

Time sequence is arranged as in an excavation: late to the top of the chart. Sites are placed in the order of their excavation: first sites to the left. Each

arrow is drawn from a ware to another which it superceded or was in the process of superceding in the collections examined at the indicated site. Cases made uncertain by small or otherwise unreliable samples are indicated by dotted arrows. All of these cases save those of the first three sites shown are drawn from figures 1-11, and can thus be checked directly.

Few of these stratifications show complete replacement, most document trends. In general, as may be seen, the shortest arrows are the most significant, since they give the most accurate placements. Additional evidence for the placement of almost every ware shown here came from stylistic analysis or seriation studies. See text for a discussion of the relative reliability of the placements.

Chart 22. Ceramic evidence bearing on the Maya-Christian calendric correlation.

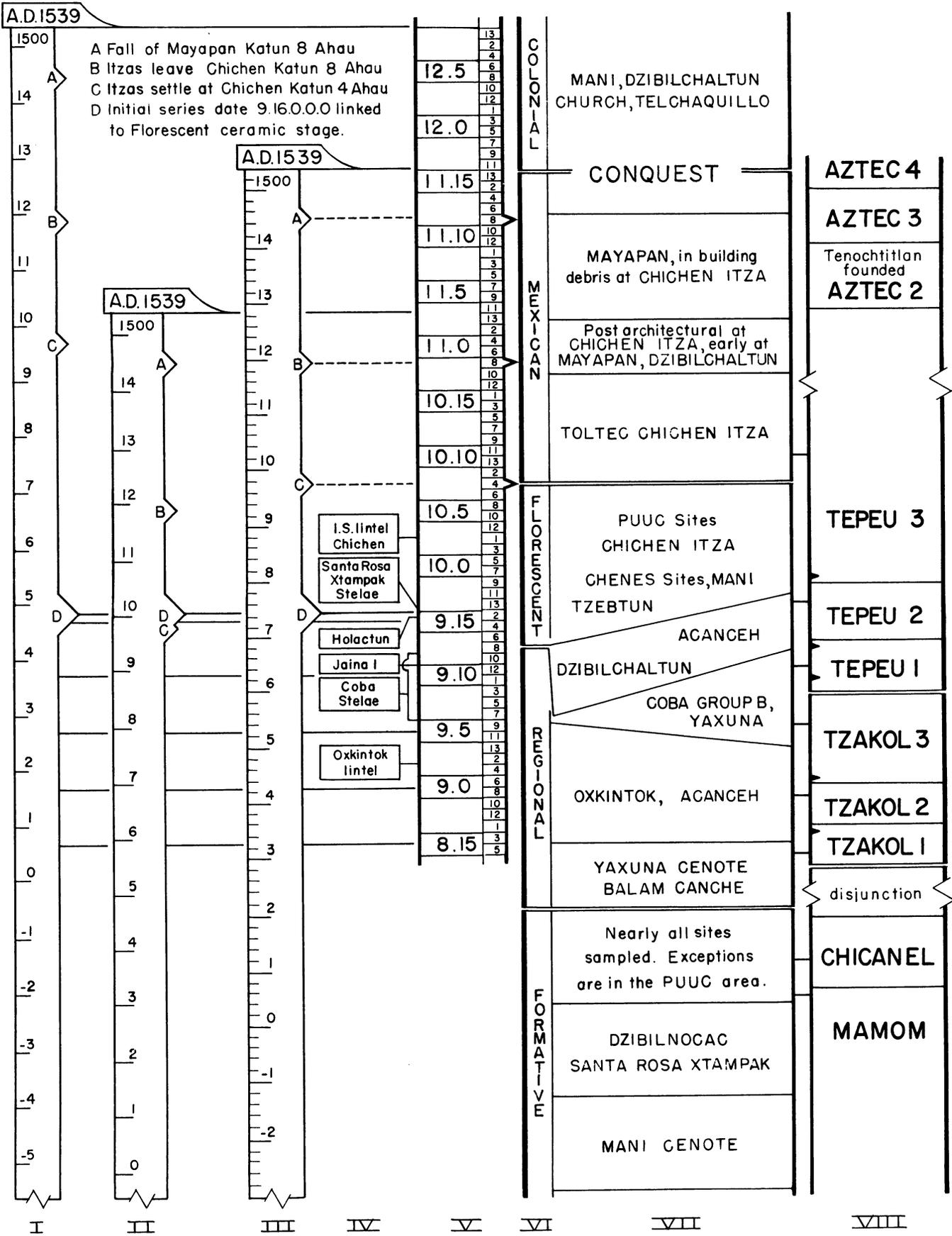
- Column I: 12.8.0.0.0, Spinden's correlation. Makemson (1950) has recently proposed a correlation very close to this.
- Column II: 11.3.0.0.0 correlation proposed for testing at various times by Vaillant, Thompson, Wauchope, Andrews.
- Column III: 11.16.0.0.0 (Goodman-Martinez-Thompson) correlation.
- Column IV: Initial Series dates of the northern Yucatán Peninsula. The three preceding columns are aligned with this to give Christian-Maya equivalents.
- Column V: Maya calendric scale by katuns. Baktuns and katuns are numbered; to the right is given the ahau coefficient of the ending date of each katun.
- Column VI: Ceramic stages for Yucatán.
- Column VII: Yucatán sites which have given the best ceramic samples for the time ranges in which they are placed.
- Column VIII: Top of column, Mexican sequence; bottom, Uaxactun ceramic sequence by phase and subphase. Black triangles show the chronologic location in the Maya calendar of Initial Series dates which were found in association with ceramics. These dates, save for 8.16.0.0.0 and 9.12.5.0.0, are specified with ceramic associations by A. L. Smith (1950, pp. 15-16, 86-87). The other two dates are from information generously supplied by R. E. Smith in advance of publication of his work on the ceramics of Uaxactun. Subphase boundaries are placed by the only feasible procedure: between the anchored collections. The writer is responsible for all errors and misjudgments; the sequence is attempted because of its great importance

for dating the Yucatán collections. Connecting lines between columns VII and VIII show Peten fragments in Yucatán collections, save the Tepeu 3 Early Mexican connection which is the presence of X Fine Orange at both Chichén Itzá and Uaxactun. Only the Tepeu fragments have been identified to Peten subphase. All dating before the beginning of the Maya calendar is at present mere guesswork. Newly published radioactive carbon dates (Arnold and Libby, 1950) suggest that the Valley of Mexico Formative stage began before 1000 B.C. According to these findings, Formative dates given here are far too conservative.

Points A, B, and C are after Thompson (1941). The events and their place within the Katun Round come from post-Conquest sources. Their spacing in time is the furthest compressed that is possible if they are arranged in the ceramically demonstrated order of occupation of Chichén Itzá and Mayapan.

Point D is taken as 9.16.0.0.0 Maya, known to be contemporaneous with the Chenes-Puuc occupation, which in turn is known to precede the Toltec Chichén Itzá occupation. Correlation of column I leaves a long space between points C and D; column II reverses C and D and is therefore stratigraphically unsound; column III gives the best offhand fit and has been therefore used in plotting columns VI and VII. Column I, the 12.9.0.0.0 correlation, remains a possibility, and it should be emphasized that if the katun ending dates are disavowed, the placements again become fluid.

The Central Mexican chronology given at the top of column VIII is Vaillant's, reinforced by the date of the founding of Tenochtitlan kindly supplied in advance of publication by Dr. Paul Kirckhoff from his recent studies of the Mexican chronicles. This chronology, as explained in the text, makes Aztec I fall nearly 200 years too late to fit the Yucatecan chronology.



	TEMPER			SLIP			PAINT		
	CALCITE	ASH	SHERD	WAXY	OPAQUE	FLAKY	TRICKLE	OPAQUE	ABSENT
Modern Redware	+				+		+	+	+
Colonial Redware	+				+				+
Late Mexican Redware	+				+				+
Middle Mexican Slateware	+				+		+		
Early Mexican Slate & Redwares		+		+	+		+		
Florescent Slate & Redwares	+	+		+			+		
Holactun Slateware			+	+		?	+		
Red on Thin Grayware	?				+				+
Regional Redwares	+	+			+				+
Oxkintok Monochromes	+				+			+	
Flaky Dichrome	+					+		+	
Trickle on Flaky Redware	+					+	+		
Formative Flaky Redware	?					+			+
Formative Monochromes	+	?	+	+	+		+		

Chart 23. Occurrence of various types of temper, slip, and paint through time in the slipped pottery of Yucatán. Wares are arranged chronologically, early wares at the bottom of the chart.

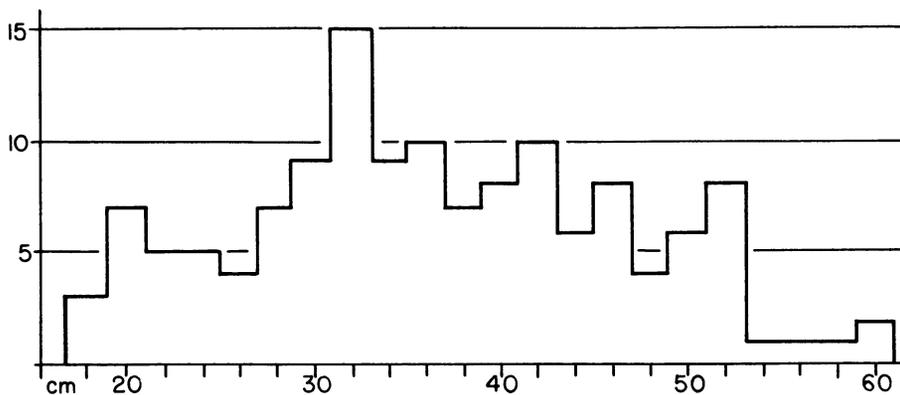


Chart 24. Diameter range of the Florescent Medium Slateware basin rims illustrated in this report.

## PLATES

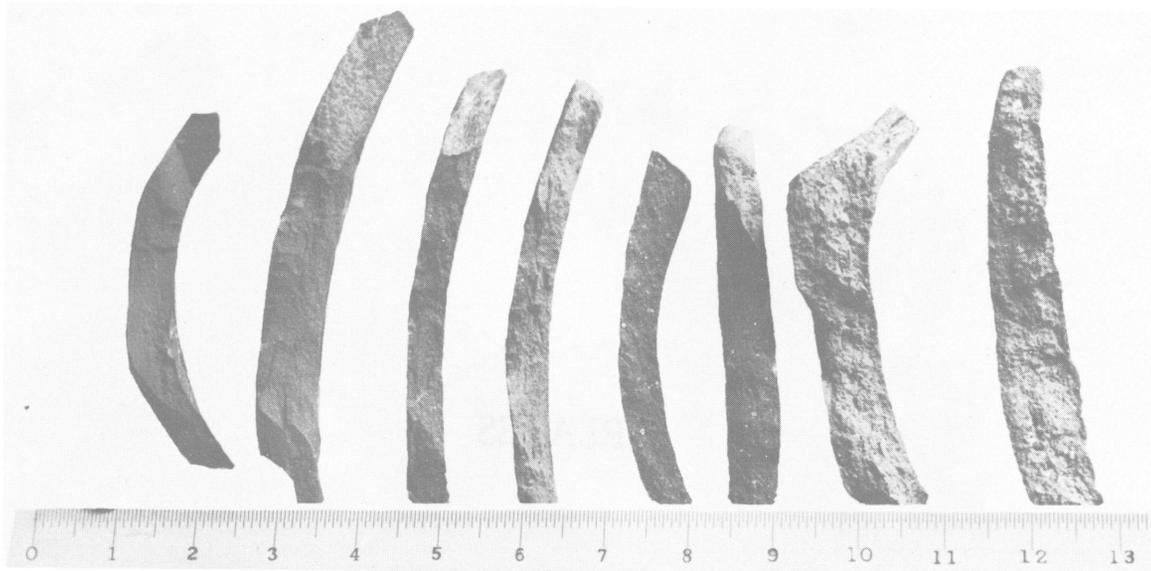


Plate I. Upper: Textures of potsherd fractures. Full size. Left to right 1, 2: Fineware; 3, 4: Thinware; 5, 6: Mediumware; 7, 8: Coarseware. 1, 2 contain no temper.

Lower: Modern water jar made at Tepekan showing red and black paint on buff clay, and a jar made at Becal which shows the exceedingly even fillets and incised lines which can be made on a kabal.



Plate II. Sequences of moving picture frames showing kabal forming. Taken at Becal, Campeche. Lines 1, 2, coiling the pot. 3, 4, expanding and thinning the walls. 5, adding the neck. 6, forming the neck. The kabal is spun in the pictures of line 6.

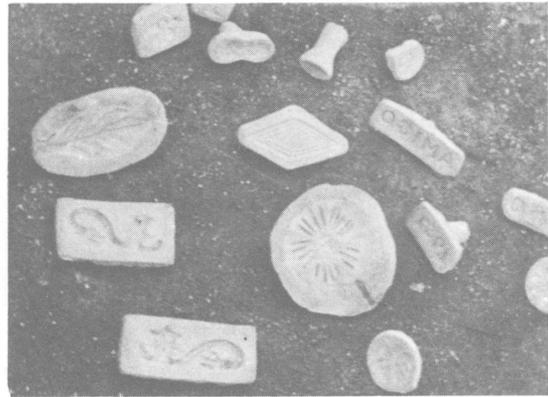
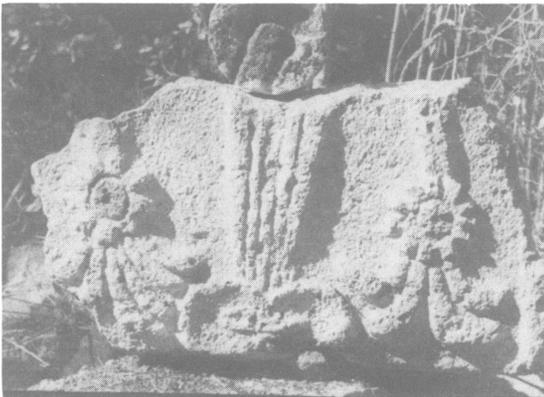
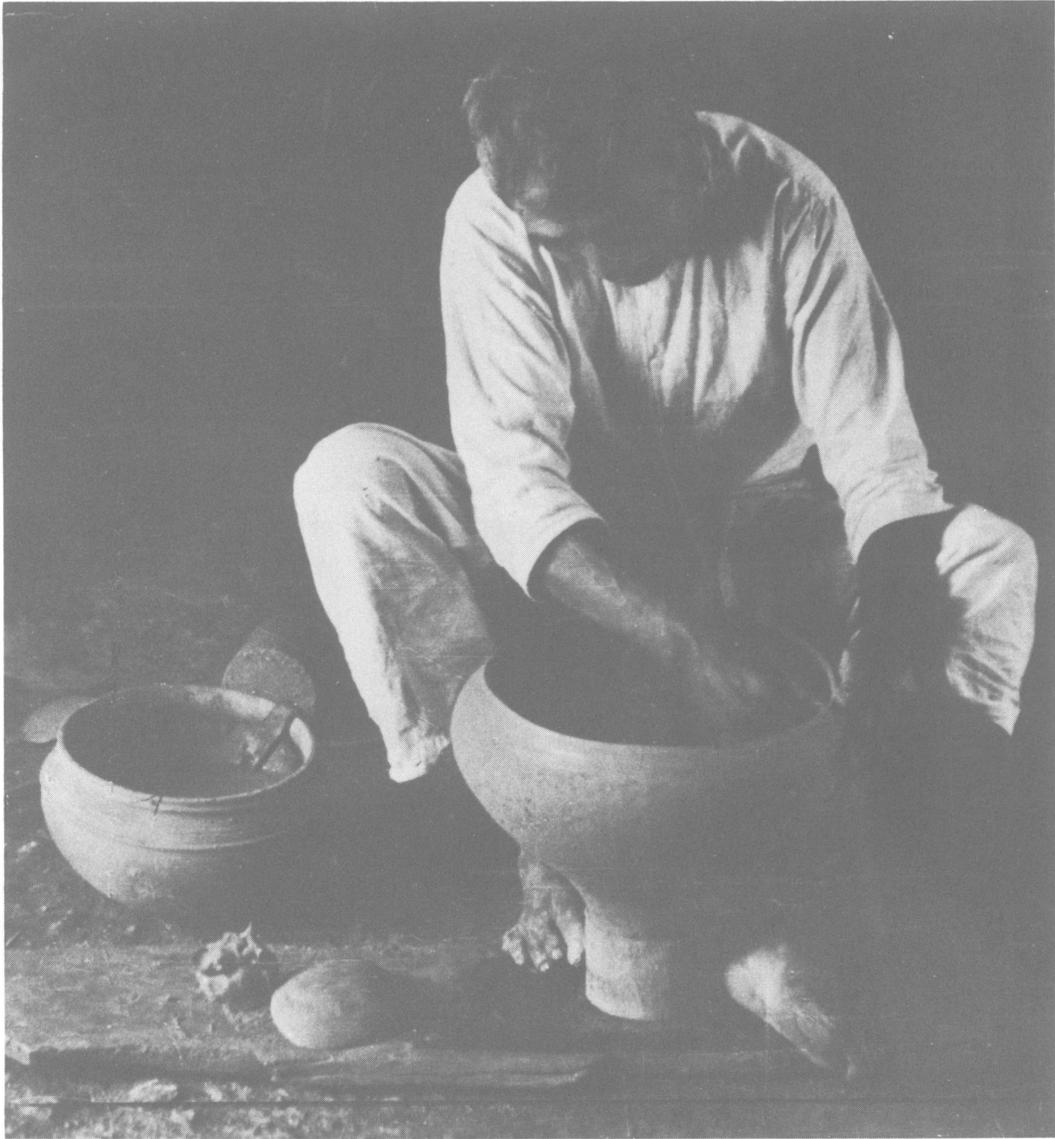


Plate III. Upper: Finishing the forming of a vessel on the kabal. Note bowl with kabal-formed molding to the left, and leather strip used for finishing the rim.  
Lower left: Carved stone at Dzibilchaltun, probably of Early or Middle Mexican substage.  
Lower right: Pottery stamps at Becal.