REGIONAL DEVELOPMENT IN THE TAYASAL-PAXCAMAN ZONE, EL PETEN GUATEMALA: A PRELIMINARY STATEMENT

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ABSTRACT

The ongoing University Museum Tayasal Project has made several important discoveries during the course of its investigations. A preliminary statement concerning the ceramics recovered from the excavations and reconnaissance in the Tayasal-Paxcaman zone is presented here. One focal point is the newly defined pink Trapeche Ceramic Group. The Trapeche group appears to be transitional from the Terminal Classic to Postclassic and it contains the tradeware Dolorido Cream-polychrome. Definition of this ceramic group provides a more complete understanding of the Terminal Classic-Postclassic interface in the southern Maya Lowlands.

INTRODUCTION

The central Peten region of Guatemala contains a series of lakes lying on an east-west faultline in an area of karst topography. Lake Peten-Itza is the largest lake in the Peten; its shores and environs are dotted with a multitude of pre-hispanic ruins. The lake itself is approximately 110 meters above sea level with the land around the lake occasionally rising to heights of 200 meters and more. Although rainforest occurs on the Tayasal Peninsula, some parts of it are drier and more "desicated" than the rainforest habitat of Tikal to the north; these drier areas are characterized by the many savannas existing on the peninsula (see Lundell 1937, Wagner 1964, and U. M. Cowgill 1962 for amplification). The Tayasal-Paxcaman zone corresponds to the area of land south of the northern arm of Lake Peten-Itza and north of the extensive karst topography to the south of Lake Peten-Itza (see Figs. 1 and 2).

From ethnohistoric accounts, it was believed that the Lake Peten area, and specifically the site of Tayasal, would manifest many Late Postclassic (post A.D. 1450) remains. As the Postclassic is not adequately defined for the central

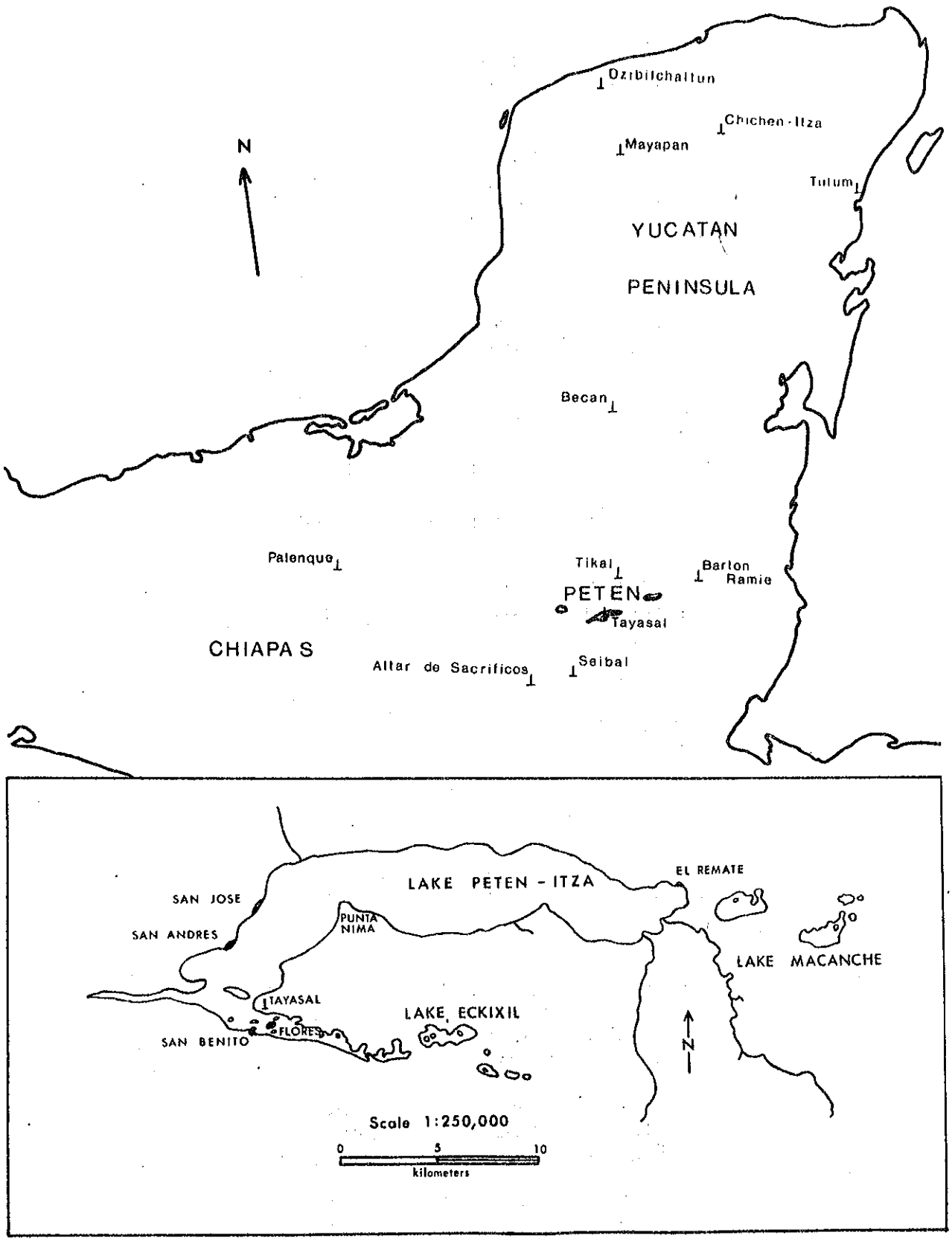

Figure 1. Map of the Maya Lowlands with an inset of Lake Peten-Itza. Lake Eckixil is also spelled Lake "Quexil."

Peten of Guatemala, archaeologists have felt that a vacant part of "Maya" history could be filled in through excavations in the vicinity of Lake Peten-Itza. Intermittent excavations and surveys produced sporadic Postclassic material; a majority of the remains recovered were representative of populations earlier than Postclassic. Little is actually known about the Tayasal Peninsula and Lake Peten-Itza, in spite of the attention paid to the archaeology of this zone (see Guthe 1921, 1922; Morley 1937-38, Vol. 3, pp. 425-438; Berlin 1955, Borhegyi 1963, G. L. Cowgill 1963, Chase 1976). In an attempt to rectify this situation, the University Museum undertook excavations on the Tayasal Peninsula in 1971.

The Tayasal-Paxcaman zone presents an almost continuous occupation within a 70 square kilometer area and contains four large centers--Tayasal, Cenote, Paxcaman, and Yalnon; none of them have substantial standing architecture or sculptured monuments. In addition, smaller sites exist in the zone such as Quexil, El Joboito, Yachul, Chaltun Grande, Chaja, Michoacan, and Naranjal (see Fig. 2). The 1971 University Museum excavations and a 1977 reconnaissance of the peninsula area yielded a continuous archaeological record from Preclassic to Postclassic, an extraordinarily long occupation for the Maya lowlands.

University Museum Excavations--1971

The University Museum excavations at Tikal were closed in 1969, giving Mayanists much data pertaining to the Preclassic and Classic periods (see Coe 1962, 1965), but relatively little information pertaining to the Postclassic (see Adams and Trik 1961 for this data). Finding more substantial Postclassic remains was one of the principal reasons for planning research in the Lake Peten region in 1971. These excavations, directed by W. R. Coe of the University Museum, were planned to concentrate on four sites located on the Tayasal Peninsula: (1) the site of Tayasal located on the western tip of the peninsula; (2) the site of Cenote (Kilmar-

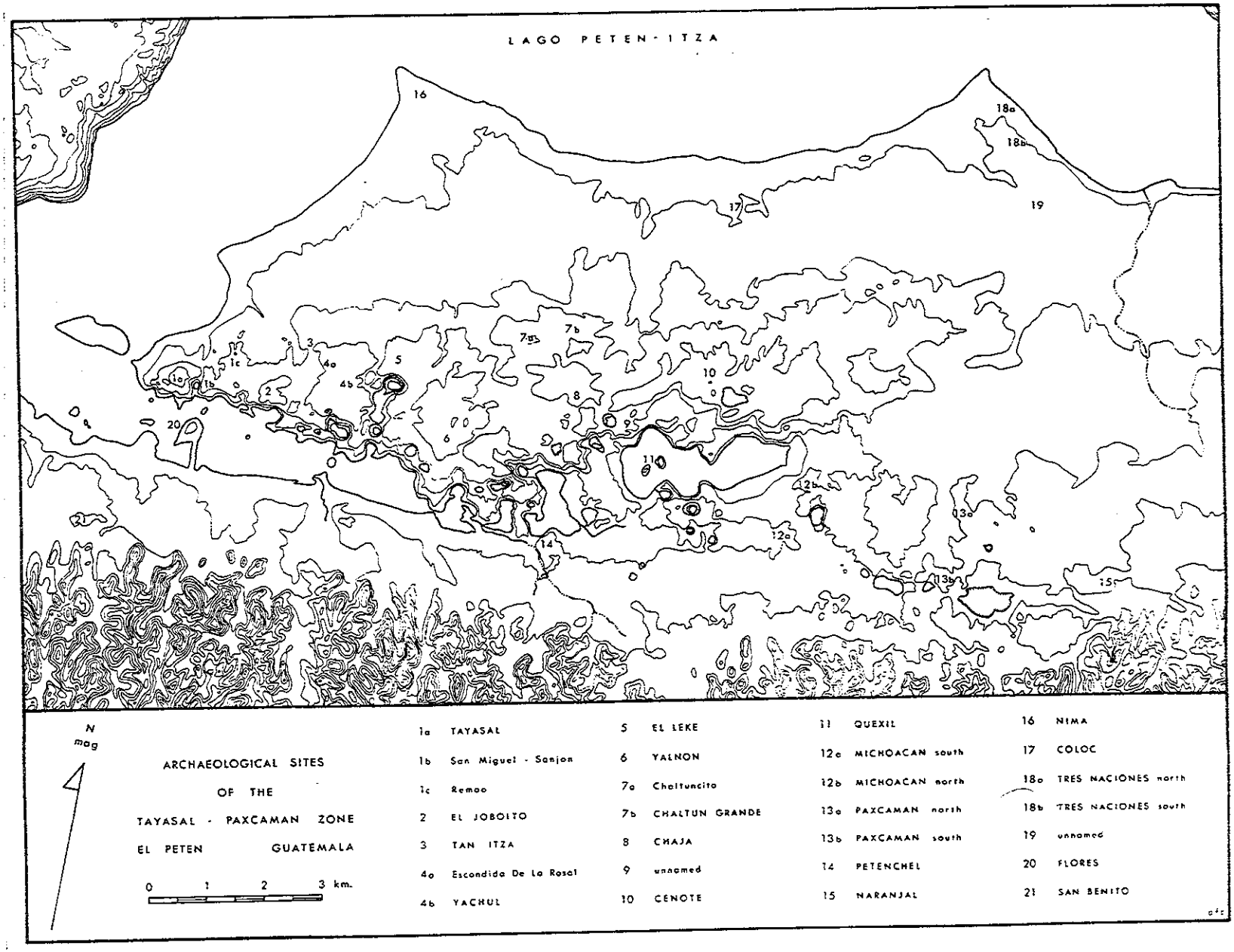

Figure 2. The Tayasal peninsular area showing distribution of sites examined by the Tayasal Project in relation to contour elevations.

tin's Senoti in Morley 1937-38, Vol. 4, p. 357) centrally placed in the peninsula and about eight kilometers east of Tayasal; (3) the site of Yachul about three kilometers east of Tayasal and five kilometers west of Cenote; and (4) the small site of Nima, five kilometers north of Yachul, where Postclassic censer material had been found (G. L. Cowgill 1963: 49-52).

Extensive trenching and test-pitting were conducted from May through August of 1971 by a dozen individuals and forty workers. A total of 46 structures were investigated, most of them by axial trenches, along with over 210 test-excavations. During the course of the excavations 51 burials and 12 caches were found. Over a thousand lots were defined that are pertinent to these investigations.

As a result of the University Museum excavations, the sites of Tayasal and Cenote were found to essentially date to the Classic period (A.D. 200-900) of Maya prehistory, although Postclassic occupation existed just above the level of the lake shore. Two Postclassic domestic dwellings near Tayasal were completely excavated. Other Postclassic structures, one of them quite sizable, were found in the vicinity of San Miguel. Little Postclassic data was recovered away from the lake shore. No clear evidence was obtained for a re-use of Classic period structures by Postclassic peoples, perhaps because of the non-probabilistic sampling strategy used. Although several authors (Morley and Brainerd 1956; Means 1917; Thompson 1951, 1966, 1970) postulated the existence of large Postclassic centers in the central Peten, none were readily evident from the Tayasal excavations.

The 1977 Research

A program of reconnaissance and laboratory work was conducted during the summer of 1977 with funding from the University of Pennsylvania Anthropology Department. Several unmapped major peninsular centers were located, adding to our knowledge of the existent variation in archaeological

remains in the Tayasal-Paxcaman zone. Maps were made of Nima, Tres Nacciones, Michoacan, Paxcaman, the two islands in Lake Quexil, eight islands in Lake Peten, and various previously unmapped portions of Tayasal. Detailed maps of Tayasal and Cenote were produced in 1971. The new finds substantiated the conclusion that most of the remains were located on the higher ground of the southern portion of the peninsula (see Fig. 2). Surface collections combined with mapping data provided new information on the density and distribution of ancient settlements and the continuity of their use through time.

Laboratory work in 1977 completed the recording of data resulting from the 1971 excavations. Information from a preliminary skeletal analysis made in that year contrasted with the earlier data presented by Evans (1973). An initial analysis of the pottery verified finds made in 1971 suggesting that Postclassic remains in stratified situations existed for Tayasal, San Miguel, Punta Nima, and Flores and that the site of Cenote dated primarily to the Early and Middle Classic periods. In addition, at the site of Tayasal an almost continuous sequence from Preclassic to Postclassic was represented distributionally over the site and the Postclassic overlay exhibited surprising continuity with the Terminal Classic material. The islands in Quexil were occupied in the Terminal Classic with no evidence for a Postclassic occupation. Michoacan was an anomaly in the region, dating to the true Late Classic based on material recovered from looter's excavations; it had a different settlement pattern from other sites in the zone. Paxcaman appeared to be an Early and Middle Classic center and was larger in area than the seemingly contemporaneous site of Cenote.

PRELIMINARY SUMMARY OF THE TAYASAL CERAMIC SEQUENCE

The Tayasal collections include a complete range of

artifactual material and a ceramic collection presently consisting of over 70,000 sherds and 130 complete vessels. Although the burial materials are largely Classic in date, the sherd collections are mainly Preclassic and Terminal Classic-Postclassic in date. Based on the 1977 preliminary ceramic analysis, it is possible to outline the culture-history of the Tayasal-Paxcaman zone. The Tayasal material is presented using terms first defined in Smith's (1955) pioneering ceramic report for Uaxactun (see also Willey, Culbert, and Adams 1967); upon completion of a formal type-variety analysis of the Tayasal-Paxcaman material, an independent chronological framework will be established.

Preclassic

Although G. L. Cowgill (1963: 17) notes the existence of Mamon on Flores, Manom and Xe pottery (Adams 1971), or its equivalent, has not yet been recognized in the Tayasal collections with the possible exception of one whole vessel. This vessel is a monopod and as such represents one of the few found in the Peten; it may be reminiscent of monopods found in northern Yucatan in Ball's (1977b: 169-172) Cienaga Phase. Both Chicanel and Floral Park (Gifford 1976) ceramic sphere materials are present in the Cenote and Tayasal excavations, but the exact relationship between the two spheres for the peninsula is not yet understood. With further research it may be possible to divide Chicanel into two different facets based on the stratigraphy present at Tayasal; these two facets would seemingly be based on different lines than those used at Tikal, according to Culbert.

It should be noted also that if one has no established chronological sequence, the suspicion that Preclassic Chicanel led directly into a Terminal Classic--Postclassic horizon would find much support in the Tayasal data. This material clearly indicates that a close relationship exists between Preclassic and Postclassic settlement and subsistence patterns. The Classic period models of settlement patterns do not fit

the Preclassic and Postclassic data from Tayasal; much of this data emerges from what may be termed "vacant terrain" investigations (see Bronson n.d. for comparative data from Tikal).

Early Classic

There is an apparent lack of Tzakol 1 and 2 material in the Tayasal data as well as a basic absence of the horizon marker Dos Arroyos Orange-polychrome (Gifford 1976: 173-182), although Tzakol 3 is well represented. This absence of Tzakol 1 and 2 material may not be due to "sampling error" or to "abandonment," but rather to the archaeologist's preconceived time frame. Tzakol 1 and 2 time periods were defined for the site of Uaxactun in Smith's (1955) original ceramic work, but it is possible that the two time periods or phases are illusory. All three Tzakol facets have not generally been recognized at other sites such as Seibal, where their absence is viewed as a product of site abandonment during this time period (Sabloff 1975: 9, 232-234). Tzakol 1, 2, and 3 may, in fact, represent (a) slightly different temporal frames, (b) slightly different social segments and their burial practices, or (c) spatial differences as represented in the concept of "ceramic sphere." Whatever the case, Tayasal appears to have partially separated itself from the Maya mainstream during the Early Classic period.

Middle Classic

The peak period of occupation in the Tayasal-Paxcaman zone seems to have been during the "Middle Classic." The largest structures and the majority of structures visible on the surface are Middle Classic in date or earlier. The Tzakol 3-Tepeu 1 time period is perhaps one of the intervals of densest population on the Tayasal Peninsula, when large centers were represented at Yachul, Chaltun Grande, Cenote, Paxcaman, and in the northern part of Tayasal. While most surface maps of Maya sites such as Tikal (Carr and Hazard

1961) evince a "Late Classic" pattern, the Tayasal Peninsula surface maps evince a generally "Middle Classic" pattern.

Late Classic

Rathje (1973: 418) states: "Although the nature of many of the demographic differences through time is unclear, there is evidence that Late Classic population levels exceeded Preclassic and Early Classic levels." For the Tayasal area at least, this statement does not apply, as the Late Classic period is a time of definite decrease in population. Late Classic artifacts are relatively scarce and come from small structure contexts; Terminal Classic material, however, is widespread in surface deposits. Most of the building groups along the inland spine, where savanna areas now exist, show little evidence of Late Classic occupation. Excavation revealed that substantial monumental architecture was erected only at the site of Tayasal after the Middle Classic, and, even here, the construction activities were minimal. This contrasts with the pattern generally evident at other sites in the central Peten. As noted for stelae-bearing centers, the Tepeu 2 ceramic complex, although seemingly rare, may be amply represented at the centers of Michoacan and Quexil. Michoacan had Tepeu 2 materials in its architectural fills. The site differs from all other sites on the peninsula both in plan and architectural technique. Michoacan has many frontal-terraced structures and it is possible to see the remains of low walls on the surface. Whether the site is Tepeu 2, Tepeu 3, or later in date cannot be ascertained at present. Quexil, in close proximity to Michoacan, has Tepeu 3 related ceramics on its surface, but some of its construction may be Tepeu 2 in date. Much of the material and the structures excavated by Guthe in 1921 and 1922 at Tayasal date to the Late Classic period.

Terminal Classic

The Tepeu 3 ceramic complex is only now beginning to be understood by Maya ceramicists. The Tayasal data should

provide a complete definition of a temporally equivalent complex as the central Peten appears to be heavily populated during the Terminal Classic period. An integral part of the Tayasal Terminal Classic complex are the large incurving bowls noted at Seibal by Sabloff (1975: 160-173, 179-181) and at Altar de Sacrificios by Adams (1971: 22-23, 44, 47-48); the Tayasal material may answer many of the questions raised by Sabloff (1975) concerning the temporal relationships among the recognized types of Tepeu 2-3 large incurving bowls.

In the past, Tepeu 3 has been defined only for sites with stelae and, even then, largely on the basis of the appearance of foreign finewares. The complex is also linked to the cessation of traditional Maya at these stelae-bearing sites. At Barton Ramie, a nonstela site, Gifford (1976) could see few differences between Late Classic (Tepeu 2 equivalent) and Terminal Classic (Tepeu 3 equivalent) complexes and thus combined them in the Spanish Lookout ceramic complex. At Tayasal, Pabellon, Sacaba, and other typically Tepeu 3 markers are largely lacking, but Lombriz Orange-polychrome is present and in association with "Tepeu 2" form bowls in several contexts; Lombriz Orange-polychrome is of the Classic Maya tradition and occurs in the Bayal complex at Seibal, where it is linked with the occurrence of a foreign elite. What is presently thought of as the "Tepeu 3 Ceramic Complex" may not be representative of a "time period," but only of the appearance of foreign finewares <u>differentially</u> at Classic Maya sites. The Tepeu 3 "ceramic complex" supersedes the typical Tepeu 2 complex at larger Peten stelae-bearing sites; Tepeu 3 is also represented at these centers by monochrome redware and blackware (Culbert 1973; Smith 1955). At more remote centers like Tayasal, however, there was probably little disturbance of the local regional complex except for the introduction of Lombriz Orange-polychrome and a few other wares. Interestingly, it may further be hypothesized that

much of what is presently noted as Tepeu 3 non-finewares at other centers may, in fact, result from a regionalized development during the Late Classic period in the central Peten area. This would then explain the marginal appearance of "true" Tepeu 2 material in the Tayasal-Paxcaman zone; the situation for the Late-Terminal Classic period in this area probably replicates, to some degree, that at Barton Ramie. In ceramics, close resemblances may be seen to the later Seibal material (Sabloff 1975).

A local polychrome tradition may have continued unchanged beyond the effective lifespan of the Tepeu 3 complex in the Tayasal area. There is some evidence in the Punta Nima collections that Postclassic-like scroll designs occur on typically Late Classic vessel forms, and apparently similar evidence is also found at Piedras Negras (Butler 1935, Plate III-1). In spite of the relative lack of fine paste wares or imitated versions of these paste wares on the Tayasal peninsula, the site of Tayasal has a relative abundance of plumbate (Shepherd 1948) compared to Seibal, Tikal, and Uaxactun. This may indicate that the Tayasal area participated in a different system of relationships than those represented by the "lowland" fine orange ware and fine gray ware traditions commonly found at Altar de Sacrificios, Seibal, Tikal, and Uaxactun.

Classic to Postclassic: Continuities

Evidence for continuous occupation from Classic to Postclassic was found at Tayasal. Although there is some indication of a Postclassic reoccupation of abandoned earlier domestic houseplots, there is no sign that Postclassic peoples made any use of Classic period temples as is reported in Belize (Hammond 1977: 58). Continuity between Classic and Postclassic times exists both in the stratigraphic relation of structure 100 to the site core and in the overall group plan of this central part of Tayasal, which reveals the same plaza plan that is in evidence at Cenote and Paxcaman. A burial pattern has

also been established that shows a definite continuity from Classic to Postclassic. This burial pattern occurs in "Postclassic" core units and consists of an extended burial, head to the south, with one killed "Late Classic" bowl in each burial. A cached plumbate vessel in Structure 119 of Tayasal is also tentatively placed in this transitional period.

Perhaps the most important evidence to emerge from the excavations suggesting that there was continuity from Classic to Postclassic at Tayasal is the recognition of a new ceramic group, referred to as the pink Trapeche Ceramic Group (see Figs. 3 and 4, Table 1, and Appendix 1). This group is basically a part of the Postclassic creamware tradition with Paxcaman type paste. The Trapeche Ceramic Group contains most of the typical Postclassic forms and continuities definitely exist with the Paxcaman Ceramic Group. One Trapeche group bowl (Fig. 4e) has been identified by J. Ball and myself as Dolorido Cream-polychrome (Ball 1977: 81), a type dating to the early Xcocom Phase (Terminal Classic) at Becan. Previously, Dolorido Cream-polychrome was known only as a Terminal Classic Yucatecan tradeware occurring at the sites of Becan, Edzna, and Dxibilchaltun. Based on the large number of domestic jars and plates in the pink Trapeche Ceramic Group (which definitely includes Dolorido Cream-polychrome), a Peten origin for this Terminal Classic Yucatecan tradeware is warranted. The association of this tradeware with Terminal Classic Yucatan also increases our knowledge of Terminal Classic-Early Postclassic relationships by raising the possibility that the two are contemporaneous time periods or at least overlapping or sloping ceramic spheres. Gifford (1976: 272-273) noted the existence of a "Yaha" creamware group (100 sherds) from Barton Ramie that he placed in the Spanish Lookout Phase; the paste and forms differ considerably from the Tayasal "Postclassic" creamware group, but provide a possible antecedent. Sabloff (1975: 221-222) has one creamware bowl from a Bayal Phase burial. The Tayasal Trapeche group occurs

Table 1

Postclassic Central Peten Red-slipped Ceramic Groups

Trapeche Ceramic Group (pink)

*Trapeche Light Gray Paste Ware

*Trapeche Pink: Trapeche Variety
*Xuluc Incised: Xuluc Variety
*Xuluc Incised: Tan Variety
*Mul Polychrome: Mul Variety
Dolorido Cream-polychrome: Dolorido Variety
(Droga Red-on-cream: Droga Variety ?)

*Trapeche Red-brown Paste Ware

*Trapeche Pink: Halal Variety
(Zanahoria Scored: Zanahoria Variety ?)

Augustine Ceramic Group (red)

Augustine Red-orange Paste Ware

Augustine Red: Augustine Variety
Ramsey Incised: Ramsey Variety
Mauger Gouged-incised: Mauger Variety
Swallow Black-on-red: Swallow Variety
Pek Polychrome: Pek Variety

Paxcaman Ceramic Group (red)

Multiple Paste Wares, as yet not fully defined for the Tayasal-Paxcaman zone; four tenatative paste-variants established for Barton Ramie (Sharer and Chase 1976: 295)

Paxcaman Red: Paxcaman Variety
Bluefield Gouged-incised: Bluefield Variety
Ixpop Polychrome: Ixpop Variety
Saca Polychrome: Saca Variety
Picu Incised: Picu Variety
*Chaman Polychrome: Chaman Variety

Topoxte Ceramic Group (red) (after Bullard 1970)
Group and Paste Wares are presently being redefined by P. Rice, present volume

Topoxte Red

* new designations

in primary context and comprises a large sample. It is definitely transitional to Paxcaman, in association with Augustine effigy feet, and overlain stratigraphically by Paxcaman. Appendix I presents preliminary description of the major types in the pink Trapeche Ceramic Group based on the diagnostic sherds illustrated in Figures 3 and 4.

Postclassic

Postclassic occupation occurs mainly in a zone five meters to fifteen meters above the current Lake Peten water level; only a small portion of the Postclassic material sampled came from an area higher or lower than this zone. The distance of Postclassic occupation from the present lake shore is also proportional to the slope of the ground, that is, where the ground is steeper, the samples are closer to the shore and where the rise is gradual, the samples are more distant from the shore. This may suggest that the occupation sampled represents a time when the lake level was slightly higher than it is presently.

Structures containing Postclassic ceramics in core material were primarily small platform units that may have functioned as the floor "pads" of timber buildings with thatched roofs. Postclassic structures in quadrangular groupings occurred at Punta Nima and Tres Naciones (see Fig. 2); most Postclassic structures, however, were single units strung along the lake shore. Many Postclassic units visible prior to excavation were found to overlie Classic or Preclassic structures that formed the bulk of the surface features. Other structures were almost imperceptible on the surface, but on excavation proved to reveal structural plans along lines of purposefully laid stones. Large Postclassic platform-structures were encountered only at San Miguel where Group M, a 60 meter by 70 meter by 3 meter high platform supporting two structures, was entirely Postclassic in date. Structure 100 at Tayasal also proved to be entirely Postclassic.

Both the Augustine and Paxcaman ceramic groups are well

represented in the Tayasal data; no Tulum Red or Tachis Red (G. L. Cowgill 1963) exist in the collections. The Augustine sample from Tayasal and Flores exhibits much fireclouding, contrary to the Barton Ramie sample where fireclouding was not common (Sharer and Chase 1976: 291). Because the coloration achieved in the Tayasal material is much different than the "yellowish cast" noted for the Barton Ramie sample, it is possible that there was a conscious attempt in the Lake Peten region to imitate the coloration of slateware in the Augustine Ceramic Group; Trapeche Pink may also be an attempt at slateware imitation (see also Bullard 1973: 223). Sizable amounts of Picu Incised, Pek Polychrome, and Saca Polychrome (Cowgill 1963) are also present in the collections as well as a maroon-slipped grater bowl with bulbous feet that is not, as yet, placed securely in a ceramic group. Picu Incised and a newly identified Chaman Polychrome (not formally defined in this paper) of the Paxcaman Ceramic Group appear to have some special significance and are found in different, and only partially understood, archaeological contexts. The Postclassic polychromes (exluding Pek, Ixpop, and Mul polychromes) and intricately incised bowls (Picu Incised) are most likely part of a burial subcomplex. Topoxte Red jars (Bullard 1970) have been found in association with a Postclassic living floor and stratigraphically overlie Augustine and occur in conjunction with Paxcaman material.

Over time, plate and feet size appears to decrease in the Tayasal Paxcaman specimens. Effigy scroll feet only occur in the Augustine Ceramic Group. Bullard (1973: 225) felt that Paxcaman was made in the Lake Peten region and the Tayasal data supports his position. Some of the Tayasal "Augustine" specimens have a sparse amount of snail shell in their paste and may also be locally manufactured, perhaps around Lake Sacpuy as G. L. Cowgill (1963: 64) suggests. Paxcaman paste varies considerably and a reddish-brown Paxcaman paste appears to be localized in the San Miguel area. True Mayapan-style

effigy censers are not prominent in the excavations except for the Punta Nima area. The Late Postclassic-Historic period is also represented in the Tayasal collections. Several operations produced unslipped, uneven "roughware" stratigraphically above Paxcaman material.

The Augustine/Paxcaman ratio from Flores is seemingly the reverse of the ratio from the peninsula. Whereas Paxcaman is three times more popular than Augustine on the peninsula (Sharer and Chase 1976: 293), Augustine is two or three times more frequent on Flores. It is unwise, however, to jump to conclusions at this time and split the Flores material along a Paxcaman/Augustine dichotomy; it may be possible to isolate an orange-paste, red-slipped historic pottery group in the Flores collections with more intensive study and with controlled excavations. The amount of Augustine effigy feet present in the Flores collections, however, does indicate a rather large earlier Postclassic occupation for the island.

Perspectives

To some degree, the Tayasal-Paxcaman zone may be considered the "refuge area" previously portrayed in the literature (specifically Morley and Brainerd 1956: 80-81, 148). As such, it does not participate in the fineware Tepeu 3 complex known from such sites as Tikal, Uaxactun, Seibal, Altar de Sacrificios, Yaxha, and closer to the zone, Ixlu and Motul de San Jose. The area instead exhibits close ties to northern Yucatan on a Terminal Classic-early Postclassic horizon showing possible trade linkages to the Xcocom Phase of Becan through a seemingly locally produced Dolorido Cream-polychrome. Even though continuity does appear to exist between the Terminal Classic and the early Postclassic, the pink Trapeche Ceramic Group forms seem to be intrusive to the Tayasal-Paxcaman area and probably are the product of an immigrant population. Augustine Red may also be another central Peten trade item. The Terminal Classic and early Postclassic transition in the Tayasal zone saw massive and far-reaching population movements and amalgama-

tions. What may, in fact, be extant for the Terminal Classic-early Postclassic period (as seen in the Tayasal ceramics) is the phenomenon of "class-linked ceramic styles," first noted by Tschopik (1950: 217) for Peru, later by Morris (1972: 394-395), and recently by Ball (n.d.) for northern Yucatan. Additionally, Rathje's (1973: 451) statements that "the earlier a Buffer Zone center developed, the longer it should last as a center after the fall of the Core Area" and that "those Buffer Zone sites which lasted longest were situated farthest from basic resources" are both applicable and illuminating for the Lake Peten region.

Flores evidently maintained a preeminent position in the early Postclassic history of the Tayasal-Paxcaman zone, which may have been due to a trade system from the Gulf Coast of Mexico through the central Peten and thence along the Belize rivers to the Caribbean coast. Should this be the case, one would expect foreign items and indications of a relatively wealthy class of merchant elite; such evidence may exist on Flores. Although Bullard (1973: 238) noted that "so far, there is no good evidence that central Peten did participate to any great extent in foreign trade," Flores yielded many Terminal Classic-early Postclassic trade pieces in the 1977 season. These include volcanic metates, Yucatecan trickle ware, fine orange, a Mixtec-style incensario, and a brown-slipped, gouged-incised pottery with northern Yucatecan stylistic affinities. Punta Nima has additionally produced a Chichen Redware bowl. It is suggested, therefore, that Flores may have served as a regional market center or way-station during the early part of the Postclassic period. Topoxte may have superseded Flores as the major regional center during the Late Postclassic period.

CONCLUSION AND SUMMARY

The objectives of the 1971 Tayasal Project were (1) to define the Postclassic Period for the central Peten; (2) to

investigate the nature of change and continuity in a lacustrine environment of Maya settlement; and (3) to obtain data that could be compared and contrasted with information obtained from the Tikal Project. The 1977 Tayasal Project amplified the 1971 work through further survey. As a result of the investigations in the Tayasal-Paxcaman zone, a sequence was recovered extending from Preclassic to historic times-one of the longest continuous sequences now known in the Maya area. There is extensive settlement in the region during the Preclassic period, but how far into the past it extended is presently uncertain. Occupation in the Tayasal-Paxcaman zone was extremely dense during the Middle and Terminal Classic periods of Maya history, possibly suffering a partial decline during the Late Classic period. The zone provides an unusually complex picture of proto-Postclassic development. Additionally, it is clear that cultural development in this zone was truly regional and differentiated from that taking place at other Classic centers such as Tikal. Large amounts of Postclassic materials were recovered from near the shore of Lake Peten-Itza. Why occupation was continuous in this particular zone as well as very different from that taking place at larger regional centers is still uncertain, but raises some interesting questions about the extent of Maya supra-organizational patterns; these questions will hopefully receive answers as analysis proceeds.

ACKNOWLEDGEMENTS

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APPENDIX I

BRIEF DESCRIPTION OF THE TRAPECHE CERAMIC GROUP

The recognition of a new Terminal Classic-early Postclassic transitional ceramic group in the central Peten is of major importance for the further definition of the Classic Maya denouement. In the Tayasal region, the pink Trapeche group has appeared in seven operations from the Punta Nima and Tayasal areas; one of these operations was an excavation into a Trapeche Pink midden area associated with structural remains. Brief descriptions of diagnostic sherds of the major types of the Trapeche group are presented here as an aid to the recognition of the types elsewhere. Additionally, a preliminary chart of the recognized Tayasal peninsular zone Postclassic redwares is presented in Table 1. A new color convention is adopted in Figures 3 and 4 to represent the pinkish-buff surface color of the Trapeche group (a diagonal line/ broken line from upper left to lower right); otherwise, all color conventions follow Smith (1955; Vol. II, ix). Two paste wares are noted for the Trapeche Ceramic Group; they are briefly defined under their associated types (see Table 1).

Trapeche Pink: Trapeche Variety (Fig. 3a, b).

As presently known, Trapeche Pink generally replicates those forms found in the Paxcaman Ceramic Group with the addition of several unusual shapes. The two Trapeche Variety sherds illustrated are a jar form with a horizontal strap handle and a collared bowl (wide-mouth jar). In general, the surface tone represented on the Trapeche group specimens is quite variable and appears to weather easily. The slipped vessel with a low neck shown in Figure 3a has a rim diameter of 16 cm; it is 0.46 cm thick at the lip, 1.08 cm thick at the neck and rim joint, and 0.27 cm thick in its medial body area. The surface is smooth, but not as waxy or "lumpy" as that of the grater represented in Figure 3f. No smoothing striations are visible. The vessel appears to be double-slipped with

the inner slip directly visible in some areas. The underslip has a color value of 5YR 5/8 to 10R 5/8 (yellowish red) while the overslip has a color value of 10YR 7/3 (very pale brown). Although the surface color is extremely variable, the overall color approximates 5YR 7/4 (pink), depending on the underslip and overslip. The entire surface of the sherd is slipped. The paste is grey-brown, 7.5YR 6/2, 5/2 (pinkish gray/brown) to 10YR 6/3, 5/3 (pale brown), and is composed of silt-sized particles with snail shell inclusions ranging in size from 0.25 mm to 1.0 mm. Some snail shells are visible through the slip, but none appear to be whole. The paste also contains calcite inclusions, occasionally as large as 0.25 mm.

The strap-handle illustrated in Figure 3b has flattish edges and was apparently double slipped. The slip appears on the interior vessel surface and on all of the handle except the portion facing the exterior vessel wall; the slip has an overall color tone of 7.5YR 7/4 (pink) to 5YR 7/4 (pink). The paste color is 10YR 6/3 (pale brown) and it contains calcite and snail shells; all the snail shells are broken and range in size from 0.5 to 1.0 mm. The thickness of the vessel body to which the handle is attached is 0.43 cm; the central portion of the handle is 1.03 cm thick while the width of the handle is 2.54 cm. At the attachment, handle width is 2.78 cm; the thickness in the same area is 1.65 cm.

Trapeche Pink: Halal Variety (Fig. 3c).

A tentative variety of Trapeche Pink is established here on the basis of a difference in paste ware and perhaps surface treatment. Whereas most of the Trapeche Ceramic Group is subsumed under Trapeche Light Gray Paste Ware, the Halal Variety of Trapeche Pink is designated as Trapeche Red-brown Paste Ware; both these Paste Wares will be more completely defined in the final Tayasal report. The sherd in Figure 3c is concave with a beveled rim. It is not clearly double slipped, but exhibits the same color variation as the Trapeche Variety, and its surface ranges from 2.5YR 5/6 (red) to 5YR 5/6, 6/6

(yellowish red) to 7.5YR 6/4 (light brown). The entire surface is slipped, is soft and smooth to the touch, but is worn. The paste color is basically 5YR 6/6 (reddish yellow). The paste particles are silt-sized, but with 0.25 to 0.50 mm calcite inclusions and an occasional particle of hemitite approximately 0.75 mm in size; no snail shell is evident in the paste. The sherd in Figure 3c is 0.67 cm thick at the rim and widens to 0.77 cm in the body area.

Xuluc Incised: Xuluc Variety (Fig. 3d, e).

Xuluc Incised: Xuluc Variety is more closely related to Picu Incised of the Paxcaman Group than to Ramsey Incised of the Augustine Group; the one known piece of Ramsey Incised from Barton Ramie (Sharer and Chase 1976) may in fact be a Tulum Red related piece. Two examples of Xuluc Incised: Xuluc Variety are illustrated and described here. The first (Fig. 3d) is an exteriorly and interiorly incised rim fragment exhibiting a "mat" design. The vessel was slipped prior to incising. An underslip and overslip cannot actually be distinguished, but there is variation in slip color. The exterior slip is 5YR 5/4-5/6 (reddish brown-yellowish red) while the interior and rim are slightly darker, 5YR 4/3-4/4 (dark reddish brown). Incisions are generally 1 mm wide and less than 1 mm deep; the thickest interior incisions are 0.32 cm. The sherd is 0.8 cm thick at the rim and 0.9 cm thick at the bottom. The paste is 10YR 6/2-6/3 (light brownish gray to pale brown) with calcite temper. Snail shell is also present in the paste, usually fragmentary (0.5 mm) but one whole shell occurs (2.0 mm). This sherd was probably part of a plate.

The second Xuluc Incised: Xuluc Variety sherd (Fig. 3e) was most likely part of a collared bowl or wide-mouth jar. The surface of the sherd is relatively smooth, but is worn and is apparently double slipped. The overall coloration varies greatly, from 5YR 4/2 (dark reddish gray) to 7YR 4/2-4/4 (brown). Incising was done after firing on the interior

only, and consists of two lines horizontal to the rim beginning 0.55 and 0.58 cm below the rim respectively; these lines are approximately 1.0 mm wide and 1.0 mm deep. Two vertical incisions begin 0.72 mm below the rim and are roughly 0.5 cm apart with no incision to the right of the thinner line of incising. The thicker vertical line to the left is 0.55 cm wide and less than 1.0 mm deep; the thinner vertical line is 1.0 to 1.2 mm wide and less than 1.0 deep. The sherd is 0.67 cm thick at the rim and thickness increases to 0.86 cm. The paste is composed of silt-sized particles with calcite inclusions and some broken snail shells; paste color is 10YR 6/3 (pale brown).

Xuluc Incised: Tan Variety (Fig. 3f, g).

The Tan Variety of Xuluc Incised includes primarily the grater bowl forms occuring within the Trapeche group, but the definition could be expanded to included all material on which incising occurs on an unslipped surface. The two examples of Xuluc Incised: Tan Variety illustrated are a grater bowl rim and the conical foot of a grater bowl. The rim sherd illustrated in Figure 3f is part of a basinlike molcajete with a diameter of 25.8 cm. The sherd appears to have a double slip. The base slip has a coloration of 10R 5/6-5/8 (red), possibly 2.5YR 5/6 (red). This surface is overslipped by another slip ranging in color from 10YR 7/3 (very pale brown) to 2.5Y 7/2 (light gray); this color reading is somewhat dependent on the underslip, probably ranging more to gray. The overall appearance of the sherd ranges from 2.5YR 6/4 (light reddish brown) to 5YR 7/3, 6/4 (pink/light reddish brown) to 10YR 7/3 (very pale brown) to 2.5Y 7/2 (light gray). The vessel is <u>not</u> a single solid color, but shades into many different ones. Additionally, there is a fire cloud/burn scar of 5YR 3/1 (very dark gray) running in a 2 to 3 cm line diagonally down the exterior of the vessel. The sherd is slipped both exteriorly and interiorly with the interior slip extending just beyond the first line of incision in places. In general the exterior of the vessel is more gray in color than the interior; the

slip is waxy, presenting a "lumpy" appearance. The vessel was slipped after incising. Incisions are approximately 1.0 mm wide at the surface and up to 1.0 mm deep; the lines horizontal to the rim were incised prior to the vertical or diagonal ones. The first horizontal line is 4.2 to 4.7 cm from the rim and the distance between the two horizontal lines ranges from 0.6 cm to 0.34 cm. The diagonal lines are spaced from 0.5 to 1.04 cm apart. The thickness of the sherd varies from 0.74 cm at the lip to 0.70 cm on the slipped body to 0.49 cm at the incised area. Slight horizontal striations are visible on the vessel from the slipping or smoothing operations. The paste has a color of 7.5YR 7/2-7/4 (pinkish gray) and has snail shell inclusions that are sometimes visible through the slip and are definitely visible on the unslipped inner surface. Most of these shells are fragmentary, but several are almost whole; they range in size from 0.25 to 1.0 mm. The paste is very fine-grained with small, unmeasurable black calcite grains.

The Xuluc Incised: Tan Variety grater bowl foot illustrated in Figure 3g is an unusual conical shape; this foot shape is presently unknown in either the Augustine or Paxcaman groups. Three parallel lines are incised on the unslipped interior portion of the vessel; these lines are approximately 1.3 cm apart, 1.2 wide, and less than 1.0 deep. The vessel base is 0.6 cm thick. The overall appearance of the foot and vessel wall is uneven. The entire foot is slipped, varying from 10R 4/8 (red) to 5YR 7/4 (pink). It has a circular vent 0.64 cm wide facing outward from the vessel. At its widest, the conical foot is 3.8 cm. The length of the foot (not the standing

Figure 3, facing page. Trapeche Ceramic Group pottery, Tayasal-Paxcaman Zone. a, Tapeche Pink: Trapeche Variety (T31GG/3); b, Trapeche Pink: Trapeche Variety (T31GG/1); c, Trapeche Pink: Halal Variety (T31GG/1); d, e, Xuluc Incised: Xuluc Variety (T31GG/1, T31GG/2); f, g, Xuluc Incised: Tan Variety (T31GG/3, T31EE/1). Numbers are provenience designations within the Tayasal Project catalog system.

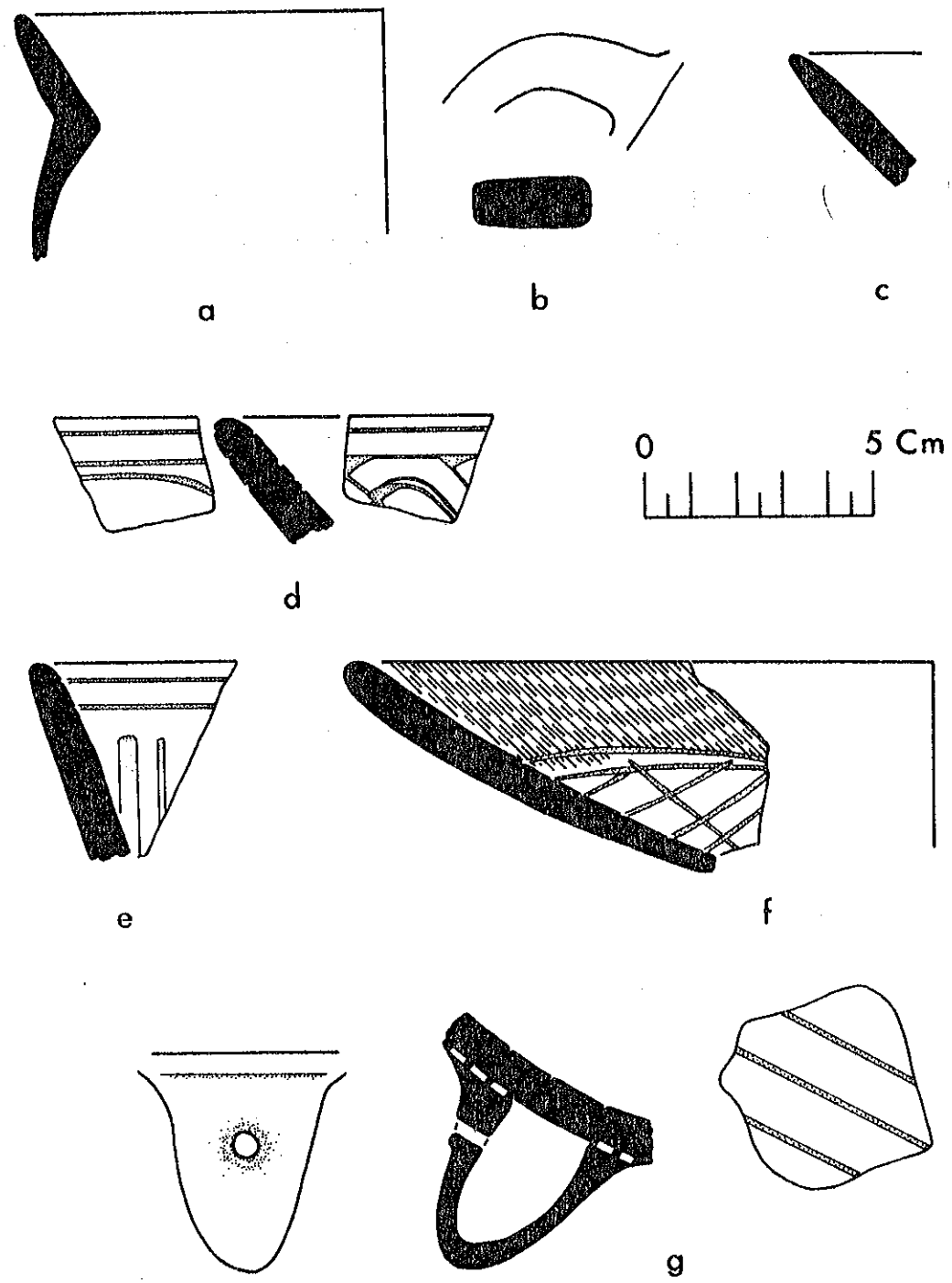

Figure 3. Trapeche Ceramic Group pottery.

height) is 4.92 cm. The paste is typical of Trapeche Light Gray Paste Ware, its color is 7.5YR 7/4 (pink); snail shells are present, some nearly whole.

Mul Polychrome: Mul Variety (Fig. 4a-d).

Mul Polychrome: Mul Variety is closely related to Ixpop Polychrome of the red Paxcaman Ceramic Group both in form and design treatment. The major form present in Mul Polychrome: Mul Variety is a footed plate. No "bell-shaped" feet are known in the pink Trapeche Ceramic Group from the Tayasal-Paxcaman zone, but this may simply be a reflection of the sample. Feet are attached immediately behind the basal break. The plate fragment illustrated in Figure 4c has a double slip on its exterior surface and on its interior lip basal portion. The underslip is 2.5YR 4/6-4/8 (red); the overall coloration evinced by both slips is approximately 2.5YR 6/4 (light reddish brown). The interior vessel wall has a painted design on what appears to be slipped surface with a color reading of 10YR 8/3 (very pale brown). There are two horizontal lines that band the top of the decorative area, and one lower horizontal line that bands the base of the decorative area. The design is badly worn. The top most horizontal line is 0.27 to 0.30 cm thick; it was not possible to measure the other lines. The uppermost horizontal line begins 0.87 cm from the vessel edge; 0.65 cm of whitish slipped area separated it and the second horizontal line. The decorative area above the lowest horizontal line is 2.44 cm high; the lowest line is approximately 0.3 cm thick and below it the Trapeche Pink double slip extends onto the interior base. The decorative lines are 5YR 4/3 (reddish brown) and were drawn after the double-slipping operation had taken place. The rim thickness is 0.77 cm; the vessel wall is 0.88 cm thick; the base thickness is 0.62 cm. The actual height of the plate is 3.5 cm without feet. The paste contains silt-sized particles with snail shell inclusions, none of which are whole. Calcite inclusions are also present. The color of the paste is 10YR 5/2-5/3 (grayish brown).

The rim sherd represented in Figure 4b follows the same slipping pattern described above, but is very worn. The exterior surface is smooth to the touch, but uneven--two common characteristics of the pink Trapeche Ceramic Group. The thickness of the sherd varies from 0.45 cm near the base of the vessel to 0.78 cm just below the beveling in the lip. The overall color varies greatly from 10YR 7/3 (very pale brown) to 5YR 7/4 (pink) to 2.5 YR 5/6-6/6 (light red). The paste of this sherd appears harder than others and it contains calcite particles up to 1.0 mm in size, along with the characteristic snail shells. The paste color is 10YR 6/3 (pale brown).

The plate fragment represented in Figure 4a is completely slipped on the exterior surface and has a rim diameter of 12 cm. Its exterior surface is smooth with no visible smoothing striations; the typical double slip continues 0.3 cm beyond the lip bevel into the interior of the vessel. The underslip is difficult to see because not much of it is exposed, but it appears to be 2.5YR 5/6 (red). The overall color of the exterior slip is 7.5YR 7/4 (pink) to 5YR 7/4 (pink). The interior of the sherd has a red-brown design on a whitish-buff slip 7.5YR 8/2-8/4 (pinkish white). This design and the colors are now quite faded, but consisted of lines and scrolls. The reddish-brown (5YR 4/3) lines are approximately 0.27 cm thick. The one visible "scroll" element rises to a height of 1.4 cm above the lower horizontal line and has an interior space of 0.2 cm. There are again two upper horizontal lines and one lower one. The thickness of the sherd ranges from 0.47 to 0.70 cm. The brown paste (10YR 5/3) has snail shell inclusions of 0.25 to 1.0 mm and calcite particles up to 0.75 mm.

The scroll foot illustrated in Figure 4d as Mul Polychrome: Mul Variety could have been classified under Trapeche Pink: Trapeche Variety except for the present lack of associated "plate" forms in Trapeche Pink: Trapeche Variety; it is included under Mul Polychrome because of contextual associations. The foot has a central air vent 0.38 cm in diameter, facing

outward from the vessel. The foot was attached to the vessel right at the basal break. It has an overall length of 6.03 cm. The entire piece is slipped with the exception of the very bottom of the foot (probably due to use). The interior portion of the plate is waxy and smooth while the foot itself has a roughened texture. The double slip is not as apparent as it is on the other sherds. The colors vary throughout the fragment with readings of 10YR 6/4 (light yellowish brown) for the probably fire-clouded interior surface to 10R 5/6-6/8 (light red) for the foot itself. The foot is 2.72 cm wide in its medial portion and 2.76 cm thick in the same area. The thickness of the basal vessel wall is 0.56 cm. The paste is comprised of silt-sized particles with snail shell inclusions (0.25 to 2.0 mm; one whole shell is 3.0 by 4.0 mm). Calcite is also present as the paste reacts with HCl. The color of the paste is 2.5YR 6/2 (pale red) to 10YR 6/2-6/3 (light brownish grey); the latter color is perhaps a result of fire clouding near the surface.

Dolorido Cream-polychrome: Dolorido Variety (Fig. 4e).

Perhaps the most important sherd described here is the one pictured in Figure 4e and identified as Dolorido Cream-polychrome: Dolorido Variety. The form represented is a hemispherical bowl with a diameter of 13.0 cm; whether it was footed or not is unknown, but probably not. The wall thickness ranges from 0.34 to 0.44 cm. The interior of the sherd is soft and smooth with some striations and is completely slipped pink (5YR 7/4). The exterior of the sherd has abstract designs in red (10R 4/8) on a pinkish white (5YR 8/2) slip that is heavily eroded. The abstract design field, 2.3 cm high, is bounded at top and base by a pair of horizontal lines each about 0.28 cm thick. The upper pair begins 0.8 cm below the lip of the vessel and the lines are 0.5 cm apart. The lines in the lower pair are 0.45 cm apart. The paste is typical of the Trapeche Ceramic Group, comprised of silt-sized particles and containing calcite and 0.25 to 0.5 cm snail shell fragments. The color of the paste is pale brown (10YR 6/3).

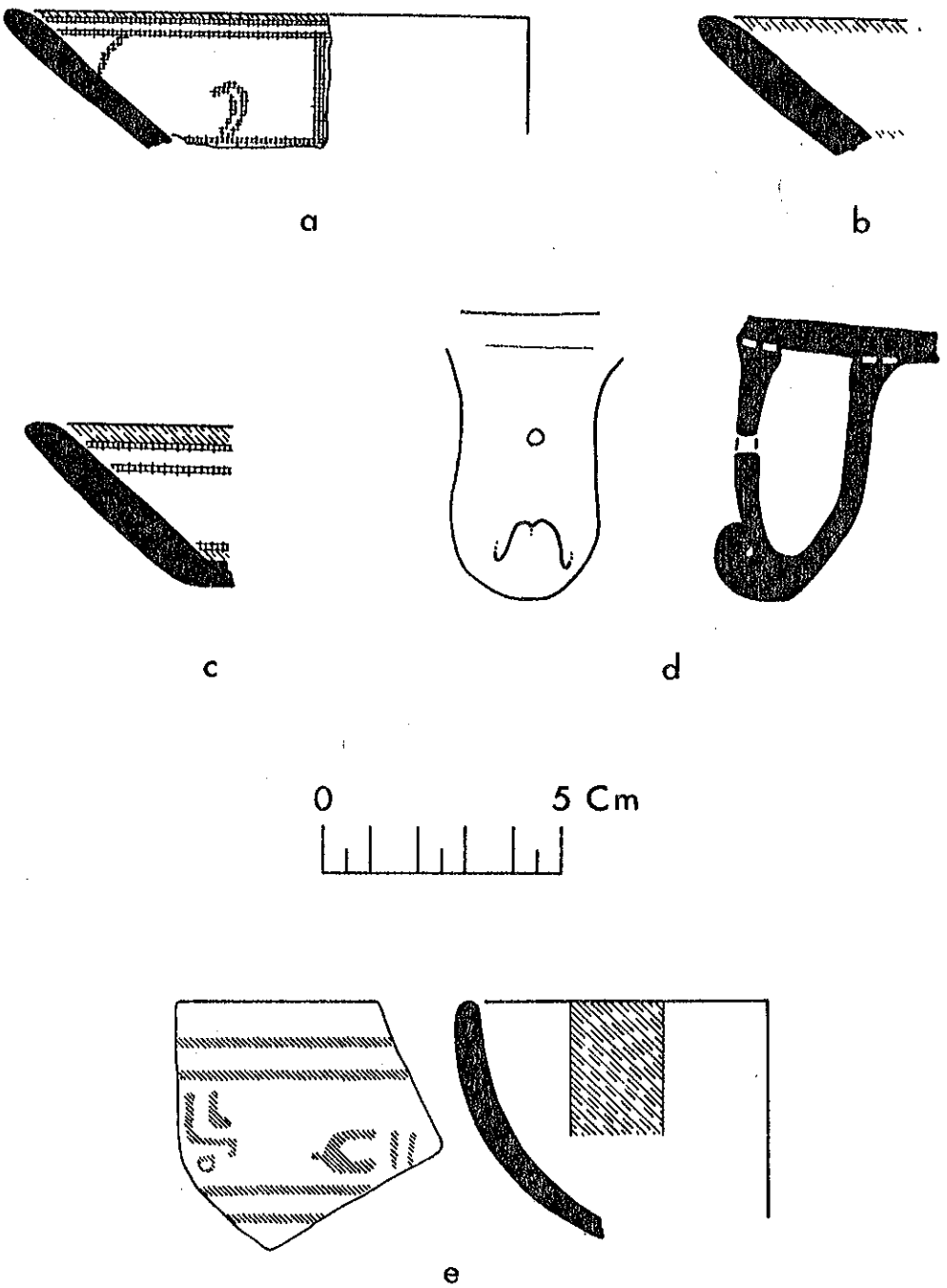

Figure 4. Trapeche Ceramic Group pottery, Tayasal-Paxcaman Zone. a-d, Mul Polychrome: Mul Variety (T31EE/2, T31GG/3, T31EE/1); e, Dolorido Cream-polychrome: Dolorido (T31GG/1). Numbers are provenience designations Tayasal Project catalog system.

Dolorido Cream-polychrome is known from the Tayasal-Paxcaman area, and from Becan, Edzna, and Dzibilchaltun. The Dzibilchaltun Dolorido Cream-polychrome consists of two sherds from the same vessel (Ball and Andrews 1975: 233) that exhibit a technological and stylistic similarity to the Becan specimens (Ball 1977a: 81, Fig. 30h). Ball and Andrews (1975: 233) date this type to the Terminal Classic Xcocom phase at Becan, which is dated in the Maya long count from 10.0 to 10.11. At Becan, Ball (1977a: 140) established a Dolorido Ceramic Group for three fineware types. Dolorido Cream-polychrome: Dolorido Variety is redefined here as clearly being a member of the pink Trapeche Ceramic Group, which contains much more variability both in form and types than is found at Becan. It is possible that Ball's (1977a: 140) other Dolorido group members, Droga Red-on-cream and Zanahoria Scored, may in time be classified as members of the Trapeche Ceramic Group as more material is excavated. Zanahoria Scored may in fact be related to the Trapeche Red-Brown Paste Ware (Table 1). Whereas Ball (1977a: 81) designates Dolorido Cream-polychrome a member of Campeche Gloss Ware, this decision is premature until the final unraveling of the Tayasal-Paxcaman ceramic sequence takes place. It is suspected that Dolorido Cream-polychrome occurs at Uaxactun as Smith (1955: 186) notes that a few sherds (10) of his Danta Orange-polychrome "have cream slip" and that many are weathered; additionally Figure 64b in the Uaxactun ceramic volumes (Smith 1955) illustrates some vessels that are very reminiscent of Dolorido Cream-polychrome. Smith's Danta Ceramic Group (Smith and Gifford 1966: 173), which contains Danta Orange-polychrome, Leona Red-on-orange, Saptan Buff-polychrome, Juina Red-on-buff, Joyac Cream-polychrome, and Jato Black-on-gray--all fine wares--may be closely related, as a whole or in part, to the pink Trapeche Ceramic Group.

Dolorido Cream-polychrome takes on importance in a chronological sense as a possible horizon marker of the Terminal Classic-Postclassic transition. Its distribution is seemingly

as large as the various fine oranges and plumbate types which are now used to mark this time period. On the whole, the Trapeche Ceramic Group would be classified as a Postclassic group in the central Peten did it not contain Dolorido Cream-polychrome as a definite member; such an inclusion relates this new ceramic group to events taking place to the north on a "Terminal Classic" horizon. Although the roots of the Trapeche tradition are still unknown, the ceramics are locally made, but in forms outside of known Classic Maya ceramics. The Trapeche group may in fact coexist with more typical Terminal Classic Maya forms and may be ancestral to the truely "Postclassic" Paxcaman Ceramic Group; in any event, it represents the introduction into the southern lowlands of the Central Peten Postclassic tradition (Bullard 1973; Sharer and Chase 1976). The group also illustrates the growing complexity manifested in the previously oversimplified archaeological situation termed the "Maya Collapse."

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