

APPENDIX A

Plant Macrofossils from Cave Excavations

DAVID E. BUGÉ

This appendix lists the various plant remains recovered from excavations in Caves 2 and 8 by Robert Burton. All "local" plant names were provided by informants from Chalcatzingo. In some instances the modern genus and species are not identified (see Table A.1).

Cave 2, a looted dry cave on the east side of the Cerro Delgado, provided four samples. Samples A, B, and D were recovered by screening the mixed deposits left by looters. Sample C comes from a small unlooted area of the cave excavated by Burton.

Dating of the Cave 2 deposits is problematical due to the extensive disturbance by looters of the very shallow deposits. Sherds recovered are Middle Postclassic (see Chapter 25), but the possibility exists that some material could be more recent. The Cave 8 deposits remain to be analyzed by Burton, but also appear to be Middle Postclassic.

Table A.1. Floral Materials from Caves 2 and 8

Common Name	Genus-species	Cave 2 Sample Lots				Cave 8
		A	B	C	D	
<i>English</i>						
Avocado	<i>Persea americana</i>	5			1	
Beans	<i>Phaseolus</i> sp.		6			
Bottle gourd	<i>Lagenaria siceraria</i>		1			
Corn	<i>Zea mays</i>		*		*	
Cotton	<i>Gossypium hirsutum</i>		b			
Peanuts	<i>Arachis hypogaea</i>		11			
Squash	<i>Cucurbita</i> sp.		4		5	
<i>Chalcatzingo:</i>						
Batalla			6			
Cabellito	<i>Calliandra anormala</i>	1				
Cacachis	<i>Karwinskia humboldtiana</i>				9	
Capulin	<i>Prunus capuli</i>				2	
Chila cayota		1				
Chile	<i>Capsicum</i> sp.				1	
Chipil	<i>Coursetia glandulosa</i>	12			2	
Chirimoya	<i>Anona chirimola</i>	1				
Chupandilla	<i>Cyrtocarpa procera</i>	12			1	
Ciruella	<i>Spondias purpurea</i>		243	8		6
Copal	<i>Bursera copalifera</i>	1	3			
Coyul	<i>Acrocormia mexicana</i>	1				
Composites	<i>Tithonia</i> (?) sp.	4	8			
Garras del diablo		5				
Guaje	<i>Leucaena collinsii</i>	1			6	1
Guaje oaxpelón	<i>Leucaena esculenta</i>				5	
Guamuchil	<i>Pithecellobium dulce</i>	2				
Hueyacan		1				
Jacaranda	<i>Jacaranda acutifolia</i>	3				
Jicama	<i>Pachyrhizys erosus</i>				3	
Jicamilla	<i>Jatropha</i> sp.				27	
Japote		1				
Maguey	<i>Agave</i> sp.					
Mata ratón	<i>Gliricidia sepium</i>	16				
Pancololote		1				
Pochote	<i>Cesba parvifolia</i>	1	1		5	1
Quebracha	<i>Acacia unijuga</i>				3	3
Tapaqueso					2	
Tepeguaje	<i>Leucaena pueblana</i>				3	2
Torito						1
Uña de gato	<i>Mimosa</i> sp.				1	

*Corn: 31 kernels, 31 grams of cob fragments in Sample B, 3 cob fragments in Sample C.

bCotton: 22 grams of fiber, 7 grams of bolls and seeds.

cMaguey: 8 grams of twisted fiber from Sample C, one spine from Cave 8.

APPENDIX B

Selected Stratigraphic Units

ANN CYPHERS GUILLÉN

This appendix provides supplementary data and illustrations for the thirty-eight Selected Stratigraphic Units (SSU) used in the chronological phasing of the Formative period occupation at Chalcatzingo (Chapter 5). Radiocarbon dates are given where pertinent, but it should be remembered that assignment of subphase to strata is made on the basis of ceramic composition and not according to the date indicated by radiocarbon samples. Comments on the radiocarbon dates are given in Chapter 5.

The level designations (in Roman numerals) apply only to each individual unit and do not refer to particular strata found across the site. That is, the levels in the profiles are not comparable to each other except in the few instances where several excavation units in a restricted area reflect the same depositional events. In these cases, the different units either were considered together as a single SSU (e.g., SSU 2, SSU 30, SSU 32, SSU 38) or, while taken as separate SSU's, were lumped together for purposes of discussion (SSU 12-13, SSU 16-19, SSU 35-36).

SSU 1 (Fig. B.1)

N-2: 3-6N/0-1E.

Level:	Subphase:
I	
II	LATE CANTERA
FLOOR	LATE BARRANCA- EARLY CANTERA
III	LATE BARRANCA
IV	AMATE
V	
VI	

Comments: The plow zone, Level I, was eliminated from the study because of its high percentage of eroded materials. The lower two levels, V and VI, were not utilized due to a virtual lack of cultural materials.

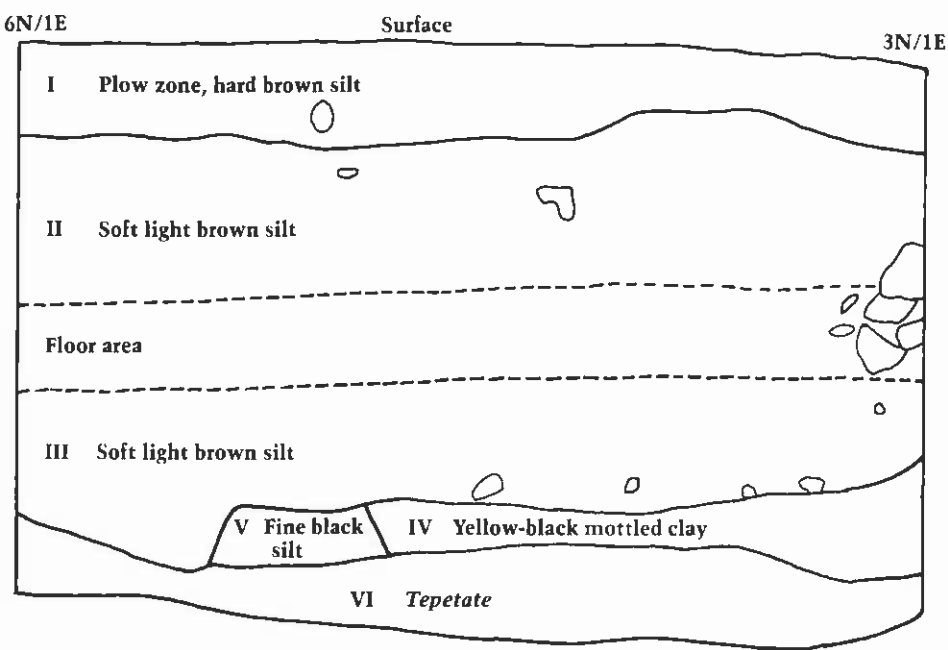


Figure B.1. SSU 1 profile: N-2, 3-6N/0-1E.

C-14 Dates:
Level III N-1954 770 ± 95 BC

SSU 2 (Fig. B.2)

T-6: 17-18S/0-2W, 11-12S/1-2E.

Level:	Subphase:
I	
II	
III	
IV	LATE AMATE

Comments: In both units, the level above sterile tepetate is the only undisturbed stratum. Level IV predates the three-stage stone-faced platform with associated stela.

C-14 Dates:
Level IV N-1947 1000 ± 90 BC

SSU 3 (Fig. B.3)

N-7: 10-13N/0-1W.

Level:	Subphase:
I	
II	LATE CANTERA
III	EARLY CANTERA
IV	LATE AMATE
V	LATE AMATE

Comments: The plow zone, Level I, was the only level not used in the study. No structures were found in this unit.

C-14 Dates:
Level V N-1955 1070 ± 75 BC

SSU 4 (Fig. B.4)

T-9A: 8-10S/0-2W.

Level:	Subphase:
I	
II	LATE CANTERA
III	EARLY CANTERA
IV	LATE BARRANCA
V	LATE AMATE

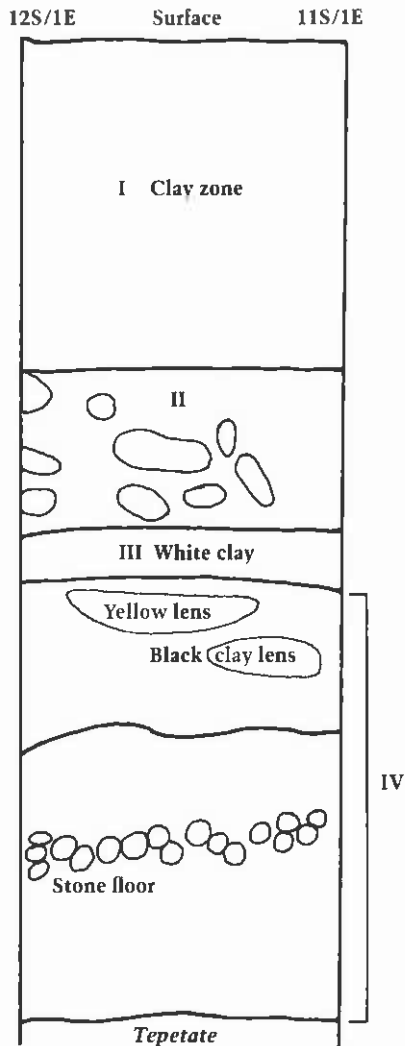


Figure B.2. SSU 2 profile: T-6, 11–12S/1–2E.

Comments: The plow zone, Level I, was not utilized in this study. Level III is an intrusive feature into Level IV, and contained large quantities of stone and sherds. The function of the feature is unknown. Level IV predates a stone construction and due to the high frequency of debris is considered a midden or dumping area contemporaneous with the T-9B structure.

C-14 Dates:

Level IV N-1416 1170 ± 135 BC

SSU 5 (Fig. B.5)

T-11: 1–2N/0–2E.

Level: *Subphase:*

- | | |
|-----|---------------|
| I | |
| II | |
| III | LATE CANTERA |
| IV | EARLY CANTERA |
| V | LATE BARRANCA |

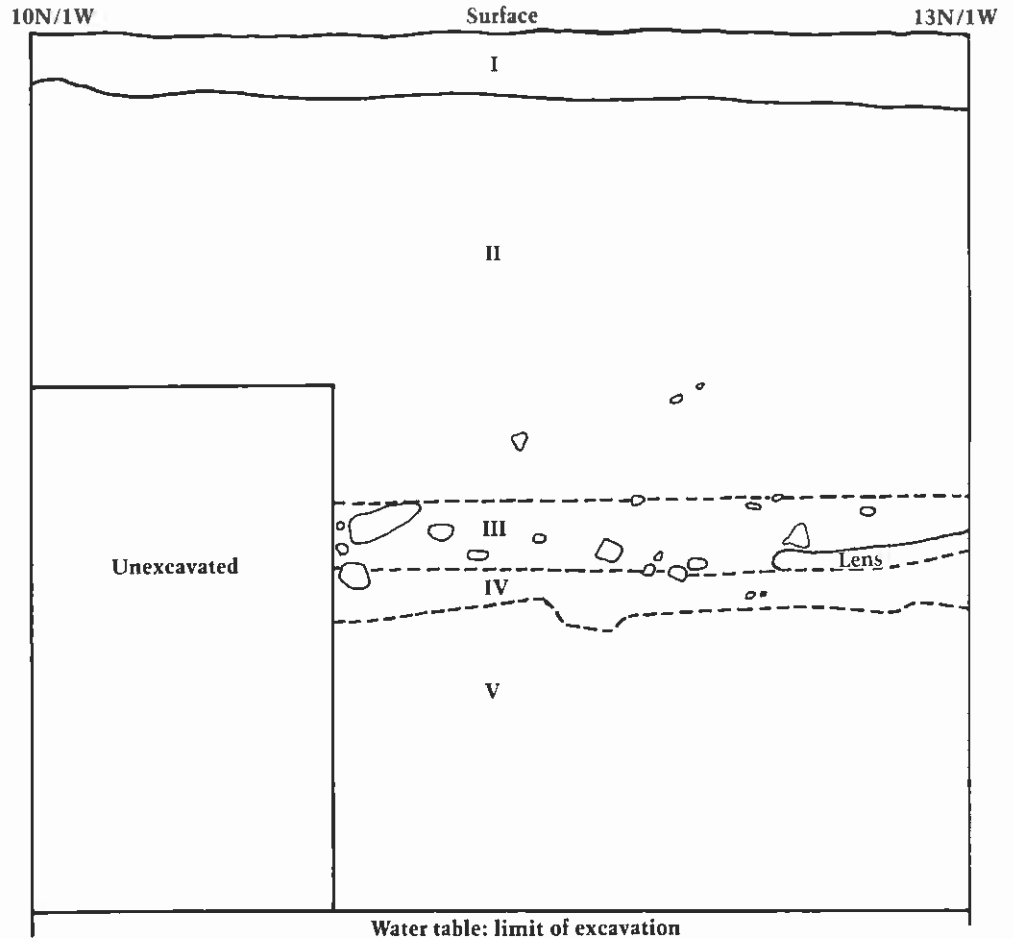


Figure B.3. SSU 3 profile: N-7, 10–13N/O–1W.

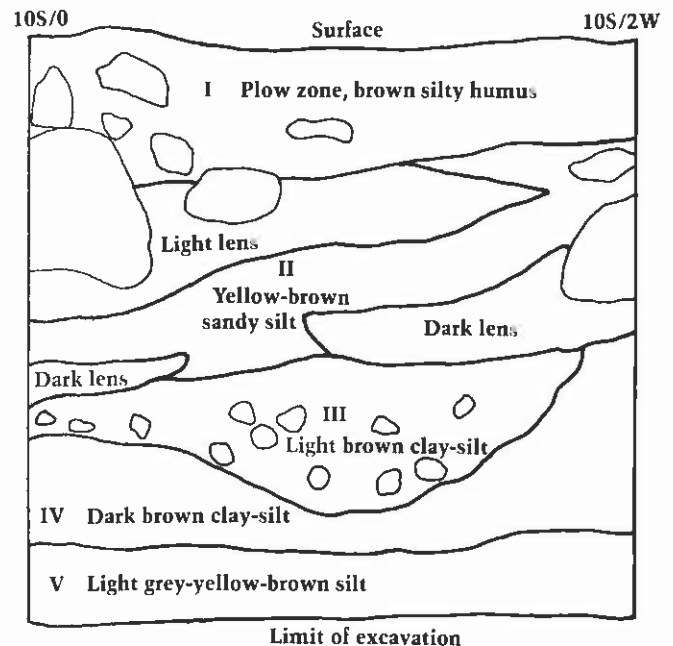


Figure B.4. SSU 4 profile: T-9A, 8–10S/O–2W.

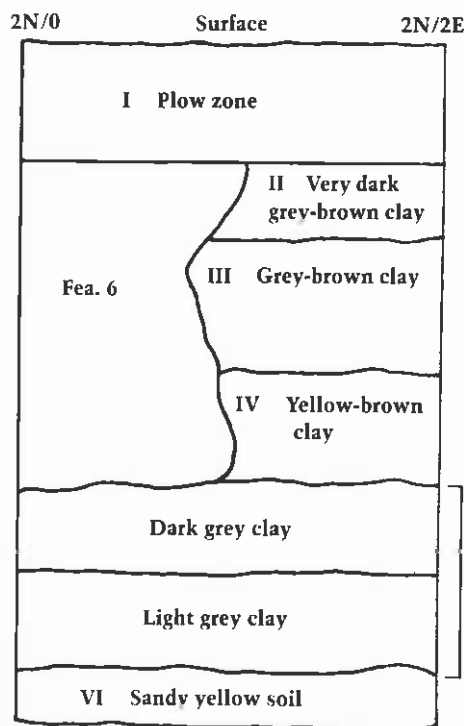


Figure B.5. SSU 5 profile: T-11, 1-2N/O-2E.

Comments: In Level II, the 50-55 cm level represents the floor level of the T-11 structure. Due to abundant intrusions on this terrace, this small area was the only undisturbed floor excavated in the interior of the structure. The level of this floor and the plow zone (Level I) materials above it were too eroded to be useful in sequence building.

Feature 6 is evident in the 2N, 0-2E profile of this unit. This feature, along with others on this terrace, was apparently intruded from the plow zone level. Annual plowing prohibits the determination of their relative age; however, minor amounts of post-Formative debris from the interior of these features indicates a later date for them.

C-14 Dates:

Level IV N-1709 630 ± 110 BC

SSU 6 (Fig. B.6)

T-15W: 37-38S/9-11E.

Level: Subphase:

I LATE AMATE

Comments: The lowest level, here designated Level I, was determined to be the only stratum likely to represent primary deposition. Two superimposed structures are evident in this unit. The earliest walls rest on Level I, while the

upper structure is a stone-faced platform which is associated with Monument 21 and which dates to the Cantera phase. Post-Formative ceramics were found clearly posterior to the platform, in the plow zone and outside the structure.

C-14 Dates: None.

SSU 7 (Fig. B.7)

T-20: 15-16N/2-4E.

Level: Subphase:

I
II
III LATE CANTERA

Comments: The upper two levels represent a mixture of cultural debris due to later period construction and slope

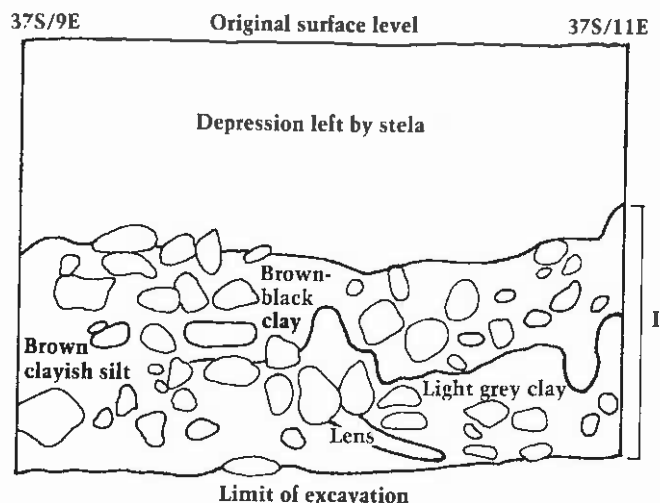


Figure B.6. SSU 6 profile: T-15W, 37-38S/9-11E.

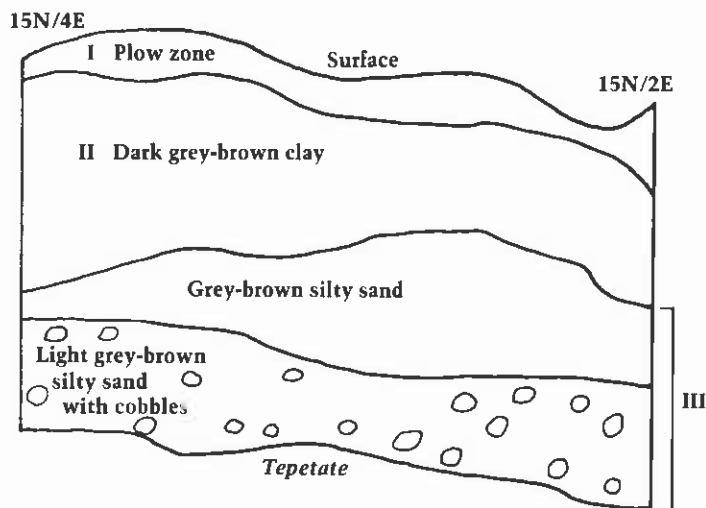


Figure B.7. SSU 7 profile: T-20, 15-16N/2-4E.

wash, and thus were not included in this analysis.

C-14 Dates: None.

SSU 8

T-21: 25-27N/72-73W, Fea. 1 [see Fig. 4.29].

Level: Subphase:

I
II
III
IV LATE CANTERA
V LATE CANTERA
VI LATE CANTERA
VII LATE CANTERA
VIII EARLY CANTERA
IX MIDDLE BARRANCA

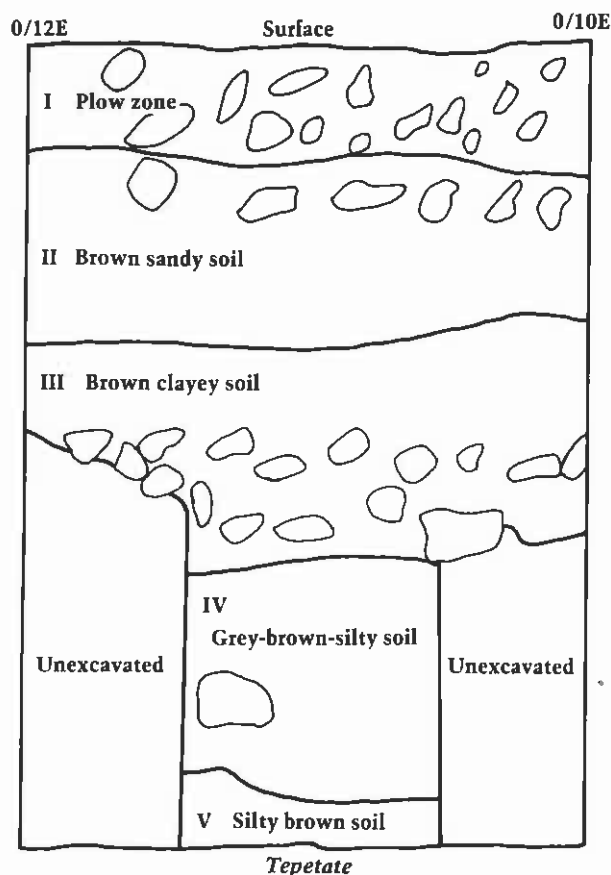


Figure B.8. SSU 11 profile: T-17, O-1N/10-12E.

Comments: Intrusive Fea. 1 was excavated using the alignment or configurations of dumped loads of sherds as indicators of natural levels or single acts of dumping. These levels were utilized in the sequence building (except for the plow zone and the first two levels of the feature) in the hopes that the patterns of dumping in the feature would provide finer temporal control. The use span of this feature, however, was apparently short except for the lowest two levels.

C-14 Dates:

Level IV N-1950 830 ± 85 BC

SSU 9

T-21: 25-27N/74-75W.

Level: **Subphase:**

- | | |
|-----|---------------|
| I | |
| II | |
| III | LATE BARRANCA |

Comments: Level II of this unit is the matrix into which SSU 8 Fea. 1 was intruded. Levels I and II were not used in this study due to high frequencies of eroded materials.

C-14 Dates: None.

SSU 10

T-21: 6-7N/66-68W.

Level: **Subphase:**

- | | |
|-----|---------------|
| I | |
| II | LATE CANTERA |
| III | EARLY CANTERA |

Comments: Level I was the plow zone and therefore not used in this study. Levels II and III were associated with parallel rock lines whose function was to retain downslope movement from the adjacent and higher T-23.

C-14 Dates: None.

SSU 11 (Fig. B.8)

T-17: 0-1N/10-12E.

Level: **Subphase:**

- | | |
|-----|----------------|
| I | |
| II | |
| III | |
| IV | LATE BARRANCA |
| V | EARLY BARRANCA |

Comments: Although a *talud* wall and the remains of an earlier structure were found in the upper levels of this unit, the ceramics were deplorably eroded except in the lower two levels, IV and V, so only these two levels were utilized in this study.

C-14 Dates: None.

SSU 12-13 (Fig. B.9)

T-23: 7-9N/5-6E (SSU 12),
7-9N/6-7E (SSU 13).

Level (both units): **Subphase:**

- | | |
|-----|--------------|
| I | LATE CANTERA |
| II | LATE CANTERA |
| III | LATE CANTERA |
| IV | LATE CANTERA |

Comments: These two adjacent units perforate two possible floors, one at Level II and the other at Level III. A possible intrusion of pottery vessels is evident in the 7-9N/6E profile, perhaps associated with nearby burials. The construction activity on T-23 was intense and apparently encompassed a relatively short time span. Areas within the structure were disturbed for the interment of individuals and for the fashioning of other specialized activity features.

Although there appears to have been no major disturbance in these two units, it is disconcerting to note that in the seriations conducted on these materials, the levels seriated upside down from the original stratigraphic order. While there are relatively few differences in the assemblages from top to bottom, and all these levels can be considered part of the Late Cantera subphase, caution must be exercised in using these levels for finer chronological divisions simply because of the possibility that they are disturbed.

C-14 Dates: None.

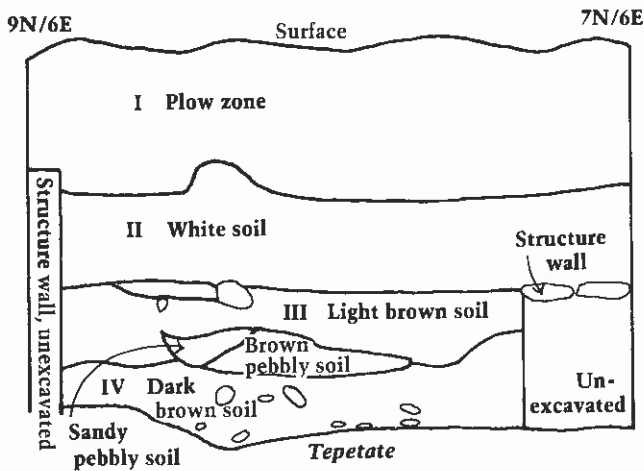


Figure B.9. SSU 12-13 profile: T-23, 7-9N/6E.

SSU 14 (Fig. B.10)
T-23: 35-36N/28-29E.

Level: Subphase:

- I
- II
- III LATE BARRANCA

Comments: Levels I and II contained totally eroded materials and were not included in this study. Level III is a possible floor and is the only stratum used for sequence building.

C-14 Dates: None.

SSU 15
T-24: 20-21N/2-5E, Fea. 2.

Level: Subphase:

- I
- II
- III (Fea. 2) LATE CANTERA
- IV LATE CANTERA

Comments: The plow zone and underlying stratum of slope wash (Levels I and II), which both crosscut the slope of Level IV, were not used in this study. It is unclear whether Feature 2 in Level III postdates the slope wash zone, but it certainly postdates Level IV.

C-14 Dates: None.

SSU 16-19 (Fig. B.11)
T-25: 0-1S/0-7W in front of the altar (SSU 16), 1S-1N/0-1W (pozo; SSU 17), 0-1N/0-1E (SSU 18), 1-2N/4-5W (SSU 19).

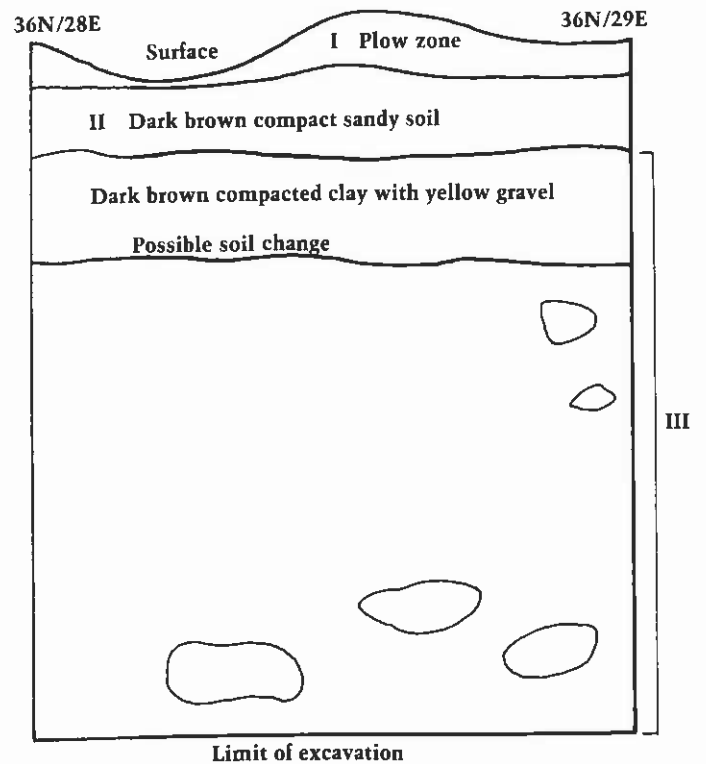


Figure B.10. SSU 14 profile: T-23, 35-36N/28-29E.

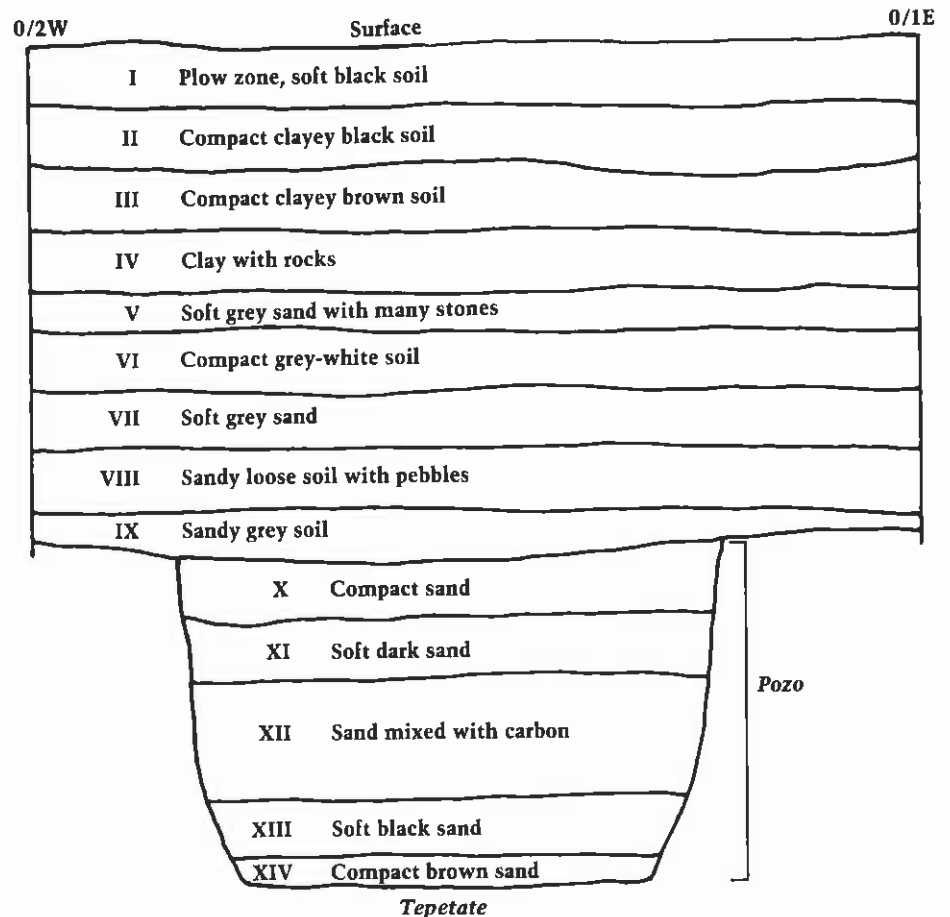


Figure B.11. SSU 16-19 profile: T-25, 0/1E-2W.

Level:	Subphase:
SSU 16 I	
III	
IV	LATE CANTERA
V	LATE CANTERA
VI	LATE BARRANCA
VII	MIDDLE BARRANCA
VIII	MIDDLE BARRANCA
SSU 17 IX	MIDDLE BARRANCA
X	MIDDLE BARRANCA
XI	MIDDLE BARRANCA
XII	MIDDLE BARRANCA
XIII	MIDDLE BARRANCA
XIV	MIDDLE BARRANCA
SSU 18 I	
II	
III	
IV	LATE CANTERA
V	LATE CANTERA
VI	LATE BARRANCA
VII	MIDDLE BARRANCA
VIII	MIDDLE BARRANCA
SSU 19 II	
III	
IV	LATE CANTERA
V	LATE CANTERA
VI	LATE BARRANCA
VII	MIDDLE BARRANCA

Comments: In these four related units, Levels I (plow zone), II, and III were not used in this study. Levels II and III were associated with the large rocks covering the face of the altar. Levels V–VIII and the *pozo* (pit; Levels X–XIV) are pre-altar occupation levels. The *pozo* feature was intruded into sterile *tepetate* from the level of *tepetate*.

C-14 Dates:

Pozo (lower levels) N-1702 670
± 100 BC

Pozo (upper levels) N-1710 1070
± 85 BC

SSU 20 (Fig. B.12)

T-25: 6–8S/3–4W.

Level: Subphase:

I	
II	
III	
IV	EARLY CANTERA

Comments: This unit is located behind the T-25 altar. The upper levels (I–III) are zones of erosion detained by the altar construction. Level IV predates altar construction and is undoubtedly an occupation zone due to the presence of large vessel fragments and large quantities of carbon.

C-14 Dates: None.

SSU 21 (Fig. B.13)

T-25: 2–4S/0–1E.

Level: Subphase:

I	
II	
III	
IV	
V	EARLY–LATE CANTERA
VI	LATE BARRANCA

Comments: Levels I–IV were eliminated from this study due to high frequencies of eroded materials.

C-14 Dates: None.

SSU 22 (Fig. B.14)

T-25: 2.2–4S/2–3W.

Level: Subphase:

I	
II	
III	
IV	
V	LATE BARRANCA
VI	LATE BARRANCA
VII	MIDDLE BARRANCA

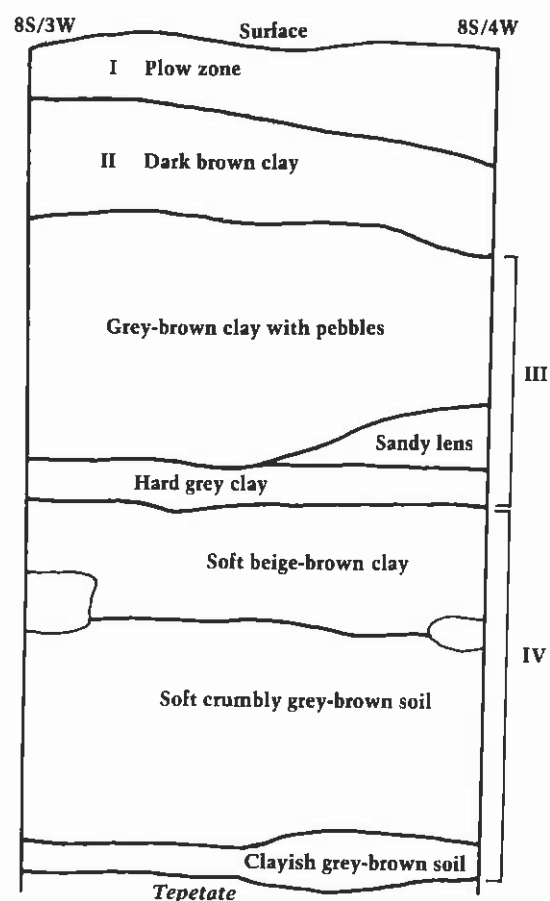


Figure B.12. SSU 20 profile: T-25, 6–8S/3–4W.

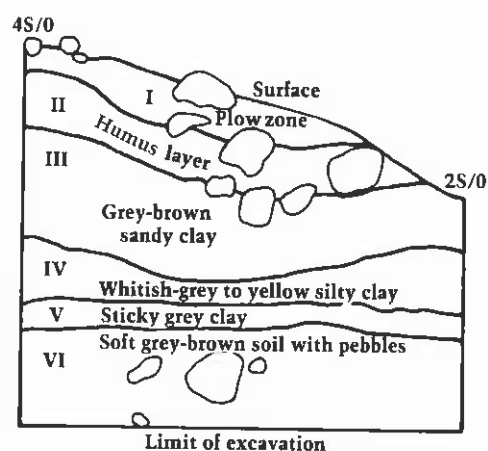


Figure B.13. SSU 21 profile: T-25, 2–4S/0–1E.

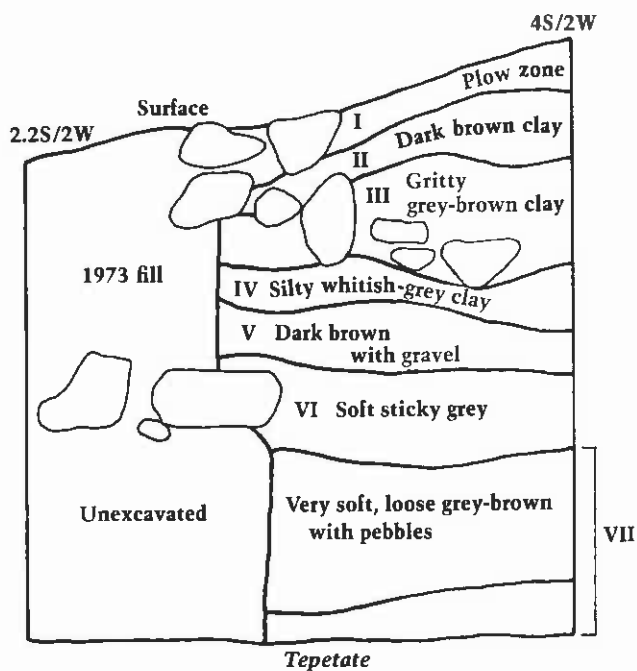


Figure B.14. SSU 22 profile: T-25, 4–2.2S/2–3W.

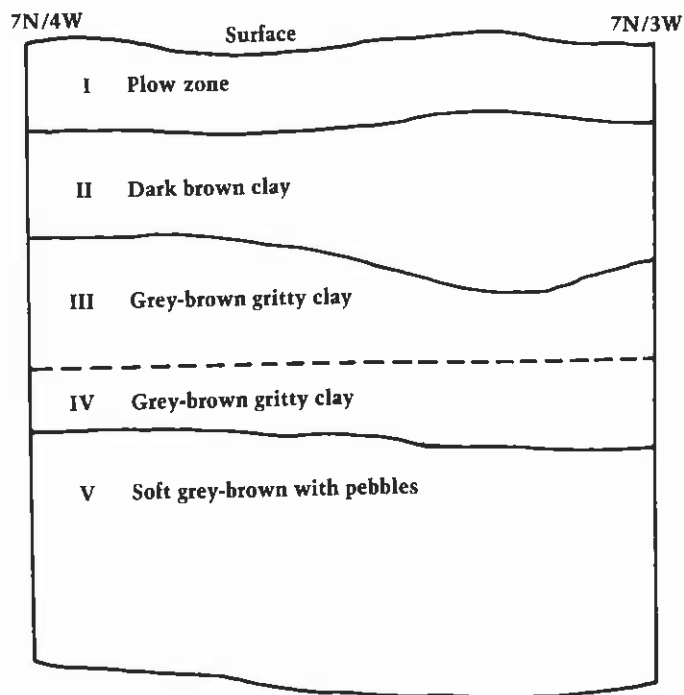


Figure B.15. SSU 24 profile: T-25, 4–7N/3–4W.

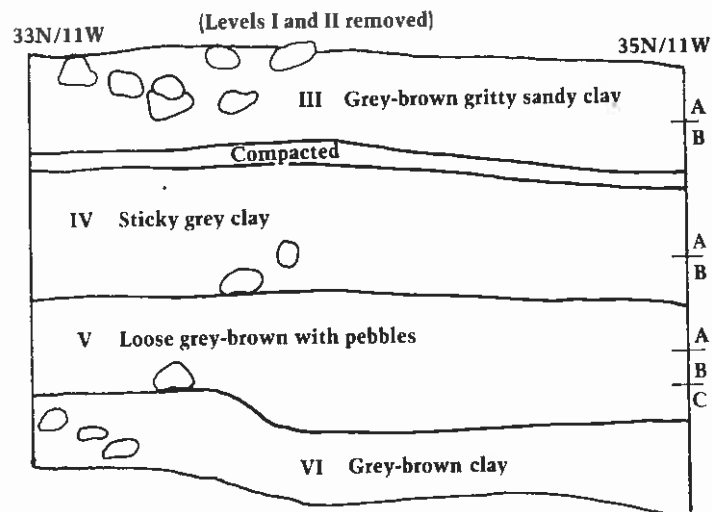


Figure B.16. SSU 25 profile: T-25, 33–35N/10–11W.

Comments: Levels I–IV contained high proportions of eroded materials and were not used in this study.
C-14 Dates: None.

SSU 23

T-25: 2–4N/6–7W.

Level: *Subphase:*

- | | |
|-----|-----------------|
| I | |
| II | |
| III | |
| IV | LATE CANTERA |
| V | MIDDLE BARRANCA |

Comments: Levels I–III contained high proportions of eroded materials and were not used in this study.
C-14 Dates: None.

SSU 24 (Fig. B.15)

T-25: 4–7N/3–4W.

Level: *Subphase:*

- | | |
|-----|----------------------|
| I | |
| II | |
| III | |
| IV | LATE BARRANCA |
| V | MIDDLE–LATE BARRANCA |

Comments: High percentages of eroded materials in Levels I–III resulted in their elimination from this analysis.
C-14 Dates: None.

SSU 25 (Fig. B.16)

T-25: 33–35N/10–11W.

Level: *Subphase:*

- | | |
|----|--|
| I | |
| II | |

IIIA	LATE CANTERA
IIIB	EARLY CANTERA
IVA	LATE BARRANCA—EARLY CANTERA
IVB	LATE BARRANCA
VA	MIDDLE BARRANCA
VB	MIDDLE BARRANCA
VC	EARLY BARRANCA
VI	EARLY BARRANCA

Comments: The plow zone (Level I) and Level II were not used in this study. Level II was a zone of post-Formative intrusions. Levels IIIA and IIIB were occupation levels associated with a stone-faced platform.

C-14 Dates: None.

SSU 26

T-29: 3.8–4S/13–15W.

Level: Subphase:

I	
II	
III	EARLY CANTERA
IV	LATE BARRANCA

Comments: Levels I and II represent plow and slope wash zones, and were not used in this study. Both Levels III and IV were associated with stone constructions.

C-14 Dates: None.

SSU 27 (Fig. B.17)

S-39: 5–6N/4–5W.

Level: Subphase:

I	
II	LATE CANTERA

Comments: The plow zone (Level I) was not used in the analysis.

C-14 Dates: None.

SSU 28 (Fig. B.18)

PC: 0–3N/0–1E.

Level: Subphase:

I	
II	
III	
IV	
V	
VI	
VII	LATE AMATE

Comments: This unit perforated the platform mound (Str. 4) at the southern edge of the Plaza Central. Level VII was the only undisturbed stratum pertaining to a pre-mound construction period.

C-14 Dates:

Level VII N-1698 1660 ± 90 BC

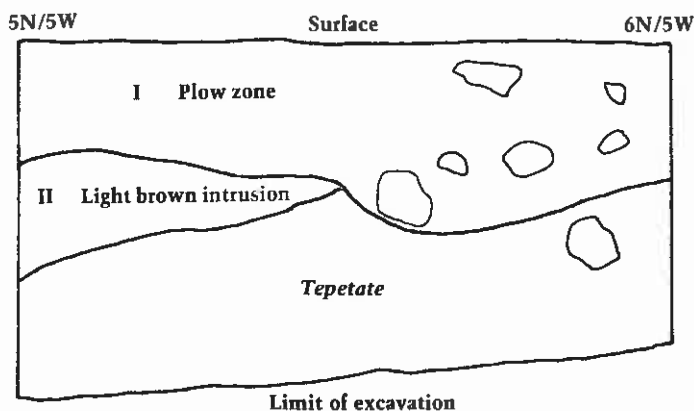


Figure B.17. SSU 27 profile: S-39, 5–6N/4–5W.

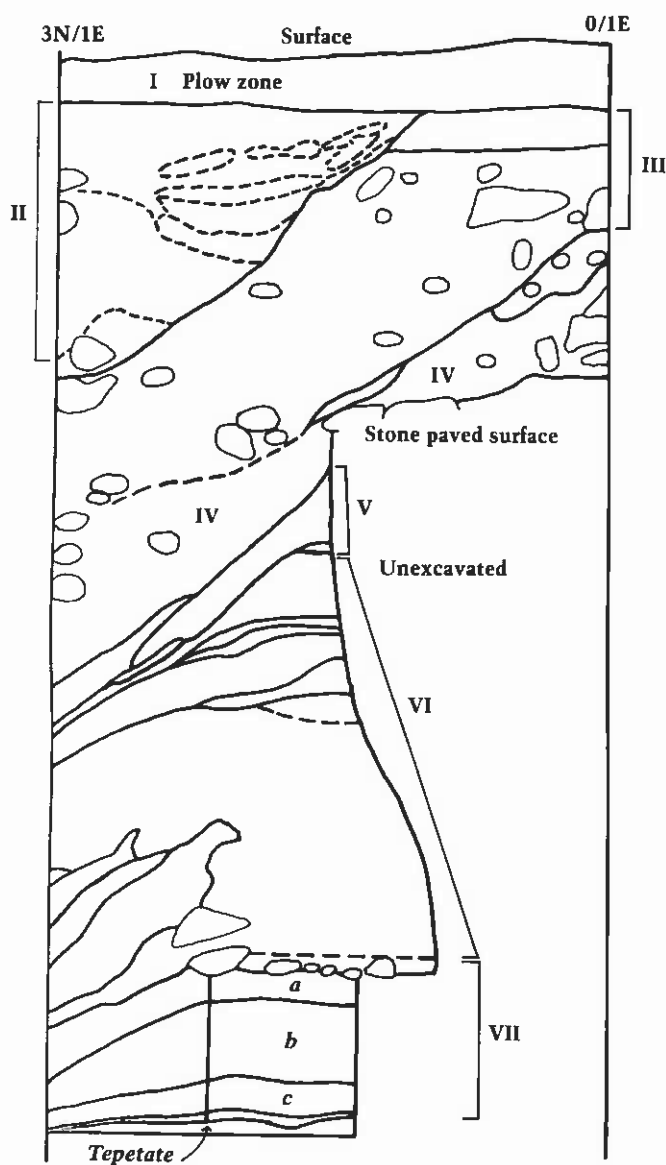


Figure B.18. SSU 28 profile: PC Structure 4, 0–3N/1E. Level II, Classic period rebuilding; III, Cantera phase rebuilding; IV, possible Cantera phase rebuilding; V–VI, Amate phase structure.

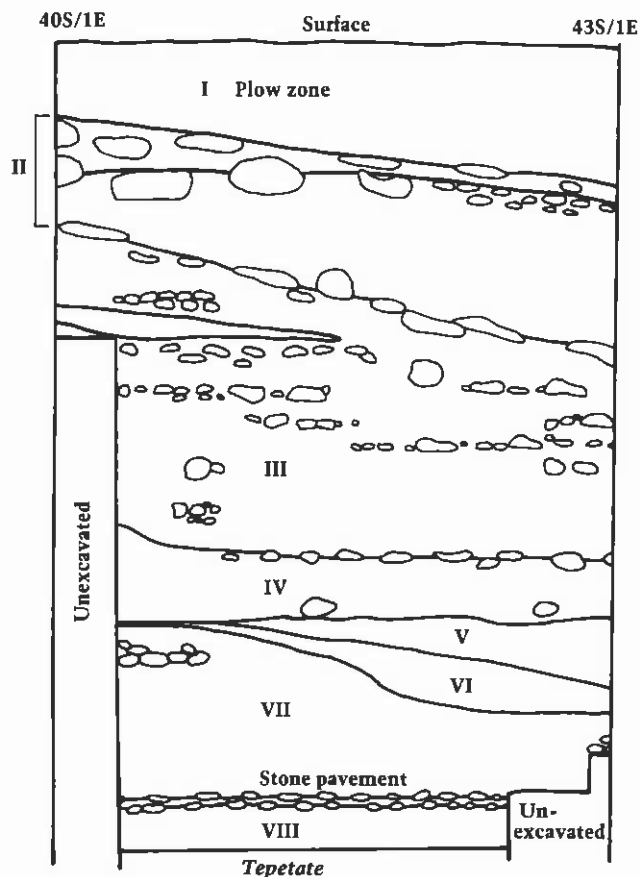


Figure B.19. SSU 29 profile: PC Structure 4, 40-43S/1E.

SSU 29 (Fig. B.19)
PC: 40-43S/0-1E.

Level: Subphase:

I	
II	
III	
IV	
V	LATE AMATE
VI	LATE AMATE
VII	LATE AMATE
VIII	LATE AMATE

Comments: This unit also perforated PC Structure 4. The top 3 m (Levels I-IV) represent platform fill. A stone pavement sealed the pre-mound levels (V-VIII).
C-14 Dates: None.

SSU 30 (Fig. B.20)
PC Trench: 68.6-70S/0-1E,
71-75S/0-1E.

Level: Subphase:

I	
II	
III	
IV	
V	
VI	EARLY CANTERA
VII	LATE BARRANCA-EARLY CANTERA

Comments: The upper strata of these two adjacent units (Levels I-V) represent heavy slope wash. The lower levels, VI and VII, were original ground surfaces.

C-14 Dates:
Level VII N-1409 1140 ± 100 BC

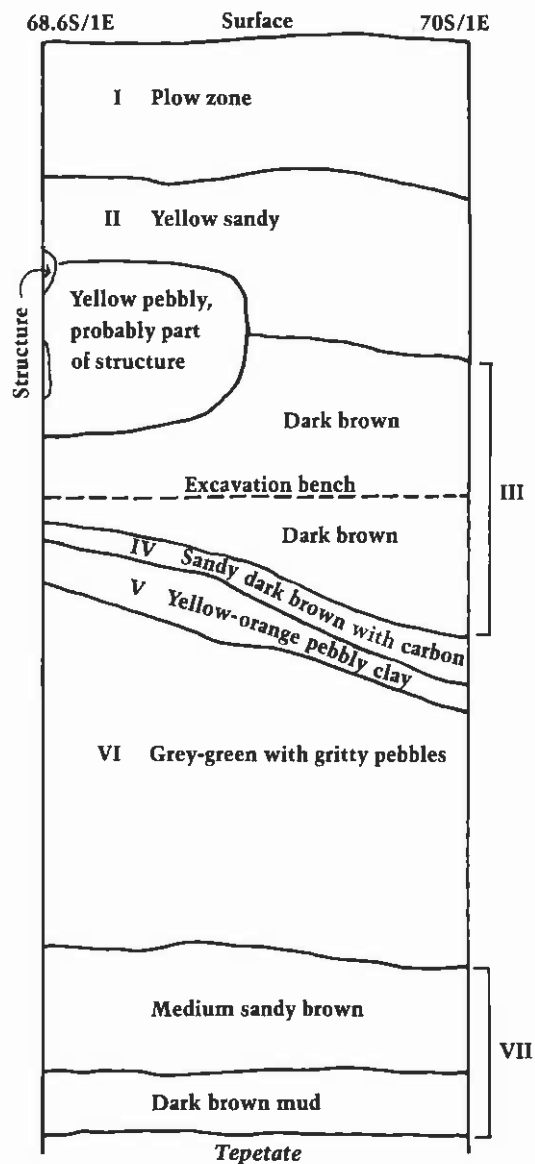


Figure B.20. SSU 30 profile: PC Trench, 68.6-70S/1E.

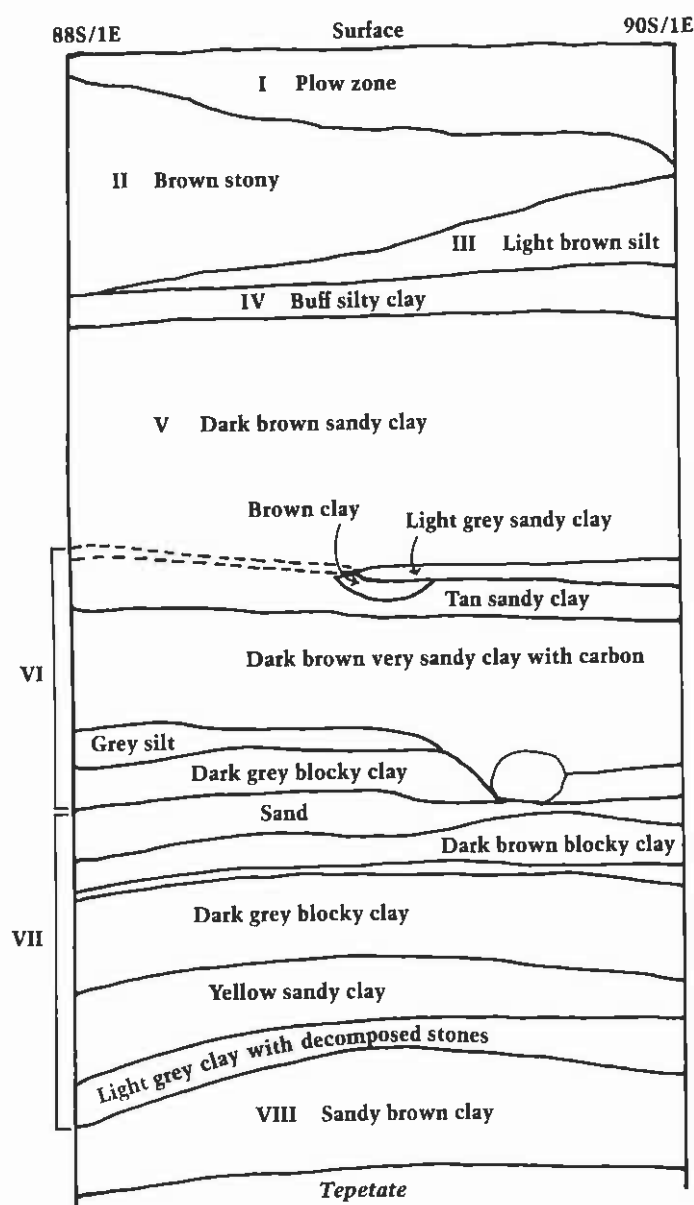


Figure B.21. SSU 31 profile: PC Trench, 88-90S/1E.

SSU 31 (Fig. B.21)

PC Trench: 87-90S/0-1E.

Level:	Subphase:
I	
II	
III	
IV	
V	LATE CANTERA
VI	EARLY CANTERA
VII	LATE BARRANCA
VIII	LATE BARRANCA

Comments: Levels I-IV are part of a zone of heavy slope wash and contained high frequencies of eroded materials; thus, they were eliminated from this study.

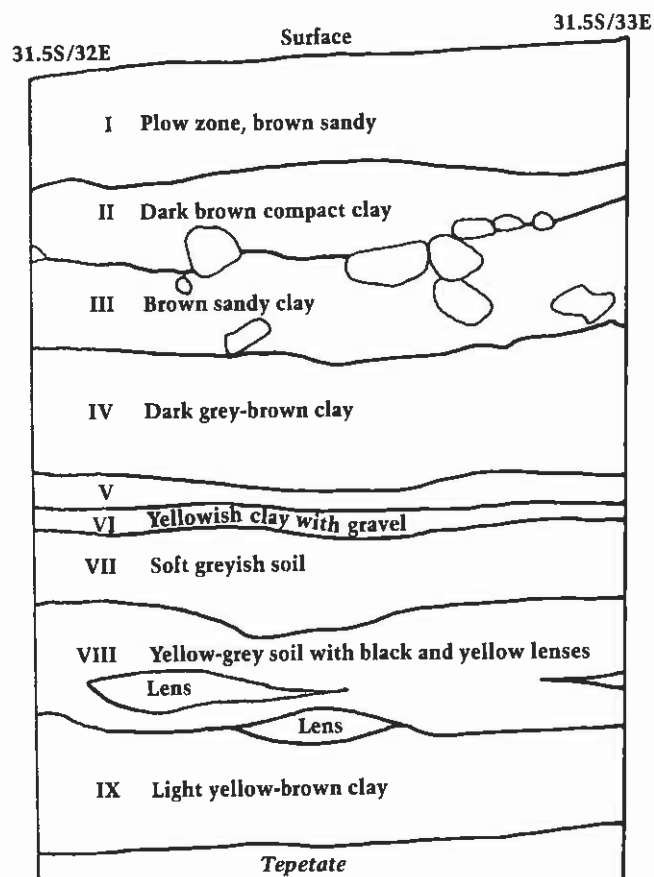


Figure B.22. SSU 32 profile: PC, 31.5S/32-33E.

C-14 Dates:

Level VII N-1407 1090 ± 85 BC

SSU 32 (Fig. B.22)

PC: 28-29S/33-34E, 31-32S/33-34E, 31-32S/35-36E, 31-32S/36-37E, 31-32S/37-38E, 31-32S/34-35E, 30-31.5S/32-33E.

Level:	Subphase:
I	
II	
III	
IV	
V	
VI	
VII	LATE AMATE
VIII	LATE AMATE
IX	

Comments: Levels VII and VIII were the only reliable levels with unmixed materials. The other strata were not used in this study.

C-14 Dates: None.

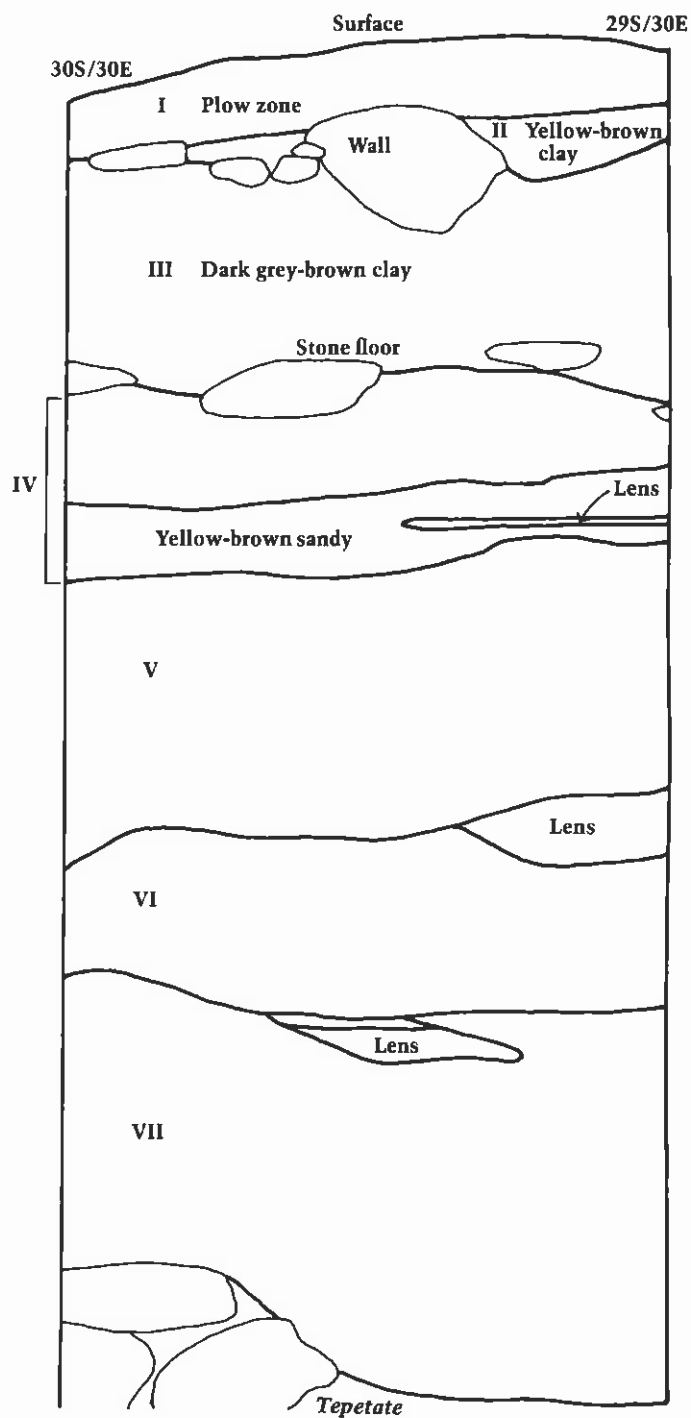


Figure B.23. SSU 33 profile: PC, 29-30S/30-31E.

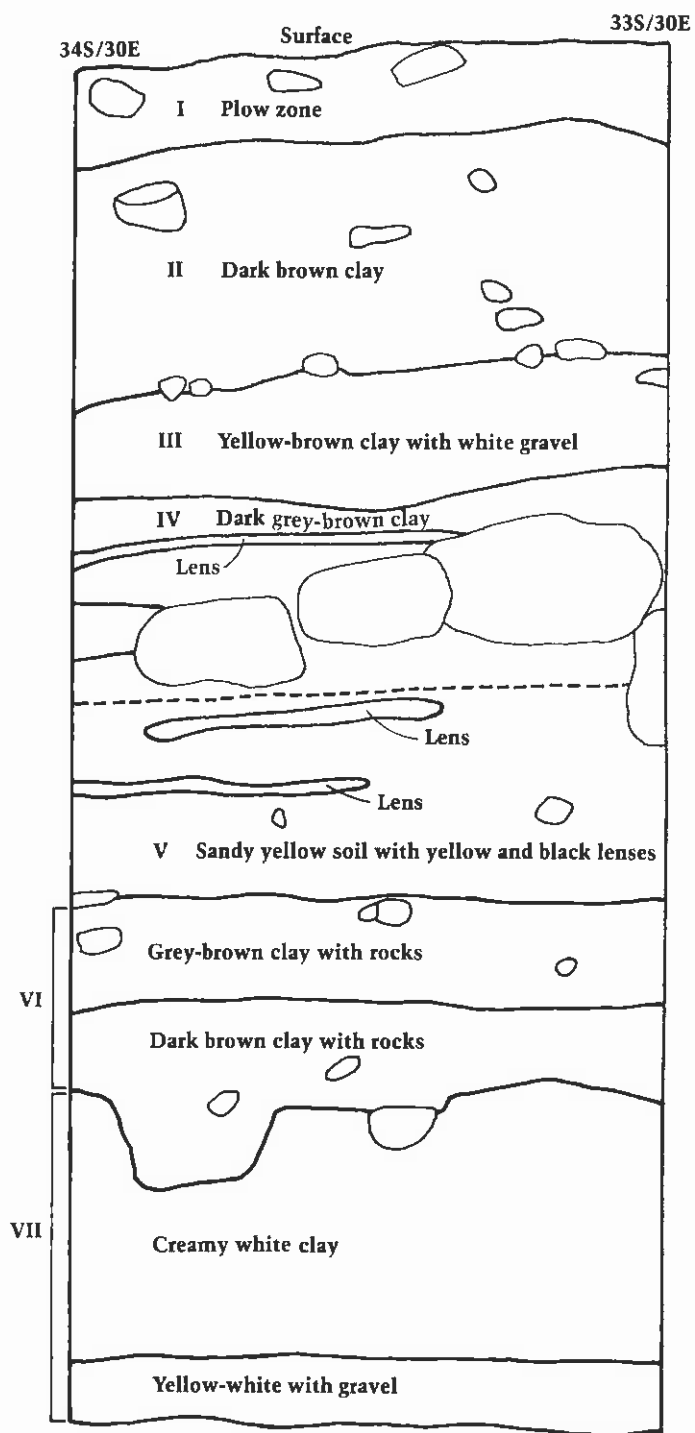


Figure B.24. SSU 34 profile: PC, 33-34S/30-31E.

SSU 33 (Fig. B.23)

PC: 29-30S/30-31E.

Level: Subphase:

I	
II	
III	
IV	LATE AMATE
V	LATE AMATE
VI	EARLY AMATE
VII	EARLY AMATE

Comments: Levels I-III represent the plow zone and mound fill or wash zones, and were not used in this study.

C-14 Dates: None.

SSU 34 (Fig. B.24)

PC: 33-34S/30-31E.

Level: Subphase:

I	
II	
III	
IV	
V	LATE AMATE
VI	LATE AMATE
VII	EARLY AMATE

Comments: Levels V-VII predate the stone pavement and were the only levels used from this unit. The upper levels (I-IV) are zones of mixed materials.

C-14 Dates: None.

SSU 35-36 (Fig. B.25)

PC Str. 1: 112-114S/0-2W (trash pit feature; SSU 35), 114-116S/0-2E (SSU 36).

Level: Subphase:

I	
FEATURE (SSU 35)	LATE CANTERA
II	
III	EARLY CANTERA
IV	EARLY CANTERA
V	LATE BARRANCA
VI	LATE BARRANCA
VII	LATE BARRANCA
VIII	LATE BARRANCA
IX	MIDDLE BARRANCA
X	MIDDLE BARRANCA
XI	EARLY BARRANCA
XII	EARLY BARRANCA
XIII	EARLY BARRANCA
XIV	EARLY BARRANCA

Comments: The SSU 35 trash pit was an intrusive feature which disturbed the stone walls in Levels II and III. This feature postdates the construction activity of Level II and predates the interment of Burial 19. It contained a large amount of debris and also a small stone sculpture.

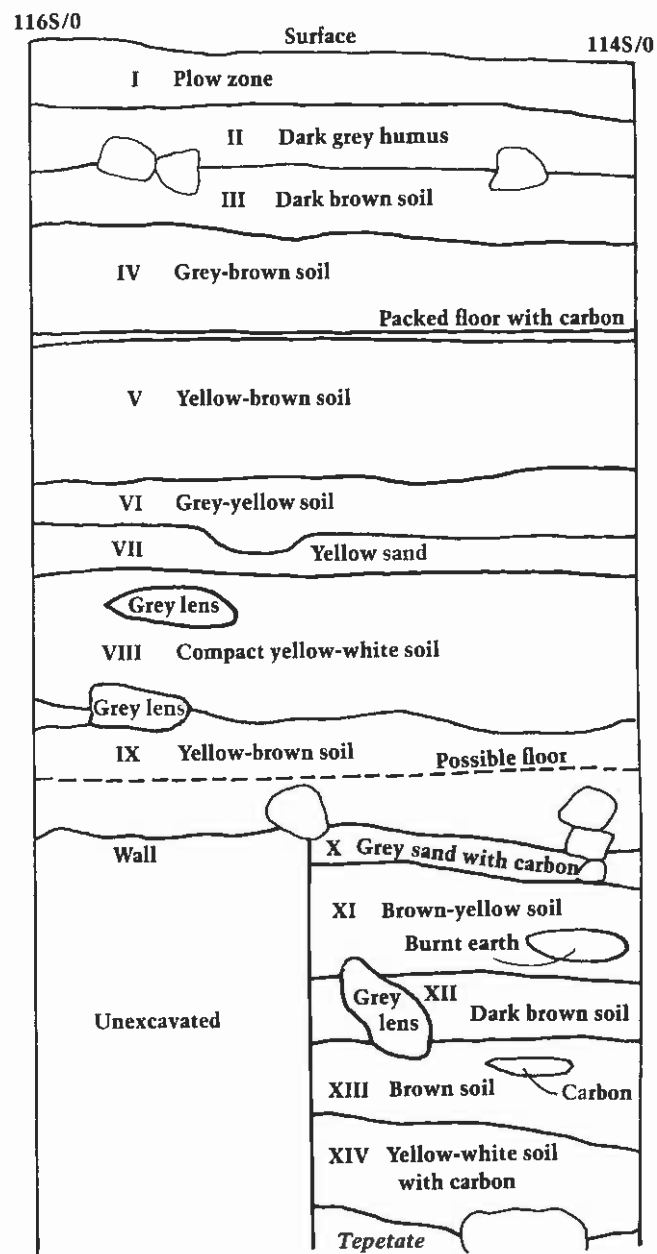


Figure B.25. SSU 35-36 profile: PC Structure 1, 114-116S/O.

Levels I (plow zone) and II of SSU 36 were not used due to high frequencies of eroded materials. The lower levels constitute a series of floors.

C-14 Dates:

Level II	N-1404	710 ± 70 BC
Level VIII	N-1705	820 ± 100 BC
Level XIII	N-1704	220 ± 95 BC

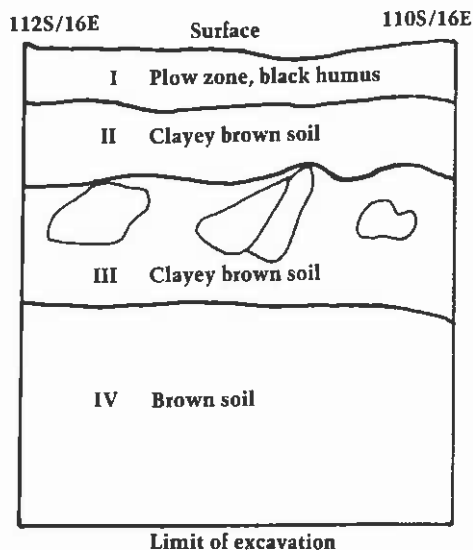


Figure B.26. SSU 37 profile: PC Structure 3, 110–112S/16–18E.

SSU 37 (Fig. B.26)

PC Str. 3: 110–112S/16–18E.

Level: Subphase:

- | | |
|-----|---------------|
| I | |
| II | |
| III | |
| IV | LATE BARRANCA |

Comments: Unfortunately, due to a bag labeling error during excavations, the upper levels of this unit could not be reliably determined. The lowest level (IV) contains no construction activity; however, within this level there are indications of a possible hearth area nearby.

C-14 Dates:

Level IV N-1412 1040 ± 135 BC

SSU 38 (Fig. B.27)

T-6: 3–4N/9–10W, 0–3S/9–10W,
0.5–1.5S/10–12W, 0.5–1.5S/12–13W.

Level: Subphase:

- | | |
|------|------------|
| I | |
| II | |
| III | |
| IV | |
| V | LATE AMATE |
| VI | LATE AMATE |
| VII | LATE AMATE |
| VIII | LATE AMATE |
| IX | LATE AMATE |

Comments: Levels V–IX represent undisturbed strata on T-6. A possible platform structure of Amate phase date is also present.

C-14 Dates: None.

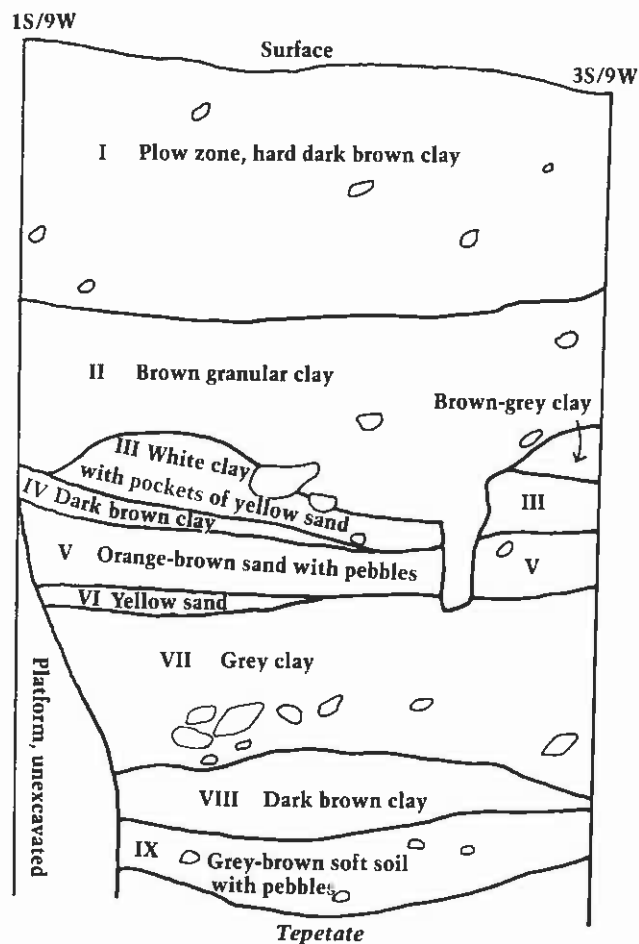


Figure B.27. SSU 38 profile: T-6, 1–3S/9–10W.

APPENDIX C

The Chalcatzingo Burials

MARCIA MERRY DE MORALES

Detailed descriptions of the 161 Chalcatzingo burials are provided in this appendix. They are ordered by terrace and, for the Plaza Central (T-1), by structure as well. The burial numbers given here and throughout the book were assigned at the end of the project; thus, they do not always agree with the field numbers which may appear in photographs. Numbers and letters used to designate the mortuary furniture correspond with those artifacts in the line drawings. Due to poor preservation, the age and sex data are frequently listed as "indeterminable." However, a few of those listings actually reflect data inadvertently undetermined or unrecorded by the excavator.

PLAZA CENTRAL STRUCTURE 1

Burial 1

Location	Unit 120-122S/2-4E; 15-20 cm below surface.
Grave	Simple, direct. Disturbed.
Age and sex	Adult, sex indeterminable.
Position	Indeterminable.
Orientation	Indeterminable.
Furniture	Ground stone: a. Metate fragment. Obsidian: b. Two prismatic blade fragments.
Remarks	Only teeth and a few skull fragments remained.
Dating	Cantera phase.

Burial 2

Location	Unit 120-122S/2-4E; 30 cm below surface.
Grave	Simple, direct.
Age and sex	Adult, sex indeterminable.
Position	Extended, supine.
Orientation	East-west, head to west.

Furniture

Ceramics:

1. Amatzinac White double-loop handle censer. Height: 20 cm.
2. Carrales Coarse Grey composite bowl with thin-line geometric incising on the exterior and double-line incised on interior rim. Diameter: 18 cm.
3. Carrales Coarse Grey ovate bowl, thin-line incising on exterior and double-line incised on interior rim (Fig. 13.53b).
4. Carrales Coarse Grey composite bowl (Fig. 13.52d) with cursive thin-line incising on exterior near rim. Interior rim incised with double-line-break motif. Diameter: 21 cm.
5. Amatzinac White shallow bowl, exterior incised. Diameter: 18 cm.
6. Amatzinac White flaring bowl. Height: 10 cm. Diameter: 29 cm.

- Obsidian:
a. Three prismatic blade fragments.
Vessels 1-4 placed south (right) of torso.
Vessels 5, 6 placed north (left) of skull.
Cantera phase.

Remarks

Dating

Burial 3 (Fig. 8.8)

Location	Unit 118-120S/0-2E; 20 cm below surface.
Grave	Simple, placed within a crypt, now destroyed with cover stones missing.
Age and sex	Adult, sex indeterminable.

Position

Orientation

Furniture

Remarks

Dating

Burial 4

Location	Unit 120-122S/0-2W; 15 cm below surface.
Grave	Simple, direct.
Age and sex	Adult, female (?).
Position	Extended, supine.
Orientation	Northwest-southeast, head to northwest.
Furniture	Ceramics: 1. Amatzinac White double-loop handle censer. Height (partial): 20 cm. Placed over pelvic region.

Extended, supine. Right lower leg crossed over left lower leg.

North-south, head to north.

Ceramics:

1. Atoyac Unslipped Polished *cantarito*. Height: 8 cm. Placed east of left leg.

2. Peralta Orange composite bowl with punctates at shoulder (Fig. 13.40b). Diameter (partial): 31 cm. Placed west of right leg.

Ground stone:

a. Mano, placed at foot of burial.

Other:

b. Large carved stone head (Mon. 17). Olmec style. Height: 20 cm. Width: 17.5 cm. Maximum depth: 10.5 cm. Placed at pelvic region of corpse. Partially broken, with one side of the upper face knocked off. Grave in plow zone, crypt damaged by plowing. Cantera phase.

	2. Atoyac Unslipped Polished <i>cantarito</i> with concentric arcs incised around body of vessel. Height: 13 cm.	Dating	Cantera phase.		25 cm below surface.
	3. Carrales Coarse Grey bowl with slight incurved rim. Diameter: 12 cm. Placed over chest of corpse.	Burial 7		Grave	Simple, direct.
	4. Eroded <i>cantarito</i> (Fig. 13.49b). Placed near chin.	Location	Unit 118–120S/0–2E; 24 cm below surface.	Age and sex	Middle-aged adult, sex indeterminable.
	Ground stone:	Grave	Simple, direct.	Position	Extended, supine. Lower right arm bent in over pelvis. Lower portion of body was twisted slightly to the south, with knees slightly flexed.
	a. Metate fragment.	Age and sex	Adult, sex indeterminable.		
	b. Two manos.	Position	Loosely flexed, on right side.	Orientation	East-west, head to east.
	Obsidian:	Orientation	East-west, head to west.	Furniture	Ceramics:
	c. Two prismatic blade fragments located near skull.	Remarks	A large stone occurred near top of skull.		1. Atoyac Unslipped Polished (?) <i>cantarito</i> (Fig. 13.49c). Height: 9 cm. Placed within other vessel.
Dating	Cantera phase.	Dating	Cantera phase.		2. Eroded shallow bowl. Diameter: 6 cm.
		Burial 8			Obsidian:
		Location	Unit 118–120S/0–2W; 30 cm below surface.		a. Six prismatic blades.
		Grave	Simple, direct.		b. One flake.
Burial 5		Age and sex	Adult, sex indeterminable.		Ground stone:
Location	Unit 120–122S/0–2E; 20 cm below surface.	Position	Extended, supine (?).		c. Metate fragment.
Grave	Simple. Narrow stones placed standing around body are apparently the remains of a destroyed crypt, cover missing.	Orientation	Northwest-southeast, head to northwest.		d. Mano.
Age and sex	Juvenile, sex indeterminable.	Furniture	Ceramics:	Remarks	Both vessels were placed slightly south of feet. The ground stone artifacts were placed at the foot of the corpse, as was the flake. The blades were scattered about the body.
Position	Extended, supine, with arms crossed over pelvis.		1. Amatzinac White slightly incurved rim bowl, exterior incised. Diameter: 18 cm.	Dating	Cantera phase.
Orientation	North-south, head to north.	Remarks	2. Carrales Coarse Grey composite bowl with thin-line geometric incising. Diameter: 21 cm.		
Furniture	Ceramics:	Dating	Both vessels placed east of legs.	Burial 11	
	1. Carrales Coarse Grey composite bowl with four lugs around rim. Placed west of skull.		Cantera phase.	Location	Unit 116–118S/0–2E; 30–34 cm below surface.
Remarks	Grave lies within the plow zone and crypt was apparently destroyed by recent agricultural activities.	Burial 9 (Fig. 8.10)		Grave	Simple, direct. Double interment with Burial 12.
Dating	Cantera phase.	Location	Unit 116–118S/0–2W; 26 cm below surface.	Age and sex	Adult, possibly female.
		Grave	Simple, direct.	Position	Tightly flexed, on left side.
		Age and sex	Adult, sex indeterminable.	Orientation	East-west, head to west.
		Position	Tightly flexed, on right side. Face up.	Furniture	None.
		Orientation	East-west, head to west.	Dating	Cantera phase.
		Furniture	Ceramics:		
Burial 6			1. Amatzinac White shallow bowl. Diameter: 12 cm.	Burial 12	
Location	Unit 118–120S/0–2E; 25 cm below surface.		2. Amatzinac White shallow bowl. Diameter: 13 cm.	Location	Unit 116–118S/0–2E; 30–34 cm below surface.
Grave	Simple, direct.	Remarks	Vessels placed mouth to mouth at foot of skeleton.	Grave	Simple, direct. Double interment with Burial 11.
Age and sex	Adult, sex indeterminable.	Dating	Cantera phase.	Age and sex	Infant, sex indeterminable.
Position	Extended, supine.			Position	Tightly flexed, on left side.
Orientation	North-south, head to north.	Burial 10 (Fig. 8.11)		Orientation	East-west, head to west.
Furniture	Obsidian:	Location	Unit 122–124S/2–4E;		
	a. Four complete prismatic blades placed at mid-section.				

Furniture	Ornamental stone: a. One tubular jade bead. Length: 1.8 cm. Diameter: 0.8 cm.	Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 13 cm.		21 mm. Placed at top of cranium.
Dating	Cantera phase.		2. Amatzinac White shallow bowl. Diameter: 13 cm.	Dating	Cantera phase.
Burial 13			3. Amatzinac White shallow bowl. Diameter: 13 cm.	Burial 17	
Location	Unit 114-116S/1W-2E; 30 cm below surface.		4. Amatzinac White shallow bowl. Diameter: 13 cm.	Location	Unit 110-112S/0-2E; 26 cm below surface.
Grave	Simple, direct.		Obsidian: a. One prismatic blade.	Grave	Simple, direct.
Age and sex	Adult, sex indeterminable.		Located between arms and legs.	Age and sex	Young adult, sex indeterminable.
Position	Extended, supine.	Remarks	Vessels placed mouth to mouth in pairs. One pair located east of skull, the other pair east of feet.	Position	Flexed, on right side.
Orientation	East-west, head to east.		Cantera phase.	Orientation	East-west, head to west.
Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 13 cm. Placed north of right femur.	Dating		Furniture	None.
	2. Amatzinac White shallow bowl. Diameter: 12 cm. Placed mouth to mouth with vessel 3 at feet.			Dating	Cantera phase.
	3. Amatzinac White shallow bowl. Diameter: 12 cm. Placed mouth to mouth with vessel 2 at feet.	Burial 15 (Fig. 8.13)		Burial 18	
	4. Amatzinac White spouted tray. Placed upside down over shallow bowls at feet.	Location	Unit 114-116S/0-2E; 27 cm below surface.	Location	Unit 108-110S/0-2E; 23 cm below surface.
	5. Atoyac Unslipped Polished (?) shallow bowl. Diameter: 8 cm. Stacked with vessel 6 upside down north of skull.	Grave	Simple, direct.	Grave	Simple, direct.
	6. Atoyac Unslipped Polished (?) shallow bowl. Diameter: 8 cm. Stacked with vessel 5 upside down north of skull.	Age and sex	Young adult, sex indeterminable.	Age and sex	Adult, sex indeterminable.
	Obsidian: a. One prismatic blade. Placed above right shoulder.	Position	Extended, supine, with lower arms flexed across body.	Position	Flexed, upper portion of body placed supine and lower portion turned to right side.
Remarks	Six vessels in association in clusters of one, two, and three vessels (1, 2-3-4, 5-6).	Orientation	Northwest-southeast, head to northwest.	Orientation	North-south, head to north.
Dating	Cantera phase.	Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 12 cm. Placed to north-west of skull.	Furniture	None.
			2. Amatzinac White shallow bowl. Diameter: 12 cm. Placed northwest of skull.	Dating	Cantera phase.
Burial 14			Obsidian: a. Four prismatic blades in association with vessels and skull.	Burial 19	
Location	Unit 114-116S/0-2E; 24 cm below surface.		Cantera phase.	Location	Unit 112-114S/0-2W; 22 cm below surface.
Grave	Simple, direct.	Burial 16		Grave	Simple, direct.
Age and sex	Adult, sex indeterminable.	Location	Unit 112-114S/2W; 31 cm below surface.	Age and sex	Adult, sex indeterminable.
Position	Tightly flexed, on right side.	Grave	Simple, direct.	Position	Extended, supine (?).
Orientation	North-south, head to north.	Age and sex	Adult, sex indeterminable.	Orientation	North-south, head to south.
		Position	Extended, supine.	Furniture	None.
		Orientation	Northwest-southeast, head to northwest.	Remarks	Only fragments of skull and arm bones remained.
		Furniture	Ornamental stone: a. One jadeite pendant (Fig. 17.4g). Diameter:		

Dating	Cantera phase.	Furniture	Ceramics:		(base only). Placed under lower leg bones and feet. Ground stone:
Burial 21			1. Atoyac Unslipped Polished II bowl. Vertical finger impressions on exterior of vessel. Diameter: 14 cm. Placed between the two individuals.		a. One mano placed south of lower leg bones.
Location	Unit 114–116S/4–6W; 20 cm below surface.		Ornamental stone:	Dating	b. One flat (grinding?) stone placed south of lower leg bones.
Grave	Simple, direct. Disturbed.		a. Jade bead, spherical, found at mandible. Diameter: 1.35 cm.	Burial 26	Cantera phase.
Age and sex	Adult (?), sex indeterminable.	Dating	Cantera phase.	Location	Unit 116–118S/2–4W; 30 cm below surface.
Position	Extended.	Burial 24 (Fig. 8.15)		Grave	Simple. Damaged crypt, cover lacking.
Orientation	North-south, head to south (?).	Location	Unit 116–118S/0–2E; 80 cm below surface.	Age and sex	Juvenile, sex indeterminable.
Furniture	Ceramics:	Grave	Simple, direct. Double interment with Burial 23.	Position	Loosely flexed, turned slightly to left side.
	1. Peralta Orange composite bowl with punctates (partial).	Age and sex	Infant, sex indeterminable.	Orientation	Northeast-southwest, head to northeast.
Remarks	Ground stone:	Position	Tightly flexed, on right side.	Furniture	Ceramics:
	a. One mano east of femur.	Orientation	East-west, head to west.		1. Amatzinac White double-loop handle censer. Placed south of mid-section among crypt stones.
	Only fragmented sections of legs remained. Directly overlay Burial 31.	Furniture	Ceramics:	Remarks	Crypt lies near the surface and was probably damaged by plowing.
Dating	Cantera phase.	Dating	See Burial 23.	Dating	Cantera phase.
Burial 22		Burial 25		Burial 27 (Fig. 8.12)	
Location	Unit 112–114S/2–4E; 30 cm below surface.	Location	Unit 114–116S/2–4E; 60 cm below surface.	Location	Unit 122–124S/2–4E; 60 cm below surface.
Grave	Simple, direct.	Grave	Simple, direct.	Grave	Simple, direct.
Age and sex	Young adult, sex indeterminable.	Age and sex	Adult, sex possibly female.	Age and sex	Middle-aged adult, sex indeterminable.
Position	Flexed, on right side.	Position	Flexed, on right side.	Position	Extended, supine with lower arm bones flexed across body.
Orientation	Northeast-southwest, head to northeast.	Orientation	East-west, head to east.	Orientation	East-west, head to east.
Furniture	Ceramics:	Furniture	Ceramics:	Furniture	Ceramics:
	1. Carrales Coarse Grey composite bowl, scalloping around break (Fig. 13.54). Diameter: 20 cm. Placed at foot of corpse.		1. Amatzinac White straight-walled bowl. Height: 14 cm. Diameter: 14 cm. Placed northeast of top of skull.		1. Amatzinac White double-loop handle censer (Fig. 13.20). Height: 21 cm. Placed at foot of body.
	2. Carrales Coarse Grey flaring-wall bowl (base missing) with fine-line incising on interior rim in a variation of the double-line break motif. Diameter: 24 cm.		2. Carrales Coarse Grey composite bowl. Height: 11 cm. Diameter: 20 cm. Placed southeast of skull, mouth to mouth with vessel 3.		2. Amatzinac White double-loop handle censer. Height: 21 cm. Placed at foot of body.
	Ground stone:		3. Carrales Coarse Grey composite bowl with fine-line incising at rim and four lugs placed evenly at break. Height: 11 cm. Diameter: 20 cm. Placed mouth to mouth with vessel 2.		Ground stone:
	a. One mano to east of body.		4. Carrales Coarse Grey bowl. Height: 10 cm. Diameter: 18 cm. Placed south of skull.		a. One mano at foot south of vessels.
Dating:	Cantera phase.		5. Peralta Orange olla	Dating	Obsidian:
Burial 23 (Fig. 8.15)				Burial 28	b. Seven prismatic blades and two flakes.
Location	Unit 116–118S/0–2E; 80 cm below surface.			Location	Cantera phase.
Grave	Simple, direct. Double interment with Burial 24.				
Age and sex	Adult, female (?).				
Position	Tightly flexed, on right side.				
Orientation	North-south, head to south.				

Grave	60 cm below surface. Crypt, complete, both slab-lined and covered. Ends left open.	Dating	Cantera phase.				rectly below Burial 21. A structure to the south had destroyed the upper portion of the body.
Age and sex	Middle-aged adult, sex indeterminable.	Burial 29					Cantera phase.
Position	Extended, supine, with arms outstretched and placed over body.	Location	Unit 118–120S/2–4E; 60 cm below surface.				
Orientation	North-south, head to north.	Grave	Simple, direct.	Dating			
Furniture	Ceramics: 1. Amatzinac White composite bowl. Double-line incised on exterior rim. Diameter: 11 cm. Placed at open north end of crypt near skull. 2. Amatzinac White bowl with four rim lugs. Red smear (hematite) remains on interior of vessel. Diameter: 10 cm. Small hole punched in base of vessel. Placed directly beneath skull. 3. Amatzinac White double-loop handle censer. Placed among slabs on east side of crypt. 4. Amatzinac White double-loop handle censer. Placed among slabs on west side of crypt. 5. Atoyac Unslipped Polished <i>cantarito</i> . Height: 8 cm. Placed inside crypt to west of skull. 6. Peralta Orange animal effigy vessel [jaguar?]. Placed beneath stones at south end of crypt at feet of corpse. Ornamental stone: a. Partial jade earspool, flaring and well polished (Fig. 17.9a–d). Spool diameter: 3.9 cm. Flaring end diameter: 5.3 cm. Two pieces, one near skull, the other on chest. b. Small jade bead, subspherical. Diameter: 0.6 cm. Placed between lower legs. Obsidian: c. Two obsidian blades, one to the west of each hand.	Age and sex	Adult, female (?).	Burial 32			
		Position	Extended, supine, arms tightly flexed and hands placed at throat.	Location	Unit 114–116S/0–2W; 56 cm below surface.		
		Orientation	East-west, head to east.	Grave	Simple, direct.		
		Furniture	Ceramics: 1. Atoyac Unslipped Polished small bowl. Diameter: 8.5 cm. Placed north of lower leg bones.	Age and sex	Adult, sex indeterminable.		
		Remarks	Obsidian and figurine fragments occurred in the fill above the body and one whole figurine (Fig. 27.2) was found south of the body, but the association is tenuous.	Position	Extended, supine.		
		Dating	Cantera phase.	Orientation	North-south, head to south.		
		Burial 30 (Fig. 8.14)		Furniture	Ceramics: 1. Atoyac Unslipped Polished <i>cantarito</i> . Height: 8 cm. Placed east of lower arm bones. Ornamental stone: a. Jade “fang” pendant (Fig. 17.4a). Length: 2.2 cm. Placed east of vessel. b. Fragment of smoothing stone. Placed east of skull. c. Fragment of jade awl (Fig. 17.12b). Placed east of skull.		
		Location	Unit 114–116S/0–2E; 70 cm below surface.	Dating	Cantera phase.		
		Grave	Simple, direct.				
		Age and sex	Adult, sex indeterminable.	Burial 33 (Fig. 8.9)			
		Position	Extended, supine.	Location	Unit 118–120S/1W–1E; 75 cm below surface.		
		Orientation	East-west, head to east.	Grave	Crypt, complete, both slab-lined and covered.		
		Furniture	Ceramics: 1. Amatzinac White double-loop handle censer. Height: 20 cm. 2. Amatzinac White shallow bowl. Diameter: 13 cm. 3. Amatzinac White shallow bowl. Diameter: 13 cm.	Age and sex	Adult, sex indeterminable.		
		Remarks	Vessels 2 and 3 were placed mouth to mouth.	Position	Extended, supine with arms flexed across mid-section.		
		Dating	Cantera phase.	Orientation	East-west, head to west.		
		Burial 31		Furniture	Ceramics: 1. Amatzinac White shallow bowl. Interior rim incised with variation of double-line break motif with lugs. 2. Eroded <i>cantarito</i> (Atoyac Unslipped Polished?). Height: 12 cm. Placed inside shallow dish. Ornamental stone: a. Serpentine figure (Olmec were-jaguar) (Fig. 17.1). Height: 11.0 cm. Covered with hematite stain. Placed at right hand of burial.		
		Location	Unit 114–116S/4–6W; 50 cm below surface.				
		Grave	Simple, direct. Disturbed.				
		Age and sex	Adult, sex indeterminable.				
		Position	Extended, supine (?).				
		Orientation	North-south, head to south.				
		Furniture	Ground stone: a. One mano southeast of the femur fragments.				
		Remarks	This burial occurs di-				

	b. Jade awl fragment (Fig. 17.12d). Length: 3.3 cm. Placed directly beneath skull. Other:	Furniture Dating	None. Cantera phase.		
	c. Three groups of small smooth pebbles placed within crypt in groups of five, nine, and twelve. Also groups of ten and eleven below crypt stones at east end. d. Small amount of red pigment (hematite?) within crypt north of pelvis.	Burial 36 Location	Unit 122–124S/1W–1E; 60 cm below surface. Crypt, complete, covered. Stones irregular, piled over body at a slant. This crypt lacked the standing stones characteristic of other crypts.		3. Amatzinac White bowl with everted rim and double line incised around interior rim. Diameter: 25.2 cm. Placed east of leg.
Remarks	The two vessels were placed south of legs among stones.	Age and sex Position Orientation	Adult, sex indeterminable. Extended, supine. North-south, head to north.		4. Amatzinac White shallow bowl. Diameter: 11 cm. Placed east of leg.
Dating	Cantera phase.	Furniture	Ceramics:		5. Amatzinac White shallow bowl. Diameter: 11 cm. Placed mouth to mouth with vessel 6 and beneath vessel 3.
Burial 34					6. Amatzinac White shallow bowl. Diameter: 11 cm. Placed mouth to mouth with vessel 5.
Location	Unit 119–121S/1–4E; 60 cm below surface.		1. Amatzinac White spouted tray. Length: 22 cm. Diameter: 11 cm.		7. Amatzinac White shallow bowl. Diameter: 11 cm. Placed beneath vessels 5 and 6.
Grave	Crypt, complete, both slab-lined and covered.		2. Amatzinac White shallow bowl. Diameter: 16.5 cm.		8. Atoyac Unslipped Polished (?) <i>cantarito</i> . Height: 11 cm. Placed west of leg.
Age and sex	Young adult, sex indeterminable.		3. Peralta Orange (?) <i>cantarito</i> with three lugs. Height: 9 cm.		9. Pavón Fine Grey composite vessel (Fig. 13.45). Rim flares out slightly, interior incised with double-line break. Below exterior rim are two horizontal ridges between which are incised two cursive, zigzag lines. Exterior and shoulder of vessel are slightly ridged vertically with finger impressions. Height: 11 cm. Diameter: 11.5 cm. Placed west of leg.
Position	Extended, supine, left arm slightly flexed across body, right arm extended parallel to body.	Remarks	Vessels placed within crypt at feet.		Burial was incomplete; only the long bones of one leg remained.
Orientation	East-west, head to east.	Dating	Cantera phase.		
Furniture	Ceramics:	Burial 37			
	1. Amatzinac White double-loop handle censer. Height: 20 cm. Placed on exterior of crypt, south side.	Location	Unit 122–124S/2–4E; 60 cm below surface.		
	2. Amatzinac White double-loop handle censer. Height: 20 cm. Placed on exterior of crypt, south side.	Grave	Crypt, complete, built around a skull burial.		
	Ornamental stone:	Age and sex	Adult, sex indeterminable.		
	a. Tiny fragment of thin earspool, probably part of fill dirt.	Position	Head interred face-up and tilted slightly to south.		
Dating	Cantera phase.	Orientation	Skull lay east-west, top of skull to the east.	Remarks	
		Furniture	None.		
		Dating	Cantera phase.	Dating	Cantera phase.
Burial 35		Burial 38			
Location	Unit 112–114S/2–4W; 120 cm below surface.	Location	Unit 122–124S/0–2E; 70 cm below surface.		
Grave	Stone-associated, with a stone placed over pelvis and standing stones around feet.	Grave	Simple, direct. Disturbed.		
Age and sex	Adult, sex indeterminable.	Age and sex	Adult, sex indeterminable.		
Position	Extended, supine.	Position	Extended (?).		
Orientation	East-west, head to west.	Orientation	North-south (?).		
		Furniture	Ceramics:		
			1. Amatzinac White shallow bowl. Diameter: 12 cm. Placed west of leg (see Remarks).		
			2. Amatzinac White spouted tray. Length: 20 cm. Placed east of leg.		

PLAZA CENTRAL STRUCTURE 4

Burial 39 (Fig. 8.7)

Location	Interred atop the platform mound. Unit 22–24S/1W–2E; Levels III–IV; 60 cm below surface.
Grave	Simple, with rocks covering the body to form a crude crypt.
Age and sex	Adult, 25–30 years old, sex indeterminable.
Position	Extended, supine, with arms flexed at elbows and hands placed over chest.

Orientation	East-west, head to west.				
Furniture	Ceramics: 1. Amatzinac White <i>cantarito</i> . Height: 11 cm. Diameter: 8 cm at neck. 2. Laca shallow bowl incised on the exterior. Diameter: 24 cm. Ornamental stone: a. Two jadeite earspools, well polished. Diameters: ca. 24 mm. Placed on either side of head in location of earlobes. b. A greenstone adz. Placed on chest. Length: 8.2 cm. Width: 7 cm. c. Forty-nine small green jade beads found around neck, undoubtedly strung together in a necklace at time of burial. d. Eight small jade beads found at pelvic region. Other: e. Middle Formative figurine head.	2. Peralta Orange <i>cantarito</i> with four small lugs around body. Height: 10 cm. Diameter: 3 cm at mouth. Placed inside vessel 1. Ornamental stone: a. Two jade earspools near left upper arm (Fig. 17.9 <i>m-p</i>). Height: 2.2 cm. Diameter: 3.2 cm. Smeared with red pigment. b. One subspherical jade bead on top of front teeth (possibly had fallen from mouth), well polished and symmetrical. Diameter: 1.1 cm. c. One tubular jadeite bead (Fig. 17.10 <i>j</i>). Length: 7.2 cm. Diameter: 0.5 cm. Found between the two upper leg bones. d. Sixteen subspherical jade beads found in pelvic region. They were placed in two strands of seven and nine beads each. e. Eleven jade beads found underneath and beside the skull. All of these small jade beads were subspherical in shape, with some slightly larger than others. They had been covered with red pigment, which remained inside the drilled hole on each bead and in the irregular grooves. Other: f. One concave hematite mirror with holes drilled for suspension as a pendant (Fig. 16.22 <i>a</i>). Found atop the mandible. The mirror had also been smeared with red pigment. g. Fragment of another hematite mirror (Fig. 16.22 <i>b</i>). h. Ninety-four extremely tiny pieces of turquoise found in area around skull. These pieces undoubtedly formed part of a mosaic, although all were loose and unfitted when found.	Also stained with hematite. i. One piece of delicately worked shell found within one earspool (Fig. 16.23 <i>a</i>). The piece has a rectangular hole in the center with undulations on the outside edges. Probably formed a decorative part to the earspool. j. Knotted sinew thread. The eleven beads from the skull area (<i>e</i>) had apparently been strung with this. Length: over 40 cm.	Remarks	Grave lies within the plow zone and was probably destroyed by plowing. A line of larger stones occurred along the north side of the body, one stone at the feet, and a group of smaller, scattered stones was found along the south side of the body. The entire body and all the grave furniture were stained with red pigment (hematite).
Remarks	Vessel 1 was placed within vessel 2, and both were located to the north of the lower legs. The entire body had been stained with red pigment (hematite), and the remains of this mineral persisted on the bones.				
Dating	Cantera phase.			Dating	Cantera phase.
Burial 40 (Fig. 8.4)					
Location	Interred atop platform mound. Unit 23–25S/3–5W; Level II.			Location	Unit 132S/44W; 160 cm below surface. Lower floor, Room 1.
Grave	Simple; a possible crypt, but with no covering stones present (see Remarks).			Grave	Simple, direct. Disturbed.
Position	Extended, but tilted slightly to north on left side. Arms flexed at elbows with hands together near chin. Legs slightly bent at knees.			Age and sex	Adult, sex indeterminable.
Orientation	East-west, head to west.			Position	Only skull remained of the interment. Head face-up. Extended, supine (?).
Furniture	Ceramics: 1. Amatzinac White shallow bowl, incised on exterior. Diameter: 19 cm. Placed northeast of feet.			Orientation	Probably north-south, head to north.
				Furniture	Ceramics: 1. Amatzinac White double-loop handle censer. Height: 21 cm. 2. Amatzinac White bowl with slightly incurved rim. Composite form. Height: 11 cm. Diameter: 17 cm.
				Remarks	Disturbed by Burial 42, which was placed directly over Burial 41.

PLAZA CENTRAL STRUCTURE 2-1

Burial 41

Dating	Cantera phase.	Furniture	Ornamental stone: a. One small, sub-spherical jade bead placed in mouth. Diameter: 10 mm.	double-loop handle censer (partial).
Burial 42				2. Atoyac Unslipped Polished <i>cantarito</i> . Height: 8 cm.
Location	Unit 132S/44W; 160 cm below surface. Room 1, interred through Floor 2 and resting on lower Floor 3.	Remarks	Burial disturbed and disarticulated by later trash deposit.	3. Carrales Coarse Grey composite bowl, curvilinear incising on upper portion with lugs at break. Double line incised on interior rim. Diameter: 12 cm.
Grave	Simple, direct.	Dating	Cantera phase.	Ground stone: a. Mano.
Age and sex	Adult, sex indeterminable.	Burial 44		Other: b. Two whole figurines placed under vessel 3.
Position	Extended, supine with right arm flexed and hand placed at throat. Head facing up.	Location	Unit 132S/44-45W; 160 cm below surface. Room 1, 35 cm south of the north interior wall, below Floor 2 and resting on Floor 3.	All associated artifacts located at foot of corpse.
Orientation	North-south, head to north.			Cantera phase.
Furniture	Ceramics: 1. Amatzinac White shallow bowl. Height: 4 cm. Diameter: 12 cm. Placed east of left foot. 2. Amatzinac White ovate bowl. Height: 5 cm. Length: 15 cm. Width: 12 cm. Placed southwest of right leg. 3. Atoyac Unslipped Polished <i>cantarito</i> (stick polished) with curvilinear incising around body of vessel. Height: 13 cm. Appears to have been smeared with a reddish pigment, possibly a mineral wash of hematite. 4. Carrales Coarse Grey composite bowl with thin-line geometric incising (Fig. 13.52a). Height: 12 cm. Diameter: 17 cm. Placed east of left knee.	Grave	Simple, direct.	
		Age and sex	Adult, sex indeterminable.	
		Position	Extended, supine. Lower arms destroyed, making their position indeterminable. Head face-up.	Dating
		Orientation	East-west, head to east.	Burial 46
		Furniture	Ceramics: 1. Amatzinac White shallow bowl with exterior incising. Diameter: 14 cm. 2. Amatzinac White shallow bowl. Double line incised around exterior rim. Diameter: 14 cm. 3. Carrales Coarse Grey effigy pot of a duck (partial). Vessels located at feet.	Location
		Remarks	Cantera phase.	Unit 132S/40W; 160 cm below surface. Room 1, located 120 cm south of north wall and 110 cm east of cross-wall. Intrusive through Floor 2 and resting on Floor 3 (<i>tepetate</i>).
		Dating		Simple, direct.
		Burial 45		Adult, sex indeterminable.
		Location	Unit 132S/40W; 160 cm below surface. Room 1, 350 cm from west wall of structure and 110 cm from south wall. Interred through Floor 2, intrusive into Floor 3 (<i>tepetate</i>).	Extended, prone, with arms slightly flexed and placed under pelvis. Head face-down.
Remarks	A smooth field stone and ground stones <i>a</i> and <i>b</i> were placed with burial.			East-west, head to west.
Dating	Cantera phase.			Ground stone: a. Mano.
Burial 43				Cantera phase.
Location	Unit 132S/48W; 160 cm below surface. Northwest corner of Room 1.	Grave	Simple, direct.	
Grave	Simple, direct. Disturbed.	Age and sex	Juvenile, sex indeterminable.	Burial 47
Age and sex	Adult, sex indeterminable.	Position	Extended, supine with arms slightly flexed and hands placed over pelvic region.	Location
Position	Extended (?).	Orientation	North-south, head to north.	Unit 134S/50W; 160 cm below surface. Interred atop a mud plaster floor. The floor ran to but not under a north-south wall, Room 1.
Orientation	East-west, head to west (?).	Furniture	Ceramics: 1. Amatzinac White	Simple, direct.
				Adult, sex indeterminable.
				Extended, prone. Arms slightly flexed and placed beneath pelvic region. Head face-down.
				North-south, head to south.
				Ceramics: 1. Amatzinac White straight-sided bowl.

	Height: 14 cm. Placed at foot of burial.		double-loop handle censer (whole). Height 22 cm.	Grave	Simple, stone-associated.
	2. Amatzinac White double-loop handle censer. Height: 20 cm.		3. Amatzinac White double-loop handle censer (partial).	Age and sex	Adult, sex indeterminable.
	3. Atoyac Unslipped Polished <i>cantarito</i> , curvilinear designs around body of jug. Height: 9 cm. Placed over left knee.		4. Amatzinac White shallow bowl.	Position	Extended, supine, arms at sides and hands on pelvic area.
	4. Carrales Coarse Grey composite bowl with exterior rim incising. Diameter: 12 cm. Placed to right of pelvis. Ground stone:		5. Atoyac Unslipped Polished <i>cantarito</i> . Height: 11 cm.	Orientation	North-south, head to north.
	a. Mano.	Remarks	Disturbed by other burials. Skull present, but rest of body nearly nonexistent. Association of ceramics and burial only probable.	Furniture	Ground stone: a. Mano at corpse's left shoulder.
	Ornamental stone:	Dating	Cantera phase.	Remarks	Stone slabs covered the corpse's head and shoulders. The top of the skull touched an east-west running stone alignment, possibly the remains of a highly destroyed structure. Burial 51 directly overlay Burial 52 perpendicularly.
	b. Partial jade bead found resting on mandible; probably originally had been placed within mouth.	Burial 50			
Dating	Cantera phase.	Location	Unit 132S/42W; 160 cm below surface. Room 1, intrusive through Floor 2 and resting on Floor 3 (<i>tepetate</i>).	Dating	Late Cantera subphase.
Burial 48				Burial 52	
Location	Unit 134S/44W; 160 cm below surface. Room 1, intrusive through Floor 2 and resting on Floor 3 (<i>tepetate</i>).	Grave	Simple, direct.	Location	Unit 61–61.5S/41–43E; 80 cm below surface.
		Age and sex	Adult, sex indeterminable.	Grave	Simple, direct. Disturbed.
		Position	Extended, supine with arms slightly flexed and hands placed at pelvis. Head face-up.	Age and sex	Adult, sex indeterminable.
Grave	Simple, direct. Disturbed.	Orientation	East-west, head to west.	Position	Extended, supine.
Age and sex	Adult, sex indeterminable.	Furniture	Ceramics:	Orientation	East-west, head to east.
Position	Extended, supine (?).		1. Amatzinac White ovate bowl. Length: 15 cm.	Furniture	Ceramics:
Orientation	East-west, head to east (?).		2. Carrales Coarse Grey composite bowl with thin-line geometric incising. Diameter: 16.5 cm.		1. Amatzinac White everted rim bowl, only fragment of rim. Found near left leg.
Furniture	None.		3. Carrales Coarse Grey composite bowl with punctates below break. Diameter: 24 cm.		Other:
Remarks	Disturbed by the placement of Burials 41 and 42. Only leg bones were clearly visible, and they were found in fragments.		Ground stone:	Remarks	a. Figurine body near right shoulder. The burial is slightly disturbed. The arms are highly fragmentary and/or missing. The skull has been reversed and the mandibular area occurs at the top of the skeleton. Burial 51 directly overlay this burial perpendicularly.
Dating	Cantera phase.		a. Mano.		
			b. Mano.		
Burial 49			c. Mano.		
Location	Unit 132S/44W; 160 cm below surface. Room 1, intrusive through Floor 2 and resting on Floor 3 (<i>tepetate</i>).		d. Mano.	Dating	Late Cantera subphase.
			e. Metate.		
Grave	Simple, direct. Disturbed.	Remarks	All three vessels located at pelvic region of body.	TERRACE 4	
Age and sex	Juvenile, sex indeterminable.	Dating	Cantera phase.	Burial 53	
Position	Extended, supine (?).			Location	Unit 132; 83–99 cm below surface. Intrusive, cutting into corner of double-walled structure (Units 141 and 132).
Orientation	North-south, head to north.	PLAZA CENTRAL—OTHER			
Furniture	Ceramics:	Burial 51		Grave	Slab-lined with eight
	1. Amatzinac White spouted tray.	Location	Unit 60.5–62.5S/41.5–42.5E; 80 cm below surface.		
	2. Amatzinac White				

	stones surrounding burial.	Orientation	East-west, head to east (?).	Dating	Late Barranca or Early Cantera subphase.
Age and sex	Young adult, sex indeterminable.	Furniture	Ground stone: a. Mano placed above burial is a tentative association.	Burial 61	
Position	Flexed, on right side.			Location	Unit 8–10S/0–2W; 139–144 cm below surface.
Orientation	East-west, head to east.	Dating	Late Formative.	Grave	Simple, direct. Disturbed.
Furniture	Ground stone: a. Metate, fragmented. Placed over head.			Age and sex	Adult (?), sex indeterminable.
Dating	Late Formative.	TERRACE 9A		Position	Indeterminable.
Burial 54		Burial 57		Orientation	North-south, head to south.
Location	Units 132–133; 120–150 cm below surface.	Location	Unit 0–2S/0–2W; 60–80 cm below surface.	Furniture	None.
Grave	Simple, direct.	Grave	Simple, direct.	Remarks	Remaining bones consisted of a skull fragment and arm bone, with scattered fragments of other bones. A large stone was placed over the head. Cantera phase.
Age and sex	Adult, sex indeterminable.	Age and sex	Adult, sex indeterminable.		
Position	Extended, supine.	Position	Indeterminable.		
Orientation	North-south, head to north.	Orientation	North-south (?).		
Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 12 cm. Placed east of skull. 2. Amatzinac White shallow bowl. Diameter: 12 cm. Placed at midsection. 3. Tadeo Coarse olla. Height: 17 cm. Diameter: 20 cm. Placed at feet. Ground stone: a. Metate fragment placed near feet. b. Mano placed with metate near feet. Ornamental stone: c. Jade earspool fragment. Probable association, found near skull.	Furniture	None.	Dating	
		Remarks	Remains of the burial consisted of foot bones only.	Burial 62	
		Dating	Late Barranca or Early Cantera subphase.	Location	Unit 8–10S/0–2E; 30–38 cm below surface.
		Burial 58		Grave	Simple, direct.
		Location	Unit 0–2S/0–2W; 69 cm below surface.	Age and sex	Juvenile, sex indeterminable.
		Grave	Simple, direct.	Position	Extended, supine.
		Age and sex	Infant, sex indeterminable.	Orientation	East-west, head to west.
		Position	Extended, supine. Arms crossed, hands up by skull.	Furniture	Ceramics: 1. <i>Cantarito</i> . Placed near right femur.
		Orientation	Northwest-southeast, head to southeast.	Dating	Cantera phase.
		Furniture	None.	TERRACE 9B	
		Dating	Late Barranca or Early Cantera subphase.	Burial 63	
Dating	Cantera phase.	Burial 59		Location	Unit 2–3N/0–1E; 65 cm below surface.
Burial 55		Location	Unit 6–8S/0–2W; 20–40 cm below surface.	Grave	Simple, direct. Disturbed.
Location	Unit 132; 120 cm below surface.	Grave	Simple, direct.	Age and sex	Adult (?), sex indeterminable.
Grave	Simple, direct.	Age and sex	Adult (?), sex indeterminable.	Position	Indeterminable.
Age and sex	Adult, sex indeterminable.	Position	Flexed.	Orientation	Indeterminable.
Position	Extended, on right side (?).	Orientation	East-west, head to west.	Furniture	None.
Orientation	Northeast-southwest, head to southwest.	Furniture	None.	Remarks	Burial consisted of a sparse scattering of bone fragments.
Furniture	None.	Dating	Probably Cantera phase.	Dating	Barranca phase.
Dating	Cantera phase.	Burial 60		Burial 64	
Burial 56		Location	Unit 33–35S/8–10W; 50–66 cm below surface.	Location	Unit 2–3N/0–1E; 82 cm below surface.
Location	Unit 121; 125 cm below surface.	Grave	Simple, direct.	Grave	Simple, direct. Disturbed.
Grave	Simple, direct.	Age and sex	Adult, sex indeterminable.	Age and sex	Indeterminable.
Age and sex	(?)	Position	Extended, supine, but with head face-down.	Position	Indeterminable.
Position	Flexed, but disarrayed.	Orientation	East-west, head to west.	Orientation	Indeterminable.
		Furniture	None.	Furniture	Ceramics: 1. Amatzinac White

Remarks	shallow bowl with flaring walls and complex interior rim incising. Four rim lugs. Diameter: 24 cm.	TERRACE 20		Age and sex	Juvenile, sex indeterminable.
	Only a few bone fragments were found in association with the shallow bowl.	Burial 67		Position	Tightly flexed.
		Location	Unit 16-17N/2-4W; 50-60 cm below surface.	Orientation	Could not be determined.
Dating	Barranca phase.	Grave	Simple, direct. Double interment with Burial 68.	Furniture	See Burial 69.
Burial 65	Unit 2-3N/5-7E; 25 cm below surface.	Dating	Classic.	Dating	Classic.
		Burial 71		Burial 72	
		Location	Unit 16-17N/2-4W; 50-60 cm below surface.	Location	Unit 19-21N/4-6W; 40 cm below surface.
Grave	Stone-associated.	Grave	Simple, direct. Double interment with Burial 67.	Grave	Simple, direct. Interred with three other individuals (Burials 69, 70, and 72). Disturbed.
Age and sex	Adult, sex indeterminable.	Age and sex	Young adult, female (?). Flexed, supine, with knees drawn up.	Age and sex	Infant, sex indeterminable.
Position	Extended, supine.	Position	East-west, head to east.	Position	Tightly flexed.
Orientation	East-west, head to east.	Orientation	None.	Orientation	Could not be determined.
Furniture	Ceramics:	Remarks	Burials 67 and 68 appear to be Classic intrusions into Middle Formative deposits.	Furniture	See Burial 69.
Remarks	1. Peralta Orange small olla. Height: 14 cm. Diameter: 7 cm at mouth.	Dating	Classic.	Dating	Classic.
	Two stone slabs were placed on either side of legs and another over the pelvis.	Burial 68		Burial 73	
		Location	Unit 16-17N/2-4W; 50-60 cm below surface.	Location	Unit 19-21N/4-6W; 40 cm below surface.
Dating	Late Barranca subphase.	Grave	Simple, direct. Double interment with Burial 67.	Grave	Simple, direct. Interred with three other individuals (Burials 69, 70, and 71). Disturbed.
TERRACE 11	Unit 0-1N/2-5E; 160 cm below surface.	Age and sex	Infant, sex indeterminable.	Age and sex	Juvenile, sex indeterminable.
		Position	Indeterminable.	Position	Tightly flexed.
		Orientation	Indeterminable.	Orientation	East-west, head to east.
Burial 66	Simple, direct.	Furniture	None.	Furniture	See Burial 69.
Location		See Burial 67. Infant was placed south of adult.	Dating	Classic.	
Grave		Classic.	Burial 74		
Age and sex	Adult, sex indeterminable.	Dating	Classic.	Location	Unit 21-22N/6-8W; 30 cm below surface.
Position	Loosely flexed, with arms flexed across body and right leg crossed under left.	Burial 69		Grave	Simple, direct. Disturbed.
Orientation	Supine.	Location	Unit 19-21N/4-6W; 40 cm below surface.	Age and sex	Adult, sex indeterminable.
		Grave	Simple, direct. Interred with three other individuals (Burials 70, 71, and 72). Disturbed.	Position	Extended, supine.
		Age and sex	Juvenile, sex indeterminable.	Orientation	East-west, head to east.
Furniture	Ceramics:	Orientation	Tightly flexed.	Furniture	Ceramics:
Dating	1. Amatzinac White pseudo-grater bottom bowl (interior base incised with elaborate design). Diameter: 24 cm. Placed at feet.	Furniture	East-west, head to west.	Remarks	1. Amatzinac White shallow bowl. Diameter: 15 cm. Placed south of feet.
	2. Amatzinac White hemispherical bowl with exterior incising (Fig. 13.25). Diameter: 18 cm. Placed west of knees.	Dating	Classic.		2. Atoyac Unslipped Polished <i>cantarito</i> . Height: 12 cm. Placed north of feet.
	Ground stone:	Location	Unit 19-21N/4-6W; 40 cm below surface.		Remains extremely fragmented, only legs complete.
Dating	a. Mano. Placed west of lower legs.	Burial 70	Simple, direct. Interred with three other individuals (Burials 69, 71, and 72). Disturbed.	Dating	Cantera phase.
	Cantera phase.	Location		Unit 19-21N/4-6W; 47-55 cm below surface.	
	Grave	Possibly secondary			

	burial. Double interment with Burial 75.	TERRACE 21			found near the burial in an area where whole vessels would not normally be expected.
Age and sex	Adult, sex indeterminable.	Burial 78		Dating	Cantera phase.
Position	Tightly flexed with leg bones beneath head. For this reason believed to be possible secondary burial; however, the individual may just have been tightly flexed in an upright position and not actually secondary.	Location	Unit 26–28N/72–73W; 65 cm below surface. Interred beneath a large refuse pile probably prior to its deposit.		
Orientation	Indeterminable.	Grave	Simple, stone-associated. Disturbed. May indicate a disturbed crypt or slab-lined grave.	TERRACE 23	
Furniture	Ornamental stone: a. One bag-shaped jade bead found at front of neck. Diameter: 2.4 cm.	Age and sex	Adult, sex indeterminable.	Burial 79	
Dating	Classic.	Position	Extended, supine.	Location	Unit 8.4–10.1N/7.2–7.6E; 68–73 cm below surface.
Burial 75		Orientation	North-south, head to south.	Grave	Simple, stone-associated.
Location	Unit 19–21N/4–6W; 47–55 cm below surface.	Furniture	Ceramics: 1. Atoyac Unslipped Polished I small bowl with lip lugs (one-half of vessel). Height: 3.2 cm. Diameter: 9.5 cm. 2. Eroded shallow bowl, complete. Height: 3.3 cm. Diameter: 10.5 cm. 3. Atoyac Unslipped Polished I small bowl, complete. Height: 2.5 cm. Diameter: 8.5 cm. 4. Peralta Orange composite silhouette bowl with upper shoulder punctates, complete. Height: 11.6 cm. Diameter: 43.3 cm. 5. Atoyac Unslipped Polished I small bowl with rim punctates (three-fourths of vessel). Height: 2.5 cm. Diameter: 8 cm. 6. Atoyac Unslipped Polished I small bowl with interior hematite stains (one-half of vessel). Height: 2.2 cm. Diameter: 8.5 cm.	Age and sex	Adult, sex indeterminable.
Grave	Simple, direct. Double interment with Burial 74.			Position	Extended, supine.
Age and sex	Adult, sex indeterminable.			Orientation	North-south, head to north.
Position	Flexed, prone.			Furniture	Ceramics: 1. Carrales Coarse Grey composite bowl, fine-line geometric incising around exterior rim. Height: 9.5 cm. Diameter: 11 cm. Placed at left arm. 2. Carrales Coarse Grey composite bowl, fine-line incising of three parallel lines broken by zigzag line on interior rim. Height: 8 cm. Diameter: 22.5 cm. Placed over pelvis.
Orientation	East-west, head to east.			Remarks	Group of five stones placed around head. Associated with Structure 2 and Floor 1, 50–60 cm below surface.
Furniture	Obsidian: a. Large lance point placed on chest. Length: 13 cm. Width: 4 cm.			Dating	Cantera phase.
Dating	Classic.			Burial 80	
Burial 76				Location	Unit 7.5–8.2N/5.9–6.6E; 120 cm below surface.
Location	Unit 21–23N/4–6W.			Grave	Simple, direct. Disturbed.
Grave	Simple, direct.			Age and sex	Juvenile, sex indeterminable.
Age and sex	Juvenile, sex indeterminable.			Position	Indeterminable.
Position	Flexed, supine, with legs folded back up toward body.			Orientation	Indeterminable.
Orientation	East-west, head to east.			Furniture	Ceramics: 1. Amatzinac White hemispherical bowl, with heavy calcium deposit. Height: 9 cm. Diameter: 20 cm. Small hole in base of vessel. 2. Peralta Orange hemispherical bowl, with slightly incurved rim. Height: 8 cm. Diameter: 17 cm.
Furniture	Ground stone: a. Metate fragment found near skull.	Remarks	Two stones placed on either side of body. Six vessels were found near the burial but not in a definite association. It is highly possible that the grave had been disturbed during the Cantera phase and its mortuary vessels displaced from their original association. The six vessels were		
Dating	Classic.				
Burial 77					
Location	Unit 15–16N/0–2E; 70–90 cm below surface.				
Grave	Simple, direct.				
Age and sex	Juvenile, sex indeterminable.				
Position	Indeterminable.				
Orientation	East-west, head to east.				
Furniture	None.				
Dating	Cantera phase.				

Remarks	Burial was extremely fragmented with only one long bone still intact. Subfloor burial to Floor 2.	1. Amatzinac White double-loop handle censer. Height: 20 cm.	Remarks	Beneath Floor 1, but association with floor is tentative.
Dating	Cantera phase.	2. Carrales Coarse Grey composite bowl with fine-line incising on exterior rim, and double line incised on interior rim. Diameter: 14.5 cm.	Dating	Cantera phase.
Burial 81		3. Carrales Coarse Grey composite bowl. Diameter: 14 cm.	TERRACE 24	
Location	Unit 11–12N/9–10E; 115 cm below surface.	Remarks	Burial 86	
Grave	Simple, direct. Disturbed. Possible burial of skull only.	Beneath Floor 1, but association with floor is tentative. Three ceramic vessels placed at head. Appears that head rested inside one vessel. Skull not preserved but fragments found inside vessel.	Location	Unit 20–21N/2–5E; 89 cm below surface; Level II.
Age and sex	Adult, sex indeterminable.	Dating	Grave	Simple, direct. Disturbed.
Position	Indeterminable.	Burial 84	Age and sex	Adult, sex indeterminable.
Orientation	Indeterminable.	Location	Position	Indeterminable.
Furniture	Ceramics:	Unit 12–13N/7–9E; 100–110 cm below surface.	Orientation	East-west (?), head to east.
	1. Amatzinac White shallow bowl. Diameter: 13 cm.	Grave	Furniture	None.
	2. Atoyac Unslipped Polished <i>cantarito</i> . Height: 10.5 cm.	Simple, direct. Small stones placed around and over body.	Remarks	Burial was fragmented in refuse dump.
	3. Atoyac Unslipped Polished bowl with fine-line incising. Diameter: 8.5 cm.	Age and sex	Dating	Cantera phase.
Remarks	Beneath Floor 1, but association with floor is tentative. Only skull and portion of clavicle remained of burial. Vessels placed east of skull.	Position	Burial 87	
Dating	Cantera phase.	Orientation	Location	Unit 22.4–24.6N/2.5E; Level II.
		Furniture	Grave	Simple, direct. Disturbed.
Burial 82			Age and sex	Indeterminable.
Location	Unit 7.35–7.6N/0.5–0.7E; 100 cm below surface.		Position	Extended (?).
Grave	Simple, direct.		Orientation	Indeterminable.
Age and sex	Juvenile, sex indeterminable.		Furniture	Ceramics:
Position	Extended (?).			1. Tenango Brown bowl with straight sides. Fine-line incising on exterior. Diameter: 11 cm.
Orientation	North-south (?), head to north.			2. Eroded shallow bowl. Diameter: 9 cm.
Furniture	None.			Ornamental stone:
Remarks	Partially intruded into wall of Structure 1.			a. Jade fragment.
Dating	Cantera phase.		Remarks	Only long bones of legs were found.
			Dating	Cantera phase.
Burial 83			Burial 88	
Location	Unit 9.6–11.2N/9.5–9.9E; 80–85 cm below surface.		Location	Unit 17.8–20N/2–5E; 33 cm below surface; Level II.
Grave	Simple, direct.		Grave	Simple, direct.
Age and sex	Young adult, sex indeterminable.		Age and sex	Infant, sex indeterminable.
Position	Extended, supine. Legs crossed at ankles.		Position	Extended (?).
Furniture	Ceramics:		Orientation	East-west (?), head to west (?).
			Furniture	None.
			Dating	Cantera phase.
			Burial 89	
			Location	Unit 22.4–24.6N/2.5E; Level III.
			Grave	Simple, direct.
			Age and sex	Adult, sex indeterminable.

Position	Extended, supine, with arms placed parallel to sides.		the pelvis of the burial. This burial underlies Burial 90 and is oriented in the opposite direction.	Grave	Crypt, well constructed and complete, with cover stones.
Orientation	East-west, head to west.			Age and sex	Young adult, sex indeterminable.
Furniture	Ceramics: 1. Fragmented, eroded shallow bowl. Placed at feet. Ornamental stone: a. Polished stone spoon pendant (Fig. 17.5a). Grey and brown mottled serpentine.	Dating	Cantera phase.	Position	Fully extended, supine. Arms slightly flexed with hands placed over the pelvic region.
		Burial 92		Orientation	East-west, head to east.
		Location	Unit 22.6–24.6N/11–13E; 120–140 cm below surface.	Furniture	Obsidian: a. Obsidian flake in stomach area.
Dating	Cantera phase.	Grave	Simple, direct.	Remarks	Interred directly in front of altar (Mon. 22).
		Age and sex	Adult, sex indeterminable.	Dating	Cantera phase.
		Position	Flexed.		
Burial 90		Orientation	East-west, head to east.		
Location	Unit 21.8–22.4N/4–6E; Level II.	Furniture	Ceramics: 1. Classic bowl with brown slip. Diameter: 20 cm. Ornamental stone: a. Jade pendant, flat, bluish-green (Fig. 17.4k). Diameter: 10 mm.	Burial 95 (Fig. 7.19)	
Grave	Simple, direct. Double interment with Burial 91.			Location	Unit 2–3S/2–4W; 120 cm below surface.
Age and sex	Adult, sex indeterminable.	Remarks	Ceramic vessel was placed east of skull. Jade pendant found beneath skull. Five of the incisors showed dental mutilation. Upper two front incisors had a section carved out between them. Three lower incisors each had a V notch carved in them.	Grave	Simple, within a crypt.
Position	Extended, supine.			Age and sex	Young adult, sex indeterminable.
Orientation	East-west, head to west.			Position	Extended, supine, with a slight flex to the knees. Left arm loosely flexed with hand placed over pelvic region. Right arm tightly flexed with hand at throat.
Furniture	Ceramics: 1. Amatzinac White hemispherical bowl. 2. Amatzinac White spouted tray. 3. Mingo Fine Brown ovate bowl.			Orientation	East-west, head to west.
Remarks	Interred in the same grave with and overlying Burial 91. It cannot be determined whether the three ceramic vessels were associated with Burial 90, 91, or both.	Dating	Classic.	Furniture	Ceramics: 1. Peralta Orange olla (Fig. 13.42) with punctates and a ridge around neck, 2 cm from rim. Height: 24.5 cm. Diameter (at neck): 10.5 cm. 2. Tenango Brown olla. Height: 15 cm. Diameter (at neck): 10 cm. Ornamental stone: a. Small, tubular blue-green jade bead. Length: 1.2 cm.
		TERRACE 25 (Fig. 7.1)			
Dating	Cantera phase.	Burial 93		Remarks	Interred within interior of altar (Mon. 22). Vessels placed south of right leg.
		Location	Unit 0–2S/0–1W; 100 cm below surface.	Dating	Cantera phase.
Burial 91		Grave	Simple, direct.		
Location	Unit 21.8–22.4N/4–6E; Level II.	Age and sex	Infant, sex indeterminable.		
Grave	Simple, direct. Double interment with Burial 90.	Position	Loosely flexed, prone, with legs drawn up and crossed.		
Age and sex	Adult, sex indeterminable.	Orientation	North-south, head to south.		
Position	Extended, supine.	Furniture	None.	Burial 96	
Orientation	East-west, head to east.	Remarks	Child was possibly a sacrificial victim since it is buried beside the northeast corner of the altar (Mon. 22).	Location	Unit 0–2S/0–1W; 150 cm below surface.
Furniture	Ceramics: see Burial 90. Ornamental stone: a. One circular flat jade disc. Diameter: 2.5 cm. b. One serpentine fragment, smoothed and polished on one side. Length: 3 cm.	Dating	Cantera phase.	Grave	Simple, direct.
				Age and sex	Young adult, sex indeterminable.
				Position	Extended, prone, with arms flexed and hands near skull.
Remarks	Jade pieces found beneath	Burial 94 (Figs. 7.17, 7.18)		Orientation	North-south, head to north.
		Location	Unit 0–1N/2–4W; 150 cm below surface.		

Furniture	Obsidian: a. Partial blade found on lower portion of rib cage on left side.	with punctates below shoulder break. Double-line incising on interior rim. Height: 7 cm. Diameter: 9 cm. Placed directly over feet.	Orientation	North-south, head to north.
Remarks	The interment was made on the east side of the altar (Mon. 22) with the lower legs extending under the rear patio wall on the east side of the altar. The head lay over the Barranca phase trash pit area. Therefore, it predates the construction of the patio. No ceramics were found in association to assist in dating this burial.	Dating	Furniture	Ceramics: 1. Carrales Coarse Grey bowl, highly polished, with differentially fired spots consisting of an off-white color mixed with grey. The rim is slightly incurved with fine-line incising of two straight parallel lines and a zigzag line around the exterior. Height: 7 cm. Diameter: 12.5 cm. Placed just east of left knee. 2. Carrales Coarse Grey composite bowl with out-flaring rim and four evenly spaced rim lugs. Interior rim incising is triple-line break, breaking at each of the four lugs. Height: 8 cm. Diameter: 26 cm. Placed with vessel 1. 3. Santa Clara Orange hemispherical bowl. Height: 10 cm. Diameter: 18 cm. Placed east of other vessels.
Dating	Late Barranca or Early Cantera subphase.	Burial 98 (Fig. 7.20)		
Burial 97		Location	Unit 1-2S/8-9W; 100 cm below surface.	
Location	Unit 0-2N/5-6W; 110 cm below surface.	Grave	Simple, direct. Double interment with Burial 99.	
Grave	Simple, direct.	Age and sex	Young juvenile, sex indeterminable.	
Age and sex	Adult, sex indeterminable.	Position	Probably extended.	
Position	Extended, supine; right arm slightly flexed, with right hand placed over pelvis. Left arm extended straight along body.	Orientation	North-south, head to south.	
Orientation	North-south, head to north.	Furniture	Ceramics: 1. Laca hemispherical bowl. Height: 10 cm. Diameter: 20 cm.	
Furniture	Ceramics: 1. Amatzinac White bowl with flaring walls (Fig. 13.22a). Interior rim has a complex incised design running around rim that breaks at each of the lugs on the rim of the vessel, where an incised circle and zigzag line are found. Height: 9 cm. Diameter: 23 cm. Placed upside down over right knee of corpse. 2. Carrales Coarse Grey composite bowl (Fig. 13.52c) with fine-line geometric incising at neck and rim. Interior rim incised with a double line. Height: 9 cm. Diameter: 13 cm. Placed above left shoulder next to skull. 3. Carrales Coarse Grey composite bowl	Remarks	Association of the Laca bowl with this burial is uncertain.	
		Dating	Cantera phase.	
		Burial 99 (Fig. 7.20)		
		Location	Unit 1-2S/8-9W; 100 cm below surface. Interred on west side of altar (Mon. 22).	
		Grave	Simple, direct. Double interment with Burial 98.	Remarks
		Age and sex	Young juvenile, sex indeterminable.	The stones were placed around the head and upper portion of the body. May be a double burial with Burial 101.
		Position	Probably extended, but condition of bones very poor.	Dating
		Orientation	North-south, head to south.	Burial 101
		Furniture	See Burial 98.	Location
		Remarks	Both Burials 98 and 99 may represent human sacrifices, since they are approximately the same age and were buried together.	Unit 0-2S/7-8W; 100 cm below surface.
		Dating	Cantera phase.	Grave
		Burial 100		Simple, direct.
		Location	Unit 0-2S/6-7W; 95 cm below surface.	Age and sex
		Grave	Simple, stone-associated.	Juvenile, sex indeterminable.
		Age and sex	Juvenile, sex indeterminable.	Position
		Position	Fully extended, supine, with head propped up and chin resting on chest.	Extended.
				Orientation
				North-south, head to north.
				Furniture
				None.
				Remarks
				May be a double burial with Burial 100.
				Dating
				Cantera phase.
		Burial 102		
		Location	Unit 0-1N/5-7W; 100 cm below surface.	
		Grave	Simple, direct.	
		Age and sex	Adult, sex indeterminable.	
		Position	Extended, supine, with arms flexed and hands placed under chin.	

Orientation	East-west, head to east.				
Furniture	None.				
Dating	Cantera phase.				
Burial 103					
Location	Unit 0-1N/0-1W; 200 cm below surface.				
Grave	Simple, direct.				
Age and sex	Adult, possibly male.				
Position	Extended.				
Orientation	North-south, head to north.				
Furniture	None.				
Remarks	Overlying the burial were many small stones, placed closely together, possibly a grave covering for the burial. This is not clearly a stone-associated burial. Only lower extremities of the skeleton were found; the upper portion and skull were missing.				
Dating	Uncertain; Late Barranca or Early Cantera subphase.				
Burial 104					
Location	Unit 0-1S/0-1E; 100 cm below surface.				
Grave	Simple, direct (?). Disturbed.				
Age and sex	Adult, sex indeterminable.	Remarks			
Position	Extended (?).				
Orientation	East-west, head to west.				
Furniture	None.				
Remarks	Burial greatly disturbed. Only fragments of vertebral column and pelvis were found. Lower limbs may be under the wall.	Dating			
Dating	Cantera phase.	Burial 106			
		Location	Unit 1-2N/0-2W; 150 cm below surface.		
		Grave	Simple, direct.		
		Age and sex	Adult, sex indeterminable.		
		Position	Extended, supine, with arms slightly flexed and both hands placed over region of the pelvis.		
		Orientation	East-west, head to east.		
		Furniture	Ceramics: 1. Amatzinac White bowl with rounded base and flaring wall. Complex interior rim design. Diameter: 18 cm. 2-5. Same as 1. 6. Carrales Coarse Grey flaring wall bowl,		
				Remarks	with complex interior rim design and a scalloped circular design in interior bottom of vessel. Diameter: 29 cm. 7. Amatzinac White double-loop handle censer. 8. Amatzinac White composite bowl fragment, exterior incised. All vessels and vessel fragment placed along both sides of the corpse. Cantera phase.
				Dating	
				Burial 107 (Figs. 7.10-7.12)	
				Location	Unit 0-1S/0-1E; 220 cm below surface, to east side of altar (Mon. 22).
				Grave	Simple, direct interment in pit excavated into <i>tepetate</i> .
				Age and sex	Juvenile, sex indeterminable.
				Position	Extended, supine, arms parallel to sides of body.
				Orientation	North-south, head to north.
				Furniture	Ceramics: 1. Amatzinac White cylindrical jar. Nearly flat base; fine-line incising around exterior rim. Height: 12 cm. Diameter: 10 cm. Located near knee on east side of corpse. Other: a. Stingray spine. Probably Late Barranca subphase.
				Burial 108	
				Location	Unit 0-1N/4-6W; 110 cm below surface.
				Grave	Simple, direct. Apparently disturbed.
				Age and sex	Juvenile, sex indeterminable.
				Position	Indeterminable.
				Orientation	Indeterminable.
				Furniture	Ceramics: 1. Amatzinac White hemispherical bowl. Diameter: 17 cm. 2. Amatzinac White hemispherical bowl. Diameter: 17 cm. 3. Amatzinac White

	flaring-walled bowl with rounded base and complex interior rim design. Diameter: 24 cm.				
	4. Amatzinac White flaring-walled bowl with rounded base and complex interior rim design. Diameter: 24 cm. Ornamental stone: a. Tubular greenstone bead found in mouth of skull. Length: 10 mm. Width: 7 mm.				
Remarks	Skull offset ca. 15 cm from remainder of bones. Bones very fragmentary, suggesting burial had been disturbed. Skull is 50 cm south of the skull of Burial 102.				
Dating	Cantera phase.				
Burial 109					
Location	Unit 1-2S/2-3W; level of <i>tepetate</i> , 170 cm below surface.				
Grave	Simple, direct. Upper portion of body disturbed.				
Age and sex	Adult, possibly male, as bones appeared to be large and heavy.				
Position	Extended, supine, with left knee loosely flexed.				
Orientation	East-west, head to west.				
Furniture	Ornamental stone: a. Tubular jade bead (Fig. 17.10i). Length: 4.3 cm. Diameter: 0.8 cm. The bead is slightly flattened along one side and tapers at one end.				
Remarks	Location is within the area of the altar's interior (Mon. 22), but this burial apparently predates the erection of the altar.				
Dating	Barranca phase.				
Burial 110 (Fig. 7.21)					
Location	Unit 2-4N/2-5W; 120 cm below surface.				
Grave	Simple, stone-associated.				
Age and sex	Adult, sex indeterminable.				
Position	Extended, supine.				
Orientation	East-west, head to east.				
Furniture	Ceramics:				
	1. Amatzinac White double-loop handle censer. Height: 20 cm. Placed south of left knee of corpse.				
	2. Carrales Coarse Grey composite bowl. Incised with crude geometric lines on the exterior and a double-line break on the interior rim. Height: 8 cm. Diameter: 13 cm. Placed on south side of corpse at mid-section.	Dating			body, and a large, worn metate had been placed upside down directly over the head. Four vessels were placed on each side of the individual. Cantera phase.
	3. Carrales Coarse Grey composite bowl with geometric fine-line incising. Height: 10 cm. Diameter: 18 cm. Placed south of left femur.	Burial 111 (Fig. 7.22)			
	4. Carrales Coarse Grey composite bowl with thin-line incising on exterior and double-line break incised on interior rim. Height: 7.5 cm. Diameter: 25 cm. Placed north of right knee.	Location			Unit 2-3N/5-6W; 80 cm below surface.
	5. Carrales Coarse Grey composite bowl. Fine-line geometric incising on exterior. Height: 12.3 cm. Diameter: 22.5 cm. Placed north of left knee, stacked with vessels 4 and 7.	Grave			Skull burial.
	6. Carrales Coarse Grey hemispherical bowl with thin-line incising forming a band in upper portion of vessel. Height: 6.5 cm. Diameter: 12.5 cm. Placed north of waist area.	Age and sex			Adult, sex indeterminable.
	7. Carrales Coarse Grey bowl. Height: 5 cm. Diameter: 19 cm.	Position			Skull burial, skull placed atop a circle of stones.
	8. Mingo Fine Brown ovate bowl with a nearly flat base. Height: 5.6 cm. Length: 16.75 cm. Width: 11 cm. Placed south of left shoulder.	Orientation			Skull upright and facing north.
	Ground stone: a. A large, well-worn metate covered the head of the corpse, forming a portion of the stone crypt.	Furniture			Ceramics: 1. Amatzinac White bowl with outflaring walls, a rounded base, and a complex rim design. Diameter: 25.5 cm. 2. Amatzinac White bowl with slightly incurved rim. Diameter: 11.5 cm. Vessel interior was heavily stained with red pigment. Vessel 3 sat atop and partially within this bowl. 3. Atoyac Unslipped Polished I bowl, completely filled with powdered red pigment. Diameter: 13 cm. Ornamental stone: a. Large jadeite bead. Length: 1.8 cm. Placed within the mouth of the skull.
Remarks	Several stones had been placed alongside the	Remarks			Skull sat atop a small pile of stones which were part of a circle of stones. The three vessels had been placed within the circle to the north of the skull. The skull was in very poor condition.
		Dating			Cantera phase.
Burial 112					
Location	Unit 2-4S/0-1E; 170 cm below surface.				
Grave	Simple, direct.				
Age and sex	Adult, sex indeterminable.				
Position	Extended, supine. (No skull was present;				

Orientation	probably disturbed after burial.) North-south, head to north.			5. Peralta Orange olla with a complex neck design of five groups of even lines of punctates with a lug protruding at the base of each group. Height: 28 cm.	
Furniture	None.				
Dating	Barranca phase.				
Burial 113					
Location	Unit 2-3N/6-7W; 120 cm below surface.	Remarks	A wall extended out from the altar with the crypt intruding into it. The burial evidently was placed sometime after the wall was built. The osseous portions of the corpse were in a very poor state of preservation, and only fragments of the long bones and four teeth remained. The vessels were placed around the lower portion of the corpse within the crypt.		
Grave	Simple, direct.				
Age and sex	Adult, sex indeterminable.				
Position	Extended, supine.				
Orientation	North-south, head to north.				
Furniture	None.				
Remarks	The entire upper portion of the skeleton was missing; probably disturbed after burial.				
Dating	Barranca phase.				
Burial 114					
Location	Unit 4-6N/9.5-11 W; 70 cm below surface.	Dating	Cantera phase.		
Grave	Within a well-constructed crypt. All stones were carefully aligned along the sides and covering the corpse. Several were flat and appeared to be at least crudely faced. A piece of a broken metate was among the crypt stones.	Burial 115	Location	Unit 33-34N/11-13W; 15 cm below surface.	
		Grave		Simple, direct.	
Age and sex	Adult, sex indeterminable.	Age and sex		Juvenile (2-3 years), sex indeterminable.	
Position	Extended, supine.	Position		Flexed, seated.	
Orientation	North-south, head to north.	Orientation		Facing somewhat to the north.	
Furniture	Ceramics:	Furniture		Ornamental stone:	
	1. Amatzinac White shallow bowl with complex exterior incising (a combination of thin-line incising and <i>raspada</i> design). Height: 7 cm. Diameter: 24 cm.			a. Jadeite pendant (Fig. 17.7c) of a light green color. Height: 3.9 cm. Incised and polished. Found on chest area.	
	2. Amatzinac White shallow bowl with complex exterior incising (similar to vessel 1).	Remarks		b. Tiny jade fragment, worked and polished. Height: 10 mm. Found next to right femur.	
	3. Amatzinac White shallow bowl with double-line incising around exterior. Height: 7 cm. Diameter: 25 cm.			The burial had intruded through a Middle Formative platform floor.	
	4. Laca bowl with flaring walls and rounded base. Height: 8.5 cm. Diameter: 24 cm.	Dating		Classic.	
		Burial 116	Location	Unit 37-38N/11-13W; 20 cm below surface.	
		Grave		Simple, direct.	
		Age and sex		Juvenile, sex indeterminable.	
		Position		Indeterminable. The remains appeared to have been tossed in a heap.	
		Orientation		Indeterminable.	
		Furniture		None.	
		Dating		Indeterminable.	
TERRACE 27					
Burial 117 (Fig. 8.16)					
Location	Unit 0-2S/0-1E; 40 cm below surface.				
Grave	Stone-lined, rectangular. Double interment with Burial 118; placed south of no. 118.				
Age and sex	Adult, sex indeterminable.				
Position	Flexed, supine. Arms flexed across chest, legs folded up to body.				
Orientation	North-south, head to south.				
Furniture	Ceramics:				
	1. Composite bowl, polished, unslipped orange ware, with white-slip decoration on exterior. "Kill" hole in base of vessel. Height: 14 cm. Diameter: 16 cm. Placed west of skull of Burial 118.				
	2. Black ware olla, burnished, incised. Height: 18 cm. Diameter: 17.5 cm. Lid placed over vessel, funnel shaped, heavy, coarse paste. Height: 10.5 cm. Diameter: 13 cm. Placed south of skull in Burial 118.				
	3. Black ware bowl. Inside coated with carbon. Height: 7 cm. Diameter: 11.5 cm. Placed south of skull of Burial 118.				
	4. Black ware small bowl. Coarse and crudely fired. Height: 4.3 cm. Diameter: 7 cm.				
	5. Black ware hemispherical bowl. Height: 7 cm. Diameter: 12 cm. Placed near legs of Burial 117.				
	Ground stone:				
	a. One mano, blocky and large, placed on west side of grave.				
	Other:				
	b. Three identical clay figurines. Seated, hands at throat, with heads tilted back, prominent chin, long snout, large protruding eyes and small top piece. Placed between burials east of grave.				

	Height: 13 cm each [Fig. 8.17].	Orientation	North-south, head to north.	Grave	Slab-lined, rectangular. Double interment with Burial 124.
Dating	Late Formative.	Furniture	Ceramics: 1. Unslipped, polished composite bowl with large, hollow, "mam-miform" tripod supports. Diameter: 12 cm. 2. Straight-sided "jar" with flaring rim. Un-slipped, polished (?). Height: 14 cm. Diameter: 16 cm. 3. Reddish-brown com-posite bowl with pedestal base. Height: 16 cm. Di-ameter: 16 cm. Ornamental stone: <i>a.</i> Tubular jade bead. Length: 1.3 cm. Rounded and polished. Placed to southeast of burial. Asso-ciation is not certain, but possible.	Age and sex	Adult, sex indeterminable.
Burial 118 (Fig. 8.16)				Position	Flexed, supine. Arms flexed across chest, legs folded up to body.
Location	Unit 0–2S/0–1E; 40 cm below surface.			Orientation	North-south, head to south.
Grave	Stone-lined, rectangular. Double interment with Burial 117; placed north of no. 117.			Furniture	Ceramics: 1. Blackware com-posite bowl with fine-line incising on exterior. Height: 9 cm. Diameter: 12 cm. Placed over right shoulder of Burial 123. 2. Orange composite bowl, with flat base. Height: 8 cm. Diameter: 15.5 cm. Placed over left arm of Burial 123. 3. Brown composite bowl with fine-line incis-ing around exterior rim. Height: 6 cm. Diameter: 14 cm. Placed over right arm of Burial 123. 4. Unslipped, polished orange incurved rim bowl. "Kill" hole in base. Height: 8 cm. Diameter: 11 cm. Placed beneath (2) on left arm. Other: <i>a.</i> Small, irregular iron ore fragment.
Age and sex	Adult (?), sex indeterminable.			Remarks	The secondary burial (124) was placed to north of Burial 123.
Position	Flexed, supine. Arms flexed across chest, legs folded up to body.			Dating	Late Formative.
Orientation	North-south, head to south.				
Furniture	See Burial 117.				
Dating	Late Formative.				
Burial 119					
Location	Unit 1–2S/0–2E; 40 cm below surface.	Remarks	Vessels placed east of lower portion of body.		
Grave	Simple, direct.	Dating	Late Formative.		
Age and sex	Adult, sex indeterminable.	Burial 121			
Position	Extended, on left side, with knees slightly bent.	Location	Unit 22–23N/1–2E; 40 cm below surface.		
Orientation	East-west, head to east.	Grave	Slab-lined, rectangular.		
Furniture	Ceramics: 1. Orange ware com-posite bowl with tripod support. Diameter: 20.5 cm. 2. Unslipped, polished straight-sided olla, with red and resist decoration on exterior. Height: 20 cm. Diameter: 19 cm. Other: <i>a.</i> Ceramic figurine head (C8) placed at knees.	Age and sex	Indeterminable.		
		Position	Flexed, supine.		
		Orientation	East-west, head to west.		
		Furniture	Ceramics: 1. Unslipped, polished composite bowl with lugs on shoulder. Height: 7 cm. Diameter: 13 cm.		
		Dating	Classic.		
Remarks	Two ceramic vessels placed together at top of skull.	Burial 122			
Dating	Late Formative.	Location	Unit 0–1N/2–4E; 40 cm below surface.		
		Grave	Simple, direct.		
		Age and sex	Adult, sex indeterminable.		
		Position	Flexed, supine.		
		Orientation	East-west, head to west.		
		Furniture	Ceramics: 1. Grey ware <i>cantarito</i> . Height: 13 cm. Placed south of upper portion of body. Ornamental stone: <i>a.</i> Small jade bead. Di-iameter: 6 mm.		
Burial 120		Dating	Late Formative.		
Location	Unit 0–1S/1–2E; 30 cm below surface.	Burial 123 (Fig. 8.18)			
Grave	Slab-lined, rectangular. Some of the stones sur-rounding the burial had been removed.	Location	Unit 0–2S/1–3W; 50 cm below surface.		
Age and sex	Adult, sex indeterminable.				
Position	Flexed, supine. Arms flexed across chest, legs folded up to body.				

Age and sex	Undetermined.	Age and sex	Adult, sex	2. Grey composite
Position	Flexed, supine.		indeterminable.	bowl on pedestal. "Cur-
Orientation	East-west, position of	Position	Flexed, supine.	sive" incising. Height: 15
	head indeterminable.	Orientation	East-west, head to west.	cm. Diameter: 13 cm.
Furniture	Ground stone:	Furniture	None.	3. Grey rectangular
	a. Stone adz.	Dating	Late Formative.	bowl, with tripod nub
Dating	Classic.			legs and traces of an
				orange-on-white fresco
Burial 126		Burial 130		on exterior. Length:
Location	Unit 4.5-6S/1W-1E;	Location	Unit 1-2S/5-6W; 20 cm	20.5 cm. Height: 13 cm.
	20 cm below surface.	Grave	Simple, direct.	Other:
Grave	Simple, direct.	Age and sex	Adult, sex	a. One complete ce-
Age and sex	Young adult, sex		indeterminable.	ramic earspool (Fig. 16.2f)
	indeterminable.	Position	Tightly flexed, supine.	placed near skull of
Position	Flexed, supine.	Orientation	North-south, head to	Burial 133. Elaborate de-
Orientation	East-west, head to east.		north.	sign and slipped in white.
Furniture	None.	Furniture	Ceramics:	Width: 1.2 cm. Diameter:
Dating	Late Formative.		1. Unslipped, polished	3.4 cm.
			bowl with hollow tripod	Remarks
Burial 127			supports.	The three vessels were
Location	Unit 2-3S/2-3E; 70 cm	Dating	Late Formative.	placed within the grave
	below surface.			on the east side.
Grave	Simple, direct. Double			Dating
	interment with Burial	Burial 131		Late Formative.
	128.	Location	Unit 2-3S/5-6W; 60 cm	Burial 134
Age and sex	Infant, sex		below surface.	Location
	indeterminable.	Grave	Simple, direct.	Unit 4-5S/0-1E; 70 cm
Position	Extended, supine. Infant	Age and sex	Infant, sex	below surface.
	lay on top of adult in		indeterminable.	Grave
	Burial 128.	Position	Extended.	Slab-lined, circular.
Orientation	East-west, head to west.	Orientation	North-south, position of	Double interment with
Furniture	Ceramics:		head indeterminable.	Burial 133.
	1. Unslipped, polished	Furniture	None.	Age and sex
	<i>cantarito</i> . Height: 11 cm.	Dating	Late Formative.	Young adult, sex
	Diameter: 5 cm.			indeterminable.
	2. Unslipped, polished	Burial 132		Position
	<i>cantarito</i> with two	Location	Unit 0-2S/3-4W; 40 cm	Flexed, vertical in seated
	handles. Height: 7 cm.		below surface.	position.
Remarks	Two vessels placed at top	Grave	Simple, direct.	Orientation
	of skull of Burial 128.	Age and sex	Indeterminable.	Indeterminable.
Dating	Cantera phase.	Position	Indeterminable.	Furniture
		Orientation	Indeterminable.	See Burial 133.
Burial 128		Furniture	None.	Remarks
Location	Unit 2-3S/2-3E; 70 cm	Remarks	Only a few bone frag-	See Burial 133.
	below surface.		ments remained of	Dating
Grave	Simple, direct. Double		burial.	Late Formative.
	interment with Burial	Dating	Late Formative (?).	Burial 135
	127.	Burial 133		Location
Age and sex	Young adult, sex	Location	Unit 4-5S/0-1E; 70 cm	Unit 12-13N/6-7E; 30
	indeterminable.		below surface.	cm below surface.
Position	Extended, supine. Infant	Grave	Slab-lined, circular.	Grave
	in Burial 127 lay on top		Double interment with	Small stone crypt, rectan-
	of Burial 128.		Burial 134.	gular (almost square).
Orientation	East-west, head to west.	Age and sex	Young adult, sex	Age and sex
Furniture	See Burial 127.		indeterminable.	Adult (?), sex
Remarks	See Burial 127.	Position	Flexed.	indeterminable.
Dating	Cantera phase.	Orientation	East-west, head to east.	Position
		Furniture	Ceramics:	Indeterminable.
Burial 129			1. Grey composite	Orientation
Location	Unit 3-4S/2-4W; 55 cm		bowl, fine-line incising.	North-south (?), head to
	below surface.		Height: 7.5 cm. Diame-	north (?).
Grave	Simple, direct.		ter: 17.5 cm.	Furniture
				Ceramics:
				1. Orange hemi-
				spherical ring base bowl.
				Diameter: 20.8 cm.
				2. Orange hemi-
				spherical ring base bowl.
				Diameter: 20.8 cm.
				3. Orange hemi-
				spherical ring base bowl.
				Diameter: 22.5 cm.
				4. Orange hemi-
				spherical ring base bowl.
				Diameter: 22.5 cm.
				5. Orange hemi-

	spherical ring base bowl. Diameter: 24.6 cm.		2. Amatzinac White shallow bowl. Diameter: 15 cm. Placed at feet. Ornamental stone: a. Jade earspool, in fragments near left ear. Height: 2.5 cm. Diameter of flaring end: 5.7 cm.	Dating	Cantera phase.
	6. Orange hemispherical ring base bowl with deep irregular punctations around outer rim. Diameter: 20.7 cm.		Three large stones flanked the burial on the south side in area of lower back and thighs. No other stones remained.	Burial 140	
	7. Orange hemispherical ring base bowl with black painted designs on interior base. Diameter: 25 cm.	Remarks		Location	Unit 6-7S/37-38E; 30-40 cm below surface.
	8. Brown hemispherical ring base bowl. Diameter: 23.8 cm.			Grave	Simple, direct.
	9. Orange bowl. Diameter: 14.3 cm.	Dating	Cantera phase.	Age and sex	Juvenile, sex indeterminable.
	10. Orange hemispherical bowl. Diameter: 17.7 cm.	Burial 137		Position	Flexed.
	11. Brown hemispherical bowl. Diameter: 17.7 cm.	Location	Unit 6-7S/20-22W; 10-30 cm below surface.	Orientation	East-west, head to west.
	12. Thin Orange cylindrical tripod bowl with stamped design around lower exterior. Tripod feet broken off and missing. Diameter: 14.3 cm.	Grave	Simple, direct. Disturbed.	Furniture	Ceramics: 1. Orange bowl. Diameter: 20.5 cm. Placed upside down over skull.
	13. Brown flat-bottom bowl with solid tripod supports. Diameter: 22 cm.	Age and sex	Adult, sex indeterminable.		Ornamental stone: a. Small jadeite pendant (Fig. 17.4i). Length: 13.5 mm. Placed under chin.
	Ornamental stone: a. Large, polished stone bead. Height: 1.5 cm. b. Large, polished stone bead. Height: 1.3 cm.	Position	Extended, prone.	Dating	Classic.
Remarks	The box contained only a human mandible and scattered bone fragments.	Orientation	East-west, head to east.	Burial 141	
Dating	Classic.	Furniture	Other: a. One large clay bead.	Location	Unit 6.5-7.5S/2-3W; 40-50 cm below surface.
		Remarks	Burial was disturbed and consisted only of lower legs and feet.	Grave	Simple, direct. Disturbed or burial of hands only.
		Dating	Cantera phase.	Age and sex	Adult (?), sex indeterminable.
		Burial 138		Position	Indeterminable.
		Location:	Unit 6-7S/0-1E; 30-40 cm below surface.	Orientation	Indeterminable.
		Grave	Simple, direct. Disturbed.	Furniture	None.
		Age and sex	Indeterminable.	Remarks	Burial consisted of two well-preserved hands and nothing else.
		Position	Indeterminable.	Dating	Cantera phase.
		Orientation	Indeterminable.		
		Furniture	None.	FIELD S-39	
		Remarks	Interred in obsidian concentration, with obsidian packed both above and below.	Burial 142	
		Dating	Cantera phase.	Location	Unit 6-7S/4-5W; 25-40 cm below surface.
		Burial 139		Grave	Stone-associated.
		Location	Unit 5-6S/9-10E; 10-20 cm below surface.	Age and sex	Adult, sex indeterminable.
		Grave	Simple, direct.	Position	Extended, supine, with lower legs crossed and arms slightly flexed.
		Age and sex	Adult, sex indeterminable.	Orientation	North-south, head to north.
		Position	Extended, supine, with left arm flexed and hand resting on shoulder. Right arm missing.	Furniture	Ceramics: 1. Amatzinac White hemispherical bowl with incising on exterior near rim. Diameter: 16 cm. 2. Atoyac Unslipped Polished <i>cantarito</i> . Height: 11 cm. 3. Atoyac Unslipped Polished hemispherical bowl. Slightly pinched
		Orientation	East-west, head to west.		
		Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 16 cm. Placed upside down over right shoulder.		

Remarks	in at sides. Diameter: 13.5 cm.	Grave	Simple, direct. Disturbed.	Remarks	spherical bowl. Diameter: 18 cm.
	Interred on top of lime deposit. Stone slabs placed around body except at top of skull. Cover stones only at feet. Groupings of small, smooth stones lay under and around burial. The three vessels were located at the feet.	Age and sex	Adult, sex indeterminable.		10. Eroded (Tadeo Coarse?) hemispherical bowl. Diameter: 20 cm.
		Position	Indeterminable.		Burial consisted of a few scattered bone fragments surrounded by ceramic vessels.
		Orientation	Indeterminable.		Cantera phase.
		Furniture	None.		
Dating	Cantera phase.	Remarks	Only identification of this burial was a few scattered bone fragments and teeth.	Dating	
Burial 143	Unit 8-9N/1E-1W; 35-50 cm below surface. Stone-associated. Adult, sex indeterminable. Extended, supine, but leaning slightly to left side. Lower legs crossed. North-south, head to south. Ceramics: 1. Amatzinac White bowl with straight sides. Diameter: 11.5 cm. Placed over knees. 2. Amatzinac White shallow bowl; incising on interior rim (partial). 3. Atotonilco Black hemispherical bowl. Diameter: 18.5 cm. Two stones occurred along either side of body and one at head. Cantera phase.	Burial 146	Cantera phase.	Burial 148	
		Location	Unit 5N/3W; 57 cm below surface.	Location	Unit 12-15N/5-7W; 19-25 cm below surface.
		Grave	Simple, direct.	Grave	Simple, direct.
		Age and sex	Infant, sex indeterminable.	Age and sex	Adult, sex indeterminable.
		Position	Extended, supine (?).	Position	Extended, supine (?).
Orientation	East-west.	Orientation	East-west, head to west.		
Furniture	Other: a. Ceramic figurine.	Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 8 cm. Placed at right shoulder. 2. Amatzinac White shallow bowl. Diameter: 11 cm. Placed slightly north of feet. 3. Amatzinac White shallow bowl. Diameter: 11 cm. Placed slightly north of feet. 4. Amatzinac White shallow bowl. Diameter: 12 cm. Placed slightly north of feet. 5. Amatzinac White shallow bowl. Diameter: 12 cm. Placed slightly north of feet. 6. Amatzinac White shallow bowl. Diameter: 12 cm. Stacked with vessel 7 north of hips. 7. Amatzinac White shallow bowl. Diameter: 12 cm. Stacked with vessel 6 north of hips. 8. Amatzinac White shallow bowl. Diameter: 19 cm. Placed at waist area. 9. Amatzinac White pseudo-grater bottom shallow bowl. Interior rim incised. Diameter: 22 cm. 10. Amatzinac White straight-sided bowl. Diameter: 22 cm.		
Burial 147	Cantera phase.				
Location	Unit 6-7N/3-5W; 26-60 cm below surface.	Location	Unit 5N/3W; 57 cm below surface.		
Grave	Simple, direct. Disturbed.	Grave	Simple, direct.		
Age and sex	Adult, sex indeterminable.	Age and sex	Adult, sex indeterminable.		
Position	Indeterminable.	Position	Extended, supine (?).		
Orientation	Indeterminable.	Orientation	East-west.		
Furniture	Ceramics: 1. Amatzinac White shallow bowl. Diameter: 12 cm. 2. Amatzinac White shallow bowl. Diameter: 12 cm. 3. Amatzinac White shallow bowl. Diameter: 20.5 cm. 4. Amatzinac White shallow bowl. Diameter: 24 cm. 5. Amatzinac White hemispherical bowl. Diameter: 20 cm. 6. Carrales Coarse Grey composite bowl. Diameter: 20 cm. 7. Carrales Coarse Grey composite bowl. Interior rim incising. Diameter: 24 cm. 8. Carrales Coarse Grey composite bowl, fine-line incising on exterior rim. Diameter: 21.5 cm. 9. Eroded hemi-	Furniture	Other: a. Ceramic figurine.		
Remarks					
Dating					
Burial 144					
Location	Unit 1-2N/6-7W; 20 cm below surface.	Location	Unit 6-7N/3-5W; 26-60 cm below surface.		
Grave	Simple, direct. Disturbed.	Grave	Simple, direct.		
Age and sex	Adult, sex indeterminable.	Age and sex	Adult, sex indeterminable.		
Position	Extended, supine (?).	Position	Extended, supine (?).		
Orientation	North-south, head to north.	Orientation	East-west.		
Furniture	None.	Furniture	Other: a. Ceramic figurine.		
Remarks	Bones in very fragmented condition.				
Dating	Cantera phase.				
Burial 145					
Location	Unit 1-4N/7-8W; 10-20 cm below surface.	Location	Unit 6-7N/3-5W; 26-60 cm below surface.		

Remarks	Burial in very fragmented condition, surrounded by vessels.		2. Unslipped Polished bowl with slight ridging on side. Height: 12 cm. Diameter: 13 cm.	Burial 154	Location	Unit 3-4S/0-1E; 65 cm below surface.	
Dating	Cantera phase.		Other:		Grave	Simple, direct. Disturbed. See Burial 152.	
FIELD N-2			a. Ceramic earspool found in burial fill.		Age and sex	Infant, sex indeterminable.	
Burial 149			Width: 1.5 cm. Diameter: 3 cm. Polished with red slip.		Position	Indeterminable.	
Location	Unit 3-6N/0-1E; 120 cm below surface.				Orientation	East-west, head to west.	
Grave	Simple, direct.	Remarks	Vessels placed at left knee.		Furniture	See Burial 152.	
Age and sex	Adult, sex indeterminable.	Dating	Late Formative.		Dating	Cantera phase.	
Position	Extended, supine, arms slightly flexed and placed over pelvis.	Burial 152			Burial 155	Location	Unit 3-4S/0-1E; 65 cm below surface.
Orientation	North-south, head to south.	Location	Unit 3-4S/0-1E; 65 cm below surface.		Grave	Simple, direct. Disturbed. See Burial 152.	
Furniture	Ceramics:	Grave	Simple, direct. Disturbed. Combined with Burials 153, 154, and 155. Bones scattered and disarrayed. Possibly four individuals were interred in the grave, but Burials 153, 154, and 155 may be the same individual.		Age and sex	Indeterminable.	
	1. Eroded <i>cantarito</i> fragments, at feet of corpse.				Position	Indeterminable.	
Remarks	The <i>cantarito</i> fragments may represent an offering.				Orientation	Indeterminable.	
Dating	Barranca phase.				Furniture	See Burial 152.	
					Dating	Cantera phase.	
FIELD N-5				CERRO DELGADO, CAVE 4			
Burial 150			Age and sex	Juvenile, sex indeterminable.	Burial 156	Location	Unit 3-4N/1-2W; 83-89 cm below surface.
Location	Unit 0.6-2.1N/1W-1E; 94 cm below surface.	Position	Indeterminable.		Grave	Simple, stone-associated.	
Grave	Simple, direct.	Orientation	Indeterminable.		Age and sex	Adult, sex indeterminable.	
Age and sex	Adult, sex indeterminable.	Furniture	Ceramics:		Position	Extended, supine. Arms flexed and placed over stomach area.	
Position	Extended, supine.		1. Amatzinac White shallow bowl. Diameter: 12 cm.		Orientation	North-south, head to south.	
Orientation	East-west, head to east.		2. Atoyac Unslipped Polished (?) hemispherical bowl. Diameter: 11 cm.		Furniture	Ceramics:	
Furniture	Other:		3. Carrales Coarse Grey composite bowl. Diameter: 14 cm.			1. Amatzinac White double-loop handle censer. Height: 20 cm.	
	a. Fragment of perforated iron ore disc (Fig. 16.22d).		4. Mingo Fine Brown ovate bowl. Length: 11 cm.			2. Carrales Coarse Grey composite bowl. Diameter: 11 cm.	
Remarks	Only upper portion of burial remained (waist up).					3. Carrales Coarse Grey composite bowl. Diameter: 11.5 cm.	
Dating	Probably Barranca phase.					4. Peralta Orange <i>cantarito</i> . Height: 10 cm.	
CERRO DELGADO, CAVE 1			Remarks	Four vessels placed in the general grave.		Obsidian:	
Burial 151			Dating	Cantera phase.		a. Obsidian needle, double-pointed, unifacially chipped. Found in the middle of pelvis.	
Location	Unit 3-4S/3-4E; 80 cm below surface.	Burial 153				Other:	
Grave	Simple, direct.	Location	Unit 3-4S/0-1E; 65 cm below surface.			b. Flecks of red pigment (hematite?) around skull.	
Age and sex	Young adult, sex indeterminable.	Grave	Simple, direct. Disturbed. See Burial 152.		Remarks	Four vessels placed east of midsection. Stones placed at either side and one on top of head.	
Position	Flexed, supine. Legs crossed and left hand placed under head.	Age and sex	Juvenile, sex indeterminable.				
Orientation	East-west, head to west.	Position	Indeterminable.				
Furniture	Ceramics:	Orientation	North-south (?).				
	1. Composite bowl, reddish paste, slipped in brown. Height: 6 cm. Diameter: 13 cm.	Furniture	See Burial 152.				
		Dating	Cantera phase.				

Dating	Cantera phase.	Age and sex	Young adult, sex indeterminable.	2. Polychrome Resist Red tripod dish fragment. Diameter: 21 cm.
Burial 157		Position	Extended, prone.	Shell:
Location	Unit 2-3N/0.35-1E; 112-120 cm below surface.	Orientation	East-west, head to east.	<i>a.</i> Five triangular shell necklace pieces, each ca. 3 cm long.
Grave	Stone-associated.	Furniture	None.	Remarks
Age and sex	Adult, possibly female.	Remarks	One foot missing. Age based on teeth. Burial very fragmentary.	The cremated remains had been placed within vessel 1, which was covered by the vessel 2 fragment.
Position	Extended, supine. Left arm flexed with hand resting on right shoulder. Right foot under left foot.	Dating	Barranca phase.	Dating
Orientation	Northeast-southwest, head to northeast.	TETLA-11		Middle Postclassic.
Furniture	Ceramics: 1. Carrales Coarse Grey composite bowl, diagonal lines of punctates above shoulder to rim. Diameter: 12.5 cm. Placed above left shoulder south of skull. Obsidian: <i>a.</i> Long, thin blade. Placed above knee of right leg. Ground stone: <i>b.</i> Two partial metates. One placed over cranium, the other over flexed elbow of right arm. <i>c.</i> Mano fragment placed on left shoulder.	Burial 160	Unit 4-6S/0-2W, Feature 1.	
Remarks	Stones placed around and over the body but lacked definite arrangement. Head of burial resting on back wall of cave.	Grave	Simple, cremation.	
Dating	Cantera phase.	Age and sex	Indeterminable.	
Burial 158		Furniture	Ceramics: 1. Graphite-Black on Red ware bowl fragment. Diameter: 16 cm. Ornamental stone: <i>a.</i> Pale green jadeite bead. Height: 1.6 cm. Obsidian: <i>b.</i> Eight obsidian blades, one flake, two cores. Utilitarian stone: <i>c.</i> Bifacial knife manufactured of chert. Length: 8.4 cm. Width: 5 cm. Other: <i>d.</i> C8 (Middle Formative) figurine head. <i>e.</i> Mold-made figurine head fragment, unclassifiable. <i>f.</i> Mold-made figurine body fragment, unclassifiable. <i>g.</i> Three spindle whorls (Fig. 25.6). <i>h.</i> Bone awl fragment. Length 4.5 cm.	
Location	Unit 0-1S/1-2E; 83-129 cm below surface.	Remarks	The tool kit (lithics and especially the spindle whorls) may suggest this was the burial of a female.	
Grave	Simple, direct. Disturbed.	Dating	Middle Postclassic.	
Age and sex	Indeterminable.	Burial 161		
Position	Indeterminable.	Location	Unit 0-3N/0-1W; 96 cm below surface.	
Orientation	Northeast-southwest (?).	Grave	Simple, cremation.	
Furniture	None.	Age and sex	Indeterminable.	
Remarks	Only a few fragments of bone were found.	Furniture	Ceramics: 1. Black on Polished Red ware bowl. Diameter: 14 cm.	
Dating	Cantera phase.			
TERRACE 29				
Burial 159				
Location	Unit 6-7S/18-20W; 135 cm below surface.			
Grave	Direct.			

APPENDIX D

Ceramic Charts and Illustrations

ANN CYPHERS GUILLÉN

This appendix supplements the ceramic data discussed in Chapter 13. It is completely illustrative and is presented here in three sections. The first section consists of illustrations of the vessel form codes used in our laboratory analyses of the Chalcatzingo ceramics. The reader will note that the illustrations are grouped form by form but that the code numbers are highly diverse within and between form groups. The form chart and code were originally made up at the beginning of the project's field and laboratory work in 1972, and the numbers and forms were then in a logical order. However, as the field work continued, new vessel forms were found which had to be added to the chart, and these additions had to receive numbers which were not part of the original sequential system. In time, too, it was seen that certain other forms could be combined (thus eliminating some code numbers). After five years of laboratory analyses, the resulting form chart has a hodgepodge appearance. Although we could have revised it and rearranged it for this book, such a revised chart would not have been an accurate representation, nor would it have correctly correlated with our thousands of lab analysis forms.

The second section of this appendix illustrates our design codes. As noted in Chapter 13, in some instances certain design motifs were important temporal markers, although this was apparently the exception rather than the rule. While the laboratory analyses recorded all designs on the lab analysis forms, these data are not analyzed in this book. Future work will deal with design distribution both through time and spatially across the site.

The final section of this appendix illustrates various ceramic types and forms from the La Venta and Tres Zapotes ceramic collections of the Smithsonian Institution in Washington, D.C. These are

dealt with in Chapter 13 and serve to identify certain Gulf Coast forms which co-occur at Chalcatzingo.

Form Codes

As noted in Chapter 13, vessels were subdivided into gross categories of shape and function—bowls, ollas, and dishes or plates—with braziers being put into the

bowl category. The form codes are thus designated RB, RO, and RD for these three categories, referring to the rim curvature of the vessel. Three other categories designed to account for vessel form were handles, supports, and bases. Names for all the form codes are provided in Tables D.1–D.3. Form codes are illustrated in Figures D.1–D.4.

Table D.1. Bowl Form Codes

Beveled rim bowls	RB-37		
	RB-120	Highly outcurved rim bowls	RB-76
Braziers	RB-99		RB-90
Braziers, annular based	RB-100		RB-130
Composite silhouette bowls	RB-45	Incurved rim bowls	RB-3
	RB-74		RB-6
	RB-132		RB-66
Composite silhouette bowls, direct rim	RB-31		RB-123
	RB-71		RB-128
	RB-127		RB-133
Composite squash-like bowls	RB-80	Incurved ledged rim bowls	RB-112
Cylindrical bowls	RB-14	Outcurving wall bowls	RB-23
Double bowls	RB-137		RB-25
Double-loop handle censers	RB-101		RB-129
Everted rim bowls	RB-30	Outslanting wall bowls	RB-17
	RB-35		RB-18
	RB-109		RB-19
	RB-125		RB-65
Everted rim bowls, heavy	RB-38		RB-119
Exotic bowl forms	RB-87	Outslanting slightly curved rim bowls	RB-21
	RB-88		RB-22
	RB-91		
Exterior ridging, bowls with	RB-134	Outslanting, slightly everted rim bowls	RB-20
Flanged shoulder bowls	RB-89	Ovate bowls	RB-16
	RB-116	Ridged composite bowls	RB-85
	RB-122	Ridged wall bowls	RB-81
Flaring wall bowls	RB-26	Rippled wall bowls	RB-124
	RB-75	Shallow bowls	RB-41
Flaring wall bowls, angular	RB-102		RB-121
Flower pot bowls	RB-62	Shallow bowls, heavy	RB-115
Globular bowls	RB-60	Shallow bowls, small	RB-67
	RB-78		RB-70
	RB-79	Slightly everted rim bowls	RB-77
	RB-117	Small bowls	RB-135
Hemispherical bowls	RB-7	<i>Tecomates</i>	RB-1
	RB-93		RB-131

Design Codes

Design codes were separated according to ceramic type. The following types had designs included in this analysis: Amatzinac White, Laca, White-Rimmed Black, Carrales Coarse Grey, Peralta Orange, Pavón Fine Grey, and Atoyac Unslipped Polished I. Table D.4 provides the names for each of the design codes. Some design codes are illustrated in Figure D.5.

Gulf Coast Ceramics

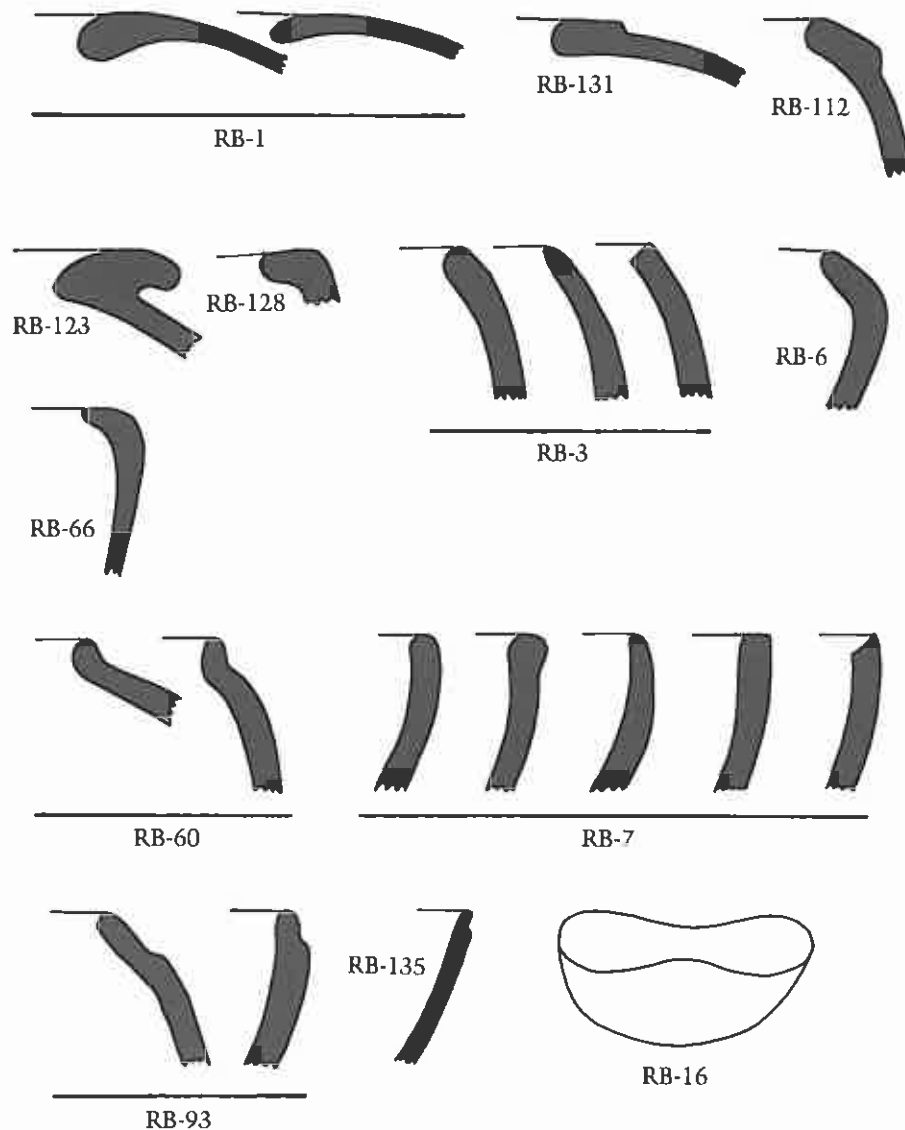
Illustrations of some of the Smithsonian's La Venta and Tres Zapotes ceramics used in the comparative analysis are given in Figure D.6.

Table D.2. Olla Form Codes

Beveled rim ollas	RO-8		
Botellones	RO-35		
Collared ollas	RO-1	Flaring neck ollas with drooping rims	RO-9
	RO-2	Flaring mouth ollas	RO-28
	RO-3		RO-31
	RO-26	Ridge-necked ollas	RO-25
Flaring neck ollas	RO-5	Rolled-lip ollas	RO-30
	RO-11	Rolled-lip ollas, short necked	RO-27
	RO-12		RO-32
	RO-15	Sharply outflaring ollas	RO-29
	RO-16	Short necked ollas	RO-17
	RO-23	Super flaring neck ollas	RO-33
	RO-34	Very short necked ollas	

Table D.3. Other Form Codes

Bases, flat	G
	H
	I
	R
Bases, round	A
	B
	C
	D
	E
	F
	J
	K
	L
	M
	O
	P
	Q
Cantaritos	C-1
	C-2
	C-3
	C-4
	C-5
	C-6
Handles, regular	H-1
Handles, twisted	H-4
Plates	RD-7
	RD-8
Plates, roughened bottom surface	RD-1
	RD-2
	RD-3
	RD-4
	RD-5
	RD-6
	RD-11
Plates, spouted tray	RD-9
	RD-10
Supports, pointed-nub	S-1
Supports, round-nub	S-2
Supports, rectangular	S-3
Supports, trapezoidal	S-4
Supports, solid round	S-5
Supports, hollow round	S-6
Supports, spider-leg	S-7



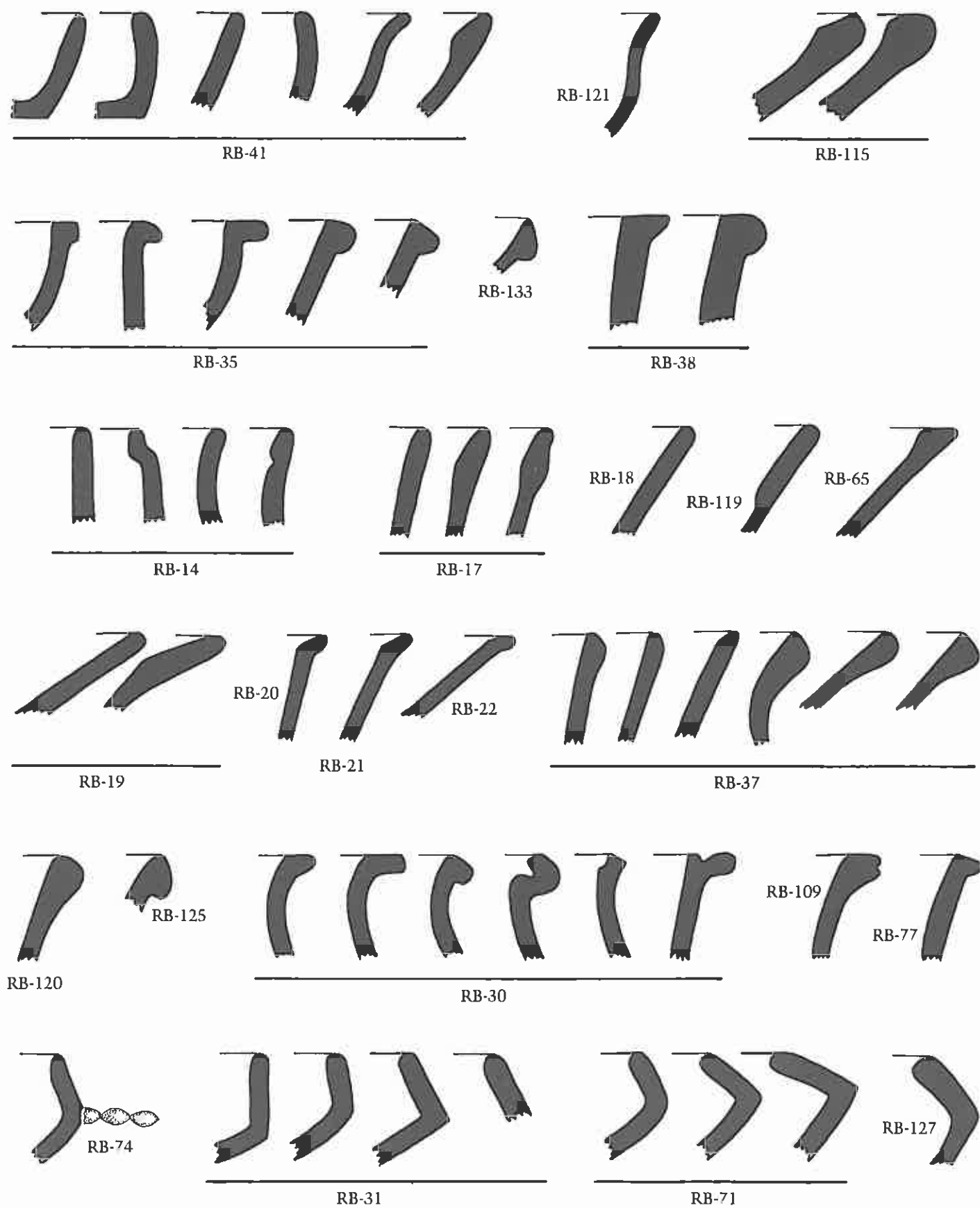
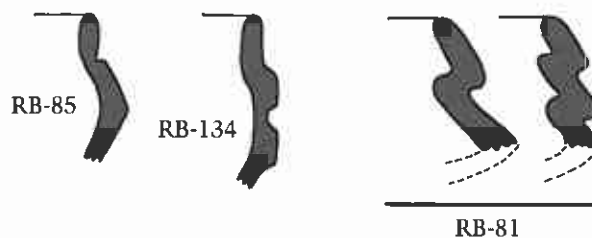
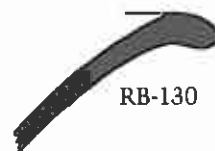
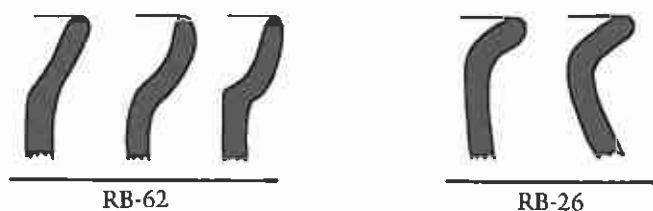
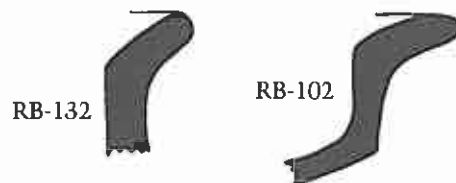


Figure D.1 Bowl form codes.

Table D.4. Design Codes

DC-1	Amatzinac White interior rim thin <i>raspada</i> incising
DC-2	Amatzinac White everted rim punctate incised
DC-3	Amatzinac White interior rim scallops
DC-4	Amatzinac White exterior shoulders incising
DC-5	Amatzinac White exterior flower
DC-6	Amatzinac White exterior raindrop
DC-7	Amatzinac White interior rim cross-hatching
DC-8	Amatzinac White interior rim pennants
DC-9	Amatzinac White exterior rainbow
DC-10	Amatzinac White exterior arcs
DC-11	Amatzinac White interior rim wide <i>raspada</i> incising
DC-12	Amatzinac White RB-30 modeled punctate
DC-13	Amatzinac White RB-7 egg
DC-14	Amatzinac White exterior cross-hatching
DC-15	Amatzinac White exterior <i>raspada</i> incising
DC-16	Amatzinac White pseudo-graters
DC-17	Laca interior rim double-line-break with slashes
DC-18	Laca rims single line, line-breaks
DC-19	Laca RB-30 modeled punctate
DC-20	Laca pseudo-graters
DC-21	White-Rimmed Black interior rim punctates
DC-22	White-Rimmed Black pseudo-graters
DC-23	Carrales Coarse Grey exterior basal break punctates
DC-24	Carrales Coarse Grey exterior body ridging
DC-25	Carrales Coarse Grey RB-16 body lugs
DC-26	Carrales Coarse Grey exterior zoned slashes
DC-27	Carrales Coarse Grey exterior zoned V's
DC-28	Carrales Coarse Grey exterior zoned stairsteps
DC-29	Carrales Coarse Grey exterior zoned X's
DC-30	Peralta Orange exterior shoulder punctates
DC-31	Peralta Orange H-1 with incising on handle
DC-32	Pavón Fine Grey exterior body ridging
DC-33	Pavón Fine Grey wide incising
DC-34	Pavón Fine Grey RB-16 body lugs
DC-35	Pavón Fine Grey pseudo-graters
DC-36	Atoyac Unslipped Polished I RB-67 stick impressions on lip
DC-37	Atoyac Unslipped Polished I RB-67 lip lugs
DC-38	Atoyac Unslipped Polished I <i>cantaritos</i> shoulder incising
DC-39	Atoyac Unslipped Polished I <i>cantaritos</i> body lugs



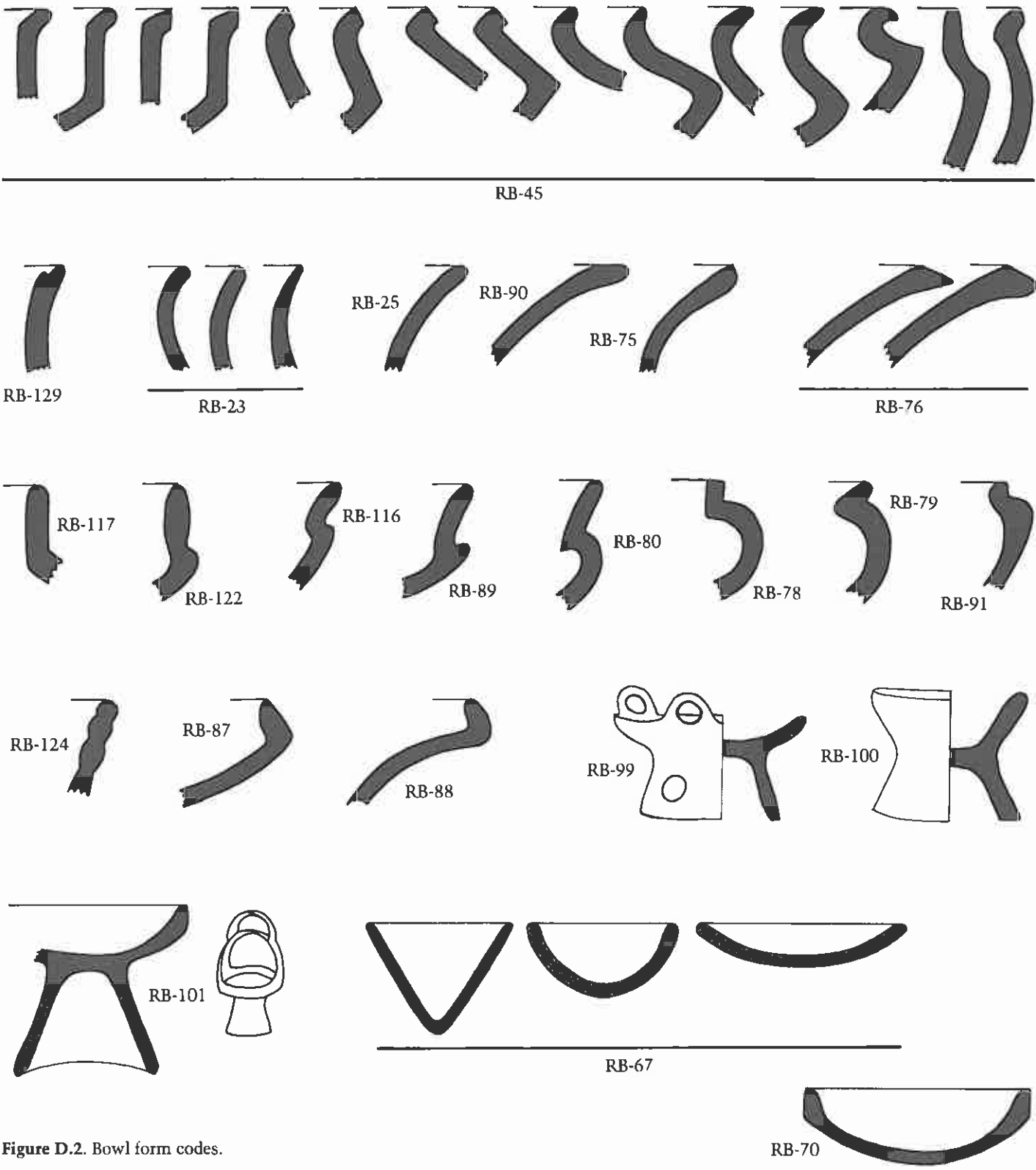
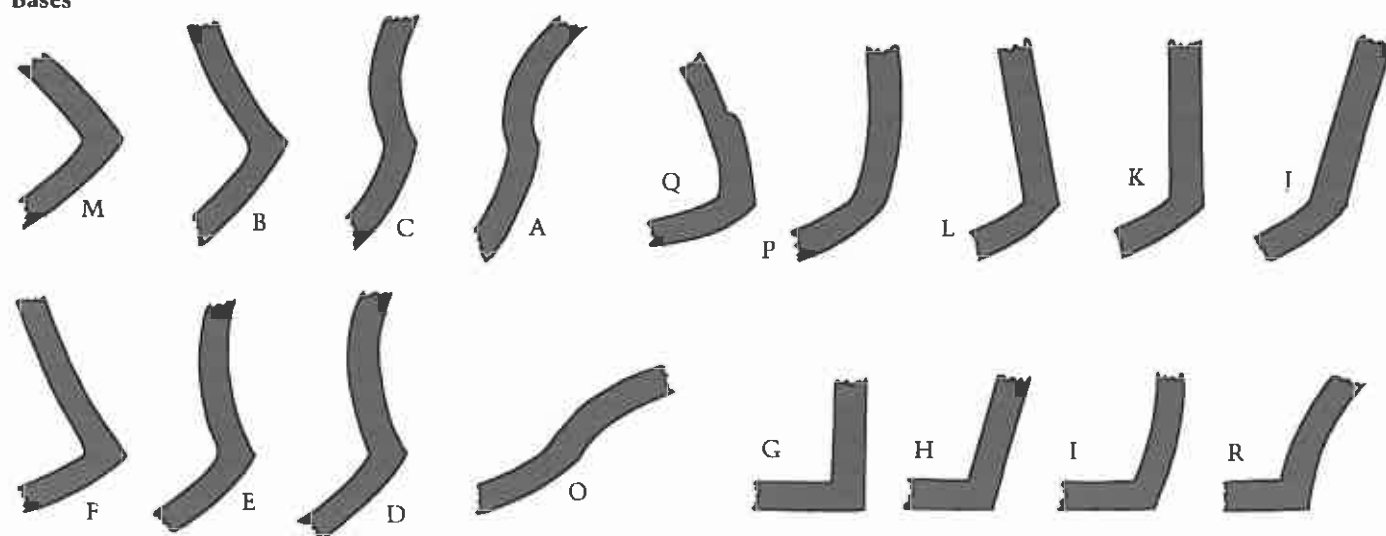
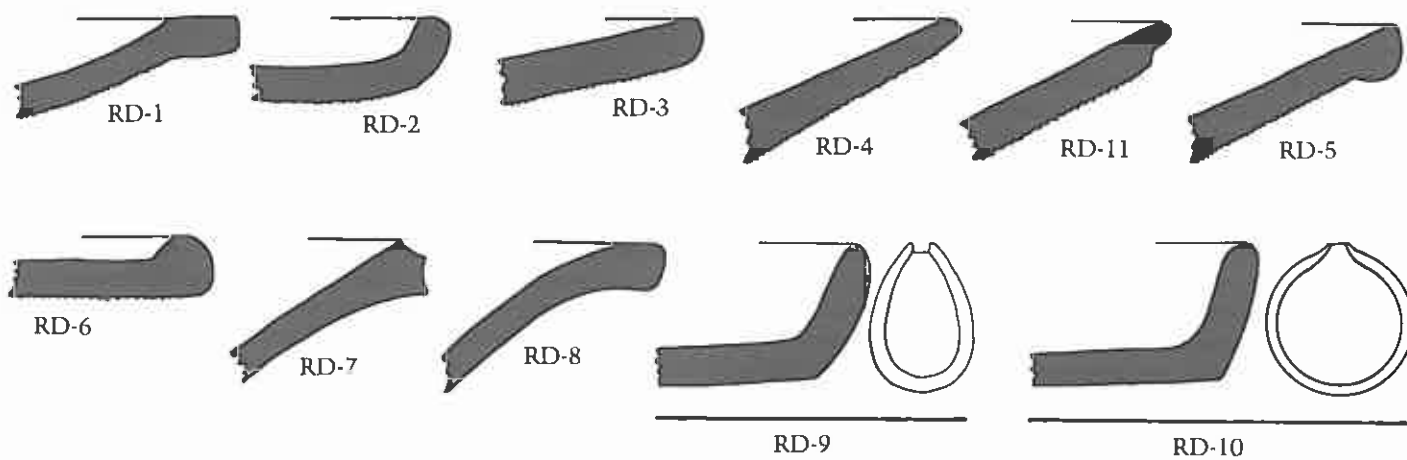


Figure D.2. Bowl form codes.

Bases



Plates



Ollas

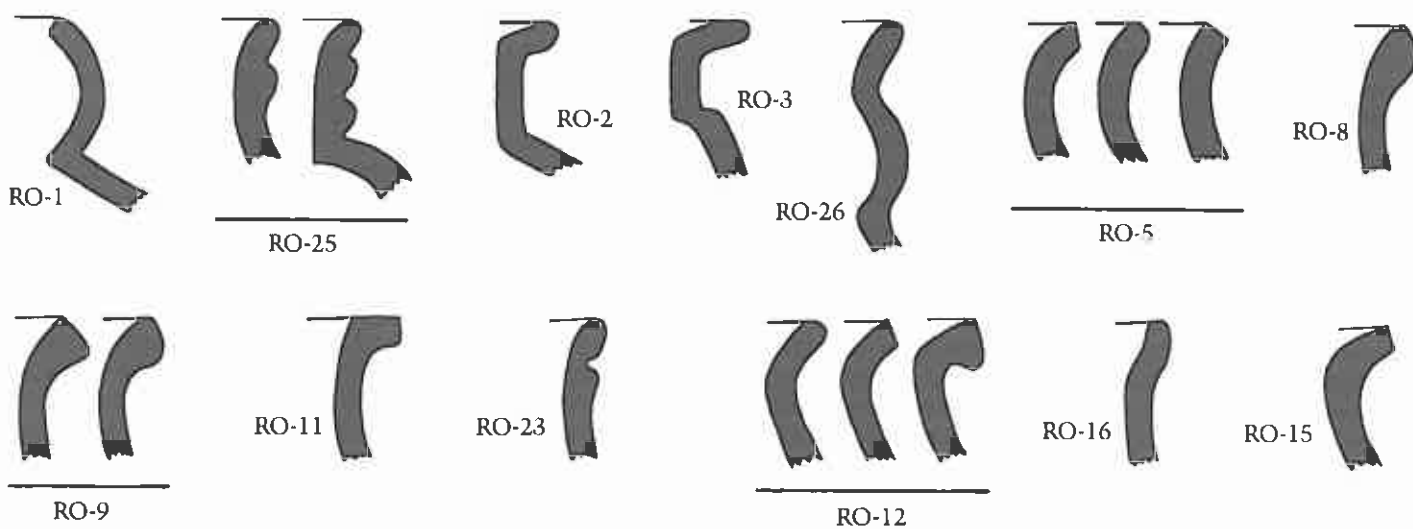


Figure D.3. Base, dish, and olla form codes.

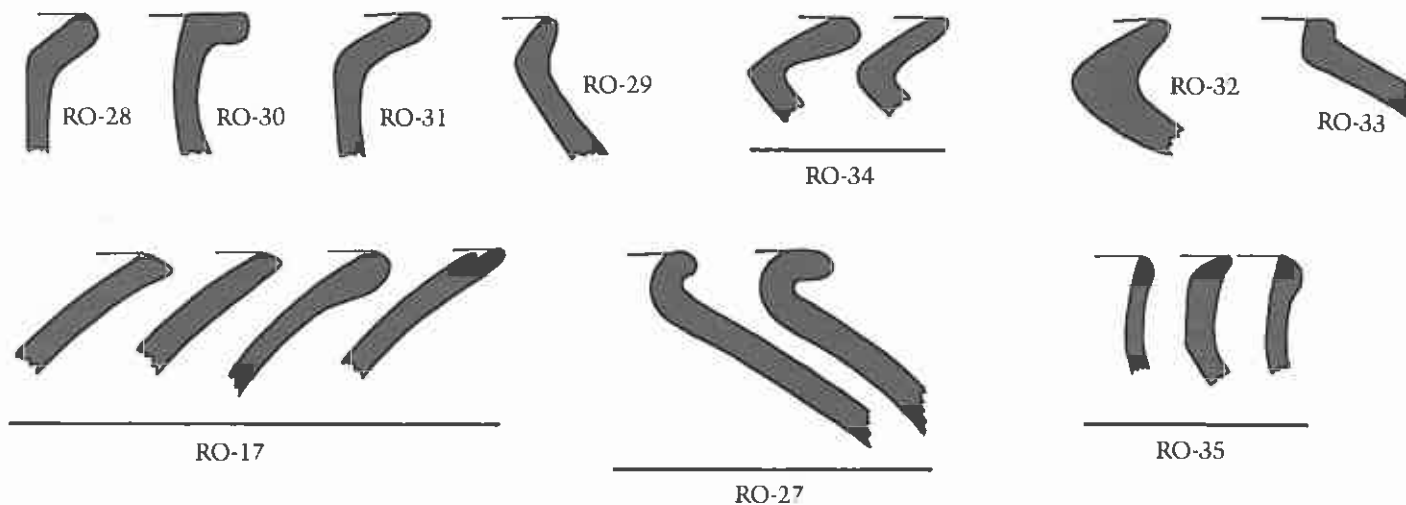
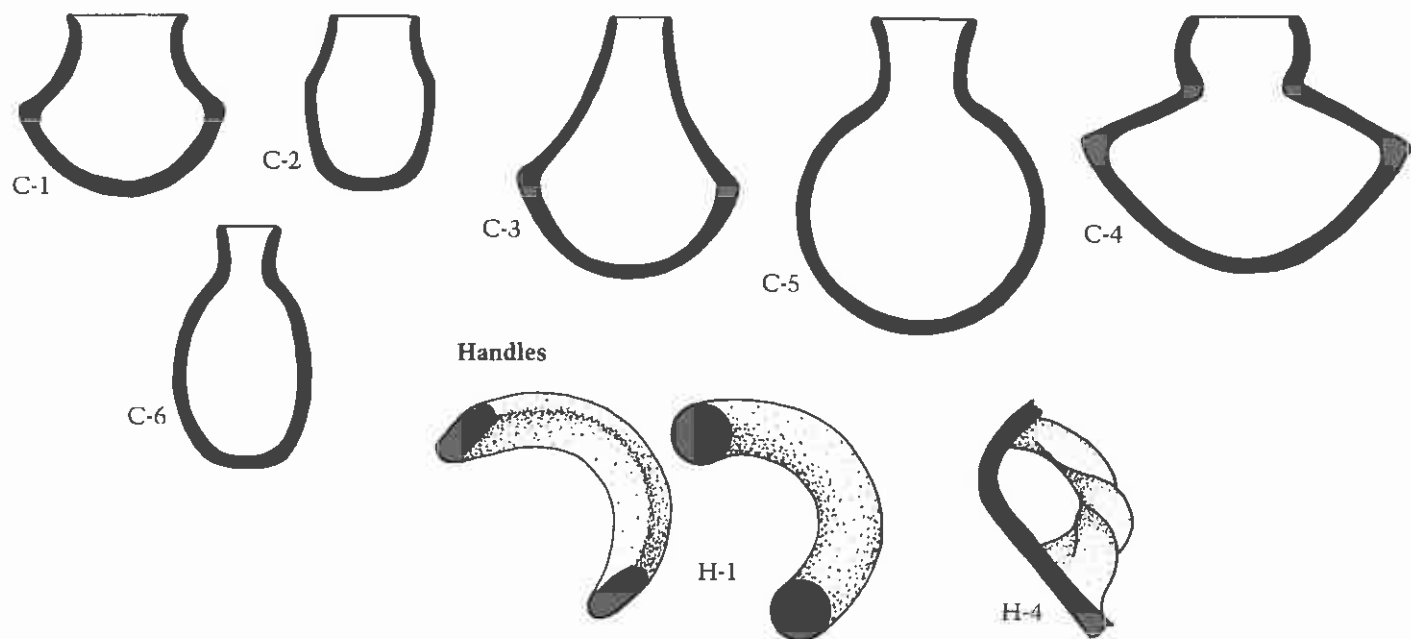
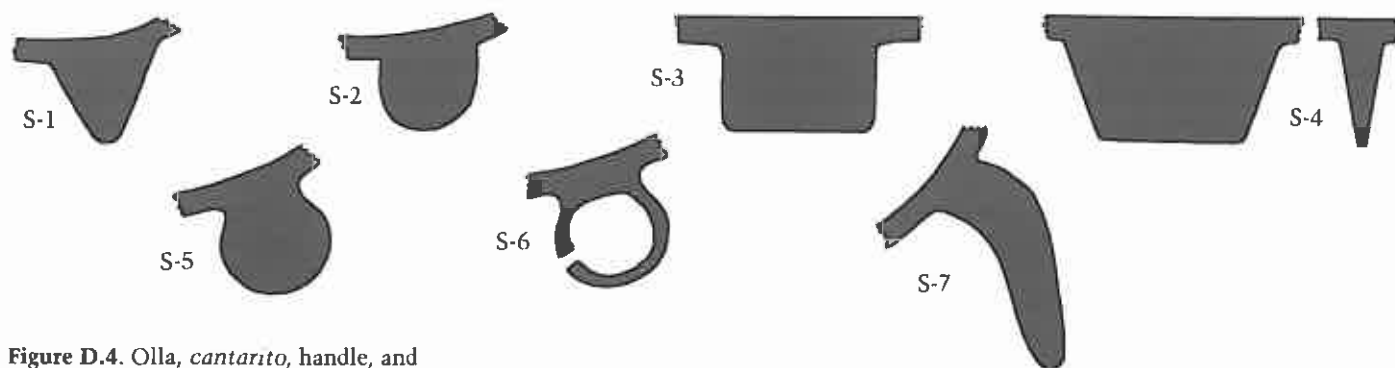
Ollas**Cantaritos****Supports**

Figure D.4. Olla, cantarito, handle, and support form codes.

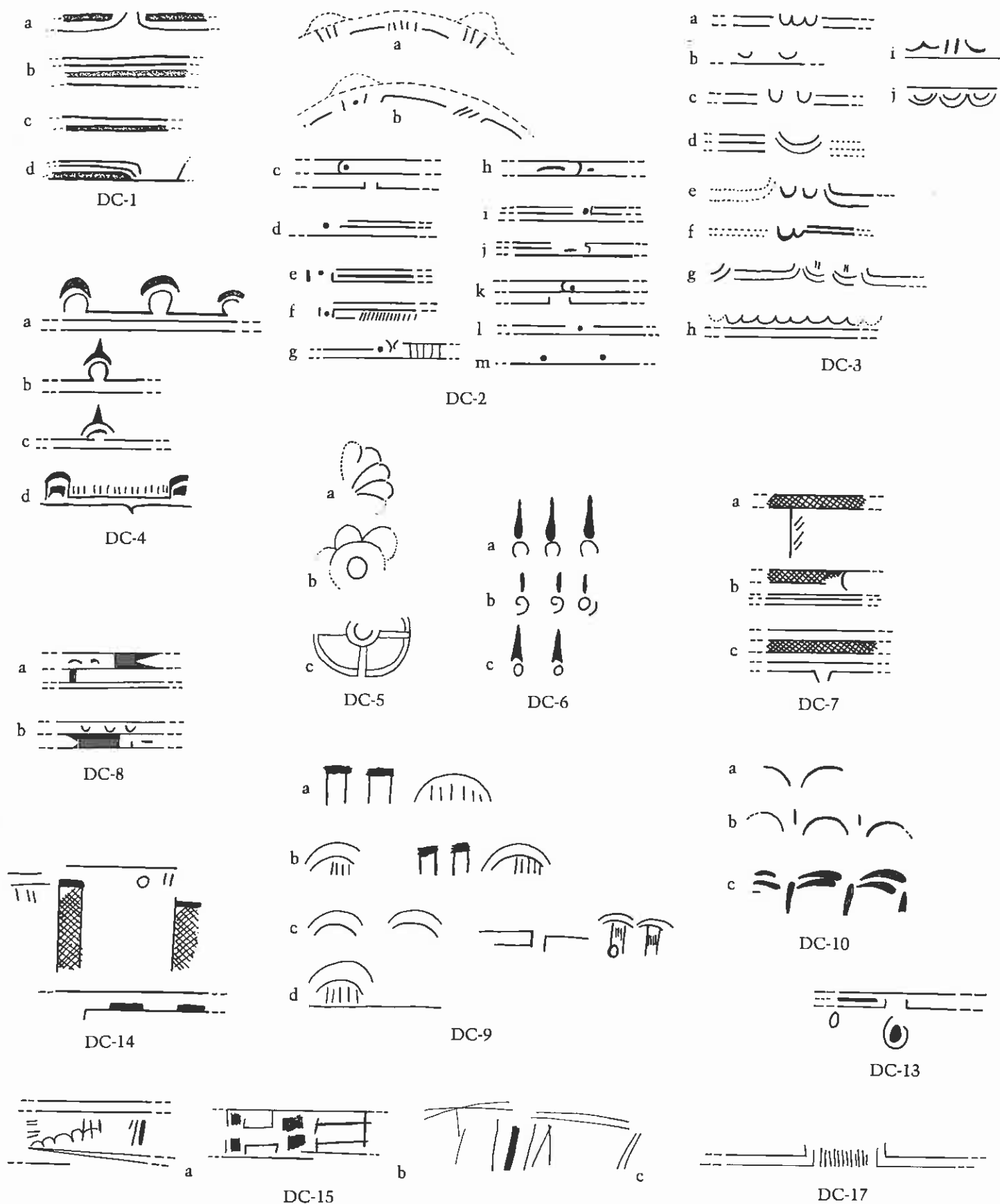


Figure D.5. Selected design codes. Note: DC-11, 12, 16, 18–39 not illustrated.

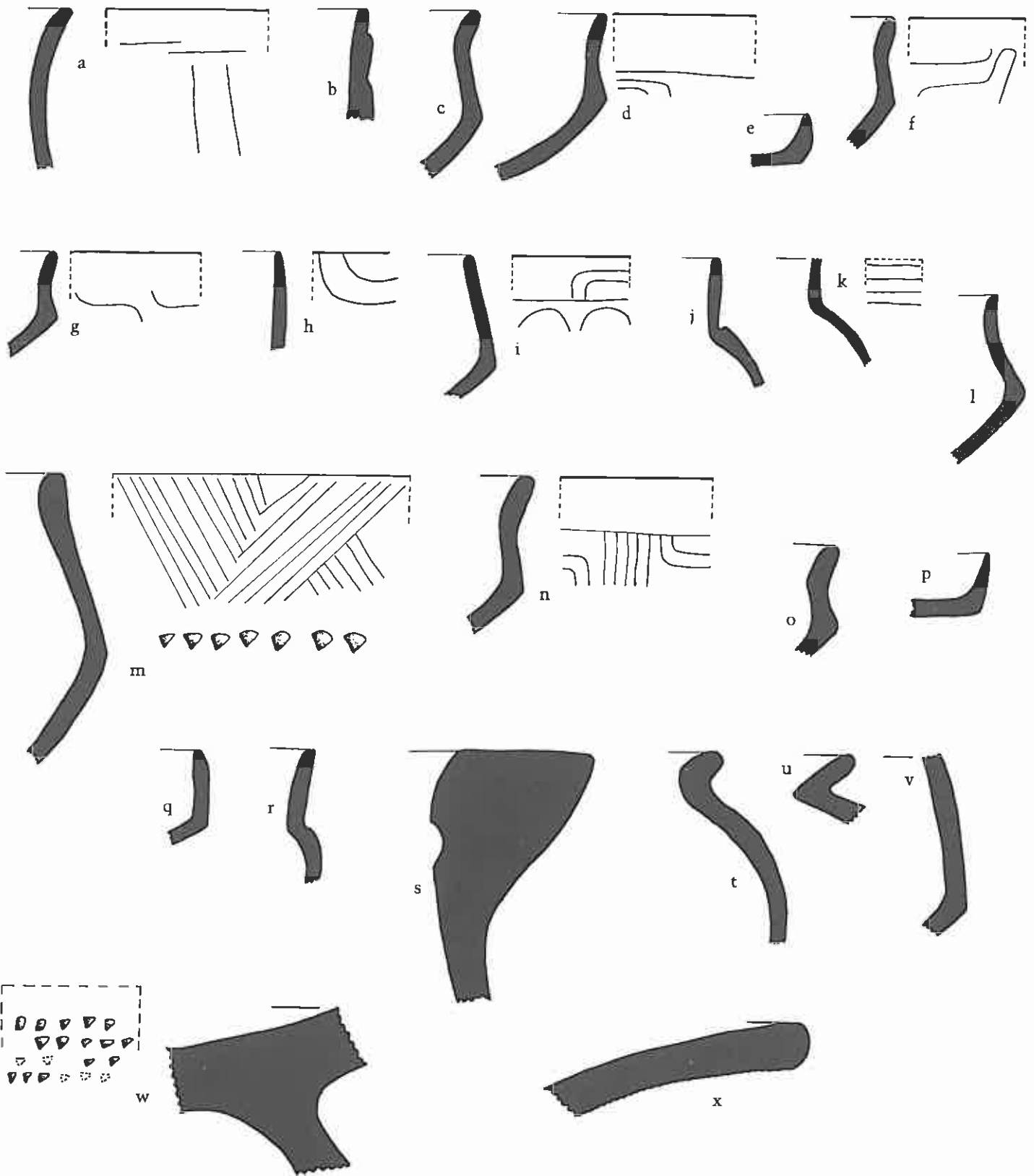
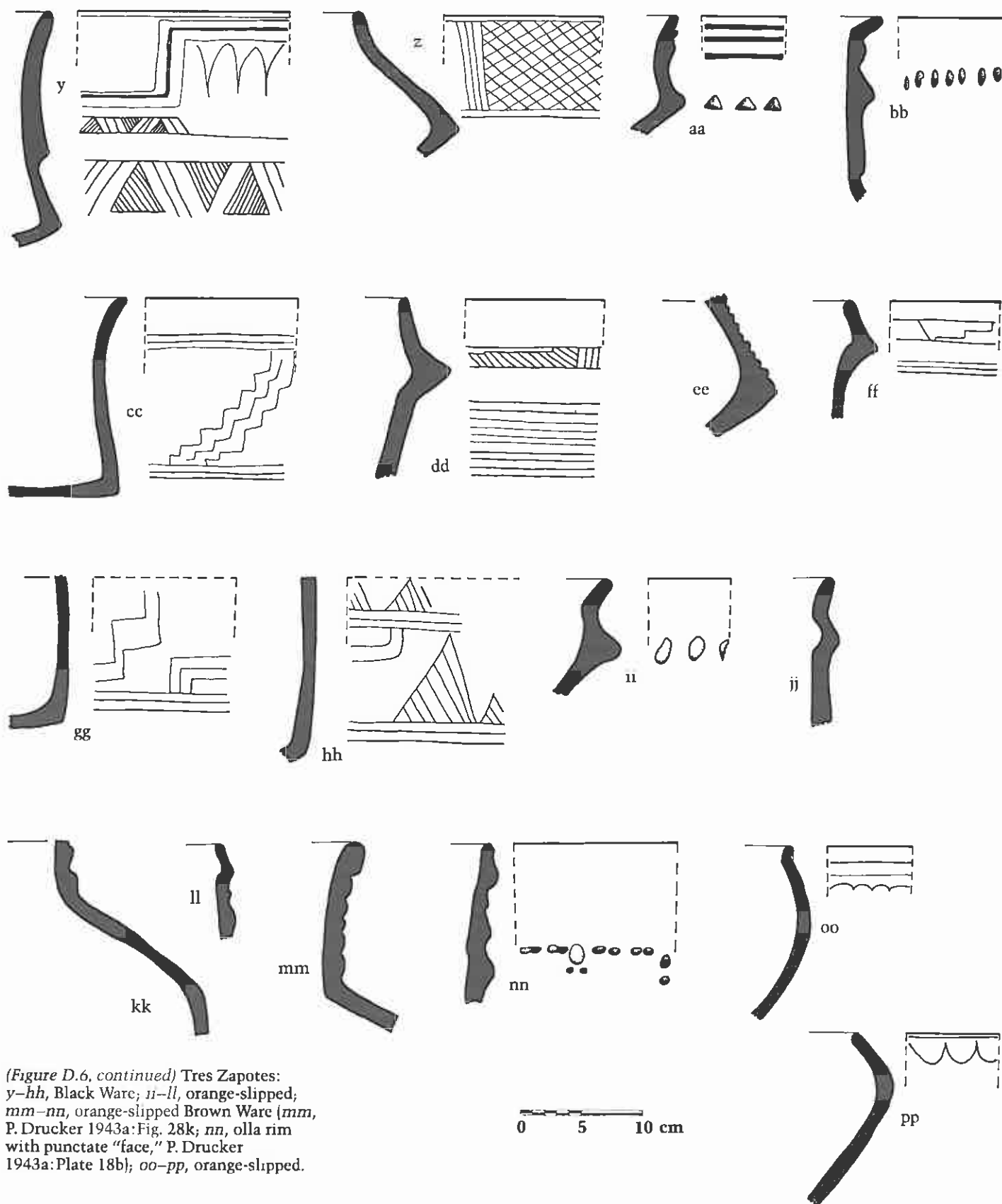


Figure D.6. La Venta and Tres Zapotes sherds. La Venta: *a–g*, Fine-Paste Black (*d*, P. Drucker 1943a: Fig. 34b); *h–j*, Coarse Black; *k–m*, Coarse Buff (*l* has traces of orange slip; *m* has traces of white slip); *n–p*, Fine-Paste Buff-Orange; *q–r*, Brown

Lacquer Ware; *s–x*, Coarse Brown [*s*, heavy everted rim, shoulder with punctations; *w*, annular base; *x*, possible *comal* with roughened base]. *Figure D.6 continued on next page.*



(Figure D.6, continued) Tres Zapotes: y-hh, Black Ware; ii-ll, orange-slipped; mm-nn, orange-slipped Brown Ware (mm, P. Drucker 1943a:Fig. 28k; nn, olla rim with punctate "face," P. Drucker 1943a:Plate 18b); oo-pp, orange-slipped.

APPENDIX E

Descriptions of Chalcatzingo Figurine Attributes

MARK HARLAN

This appendix presents detailed descriptions of the attributes of the Chalcatzingo figurines which were used in the attribute analysis (Chapter 14; Harlan 1979), along with illustrations of these attributes. Only the attributes used in the analysis are described. They have been arranged here in groups (eye forms, mouth forms, etc.) for easier reference.

Eye Forms

Eye Form 1 (Fig. E.1a): A coffee-bean shaped eye executed by gouging into the clay, leaving a well-defined ridge to form the outline.

Eye Form 2 (Fig. E.1b): Slit-shaped in outline, the slit incised into the face, leaving a ragged line as the outline.

Eye Form 3 (Fig. E.1c): Executed by incising an oval into the face and placing a punctate dot inside the oval at the point nearest the nose. The eyebrow is then depicted by incising an arc over the oval.

Eye Form 4 (Fig. E.1d): Consists of a very deep punctation, set off by two incised arcs, one near the nose and the other on the opposite side.

Eye Form 5 (Fig. E.1e): An oval formed by two separately executed arcs. A punctation is placed through the lower arc slightly nearer to the nose than the ear to represent the pupil.

Eye Form 6 (Fig. E.1f): A slightly arc-shaped slit incised into a raised fillet of clay.

Eye Form 7 (Fig. E.1g): Formed by incising around an oval area formed by pinching up clay from the face.

Eye Form 8: Not included in the analysis.

Eye Form 9 (Fig. E.1h): Executed by forming an oval with a raised band of clay and placing two slightly squared punctations on either side of the oval, leaving the center slightly raised.

Eye Form 10 (Fig. E.1i): Formed by double punctation. The two punctations are elongated and drawn slightly down-

ward on the face to form a very obtuse angle.

Eye Form 11 (Fig. E.1j): Formed by gouging a roughly oval depression into the face. The oval is deep at the two ends and raised in the center. An ovate punctation is placed in the raised area.

Eye Form 12 (not illustrated): An open rectangle formed by three incised lines. The area inside the rectangle is slightly raised.

Eye Form 13 (Fig. E.1k): Formed by placing two deep punctations into an appliqué crescent of clay.

Eye Form 14: Not included in the analysis.

Eye Form 15 (Fig. E.1l): A raised area in the form of a half-circle with a very deeply incised line running through it near the base.

Eye Form 16 (not illustrated): An open circle. The border of the circle is raised and the center is formed by a shallow, broad punctation.

Eye Form 17 (Fig. E.1m): The eye is closed. The depiction is made by an L-shaped incised line.

Eye Form 18 (Fig. E.1n): Formed by making a deep impression with a rectangular instrument. Two separate impressions are made, leaving a ridge in the middle of the indentation.

Eye Form 19 (Fig. E.1o): Formed by a raised ovate area, leaving a poorly defined depression as a border.

Eye Form 20 (Fig. E.1p): A slit-like incision made directly into the face.

Mouth Forms

Mouth Form 1 (Fig. E.1a): A straight-line opening lacking well-defined lips; about half open.

Mouth Form 2 (Fig. E.1b): A straight-line opening lacking well-formed lips; about three-fourths open.

Mouth Form 3 (Fig. E.1c): Turned down at the corners and lacking well-defined lips; about half open.

Mouth Form 4 (Fig. E.1g): Strongly down-

turned at the corners with well-defined lips; closed.

Mouth Form 5 (not illustrated): A simple straight-line gash placed directly below the lower edge of the nose. The lower lip is weakly depicted and the upper lip is part of the nose.

Mouth Form 6 (Fig. E.1r): A simple straight-line incision. The lips are weakly depicted. Teeth are portrayed as simple punctations.

Mouth Form 7 (Fig. E.1l): A crescent-shaped incision placed through a raised bulb of clay. The effect is a mouth only slightly open with very strongly downturned corners.

Mouth Form 8 (Fig. E.1n): A simple rectangular depression with no depiction of lips.

Mouth Form 9 (Fig. E.1s): Characterized by the careful modeling of the teeth.

Mouth Form 10 (Fig. E.1t): Closed and slightly down-turned at the corners. The corners of the mouth are punctated and the lips are raised and well defined.

Nose Forms

Nose Form 1 (Fig. E.1u): Narrow, straight, and raised high above the face.

Nose Form 2 (Fig. E.1b): Broad and slightly triangular; raised only slightly above the face.

Nose Form 3 (Fig. E.1h): Broad, rectangular in plan, and triangular in cross section; set off from the face by incising along both sides.

Nose Form 4 (Fig. E.1j): Broad, triangular in plan, and flattened in cross section. It is appliqué rather than modeled directly on the face.

Nose Form 5 (Fig. E.1k): Has roughly the form of a parrot's beak. It is slightly triangular in plan and near crescent in profile.

Nose Form 6 (Fig. E.1l): Very broad in both plan and cross section. Its outline is slightly curved.



Nose Form 7 (Fig. E.1m): Characterized by the depiction of the nostrils by punctuation.

Hair Forms

Hair Form 1 (Fig. E.1a): Long hair, parted in the center and pulled straight down each side of the head. Light incising is used to improve the depiction of the hair.

Hair Form 2 (Fig. E.1q): Short hair, depicted by short, deep incisions all over the head.

Hair Form 3 (Fig. E.1g): The head is completely smooth, devoid of either hair or a head covering.

Turban Forms

Turban Form 1 (Fig. E.1c): Simply a raised, hat-like object with one fillet at the base, perhaps meant to depict a cord.

Turban Form 2 (Fig. E.1e): Appears to be a simple cloth wrap with a division just off center.

Turban Form 3 (Fig. E.1v): The head cover is differentiated from the face by a raised band just above the eyes. There is a slight raising of the clay on the two lateral edges, and two incised lines in the center form a triangle.

Turban Form 4: Not included in the analysis.

Turban Form 5 (Fig. E.1f): Appears to be a cloth wrap swept up and brought to an apex in the center of the head, where it is fastened with a device of some kind.

Turban Form 6 (Fig. E.1w): A hat-like object with a cord drawn across the front and allowed to hang down the side.

Turban Form 7 (Fig. E.1x): A two-tiered wrap set off from the face with a band set well above the eyes.

Turban Form 8 (Fig. E.1y): A single wrap over the top of the head, set off from the face by a band placed slightly above the eyes.

Turban Form 9 (Fig. E.1z): A double wrap arranged to form a rectangle at the top and an arc over the forehead.

Turban Form 10 (Fig. E.1aa): A cap with a long tassel extending down to rest on the shoulder.

Turban Form 11 (Fig. E.1bb): A complex wrap consisting of three parts. Part one forms a peak at the top of the head. Part two forms a band across the forehead. Part three is brought down around the chin and up the other side of the face.

Turban Form 12 (Fig. E.1cc): A complex open wrapping brought up from the forehead at a steep angle to form a peak at the top of the head.

Turban Form 13 (Fig. E.1dd): A rectangle raised high above the head and set off from the face by a well-defined groove.

Turban Form 14 (Fig. E.1ee): Consists of two parts, a simple rectangle raised high above the head, and a broad band across the top of the forehead which has the appearance of a cloth wrap.

Turban Form 15 (not illustrated): A cap with a short tassel, sitting directly on top of the head.

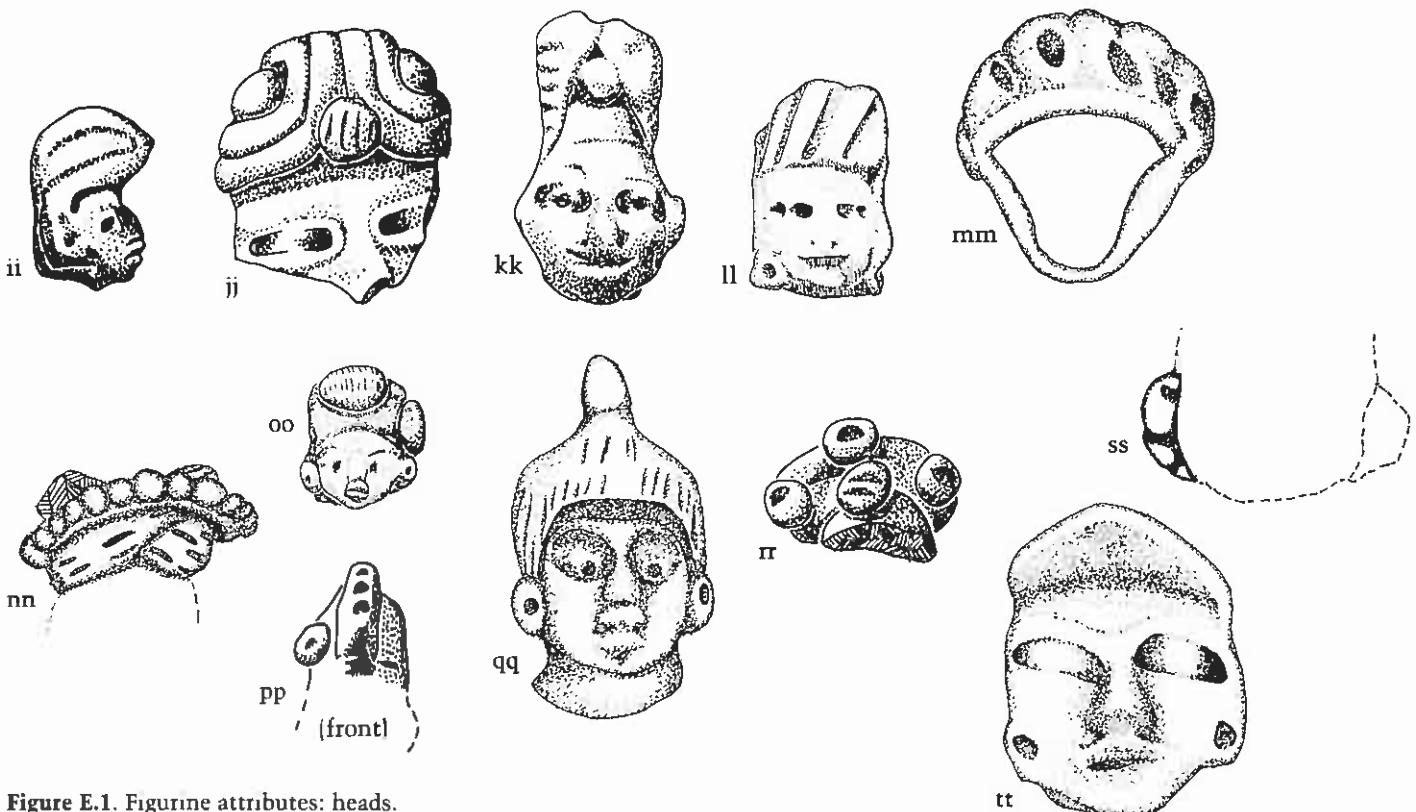


Figure E.1. Figurine attributes: heads.

Turban Form 16 (Fig. E.1ff): A double wrap rising at an acute angle above the head. The wrap on the specimen illustrated would have formed a double peak if one side were not broken.

Turban Form 17: Not included in the analysis.

Turban Form 18: Not included in the analysis.

Turban Form 19 (not illustrated): Consists of two parts, a close fitting cap and a divided cord drawn across the forehead and hung at an angle across the back of the head.

Turban Form 20 (Fig. E.1gg): A T-shaped wrap at the back of the head attached by a band across the forehead.

Turban Form 21: Not included in the analysis.

Turban Form 22: Not included in the analysis.

Turban Form 23 (Fig. E.1hh): A peaked cap with a broad band at its base. It is placed at an angle on the side of the head.

Turban Form 24 (Fig. E.1ii): A bun-shaped wrapping which projects out over the forehead. In profile, it can be seen to be placed at an angle jutting out over the head. It is set off from the forehead by a shallow incised line.

Turban Form 25: Not included in the analysis.

Turban Form 26 (Fig. E.1jj): Formed by a paired series of wrappings bent at a right angle so as to follow the line of the forehead and then turn up along the long axis of the head. The open area between the paired wrappings is covered by a button.

Turban Form 27 (Fig. E.1kk): The head covering appears to be wrapped separately over each side of the head. It is fastened in the middle, over the forehead, by a button.

Turban Embellishments

Turban Embellishment 1 (Fig. E.1ee): Decoration by simple incising.

Turban Embellishment 2: Not included in the analysis.

Turban Embellishment 3 (not illustrated): An appliquéd fillet with gouged incising, perhaps intended to depict a twisted cord.

Turban Embellishment 4 (Fig. E.1ll): A set of deeply incised grooves parallel to the long axis of the face. It may be intended to depict a headdress of standing feathers.

Turban Embellishment 5 (Fig. E.1mm): Drag-jab gouging.

Turban Embellishment 6 (Fig. E.1nn): A row of clay balls joined together, perhaps intended to depict a string of beads.

Turban Embellishment 7 (Fig. E.1oo): A large appliquéd oval disk.

Turban Embellishment 8 (Fig. E.1pp): An appliquéd fillet with a series of deep cuts along the top, giving an effect similar to a rooster's comb.

Turban Embellishment 9 (Fig. E.1qq): A cone appliquéd to the top of the head covering.

Turban Embellishments 10–13: Not included in the analysis.

Turban Embellishment 14 (not illustrated): A dangling wrap or fringe down the back of the head.

Turban Buttons

Turban Button 1 (Fig. E.1rr, upper row): A simple round button decorated with a single punctuation.

Turban Button 2 (Fig. E.1rr, lower center): A simple round button decorated with parallel incised lines.

Turban Button 3 (Fig. E.1cc): A plain, round, undecorated button.

Turban Button 4 (Fig. E.1dd): A round button with an impression removing part of its circumference on one side.

Turban Button 5 (not illustrated): The button has a point with incised lines radiating out from it.

Ear Ornaments

Ear Ornament 1 (Fig. E.1c): A simple doughnut shape, presumably intended to represent an unadorned earpool.

Ear Ornament 2 (Fig. E.1ss): A series of incised lines which may be intended to depict a slit ear.

Ear Ornament 3 (Fig. E.1e): A large open spool which contrasts with Ear Ornament 1 in relative size.

Ear Ornament 4 (Fig. E.1h): A large open spool with a pendant attached to it.

Ear Ornament 5 (Fig. E.1y): A simple incision at the base of the ear.

Ear Ornament 6 (Fig. E.1aa): A simple pendant without a spool.

Ear Ornament 7 (Fig. E.1tt): A simple gouging into the side of the head.

Neck Ornaments

Neck Ornament 1 (Fig. E.2a): A simple fillet placed over the shoulders and above the breasts.

Neck Ornament 2: Not included in the analysis.

Neck Ornament 3 (Fig. E.2b): A well-defined groove incised directly below the neck.

Neck Ornament 4 (Fig. E.2c): A fillet hung around the neck with a disc (perhaps a mirror) suspended from the fillet.

Neck Ornament 5 (Fig. E.2d): A groove around the neck and a gouge between the breasts, perhaps meant to depict a pendant.

Neck Ornament 6 (Fig. E.2e): A series of clay balls, probably meant to depict a string of beads. In the example illustrated, the ornamentation probably originally went from the top of one shoulder to the top of the other, passing below the neck.

Arm Positions

Arm Position 1 (Fig. E.2f): The arm is bent downward with the hand on the abdomen below the breast.

Arm Position 2 (Fig. E.2g): The forearm crosses the body, with the hand on the opposite breast.

Arm Position 3 (Fig. E.2h, left arm): The arm is straight out to the side.

Arm Position 4 (Fig. E.2h, right arm): The arm is bent slightly away from the body, and then bent at the elbow to orient the forearm forward.

Arm Position 5 (Fig. E.2i): The arm is bent down across the torso, placing it on the inside of the thigh (on the same side).

Arm Position 6 (Fig. E.2j): The arm is bent over behind the back, with the hand in the area of the buttocks.

Arm Position 7 (Fig. E.2k): The arm is drawn across the torso with the hand on the upper part of the other arm.

Arm Position 8 (Fig. E.2l): The elbows are tucked into the sides and the hands placed on the chin, cradling the head.

Arm Position 9 (not illustrated): The arm is bent and reaching down to cradle the other arm in the crook of the elbow.

Arm Position 10 (Fig. E.2m, left arm): The arm is bent downward and in at the side to place the hand in the area of the genitals.

Arm Position 11 (not illustrated): The arm is bent upward at the elbow, placing the forearm in the area where the head would have been.

Arm Position 12: Not included in the analysis.

Arm Position 13: Not included in the analysis.

Arm Position 14 (Fig. E.2n): Both arms are curved behind the back, with the hands on the buttocks.

Hand Types

Hand Type 1 (Fig. E.2o): The fingers are depicted by a series of parallel grooves; the digits are very long.

Hand Type 2 (Fig. E.2m): The hand has short digits depicted by a series of parallel grooves.

Breast Forms

Breast Form 1 (Fig. E.2p): The breasts are elongated from top to bottom in the long axis of the body, projecting furthest from the trunk at their lowest point.

Breast Form 2 (Fig. E.2q): Each breast is roughly circular in plan and has its greatest projection just below the shoulder.

Breast Form 3 (Fig. E.2r): Both breasts are shaped like cones which have been flattened along the main axis of the figurine's body.

Breast Form 4 (Fig. E.2s): The breasts are depicted by a single lump of clay with a slit down the middle for the cleavage.

Breast Form 5 (Fig. E.2a): The breasts are cone-shaped and have been flattened perpendicular to the main axis of the body.

Breast Form 6 (Fig. E.2t): Each breast is a simple appliquéd button of clay.

Breast Form 7 (Fig. E.2u): The breasts are formed of appliquéd cones, contrasting with the other forms, which are modeled.

Navel Forms

Navel Form 1 (Fig. E.2u): A simple punctation straight into the abdomen.

Navel Form 2 (Fig. E.2v): A gouge into the abdomen with the open end of the gouge oriented toward the feet.

Navel Form 3 (Fig. E.2w): A gouge into the abdomen with the open end of the gouge oriented toward the head.

Pregnancy Types

Pregnancy Type 1 (Fig. E.2x): The abdomen is shown as a simple rounded protuberance oriented at a slight angle down from the body.

Pregnancy Type 2 (Fig. E.2y): The abdomen is an ovate protuberance with its long axis at a right angle to the long axis of the body. The stomach is flattened on the lower side.

Pregnancy Type 3 (not illustrated): A double protuberance. The two projections are one above the other on the abdomen.

Pregnancy Type 4 (Fig. E.2z): The abdomen has the shape of half a football.

Its long axis points slightly downward from the long axis of the body.

Pregnancy Type 5 (Fig. E.2g): The abdomen projects only slightly and has the form of a smooth arc.

Leg Forms

Leg Form 1 (not illustrated): Uniformly thick from thigh to ankle, with the foot simply depicted by a slight outturning of the clay at the base of the leg.

Leg Form 2 (Fig. E.2aa): The leg tapers from thigh to ankle, and the foot is differentiated and turned forward at a very obtuse angle.

Leg Form 3 (Fig. E.2bb): Characterized by careful depiction of the calf. The foot is very small in relation to the leg.

Leg Form 4 (not illustrated): Bent at the knee to form a right angle between the calf and the thigh.

Leg Form 5 (not illustrated): Equally thick from thigh to ankle. The foot is depicted as a projection to the rear.

Leg Form 6 (not illustrated): Bent at the knee to form an acute angle between the thigh and the calf.

Leg Form 7 (Fig. E.2cc): The legs are crossed over one another and tucked up in the "lotus" position.

Leg Form 8 (Fig. E.2dd): Very thick and angular, bent at the knee at an angle of less than 90°; the knee is depicted as an angular projection.

Leg Form 9 (Fig. E.2i): The legs are crossed at the knees and project out straight away from the seated figure.

Leg Form 10: Not included in the analysis.

Leg Form 11 (not illustrated): Very wide at the thigh and thick in the calf, tapering at the knee and again, to a point, at the foot.

Leg Form 12 (Fig. E.2ee): Tapers gradually from thigh to foot and has a pointed foot oriented at right angles to the body (pointing out to the side).

Clothing Types

Clothing Type 1 (Fig. E.2ff): A wrist ornament constructed of a rounded fillet of clay appliquéd over the side of the wrist.

Clothing Type 2 (not illustrated): A waist band constructed of a narrow appliquéd fillet of clay.

Clothing Type 3 (Fig. E.2j): A waist band composed of two elements circling the waist and two flaps, one flap tucked over the front and one tucked over the back of the waist band.

Clothing Type 4 (Fig. E.2c): An encircling element around the waist and an oblong pubic cover.

Clothing Type 5 (Fig. E.2gg): A pubic cover depicted by incised lines, one around the upper part of each thigh. The lines descend to join at the pubis.

Clothing Type 6 (Fig. E.2u): Sandal constructed of a V-shaped appliquéd fillet on the top of the foot.

Clothing Type 7 (Fig. E.2hh): Sandals shown by clay discs appliquéd to the top of the feet.

Clothing Type 8 (Fig. E.2ii): Sandal composed of a clay pad under the foot, attached by a strap over the ankle.

Clothing Type 9 (Fig. E.2jj): Sandal shown by a fillet around the side of the foot and an appliquéd disc over the toe area.

Clothing Type 10 (Fig. E.2kk): Sandal shown by a straight fillet of clay appliquéd to the top of the foot.

Clothing Type 11 (Fig. E.2ll): A head-dress chin strap composed of a broad band which covers the chin and mouth.

Clothing Type 12 (Fig. E.1mm): A narrow head-dress chin strap, passing under the chin.

Clothing Type 13 (Fig. E.2mm): A knee pad wrapped around the knee and protruding forward.

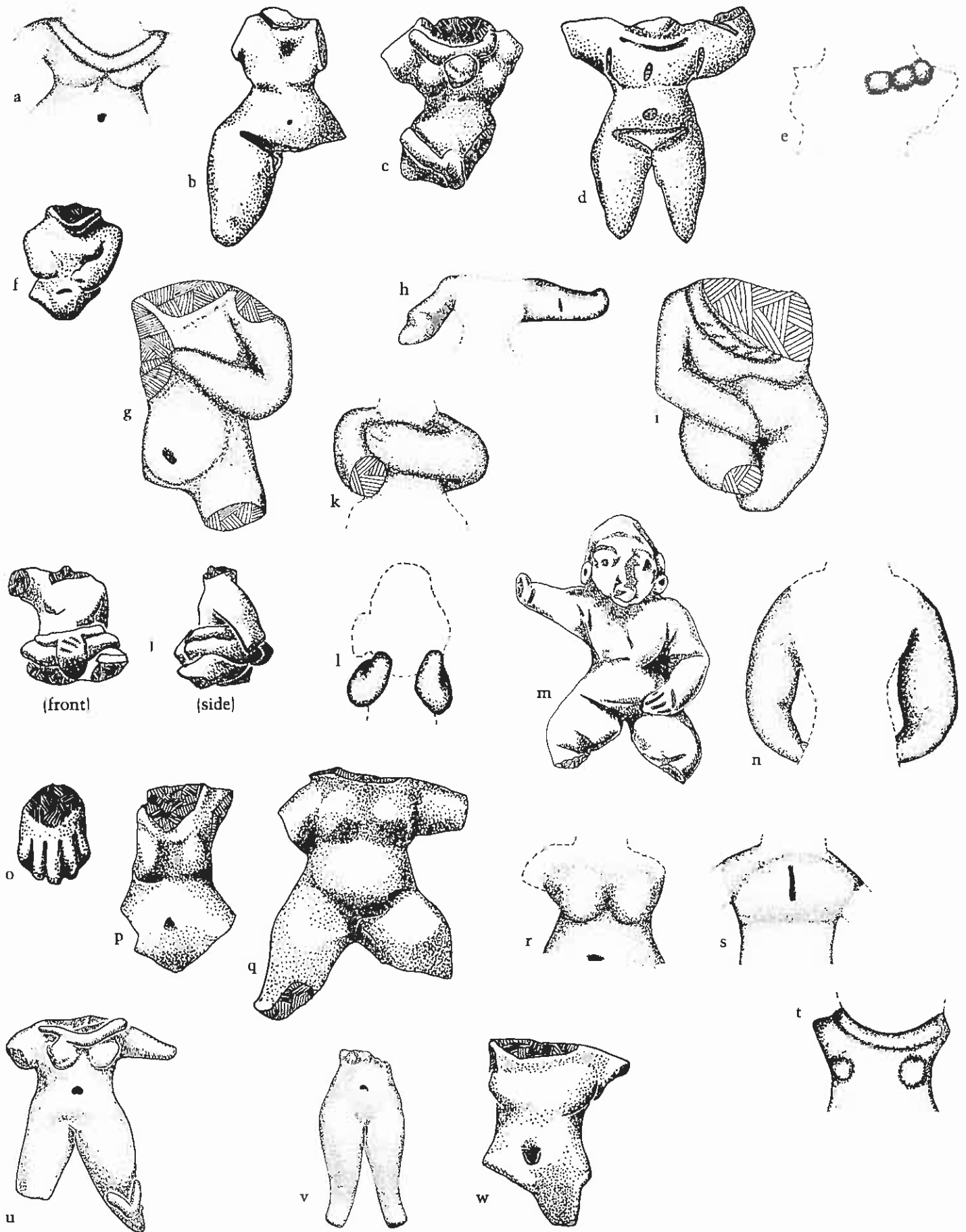
Clothing Type 14 (Fig. E.2gg): The body is decorated with one or more appliquéd clay balls.

Clothing Type 15 (Fig. E.1l): A bead of clay placed below the nose and above the upper lip.

Other

Burden (not illustrated): A pack carried high on the back with a tumpline passing around the forehead.

Chair (not illustrated): A support coming up behind the figurine's back, under the buttocks, and along one side. The figurine and the chair seem to have been modeled separately.



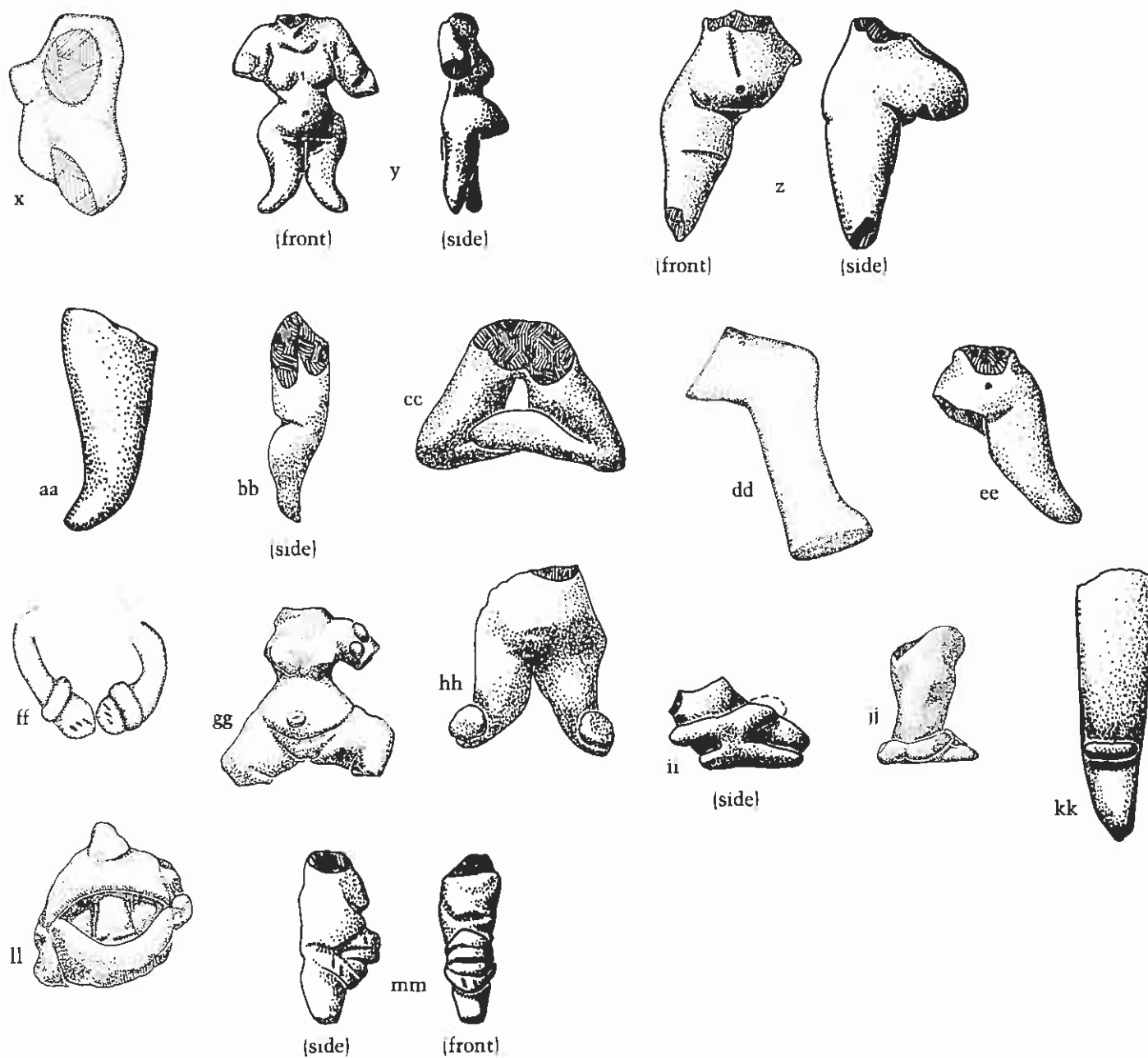


Figure E.2. Figurine attributes: bodies.

APPENDIX F

Notes on Jadeite Color

CHARLOTTE W. THOMSON

Jadeite Color

The colors of Mesoamerican jadeites vary from white and grey through a range of blue-greys and greens to brown and black. The mechanisms for pigmentation of jadeite are complex and not adequately defined. Theoretically, pure jadeite should be white, without a tinge of color. It appears colorless and quite transparent in thin section. "Natural colors" in jadeite are those produced at the time of crystallization of the mineral. These are the result of the substitution of an element in the crystal structure.

Agents which give jadeite natural color are mainly compounds of iron, manganese, and chromium. Chromium is important as the source of the brilliant emerald or imperial green of the rarest Mesoamerican jadeite, a color found in small quantities at Chalcatzingo. However, jadeite also exhibits a very extensive range of solid solution relationships within the pyroxene group. Two, three, or more materials may substitute on the crystal lattice, making the mechanism of pigmentation difficult to identify.

In the lighter-colored translucent varieties of jadeite, there are diffraction colors caused by the scattering of light as it passes through the material. Colors may also be due to agencies affecting jadeite after formation, such as weathering, absorption of coloring agents, and fire.

Notation of Jadeite Color

Color names for the Mesoamerican jades have in the past been taken from Robert Ridgeway's *Color Standards and Color Nomenclature* (1912). Following a suggestion made by Maria Luisa Johnson (1975), the Munsell system of color notation is proposed as a more current and usable color reference system. The Munsell system (Munsell Soil Color Charts 1971) identifies color in terms of three attributes: hue, value, and chroma. The complete Munsell notation for chroma

matic color is expressed symbolically: $H\ V/C$.

The hue (H) notation of a color (e.g., red, green, blue, etc.) indicates its relation to an equally spaced scale of 100 hues. In fact, the colors of the Mesoamerican jadeites fall within the range of seven Munsell hue charts: 10 Green-Yellow, 2.5 Green, 5 Green, 7.5 Green, 2.5 Blue-Green, 5 Blue-Green, and 7.5 Blue-Green.

There are variations for value and chroma on the hue charts. The value (V) notation indicates the degree of lightness or darkness of a color in relation to a neutral grey scale extending from absolute black to absolute white. Value ranges from 0/ for absolute black to 10/ for absolute white. Thus, the darker jades have low value numbers, and the brightest, clearest colors have numbers in the 5/ to 6/ range.

The chroma (C) notation indicates the degree of departure of a given hue from a neutral grey of the same value. The chroma scales extend from /0 for a neutral grey to /10, /12, /14, or farther, depending on the strength or saturation of a color.

Color Terms for the Chalcatzingo Jades

Imperial green jadeite is synonymous with "emerald" green and denotes the clearest, most intense green of the Mesoamerican jades. It has a Munsell notation of 2.5G 5/10. The term *imperial* originally referred to Chinese court etiquette, which reserved the finest jade for the use of royalty and decreed the quality of jade that could be worn according to the wearer's rank. From what we know of the ethnographic literature in sixteenth-century Mexico, it appears that the same practice was followed there as well.

Apple green jadeite, a stone used by the Maya and not so far appearing in Olmec and Formative inventories, has the same hue as imperial green jadeite

but less color saturation or intensity (chroma) and lighter color (value). Its notation in the Munsell system would be in the range of 2.5G 6/7 and 2.5G 6/8, with variation according to composition.

The blue jades fall on the Munsell Blue-Green hue charts, but their distinction also lies in their chroma. They are very grey for their hue, having chroma values of /1 and /2. Some of the blue jades excavated at Chalcatzingo are distinctive for the pearly luster of their polished surfaces.

Chalcatzingo mottled jadeite, which has feldspar inclusions, exhibits a wide range of color and quality variation. The jadeite matrix varies from whitish grey to grey-green (5G 6/2), and the inclusions of feldspar are brighter and/or darker green-yellow, falling on the Munsell hue chart at 10GY.

Two distinct minerals were identified for the fragments of "paper-thin" ear-spools. The first was a dark spruce green fuchsite (5G 3/2) which appeared translucent spinach green when held to a light source (10GY hue chart). The second was a bluish grey serpentine (10G 6/2).

Jadeite called "bright green" is intermediate in color between imperial green and apple green, having less color strength and lighter color than imperial green.

APPENDIX G

Lithics

SUSAN S. BURTON

Part 1 of this appendix provides more detailed descriptions of the cores and modified chipped stone artifacts from Chalcatzingo to supplement Chapter 18. Part 2 consists of the variable-by-variable comparisons of the sample lithic assemblages summarized in Chapter 18.

PART 1. DESCRIPTIONS OF LITHIC ARTIFACTS

CORES

Obsidian Industry

The obsidian cores from T-37ob are discussed in detail in Chapter 19. The collection from all other areas included twenty discarded cores and fragments and nineteen cores modified for or by tool use (including nine edge-modified and ten shaped tools). Of these thirty-nine cores and fragments, nine are complete. Three of the complete specimens are fully polyhedral (i.e., have blades removed from the entire circumference), while the other six have a half cylindrical shape with one flat, unworked side. In two cases this unworked side is cortex covered. Pointed distal ends are the norm for the complete specimens; however, in one case the distal end is hinged off as a result of faulty blade removal and in two other instances the distal ends are battered from use as tools. In all five cases with core platform intact, the surfaces are multifaceted. In the other four cases, an attempt has been made to rejuvenate the core by striking off the old platform with a single blow transverse to the core's longitudinal axis. Overall core dimensions are presented in Table G.1.

Chert Industry

Two types of chert flake cores were identified in the overall collection which includes T-37ob. Cores of the more common type show no preparatory shaping; they are blocky and irregular in form

with flakes removed from various directions. Cores of the second type are also fairly rough and blocky, but each has a single prepared platform surface which served as the origin point for flake removal. These prepared cores tend to have a general pyramidal shape with the platform area forming the broad end of the pyramid. Recorded chert cores include thirty-four blocky cores (twenty complete, fourteen fragments), and eight prepared cores (six complete, two fragments). As a result of inconsistencies in analytical procedures, detailed information was not recorded on all complete specimens; however, available overall dimensions are summarized in Table G.2.

MODIFIED PIECES

The modified lithic artifacts at Chalcatzingo (including T-37ob) comprise two basic classes, edge-modified and shaped. These categories were used for both the obsidian and chert industries. They are described in detail below.

Obsidian Industry

Edge-Modified Pieces

The working edge characteristics which define the subcategories of edge-modified pieces are defined as follows. Utilized edges show chipping, and in some cases crushing, which appears to be entirely the result of actual use as tools. Re-

Table G.1. Dimensions of Complete Blade Cores in the Analyzed Lithic Collection from Chalcatzingo* (N = 9)

<i>Dimension</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Length (mm)	30–88	59.33	15.71
Width (mm)	12–25	20.00	3.74
Weight (gm)	5–44	22.44	10.07
Platform circumference (mm)	35–74	52.67	12.32
Number of facets around core circumference	8–13	9.44	1.89
Maximum facet width (mm)	6–9	7.78	0.92

*T-37 obsidian concentration not included.

Table G.2. Dimensions of Complete Chert Cores in the Analyzed Lithic Collection from Chalcatzingo

<i>Core Type and Dimension</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Blocky cores (N = 12)			
Length (mm)	43–87	67.25	11.66
Max. width (mm)	38–77	56.58	10.47
Max. thickness (mm)	32–75	48.00	12.08
Weight (gm)	72–535	208.00	113.34
Prepared cores (N = 5)			
Length	25–62	43.40	11.74
Max. width (mm)	20–53	33.60	11.98
Max. thickness (mm)	20–41	30.60	7.86
Weight (gm)	17–130	61.60	40.30

touched edges have been intentionally flaked in an effort to shape and/or sharpen them in preparation for tool use. Flake scars along retouched edges are overlapping and relatively even and deep. In the course of analysis, it was observed that all the specimens readily identifiable with traditional retouched artifact classes, such as scrapers, gouges, and spokeshaves, showed a maximum depth of chipping along the individual working edges of at least 5 mm and often more. As a result, a 5 mm maximum chipping depth was established as a useful dividing line between the utilized and retouched subcategories. Edges with depth of chipping from 1 to 4 mm are classified as utilized, while edges with 5 mm or greater chipping depth are classified as retouched.

Ground edges have been rounded, smoothed, and polished as a result of tool use. They may show utilization chipping or intentional retouch underlying the grinding. Edges classified as battered show battering and crushing as the exclusive evidence of tool use.

Edge-Modified Blades: This category includes 434 blades and blade fragments with a total of 741 working edges. Only 5 of these blades are complete; the remainder of the collection includes 281 midsections, 119 proximal sections, 19 distal sections, and 10 other fragments. Dimensions of the 5 complete specimens and a random sample of the blade sections are summarized in Table G.3. Data concerning maximum depth of chipping along individual working edges and edge angles are summarized in Table G.4.

Utilized blade edges. The vast majority (615) of the working edges on edge-modified blades show simple utilization chipping. Bifacial chipping is dominant on these utilized blade edges (390 specimens). Unifacial specimens are predominantly chipped on the dorsal surface (144) with only 69 ventrally chipped and 11 chipped on alternate faces. In one case the face involved cannot be identified. Most of the use chipping is irregular (538 specimens); however, a few specimens (77) show even chipping. Only a very small number of edges (7) are crushed or battered.

As might be expected, given basic blade shape, the majority of utilized edges (328) are straight. Other common edge outlines include convex (105), concave (92), concave-convex (42), and sinuous/irregular (37). Less frequent edge shapes are denticulate (10) and pointed

Table G.3. Dimensions of Edge-Modified Obsidian Pieces in the Analyzed Lithic Collection from Chalcatzingo

<i>Artifact Category and Dimension</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Complete blades (<i>N</i> = 5)			
Length (mm)	50–58	54.50	3.14
Max. width (mm)	13–34	18.00	8.07
Max. thickness (mm)	4–6	5.00	0.63
Weight (gm)	3–8	4.60	1.85
Sample of incomplete blades* (<i>N</i> = 105)			
Length (mm)	15–58	31.50	10.21
Max. width (mm)	8–22	13.57	2.86
Max. thickness (mm)	2–7	3.32	1.04
Weight (gm)	0.5–6	1.73	1.19
Complete flakes (<i>N</i> = 48)			
Length (mm)	10–104	36.31	18.48
Max. width (mm)	10–58	29.23	12.20
Max. thickness (mm)	2–21	8.73	4.88
Weight (gm)	1–100	11.54	16.57
Chunks (<i>N</i> = 4)			
Length (mm)	25–86	42.75	25.30
Max. width (mm)	16–45	29.75	10.38
Max. thickness (mm)	9–40	19.25	12.48
Weight (gm)	3–94	32.00	36.20
Distal blade core fragments (<i>N</i> = 6)			
Length (mm)	23–40	31.00	6.83
Max. width (mm)	13–22	16.00	3.37
Weight (gm)	2–13	6.33	3.73

*A 25 percent random sample of the 419 recorded blade midsections, proximal sections, and distal sections.

Table G.4. Characteristics of Working Edges for Edge-Modified Obsidian Pieces in the Analyzed Lithic Collection from Chalcatzingo

<i>Artifact Subcategory</i>	<i>Maximum Depth of Chipping (mm)</i>			<i>Edge Angle (5° intervals)</i>		
	<i>Range</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Sample of utilized blade edges (<i>N</i> = 123) ^a	1–4	1.56	0.79	30–90	50.77	13.31
Retouched blade edges (<i>N</i> = 12)	5–10	5.50	2.18	35–85	58.33	14.48
Ground blade edges (<i>N</i> = 89)	1–5	1.84	0.92		NA ^b	
Utilized flake edges (<i>N</i> = 144)	1–4	2.36	1.13	35–105	68.54	15.24
Retouched flake edges (<i>N</i> = 61)	5–17	8.05	3.23	35–100	73.20	13.21
Ground flake edges (<i>N</i> = 17)	1–6	2.75	1.36		NA ^b	
Retouched chunk edges (<i>N</i> = 4)	7–17	11.00	4.24	55–75	65.00	7.07

^aA 20 percent random sample of the 615 recorded utilized blade edges.

^bBecause of the rounding created by grinding, edge angle is not accurately measurable.

(1). Three of the utilized edges have small graver tips in addition to the general use chipping.

Retouched blade edges. Only 12 retouched blade edges occur in the analyzed collection. Seven are bifacially worked while the unifacial specimens include 4 worked on the dorsal surface and 1 worked on the ventral surface. Most chipping is irregular (10 specimens), and 2 edges show some crushing. Edge outlines are variable including convex (4), straight (3), concave (2), concave-convex (2), and denticulate (1).

Ground blade edges. This subcategory includes 114 working edges. Among these specimens 89 show utilization chipping as well as grinding while 25 show grinding alone. In 30 cases grinding occurs all along the working edge while in 84 cases only part of the edge is ground.

Among the chipped edges, 51 are bifacial and 38 unifacial (29 dorsal and 9 ventral). Again, most of the chipping is irregular (83 specimens). Edge outlines for all ground edges, both chipped and unchipped, include convex (48), straight (36), concave-convex (10), concave (9), rectangular (1), and sinuous/irregular (10).

Edge-Modified Flakes: This category includes 163 flakes and flake fragments with a total of 222 working edges. Dimensions of the 48 complete flakes included in this collection are summarized in Table G.3. Included among the unshaped modified flakes are 22 core recovery flakes and 9 platform rejuvenation flakes. Data concerning maximum depth of chipping along individual working edges and edge angles are summarized in Table G.4.

Utilized flake edges. This subcategory includes 144 edges showing simple utilization chipping. Unifacial chipping is dominant, with 63 worked on the dorsal surface, 24 on the ventral surface, 8 on alternate faces, and 3 unidentifiable. Chipping on 46 edges is bifacial. Irregular chipping again predominates (106 specimens), and crushing continues to be rare (3 specimens). Edge outlines include convex (70), concave (25), straight (25), concave-convex (10), pointed (6), denticulate (3), sinuous/irregular (5). One edge includes a small graver tip.

Retouched flake edges. There are a total of 61 retouched flake edges in the collection. Again unifacial chipping predominates with 38 worked dorsally, 9 ventrally, and 1 unidentifiable. Chipping on 13 edges is bifacial. Although still far from dominant, even chipping is more

common in this subcategory (17 even specimens and 44 irregular). Crushing of the working edge is also somewhat more common (11 specimens). Edge outlines include convex (31), straight (9), concave (8), denticulate (4), concave-convex (3), pointed (3), rectangular (2), sinuous/irregular (1). Four edges include small graver tips. Although the majority of specimens in this subcategory do not fit into traditional tool types, a few specimens might be identified as scrapers, gouges, and spokeshaves.

Ground flake edges. This subcategory includes 17 ground edges. Of these 12 are chipped as well as ground while 5 show grinding alone. In 11 cases grinding occurs all along the working edge while in 6 cases only part of the edge is ground. Among the chipped edges, 7 are unifacially chipped (5 dorsal, 1 ventral, 1 alternate faces), and 5 are bifacial. Again, irregular chipping is dominant (10 specimens). Edge outlines for all specimens include convex (10), straight (3), concave-convex (2), concave (1), sinuous/irregular (1).

Edge-Modified Chunks: This small category includes 4 chunks with a total of 5 working edges. Chunks are defined as blocky bits of lithic manufacturing debris. Dimensions of the 4 specimens are summarized in Table G.3.

The single utilized working edge is bifacial, irregularly chipped, and straight in outline. Maximum depth of chipping is 4 mm and edge angle is 75°.

The 4 retouched edges are all unifacial. Irregular chipping predominates, but the retouch along one edge is even. Edge outlines include 2 denticulate specimens and 2 convex. Other edge characteristics are summarized in Table G.4.

Edge-Modified Blade Cores: This category includes 2 complete cores and 7 fragments. On all but one of these specimens tool use is indicated by battering of the distal end. No use chipping or retouch was noted on any of the battered specimens. The 2 complete cores with battered distal ends measured respectively: (1) length, 88 mm; maximum width, 23 mm; weight, 44 gm; and (2) length, 45 mm; maximum width, 25 mm; weight, 29 gm. (Note: These 2 cores are among the 9 which form the sample for Table G.1.) Dimensions of the battered distal fragments are summarized in Table G.3.

The single retouched specimen is a blade core midsection with a convex working edge. Chipping is unifacial and

irregular. Maximum depth of chipping from the working edge is 11 mm, and the edge angle is 90°. This fragment is 23 mm long, 19 mm wide, 11 mm thick, and weighs 7 gm.

Shaped Modified Pieces

Projectile Points: This category includes extensively shaped, bilaterally symmetrical artifacts with a pointed tip and some sort of hafting element at the opposite end. They presumably served as dart and arrow points.

The obsidian collection includes 12 complete specimens, 12 basal end fragments, and 15 blade area fragments. In most cases (30), the original tool blank is not identifiable; however, 6 are recognizable as blades and 3 as flakes. Extensive retouch around the entire margin of these pieces is typical. While most of the specimens are bifacially worked, 2 exhibit unifacial retouch on the dorsal side, 1 on the ventral side, and 1 on alternate faces. Even retouch dominates, but the flaking on about one-third of the specimens is irregular. Two of the complete specimens have serrated blade edges, and 1 complete point shows some grinding along the stem edges. Nearly half of the points (17) are retouched across the entire face of the blank; maximum depth of chipping along the edges of the remaining pieces varies from 3 to 13 mm.

Specimens with basal area intact show a variety of stem forms; the majority (15) are contracting, 2 are expanding-contracting, 2 are expanding-parallel, and 1 is expanding. One complete specimen was stemless. The 12 complete specimens also show some variety in blade shape; 6 are excurvate or ovate, 3 are triangular or straight-sided, and 3 are incurvate. (See Table G.5 for a summary of point dimensions.)

Drill-like Pieces: This category includes 10 shaped tools which share an overall morphology suggestive of a perforating function. The majority have a roughly rectangular stem or basal section which abruptly constricts to a narrow, pointed blade section. One specimen lacks the abrupt shift from basal section to blade section and instead gradually narrows from basal edge to pointed end.

A variety of blanks were used including 2 blades, 2 core recovery flakes, and 4 other flakes; 2 blanks are unidentifiable. Retouch generally occurs along the entire length of both lateral edges and varies from even (5 specimens) to irregular (5 specimens). One specimen shows

Table G.5. Measured Dimensions of Shaped Obsidian Tools in the Analyzed Lithic Collection from Chalcatzingo^a

<i>Artifact Category and Dimension</i>	<i>N</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Projectile points				
Complete length (mm)	12	29–39	33.92	3.86
Stem length (mm)	11	4–14	7.91	2.91
Max. width (mm)	12	14–29	19.00	4.90
Max. thickness (mm)	12	3–9	4.67	1.49
Weight (gm)	12	1–5	2.75	1.30
Blade edge angle ^b	39	45–90	70.77	11.01
Drill-like pieces				
Basal section length (mm)	7	17–54	29.00	12.47
Max. basal sec. width (mm)	7	14–39	22.86	8.48
Max. blade width (mm)	9	7–20	10.11	5.30
Max. tool thickness (mm)	10	3–14	8.50	3.32
Blade edge angle ^b	10	65–95	86.00	8.89
Wedge-shaped pieces				
Length (mm)	12	17–50	31.92	10.82
Max. width (mm)	12	12–27	19.92	4.59
Max. thickness (mm)	12	4–20	11.17	4.34
Weight (gm)	12	1–25	9.33	7.79
Working edge angle ^b	13	50–105	81.15	14.70
Coarsely shaped pieces				
Length (mm)	31	21–104	42.90	18.29
Max. width (mm)	31	9–55	28.81	10.46
Max. thickness (mm)	31	4–22	11.55	4.37
Weight (gm)	31	1–86	16.65	16.25
Edge angle ^b	76	40–105	77.30	12.50
Finely retouched blades: bipointed				
Max. width (mm)	11	3–6	4.36	0.77
Max. thickness (mm)	11	1–3	2.09	0.67
Edge angle ^b	11	50–90	75.45	9.88
Finely retouched blades: constricted outline				
Basal section length (mm)	7	19–25	21.86	2.17
Max. basal sec. width (mm)	12	6–15	10.08	2.66
Max. blade width (mm)	7	5–9	6.71	1.28
Max. tool thickness (mm)	12	2–5	3.50	1.89
Blade edge angle ^b	12	50–85	67.50	11.46
Other shaped blades: Pointed specimens				
Edge angle ^b	17	40–95	64.12	14.78
Other fragments: Edge angle ^b	6	45–85	70.00	13.84
Unidentifiable shaped pieces: Fragments on flake blanks				
Edge angle ^b	7	60–90	77.14	9.95
Unidentified blank type Edge angle ^b	5	40–85	76.00	16.25

^aAll measurements represent aspects of complete tools. For fragmentary specimens, only the dimensions judged complete are included.

^bEdge angle measured in 5° intervals.

some crushing of the edges and grinding on the tool face. On the blade blanks, retouch was carried out unifacially on the ventral surface only. The specimens on flakes and unidentified blanks show both bifacial (4) and unifacial (4) flaking. In 2 cases the unifacial retouch along the lateral edges occurs on opposing faces. Maximum depth of chipping along the retouched edges of individual tools ranges from 3 mm to examples where the entire face of the blank has been altered.

Only 2 complete specimens are included in this collection. The first of these, the unique specimen with gradually converging lateral edges, is 53 mm long, has a maximum width of the basal edge of 30 mm, is 10 mm thick, and weighs 10 gm. The second complete drill is a large specimen with the constricted outline typical of this category. It is 91 mm long with a 54 mm long stem or basal section and a 37 mm blade section. Maximum basal width for this second specimen is 27 mm, maximum blade width 17 mm, maximum tool thickness 11 mm, and tool weight is 20 gm. Measurable dimensions for the drill category in general are summarized in Table G.5. *Wedge-Shaped Pieces*: This category involves a group of 13 rather crude, coarsely shaped tools (12 complete, 1 fragment), most of which are made on sections of blade cores. One small specimen is made on a flake, and 2 others are so extensively modified that the nature of the original blank can no longer be determined. Coarse, irregular retouch has been used to thin the tool blanks at both ends; however, in most cases more careful and extensive thinning of one end suggests that it was the actual working edge. In virtually all cases the thinning of both ends was accomplished bifacially; however, the small specimen made on a flake blank shows only unifacial retouch on the dorsal surface.

In plan view these tools are either rectangular (9) or trapezoidal (4) with the working edge the longer of the two parallel sides. In cross-section they tend to be wedge-shaped. Battering, often quite heavy, occurs on the working edges and/or distal ends of all but one specimen. One of the battered specimens also has a ground area on one face. Maximum depth of chipping along the retouched edges of individual tools ranges from only 6 mm to examples where the entire face of the blank shows retouching. These shaped pieces may be functionally similar to the

edge-modified blade cores with battered distal ends.

Coarsely Shaped Pieces: This largest category of shaped tools includes a wider variety of implements than is typical of the other categories. However, the 82 specimens included here do share a number of basic traits. In each case, the tool blank (usually a flake) has been shaped by irregular and rather coarse retouch around all or nearly all of its margin. Bifacial retouch dominates, and the bulk of the coarsely shaped specimens fall within the general morphological class usually identified functionally as knives and/or preforms.

Tool blanks for the coarsely shaped pieces include 3 blades, 4 platform rejuvenation flakes, 5 core recovery flakes, 39 other flakes, and 31 unidentifiable. Bifacial retouch was used to shape the majority of the specimens (66); the unifacial examples include 8 with the ventral surface worked, 3 with the dorsal surface altered, and 5 with retouch on alternate faces. The edges of 28 specimens show some battering and/or crushing, and 1 specimen is ground along a single edge. Maximum depth of chipping along the retouched edges of individual tools ranges from 7 mm to many examples (32) where the entire face of the blank shows retouching.

Thirty-one of the items in this category appear to be whole, and these display a variety of overall outlines. Specifically, 16 are ovate, 10 are rectangular, 3 are triangular, 1 is bipointed or roughly diamond-shaped, and 1 is amorphous. Where the overall outline can be estimated, fragmentary specimens show the same variety of shapes. The single exception is a fragment of a stemmed specimen which may be a projectile point preform or possibly a crude finished point. *Finely Retouched Blades:* This category includes 23 prismatic blades which have been shaped with careful, even pressure retouch along both lateral edges. Two basic shapes occur and will be treated as separate subcategories. They include (1) bipointed specimens and (2) specimens with rectangular stem or basal section which constricts abruptly to a narrow, pointed blade section. The apparent fragility of these blades and the evident care with which they were shaped has prompted the suggestion that they may have had a ceremonial rather than utilitarian function.

Bipointed. The 11 bipointed specimens are particularly slender and deli-

cate. Four are bifacially retouched, and the remainder are unifacially flaked on the ventral surface. On the unifacial specimens, one of the dorsal ridges which was a feature of the original blank runs down the center of the unworked face. In the majority of cases, tiny pressure flake scars cover the entire retouched face; however, in 2 instances a narrow unaltered strip remains on the center of the worked face. In these latter cases, maximum depth of retouch from the worked edges is measurable as 3 mm.

Only 2 of the 11 bipointed specimens are complete. Their overall dimensions are as follows: (1) length, 57 mm; maximum width, 5 mm; maximum thickness, 3 mm; weight, 1 gm; and (2) length, 44 mm; maximum width, 4 mm; maximum thickness, 3 mm; weight, less than 1 gm. General measurable dimensions for all bipointed finely retouched blades are summarized in Table G.5.

Constricted outline. The delicacy and precision of their retouching and their smaller, lighter size separate the 12 finely retouched blades with constricted outlines from the similarly shaped pieces identified as drill-like tools. The majority of these blades (10) are retouched unifacially on the ventral surface. One specimen is unifacially worked on the dorsal surface, and 1 is bifacially shaped. Again flaking normally covers the entire worked face; the 2 exceptions have a maximum depth of chipping measurable at 3 mm and 5 mm respectively. The single complete specimen is 32 mm long with a 19 mm long stem or basal section and a 13 mm blade section. Maximum basal width is 12 mm, maximum blade width 7 mm, maximum tool thickness 3 mm, and tool weight is 1 gm. General measurable dimensions for the finely retouched blades with constricted outline are summarized in Table G.5.

Other Shaped Blades: This is a residual category of 25 shaped blades, largely tool fragments, which could not be definitely identified with any of the previously defined categories. Many are fragments which may be parts of projectile points, drill-like pieces, and/or coarsely shaped pieces. A few are unusual complete specimens. The extensive, careful pressure flaking typical of finely retouched blades does not occur in this category.

The majority of the shaped blades (17), including 2 complete examples, are bilaterally retouched to form a point. Ten of these pointed blades are bifacially retouched, while the 7 unifacial specimens

include 3 worked on the ventral surface, 1 on the dorsal surface, and 3 on alternate faces. Chipping tends to be irregular, and its maximum depth along the worked edges ranges from 3 to 8 mm. Two specimens show some grinding along one edge. Dimensions of the 2 complete specimens are as follows: (1) length, 45 mm; maximum width, 13 mm; maximum thickness, 3 mm; weight, 2 gm; and (2) length, 39 mm; maximum width, 12 mm; maximum thickness, 3 mm; weight, 2 gm. (See Table G.5 for edge angle data.)

Included among the other shaped blades are 2 basal end pieces from tools with a constricted outline and 3 parallel-sided pieces, all of which may be fragments of drill-like tools. A sixth shaped blade fragment has an amorphous shape. All 6 are retouched along both lateral edges; 3 are worked bifacially, 2 unifacially on the ventral surface, and 1 unifacially on alternate faces. Chipping varies from irregular to even. In 4 instances maximum depth of chipping along the worked edges is only 3–4 mm, but in the other 2 instances the entire face of the blank shows retouching. (See Table G.5 for edge angle data.)

The 2 remaining specimens in this category are similar in size and shape but are differently worked. Both are complete and are rectangular in overall outline. The first specimen is shaped by irregular retouch around the entire margin of the piece. Retouch extends across the entire face of the tool, and the edges show some crushing. This specimen measures as follows: edge angle, 60°; length, 25 mm; maximum width, 14 mm; maximum thickness, 4 mm; weight, 1 gm.

The second rectangular specimen is not retouched at all but instead is shaped by grinding around the entire margin. It is possible that this item should be included with the edge-modified blades with ground edges; however, the overall symmetry created by the extensive grinding led to its classification as a shaped piece. The dimensions of the ground specimen are: length, 29 mm; maximum width, 18 mm; maximum thickness, 5 mm; weight, 3 gm.

Unidentifiable Shaped Pieces: This final residual category includes specimens, other than shaped blades, which could not be definitely identified. Most are fragments which may be parts of projectile points, drill-like pieces, and/or coarsely shaped pieces.

Eight of the 13 unidentifiable specimens are made on flakes. The only complete shaped flake is unifacially retouched on alternate faces and has a roughly triangular outline. The chipping is irregular and reaches a maximum depth of 12 mm along the worked edges. Overall dimensions of this specimen are: edge angle, 80°; length, 74 mm; maximum width, 38 mm; maximum thickness, 25 mm; weight, 36 gm.

The fragmentary shaped flakes include 5 with unidentifiable or amorphous outlines, 1 pointed piece, and 1 basal end section from a tool with a constricted outline. Retouch on these fragments varies from irregular to even and includes 1 bifacially worked specimen, 3 unifacially worked on the dorsal side, and 3 unifacially worked on alternate faces. Maximum depth of chipping along the retouched edges of individual pieces ranges from 4 mm to examples where the entire face of the blank is worked.

In 5 instances in this category, the type of tool blank could not be determined. All are bifacially retouched tool fragments. Chipping varies from irregular to even and has a maximum depth from the worked edges ranging from 5 mm to examples where the entire face shows retouching. Overall shapes of the original tools could not be determined. (See Table G.5 for edge angle data.)

Chert Industry

Edge-Modified Pieces

Edge-Modified Flakes: This category includes 78 flakes and flake fragments with a total of 92 working edges. Dimensions of the 37 complete flakes included in this collection are presented in Table G.6, and certain working edge characteristics are summarized in Table G.7.

Utilized flake edges. This subcategory includes 45 edges showing simple utilization chipping. Unifacial chipping is dominant, with 24 worked on the dorsal surface, 7 on the ventral surface, 3 on alternate faces, and 2 unidentifiable. Chipping on 9 edges is bifacial. Irregular chipping predominates (30 edges), but one-third are evenly chipped (15 edges). Only 5 edges show any crushing. Edge outlines include convex (14), concave (11), straight (6), pointed (5), concave-convex (4), denticulate (3), and sinuous/irregular (2).

Retouched flake edges. There are a total of 34 retouched flake edges in the collection. Again unifacial chipping dominates with 30 worked dorsally, 1

Table G.6. Measurable Dimensions of Modified Chert Pieces in the Analyzed Lithic Collection from Chalcatzingo

<i>Artifact Category and Dimension</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Edge-modified pieces:			
Complete flakes (N = 37)			
Length (mm)	21–73	41.14	13.40
Max. width (mm)	11–117	36.22	17.77
Max. thickness (mm)	2–31	12.16	6.27
Weight (gm)	2–101	22.65	26.28
Chunks (N = 6)			
Length (mm)	24–67	49.00	14.26
Max. width (mm)	18–62	37.00	12.91
Max. thickness (mm)	16–28	20.67	5.02
Weight (gm)	9–145	45.67	45.38
Shaped pieces:			
Projectile points (N = 3)			
Blade edge angle*	55–80	65.00	10.80
Coarsely shaped pieces (N = 5)			
Edge angle*	60–110	83.75	19.80
Unidentifiable shaped pieces (N = 4)			
Edge angle*	75–90	82.50	7.50

*Edge angle measured in 5° intervals.

Table G.7. Characteristics of Working Edges for Edge-Modified Chert Pieces in the Analyzed Lithic Collection from Chalcatzingo

<i>Artifact Subcategory</i>	<i>Maximum Depth of Chipping (mm)</i>			<i>Edge Angle (5° intervals)</i>		
	<i>Range</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>	<i>Mean</i>	<i>SD</i>
Utilized flake edges (N = 45)	1–4	2.56	1.09	35–100	74.00	14.20
Retouched flake edges (N = 32)	5–22	8.03	3.75	60–105	83.82	10.44
Ground flake edges (N = 13)	1–10	3.83	2.67	NA*		
Retouched chunk edges (N = 5)	6–18	10.60	4.96	60–95	85.00	12.65

*Because of the rounding created by grinding, edge angle is not accurately measurable.

ventrally, 1 on alternate faces, and 1 unidentifiable. One edge is bifacially worked. Chipping is generally irregular (28 edges) with only 6 edges exhibiting even chipping. Crushing was noted on 4 of the retouched edges. Edge outlines include convex (16), concave (5), denticulate (5), concave-convex (3), pointed (3), straight (1), and sinuous/irregular (1). One edge includes a small graver tip. As was the case with retouched obsidian flakes, a few specimens included in the subcategory might be identified as scrapers and gouges.

Ground flake edges. This subcategory includes 13 ground edges. Of these, 12 are chipped as well as ground while only 1 shows grinding alone. In 12 cases grinding occurs on only part of the working edge while in 1 instance the entire edge is ground. Among the chipped edges, 1 is bifacial and 11 are unifacial (2 dorsal, 3 ventral, 6 alternate faces). Again, irregular chipping is dominant (11 specimens). Edge outlines include convex (5), concave (4), pointed (2), concave-convex (1), and straight (1).

Edge-Modified Chunks: This category includes 6 chunks with a total of 6 working edges. Dimensions of the 6 specimens are summarized in Table G.6.

The single utilized working edge is bifacial, irregularly chipped, and convex in outline. Maximum depth of chipping is 3 mm, and edge angle is 70°.

Among the 5 retouched edges, 4 are unifacial and 1 bifacial. All exhibit irregular chipping. Edge outlines include rectangular (2), pointed (1), convex (1), and concave-convex (1). Other working edge characteristics are summarized in Table G.7. The convex and concave-convex specimens could easily be included as scrapers in a traditional classificatory system.

Shaped Modified Pieces

Only 3 of the 7 categories of shaped pieces are represented in chert: projectile points, coarsely shaped pieces, and unidentifiable shaped pieces. Edge angles for the various categories are summarized in Table G.6.

Projectile Points: This category includes 3 fragmentary specimens. The tool blank is not identifiable for any of the items. All 3 show even, bifacial retouch which extends across the entire face of the tool. The single fragment with basal area intact has a contracting stem.

Coarsely Shaped Pieces: This category includes 5 specimens, 3 fragmentary and 2 complete. All have flake blanks. Re-

touch, which is generally irregular, is bifacial in 2 cases, unifacial on the dorsal side in 2 cases, and unifacial on the ventral side in 1 case. One specimen shows some crushing of the edges. Maximum depth of chipping along the retouched edges of individual tools ranges from 9 mm to a single example where the entire face of the blank is altered. Both complete specimens are ovate in overall outline. Dimensions of these 2 specimens are as follows: (1) length, 37 mm; maximum width, 33 mm; maximum thickness, 10 mm; weight, 15 gm; and (2) length, 49 mm; maximum width, 31 mm; maximum thickness, 22 mm; weight, 30 gm.

Unidentifiable Shaped Pieces: This residual category includes 4 specimens, 3 complete and 1 fragmentary. All are

made on flakes with both irregular and even retouch occurring. Three are worked unifacially, 1 on the ventral side, 1 on the dorsal side, and 1 on alternate faces. The fourth specimen is bifacial. Maximum depth of chipping along the retouched edges of individual pieces ranges from 4 to 17 mm. One of the complete specimens is ovate in overall outline, and the others are triangular. The ovate specimen measures 40 mm long, 38 mm in maximum width, and 17 mm in maximum thickness, and weighs 32 gm. Dimensions of the two triangular specimens are summarized as follows: (1) length, 29 mm; maximum width, 10 mm; maximum thickness, 7 mm; weight, 2 gm; and (2) length, 29 mm; maximum width, 12 mm; maximum thickness, 7 mm; weight, 2 gm.

PART 2. BASIC DATA USED IN THE VARIABLE-BY-VARIABLE COMPARISON OF SAMPLE LITHIC ASSEMBLAGES

Table G.8. Variable 1: Raw Material

Assemblage	All Obsidian		All Chert		Total N
	N	%	N	%	
PC Str. 1	1,478	82	319	18	1,797
T-9A	74	60	49	40	123
T-9B	109	77	33	23	142
T-11	54	50	55	50	109
T-23	383	88	54	12	437
T-24	1,805	90	211	10	2,016
T-25	346	92	32	8	378
T-37ob	28,430	100	94	0	28,524
T-37fea	45	57	34	43	79
S-39	333	69	152	31	485

Table G.9. Variable 2: General Assemblage Composition, Obsidian

Assemblage	All Modified Pieces		Unmodified Blades		Debitage and Cores		Total N
	N	%	N	%	N	%	
PC Str. 1	198	13	942	64	338	23	1,478
T-9A	29	39	30	41	15	20	74
T-9B	41	38	46	42	22	20	109
T-11	25	46	20	37	9	17	54
T-23	105	27	176	46	102	27	383
T-24	59	3	1,060	59	686	38	1,805
T-25	150	43	133	38	63	18	346
T-37ob	49	0	15,121	53	13,260	47	28,430
T-37fea	5	11	24	53	16	36	45
S-39	154	46	82	25	97	29	333

Table G.10. Variable 3: General Assemblage Composition, Chert

Assemblage	All Modified Pieces Debitage and Cores				Total N
	N	%	N	%	
PC Str. 1	17	5	302	95	319
T-9A	3	6	46	94	49
T-9B	5	15	28	85	33
T-11	3	5	52	95	55
T-23	4	7	50	93	54
T-24	14	7	197	93	211
T-25	10	31	22	69	32
T-37ob	4	4	90	96	94
T-37fea	3	9	31	91	34
S-39	33	22	119	78	152

Table G.11. Variable 4: Lithic Workshop Identifiers

Assemblage	Obsidian							Chert						Total N
	Unmodified Blades		Cores		General Debitage		Blade Workshop Identifiers*		Cores		Debitage			
	N	%	N	%	N	%	N	%	N	%	N	%		
PC Str. 1	942	60	5	0	266	17	67	4	8	0	294	19	1,582	
T-9A	30	33	1	1	12	13	2	2	0	0	46	51	91	
T-9B	46	48	0	0	14	15	8	8	4	4	24	25	96	
T-11	20	25	0	0	7	9	2	2	0	0	52	64	81	
T-23	176	54	1	0	72	22	29	9	0	0	50	15	328	
T-24	1,060	55	12	0	575	30	99	5	10	0	187	10	1,943	
T-25	133	61	1	0	43	20	19	9	2	1	20	9	218	
T-37ob	15,121	53	13	0	5,716	20	7,531	26	6	0	84	1	28,471	
T-37fea	24	34	0	0	10	14	6	9	1	1	30	42	71	
S-39	82	28	0	0	72	24	25	8	11	4	108	36	298	

*Crested blades, core platform rejuvenation flakes, core recovery flakes.

Table G.12. Variable 5: General Tool Classes

Assemblage	Unmodified Blades		Edge-Modified Pieces		Shaped Modified Pieces		Total N
	N	%	N	%	N	%	
PC Str. 1	942	81	149	13	66	6	1,157
T-9A	30	48	30	48	2	3	62
T-9B	46	50	42	46	4	4	92
T-11	20	42	22	46	6	13	48
T-23	176	62	87	31	22	8	285
T-24	1,060	94	39	3	34	3	1,133
T-25	133	45	134	46	26	9	293
T-37ob	15,121	100	33	0	20	0	15,174
T-37fea	24	75	7	22	1	3	32
S-39	82	30	151	56	36	13	269

Table G.13. Variable 6: Modified Tool Classes

Assemblage	Edge- Modified Blades		Other Edge-Modified Pieces*		Shaped Modified Pieces		Total N
	N	%	N	%	N	%	
PC Str. 1	75	35	74	34	66	31	215
T-9A	27	84	3	9	2	6	32
T-9B	27	59	15	33	4	9	46
T-11	18	64	4	14	6	21	28
T-23	70	64	17	16	22	20	109
T-24	9	12	30	41	34	47	73
T-25	87	54	47	29	26	16	160
T-37ob	17	32	16	30	20	38	53
T-37fea	3	38	4	50	1	13	8
S-39	101	54	50	27	36	19	187

*Flakes, chunks, cores.

Table G.14. Variable 7: Shaped Tool Categories

Assemblage	Projectile Points		Drill-like Pieces		Wedge-shaped Pieces		Coarsely Shaped Pieces		Finely Retouched Blades		Other Shaped Blades		Other Unidentifiable Shaped Pieces		Total N
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
PC Str. 1	21	32	2	3	5	8	19	29	4	6	10	15	5	8	66
T-9A*	1	—	0	—	0	—	1	—	0	—	0	—	0	—	2
T-9B*	2	—	0	—	0	—	2	—	0	—	0	—	0	—	4
T-11*	1	—	0	—	0	—	4	—	0	—	1	—	0	—	6
T-23	0	0	0	0	1	5	14	64	3	14	1	5	3	14	22
T-24	9	26	2	6	3	9	5	15	4	12	7	21	4	12	34
T-25	6	23	1	4	3	12	11	42	4	15	1	4	0	0	26
T-37ob	2	10	3	15	1	5	6	30	1	5	3	15	4	20	20
T-37fea	0	—	0	—	0	—	1	—	0	—	0	—	0	—	1
S-39	0	0	2	6	0	0	24	67	7	19	2	6	1	3	36

*Percentages omitted because of small sample size.

Table G.15. Variable 8: Edge-Modified Pieces, Working Edge Types

Assemblage	Edge-Modified Blades						Other Edge-Modified Pieces*						Total
	Utilized		Retouched		Ground		Utilized		Retouched		Ground		
	N	%	N	%	N	%	N	%	N	%	N	%	
PC Str. 1	114	57	0	0	8	4	45	22	31	15	3	1	201
T-9A	43	91	0	0	0	0	3	6	1	2	0	0	47
T-9B	43	70	0	0	0	0	12	20	6	10	0	0	61
T-11	24	67	3	8	3	8	5	14	1	3	0	0	36
T-23	117	79	1	1	7	5	15	10	9	6	0	0	149
T-24	12	24	0	0	1	2	17	33	21	41	0	0	51
T-25	140	65	4	2	6	3	52	24	10	5	3	1	215
T-37ob	25	57	2	5	0	0	10	23	7	16	0	0	44
T-37fea	5	56	0	0	0	0	2	22	2	22	0	0	9
S-39	92	36	2	1	89	35	30	12	17	7	24	9	254

*Flakes, chunks, cores.

Table G.16. Variable 9: Edge-Modified Pieces, Placement of Chipping

Assemblage	Edge-Modified Blades				Other Edge-Modified Pieces				Total N
	Unifacial		Bifacial		Unifacial		Bifacial		
	N	%	N	%	N	%	N	%	
PC Str. 1	60	32	54	28	62	33	14	7	190
T-9A	15	32	28	60	1	2	3	6	47
T-9B	9	15	34	56	8	13	10	16	61
T-11	2	6	25	76	5	15	1	3	33
T-23	39	27	79	56	17	12	7	5	142
T-24	8	16	4	8	35	70	3	6	50
T-25	38	18	106	51	41	20	21	10	206
T-37ob	16	36	11	25	16	36	1	2	44
T-37fea	2	22	3	33	4	44	0	0	9
S-39	41	29	53	38	35	25	12	9	141

Table G.17. Variable 10: Edge-Modified Pieces, Working Edge Angles

Assemblage	Utilized Blades				All Other Utilized and Retouched Edge-Modified Pieces						Total N
	30–55°		60–95°		30–55°		60–80°		85–105°		
	N	%	N	%	N	%	N	%	N	%	
PC Str. 1	55	29	59	31	10	5	43	23	23	12	190
T-9A	30	64	13	28	1	2	2	4	1	2	47
T-9B	38	62	5	8	7	11	7	11	4	7	61
T-11	21	64	3	9	3	9	5	15	1	3	33
T-23	77	54	40	28	1	1	19	13	5	4	142
T-24	3	6	9	18	7	14	20	40	11	22	50
T-25	101	49	39	19	15	7	36	17	15	7	206
T-37ob	8	18	17	39	2	5	11	25	6	14	44
T-37fea	4	44	1	11	0	0	2	22	2	22	9
S-39	65	46	27	19	9	6	26	19	14	10	141

Table G.18. Variable 11: Edge-Modified Blades, Working Edge Shapes

Assemblage	Straight		Convex		Concave		Other		Total N
	N	%	N	%	N	%	N	%	
PC Str. 1	68	60	15	13	23	20	8	7	114
T-9A	27	63	10	23	4	19	2	5	43
T-9B	29	67	7	16	2	5	5	12	43
T-11	20	74	3	11	1	4	3	11	27
T-23	61	52	20	17	16	14	21	18	118
T-24	8	67	2	17	0	0	2	17	12
T-25	66	46	24	17	25	17	29	20	144
T-37ob	12	44	4	15	7	26	4	15	27
T-37fea*	3	—	1	—	1	—	0	—	5
S-39	37	39	23	24	15	16	19	20	94

*Percentages omitted because of small sample size.

Table G.19. Variable 12: Other Edge-Modified Pieces,^a Working Edge Shapes

Assemblage	Straight		Convex		Concave		Other		Total N
	N	%	N	%	N	%	N	%	
PC Str. 1	10	13	33	43	12	16	21	28	76
T-9A ^b	0	—	2	—	0	—	2	—	4
T-9B	5	28	7	39	2	11	4	22	18
T-11 ^b	1	—	2	—	2	—	1	—	6
T-23	7	29	11	46	1	4	5	21	24
T-24	9	24	20	53	5	13	4	11	38
T-25	4	6	34	55	9	15	15	24	62
T-37ob	1	6	4	24	8	47	4	24	17
T-37fea	0	—	2	—	1	—	1	—	4
S-39	5	11	21	45	9	19	12	26	47

^aFlakes, chunks, cores.^bPercentages omitted because of small sample size.

APPENDIX H

Río Amatzinac Survey: Site Descriptions

KENNETH G. HIRTH

This appendix provides detailed descriptions of the Formative period sites located during the Río Amatzinac Survey (Chapter 21). The sites are presented in numerical order according to the site numbers assigned by the survey. Each description includes the following information: RAS site number, site name (where applicable), exact location using latitude and longitude, location with respect to modern towns and roads, natural setting, modern utilization, and prehispanic occupation. For the Early, Middle, and Late Formative, archaeological remains are described and a settlement classification is given for the site (Table 21.3). Post-Late Formative components are briefly mentioned. Sites located in the survey which lack any Formative occupation are not included in this appendix. Analyses of these later periods are provided elsewhere (Hirth 1974; 1980).

RAS-1 (Tetla)

Latitude: 18° 40' 33.4"

Longitude: 98° 45' 41.75"

Location: Southeast of the village of Chalcatzingo, on the lower slopes of the north and east sides of the Cerro Delgado, between the *cerro* and the *barranca* of the Río Amatzinac.

Natural setting: The site lies in the High Hills topographic zone. The vegetation zone is a mix of *Pithecellobium* Woodland, *Barranca*, and Interior Valley *Cerros* plant types. Due to erosion the soil on the hillslope areas of Tetla is shallow, but it increases to several meters of depth on the flat land below the slopes.

Based on evidence of occupation clustering, Tetla has been divided into three subareas: RAS-1A along the north of the hill, RAS-1B at the far south of the zone, and RAS-1C, the central area of the zone.

Modern utilization: The talus slopes are used for grazing, while the lower portion of the site is terraced and planted in

maize during the rainy season. All cultivation is with teams of oxen.

Middle Formative Occupation: Archaeological remains: Middle Formative ceramics were recovered from the surface of some RAS-1A terraces, indicating that these terraces are probably contemporaneous with terracing on the main site zone of Chalcatzingo. Late Classic and Early and Middle Postclassic ceramics are found across these terraces as well. Middle Formative sherds were also recovered at the south end of Tetla, RAS-1B. At both RAS-1A and -1B the Cantera phase materials are twice as abundant as those of the Barranca phase.

Classification: Two Barranca phase Hamlets, two Cantera phase Hamlets.

Late Formative Occupation: Archaeological remains: Late Formative material is lightly distributed across a 4 ha area of RAS-1C. The site has been heavily disturbed by heavy occupation during the Postclassic, and field clearing has swept most of the fields clean of rubble from civic or residential architecture.

Classification: Hamlet.

Other Occupations: Terminal Formative Hamlet, Early Classic Small Village, Late Classic Large Village (Hirth 1980); Early Postclassic Small Village.

RAS-5

Latitude: 18° 41' 51.77"

Longitude: 98° 46' 8.35"

Location: Just south of the Cuautla-Izúcar highway, north-northeast of the present village of Chalcatzingo.

Natural setting: The site is 355 m east of the Río Amatzinac between the 1,350–1,400 m contour intervals. The topographical zone is Flat Plains, and the vegetation zone is Huizache Grassland. The soil appears shallow but is high in humus. An impermanent drainage lies 125 m to the east.

Modern utilization: The area was fallow when surveyed and had not been

planted for several years. Nopal cacti grow on top of the mounds at the site and are collected by farmers from Jantetelco. *Middle Formative Occupation:* Archaeological remains: Only a few Barranca phase sherds were located. Surface concentrations of material were extremely low, since the site had not been plowed for a number of years. Architecture at this site is from later periods, principally Postclassic.

Classification: Barranca phase Isolated Residence.

Other Occupations: Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Small Village.

RAS-13

Latitude: 18° 41' 45.09"

Longitude: 98° 45' 3.34"

Location: Northeast of the village of Chalcatzingo and southeast of the village of Jantetelco, north of the Cuautla-Izúcar highway.

Natural setting: The site lies at the base of the Cerro Jantetelco at the 1,400 m contour interval. The topographic zone is Low Mountains, and the vegetation zones are Interior Valley *Cerros* and Huizache Grassland. The closest permanent water source is the Barranca de los Santos 865 m to the east. The soil is shallow and seems very poor for agriculture. Rock rubble is quite abundant.

Modern utilization: Rainfall agriculture of maize covers about 40 percent of the site area. A hacienda period irrigation system running east to west passes just south of the site.

Middle Formative Occupation: Archaeological remains: This site is a simple ceramic dispersion with some associated architectural features. A probable Middle Formative water diversion system was noted which seems to be aimed at diverting slope runoff away from the major area of habitation. Our surface col-

lections were extremely poor, and for the Formative period only Cantera phase artifacts were recovered.

Two low mounds of a probable ball court occurred at the site. These mounds are extremely destroyed due to recent plowing. Each mound is ca. $15 \times 5 \times 1$ m in size. Judging from the architecture, the ball court is probably Late Postclassic.

Classification: Cantera phase Isolated Residence. Although the site may have been larger, our surface collections did not allow us to determine this.

Other Occupation: Late Postclassic Hamlet.

RAS-14 (Las Pilas)

Latitude: $18^{\circ} 41' 16.7''$

Longitude: $98^{\circ} 47' 56.78''$

Location: Within the grounds of the swimming spa Las Pilas in the northern part of the town of Jonacatepec.

Natural setting: The site is located at a spring between the 1,350 and 1,400 m contour intervals. The topographical zone is Flat Plains, and the vegetation zone is Pithecellobium Woodland. The site is 1,485 m east of the Río Frío. An impermanent *barranquilla* runs along the eastern edge of the site, and the Río Amatzinac lies 3.6 km to the east. The soil is of variable depth in this area, ranging from 2.5 m around the spring to 1.5 m east of the site.

Modern utilization: The main site area is surrounded by a modern swimming spa. Outlying portions of the site on the north and east sides are under cultivation. The area is irrigated, and corn, beans, squash, and tomatoes are grown. **Early Formative Occupation:** Archaeological remains: No Amate phase debris was found on the surface, but some was recovered in two test pits during July 1973 by excavators from the Centro Regional de Morelos y Guerrero, INAH, and the Universidad de las Américas.

Classification: Hamlet.

Middle Formative Occupation: Archaeological remains: The heaviest concentrations of material are in the area of the spring. Cantera phase diagnostics predominate. Middle Formative artifacts were found to the west, southwest, and south of the present swimming pools. The INAH excavations west of the swimming spa encountered Middle Formative material in a mixed stratigraphic content, including both Barranca and Cantera phase materials. A Cantera phase double-loop handle censer was found as an in situ offering against the base of a

small platform structure. Superimposed directly over the top of this platform was a small Classic platform mound.

Classification: Barranca phase Hamlet, Cantera phase Small Village.

Late Formative Occupation: Archaeological remains: Late Formative debris was fairly light, although marked build-ups were noted which looked like in situ residence areas. Late Formative materials were also recovered in one test pit from the 1973 excavations. Materials from this pit as well as from Chalcatzingo were important for the identification of key diagnostics used in phasing Late Formative settlement materials.

Classification: Small Village.

Other Occupations: Terminal Formative Small Village, Early Classic Small Village, Late Classic Large Village (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Hamlet.

RAS-15

Latitude: $18^{\circ} 41' 50.1''$

Longitude: $98^{\circ} 47' 51.77''$

Location: Due north of Jonacatepec along the Chalcatzingo access road.

Natural setting: The site is located just below the 1,400 m contour interval in the Flat Plains topographical zone 1.8 km east of the Río Frío. The vegetation zone is Pithecellobium Woodland.

Modern utilization: Rainfall maize agriculture with oxen plowing.

Middle Formative Occupation: Archaeological remains: A simple ceramic dispersion covered 0.25 ha. The materials belong to the Cantera phase.

Classification: Cantera phase Isolated Residence.

Other Occupation: Late Postclassic Isolated Residence (Hirth 1980).

RAS-16

Latitude: $18^{\circ} 41' 6.68''$

Longitude: $98^{\circ} 48' 51.77''$

Location: South of the town San Gabriel Amacuitlapilco.

Natural setting: This site is in the Flat Plains topographic zone on the 1,425 m contour interval. Principal resources which would have been available would have been from the Pithecellobium Woodland. The soil is less than 1 m in thickness, and there is a high concentration of rock rubble in the fields.

Modern utilization: The area is irrigated and under constant cultivation. Field preparation is by oxen. The crops growing at the time of the survey included

maize, beans, squash, peanuts, and tomatoes.

Late Formative Occupation: Archaeological remains: Late Formative materials are very lightly scattered over less than 0.5 ha mixed in with Postclassic materials. No clear indications of permanent settlement were evident other than a fairly complete range of utilitarian ceramics.

Classification: Isolated Residence.

Other Occupations: Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-18

Latitude: $18^{\circ} 41' 15.03''$

Longitude: $98^{\circ} 48' 55.11''$

Location: Along the 1,425 m contour interval due south of San Gabriel Amacuitlapilco.

Natural setting: The site is in the Pithecellobium Woodland vegetation zone and the Flat Plains topographic zone. The soil is very shallow, not exceeding 50 cm. The Río Frío-Tepalcingo is less than 500 m to the west.

Modern utilization: This area is cultivated during the rainy season, and the fields are prepared using oxen. Crops include maize, beans, and squash. A small section of the site was uncultivated and used for grazing at the time of the survey. **Late Formative Occupation:** Archaeological remains: A light trace of Late Formative material was discovered. There was no evidence of previous architecture.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Isolated Residence.

RAS-19

Latitude: $18^{\circ} 42' 0''$

Longitude: $98^{\circ} 48' 23.38''$

Location: In the irrigated fields north-east of San Gabriel Amacuitlapilco.

Natural setting: This site is in the Pithecellobium Woodland vegetation zone along the 1,400 m contour interval. It is in the north Flat Plains topographic zone 650 m east of the Río Frío.

Modern utilization: Principal crops include maize and peanuts. Terraces are evident but appear to be modern. Field preparation is with teams of oxen.

Late Formative Occupation: Archaeological remains: Occupation debris is scattered over 1 ha. The fields have been cleared of a substantial amount of rubble. Two low platforms can still be seen, although they appear to date from the Postclassic. A Late Formative phase oc-

cupation is indicated by marked build-ups of ceramics and chipped and ground stone artifacts.

Classification: Hamlet.

Other Occupation: Late Postclassic Hamlet.

RAS-20 (Campana de Oro)

Latitude: 18° 42' 41.75"

Longitude: 98° 48' 8.35"

Location: Directly north of San Gabriel Amacuitlapilco.

Natural setting: This site is on the east bank of the Río Frío, at the 1,400 m contour interval. Springs can be found in the barranca below the site. The vegetation community is the Pithecellobium Woodland directly adjacent to the Barranca zone. The topographic zone is Flat Plains.

Modern utilization: Rainfall cultivation of corn, beans, squash, and peanuts is practiced. The ground is prepared for cultivation by both oxen and tractor plowing. Terraces were noted on the west side of the Río Frío. What appear to be a hacienda period drainage system, modern dam, and reservoir are located in the adjacent barranca.

Early Formative Occupation: Archaeological remains: Amate phase material was located in two areas of the site. Several sherds and Type D figurine heads were found on the south end of the site, and a thin scatter was found on the north end. A few other sherds were collected from a looter's pit in one of the mounds.

Classification: Hamlet.

Middle Formative Occupation: Archaeological remains: For this time period there is a fairly heavy ceramic dispersion within an architectural complex. The exact nature of the Middle Formative debris is difficult to determine because of the heavy Late/Terminal Formative and Early/Middle Postclassic occupations. One or perhaps two Middle Formative platform structures existed at the site. One of these was in the process of being removed so that the field could be plowed with a tractor. The fill of the other could be sampled from a looter's pit on the northeast side. Both the fill and debris from the top of the mound were Cantera phase. It is possible that two separate communities existed, with moderate to light settlement between them. The two highest densities of Middle Formative material are on the southwest side of the site by the two mound structures, and on the far east side.

Classification: Barranca phase Small Village, Cantera phase Large Village.

Late Formative Occupation: Archaeological remains: At least five mounds date to this period based on the clustering of associated debris, but it is hard to date them on surface remains alone. The heaviest concentrations of material were not in the mound area but on the north and northeast portions of the site. Field clearing in these areas has greatly reduced the amount of clustered residential debris visible on the surface, but it was evident that the residential area covered approximately 30 ha. A wide range of activities was evident from the surface collections. One possible chipped stone workshop was located. "Kiln wasters" were found in three separate parts of the site, indicating ceramic manufacture. A large array of plain and decorated ceramic types was located, including a small number of imported decorated wares from the Valley of Mexico and the Puebla-Oaxaca area.

Classification: Regional Center.

Other Occupations: Terminal Formative Small Village, Early Classic Small Village, Late Classic Hamlet (Hirth 1980), Early Postclassic Small Village, Late Postclassic Large Village.

RAS-21

Latitude: 18° 42' 33.4"

Longitude: 98° 48' 31.73"

Location: West of the Río Frío north of San Gabriel Amacuitlapilco.

Natural setting: The topographic zone is Flat Plains and the vegetation zone is Pithecellobium Woodland. Site elevation is 1,400 m. The closest permanent water source is the Río Frío and its spring seepages, 175 m to the east.

Modern utilization: The area is cultivated during the rainy season, using oxen for plowing. Crops include maize and beans.

Late Formative Occupation: Archaeological remains: A light scattering of Late Formative material was found. No architectural structures were located although ground and chipped stone lithics were recovered.

Classification: Isolated Residence.

Other Occupation: Early Postclassic Isolated Residence.

RAS-22 (Amacuitlapilco)

Latitude: 18° 41' 46.76"

Longitude: 98° 48' 43.72"

Location: Directly in and under the modern village of San Gabriel Amacuitlapilco.

Natural setting: This site is located at

the 1,400 m contour interval on the Río Frío, directly on an east-west crossing through the barranca. The topographical zone is Flat Plains, and the vegetation zone is Pithecellobium Woodland. The site is also within 200 m of both the Barranca and the Huizache Grassland zones.

Modern utilization: Rainfall maize agriculture is practiced in local house plots. Several of the fields to the south of the site are built on terraces.

Middle Formative Occupation: Archaeological remains: Middle Formative remains consist of a simple ceramic dispersion northwest of the site's Late Postclassic mounds. Most of the site is undoubtedly covered by the town and only a moderate amount of "backyard" searching was possible. It is estimated that the site extends at least 150–200 m to the east.

Classification: Cantera phase Hamlet.

Late Formative Occupation: Archaeological remains: Late Formative materials are distributed over about 5 ha, and there are clear indications of permanent settlement. Several good concentrations of material were found with fire-cracked rock, each with 4–6 ground stone artifacts. Both decorated and plain ceramics were present.

Other Occupations: Terminal Formative Hamlet, Early Classic Hamlet, Late Classic Hamlet (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Large Village.

RAS-25

Latitude: 18° 42' 30.06"

Longitude: 98° 51' 8.35"

Location: On the slopes of a hill northwest of the town of Tlayca.

Natural setting: The topographic classification is Irregular Plains, Slight Relief, and the vegetation zone is Huizache Grassland. Site elevation is 1,400 m.

Modern utilization: The area is cultivated during the rainy season, maize and sorghum being the principal crops. Field preparation on this sloping area is performed with oxen.

Late Formative Occupation: Archaeological remains: A light scatter of domestic ceramics was identified. The area of the site is less than 0.5 ha. No structures or construction debris were associated with this material.

Classification: Isolated Residence.

Other Occupations: Classic Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-31

Latitude: 18° 40' 15.03"

Longitude: 98° 48' 21.71"

Location: About 3/4 km south of Jonacatepec and 300 m west of the Jonacatepec-Tepalcingo road.

Natural setting: This site lies between the 1,300 and 1,350 m contour intervals, in the Flat Plains topographic zone and the Pithecellobium Woodland vegetation zone. It is 295 m east of a small impermeable drainage and 1 km from permanent water.

Modern utilization: Maize agriculture.

Middle Formative Occupation: Archaeological remains: The site is a simple dispersion of residential debris. No structures were found. Middle Formative diagnostics were scarce.

Classification: Cantera phase isolated Residence.

Late Formative Occupation: Archaeological remains: A variety of Late Formative material was scattered over 1 ha. One mound structure was found which appears to date to this period. Permanent residence is clearly indicated by the marked concentrations of ceramic, lithic, and construction debris.

Classification: Hamlet.

Other Occupations: Early Postclassic Hamlet, Late Postclassic Small Village.

RAS-34

Latitude: 18° 42' 41.75"

Longitude: 98° 47' 45.09"

Location: Directly adjacent to the east side of the Axochiapan-Zacualpan highway.

Natural setting: This site is in the Pithecellobium Woodland zone on the 1,400 m contour interval. It is in the Flat Plains topographic zone 880 m east of the Río Frío.

Modern utilization: The area is irrigated and planted year round in maize. Cultivation is with teams of oxen.

Late Formative Occupation: Archaeological remains: A light scatter of Late Formative materials was found across 0.75 ha. There are no buildups indicating remaining structures. Ceramic collections include an assortment of plain and decorated wares.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Hamlet.

RAS-35

Latitude: 18° 42' 51.77"

Longitude: 98° 47' 22.38"

Location: Southwest of Jantetelco along the Cuautla-Izúcar highway.

Natural setting: The site lies in the Pithecellobium Woodland zone, more than 1 km from the nearest permanent water source. The topographic zone is Flat Plains, and elevation is 1,400 m.

Modern utilization: The area is cultivated during the rainy season, and chilies were growing at the time of the survey. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: Late Formative materials are mixed with Late Postclassic materials. There is a light scattering of debris over a little less than 0.5 ha, and there was no evidence of construction.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Isolated Residence.

RAS-36

Latitude: 18° 42' 59.99"

Longitude: 98° 47' 50.1"

Location: Just south of Amayuca.

Natural setting: The vegetation zone is Pithecellobium Woodland, the topographic zone is Flat Plains, and site elevation is 1,425 m. The Río Frío is 310 m to the west.

Modern utilization: The area is farmed during the rainy season, with use of oxen to prepare the fields. Crops include maize and beans.

Late Formative Occupation: Archaeological remains: A light trace of Late Formative materials was found. There was no evidence for architectural structures. The Formative material was mixed with Late Postclassic debris.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Hamlet overlaps with the materials from RAS-38.

RAS-37

Latitude: 18° 42' 58.78"

Longitude: 98° 47' 35.07"

Location: Just south of the intersection of the Cuautla-Izúcar and Zacualpan-Axochiapan highways.

Natural setting: Located in the Pithecellobium Woodland, the site's topographic classification is Flat Plains. Site elevation is 1,425 m. The Río Frío is the closest permanent water source and is located 685 m to the west.

Modern utilization: Rainfall agriculture is practiced, using teams of oxen to

prepare the field. Crops include maize, beans, and squash.

Late Formative Occupation: Archaeological remains: A very light scattering of Late Formative material was found, and there is evidence for small habitation units. This appears to be a single-component site.

Classification: Isolated Residence.

RAS-44

Latitude: 18° 43' 5.01"

Longitude: 98° 46' 5.01"

Location: East of Jantetelco.

Natural setting: This site is in the Huizache Grassland vegetation zone. The inhabitants also had access to the Barranca zone, since the west side of the site was directly adjacent to the Río Amatzinac. The topographic zone is Flat Plains, and site elevation is 1,400 m.

Modern utilization: No agricultural activities occur in this area, although in adjacent areas to the east rainfall agriculture is practiced. The land slopes into the barranca at this point.

Late Formative Occupation: Archaeological remains: Only Late Formative Plain wares were recovered. There is a light scatter of material, with no clear indications of habitation structures. This appears to be a single-component site.

Classification: Isolated Residence.

RAS-45

Latitude: 18° 43' 11.69"

Longitude: 98° 46' 48.43"

Location: In a solitary field due west of Jantetelco's northern *barrio*.

Natural setting: This site lies in the northern Pithecellobium Woodland zone between the 1,450 and 1,400 m contour intervals. The topographic zone is Flat Plains. It is roughly 1 km from the closest permanent water source, the Río Amatzinac. Erosion is slight, as is surface rubble.

Modern utilization: Maize, beans, and squash are grown during the rainy season, with use of oxen for plowing. Irrigation canals pass within 150 m to the west.

Early Formative Occupation: Archaeological remains: Only a trace of Amate phase materials were recovered in the surface collections. There were no indications that this was a permanently occupied settlement.

Classification: Isolated Residence.

Middle Formative Occupation: Archaeological remains: During the Middle Formative the site is characterized as a

simple ceramic dispersion of low density over an area of 0.45 ha. No structures were noted.

Classification: Cantera phase Isolated Residence.

Other Occupations: Early Classic Isolated Residence, Late Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-46

Latitude: 18° 43' 46.76"

Longitude: 98° 46' 23.38"

Location: North of Jantetelco and 455 m from the Río Amatzinac.

Natural setting: The topographic zone is Flat Plains, and the vegetation zone is Pithecellobium Woodland. Elevation is 1,450 m.

Modern utilization: The area is irrigated and under cultivation, crops including maize, beans, and squash. The field is prepared with teams of oxen.

Late Formative Occupation: Archaeological remains: A trace of Late Formative materials was found. Surface remains were obscured by a heavy Postclassic occupation of the site.

Classification: Isolated Residence.

Other Occupations: Early Classic Hamlet, Late Classic Hamlet (Hirth 1980), Early Postclassic Small Village (Hirth 1977), Late Postclassic Hamlet.

RAS-48

Latitude: 18° 43' 25.05"

Longitude: 98° 46' 16.7"

Location: 1.5 km due north of the old road to Amilcingo. To the south is the old northern *barrio* of Jantetelco.

Natural setting: This site lies between the 1,400 and 1,450 m contour intervals, in the Pithecellobium Woodland vegetation zone. The topographic zone is Flat Plains. The site is just 80 m from the Río Amatzinac, just above the slightly rolling barranca edge. The site's inhabitants would have had easy access to the Barranca vegetation zone.

Modern utilization: Rainfall agriculture of maize, beans, squash, and peanuts is practiced on the west side of the site. The land is plowed using oxen.

Middle Formative Occupation: Archaeological remains: The site is a simple ceramic dispersion across portions of three fields west of some Late Postclassic mounds. The extent of Middle Formative materials was difficult to ascertain due to associated Late Postclassic debris, but it covered at least 3.3 ha. No architec-

tural features were noted.

Classification: Cantera phase Hamlet. **Late Formative Occupation:** Archaeological remains: Late Formative materials are scattered over approximately 9 ha. Concentrations seem light because of the heavy Postclassic occupation debris. A few marked buildups of material were found associated with fire-cracked rock and probable rock construction material. A wide range of both plain and decorated wares were recovered.

Classification: Hamlet.

Other Occupations: Terminal Formative Hamlet, Early Classic Hamlet, Late Classic Hamlet (Hirth 1980), Early Postclassic Small Village, Late Postclassic Regional Center.

RAS-49

Latitude: 18° 44' 6.68"

Longitude: 98° 45' 53.44"

Location: In the northern valley, south-east of the town of Huazulco.

Natural setting: The site is situated in the Huizache Grassland vegetation zone, about 45 m east of the Río Amatzinac. The topographic zone is Flat Plains, and the area is sharply dissected by deep barranca channels. Elevation is 1,450 m.

Modern utilization: The area is planted during the rainy season, maize being the only crop. The field is prepared by oxen.

Late Formative Occupation: Archaeological remains: This appears to be a single-component site. Materials from this period are dispersed over a relatively small area. There are indications of small housemounds at the site, although field clearing has begun to erase the remaining surface indications.

Classification: Isolated Residence.

RAS-50

Latitude: 18° 44' 21.71"

Longitude: 98° 45' 48.43"

Location: Southeast of Amilcingo.

Natural setting: This site lies just above the 1,450 m contour interval due south of RAS-53. The topographical zone is Flat Plains. The vegetation zone is Huizache Grassland with access to the Barranca zone. The site is 150 m east of the Río Amatzinac on the Barranquilla de las Tres Escaleras. It is situated between two north-south running barrancas where they merge with the Río Amatzinac. Soil is shallow, not exceeding 1 m.

Modern utilization: The land is used for grazing and rainfall maize agriculture. The field is plowed with oxen.

Middle Formative Occupation: Archae-

ological remains: This site is a simple ceramic dispersion. It is located adjacent to one of the few places where the deep Amatzinac barranca can be crossed. The earliest material found here dates to the Cantera phase.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: Late Formative materials are scattered over about 1 ha. Mounds at the site probably date to the subsequent Terminal Formative period.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Small Village (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Hamlet.

RAS-51

Latitude: 18° 44' 46.76"

Longitude: 98° 46' 0"

Location: East of and adjacent to the modern village of Amilcingo.

Natural setting: This site lies 200 m east of the Río Amatzinac at a point of access across the barranca. The topographical zone is Irregular Plains, Slight Relief, and the vegetation zone is Huizache Grassland. The elevation is 1,450 m.

Modern utilization: Rainfall maize agriculture is practiced.

Middle Formative Occupation: Archaeological remains: The site is a simple ceramic dispersion of Cantera phase materials. Late Postclassic debris impeded our determining a totally accurate estimate of site limits. No structures were recorded.

Classification: Cantera phase Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Hamlet when combined with the materials which form a continuous distribution with RAS-52.

RAS-52

Latitude: 18° 44' 38.41"

Longitude: 98° 45' 48.43"

Location: East of town of Amilcingo.

Natural setting: The site is at the juncture of two barrancas west of the Barranca de las Tres Pilates, just above the 1,450 m contour interval. The topographical zone is Irregular Plains, Slight Relief, and the vegetation zone is Huizache Grassland. The site is 245 m east of the Río Amatzinac.

Modern utilization: Rainfall maize agriculture is practiced, using oxen for plowing.

Middle Formative Occupation: Archaeological remains: This site consists of a mound and associated ceramic dispersion. The mound appears to be the remains of a small residence. Rubble was moderate. The ceramic dispersion was light north of the mound and covered less than 0.25 ha.

Classification: Cantera phase Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Late Postclassic Hamlet when combined with RAS-51.

RAS-53

Latitude: 18° 44' 25.05"

Longitude: 98° 45' 48.43"

Location: Southeast of RAS-52.

Natural setting: The site is located between and at the juncture of two barrancas at the 1,450 contour interval. It is 25 m from the Río Amatzinac. The topographical zone is Irregular Plains, Slight Relief, and the vegetation zone is Hui-zache Grassland. Erosion is moderate in this area.

Modern utilization: Rainfall maize agriculture.

Middle Formative Occupation: Archaeological remains: There was only a trace of Barranca phase material. During the Cantera phase, a simple ceramic dispersion covered over 1 ha. No structures were noted.

Classification: Barranca phase Isolated Residence, Cantera phase Isolated Residence.

Other Occupations: Terminal Formative Hamlet, Early Classic Isolated Residence.

RAS-54

Latitude: 18° 42' 33.4"

Longitude: 98° 46' 35.07"

Location: Due south of Jantetelco directly adjacent to and north of the Cuautla-Izúcar highway.

Natural setting: This site is 395 m west of the Río Amatzinac within the Pithecellobium Woodland zone, on the 1,400 m contour interval. The topographical zone is Flat Plains.

Modern utilization: Cultivation is restricted to the rainy season. The field is prepared using teams of oxen. Crops include maize, beans, squash, chilies, and tomatoes.

Late Formative Occupation: Archaeological remains: A wide scattering of Late Formative materials was noted. Concentrations were high enough to suggest permanent occupation of the site

throughout the period. A variety of both plain and decorated wares were recovered. Because of the dense Postclassic occupation at this site, it was difficult to determine which areas date specifically to this period.

Classification: Hamlet.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Early Postclassic Small Village, Late Postclassic Small Village.

RAS-55

Latitude: 18° 43' 1.67"

Longitude: 98° 47' 35.07"

Location: Southeast of the town of Amayuca.

Natural setting: Located in the northern Pithecellobium Woodland vegetation zone. The site's topographic zone is Flat Plains. The Río Frío is 645 m to the west, and site elevation is 1,400 m.

Modern utilization: The area is planted during the rainy season. Crops include maize and beans. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: This site had a mixed Classic and Postclassic occupation, with traces of material dating to as early as the Late Formative. A good assortment of plainwares was recovered. Some of the material was associated with habitation structures.

Classification: Isolated Residence.

Other Occupations: Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Hamlet combined with RAS-56.

RAS-58

Latitude: 18° 43' 25.05"

Longitude: 98° 47' 28.39"

Location: East of Amayuca along the Zacualpan-Axochiapan highway.

Natural setting: The site is situated in the Flat Plains topographic zone along the 1,400 m contour interval in the northern portion of the valley. The principal vegetation zone is Pithecellobium Woodland. The closest source of permanent water is 0.75 km to the west.

Modern utilization: Tomatoes and chilies were planted in this field at the time of our survey.

Early Formative Occupation: Archaeological remains: Traces of Amate phase occupation were found. A few sherds and one D2 figurine were recovered along the roadway which passes the site.

Classification: Isolated Residence.

Late Formative Occupation: Archaeo-

logical remains: Late Formative materials were thinly scattered over a 1.5 ha area. The remains consisted primarily of plain wares. Individual residence units could not be identified.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Classic Isolated Residence (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Hamlet.

RAS-62 (Huazulco)

Latitude: 18° 44' 25.05"

Longitude: 98° 47' 20.04"

Location: Due west of the town of Amilcingo and the Hueyapan-Axochiapan highway.

Natural setting: The site is in the northern Pithecellobium Woodland zone between the 1,500 and 1,450 m contour intervals. The topographic zone is Flat Plains. The closest permanent water source is the Río Frío, 595 m to the west.

Modern utilization: Maize is planted during the rainy season, with use of oxen for plowing.

Early Formative Occupation: Archaeological remains: A small amount of Amate phase ceramics was scattered over the site. One D2 figurine was recovered. No high density areas were noted.

Classification: Isolated Residence.

Middle Formative Occupation: Archaeological remains: Only a wide scattering of surface debris existed at the time of our survey. Excavations were conducted at this site by Teresita Majewski in the winter of 1974 and are reported in Chapter 22.

Classification: Barranca phase Isolated Residence, Cantera phase Hamlet.

Late Formative Occupation: Archaeological remains: A thin veneer of Late Formative materials could be found across the site although there are no clearcut concentrations of materials. This material is generally mixed with Cantera phase occupation debris.

Classification: Isolated Residence.

Other Occupations: Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-65

Latitude: 18° 44' 31.73"

Longitude: 98° 48' 51.77"

Location: Due west of the town of Amilcingo, one field south of the intersection with the Hueyapan-Axochiapan highway.

Natural setting: This site lies between

the 1,450 and 1,500 m contour intervals due east of RAS-62 in the Pithecellobium Woodland and Flat Plains zones. It is 1,250 m west of the Río Amatzinac and 980 m east of the Río Frio.

Modern utilization: Maize agriculture is practiced during the rainy season. The surrounding fields, however, were irrigated and planted in maize, beans, squash, and peanuts.

Middle Formative Occupation: Archaeological remains: The site is defined by a simple ceramic dispersion which includes Amatzinac White ceramics. The ceramics cover 0.35 ha with Middle Formative ceramics distributed over 75 percent of that area. A destroyed mound on the site is probably Classic period, for Classic period debris predominates.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: A light scattering of Late Formative materials coincided with the distribution of Cantera phase materials.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Isolated Residence, Late Classic Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-70

Latitude: 18° 45' 59.2"

Longitude: 98° 46' 8.35"

Location: At the eastern border of the Temoac-Huazulco forest, east-southeast of Temoac and due north of Huazulco.

Natural setting: This site lies south of RAS-71 between the 1,500 and 1,550 m contour intervals. The topographical zone is Flat Plains, and the vegetation zone is Pithecellobium Woodland. The site is directly adjacent to the Río Amatzinac barranca and its vegetation zone.

Modern utilization: When surveyed the field was fallow with heavy weed cover, which may have biased the measurement of sherd intensities. Corn is grown during the rainy season, and the land is prepared by using teams of oxen.

Middle Formative Occupation: Archaeological remains: The site consists of a mound and ceramic dispersion covering 0.5 ha. The mound was probably a residential structure.

Classification: Cantera phase Isolated Residence.

Other Occupation: Late Postclassic Hamlet.

RAS-71

Latitude: 18° 46' 5.01"

Longitude: 98° 46' 13.36"

Location: 200 m east of Temoac in the *municipio* of Zacualpan.

Natural setting: This site is in the Flat Plains topographic zone between the 1,500 and 1,550 m contour intervals. The dominant vegetation is Pithecellobium Woodland, although the site has easy access to the Río Amatzinac and its Barranca zone plant types 115 m to the east. Erosion is moderate.

Modern utilization: Maize is planted during the rainy season. The area was partially plowed by oxen at the time of the survey.

Early Formative Occupation: Archaeological remains: A good concentration of Amate phase debris was recovered. Rubble in the eastern half of the field in association with Amate phase ceramics may be from residential structures.

Classification: Hamlet.

Middle Formative Occupation: Archaeological remains: For this period there is a simple ceramic dispersion in which Cantera phase diagnostics predominate. Also present are ground and chipped stone artifacts.

Classification: Barranca phase Isolated Residence, Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: There is one small cluster of Late Formative debris associated with a small amount of architectural rubble which may have been a residential structure. Only plainwares were found.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-72

Latitude: 18° 46' 48.43"

Longitude: 98° 46' 1.67"

Location: At the southeast end of the town of Zacualpan.

Natural setting: This site is located in the Pithecellobium Woodland zone 70 m west of the Río Amatzinac and the Barranca vegetation zone. It is in the Flat Plains topographic zone, at the 1,575 m contour interval.

Modern utilization: The land had been uncultivated for some time and was being used for grazing at the time of the survey.

Late Formative Occupation: Archaeological remains: There was a trace of Late Formative period material. Conclusive evidence for permanent occupation was lacking.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence. The bulk of the occupation is Late Postclassic.

RAS-73

Latitude: 18° 45' 23.38"

Longitude: 98° 46' 30.06"

Location: Northwest of the modern town of Huazulco.

Natural setting: This site is just below the 1,500 m contour interval. The topographic zone is Flat Plains, and the vegetation zone is Pithecellobium Woodland. The site is 345 m west of the Río Amatzinac and the Barranca vegetation zone.

Modern utilization: The area is irrigated and planted in maize and squash. Some of the fields to the west were fallow at the time of our survey.

Late Formative Occupation: Archaeological remains: There was a small scatter of Late Formative material. One small mound at this site appears to date to the Late Postclassic.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Isolated Residence.

RAS-74

Latitude: 18° 46' 28.39"

Longitude: 98° 46' 13.36"

Location: In the cultivated fields on the northeast side of the town of Temoac.

Natural setting: This site is in the Pithecellobium Woodland zone 280 m west of the Río Amatzinac. It is on the 1,550 m contour interval within the Flat Plains topographic zone.

Modern utilization: The area is irrigated and cropped year round. Maize, beans, and tomatoes were planted in the field at the time of the survey.

Late Formative Occupation: Archaeological remains: The site consists of a light scattering of Late Formative materials. No permanent architectural constructions were noted. Only plainwares were recovered in the surface collections, primarily ollas and simple bowls.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Isolated Residence.

RAS-75

Latitude: 18° 46' 30.06"

Longitude: 98° 46' 15.03"

Location: Roughly 300 m northeast of the modern settlement of Temoac and 800 m south of Zacualpan, along a small dirt road separating the two towns.

Natural setting: This site lies above the 1,550 m contour interval, and local relief is less than 30 m. The topographical zone is Flat Plains, and the vegetation zone is *Pithecellobium* Woodland. The site is 260 m from the Río Amatzinac. Erosion is moderate in this area.

Modern utilization: Irrigation cultivation of tomatoes and sugar cane is practiced. More than 50 percent of the surface area was fallow at the time of our research.

Middle Formative Occupation: Archaeological remains: The site is a simple ceramic dispersion across two fields located on a terrace elevated 75 cm above the surrounding fields. Both Barranca and Cantera phase materials were recovered but in very low amounts. No architectural features were noted.

Classification: Barranca phase Isolated Residence, Cantera phase Isolated Residence.

Other Occupations: Late Classic Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-78 (San Ignacio)

Latitude: 18° 35' 0"

Longitude: 98° 45' 8.35"

Location: North of the old hacienda of San Ignacio.

Natural setting: This site is located at and above the 1,100 m contour interval in the Flat Plains topographic zone. The vegetation zone is Huizache Grassland, and the site lies on the Río Amatzinac, providing access to the River Bottomland zone. Soil in this area is 1–2 m deep. Erosion is slight to moderate. The position along the Río Amatzinac is optimal since the side walls are not very steep here. An impermanent drainage lies 95 m to the west.

Modern utilization: Rainfall agriculture of maize, beans, and squash is practiced, and oxen are used for plowing. The Middle Formative portion of the site is located just south of the major Late Classic mound complexes, northwest of the modern village of San Ignacio. The town covers that portion of the site which would extend to the banks of the Río Amatzinac.

Middle Formative Occupation: Archaeological remains: The site consists of mounds and a ceramic dispersion. Two mounds were dated to the Middle Formative on the basis of associated diagnostic material and isolation from other portions of the site. These appeared to be habitation structures. Large foundation stones and sandy-whitish soil were associated with the diagnostic ceramics. This area probably had a small, low platform. Middle Formative vessels and a small jade statue were in the possession of local farmers. These artifacts were reported to have been associated with skeletons found when the new school was built. Heavy debris at San Ignacio from the dense Classic occupation has obscured our view of the Middle Formative occupation. The site was probably larger than our observations indicated.

Classification: Barranca phase Hamlet, Cantera phase Hamlet.

Late Formative Occupation: Archaeological remains: Late Formative materials are scattered over approximately 30 ha. Unlike some of the other large sites for this phase, the material does not occur in dense clusters. Much of the area containing Late Formative materials was later occupied by Classic period peoples. The highest concentration of material, however, is on the east side of the site, along the Río Amatzinac. The full range of plain and decorated ceramics was recovered.

Classification: Small Village.

Other Occupations: Terminal Formative Large Village, Early Classic Regional Center, Late Classic Regional Center, Early Postclassic Small Village, Late Postclassic Large Village.

RAS-79

Latitude: 18° 35' 45"

Longitude: 98° 45' 51.77"

Location: In the southern portion of the valley northwest of the town of San Ignacio, about 400 m east of the San Ignacio–Tetelilla railroad station.

Natural setting: This site is situated in the Huizache Grassland vegetation zone. It is 485 m west of the Río Amatzinac within the Flat Plains topographic zone. Elevation is 1,125 m. The soil in this area is 1–2 m deep.

Modern utilization: The area is cultivated only during the rainy season. The land is prepared with a tractor, and maize is the only crop grown.

Late Formative Occupation: Archaeological remains: There was a very light

occupation of this site during this time. Tractor plowing has obscured most surface indications of occupation.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Isolated Residence (Hirth 1980).

RAS-81

Latitude: 18° 34' 6.68"

Longitude: 98° 46' 6.68"

Location: 2.5 km east of the town of Tepalcingo.

Natural setting: This site is in the Huizache Grassland vegetation zone on the 1,025 m contour interval within the Flat Plains topographic zone. It is several kilometers west of the Río Amatzinac, the closest permanent water source.

Modern utilization: The area had not been cultivated for several years prior to the survey and was being used for occasional cattle grazing. This field is located at the lowest end of a *jagüey* (large pool) irrigation system.

Late Formative Occupation: Archaeological remains: A light scatter of Late Formative materials was found across the site. Residential architecture is suggested by the accumulation of rock debris in the area of the ceramic concentrations, whereas it is typically absent from adjacent fields. This is a single-component site.

Classification: Isolated Residence.

RAS-84

Latitude: 18° 36' 11.69"

Longitude: 98° 48' 33.4"

Location: 2.5 km east of the town of Tepalcingo.

Natural setting: This site is on the 1,125 m contour interval within the Flat Plains of the southern valley. The vegetation zone is Huizache Grassland. The site is located on a small impermanent drainage and is more than 1 km from the closest permanent water source. The soil is a loose, dark loam. Erosion is slight to moderate.

Modern utilization: Irrigated fields planted in corn, beans, and squash occur directly to the south and east of the site. Plowing is done by tractor.

Middle Formative Occupation: Archaeological remains: A trace of Cantera phase material was found. There is no clearcut evidence for permanent occupation at this time.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeo-

logical remains: Vegetation was very dense at the time of the survey, obscuring surface accumulations. Only a light scattering of Late Formative materials was found. Large-scale architecture at the site appears to belong to the Classic period.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Small Village, Early Classic Small Village, Late Classic Hamlet (Hirth 1980).

RAS-89

Latitude: 18° 34' 58.45"

Longitude: 98° 48' 21.71"

Location: In the southern valley 3.5 km east of Tepalcingo.

Natural setting: The site lies in the Huizache Grassland vegetation zone and the Flat Plains topographic zone, on the 1,100 m contour interval several kilometers from the Río Tepalcingo, the closest source of permanent water.

Modern utilization: This area is cultivated only during the rainy season. Crops include maize, beans, and squash, and the fields are prepared with oxen.

Late Formative Occupation: Archaeological remains: A slight trace of Late Formative material was noted. There were no indications of permanent residential structures.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Hamlet (Hirth 1980), Late Postclassic Isolated Residence.

RAS-95

Latitude: 18° 37' 10.02"

Longitude: 98° 46' 23.52"

Location: On a small outwash north of the town of Tetelilla.

Natural setting: The site is in the Huizache Grassland vegetation zone over 2 km from any source of permanent water. It is on the 1,200 m contour interval in the Flat Plains topographic zone. The soil is very shallow here, averaging between 50 and 75 cm in thickness. There was a surface accumulation of large and medium-sized rocks.

Modern utilization: This area has been fallow for quite some time. No old field boundaries could be located. Rainfall agriculture is practiced in fields 150 m to the east.

Late Formative Occupation: Archaeological remains: Surface collections were poor at this site because of the lack of ground disturbance. While some architecture dates to the subsequent Terminal Formative period, it appears that most of

the small structures date to the Late Formative. Permanent residence is evident by accumulations of ground stone artifacts and fire-cracked rock on and about small house mounds with Late Formative materials.

Classification: Hamlet.

Other Occupations: Terminal Formative Hamlet (Hirth 1980), Early Postclassic Isolated Residence.

RAS-100

Latitude: 18° 37' 15.03"

Longitude: 98° 46' 3.34"

Location: Due north of the modern village of Tetelilla in the *municipio* of Jonacatepec.

Natural setting: The site is located on a level gradient next to an impermanent drainage, which passes the Cerro Tenango on its west face. The site is just below the 1,200 m contour interval 1.29 km from the Río Amatzinac. The topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. The soil is very shallow in this region, and on the average does not exceed 50 cm in thickness.

Modern utilization: The area was fallow at the time of the survey and was partially covered with *huizache*. A portion of the site, however, is planted during the rainy season in maize. The field is prepared by using oxen.

Middle Formative Occupation: Archaeological remains: A small ceramic dispersion was found, consisting primarily of plainware. The site extends over 0.7 ha. No architectural features were noted.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: A light scatter of ceramics was found distributed across approximately 0.5 ha.

Classification: Isolated Residence.

Other Occupation: Early Classic Isolated Residence (Hirth 1980).

RAS-107

Latitude: 18° 41' 35.07"

Longitude: 98° 47' 8.35"

Location: North of and adjacent to the ex-hacienda Santa Clara beside the road to Chalcatzingo.

Natural setting: The site is located on a slight rise in the Flat Plains topographical zone. It is between the 1,350 and 1,400 m contour intervals, in the Pithecellobium Woodland vegetation zone. The Río Amatzinac lies 1.46 km to the east.

Modern utilization: The area is used for rainfall maize cultivation, with use of oxen for plowing.

Middle Formative Occupation: Archaeological remains: This site is a simple ceramic dispersion. Traces of both Barranca and Cantera phase materials were noted. There was no clearcut evidence of permanent occupation.

Classification: Barranca phase Isolated Residence, Cantera phase Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-108

Latitude: 18° 35' 43.42"

Longitude: 98° 43' 15.03"

Location: In the *municipio* of Jonacatepec, southeast of the *ranchería* San Antonio.

Natural setting: The site is situated on the slope of a small hill between the 1,100 and 1,150 m contour intervals. This small hill is composed primarily of red chert. The vegetation zone is Huizache Grassland, and the topographical zone is Open Low Hills. The nearest permanent water is the Río Nexapa 540 m to the east. Soil at this site is shallow and does not exceed 1 m in depth.

Modern utilization: Although the area on top of the hill is not cultivated, the surrounding fields were planted in rice at the time of the survey.

Middle Formative Occupation: Archaeological remains: This site is a simple ceramic dispersion covering 0.75 ha. There was also an unusual amount of red chert cores, worked and unworked, throughout the area, indicating that it was a quarry site. This same type of red chert is found at many sites in the valley and may be evidence of a local exploitation and redistribution system. A limited amount of residential debris was also found, although occupation need not have been year round. This is a single component site.

Classification: Cantera phase Isolated Residence.

RAS-109

Latitude: 18° 35' 59.8"

Longitude: 98° 43' 5.01"

Location: At the Paso de los Coches which leads to a spring-fed swimming pool in the eastern part of the state of Puebla.

Natural setting: This site is located on

the eastern side of the Río Nexapa, on the 1,150 m contour interval in the slightly rolling foothills adjacent to a pass across the barranca. The topographical zone is Open Low Hills, and the vegetation corresponds to the Barranca zone. Soil depth as measured from a roadcut does not exceed 50 cm, and erosion is moderate to heavy across these slopes. The site is 150 m from permanent water.

Modern utilization: The site was not being cultivated at the time of the survey.
Middle Formative Occupation: Archaeological remains: A portion of the site was exposed in the roadcut sidewall, and several complete blackware *botellones* were procured by cleaning the sidewall. Not much site area could be identified, and site size could be estimated at roughly only 0.25 ha. It was probably located so as to take advantage of hillside slope resources. This is a single-component site.

Classification: Cantera phase Isolated Residence.

RAS-110

Latitude: 18° 36' 10.02"

Longitude: 98° 43' 11.69"

Location: Overlooking the Río Nexapa southeast of the town of San Antonio in the southern valley.

Natural setting: The site is situated at the interface of a number of vegetation zones, including the River Bottomland and Huizache Grassland. The topographic zone is Open Low Hills, and the site lies along the 1,125 m contour. The site slopes toward the river.

Modern utilization: The site was uncultivated at the time of the survey and had been fallow for several years. Most of the area was covered with *huizache* and was suitable only for grazing.

Late Formative Occupation: Archaeological remains: There was a trace of Late Formative materials, with no evidence for permanent habitation.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-111

Latitude: 18° 37' 33.4"

Longitude: 98° 43' 13.36"

Location: Between 2 and 3 km east of the town of Tenango near the Barranca de los Santos.

Natural setting: The site is in the Huizache Grassland vegetation zone and the Flat Plains topographic zone. The closest permanent water is the Barranca de los

Santos 525 m to the east. The site lies on the 1,200 m contour interval.

Modern utilization: The area was uncultivated at the time of the survey but appeared to have been cultivated in the immediate past.

Late Formative Occupation: Archaeological remains: Surface collections were inadequate considering the importance of the site. The entire site was covered by a pavement of hard-packed earth and small rocks, which hid the artifactual debris. The large-scale architecture found here dates to later periods, particularly the Classic. Late Formative materials were found in different areas of the site, especially on the southern end. No associations between ceramics and other artifact categories could be made because of the disturbance by later peoples.

Classification: Hamlet.

Other Occupations: Terminal Formative Hamlet, Early Classic Small Village, Late Classic Small Village (Hirth 1980).

RAS-112 (El Palacio)

Latitude: 18° 32' 33.4"

Longitude: 98° 50' 13.36"

Location: Along the Ixtlilco el Grande—Ixtlilco el Chico mountain road in the *municipio* of Tepalcingo.

Natural setting: This site is situated on rolling hills bordering the west side of the Río Frío in the southern portion of the valley. It is on the 1,075 m contour interval in the Irregular Plains, Slight Relief, topographic zone. The vegetation is mixed River Bottomland and Huizache Grassland. A spring lies to the east of the Río Frío. Soil depth is variable, ranging from 1 to 3 m.

Modern utilization: The lower portions of the site are irrigated, and maize and beans are grown. Oxen are used for preparing the fields. The upper portions of the site are open for grazing.

Early Formative Occupation: Archaeological remains: A surface scatter of Amate phase ceramics was found on the small terraces overlooking the spring. Additional figurines and sherds were found in the area just east of the Middle Formative terrace occupation.

Classification: Hamlet.

Middle Formative Occupation: Archaeological remains: The bulk of the Middle Formative occupation is related to the upper terraced areas and the lower area in front of these terraces. A ball court situated in front of these terraces produced a large quantity of Middle Formative ceramics, and the soil of which it was con-

structed was of a different type and texture from the parent soil across the same area. It appears to have been constructed with loadings taken from areas of prior Middle Formative occupation. A low platform structure, largely destroyed, of probable Middle Formative date was located on the west side of the site. Some of the terraces on the west slopes definitely have Middle Formative residential debris on them and undoubtedly were constructed during this period.

Classification: Barranca phase Small Village, Cantera phase Small Village.

Late Formative Occupation: Archaeological remains: Late Formative materials are located on the west central portion of the site along the road and on the east side of the site beside the Río Frío. Architectural structures of both the Classic and Postclassic periods cover the intervening area. It is difficult to say whether any of the structures date to the Late Formative. It is likely, however, given the size of the site and the continuity of settlement from the Cantera phase through the Classic, that Late Formative mounds were part of the overall site design. Late Formative materials were found in dense concentrations.

Classification: Small Village.

Other Occupations: Terminal Formative Small Village, Early Classic Large Village, Late Classic Small Village (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Small Village.

RAS-114

Latitude: 18° 31' 31.73"

Longitude: 98° 48' 20.04"

Location: In the southern portion of the valley due west of the town of Quebrantadero.

Natural setting: The site is situated on the 1,000 m contour interval in the Irregular Plains, Slight Relief, topographic zone. Two vegetation zones come together at the site, the Huizache Grassland and the River Bottomland. The closest permanent water source is the Río Frío 870 m to the south.

Modern utilization: The area is cultivated during the rainy season. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: A small scatter of Late Formative materials was found. No residential architecture was observed.

Classification: Isolated Residence.

Other Occupations: Early Classic Isolated Residence (Hirth 1980).

RAS-121

Latitude: 18° 32' 38.41"
Longitude: 98° 49' 46.76"

Location: In the southern valley along the 1,000 m contour interval alongside the Río Tepalcingo due north of Ixtlilco el Grande.

Natural setting: The vegetation zones in this area are the Huizache Grassland and the River Bottomland. The topographic zone is Flat Plains.

Modern utilization: The area is cultivated during the rainy season. Field preparation is with oxen, and the principal crops are maize and chilies.

Late Formative Occupation: Archaeological remains: A scatter of Late Formative material was found on the central portion of the site. Concentrations of rubble and several low mounds suggest destroyed residential structures.

Classification: Hamlet.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Hamlet, Late Classic Isolated Residence (Hirth 1980).

RAS-127

Latitude: 18° 33' 30.06"
Longitude: 98° 50' 15.03"

Location: At the southeast corner of Ixtlilco el Chico in the southern valley.

Natural setting: The site lies alongside a small impermanent drainage. The topographic zone is Flat Plains, and the site shares two vegetation zones, the Huizache Grassland and the River Bottomland. The nearest permanent water source is the Río Frío 285 m to the east. The site is located on the 1,000 m contour interval.

Modern utilization: A portion of the site is terraced, going down into the barranca. The area is cultivated during the rainy season, and maize and beans are grown.

Late Formative Occupation: Archaeological remains: A very light scatter of Late Formative materials was found. There were no indications of permanent occupation.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Hamlet.

RAS-128

Latitude: 18° 33' 45.09"
Longitude: 98° 50' 20.04"

Location: East of Ixtlilco el Chico in the southern valley.

Natural setting: The site lies along a small impermanent drainage. The topographic zone is Flat Plains, and the site

has access to two vegetation zones, the Huizache Grassland and the River Bottomland. It is on the 1,025 m contour interval. The nearest permanent water source is the Río Frío 795 m to the east.

Modern utilization: The site area is cultivated in maize, beans, and squash during the rainy season. Field preparation is by oxen plowing.

Late Formative Occupation: Archaeological remains: Late Formative materials are scarce. There is a small distribution over the northern portion of the site. Indications of structures are lacking for this time period.

Classification: Isolated Residence.

Other Occupation: Late Postclassic Hamlet.

RAS-129

Latitude: 18° 33' 26.72"
Longitude: 98° 50' 21.71"

Location: Southeast of Ixtlilco el Chico in the *municipio* of Tepalcingo.

Natural setting: This site is located between two impermanent drainages between the 1,000 and 1,050 m contour intervals. The topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. The Río Frío is 585 m to the east. Soil depth is less than 1 m.

Modern utilization: Rainfall maize agriculture.

Middle Formative Occupation: Archaeological remains: A simple ceramic dispersion covers 0.9 ha. There is a moderate amount of residential debris in the form of ground stone artifacts and house construction debris.

Classification: Cantera phase Isolated Residence.

Other Occupations: Early Postclassic Isolated Residence, Late Postclassic Isolated Residence.

RAS-144 (Telixtac)

Latitude: 18° 33' 41.75"
Longitude: 98° 45' 1.67"

Location: Lies along and is cut by the Axochiapan railroad southwest of San Ignacio.

Natural setting: The site is between the 1,050 and 1,100 m contour intervals in the Flat Plains topographic zone. The vegetation zone is principally Huizache Grassland, mixed with some River Bottomland. Impermanent drainages pass the site on both the north and south, while the nearest permanent water lies 1.35 km to the east.

Modern utilization: The site was fal-

low at the time of the survey and lacked evidence of recent agricultural activity.

Middle Formative Occupation: Archaeological remains: The site consists of two small platform mounds and a ceramic dispersion covering an area of 2.1 ha. The larger mound has been cut by the railway, and the other is also greatly destroyed. There is evidence for residence, but from surface indications it appears to have been relatively light. The major occupation occurred during the Cantera phase. Irrigation soil markings appearing on aerial photos to the south of this site may be Classic. Excavations were carried out here, and the results are reported in Chapter 22.

Classification: Barranca phase Isolated Residence, Cantera phase Hamlet.

RAS-156

Latitude: 18° 32' 18.37"
Longitude: 98° 47' 25.05"

Location: Due north of Quebrantadero in the *municipio* of Axochiapan.

Natural setting: This site is located adjacent to the conjunction of two impermanent drainages just below the 1,050 m contour interval. The topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. The site is 3.03 km from the Río Frío. The soil is less than 1 m in depth.

Modern utilization: Rainfall maize cultivation is practiced using tractor plowing.

Middle Formative Occupation: Archaeological remains: The site extends over 0.51 ha with trace concentrations of Middle Formative material.

Classification: Cantera phase Isolated Residence.

Other Occupations: Combined with RAS-152, Early Classic Hamlet, Late Classic Hamlet (Hirth 1980).

RAS-164

Latitude: 18° 31' 25.05"
Longitude: 98° 46' 48.43"

Location: East of Quebrantadero just north of the first bridge crossing along the highway to Axochiapan.

Natural setting: This site is located at the 1,000 m contour interval along an impermanent drainage. It is 50 m south of a spring, and the Río Frío lies 2.21 km to the southwest. The topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. The soil depth is between 1 and 2 m.

Modern utilization: Rainfall cultiva-

tion of maize is practiced using oxen for plowing.

Middle Formative Occupation: Archaeological remains: At least one mound at this site dates to the Middle Formative occupation. Permanent residence is clearly indicated. The extent of the Cantera phase occupation appears slightly more than double that of the Barranca phase.

Classification: Barranca phase Hamlet, Cantera phase Small Village.

Late Formative Occupation: Archaeological remains: This site is a good example of Small Village communities during the Late Formative. Fortunately, later occupations were not extensive enough to completely obscure the nature of settlement. A little more than 9 ha were occupied during this phase. Ceramic and other artifact categories are tightly clustered in and around the mounds, three of which date to the Late Formative. Clear evidence for residential structures was found around and away from these mounds.

Classification: Small Village.

RAS-166

Latitude: 18° 31' 30.06"

Longitude: 98° 43' 46.76"

Location: In the southern valley about 4 km northeast of Axochiapan.

Natural setting: The site is situated in the Huizache Grassland vegetation zone just under 2 km from the nearest source of permanent water, the Río Amatzinac. The topographic zone is Flat Plains, and the site is on the 1,025 m contour interval.

Modern utilization: The area is cultivated using teams of oxen during the rainy season. The principal crop is maize. *Late Formative Occupation:* Archaeological remains: A light distribution of Late Formative plainwares without marked buildups of construction debris was noted during the survey.

Classification: Isolated Residence.

Other Occupations: Early Classic Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-168

Latitude: 18° 30' 25.05"

Longitude: 98° 43' 35.07"

Location: Due northeast of the Axochiapan railroad station.

Natural setting: This site is on the 1,025 m contour interval next to a large impermanent drainage and is more than a mile from the Río Amatzinac. It has ac-

cess to the Huizache Grassland vegetation zone and is in the Irregular Plains, Slight Relief, topographic category.

Modern utilization: Rainfall agriculture of maize, squash, and beans is practiced using oxen for plowing.

Middle Formative Occupation: Archaeological remains: A light scatter of Cantera phase materials was located about 75 m west of the impermanent barranca. A small amount of residential debris could be detected, although it was difficult to distinguish the Formative residence areas from the heavy Classic debris at the site.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: Late Formative materials are scattered over a wide area of the site. Unfortunately, the heavy Classic period occupation has obscured the nature and distribution of Late Formative Materials. Only plainwares were recovered from the surface.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Small Village, Late Classic Small Village. Classic occupations describe the site RAS-168/220 (Hirth 1980).

RAS-169

Latitude: 18° 32' 30.06"

Longitude: 98° 44' 55.08"

Location: Due west of Atlacahualoya several hundred meters from the edge of town out onto the surrounding agricultural fields.

Natural setting: This area is in the Flat Plains topographic zone and the Huizache Grassland vegetation zone. The nearest permanent water source is the Río Amatzinac 500 m to the east. Elevation is 1,050 m.

Modern utilization: The area is irrigated and oxen-plowed. Crops planted at the time of the survey included maize, beans, and squash.

Late Formative Occupation: Archaeological remains: Late Formative materials were mixed with colonial and Late Postclassic artifacts. The percentage of materials from this period was very low.

Classification: Isolated Residence.

Other Occupations: Late Postclassic Hamlet, colonial activity.

RAS-176

Latitude: 18° 31' 48.43"

Longitude: 98° 42' 21.71"

Location: On the west side of the Río

Nexapa west of the town of Tzompahuacan, Puebla.

Natural setting: The site has access to two vegetation zones, the Huizache Grassland and the River Bottomland. The topographic zone is Flat Plains, and elevation is 1,025 m. The site is only 70 m from the Río Nexapa.

Modern utilization: The area is cultivated during the rainy season, and maize is grown. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: Late Formative materials were lightly distributed over 0.25 ha. Concentrations of material were low. There was no evidence of permanent structures.

Classification: Isolated Residence.

Other Occupation: Classic Isolated Residence (Hirth 1980).

RAS-182

Latitude: 18° 31' 1.67"

Longitude: 98° 48' 1.67"

Location: West of the town of Quebrantadero and due east of the town of Contla.

Natural setting: The site is located in the Huizache Grassland 490 m east of the Río Frio in the southern portion of the valley. The topographic zone is Irregular Plains, Slight Relief. Elevation is 1,000 m. Erosion is moderate, and the soil is shallow.

Modern utilization: Mainly used for grazing cattle.

Early Formative Occupation: Archaeological remains: A small scatter of Amate phase materials is present at this site. There are no large buildups, however, to suggest a long occupation.

Classification: Isolated Residence.

Middle Formative Occupation: Archaeological remains: The site covers 0.38 ha with only a trace of occupation. No other features were noted.

Other Occupation: Early Classic Isolated Residence (Hirth 1980).

RAS-189

Latitude: 18° 30' 50.10"

Longitude: 98° 47' 18.37"

Location: South-southeast of Quebrantadero in an area highly dissected by impermanent barrancas.

Natural setting: This site is located at the 1,000 m contour interval on a rolling hillslope overlooking a winding impermanent barranca. The topographic zone is Irregular Plains, and the vegetation zone is Huizache Grassland with River Bottomland. The soil is very shallow

here and erosion is slight to moderate.

Modern utilization: The area is fallow and used only for occasional grazing.

Middle Formative Occupation: Archaeological remains: The site is best characterized as a mound with ceramic dispersals. Two small house mounds were identified.

Classification: Barranca phase Isolated Residence, Cantera phase Hamlet.

Other Occupation: Possible Late Postclassic Isolated Residence.

RAS-200

Latitude: 18° 32' 58.9"

Longitude: 98° 42' 23.38"

Location: South of the modern village of Coayuca in the state of Puebla.

Natural setting: The site is located on the floodwater plain adjacent to the Río Nexapa just below the 1,050 m contour interval. The topographic zone is Irregular Plains, Slight Relief. The vegetation zone is mixed, comprised of Huizache Grassland, River Bottomland, and Tetlaleras zones. The soil is about 1.5 m deep.

Modern utilization: Irrigation agriculture of corn and tomatoes is practiced, and both oxen and tractor plowing are employed.

Middle Formative Occupation: Archaeological remains: The site extends over 0.75 ha with light Cantera phase ceramic distributions. It was an ideal location for agriculture because of the low barranca sidewalls and the potential for floodwater irrigation. The site has been damaged by occasional inundation of the Río Nexapa. Residential debris is still clearly visible.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: Classic and Late Postclassic components have obscured the distribution of materials from this period. There is clear evidence for utilization during the Late Formative along the eastern edge of the site.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Hamlet, Late Classic Small Village (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Small Village.

RAS-201

Latitude: 18° 31' 58.45"

Longitude: 98° 42' 8.35"

Location: Northwest of the Puebla village of Tzompahuacan.

Natural setting: The site is on a small

natural terrace on the northeast side of the Río Nexapa, just below the 1,050 m contour interval in the irregular Plains, Slight Relief, topographic zone. No rubble or erosion other than possible Nexapa flooding was observed. The principal vegetation zones are Huizache Grassland and River Bottomland.

Modern utilization: The area is fallow and used for cattle grazing.

Middle Formative Occupation: Archaeological remains: There was a light dispersion of residential debris over the site without any notable structural features. The site is 0.33 ha in size and lies just above the edge of the normal Nexapa floodplain.

Other Occupations: Terminal Formative Isolated Residence, Early Classic Hamlet, Late Classic Hamlet (Hirth 1980), Late Postclassic Hamlet.

RAS-209

Latitude: 18° 32' 38.41"

Longitude: 98° 43' 41.75"

Location: Northeast of Atlacahualoya.

Natural setting: The site is located along the Río Amatzinac just above the 1,050 m contour interval. The topographic zone is Irregular Plains, Slight Relief, and the vegetation zones are Huizache Grassland and River Bottomland. An impermanent drainage lies 450 m to the east.

Modern utilization: Rainfall cultivation of maize, beans, and squash is practiced. The area is plowed by tractor.

Middle Formative Occupation: Archaeological remains: The site extends over 1.95 ha with light Middle Formative debris spread over the entire area.

Classification: Cantera phase Hamlet.

Other Occupations: Early Postclassic Isolated Residence, Late Postclassic Small Village.

RAS-210

Latitude: 18° 30' 0"

Longitude: 98° 43' 51.77"

Location: Just to the south of the Achiapan railroad station. The site was disturbed when the railroad was built, which helped make it easier to locate.

Natural setting: The site is between the 1,000 and 1,050 m contour intervals north of an impermanent drainage. The topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. The nearest permanent water source is the Río Amatzinac 2.09 km to the east.

Modern utilization: The area today is moderately wooded.

Middle Formative Occupation: Archaeological remains: The site is a thin ceramic scatter which extends over an area of 0.32 ha. No structures were noted.

Classification: Cantera phase Isolated Residence.

Other Occupation: Late Classic Isolated Residence (Hirth 1980).

RAS-221

Latitude: 18° 30' 56.78"

Longitude: 98° 43' 25.05"

Location: In the southern valley about 3 km northwest of Atzitzica.

Natural setting: This site is located in the southern Huizache Grassland vegetation zone. The topographic zone is Flat Plains, and elevation is 1,025 m. The closest permanent water source is the Río Amatzinac 1.25 km to the east. The site is directly adjacent to a large impermanent barranca.

Modern utilization: The area had not been cultivated for several years. Old field boundaries could be found, and it is possible that the field was on a long crop rotation cycle at the time of the survey.

Late Formative Occupation: Archaeological remains: A scatter of Late Formative ceramics was located and collected. Both plain and decorated wares were found. However, the greatest concentration of materials was obscured by a heavy Classic occupation.

Classification: Isolated Residence.

Other Occupation: Early Classic Isolated Residence (Hirth 1980).

RAS-225

Latitude: 18° 29' 36.50"

Longitude: 98° 42' 10.00"

Location: Adjacent to the floodplain of the Río Nexapa north of the town of Chimalcatlan.

Natural setting: The site lies within a meander loop of the Río Nexapa which borders the site on its north, east, and south sides. The vegetation zones available are River Bottomland and Huizache Grassland on the bluffs to the west. The topographic zone is Flat Plains. Elevation is 1,000 m.

Modern utilization: The area is terraced and irrigated by water drawn from the Río Nexapa. Tractors are used for plowing. Crops include tomatoes, sugarcane, maize, beans, and squash. Some site destruction has taken place because of the preparation of the irrigation system and the modification of terraces which put each individual field at a different level.

Middle Formative Occupation: Archaeological remains: The site is a simple ceramic dispersion over 3.80 ha. Mounds associated with the site are Late Postclassic in date, as in the bulk of the site area. The site lies in a favorable micro-environment for agriculture. The terraces here are clearly prehispanic, since they support a number of the large mounds.

Classification: Cantera phase Hamlet.
Late Formative Occupation: Archaeological remains: Late Formative materials were collected from all portions of the site, an extent of approximately 4.5 ha. Heavy plowing has disturbed all previous structures except the ceremonial mounds on the terraces. A wide selection of ceramic types was collected.

Classification: Small Village.
Other Occupations: Terminal Formative Hamlet, Early Classic Small Village, Late Classic Small Village (Hirth 1980), Early Postclassic Hamlet, Late Postclassic Large Village.

RAS-229

Latitude: 18° 29' 33.00"

Longitude: 98° 42' 0"

Location: Due west of Chimalcatlan.

Natural setting: The site is located near an impermanent barranca 570 m west of the Río Nexapa at the 1,000 m contour interval. The topographic zone is Open Low Hills, and the site has access to both the Huizache Grassland and River Bottomland vegetation zones.

Modern utilization: Maize is cultivated during the rainy season.

Middle Formative Occupation: Archaeological remains: This is a single-component site which consists of a simple ceramic dispersion. It extends over an area of 0.27 ha. Noticeable architectural features were lacking.

Classification: Cantera phase Isolated Residence.

RAS-231

Latitude: 18° 29' 43.00"

Longitude: 98° 42' 10.00"

Location: Due west of Chimalcatlan and RAS-229.

Natural setting: The site lies along an impermanent barranca at the 1,000 m contour interval. The closest permanent water source is the Río Nexapa 1.02 km to the east. The topographic zone is Open Low Hills, and the site has access to both the River Bottomland and Huizache Grassland vegetation zones. The

soil is very shallow throughout the whole area.

Modern utilization: The site is fallow and used only for occasional grazing.

Middle Formative Occupation: Archaeological remains: The site is a small ceramic scatter lacking features. It extends over an area less than 0.50 ha.

Classification: Cantera phase Isolated Residence.

Other Occupation: Early Postclassic Isolated Residence.

RAS-232

Latitude: 18° 37' 38.41"

Longitude: 98° 49' 36.74"

Location: East of the Tepalcingo road, 1 km south of the railroad crossing.

Natural setting: The site is located on a low plain adjacent to the Río Frio between the 1,150 and 1,200 m contour intervals. The topographic zone is Flat Plains, and the site has access to both the Huizache Grassland and River Bottomland vegetation zones. The nearest impermanent drainage is 1.68 km to the east. Soil appears shallow and does not exceed 1 m in depth.

Modern utilization: Rainfall cultivation of corn, beans, and squash is practiced. Soil preparation is with oxen.

Middle Formative Occupation: Archaeological remains: The site consists of a mound and ceramic scatter. The mound, which appears to be residential, cannot definitely be assigned a temporal association because both Classic and Middle Formative debris were found on and around it. Middle Formative debris is scattered over less than 0.5 ha.

Classification: Barranca phase Isolated Residence, Cantera phase Isolated Residence.

Other Occupation: Classic Isolated Residence (Hirth 1980).

RAS-243

Latitude: 18° 38' 33.4"

Longitude: 98° 45' 15.03"

Location: At the southeast corner of the Cerro Tenango alongside the Río Amatzinac.

Natural setting: The site lies in a natural pocket formed by the eastern slopes of the Cerro Tenango and the Río Amatzinac. It has access to the Pithecellobium Woodland, Barranca, Huizache Grassland, and Interior Valley Cerros vegetation zones. The topographic zone is Low Mountains. Elevation is 1,250 m.

Modern utilization: The area had not been cultivated the year before the sur-

vey, although old field boundaries were clearly visible. Agriculture in this area depends on seasonal rainfall.

Middle Formative Occupation: Archaeological remains: The Middle Formative material lies around one fairly substantial mound and seven small clusters of rock identified as possible house formations. This material is scattered over 2.50 ha. To the south of the Middle Formative component is a large Classic and Late Postclassic occupation both on the fan in front of the Cerro slopes and on the terraces which extend up onto it. Only a few Middle Formative sherds were reported from these terraces, and they may not have been in situ material.

Classification: Barranca phase Isolated Residence, Cantera phase Hamlet.

Late Formative Occupation: Archaeological remains: Late Formative material is scattered over 9 ha. It is a light distribution, however, and there are no clear-cut marked buildups as might be expected around former residence structures. The heaviest concentrations are on the lower terraced slopes on the northeast side of the site. Unfortunately the later occupations at this site have disturbed materials from this occupation period. Only plainwares were recovered.

Classification: Hamlet.

Other Occupations: Terminal Formative Small Village, Early Classic Small Village, Late Classic Small Village (Hirth 1980), Early Postclassic Small Village, Late Postclassic Large Village.

RAS-257

Latitude: 18° 38' 45.09"

Longitude: 98° 46' 36.74"

Location: Near the town of Joncatepec.

Natural setting: Between the 1,250 and 1,300 m contour intervals in the Low Mountains topographical zone. The vegetation zone is Interior Valley Cerros. Erosion is severe, and the soil is less than 60 cm deep. The Río Amatzinac is the closest permanent water source, lying 2.94 km to the east. An impermanent water source is 90 m to the west.

Modern utilization: The area is uncultivated huizache grassland.

Middle Formative Occupation: Archaeological remains: There is a trace of Cantera phase debris. No ground stone artifacts or evidence of permanent structures were found. This is a single-component site.

Classification: Cantera phase Isolated Residence.

RAS-258

Latitude: 18° 40' 0"

Longitude: 98° 48' 41.75"

Location: West-northwest of Las Lomas Chicas just off the southern road to Axochiapan in the *municipio* of Jonacatepec.

Natural setting: The site is located at the southern edge of the Pithecellobium Woodland vegetation zone. The topographic zone is Flat Plains. The site is 45 m east of an impermanent drainage, and 780 m east of the Río Frío. Elevation is 1,300 m. Erosion is slight, and the soil is less than 1 m deep.

Modern utilization: Maize is cultivated during the rainy season, and the field is prepared with teams of oxen.

Middle Formative Occupation: Archaeological remains: A light ceramic scatter covered 0.43 ha. Rubble was moderate. One small house mound was located, but it is in poor condition due to plowing. Artifacts collected included domestic ceramics, manos, and metates.

Classification: Cantera phase Isolated Residence.

Late Formative Occupation: Archaeological remains: A light scatter of Late Formative material was associated with the Cantera phase occupation areas. The association of Cantera and Late Formative material suggests continuity in the site's occupation.

Classification: Isolated Residence.

RAS-264

Latitude: 18° 39' 31.73"

Longitude: 98° 48' 41.75"

Location: Southwest of Las Lomas and east of Atotonilco, directly alongside the Zacualpan-Axochiapan highway.

Natural setting: The site's topographic zone is Flat Plains, and the vegetation zone is Huizache Grassland. Elevation is 1,300 m. The site is on an impermanent drainage, 540 m east of the closest permanent water source, the Río Frío.

Modern utilization: Maize and bean agriculture is practiced during the rainy season, the fields being prepared with oxen.

Late Formative Occupation: Archaeological remains: This is largely a Late Formative occupation site. Material is scattered across 1.25 ha in fairly high densities. Clusters of ceramics, chipped and ground stone artifacts, fire-cracked rock, and stone construction material were found associated in the central portion of the site. Both plain and decorated ceramics were recovered. Six platform mounds were located and mapped. The

site may be larger than our site classification indicates.

Classification: Hamlet.

Other Occupations: Terminal Formative Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-266 (Atotonilco)

Latitude: 18° 39' 6.68"

Longitude: 98° 49' 43.42"

Location: In the modern village of Atotonilco.

Natural setting: This site lies on the lower slopes of a hillside overlooking a spring at the 1,300 m contour interval. The vegetation zone is Huizache Grassland and the topographic zone is Hills. The Río Frío lies 1.2 km to the east.

Modern utilization: The upper slopes and terraces are fallow and overlook the modern village. The lower portion of the site, around the spring, is now covered by a swimming pool complex and its facilities.

Early Formative Occupation: Archaeological remains: A few Amate phase sherds were found at the spring by Grove (personal communication). Two figurine heads were located on the slopes above the resort.

Classification: Isolated Residence.

Middle Formative Occupation: Archaeological remains: Estimation of site boundaries was impeded by the spread of the *balneario* facilities and was accomplished only insofar as there were field observations and reports to warrant them. The upper hillside boundaries could be found, and the lower boundaries were set directly to the south of the *balneario* springs. Middle Formative, Classic, and Tlahuica (Postclassic) materials are recorded from the installation excavations carried out when the facility was built (Grove 1968b:278). The obtained figure for site extent is 6 ha, which is probably too small.

Classification: Barranca phase Hamlet, Cantera phase Hamlet.

Other Occupations: Classic Isolated Residence (Hirth 1980), Late Postclassic Regional Center.

RAS-271

Latitude: 18° 37' 40.08"

Longitude: 98° 50' 1.67"

Location: North of Tepalcingo, 100 m west of the Atotonilco-Tepalcingo highway.

Natural setting: This site is located between the 1,150 and 1,200 m contour intervals. The vegetation zone is Huizache

Grassland, and the topographic zone is Flat Plains. The site is 990 m west of the Río Frío and 665 m east of an impermanent drainage. The soil varies in depth from 0.75 to 1 m.

Modern utilization: The site is located within a modern irrigation system. At the time of the survey it was planted in tomatoes, and slightly to the south cotton was growing. The soil is prepared by tractor plowing.

Middle Formative Occupation: Archaeological remains: Only a trace of Middle Formative material was found. There were no heavy buildups of surface rubble to suggest large-scale permanent residence. This is a single-component site.

Classification: Cantera phase Isolated Residence.

RAS-292

Latitude: 18° 45' 6.68"

Longitude: 98° 47' 6.68"

Location: In irrigated plots near the town of Huazulco.

Natural setting: This site is located in the northern Pithecellobium Woodland vegetation zone and the Flat Plains topographic zone. Site elevation is 1,475 m. The closest source of permanent water is the Río Amatzinac, more than 1 km away.

Modern utilization: The area is completely irrigated and planted in peanuts. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: A light trace of Late Formative material was found. There was no indication of any permanent architecture. This is a single-component site.

Classification: Isolated Residence.

RAS-295

Latitude: 18° 45' 38.41"

Longitude: 98° 47' 0"

Location: Northwest of the town of Huazulco.

Natural setting: This site is in the northern Pithecellobium Woodland zone. It is 150 m from an impermanent drainage and over 600 m from the nearest source of permanent water. Site elevation is 1,500 m. The topographic zone is Flat Plains.

Modern utilization: The whole site area is irrigated, and peanuts were growing at the time of the survey. Field preparation is with oxen.

Late Formative Occupation: Archaeological remains: A light scatter of material was encountered. There were no indications of residential structures.

Classification: Isolated Residence.

Other Occupations: Terminal Formative Isolated Residence, Classic Isolated Residence (Hirth 1980), Late Postclassic Isolated Residence.

RAS-318

Latitude: 18° 40' 35.07"

Longitude: 98° 47' 18.37"

Location: Due south of the ex-hacienda Santa Clara east-southeast of Jonacatepec.

Natural setting: This site is located directly below the 1,350 m contour interval at the base of two flanking hills, a situation which could be termed a pocket valley. The topographical zone is Irregular Plains, Slight Relief, and the site has access to the Pithecellobium Woodland, River Bottomland, and Interior Valley Cerros vegetation zones. It is 2.20 km west of the Río Amatzinac and 475 m from an impermanent drainage.

Modern utilization: Half of the site is permanently fallow, while the other half is a rainfall-watered maize field.

Middle Formative Occupation: Archaeological remains: There is a slight scatter of Cantera phase materials over the site. Rubble from residential architecture and a good selection of ground and chipped stone artifacts were noted. Two areas of unusually dense debris may represent former residences.

Classification: Cantera phase Isolated Residence.

Other Occupations: Early Postclassic Isolated Residence, Late Postclassic Hamlet.

RAS-326

Latitude: 18° 41' 16.7"

Longitude: 98° 46' 23.38"

Location: In house plots in the northeastern part of the modern village of Chalcatzingo.

Natural setting: The site is located 300 m east of the Río Amatzinac, in the Flat Plains topographic zone between the 1,350 and 1,400 m contour intervals. It is in the Pithecellobium Woodland vegetation zone and borders on the Barranca zone.

Modern utilization: Part of the area is fallow; the rest consists of house and garden plots cultivated using oxen.

Middle Formative Occupation: Archaeological remains: The site consists of a simple ceramic dispersion across the house plots on the northeast part of the village of Chalcatzingo. An area of 3.5 ha was calculated for site extent, although this might be underestimated. Collec-

tions were made in the house plots, and well digging has turned up a good selection of Barranca and Cantera phase material. Several small jade beads and ground stone artifacts were also found.

Classification: Barranca phase Hamlet, Cantera phase Hamlet.

Other Occupation: Late Postclassic Hamlet (Hirth 1980).

RAS-328

Latitude: 18° 41' 5.01"

Longitude: 98° 46' 16.7"

Location: Southeast of the modern village of Chalcatzingo.

Natural setting: The site is located in the Pithecellobium Woodland zone, and the topographic zone is Flat Plains. Elevation is 1,375 m. Easy access to the barranca zone resources is found along the Río Amatzinac 200 m to the east. The soil is sandy, and erosion is slight.

Modern utilization: Rainfall cultivation of maize, beans, squash, and peanuts is practiced. The field is plowed using oxen. This site was used to test the effects of seasonal rainfall and field preparation on the amount of recordable surface debris (Hirth 1978c).

Middle Formative Occupation: Archaeological remains: A thin Middle Formative ceramic scatter was found over 2.50 ha. The fields had been cleaned of most stone rubble.

Classification: Barranca phase Isolated Residence, Cantera phase Hamlet.

Late Formative Occupation: Archaeological remains: A light scatter of Late Formative ceramics was found across a little over 1 ha. No architectural structures were associated.

Classification: Isolated Residence.

Other Occupations: Early Classic Hamlet (Hirth 1978c; 1980), Late Postclassic Isolated Residence.

RAS-330 (Chalcatzingo)

Latitude: 18° 40' 41.75"

Longitude: 98° 46' 10.02"

Location and natural setting: See Chapter 2.

Modern utilization: See Chapter 26.

Archaeological remains: See Chapters 4–20, 24.

Classification: Amate phase Small Village, Barranca phase Small Village, Cantera phase Regional Center, Late Formative Small Village, Terminal Formative Small Village, Early Classic Small Village, Late Classic Small Village (Hirth 1980), Postclassic shrine.

APPENDIX I

Postclassic Artifacts from Tetla

LYNETTE NORR

Many of the artifacts recovered from the Tetla excavations and survey are described and illustrated here. Categories of artifacts include ceramic vessels, spindle whorls, miscellaneous ceramic objects, and lithics. Because the latest occupation at Tetla is early Aztec, or Second Intermediate Phase Three, illustration of these materials may prove helpful in identifying early Aztec components in a mixed context.

CERAMICS

Table I.1 lists the ceramic wares which comprise part of the Middle Postclassic early Aztec assemblage at Tetla. The sherd counts and percentages are derived from the house excavation data, while illustrations also include sherds gathered during reconnaissance of the area. The table includes a breakdown of the ceramic wares by gross form (olla, bowl, comal).

Black on Orange Ware (79 sherds/ 45 rims; Figs. I.1–I.3)

The Black on Orange ware from Tetla is very similar in both form and decoration to the Culhuacan Negro sobre Anaranjado type described by James Griffin and Antoinetta Espejo (1947; 1950) and Azteca I described by Laurette Séjourné (1970), while only a few similarities can be found with contemporary ceramics presented by Eduardo Noguera (1954) from Cholula. Black on Orange ware types II, III, and IV (Griffin and Espejo's Tenayuca, Tenochtitlan, and Tlatelolco types) are absent from the Tetla ceramic assemblage. Although Black on Orange ware is not the predominant decorated ceramic ware at Tetla, it was the most useful decorated ware for establishing the ceramic phasing of the Postclassic occupation at the site.

Definition

A black (5YR2/1–2) to dusky red (10R3/

3; 2.5YR2–3/2; 5YR3/1–3) decoration is painted on the natural burnished orange-brown clay surface (2.5YR3/4, 5/8; 5YR4–6/8, 6/3; 7.5YR7/4–6) or on a thinly slipped and burnished orange surface (2.5YR4–5/6–8; 5YR5–6/6–8, 5/4; 7.5YR5/6). The ware is characterized by a wide black band along the interior or exterior rim. Most of the examples have 2–7 mm horizontal straight and/or wavy line decoration, either by itself or combined with other designs such as the common quadrangular scroll and stepped fret, the horizontal S motif, concentric half circles or the “*ojo estelar*,” the *xicalcolihqui* motif (e.g., Fig. I.1*h*) and bound vertical and oblique crossed lines. The paste is fine to medium in texture with a fine sand temper and small, occasional lenticular spaces. Sherd fractures are sharp to slightly crumbly. Vessel wall thickness ranges from 3 to 11 mm with a bimodal distribution around 6 mm and 9 mm. The thicker-walled sherds tend to have wider line decorations and are discussed separately as a typological variant.

The vertical to incurving wall, recurved rim bowl is the predominant vessel form (Fig. I.1). These bowls are generally small, with mouth diameters of 8–12 cm, or a slightly larger group, 16–18 cm. The exterior painted black decoration consists of various combinations of straight and wavy lines, concentric half circles, and variations of the quadrangular scroll and stepped fret motif in a horizontal band under the rim and along the shoulder of the vessel.

Vertical to flaring wall, recurved bowls are shallower, slightly larger, and often supported, and are decorated on the interior of the vessel (Figs. I.2, I.3*a–k*). These interior vessel designs consist of straight and wavy lines and concentric half circles with the addition of the horizontal S motif, irregular dots, or simply bound vertical and oblique crossed lines

on the vessel wall. The vessel supports are either zoomorphic, hollow truncated conical to cylindrical, or solid conical forms. The supported vessels also have either a painted design, or a stamped design on the interior base or *fondo* of the vessel. Cross-hatched incised grater bottom vessels common in later Black on Orange types are totally absent from the Tetla ceramic assemblage.

There are only a few examples of vessels with an evenly curving direct rim form. These vessel forms range from an incurving to hemispherical bowl form to a shallow supported bowl form. The decoration is very similar to what has already been described and can be found on the interior or exterior of the vessel wall (Fig. I.3*n–s*).

A single everted rim form was found in the subfloor platform fill of the house (Fig. I.3*l*) and a single olla sherd from the house fill (Fig. I.3*m*).

Thick-Walled Variant

Several of the Black on Orange ware Aztec I sherds, the majority of which were from the Tetla survey rather than the house excavations, were thicker than most and had painted black designs which were thicker-lined, more linear in design, and generally less “busy” than those which have just been described (Fig. I.3*t–kk*). Design motifs such as concentric half circles, the horizontal S motif, and the scroll and stepped fret are absent in these ceramics. Designs which are common are straight horizontal black lines with the addition of a single wavy line, irregular dots or splotches in a horizontal row under the rim, and bound vertical and oblique crossed lines. Many of these designs are reminiscent of some of the Coyotlatelco ceramic designs (Rattray 1966). All of the decoration occurs on the interior of the vessels, which are vertical to flaring wall recurved rim or direct rim vessels. A few sherds have worn areas on the interior walls which

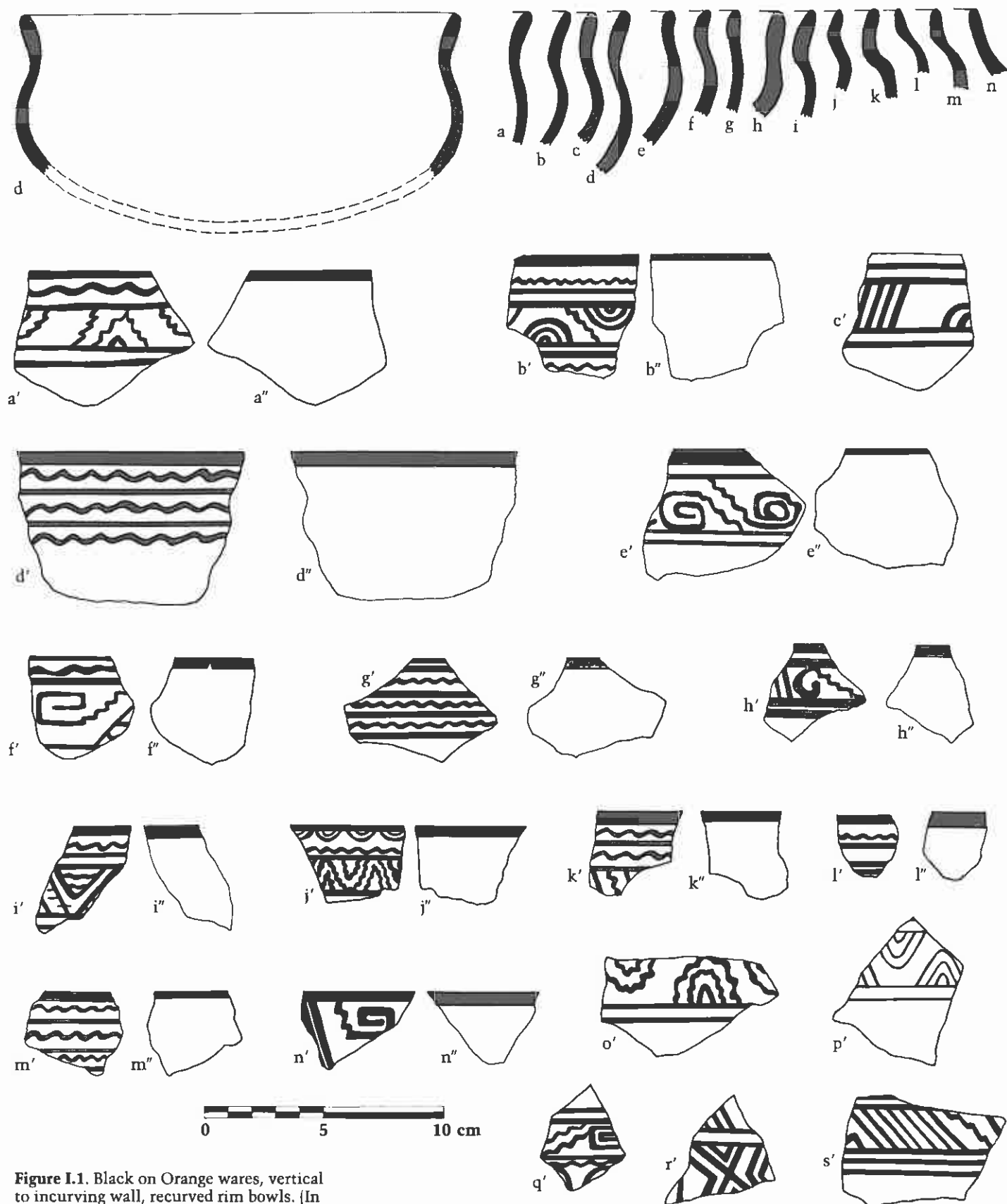


Figure I.1. Black on Orange wares, vertical to incurving wall, recurved rim bowls. [In Figures I.1–I.16, the rim profile of each sherd is identified by a letter, such as *a*; the exterior view of sherd *a* is labeled *a'* and the interior view, *a''*.]

Table 1.1. Sherd and Rim Totals from Tetla-11 House Area Excavations

Ceramic Ware	Sherd/Rim Quantities by Vessel Form			Totals
	Olla	Bowl	Comal	
Black on Orange	1/0	78/45		79/45
Polished Red				
Plain Polished Red		238/118		238/118
Black on Red		88/58		88/58
Graphite-Black on Red		57/30		57/30
Black and White on Red		18/9		18/9
Graphite-Black and White on Red		0/0		0/0
White on Red		4/1		4/1
Black and White and Orange on Red		1/1		1/1
White-Slipped Orange Ware Polychromes		25/18		25/18
Red on Burnished Buff	5/0	62/26		67/26
Black on White	10/2	1/1		11/3
Brown-Banded Orange-Slipped		12/6		12/6
Brown or Orange-Slipped Utilitarian	4,708/153	1,238/230	624/97	6,570/480
Unslipped Burnished	766/6	631/112	4/4	1,401/122
Tetla Coarse	No data	No data	No data	2,654/131
Mica Tempered Coarse	7/0	8/0		15/0
Eroded, unidentifiable	No data	No data	No data	4,972/211

Note: Sherd totals shown include rims, which are also tabulated separately.

may indicate that they were once grater bowls. This variant may have a different temporal or spatial significance from the majority of the Black on Orange ware sherds at Tetla.

Polished Red Ware (406 sherds/ 217 rims; Fig. 1.4)

It is well accepted that Polished Red ware, with its defined types of Black and/or White on Red, is a significant ware in the Aztec ceramic assemblage. At the same time, very little is known about its temporal depth or geographical and cultural origins.

Tetla Polished Red ware is most similar to the Red ware described by Jeffrey Parsons from the Oxtotitlac excavations in the Teotihuacan Valley. Oxtotitlac Red ware is characterized by "thick walled bowls, often with somewhat recurved rims, with a high proportion of polished black interiors" (Parsons 1966: 277). Parsons considers this material to be predominantly Hueixtla phase, which corresponds temporally to Griffin and Espejo's Culhuacan phase (1947; 1950) and José Luis Franco's I and I-II phases (1949). It is emphasized that the Tetla Polished Red ware discussed here was found in clear association with unmixed Aztec I phase Black on Orange ware, just described, and I believe it serves as a valid definition of Red ware during the early phase of the Aztec ceramic se-

quence southeast of the Basin of Mexico. Polished Red ware comprises 68.2 percent of the decorated ceramics at Tetla, but only 2.5 percent of the total ceramic assemblage.

Definition

In most cases a thick, highly polished dark red slip (7.5R4/8, 3/4–8; 10R3–4/6) has been applied to both interior and exterior vessel surfaces. Occasionally, the lower portion of the vessel exterior is unslipped and burnished, with burnishing streaks still visible. The dark red slip fired to a reddish brown color (10R3–4/3–4; 2.5YR3–4/2–6) in 8 percent of the Tetla sample. Decoration consists of black and/or white painted geometric or curvilinear designs on the red slip, with an occasional addition of an orange to yellow (2.5YR6/6; 5YR6/6) paint. An engraved decoration is sometimes found to accompany a painted black decoration, but independent of, not outlining, the painted design. The clay fires to a grey or light brown (5YR5/3; 7.5YR6/4) or reddish brown (2.5YR4–6/4–6; 5YR5/4), often leaving a grey-black central core. The paste is fine-textured with sparse fine-grained sand temper. Small air pockets visible in clay suggest that a fibrous temper may also have been used.

Polished Red ware vessels are most often flat-based and round-sided bowls with a curving wall-base juncture. These simple bowl bases are often dimpled,

with a circular raised area in the center of the interior base. Both direct and recurved rim forms are common. The rim is often slightly thickened, then tapered up to the lip. Total vessel height, as seen from the few partial vessels, is from 5 to 9 cm. Flat-based vessels with either direct or recurved rim forms are usually tripod support vessels. Both the solid zoomorphic support and the hollow globular support are common at Tetla. Mouth diameter ranges from 12 to 28 cm with the most common vessel size between 20–24 cm. Vessel wall thickness ranges from 4 to 9 mm with a modal thickness of 6–7 mm.

Tetla Polished Red ware was typed according to painted decoration. Two types of black paint occur, a plain matte black and a greyish, graphitic (specular) black. White and orange painted decorations are also found, but not in great quantity.

Plain Polished Red Type (238 sherds/118 rims; Fig. 1.4a–p)

The first type is the basic, undecorated Polished Red ware described above. Some of the sherds included in this type are surely fragments of the decorated vessels which had no decoration on the part of the vessel from which these sherds came. A nearly complete vessel with a dimpled and raised base and other large undecorated rim sherds support Plain Polished Red as a valid type. Rim forms are mostly direct, but recurved rims

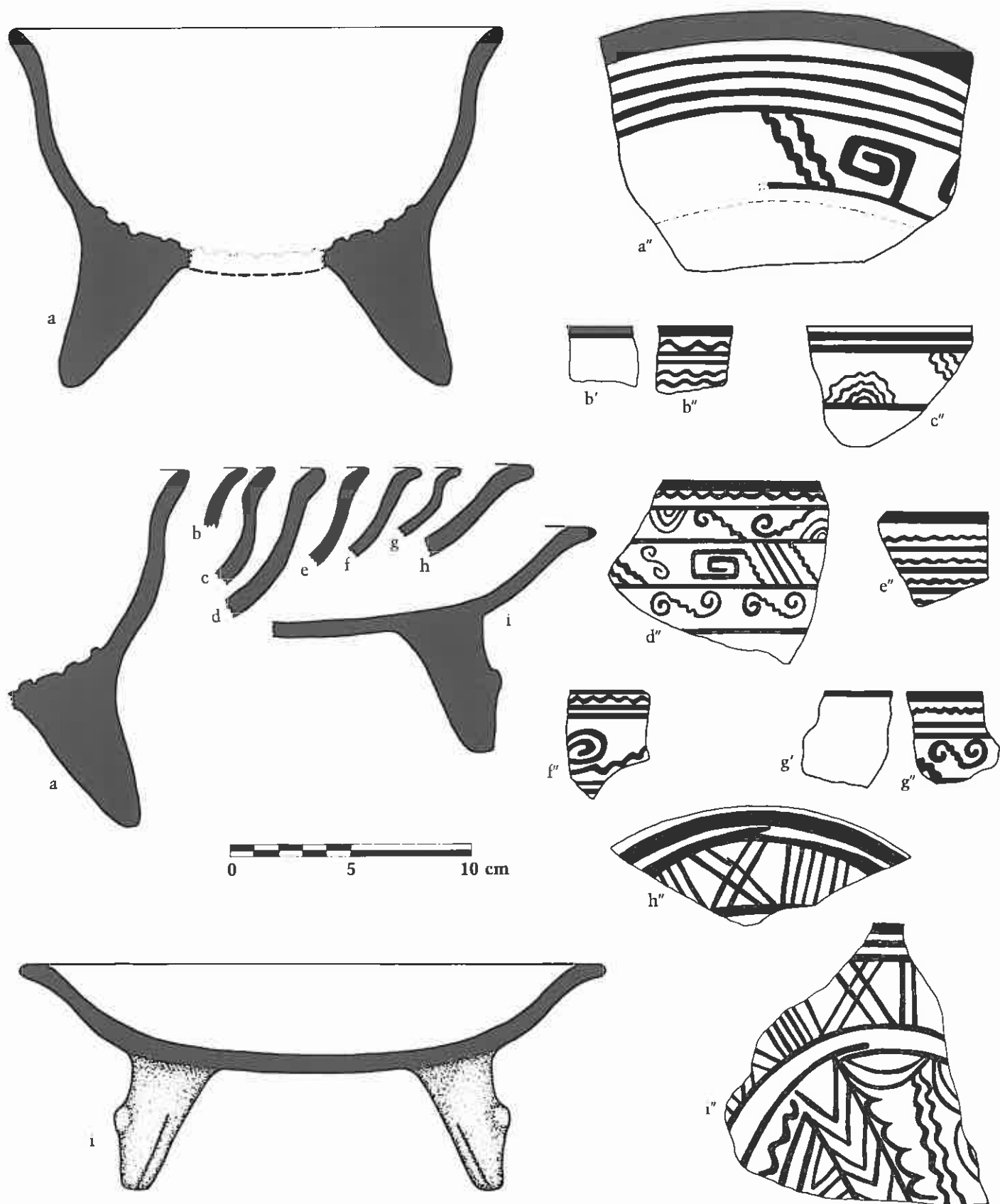


Figure I.2. Black on Orange wares, vertical to flaring wall, recurved rim bowls.



Figure 1.3. Black on Orange wares: *a–k*, interior designs; *i–k*, stamped interior bases; *l*, everted rim; *m*, olla sherd; *n–o*, evenly curving direct rim bowls; *s*, stamped interior base; *t–kk*, thick variants recovered in survey.

comprise more than one-third of the sample. Included in this type are several support forms: solid zoomorphic, hollow globular, mammiform, and conical.

Seven Plain Polished Red sherds have exterior engraved designs. Although classified as Plain Polished Red, all are actually considered to be portions of decorated Black or Graphite-black on Red vessels. These engraved sherds are very small, and none are rims or bases, where the black painted decoration generally occurs.

Black on Red Type (88 sherds/58 rims; Fig. 1.4q-ee)

The Black on Red type is defined by a painted black decoration (10R2/1; 2.5YR2/0-2; 5YR2/1; 7.5YR2/0) on the red-slipped surface. This black decoration is painted in 8-20 mm wide horizontal bands along the rim, the basal break, or the raised interior of a dimpled base. Or, as in the case with the Oxtotitpac sample, the entire interior surface may be painted black. This simple decoration is sometimes accompanied by painted geometric or curvilinear designs, or simple engravings such as a repeating vertical hook or parallel horizontal wavy lines. Vessel forms are shallow to hemispherical bowls with an occasional dimpled base. Rims are generally direct with some slightly thickened, then tapered lips. Recurved rim forms are present, but scarce. No supports are known to belong to this type.

Graphite-Black on Red Type (57 sherds/30 rims; Figs. 1.5-1.7)

According to an analysis by the Illinois State Geological Survey, the black-painted decoration of this type is graphite. The color of this paint is a lustrous dark steel grey (7.5YR3-4/0) and looks like heavy pencil shading. The painted decoration of this type is much the same as that of the Tetla Black on Red type, simple parallel banding and curvilinear designs. Vessel form is much the same, with the addition of plate forms with zoomorphic, slab, and hollow supports and a slightly higher frequency of recurved rims (Fig. 1.6). Engraving is most common on the Graphite-Black on Red type and is often the repeating vertical hook design on the wall of the vessel exterior (Fig. 1.7).

Black and White on Red Type (18 sherds/9 rims; Fig. 1.8a-o)

A black and white decoration, sometimes complex geometric and curvilinear designs, was applied most often to the exterior of shallow or hemispherical

bowl forms. The interior of these vessels was sometimes left unslipped and burnished, a natural clay color of light brown (7.5YR5-6/4, 2.5YR6/4), or sometimes slipped black (2.5YR2/0). A single rim form from the house excavations is recurved, while the remaining rims are direct. The additional rims from Tetla are consistent with this latter form.

Graphite-Black and White on Red Type (no sherds from excavations; Fig. 1.8p-q)

Two sherds from the surface survey near the ball court have exterior painted decorations of complex linear and geometric graphite-black and white designs. The only rim form (Fig. 1.8p) is from a vertical wall recurved rim vessel with a mouth diameter of 18 cm. The interior of this vessel is plain, polished red, while the interior of the body sherd (Fig. 1.8q) shows a portion of a large, thin-lined quadrangular scroll motif painted in specular black paint on red.

White on Red Type (4 sherds/1 rim; Fig. 1.8r)

The single rim form is a shallow bowl with a direct rim which is slightly bolstered, then tapered to the lip. The decoration occurs on the vessel exterior.

Black and White and Orange on Red Type (1 sherd/1 rim; Fig. 1.8s-z)

One shallow bowl rim from the house excavations has painted orange and black decoration over the red slip (Fig. 1.8s). A resist technique was used to leave the red background showing as if it were the actual painted design on an orange surface. The rim form is direct, with a bolstered, then tapered rim. There are two rims from near the ball court which have an orange painted decoration incorporated within the black and white design on the vessel exterior (Fig. 1.8t, u). One rim, a shallow direct rim bowl, has an undecorated dark reddish brown interior (2.5 YR 3/4) and a paneled horizontal S motif in rows of alternate white and pinkish orange (2.5YR6/6) designs (Fig. 1.8x). The other rim also has an undecorated, but unslipped interior (7.5YR5/4). The exterior design uses the orange (5YR6/6) to shade a portion of a stepped fret design. This second rim form is also direct and is from a hemispherical bowl form (Fig. 1.8v).

Other (2 partial vessels; Fig. 1.9)

Tetla strata pit excavations several meters to the southwest of the house uncovered the remains of a cremation burial in a small shallow bowl with a black painted interior and an undecorated pol-

ished red exterior. Covering the cremation vessel was one-half of a mammiform-supported Polished Red plate with a resist feathered-serpent motif on the interior base and rim.

White Slipped Orange Ware Polychromes (25 sherds/18 rims; Fig. 1.10)

Only a few examples of White-Slipped Orange ware polychromes were found at Tetla. Some show close similarities in both form and decoration to Noguera's Cholula *polícroma firme* (1954:122-136, Pls. 122, 126, no. 3, 129, no. 1) and, to a lesser degree, to George C. O'Neill's Chalco polychrome and Orange Rubbed ceramics (1962:64-81), while others show few similarities to either. There are also no clear-cut paste or temper distinctions within this group of Tetla polychromes.

Definition

A white slip was applied over a smoothed or burnished orange clay surface. A polychrome design of orange, red, maroon, and brown and/or black was painted on the white slip and covered with a thin yellow *laca*-like finish. Vessel forms are shallow to hemispherical bowls and supported plates. The paste is fine and hard with sparse temper to slightly crumbly with moderate amounts of sand temper.

The examples which resemble the Cholula and Chalco polychromes are primarily open bowls, one with a raised area in the interior base, or supported plates. The white slip covers most of the vessel, and the painted decoration geometric or banded vertical lines on the interior vessel walls and curvilinear on the interior base (Fig. 1.10a-f). Two hemispherical bowls with maroon-painted rim bands and another hemispherical bowl resemble the surface treatment described by O'Neill for his Orange Rubbed ceramics where the white slip appears to be rubbed into the self-slipped orange paste of the vessel, giving a streaky appearance to the surface (Fig. 1.10g-i).

Examples illustrated in Figure 1.10j-u do not particularly resemble any polychromes described by either O'Neill or Noguera. These vessels are primarily hemispherical bowls, and all examples but one have their only decoration just under the rim on the vessel exterior. The vessels are predominantly the burnished orange color of the clay, and vessel interiors are often streaky black or streaky cream-colored. Las Pilas collections contain similar ceramics (Michael E. Smith,

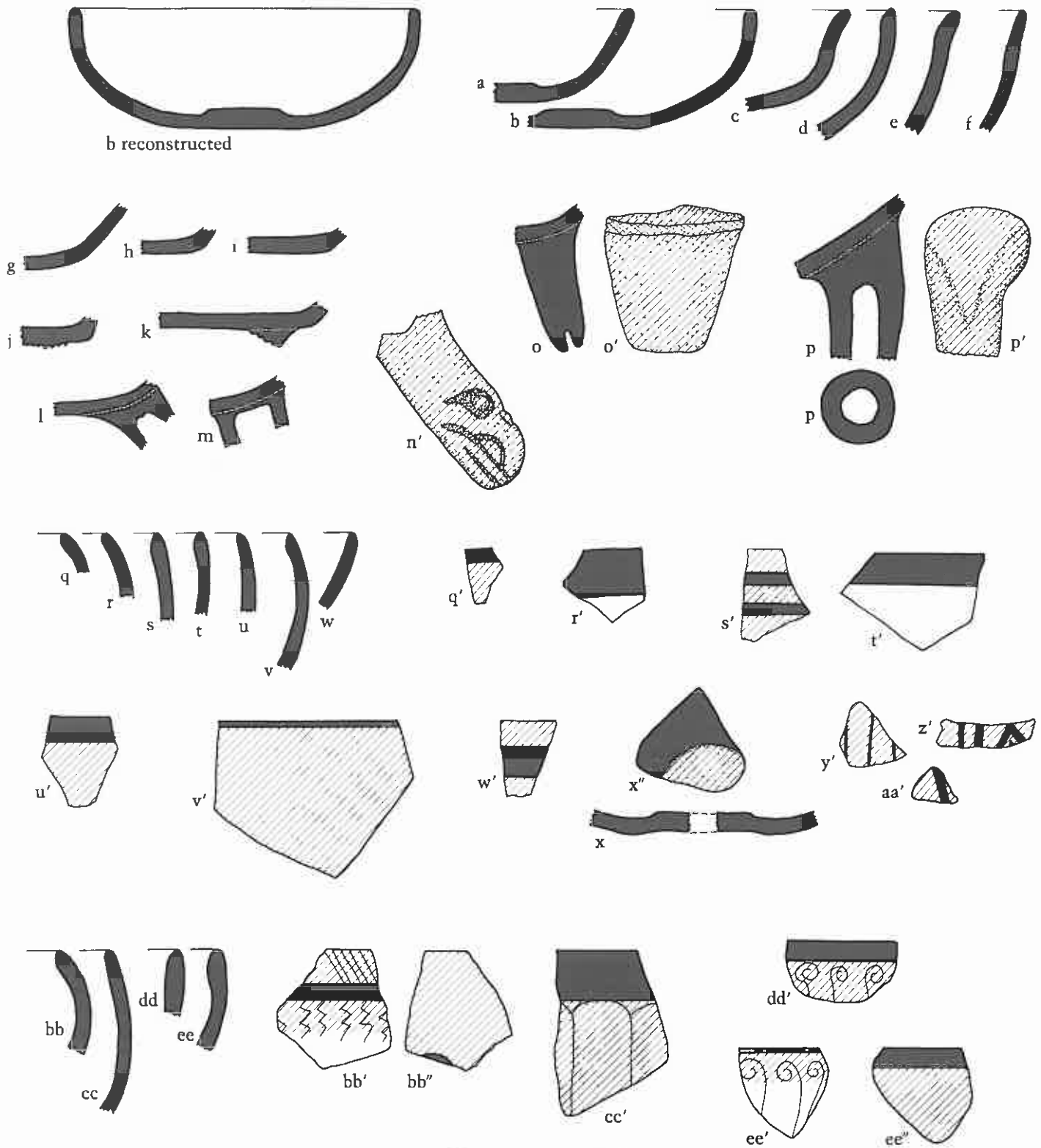


Figure I.4. Polished Red wares: *a-p*, Plain Polished Red; *q-aa*, Black on Red; *bb-ee*, Black on Red engraved.

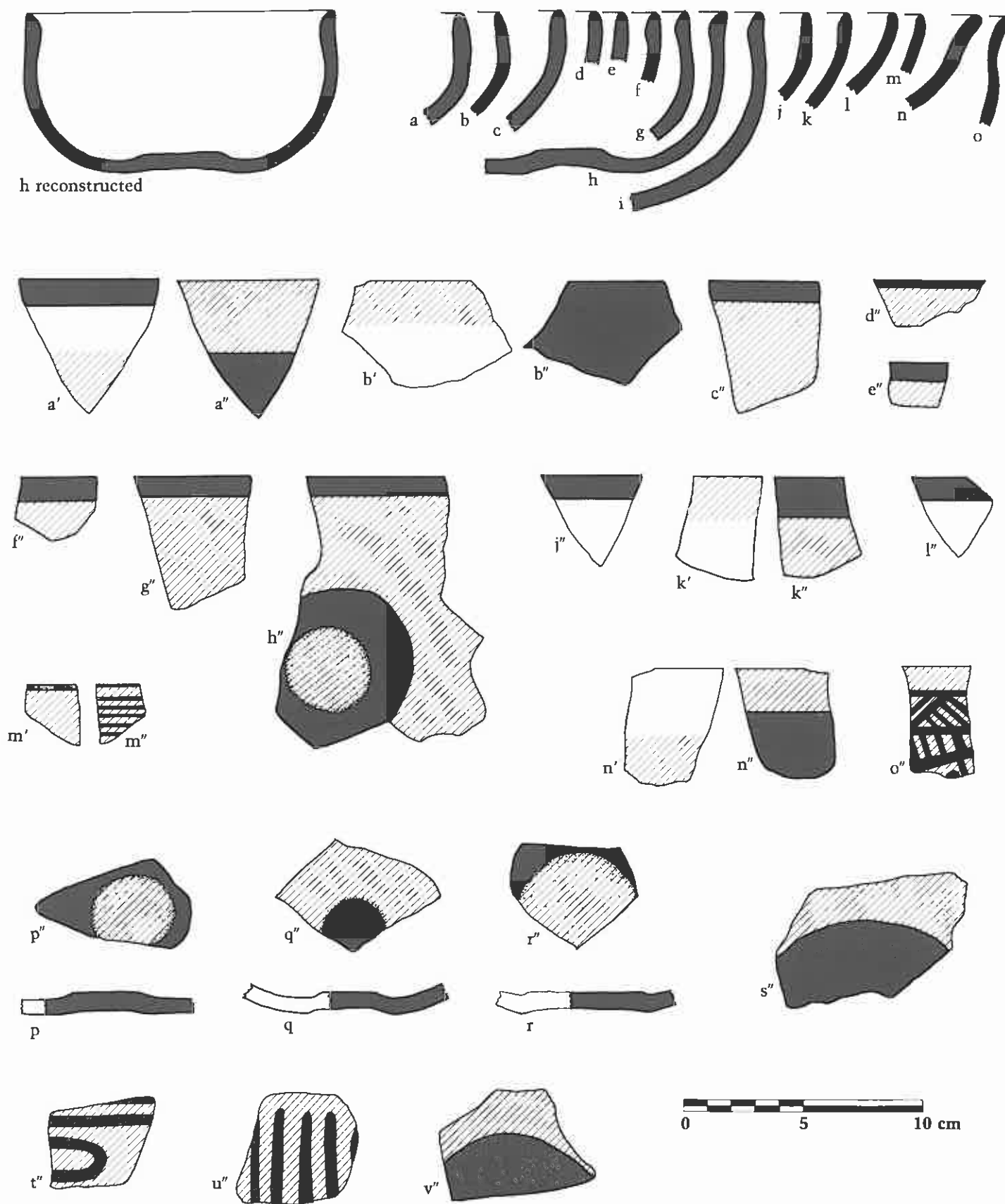


Figure I.5. Polished Red wares: Graphite-Black on Red bowls.

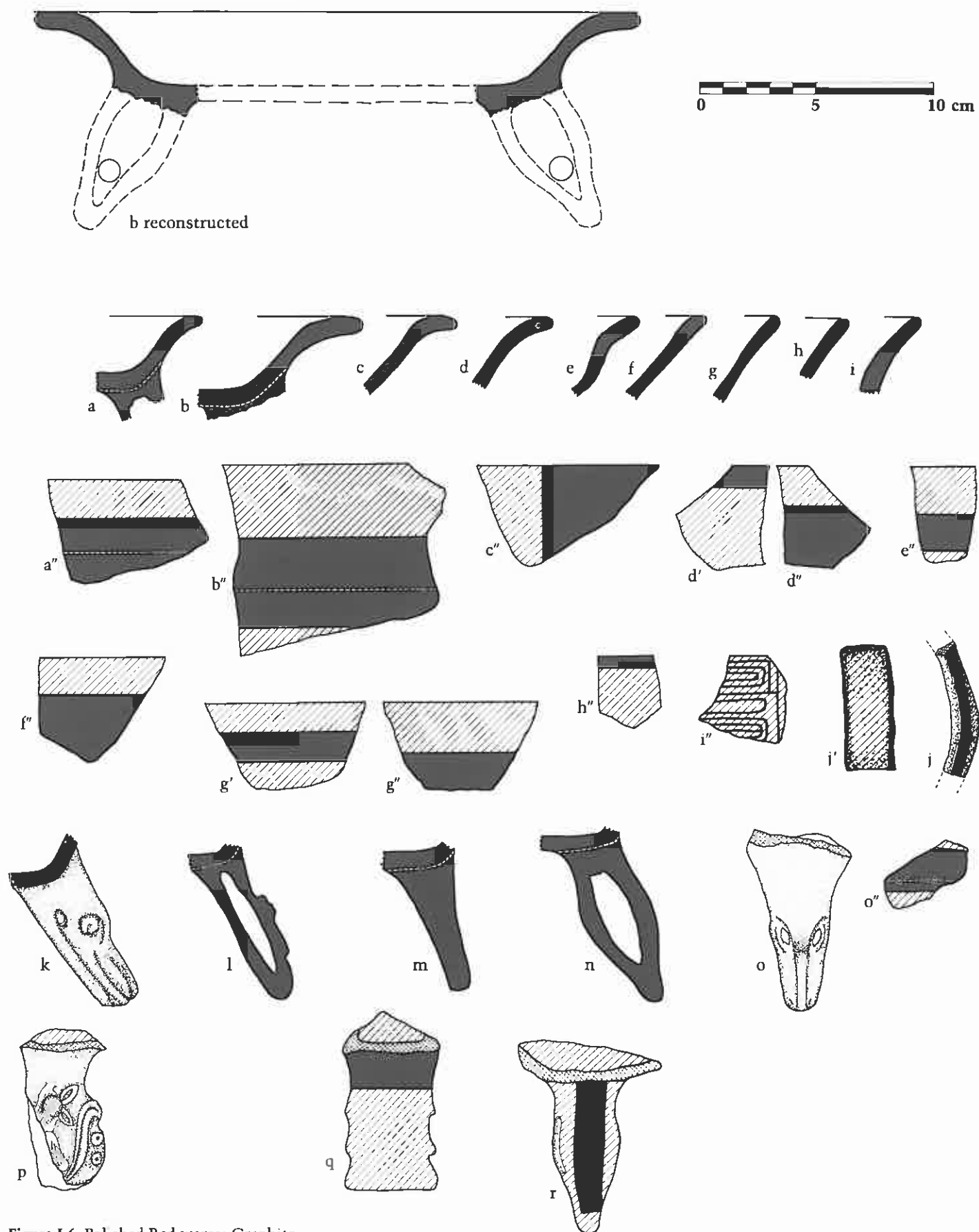


Figure I.6. Polished Red wares: Graphite-Black on Red plate forms.

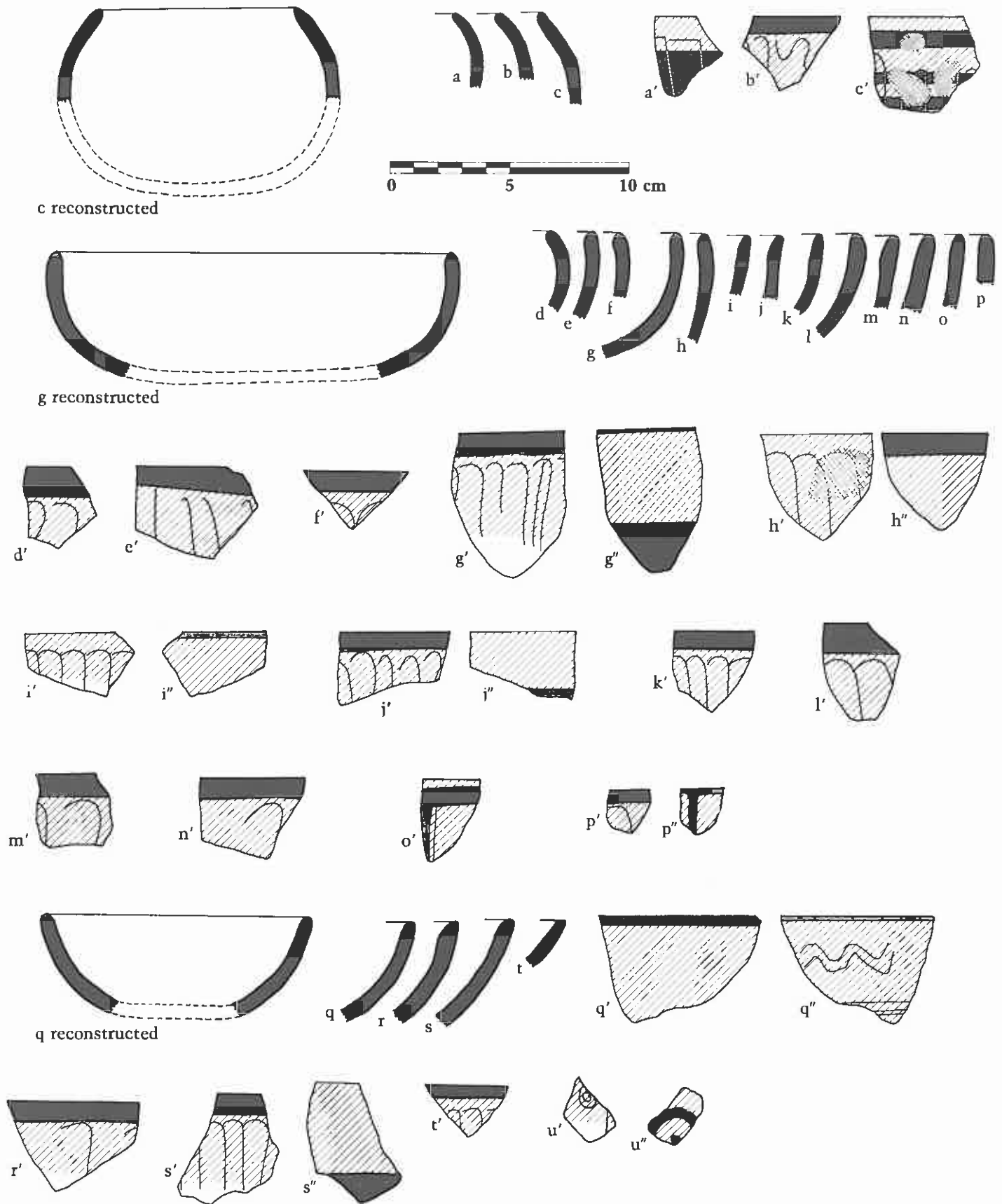


Figure I.7. Polished Red wares: Graphite-Black on Red engraved bowls.

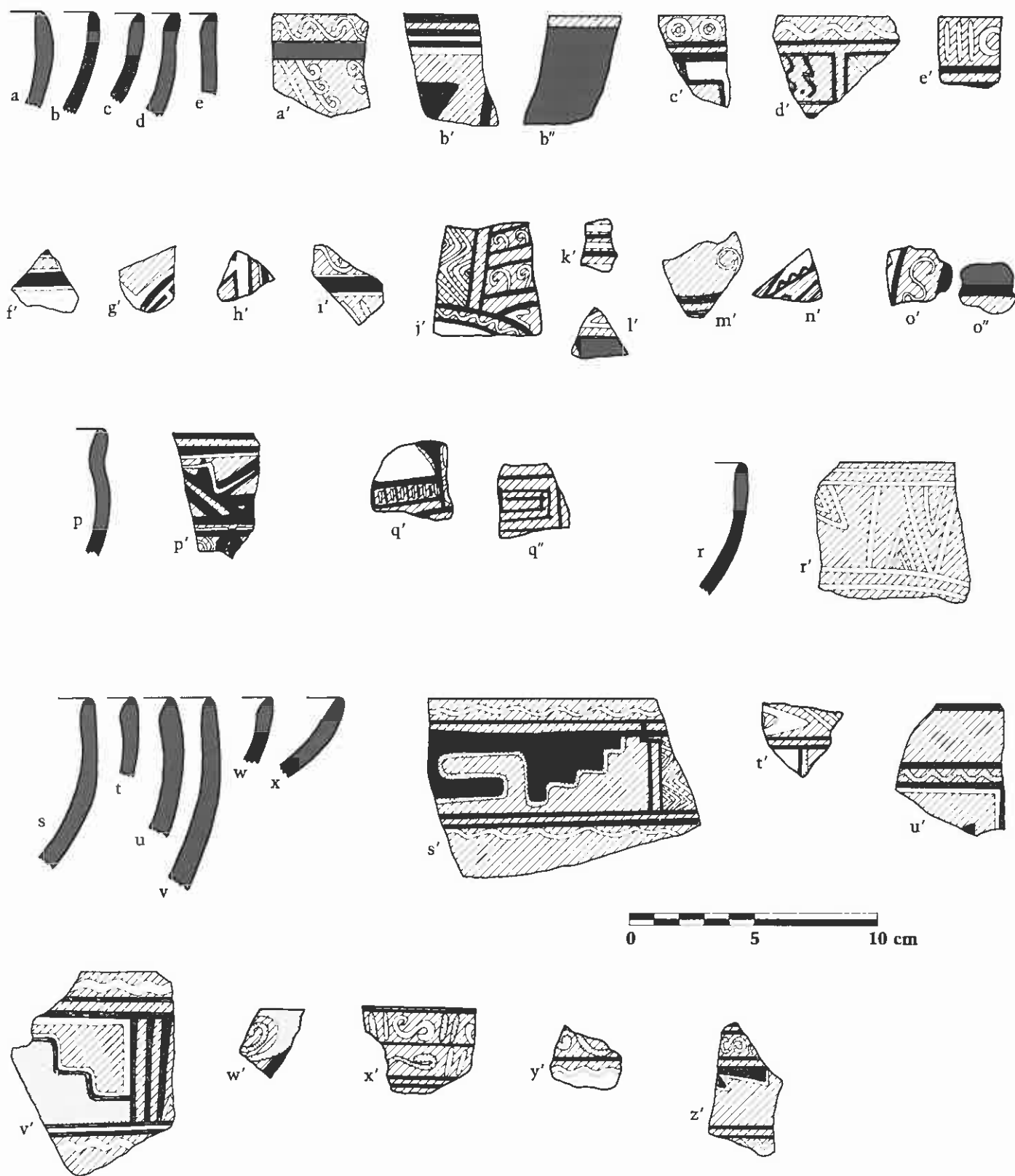


Figure I.8. Polished Red wares: *a–o*, Black and White on Red; *p–q*, Graphite-Black and White on Red; *r*, White-on-Red; *s–z*, Black and White and Orange on Red.

personal communication), and these polychromes may be related to the Tlaluica ceramics of western Morelos, although their association at this time is anything but clear.

Red on Burnished Buff Ware (67 sherds/26 rims; Fig. I.11)

Red on Burnished Buff ware comprises the third most frequently occurring decorated ware at Tetla, 10.4 percent of the decorated ceramics. These ceramics at Tetla are nearly identical to those found at Culhuacan by Séjourné (1970:35, Figs. 27, 27A) in Aztec I and II contexts. By all indications, at Tetla these ceramics are also a genuine component of the early Aztec ceramic complex and not simply a result of mixing with earlier levels.

Definition

A Red (7.5R3-4/6, 3/8, 10R4/6) slip or painted decoration was applied over a light brown (5YR6/3, 7.5YR6/2-4) unslipped burnished surface. The painted decoration is generally in horizontal straight or wavy lines on the interior wall and base and nearly always found on the interior and exterior lip of the vessel. The zoned incised examples (Fig. I.11 a-p) have geometric areas delimited by incisions and filled in with red on the unslipped burnished surface of the exterior of the vessels. The interiors of these zoned incised sherds are consistently solid red.

The bowl vessel forms for both types are predominantly vertical to flaring straight and slightly curved wall bowls with flat to nearly flat bases. Hollow supports and solid anthropomorphic supports (Fig. I.11q-t; MacNeish, Peterson, and Flannery 1970:Fig. 111) are present. A sherd with a fragment of a raised bottom was also found.

Black on White Slipped Ware (11 sherds/3 rims; Fig. I.12)

Definition

A dark reddish brown to black (2.5YR 4/4, 5YR2-3/1-2) design of linear, curvilinear, and geometric motifs is painted on a poorly smoothed and unevenly slipped creamy white surface (10YR8/3, 7/4, 7.5YR8/2, 7/2-4, 5YR6/4). The sherds are mostly olla fragments. Decoration occurs on both the interior and exterior of the olla rims and only in the interior of the shallow dish rim form. A bowl basal fragment from the ball court area may be a portion of a grater bowl. The paste is light brown to light red (7.5

YR6-7/4, 10YR7/3, or 2.5YR6/8) and sometimes has a dark grey core. The vessel walls are from 5 to 8 mm thick, and the clay is heavily tempered with predominantly black sand, giving the sherds a coarse, crumbly texture.

This ware is not at all like the fine-paste Black on White Huasteca ceramics described by Parsons (1966:276-277) which occur in the Teotihuacan Valley Aztec ceramic sequence. No other discussion of a Black on White ware in an Aztec context could be found in the literature. A relationship to the Tlaluica Black and Red on White and Orange is possible, but seems unlikely when one compares the differences in vessel form, pastes, and quality of manufacture. The Las Pilas collections in the

Palacio de Cortez, Cuernavaca, have examples of a Black on White slipped ware which seem to be the same ceramic ware as the Tetla samples. Xochipala, Guerrero, surveys have also produced a fair amount of a similar ware (Paul Schmidt, personal communication).

Brown-Rimmed Orange-Slipped Ware (12 sherds/6 rims; Fig. I.13)

A minor decorated ceramic ware at Tetla, only 2 percent of the decorated ceramics, the Brown-Rimmed Orange-Slipped ware may actually be only a variant of the Brown- or Range-Slipped Utilitarian ware, whose description follows this one. The paste of the small sample of Brown-Rimmed Orange-Slipped ceramics appears distinctly finer in texture and

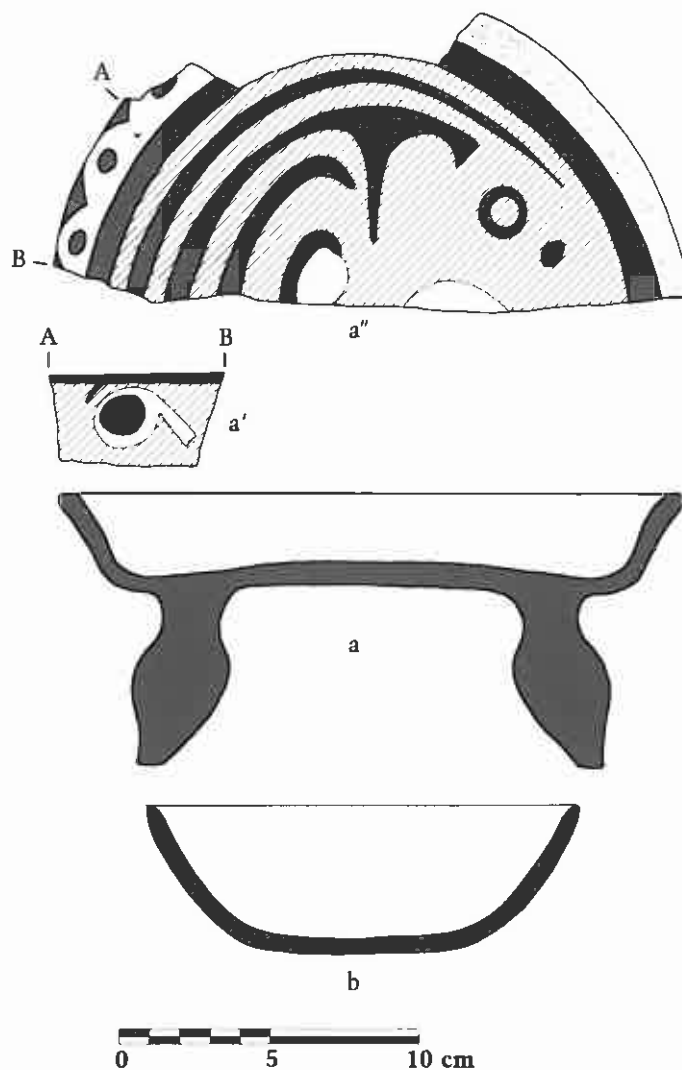


Figure I.9. Vessels associated with a burial: a, Polished Red plate; b, Black on Red bowl.

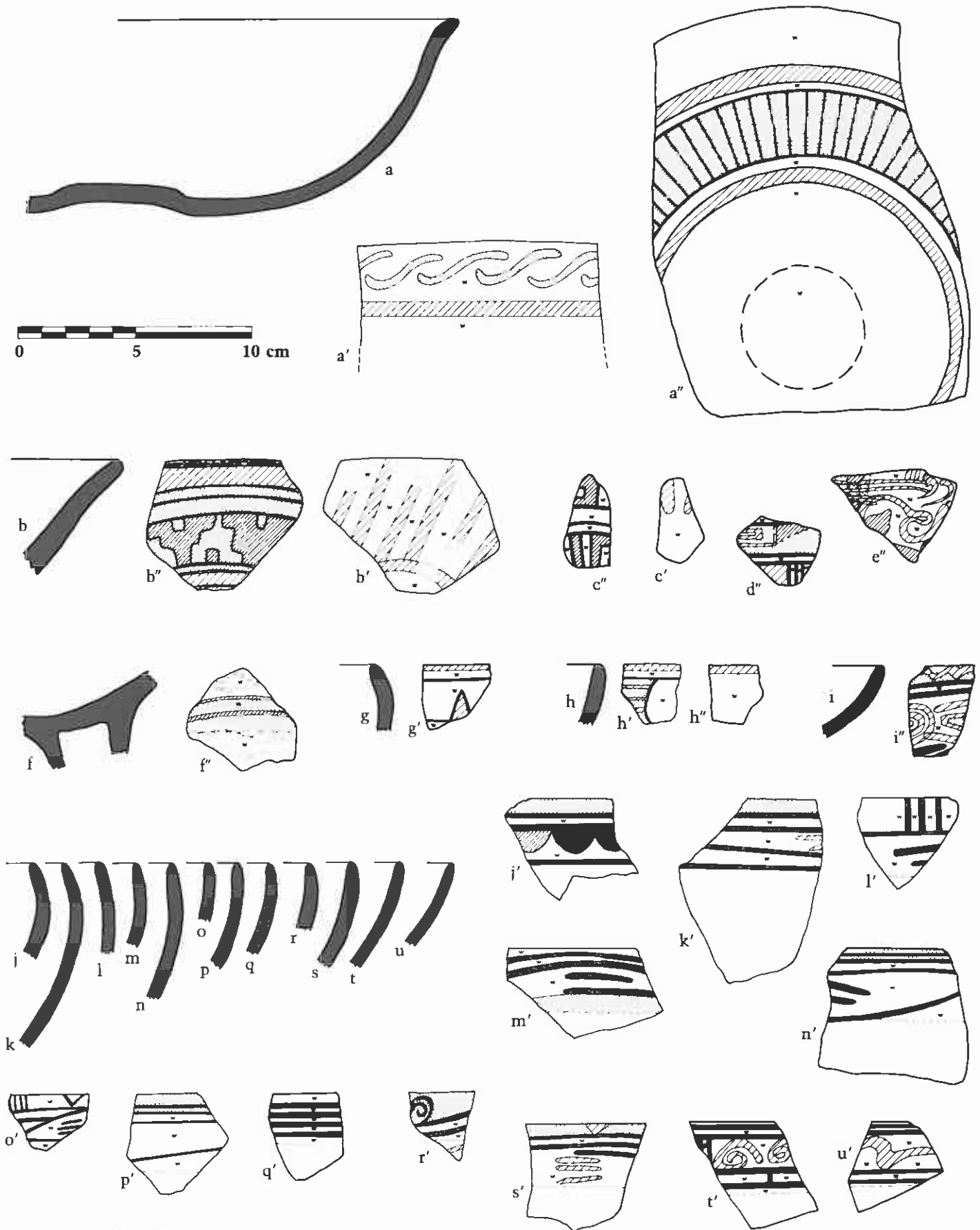


Figure I.10. White-Slipped Orange ware polychrome bowls.

lighter in color, and the slip is consistently at the lighter and brighter orange end of the color scale of the Brown- or Orange-Slipped Utilitarian ware.

Definition

A thinly applied orange slip or wash (5YR5-6/8) and brown (5YR4-5/4) rim band, as well as a fine and porous yellow (10YR8/6 and 7.5YR8/6) paste, are characteristic of the few examples which have been identified at Tetla. Small bowls with a rim diameter of around 10-12 cm and a curving basal break are the only known form.

Brown- or Orange-Slipped Utilitarian Ware (6,570 sherds/480 rims, 1 whole vessel; Fig. I.14)

A brown- or orange-slipped ware comprised of mostly utilitarian vessels is the predominant ceramic ware at Tetla, making up 40.5 percent of the total Aztec I phase ceramic assemblage.

Definition

A reddish brown (2.5YR2-4/2-4, 3/6; 5YR2-4/2-8) or an orange (5YR5-6/6-8; 7.5YR5-6/6-8) slip was applied to nearly all smoothly finished vessel surfaces. The slip, in some cases, is sufficiently burnished to give the surface a slight luster. The paste is light yellowish brown (7.5YR7/6), porous, sandy, and sometimes crumbly. Vessel wall thickness ranges from 4 to 13 mm with most of the vessels falling between 6 and 9 mm.

Ollas (4,708 sherds/153 rims, 11

handles; Fig. I.14a-v)

The Tetla ollas are necked jars with a globular to slightly shouldered body form and one of two basic neck configurations: upright or flaring. Flaring-neck ollas are defined by a sharp break between the body of the olla and the flaring neck. Approximately one-fourth of all Tetla ollas are of this form (Fig. I.14a-h). The angle of the flaring neck varies only slightly and is generally greatly flaring at an angle of 70 to 90° from the olla body. Vessel wall thickness is greatest at the neck-body juncture and ranges from 9 to 16 mm. Vessel body thickness ranges from 5 to 8 mm. The interior neck surface is slipped and burnished to or just below the neck-body juncture. The remaining interior surface is unfinished, as is typical of Mexican ollas. Mouth diameter ranges from 16 to 24 cm.

The upright-neck ollas (Fig. I.14i-r) have either a direct, everted, or beveled rim form and an evenly curving neck-body juncture. The direct rim is by far the most common. Upright-neck ollas

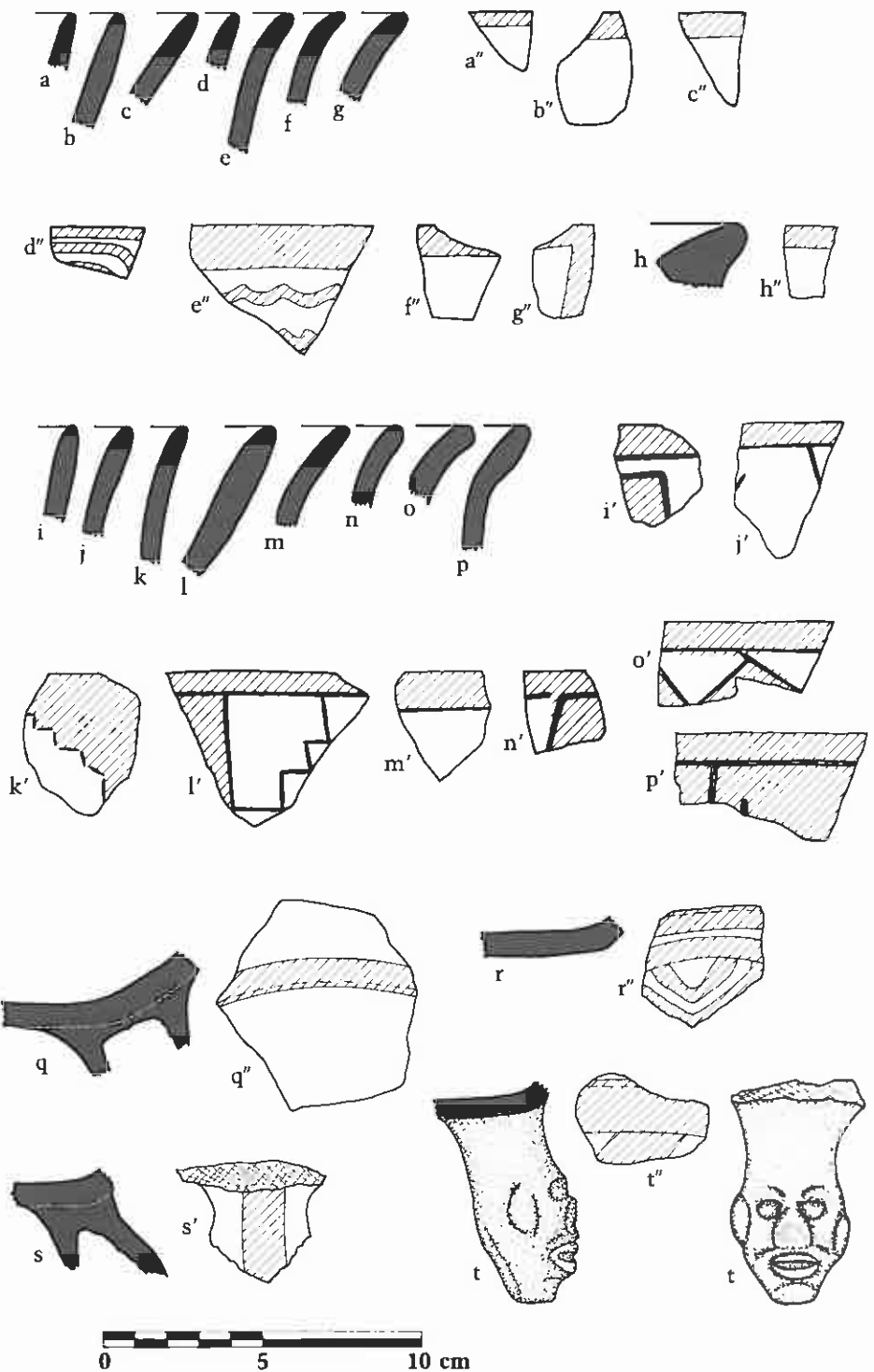


Figure I.11. Red on Burnished Buff wares.

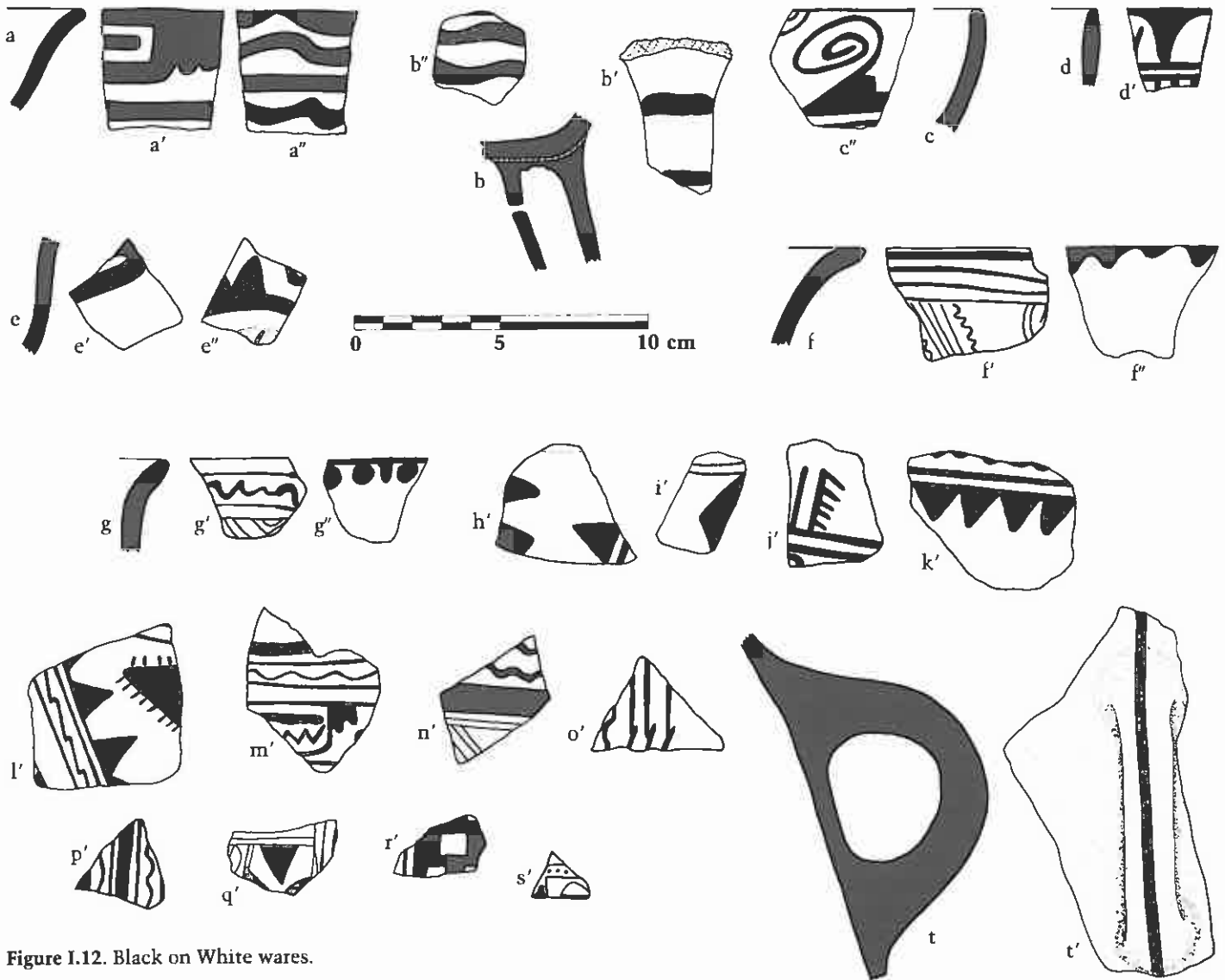


Figure I.12. Black on White wares.

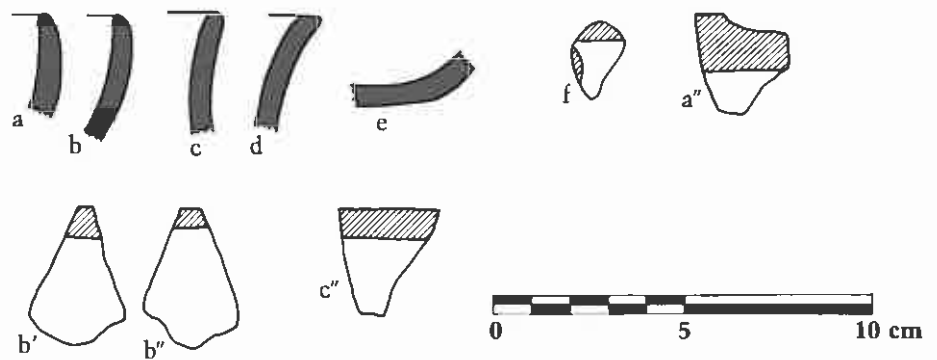


Figure I.13. Brown-Banded Orange-Slipped wares.



are heavy-walled with a modal wall thickness of 8–11 mm. Mouth diameters are equal to or much larger than those of the flaring neck ollas, and range from 12 cm up to 44 cm. Interior neck surfaces are slipped and burnished, as in the exterior, while the body interior is left unfinished.

Only eleven handles or handle fragments were uncovered. Olla handles were not found to be attached vertically to the rim, as is the case in the collections from the Teotihuacan Valley (J. Parsons 1966: Figs. 65, 66). Strap handles which were found in the Tetla collection (Fig. I.14s–u) appear to have been placed vertically on the olla body near the neck-body juncture of upright-neck ollas. A double-nubbin form of lug (Fig. I.14v) is attached to one olla body sherd and may be a basal vessel support or a shoulder lug handle.

Comales (624 sherds/97 rims; Fig. I.14w–jj)

The entire *comal* interior and the upper exterior rim surfaces are slipped and burnished. The lower exterior surface is rough and unfinished. It is difficult to get an accurate measurement of a *comal* rim diameter when the sherd is small and the diameter is large. From a small measurable sample, the *comal* diameters at Tetla range from 28 to 44 cm. Rim forms are simple, either straight, direct, or flaring. Two unusual rim forms are also illustrated (Fig. I.14ii, jj).

Bowls (1,238 sherds/230 rims; Fig. I.14kk–jjj)

With the exception of one direct rim hemispherical bowl fragment (Fig. I.14tt), bowl rims of this ware were broken fairly close to the rim so that vessel form was difficult to determine. Rim forms are both direct and recurved with vessel mouth diameters ranging from 12 to 24 cm. Some of the direct rim fragments appear to be straight-walled and flaring, and may be plate fragments. The bowl basal fragments are all flat with straight walls. No complete rim-base profiles were found intact. Recurved rims are either flaring or vertical, and these vessel forms, as well as plate forms, may have been supported. As is the case with the Black on Orange Ware, unslipped burnished supports which may have been attached to a slipped or decorated vessel have all been included with the plain, Unslipped Burnished ware. There is one example of a *molcajete fondo sellado* (stamped grater bottom; Fig. I.14ijj) with a portion of a hollow

support still attached which by definition of paste and surface treatment does not seem to be simply an undecorated Black on Orange ware sherd.

Colanders or Incensarios (8 sherds; Fig. I.14kkk–lll)

Several small perforated sherds, either colander or *incensario* sherds, were found. These Tetla examples have either triangular or round perforations.

Shoe-Pot (1 complete vessel; Fig. I.14mmm; Fig. 25.5)

A small ceremonial shoe-pot was found under the stucco floor near the domestic shrine portion of Room C. The mouth diameter of this vessel is 10 cm, and it is 16 cm long from under the single handle to the toe of the extended body. The handle is attached directly from the shoulder of the vessel to the lip of the rim. The toe of the pot is heavily fire clouded from use in a fire.

Unslipped Burnished Ware (1,401 sherds/122 rims; Fig. I.15)

The Unslipped Burnished category, based on surface treatment, is inevitably to some degree a catch-all category and surely includes unslipped, undecorated portions of decorated vessels or Classic period wares. However, only nine rims could be considered from rim form to probably be Late Classic and not part of the early Aztec Tetla ceramic assemblage. This ware has considerably more bowl rim forms (by a factor of eleven) than olla or *comal* rim forms (Table I.1), compared to a one-to-one occurrence for the other common utilitarian ware, Brown- or Orange-Slipped Utilitarian, indicating that the common utilitarian bowl form was generally given an unslipped burnished surface treatment while the ollas and *comales* were predominantly brown- or orange-slipped.

Definition

Surfaces range from smoothed to moderately burnished. The waxy surface luster of the unslipped burnished ceramics from the Late Classic is generally not found on early Aztec ceramics. Surface and paste color is varied and ranges from grey (10YR5/1) to light brown (7.5YR 5–6/4 and 5YR6/4) and reddish brown (5YR5/3 and 2.5YR5/4–6).

Bowls are predominantly outcurving wall and hemispherical forms, although many other varied forms also occur. Unslipped burnished vessel supports are either hollow globular or solid effigy forms, and, as mentioned earlier, some may be portions of decorated vessels.

Figure I.14. Brown- or Orange-Slipped Utilitarian wares: a–h, flaring-neck ollas; i–r, upright-neck ollas; s–v, handles and lugs; w–jj, *comales*; kk–jjj, bowls; kkk–lll, colander or *incensario* sherds; mmm, shoe-pot.

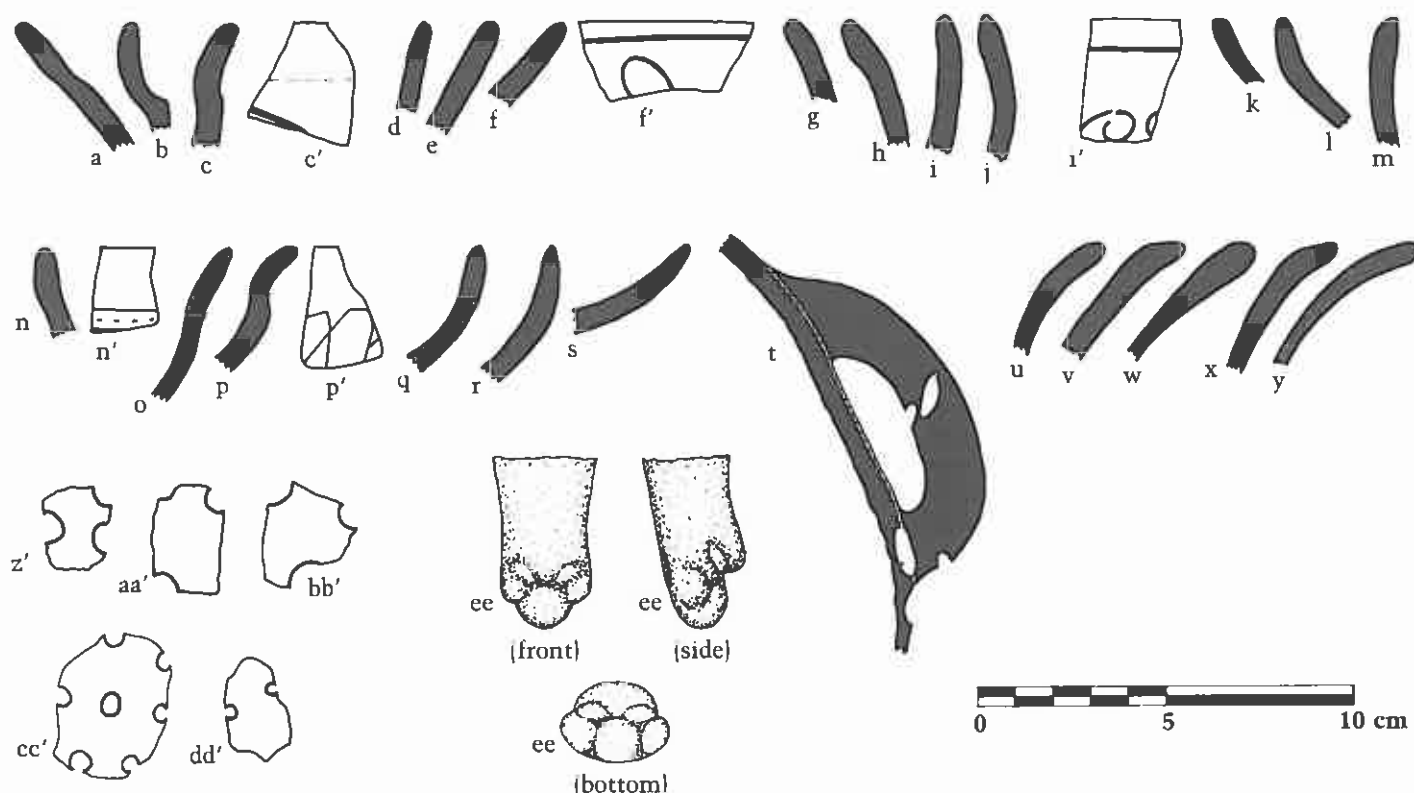


Figure I.15. Unslipped Burnished wares.

Olla rims are vertical, slightly outcurving forms. Colander or *incensario* fragments (five) with small round holes also occur within this ware. Incising is the only form of decoration and is rare.

Tetla Coarse Ware (2,654 sherds/131 rims; Fig. I.16)

Definition

Tetla Coarse ware has been defined by the lack of surface finish, beyond rough smoothing, and a dense, coarse sandy paste. Because of the coarse, unfinished nature of the ceramics, it was difficult to define vessel forms from body sherds (olla vs. bowl vs. *comal*). Many of the recognizable forms were heavy brazier fragments with appliqué, deep punctates, or incised lines (Fig. I.16).

Several of the brazier forms at Tetla are similar to those illustrated by MacNeish, Peterson, and Flannery (1970:Fig. 128) for their Late Venta Salada phase in the Tehuacan Valley.

Mica Tempered Coarse Ware (15 sherds/no rims)

Mica Tempered Coarse is obviously a minor coarse ware but significant in that the mica (or other foliated metamorphic rock) temper is not found in the vicinity of Chalcatzingo. This is thus probably a non-local ware.

Definition

A thinly applied brown or orange slip covers the exterior olla and both interior and exterior bowl surfaces. Pieces of a foliated metamorphic rock, such as a mica or a talc schist, have been added to the dense paste as temper. Both olla and bowl body sherds were found. One olla body sherd had a single line of exterior incising or grooving.

Eroded (4,972 sherds/211 rims)

Sherds were put into the Eroded category when the distinguishing characteristics of surface treatment and paste texture had been sufficiently destroyed to prohibit their classification. A total of 30.6 percent of the Tetla Aztec I ceramic assemblage was so classified.

SPINDLE WHORLS

Tetla Type A Spindle Whorl (63 specimens)

The Type A whorl is small and lightweight, comparable to the Type III whorls from the Teotihuacan Valley and the Texcoco region. The Tetla whorls are varied in form: conical and truncated conical, semispherical, cylindrical, and composite silhouette. The maximum whorl diameter ranges from 18 to 42 mm and the weight from 3 to 28 gm. Whorl surface treatment is nearly as varied as form. The clay was either smoothed, polished, or slipped to give the whorl a finished surface. The Type A whorls include decorations which are incised or mold-made, or they are undecorated.

Type A Incised (24 specimens; Fig. I.17, nos. 1–24)

All incised decoration is on the sides and lower surface of the whorl. The flat upper surface is left undecorated, but the surface is often finished in the same manner as the decorated portion of the whorl. The design is most often rota-

tionally symmetrical and is frequently divided into quadrants. Other decoration includes small punctates or a white or polished red slip.

Type A Mold-Made (21 specimens; Fig. I.17, nos. 25–45)

Whorls with a mold-made design tend to be larger in diameter and slightly heavier than the incised whorls. Mold-made decoration is again only on the bottom and sides of the whorl. There is a strong trend to use design elements such as the quadrangular scroll, concentric half circles, and feather motifs. Other design elements include a kneeling human figure (no. 36) and three or four running animal figures, possibly dogs or rabbits (nos. 30, 35, 42).

Type A Undecorated (18 specimens; Fig. I.17, nos. 46–63)

Most of the undecorated whorls are very small, 18–28 mm in diameter with the largest at 38, and range in weight from 3 to 16 gm. Forms are composite silhouette, conical, and truncated conical. All have polished and unslipped clay surfaces, light brown to light orange in color.

Tetla Type B Spindle Whorl (5 specimens)

The Type B whorl is relatively large and is probably functionally equivalent to Mary Parsons' Type I and II whorls from the Teotihuacan Valley and the Texcoco region. Whorl diameters range from 45 to 54 mm, and weights range from 38 to 52 gm. Whorl designs are either mold-made or incised, and surfaces are smoothed, polished, or slipped.

Type B Incised (3 specimens; Fig. I.17, nos. 64–66)

One example, a truncated conical form, has been thinly slipped dark reddish-brown and polished after the grooved design was made. The design is simple, widely spaced vertical grooves bound by horizontal lines top and bottom (no. 64). The upper surface of the whorl is slipped but undecorated. The second grooved whorl is unslipped and unpolished and has a grooved design of concentric circles on the lower surface and a quadrangular scroll motif bound by vertical lines and concentric circles on the upper surface (no. 65). The third whorl is light tan and has a rectilinear design on the flattened top and no design on the convex lower

surface (no. 66).

Type B Mold-Made (2 specimens; Fig. I.17, nos. 67–68)

Mold-made designs occur on the top, bottom, and sides of both whorls in this category. Design motifs consist of the quadrangular scroll, concentric half-circles, and feathers. Whorl surfaces are unslipped, and one whorl appears to have been polished after molding. The whorls are cylindrical and truncated conical in form.

LITHICS

No formal lithic analysis has been performed on the Tetla lithic artifacts, and only descriptive information can be presented here. Obsidian comprised only 55 percent of the lithic material recovered, in contrast to Paul Tolstoy's (1971b) figures of 80–95 percent for the Valley of Mexico. The remaining 45 percent is predominantly white chert. Green and grey-black obsidian were found to occur in nearly equal quantities, a 6:5 ratio, with little preference to tool type. Unretouched blades, flakes, and cores make up 96 percent of the total lithic collection. The remaining 4 percent includes projectile points, bifaces, scrapers, eccentrics, and worked blades (Table I.2).

Projectile Points

Most of the Tetla projectile points are made of either grey-black obsidian or white chert; two examples are of green obsidian. Three distinct forms and four types are definable from the whole or nearly whole points. As did Tolstoy (1971b), whenever possible, I have followed the Suñer and Krieger typology of Texas. Eight points are side-notched, one is broad-stemmed, and another is contracting-stemmed.

Side-Notched Points

One small grey-black obsidian point is of the Harrell side-notched type. It is chipped out of a flake or large blade and formed to give the point an ovoid cross-section. The point is an estimated 33 mm in length. One chert basal fragment with an estimated total length of 35–40 mm may be a Harrell point in its largest form. The sides of these points are slightly convex, the bases are slightly concave, and the small side notches are placed approximately one-third of the total distance along the side from the proximal end.

Five small greyish-black obsidian points are tentatively typed as Texcoco

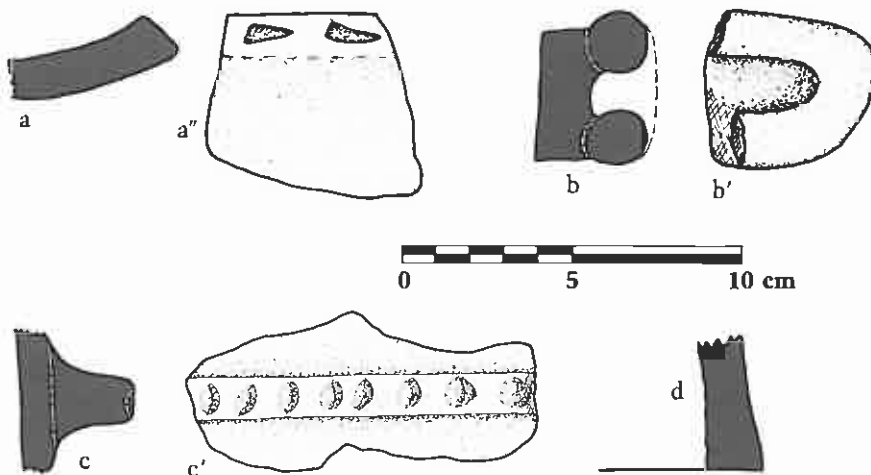


Figure I.16. Tetla Coarse wares.



points. Tolstoy (1971b) says the Texcoco points "vary from 4 to 7.5 cms. in length, and often retain both the curvature and parts of the surface of the blades on which they are made." The Tetla examples fit this description with the exception of their small size, 27–41 mm. The small notches are placed approximately one-fourth the total length from the proximal end. I have chosen to call these five points "Texcoco" because of the technique of manufacture rather than "Harrell" because of size. There can be no doubt of the early Aztec date for these points. The largest came from the living floor surface of Room C, and two smaller ones came from a subfloor stratum of unmixed Aztec I phase materials. The remaining are from the house fill. A similar unnotched proximal fragment may have been discarded as a broken or unfinished Texcoco point.

One side-notched white chert point remains untyped. This point is bifacially flaked but is larger than the Harrell points. The sides of this point are also more convex and the base more concave than those of Harrell points. The notches

are placed exactly one-third of the total distance from the proximal end.

Broad-Stemmed Point

One clear chert proximal fragment of a broad-stemmed point came from the living floor surface of Room C. This point is essentially identical to the Tula Type A broad-stemmed point described by Margaret Mandeville (1974: Fig. 27h). From her analysis of Tula chipped stone artifacts, she found the broad-stemmed point to comprise 62.5 percent of all types found at Tula during the University of Missouri project. The estimated complete length of the Tetla point is 40–45 mm. The sides are straight, the stem sides are parallel and at nearly right angles to both the base and shoulders. The cross-section is thin, approximately 3 mm.

Contracting Stem Point

A small, 29 mm grey-black obsidian point of the contracting-stem variety was found in the fill of the courtyard area to the north of the house. Tolstoy (1971b) describes a similar stemmed point with diminutive barbs recovered by George C. Vaillant from Teotihuacan. These points

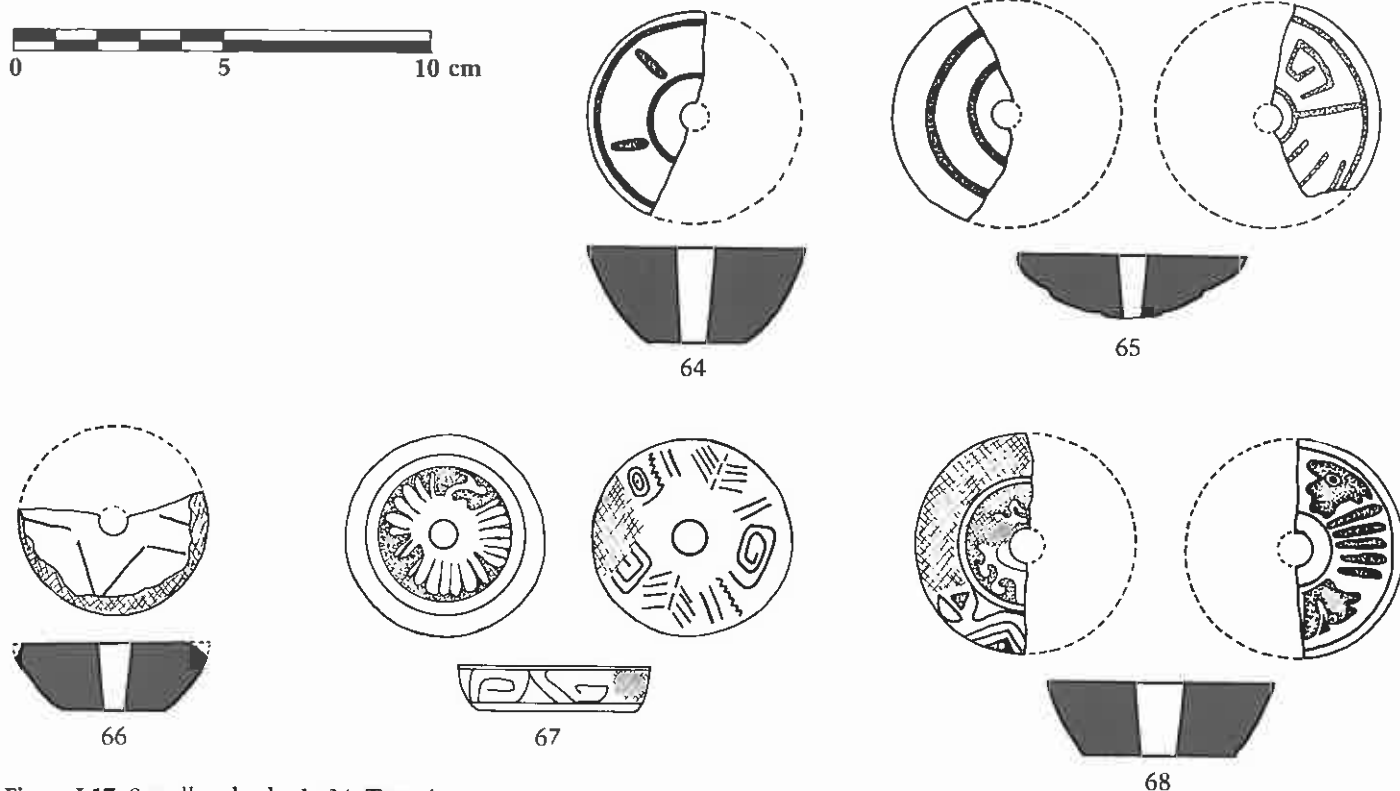


Figure I.17. Spindle whorls: 1–24, Type A incised; 25–45, Type A mold-made; 46–63, Type A undecorated; 64–66, Type B incised; 67–68, Type B mold-made.

Table 1.2. Tetla Lithic Artifacts

	Material				Artifact Type	Total	%
	Obsidian		Chert				
	Grey-black	Green	White	Other			
	34	65	39	0	Triangular cross-section blade	138	15
	112	154	8	0	Trapezoidal cross-section blade	274	29
	66	50	338	0	Waste flake	454	49
	2	1	18	0	Flake with cortex	21	2
	3	2	1	0	Core	6	1
	5	3	0	0	Worked blade	8	1
	0	1	3	0	Scraper	3	0
	0	0	6	1	Knife (biface)	7	1
	10	2	5	1	Projectile point	18	2
	1	1	0	0	Eccentric	2	0
Total	233	279	417	2		931	100
Percentage	25	30	45	0			

are similar to the Hayes and Bonham types of Texas and are thought to be late in the Teotihuacan sequence and to have been used as arrow points. These points differ from the Gary Small type by the presence of small barbs.

Bifaces

One complete bipointed, bifacially flaked knife was found in association with the Room B-C subfloor cremation burial. It measures 106 mm in length and 48 mm in width, with a thin, 10 mm cross section. It was the only example of a light pink-brown and white mottled chert. Two bifacially flaked white chert pieces were found in the Room A work area and four other fragments in the house and courtyard area fill. Most fragments are distal or mid-sections. A single proximal end fragment has a flat base and unnotched sides at a near 90° angle to the base.

Scrapers

Three chert scrapers were found, one from the courtyard area, one from Room C, and the last from just outside the doorway of Room A. The scrapers from Rooms A and C are ovate in form and are primary flakes with cortex and a small amount of unifacial retouching at one end. The small scraper from the courtyard is also unifacially flaked with retouch flaking along the sides and one end. A single green obsidian scraper was made from a core which was broken longitudinally. Unifacial retouching occurs along both sides and one end of the scraper.

Eccentrics

Two obsidian blades were worked into eccentrics, one crescent and one trilobal, and these are discussed in Chapter 25.

Worked Blades

Tetla worked blades were simply retouched along one or both of the edges, sometimes narrowing the blade considerably at the distal end. Worked blades were made on both green and grey-black obsidian.

Ornamental Stone

Three greenstone beads were found in the house fill, and one was found associated with the Room B-C cremation. An engraved greenstone fragment came out of the fill in Room B, and a polished hollow earspool fragment was found on the surface just east of the large boulder which overhangs the house. A white stone drill core was found in the doorway to Room A.

APPENDIX J

Faunal Analysis

DAVID C. GROVE

The faunal sample recovered by the Chalcatzingo excavations is relatively small. This is due primarily to the poor preservation of both animal and human osseous remains at the site (see also Chapter 8). Because of the sample size, we cannot deal as critically with the data as could be wished. Comparisons of faunal quantities between house areas or calculations to estimate live weight, biomass, meat yield, etc., would yield statistically insignificant or misleading results.

The faunal remains in the assemblage were recovered by screening during the excavations. Much of this material consists of small, unidentifiable fragments. A few whole or partial skeletons, apparently the result of intentional burial, were also encountered. The major portion of the faunal remains was identified by Ticul Alvarez, while I identified a few later additions.

Several vegetation zones around Chalcatzingo are represented by the faunal remains. Among the more important species, deer and fox probably inhabited the Pithecellobium Woodland zone (see Chapter 3 for an explanation of these zones). Rabbits were exploited in the Huizache Grasslands, and both they and foxes are also found today on the site itself (Interior Valley Cerros zone). Dogs, of course, were domesticated and thus not restricted to particular ecological zones.

The faunal data are presented in tabular form and briefly discussed. Table J.1 shows the distribution of identified faunal remains by genus, and Table J.2 presents these data by phase. The counts in these two tables refer to the total number of fragments, not minimum number of individuals or weight. The few skeletons encountered are indicated separately and are not included in the counts. These counts are given only to provide a general estimate of the relative

importance of the different species at Chalcatzingo.

Amate Phase

Few Amate phase (Early Formative) areas were excavated during the project, and therefore the faunal sample from this phase is quite small. The best remains come from Amate phase features underlying the PC Structure 6 Cantera phase walls and floor. Here in addition to deer (3 fragments), dog (4), and rabbit (2), excavations recovered a parrot tibia, a turkey humerus, a fragment of a turtle carapace, and two complete bird skeletons. One of these skeletons, of a *calandria* (oriole), was found in association with an

Early Formative lobed bottle. A crow skeleton found in the same area had no associated artifacts. Both bird skeletons were in close association with an Early Formative wall.

Barranca Phase

Only two Barranca phase house structures (on T-9B and N-2) were found during the excavations. In addition, a trash pit from a destroyed Barranca phase house was found near the T-25 altar (see Chapter 7), and faunal remains were recovered from strata of this phase in four other areas. Within the sample, deer are relatively rare, particularly in comparison to their presence in the Amate and

Table J.1. Distribution of Faunal Remains by Genus

Class and Genus	Common Name	Number of Specimens	
		Class	Genus
Reptilia		3	
<i>Kinosternon</i>	Turtle		3
Aves		4	
		(+ 2 skeletons)	
<i>Accipitridae</i>	Hawk		1
<i>Anatidae</i>	Goose, duck		1
<i>Amazona</i>	Parrot		1
<i>Meleagris</i>	Turkey		1
<i>Icteridae</i>	Oriole		(1 skeleton)
<i>Corvidae</i>	Crow		(1 skeleton)
Mammalia		255	
		(+ 5 skeletons)	
<i>Didelphis</i>	Opossum		1
<i>Sylvilagus</i>	Rabbit		69
<i>Orthogeomys</i>	Gopher		2
<i>Canis</i>	Dog		134
			(+ 3 skeletons)
<i>Urocyon</i>	Fox		5
<i>Procyon</i>	Raccoon		1
<i>Nasua</i>	Coatimundi		1
<i>Mephitis</i>	Skunk		1
<i>Felis</i>	Puma		1
<i>Dicotyles</i>	Peccary		(2 skeletons)
<i>Odocoileus</i>	Deer		40

Table J.2. Distribution of Faunal Remains by Phase

Class and Genus	Phase or Period				
	Amate	Barranca	Cantera	Classic	Undated
Reptilia					
<i>Kinosternon</i>	1	1	1		
Aves					
<i>Accipitridae</i>					1
<i>Anatidae</i>		1			
<i>Amazona</i>	1				
<i>Meleagris</i>	1				
<i>Icteridae</i>	(1 skeleton)				
<i>Corvidae</i>	(1 skeleton)				
Mammalia					
<i>Didelphis</i>		1			
<i>Sylvilagus</i>	2	21	36	8	2
<i>Orthogeomys</i>				1	1
<i>Canis</i>	6	30 (+ 1 skeleton)	78 (+ 2 skeletons)	14	6
<i>Urocyon</i>		2	3		
<i>Procyon</i>	1				
<i>Nasua</i>		1			
<i>Mephitis</i>			1		
<i>Felis</i>			1		
<i>Dicotyles</i>			(2 skeletons)		
<i>Odocoileus</i>	4	2	30	2	2

Cantera phase samples.

In addition to dog and rabbit bone from the T-9B and N-2 house areas, a fragment of a turtle carapace fragment was found in T-9B, and each house excavation yielded a fox limb bone. The house trash pit from T-25 had surprisingly few faunal remains, yielding only an opossum mandible, some small unidentifiable bone fragments, and the skeleton of a young dog. A goose or duck tibia fragment was recovered from Barranca phase levels of the T-29 excavations.

Cantera Phase

Because 70 percent of the total volume of excavations pertained to the Cantera phase, it not surprisingly yielded the largest quantity of faunal remains. Of the six house areas providing data, it is unfortunate that only one (T-23) was not highly destroyed by plowing or erosion. The remains from the other excavations are from Cantera phase materials underlying the house floor zones and/or from disturbed house floor areas within the plow zone.

The T-23 household cluster includes a trash dump on T-21. Deer and dog remains were found within this trash deposit, while excavations of the house re-

vealed deer, dog, and rabbit bone, as well as a single fox vertebra. Faunal remains from the T-9A house area included a fragment of a turtle carapace and skeletons of two small collared peccaries. Faunal remains other than dog, deer, and rabbit also included examples of fox (PC Str. 1, T-25 Str. 2) and single examples of skunk (T-25 Str. 2) and puma (T-11 Str. 1).

Classic Period

The fauna exploited during the Classic period were not significantly different from those of the Formative period except that deer are only slightly represented in the remains derived from refuse. Fauna recovered from the T-20 house structure, the T-11 intrusive pits, and general Classic period levels on T-17 are almost exclusively dog and rabbit. Whether the absence of deer is due to sampling or represents an actual absence cannot be determined from our data.

Discussion

Of the identifiable fauna recovered at Chalcatzingo, dog remains are the most abundant. Deer and rabbit are the only other important animals, and most other species are represented by a single fragment. Thus, as far as we can tell, there

was little interest in exploiting a wide variety of animal resources.

Most of the dog remains recovered are skull and teeth fragments. Only a few of the long bones show signs that they were used for food, but we surmise that the majority of them were broken up to extract the marrow, thus accounting for the poor representation of dog long bones among the identifiable remains. In fact, the presence of dog remains in quantities essentially equal to or greater than deer or rabbit suggests they were a common, domesticated food source at Chalcatzingo.

Ticul Alvarez (personal communication) notes that of all the sites whose fauna he has analyzed up to this time, this site is the first in which dog remains predominate over deer and rabbit. The quantity of dog remains is so great that it raises the possibility that the local supply of dogs or dog meat may have been supplemented from elsewhere as tribute or exchange. On the other hand, while the quantity of dog remains may be unusual for central Mexico, Elizabeth Wing's (1978) analysis of four Formative period Gulf Coast sites indicates that dogs were the most abundant terrestrial animal recovered there and had been utilized as food (ibid.:38-39).

That dogs apparently had ritual as well as nutritional importance is suggested by the presence of two dog burials, one within a Barranca phase trash pit on T-25 and the other the sole animal among the human burials in the patio area of the T-25 altar. A third dog burial was uncovered in association with the house structures on T-9A. Other animals of apparent ritual importance are represented by the Amate phase bird burials (bird and dog burials were also recovered from Early Formative contexts at Nexpa, Morelos; Grove 1974b:42), and two small collared peccary burials on T-9A. Our turtle carapaces are small and fragmentary, and it is possible to ascertain whether they were used ritually or whether their original inhabitants were exploited for their meat, or both.

Strontium analysis of the human burials at the site (Schoeninger 1979a; 1979b) indicates the possibility that the persons buried in specific elite areas of the site (particularly the Plaza Central) had had greater access to meat resources during their lifetimes than the site's non-elite inhabitants. Since the majority of the burials studied for strontium content came from subfloor areas of various structures, we can compare those results with our faunal data.

Figures J.1 and J.2 show the relative quantities of the economically important deer, dog, and rabbit bone by structure for the Barranca and Cantera phases. These data reveal that every house structure yielded faunal remains, suggesting that everyone had access to meat. Some non-elite structures have much more faunal material than the elite structures. These findings do not agree with the results of the strontium analysis. However, the validity of these data are questioned, since the sample from each house unit and from the site as a whole is extremely small.

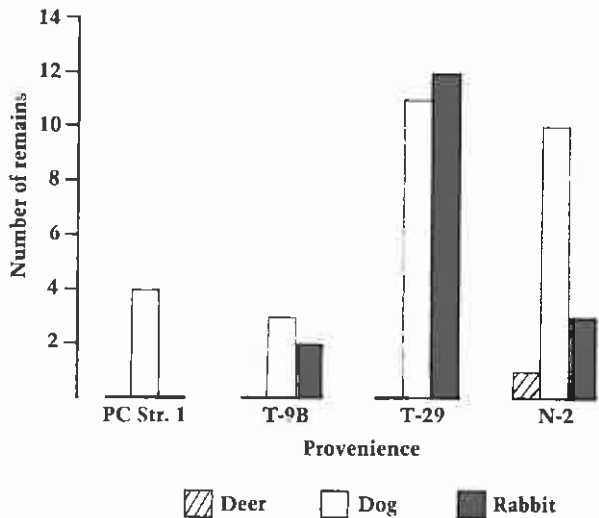


Figure J.1. Distribution of faunal remains for the Barranca phase.

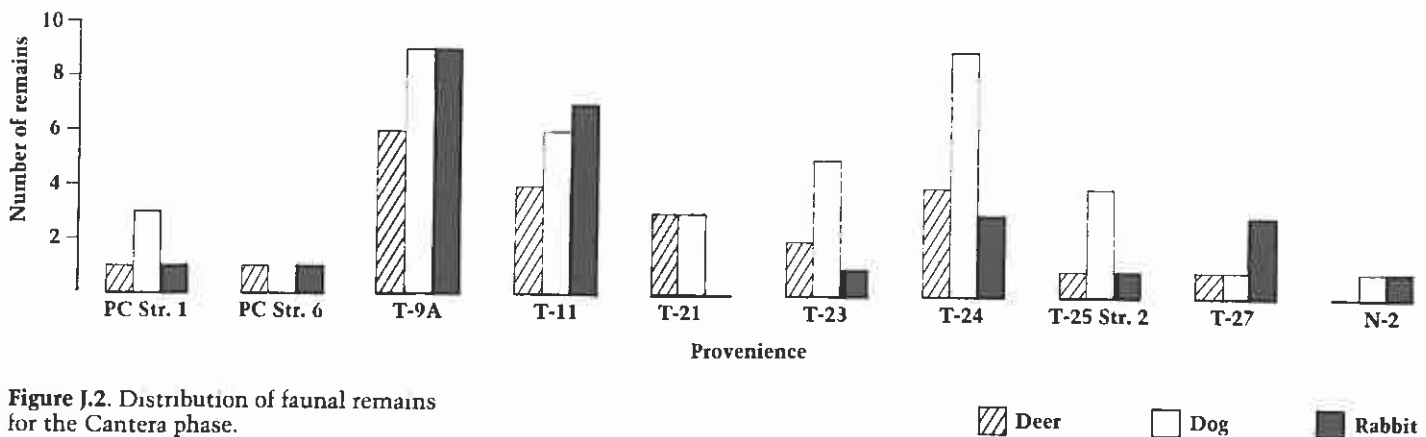


Figure J.2. Distribution of faunal remains for the Cantera phase.