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

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Genus-species</th>
<th>Cave 2 Sample Lots</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avocado</td>
<td>Persea americana</td>
<td>5</td>
</tr>
<tr>
<td>Beans</td>
<td>Phaseolus sp.</td>
<td>6</td>
</tr>
<tr>
<td>Bottle gourd</td>
<td>Lagenaria siceraria</td>
<td>1</td>
</tr>
<tr>
<td>Corn</td>
<td>Zea mays</td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>Gossypium hirsutum</td>
<td></td>
</tr>
<tr>
<td>Peanuts</td>
<td>Arachis hypogaea</td>
<td>1</td>
</tr>
<tr>
<td>Squash</td>
<td>Cucurbita sp.</td>
<td>4</td>
</tr>
<tr>
<td>Chalcatzingo: Batalla</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caballito</td>
<td>Calliandra anormala</td>
<td>1</td>
</tr>
<tr>
<td>Cacachis</td>
<td>Karwinskia humboldtiana</td>
<td>9</td>
</tr>
<tr>
<td>Capulin</td>
<td>Prunus capuli</td>
<td>2</td>
</tr>
<tr>
<td>Childa cayota</td>
<td>Capsicum sp.</td>
<td>1</td>
</tr>
<tr>
<td>Chile</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Chilpil</td>
<td>Coursetia glandulosa</td>
<td>12</td>
</tr>
<tr>
<td>Chirimoya</td>
<td>Anana chirimola</td>
<td>1</td>
</tr>
<tr>
<td>Chisanedilla</td>
<td>Cyrtocarpa procera</td>
<td>12</td>
</tr>
<tr>
<td>Ciruela</td>
<td>Spodium purpurea</td>
<td>243</td>
</tr>
<tr>
<td>Copal</td>
<td>Bursera coppitfera</td>
<td>8</td>
</tr>
<tr>
<td>Coyot</td>
<td>Acrocarpa mexicana</td>
<td>6</td>
</tr>
<tr>
<td>Compostes</td>
<td>Tithonius sp.</td>
<td></td>
</tr>
<tr>
<td>Carras del diabo</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Guaire</td>
<td>Leucaena collinsi</td>
<td></td>
</tr>
<tr>
<td>Guaire oaxpelon</td>
<td>Leucaena esculenta</td>
<td>1</td>
</tr>
<tr>
<td>Guamuchil</td>
<td>Pithecellobium dulce</td>
<td></td>
</tr>
<tr>
<td>Hueyucan</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Jacaranda</td>
<td>Jacaranda acutifolia</td>
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</tr>
<tr>
<td>Jicima</td>
<td>Pachyrhizus erosus</td>
<td>3</td>
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<tr>
<td>Jicamilla</td>
<td>Jatropha sp.</td>
<td>27</td>
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<tr>
<td>Japote</td>
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<td></td>
</tr>
<tr>
<td>Maguey</td>
<td>Agave sp.</td>
<td></td>
</tr>
<tr>
<td>Mata ratan</td>
<td>Glinicia sepium</td>
<td>16</td>
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<tr>
<td>Pancalolote</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pochote</td>
<td>Ceiba parvifolia</td>
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</tr>
<tr>
<td>Quebracho</td>
<td>Acacia unijuga</td>
<td>1</td>
</tr>
<tr>
<td>Tapaqueso</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Tepequajte</td>
<td>Leucaena pueblana</td>
<td>3</td>
</tr>
<tr>
<td>Torto</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Uña de gato</td>
<td>Mirmusa sp.</td>
<td>1</td>
</tr>
</tbody>
</table>

*Corn: 31 kernels, 31 grams of cob fragments in Sample B, 3 cob fragments in Sample C.
*Cotton: 22 grams of fiber, 7 grams of bolls and seeds.
*Maguey: 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 LATE CANTERA
II 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.

SSU 2 (Fig. B.2)
T-6: 17–18S/0–2W, 11–12S/1–2E.

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

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.

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 LATE CANTERA
III EARLY CANTERA
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 LATE CANTERA
II EARLY CANTERA
III LATE BARRANCA
IV LATE AMATE

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.

SSU 4 (Fig. B.4)
T-9A: 8–10S/0–2W.

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

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.
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-98 structure.

C-14 Dates:
Level IV  N-1416  1170 ± 135 BC

**SSU 5 (Fig. B.5)**

T-11: 1–2N/0–2E.

- **Level:**
  - 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.
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.

G-14 Dates:
Level IV N-1709 630 ± 110 BC

SSU 6 (Fig. B.6)

Level: Subphase:
1 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 an area of 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:
1
2
3 LATE CANTERA

Comments: The upper two levels represent a mixture of cultural debris due to later period construction and slope wash, and thus were not included in this analysis.

C-14 Dates: None.

SSU 8
T-21: 25–27N/72–73W, Fea. 1 (Fig. 4.29).

Level: Subphase:
1
2
3
4 LATE CANTERA
5 LATE CANTERA
6 LATE CANTERA
7 LATE CANTERA
8 EARLY CANTERA
9 MIDDLE BARRANCA
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.

Comments: Intrusive Fm. 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 Fm. 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 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, Fca. 2.

Level: Subphase:

I
II
III (Fca. 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.11. SSU 16–19 profile: T-25, 0/1E–2W.
Selected Stratigraphic Units

<table>
<thead>
<tr>
<th>Level</th>
<th>Subphase:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SSU 16</strong></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>LATE CANTERA</td>
</tr>
<tr>
<td>III</td>
<td>LATE CANTERA</td>
</tr>
<tr>
<td>IV</td>
<td>LATE CANTERA</td>
</tr>
<tr>
<td>V</td>
<td>LATE BARRANCA</td>
</tr>
<tr>
<td>VI</td>
<td>LATE BARRANCA</td>
</tr>
<tr>
<td>VII</td>
<td>MIDDLE BARRANCA</td>
</tr>
<tr>
<td>VIII</td>
<td>MIDDLE BARRANCA</td>
</tr>
</tbody>
</table>

| **SSU 17** | MIDDLE BARRANCA |
| IX       | MIDDLE BARRANCA |
| X        | MIDDLE BARRANCA |
| XI       | MIDDLE BARRANCA |
| XII      | MIDDLE BARRANCA |
| XIII     | MIDDLE BARRANCA |
| XIV      | MIDDLE BARRANCA |

| **SSU 18** | LATE CANTERA |
| I         | LATE CANTERA |
| II        | LATE CANTERA |
| III       | LATE CANTERA |
| IV        | LATE BARRANCA |
| V         | LATE BARRANCA |
| VI        | MIDDLE BARRANCA |
| VII       | MIDDLE BARRANCA |

| **SSU 19** | LATE CANTERA |
| II         | LATE CANTERA |
| III        | LATE CANTERA |
| IV         | LATE BARRANCA |
| V          | LATE BARRANCA |
| VI         | 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 pozó (pit; Levels X–XIV) are pre-altar occupation levels. The pozó feature was intruded into sterile tepetate from the level of tepetate.

C-14 Dates:

- Pozó [lower levels] N-1702 670 ± 100 BC
- Pozó [upper levels] N-1710 1070 ± 85 BC

<table>
<thead>
<tr>
<th><strong>SSU 20 (Fig. B.12)</strong></th>
<th>T-25: 6–8S/3–4W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>Subphase:</td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>EARLY–LATE CANTERA</td>
</tr>
<tr>
<td>IV</td>
<td>LATE BARRANCA</td>
</tr>
</tbody>
</table>

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

C-14 Dates: None.

<table>
<thead>
<tr>
<th><strong>SSU 21 (Fig. B.13)</strong></th>
<th>T-25: 2–4S/0–1E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>Subphase:</td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>EARLY–LATE CANTERA</td>
</tr>
<tr>
<td>V</td>
<td>LATE BARRANCA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SSU 22 (Fig. B.14)</strong></th>
<th>T-25: 2.2–4S/2–3W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>Subphase:</td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>LATE BARRANCA</td>
</tr>
<tr>
<td>V</td>
<td>LATE BARRANCA</td>
</tr>
<tr>
<td>VI</td>
<td>MIDDLE BARRANCA</td>
</tr>
</tbody>
</table>

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.
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
III A  LATE CANTERA  
III B  EARLY CANTERA  
IV A  LATE BARRANCA—EARLY CANTERA  
IV B  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 II) 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 I, Classic period rebuilding; III, Cantera phase rebuilding; IV, possible Cantera phase rebuilding; V—VI, Amate phase structure.
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
**SSU 31 (Fig. B.21)**

PC Trench: 87–90S/0–1E.

**Level:** Subphase:

1. I
2. II
3. III
4. IV
5. V  
   LATE CANTERA
6. VI  
   EARLY CANTERA
7. VII  
   LATE BARRANCA
8. 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.

**SSU 32 (Fig. B.22)**


**Level:** Subphase:

1. I
2. II
3. III
4. IV
5. V
6. VI
7. VII  
   LATE AMATE
8. VIII  
   LATE AMATE
9. 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:**

Level VII  
N-1407  
1090 ± 85 BC

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

**Figure B.22.** SSU 32 profile: PC, 31.5S/32–33E.
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 LATE AMATE
- V LATE AMATE
- VI 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)

Level: Subphase:
- I FEATURE [SSU 35] LATE CANTERA
- II EARLY CANTERA
- 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.

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.25. SSU 35–36 profile: PC Structure 1, 114–116S/0.
SSU 37 (Fig. B.26)
FC Str. 3: 110–112S/16–18E.

Level: Subphase:
I
II
III
IV LATE BARRANCA

Comments: Unfortunately, due to a lab 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.
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 recorded 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.
   b. Two prismatic blade fragments.
   Obsidian:
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. Amatxinac 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.
Remarks Vessels 1–4 placed south (right) of torso.
Remarks Vessels 5, 6 placed north (left) of skull.
Dating Cantera phase.

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.
Furniture Ceramics:
2. Atoyac Unslipped Polished cantarito with concentric arcs incised around body of vessel. Height: 13 cm.
4. Eroded cantarito (Fig. 13.49b). Placed near chin.
   Ground stone:
   a. Metate fragment.
   b. Two manos.
   Obsidian:
   c. Two prismatic blade fragments located near skull.

**Burial 5**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 120–122S/0–2E; 20 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple. Narrow stones placed standing around body are apparently the remains of a destroyed crypt, cover missing.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Juvenile, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended, supine, with arms crossed over pelvis.</td>
</tr>
<tr>
<td>Orientation</td>
<td>North-south, head to north.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Grave lies within the plow zone and crypt was apparently destroyed by recent agricultural activities.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

**Burial 7**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 118–120S/0–2E; 24 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Loosely flexed, on right side.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to west.</td>
</tr>
<tr>
<td>Remarks</td>
<td>A large stone occurred near top of skull.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

**Burial 8**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 118–120S/0–2W; 30 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended, supine (1).</td>
</tr>
<tr>
<td>Orientation</td>
<td>Northwest-southeast, head to northwest.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Both vessels placed east of legs.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

**Burial 9 (Fig. 8.10)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 116–118S/0–2W; 26 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Tightly flexed, on right side. Face up.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to west.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Vessels placed mouth to mouth at foot of skeleton.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

**Burial 10 (Fig. 8.11)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 122–124S/2–4E;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>25 cm below surface. Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Middle-aged adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended, supine. Lower right arm bent in over pelvis. Lower portion of body was twisted slightly to the south, with knees slightly flexed.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to east.</td>
</tr>
<tr>
<td>Furniture</td>
<td>Ceramics: 1. Atoyac Unslipped Polished cantarito (Fig. 13.49c). Height: 9 cm. Placed within other vessel. 2. Eroded shallow bowl. Diameter: 6 cm.</td>
</tr>
</tbody>
</table>

**Burial 11**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 116–118S/0–2E; 30–34 cm below surface.</th>
</tr>
</thead>
</table>

**Burial 12**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 116–118S/0–2E; 30–34 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age and sex</td>
<td>Infant, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Tightly flexed, on left side.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to west.</td>
</tr>
</tbody>
</table>

**Burial 12**

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 116–118S/0–2E; 30–34 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct. Double interment with Burial 11.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, possibly female.</td>
</tr>
<tr>
<td>Position</td>
<td>Tightly flexed, on left side.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to west.</td>
</tr>
<tr>
<td>Furniture</td>
<td>None.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>
**Furniture**

Ornamental stone:
- One tubular jade bead. Length: 1.8 cm. Diameter: 0.8 cm.

**Dating**

Cantera phase.

---

**Burial 13**

**Location**

Unit 114–116S/1W–2E;
30 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Adult, sex indeterminable.

**Position**

Extended, supine.

**Orientation**

East-west, head to east.

**Furniture**

Ceramics:
2. Amatzinac White shallow bowl. Diameter: 12 cm. Placed mouth to mouth with vessel 3 at feet.
3. Amatzinac White shallow bowl. Diameter: 12 cm. Placed mouth to mouth with vessel 2 at feet.
4. Amatzinac White spouted tray. Placed upside down over shallow bowls at feet.
5. Atoyaec Unslipped Polished (?) shallow bowl. Diameter: 8 cm. Stacked with vessel 6 upside down north of skull.

**Obsidian**:
- One prismatic blade. Placed above right shoulder.

**Remarks**

Six vessels in association in clusters of one, two, and three vessels [1, 2-3-4, 5-6].

**Dating**

Cantera phase.

---

**Burial 15** (Fig. 8.13)

**Location**

Unit 114–116S/0–2E; 27 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Young adult, sex indeterminable.

**Position**

Extended, supine, with lower arms flexed across body.

**Orientation**

Northwest-southeast, head to northwest.

**Furniture**

Ceramics:

**Obsidian**:
- Four prismatic blades in association with vessels and skull.

**Remarks**

Vessels placed mouth to mouth east of skull.

**Dating**

Cantera phase.

---

**Burial 16**

**Location**

Unit 112–114S/2W; 31 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Adult, sex indeterminable.

**Position**

Extended, supine.

**Orientation**

Northwest-southeast, head to northwest.

**Furniture**

Ornamental stone:
- One jadeite pendant [Fig. 17.4g]. Diameter: 21 mm. Placed at top of cranium.

**Dating**

Cantera phase.

---

**Burial 17**

**Location**

Unit 110–112S/0–2E; 26 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Young adult, sex indeterminable.

**Position**

Flexed, on right side.

**Orientation**

East-west, head to west.

**Furniture**

None.

**Dating**

Cantera phase.

---

**Burial 18**

**Location**

Unit 108–110S/0–2E; 23 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Adult, sex indeterminable.

**Position**

Flexed, upper portion of body placed supine and lower portion turned to right side.

**Orientation**

North-south, head to north.

**Furniture**

None.

**Dating**

Cantera phase.

---

**Burial 19**

**Location**

Unit 112–114S/0–2W; 22 cm below surface.

**Grave**

Simple, direct.

**Age and sex**

Adult, sex indeterminable.

**Position**

Extended, prone.

**Orientation**

North-south, head to south.

**Furniture**

Ceramics:
1. Amatzinac White shallow bowl. Diameter: 12 cm.

**Remarks**

Vessels placed mouth to mouth east of skull.

**Dating**

Cantera phase.

---

**Burial 20**

**Location**

Unit 111S/1W; 25 cm below surface.

**Grave**

Simple, direct. Disturbed.

**Age and sex**

Young adult, sex indeterminable.

**Position**

Extended, supine (?)?

**Orientation**

North-south, head to south.

**Furniture**

None.

**Remarks**

Only fragments of skull and arm bones remained.
### Burial 21
**Location**
Unit 114–118S/6–1W; 20 cm below surface.

**Grave**
Simple, direct. Disturbed.

**Age and sex**
Adult [?]; sex indeterminable.

**Position**
Extended.

**Orientation**
North-south, head to south [?].

**Remarks**
Only fragmented sections of legs remained. Directly overlay Burial 31.

**Furniture**
Ceramics:
1. Peralta Orange composite bowl with punctates (partial).

**Dating**
Cantera phase.

**Ground stone:**
a. One mano east of femur.

**Burial 24 (Fig. 8.15)**

**Location**
Unit 116–118S/0–2E; 80 cm below surface.

**Grave**
Simple, direct. Double interment with Burial 23.

**Age and sex**
Infant, sex indeterminable.

**Position**
Tightly flexed, on right side.

**Orientation**
East-west, head to west.

**Furniture**
Ceramics:
1. Amatuzinac White double-loop handle censer. Placed south of mid-section among crypt stones.

**Remarks**
Crypt lies near the surface and was probably damaged by plowing.

**Burial 25**

**Location**
Unit 114–116S/2–4E; 60 cm below surface.

**Grave**
Simple, direct.

**Age and sex**
Adult, sex possibly female.

**Position**
Flexed, on right side.

**Orientation**
East-west, head to east.

**Furniture**
Ceramics:
1. Amatuzinac White straight-walled bowl.

**Burial 26**

**Location**
Unit 116–118S/2–4W; 30 cm below surface.

**Grave**
Simple. Damaged crypt, cover lacking.

**Age and sex**
Juvenile, sex indeterminable.

**Position**
Loosely flexed, turned slightly to left side.

**Orientation**
Northeast-southwest, head to northeast.

**Furniture**
Ceramics:
1. Amatuzinac White double-loop handle censer. Placed south of lower leg bones.

**Burial 27 (Fig. 8.12)**

**Location**
Unit 122–124S/2–4E; 60 cm below surface.

**Grave**
Simple, direct.

**Age and sex**
Middle-aged adult, sex indeterminable.

**Position**
Extended, supine with lower arm bones flexed across body.

**Orientation**
East-west, head to east.

**Furniture**
Ceramics:
1. Amatuzinac White double-loop handle censer (Fig. 13.20).

**Burial 28**

**Location**
Unit 121–123S/1–2E;
Grave
Crypt, complete, both slab-lined and covered. Ends left open.

Age and sex
Middle-aged adult, sex indeterminable.

Position
Extended, supine, with arms outstretched and placed over body.

Orientation
North-south, head to north.

Furniture
Ceramics:
5. Atoyac Unslipped Polished cantarito. 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. Smaller jade bead, subspherical. Diameter: 0.6 cm. Placed between lower legs.  
   c. Two obsidian blades, one to the west of each hand.

Dating
Cantera phase.

Burial 29
Location
Unit 118–120S/2–4E; 60 cm below surface.

Grave
Simple, direct.

Age and sex
Adult, female (?)  

Position
Extended, supine, arms tightly flexed and hands placed at throat.

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.

Dating
Cantera phase.

Burial 30 [Fig. 8.14]
Location
Unit 114–116S/0–2E; 70 cm below surface.

Grave
Simple, direct.

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.  

Remarks
Vessels 2 and 3 were placed mouth to mouth.

Dating
Cantera phase.

Burial 31
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 directly below Burial 21. A structure to the south had destroyed the upper portion of the body.

Burial 32
Location
Unit 114–116S/0–2W; 56 cm below surface.

Grave
Simple, direct.

Age and sex
Adult, sex indeterminable.

Position
Extended, supine.

Orientation
North-south, head to south.

Furniture
Ceramics:
1. Atoyac Unslipped Polished cantarito. 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.

Burial 33 [Fig. 8.9]
Location
Unit 118–120S/1W–1E; 75 cm below surface.

Grave
Crypt, complete, both slab-lined and covered.

Age and sex
Adult, sex indeterminable.

Position
Extended, supine with arms flexed across mid-section.

Orientation
East-west, head to west.

Furniture
Ceramics:
1. Amatzinac White shallow bowl. Interior rim incised with variation of double-line break motif with lugs.  
2. Eroded cantarito [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.
b. Jade awl fragment
(Fig. 17.12d). Length: 3.3 cm. Placed directly beneath skull.
Other:
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.
Remarks
The two vessels were placed south of legs among stones.

**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.
Age and sex
Adult, sex indeterminable.
Position
Extended, supine.
Orientation
North-south, head to north.
Furniture
Ceramics:
3. Peralta Orange (?) cantarito with three lugs.
Height: 9 cm.
Remarks
Vessels placed within crypt at feet.
Dating
Cantera phase.

**Burial 34**
Location
Unit 119–121S/1–4E;
60 cm below surface.
Grave
Crypt, complete, both slab-lined and covered.
Age and sex
Young adult, sex indeterminable.
Position
Extended, supine, left arm slightly flexed across body, right arm extended parallel to body.
Orientation
East-west, head to east.
Furniture
Ceramics:
Ornamental stone:
a. Tiny fragment of thin earspool, probably part of fill dirt.
Remarks
Vessels placed within crypt at feet.
Dating
Cantera phase.

**Burial 37**
Location
Unit 122–124S/2–4E;
60 cm below surface.
Grave
Crypt, complete, built around a skull burial.
Age and sex
Adult, sex indeterminable.
Position
Head interred face-up and tilted slightly to south.
Orientation
Skull lay east-west, top of skull to the east.
Furniture
None.
Remarks
Burial was incomplete; only the long bones of one leg remained.
Dating
Cantera phase.

**Burial 38**
Location
Unit 122–124S/0–2E;
70 cm below surface.
Grave
Simple, direct. Disturbed.
Age and sex
Adult, sex indeterminable.
Position
Extended (?) orientation.
Orientation
North-south (?) orientation.
Furniture
Ceramics:
1. Amatitlan White shallow bowl. Diameter: 12 cm. Placed west of leg (see Remarks).
Remarks

**Burial 35**
Location
Unit 112–114S/2–4W;
120 cm below surface.
Grave
Stone-associated, with a stone placed over pelvis and standing stones around feet.
Age and sex
Adult, sex indeterminable.
Position
Extended, supine.
Orientation
East-west, head to west.

**Burial 39**
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.

**PLAZA CENTRAL STRUCTURE 4**
Orientation  
Furniture: East-west, head to west.

Ceramics:
- 1. Amatzinac White cantarito. Height: 11 cm. Diameter: 8 cm at neck.

Ornamental stone:
- a. Two jadeite ear-spools, 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.

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.

Burial 40 (Fig. 8.4)

Location: Interred atop platform mound. Unit 23 – 25S/3 – 5W, Level II.

Grave: Simple; a possible crypt, but with no covering stones present (see Remarks).

Position: Extended, but tilted slightly to north on left side. Arms flexed at elbows with hands together near chin. Legs slightly bent at knees.

Orientation  
Furniture: East-west, head to west.

Ceramics:

2. Peralta Orange cantarito with four small lugs around body. Height: 10 cm. Diameter: 3 cm at mouth. Placed inside vessel 1.

Ornamental stone:
- a. Two jade ear-spools near left upper arm (Fig. 17.9m – pl). Height: 2.2 cm. Diameter: 3.2 cm. Smearred with red pigment.
- b. One subpherical 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. 17.10l). Length: 7.2 cm. Diameter: 0.5 cm. Found between the two upper leg bones.
- d. Sixteen subpherical 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 subpherical 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. 16.22a). Found atop the mandible. The mirror had also been smeared with red pigment.
- g. Fragment of another hematite mirror (Fig. 16.22b).
- 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. 16.23a). 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 (c) 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).

Dating: Cantera phase.

PLAZA CENTRAL STRUCTURE 2-1

Burial 41

Location: Unit 132S/44W, 160 cm below surface. Lower floor, Room 1.

Grave: Simple, direct. Disturbed.

Age and sex: Adult, sex indeterminable.

Position: Only skull remained of the interment. Head face-up. Extended, supine (?).

Orientation: Probably north-south, head to north.

Furniture: Ceramics:
- 1. Amatzinac White double-loop handle censer. Height: 21 cm.

Remarks: Disturbed by Burial 42, which was placed directly over Burial 41.
Burial 42
Location
Unit 132S/44W, 160 cm below surface. Room 1, interred through Floor 2 and resting on lower Floor 3.

Grave
Simple, direct.

Age and sex
Adult, sex indeterminable.

Position
Extended, supine with right arm flexed and hand placed at throat. Head facing up.

Orientation
North-south, head to north.

Furniture
Ceramics:
3. Atoyac Unslipped Polished cantarito (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.

Remarks
A smooth field stone and ground stones a and b were placed with burial.

Dating
Cantera phase.

Burial 44
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.

Grave
Simple, direct.

Age and sex
Adult, sex indeterminable.

Position
Extended, supine. Lower arms destroyed, making their position indeterminable. Head face-up.

Orientation
East-west, head to east.

Furniture
Ceramics:

Remarks
All associated artifacts placed under vessel 3.

Dating
Cantera phase.

Burial 45
Location
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 (tepetate).

Grave
Simple, direct.

Age and sex
Adult, sex indeterminable.

Position
Extended, prone, with arms slightly flexed and placed under pelvis. Head face-down.

Orientation
East-west, head to west.

Furniture
Ground stone:
1. Amatzinac White

Remarks
Vessels located at feet.

Dating
Cantera phase.

Burial 46
Location

Grave
Simple, direct.

Age and sex
Juvenile, sex indeterminable.

Position
Extended, supine with arms slightly flexed and hands placed over pelvic region.

Orientation
North-south, head to north.

Furniture
Ceramics:
1. Amatzinac White

Remarks
Interred atop a mud plaster floor. The floor ran to but not under a north-south wall, Room 1.

Dating
Cantera phase.

Burial 47
Location
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.

Grave
Simple, direct.

Age and sex
Adult, sex indeterminable.

Position
Extended, prone. Arms slightly flexed and placed beneath pelvic region. Head face-down.

Orientation
North-south, head to south.

Furniture
Ceramics:
1. Amatzinac White straight-sided bowl.
Height: 14 cm. Placed at foot of burial.
2. Amatizinac White double-loop handle censer. Height: 20 cm.
3. Atoyac Unslipped Polished cantarito, curvilinear designs around body of jug. Height: 9 cm. Placed over left knee.
Ground stone:
a. Mano.
Ornamental stone:
b. Partial jade bead found resting on mandible; probably originally had been placed within mouth.

DATING
Cantera phase.

**Burial 48**
Location Unit 134S/44W; 160 cm below surface. Room 1, intrusive through Floor 2 and resting on Floor 3 (tepetate).
Grave Simple, direct. Disturbed.
Age and sex Adult, sex indeterminable.
Position Extended, supine (?!).
Orientation East-west, head to east (?!).
Furniture None.
Remarks Disturbed by the placement of Burials 41 and 42. Only leg bones were clearly visible, and they were found in fragments.

DATING
Cantera phase.

**Burial 49**
Location Unit 132S/44W; 160 cm below surface. Room 1, intrusive through Floor 2 and resting on Floor 3 (tepetate).
Position Extended, supine (?!).
Orientation North-south, head to north.
Furniture Ceramics:
1. Amatizinac White ovoid bowl. Length: 15 cm.
2. Carrales Coarse Grey composite bowl with thin-line geometric incising. Diameter: 16.5 cm.
Ground stone:
a. Mano.
b. Mano.
c. Mano.
d. Mano.
e. Metate.

Remarks All three vessels located at pelvic region of body.

DATING
Cantera phase.

**PLAZA CENTRAL—OTHER**

**Burial 51**
Location Unit 60.5—62.5S/41.5—42.5E; 80 cm below surface.

**Burial 52**
Location Unit 61—61.5S/41—43E; 80 cm below surface.
Grave Simple, direct. Disturbed.
Age and sex Adult, sex indeterminable.
Position Extended, supine.
Orientation East-west, head to east.
Furniture Ceramics:
1. Amatizinac White everted rim bowl, only fragment of rim. Found near left leg.
Other:
a. Figurine body near right shoulder.

Remarks 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.

**TERRACE 4**

**Burial 53**
Location Unit 132; 83—99 cm below surface. Intrusive, cutting into corner of double-walled structure (Units 141 and 132).
Grave Slab-lined with eight
<table>
<thead>
<tr>
<th>Burial</th>
<th>Location</th>
<th>Age and sex</th>
<th>Sex</th>
<th>Grave</th>
<th>Orientation</th>
<th>Furniture</th>
<th>Remarks</th>
<th>Remarks</th>
<th>Dating</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>Unit 0–2S/0–2W; 60–80 cm below surface.</td>
<td>Adult, sex indeterminable.</td>
<td>Simple, direct.</td>
<td>North-south (?).</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Late Barranca or Early Cantera subphase.</td>
<td>Cantera phase.</td>
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<tr>
<td>58</td>
<td>Unit 0–2S/0–2W; 69 cm below surface.</td>
<td>Infant, sex indeterminable.</td>
<td>Simple, direct.</td>
<td>Extended, supine. Arms crossed, hands up by skull.</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Late Barranca or Early Cantera subphase.</td>
<td>Cantera phase.</td>
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</tr>
<tr>
<td>61</td>
<td>Unit 8–10S/0–2W; 139–144 cm below surface.</td>
<td>Adult (?), sex indeterminable.</td>
<td>Simple, direct.</td>
<td>North-south, head to south.</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Late Barranca or Early Cantera subphase.</td>
<td>Cantera phase.</td>
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</tr>
<tr>
<td>62</td>
<td>Unit 8–10S/0–2E; 30–38 cm below surface.</td>
<td>Juvenile, sex indeterminable.</td>
<td>Simple, direct.</td>
<td>Extended, supine.</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Late Barranca or Early Cantera subphase.</td>
<td>Cantera phase.</td>
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<tr>
<td>63</td>
<td>Unit 2–3N/0–1E; 65 cm below surface.</td>
<td>Adult (?), sex indeterminable.</td>
<td>Simple, direct.</td>
<td>East-west, head to west.</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Barranca phase.</td>
<td>Cantera phase.</td>
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<tr>
<td>64</td>
<td>Unit 2–3N/0–1E; 82 cm below surface.</td>
<td>Indeterminable.</td>
<td>Simple, direct.</td>
<td>Indeterminable.</td>
<td>None.</td>
<td>Remains of the burial consisted of foot bones only.</td>
<td>Barranca phase.</td>
<td>Cantera phase.</td>
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<tr>
<td>Remarks</td>
<td>shallow bowl with flaring walls and complex interior rim incising. Four rim lugs. Diameter: 24 cm.</td>
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<td>Dating</td>
<td>Barranca phase.</td>
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<tr>
<td>Location</td>
<td>Unit 2–3N/5–7E; 25 cm below surface.</td>
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<td>Grave</td>
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<tr>
<td>Age and sex</td>
<td>Adult, sex inderminatable.</td>
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<tr>
<td>Position</td>
<td>Extended, supine.</td>
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<td>Orientation</td>
<td>East-west, head to east.</td>
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<tr>
<td>Remarks</td>
<td>Two stone slabs were placed on either side of legs and another over the pelvis.</td>
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<td>Dating</td>
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<td><strong>Burial 67</strong></td>
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<tr>
<td>Location</td>
<td>Unit 16–17N/2–4W; 50–60 cm below surface.</td>
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<td>Grave</td>
<td>Simple, direct. Double interment with Burial 68.</td>
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<tr>
<td>Age and sex</td>
<td>Young adult, female (?). Flexed, supine, with knees drawn up.</td>
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<td>Position</td>
<td>East-west, head to east.</td>
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<td>Furniture</td>
<td>Burials 67 and 68 appear to be Classic intrusions into Middle Formative deposits.</td>
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<td>Location</td>
<td>Unit 16–17N/2–4W; 50–60 cm below surface.</td>
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<td>Infant, sex inderminatable.</td>
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<td>Location</td>
<td>Unit 19–21N/4–6W; 40 cm below surface.</td>
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<tr>
<td>Grave</td>
<td>Simple, direct. Interred with three other individuals [Burials 69, 70, and 72]. Disturbed.</td>
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<td>Age and sex</td>
<td>Infant, sex inderminatable.</td>
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<td>Tightly flexed.</td>
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<td><strong>Burial 72</strong></td>
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<tr>
<td>Location</td>
<td>Unit 19–21N/4–6W; 40 cm below surface.</td>
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<tr>
<td>Grave</td>
<td>Simple, direct. Interred with three other individuals [Burials 69, 70, and 71]. Disturbed.</td>
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<td>Age and sex</td>
<td>Juvenile, sex inderminatable.</td>
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<tr>
<td>Location</td>
<td>Unit 21–22N/6–8W; 30 cm below surface.</td>
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<tr>
<td>Grave</td>
<td>Simple, direct. Disturbed.</td>
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<td>Age and sex</td>
<td>Adult, sex inderminatable.</td>
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<tr>
<td>Remarks</td>
<td>Remains extremely fragmented, only legs complete.</td>
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<tr>
<td>Dating</td>
<td>Cantera phase.</td>
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<td>Location</td>
<td>Unit 19–21N/4–6W; 47–55 cm below surface.</td>
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<tr>
<td>Grave</td>
<td>Simple, direct. Interred with three other individuals [Burials 69, 71, and 72]. Disturbed.</td>
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<tr>
<td>Remarks</td>
<td>Possibly secondary</td>
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</table>
burial. Double interment with Burial 75.

**Terrace 21**

**Burial 78**

**Location**
Unit 26–28N/72–73W; 65 cm below surface. Interred beneath a large refuse pile probably prior to its deposit.

**Grave**
Simple, stone-associated. Disturbed. May indicate a disturbed crypt or slab-lined grave.

**Age and sex**
Adult, sex indeterminable.

**Position**
Extended, supine.

**Orientation**
North-south, head to south.

**Furniture**
Ceramics:
1. Atoyac Unslipped Polished 1 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 1 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 1 small bowl with rim punctuates (three-fourths of vessel). Height: 2.5 cm. Diameter: 8 cm.
6. Atoyac Unslipped Polished 1 small bowl with interior hematite stains [one-half of vessel]. Height: 2.2 cm. Diameter: 8.5 cm.

Two stones placed on either side of body. Six vessels were found near the burial in an area where whole vessels would not normally be expected.

**Dating**
Cantera phase.

**Terrace 23**

**Burial 79**

**Location**
Unit 8.4–10.1N/7.2–7.6E, 68–73 cm below surface.

**Grave**
Simple, stone-associated.

**Age and sex**
Adult, sex indeterminable.

**Position**
Extended, supine.

**Orientation**
North-south, head to north.

**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.

Remarks
Group of five stones placed around head. Associated with Structure 2 and Floor 1, 50–60 cm below surface.

**Dating**
Cantera phase.

**Burial 80**

**Location**
Unit 7.5–8.2N/5.9–6.6E, 120 cm below surface.

**Grave**
Simple, direct. Disturbed.

**Age and sex**
Juvenile, sex indeterminable.

**Position**
Indeterminable.

**Orientation**
Indeterminable.

**Furniture**
Ceramics:
2. Peralta Orange hemispherical bowl, with slightly incurved rim. Height: 8 cm. Diameter: 17 cm.
### Remarks
Burial was extremely fragmented with only one long bone still intact. Subfloor burial to Floor 2.

### Dating
Cantera phase.

### Burial 81

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 11—12N/9—10E; 115 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct. Disturbed. Possible burial of skull only.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Indeterminable.</td>
</tr>
<tr>
<td>Orientation</td>
<td>Indeterminable.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Beneath Floor 1, but association with floor is tentative. Only skull and portion of clavicle remained of burial. Vessels placed east of skull.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

### Burial 84

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 12—13N/7—9E; 100—110 cm below surface.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct. Small stones placed around and over body.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended, supine.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west, head to east.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Beneath Floor 1, but association with floor is tentative.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

### Burial 88

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 17.8—20N/2—5E; 33 cm below surface; Level II.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct. Infant, sex indeterminable.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Infant, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended (fl), head to west (fl).</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west (fl), head to east (fl).</td>
</tr>
<tr>
<td>Furniture</td>
<td>None.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Only long bones of legs were found.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

### Burial 89

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 22.4—24.6N/2.5E; Level III.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
</tbody>
</table>

### Remarks
Beneath Floor 1, but association with floor is tentative. Cantera phase.

### Terrance 24

<table>
<thead>
<tr>
<th>Burial 86 Location</th>
<th>Unit 20—21N/2—5E; 89 cm below surface; Level II.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct. Disturbed.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Indeterminable.</td>
</tr>
<tr>
<td>Orientation</td>
<td>East-west (fl), head to east.</td>
</tr>
<tr>
<td>Furniture</td>
<td>None.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Burial was fragmented in refuse dump.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

### Burial 87

<table>
<thead>
<tr>
<th>Location</th>
<th>Unit 22.4—24.6N/2.5E; Level II.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grave</td>
<td>Simple, direct.</td>
</tr>
<tr>
<td>Age and sex</td>
<td>Indeterminable.</td>
</tr>
<tr>
<td>Position</td>
<td>Extended (fl).</td>
</tr>
<tr>
<td>Orientation</td>
<td>Indeterminable.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Only long bones of legs were found.</td>
</tr>
<tr>
<td>Dating</td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>
Position

Extended, supine, with arms placed parallel to sides.

Orientation

East-west, head to west.

Furniture

Ceramics:
1. Fragmented, eroded shallow bowl. Placed at feet.
2. Ornamental stone: a. Polished stone spoon (Fig. 17.5a). Grey and brown mottled serpentine.

Dating

Cantera phase.

Burial 92

Location

Unit 22.6–24.6N/11–13E; 120–140 cm below surface.

Grave

Simple, direct.

Age and sex

Adult, sex indeterminable.

Position

Flexed.

Orientation

East-west, head to east.

Furniture

Ceramics:
2. Ornamental stone: a. Jade pendant, flat, bluish-green (Fig. 17.4k). Diameter: 10 mm.
3. 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.

Remarks

Interred directly in front of altar (Mon. 22).

Dating

Cantera phase.

Burial 95 (Fig. 7.19)

Location

Unit 2–3S/2–4W; 120 cm below surface.

Grave

Simple, within a crypt.

Age and sex

Young adult, sex indeterminable.

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.

Orientation

East-west, head to west.

Furniture

Ceramics:
1. Peralta Orange olla (Fig. 13.42) with punc-
tates and a ridge around neck, 2 cm from rim.
Height: 24.5 cm. Diameter (at neck): 10.5 cm.

Remarks

Interred within interior of altar (Mon. 22). Vessels placed south of right leg.

Dating

Cantera phase.

Burial 193

Location

Unit 0–2S/0–1W; 100 cm below surface.

Grave

Simple, direct.

Age and sex

Infant, sex indeterminable.

Position

Loosely flexed, prone, with legs drawn up and crossed.

Orientation

North-south, head to south.

Furniture

None.

Remarks

Child was possibly a sacrificial victim since it is buried beside the northeast corner of the altar (Mon. 22).

Dating

Cantera phase.

Terrace 25 (Fig. 7.1)

Burial 94 [Figs. 7.17, 7.18]

Location

Unit 0–1N/2–4W, 150 cm below surface.

Grave

Crypt, well constructed and complete, with cover stones.

Age and sex

Young adult, sex indeterminable.

Position

Fully extended, supine. Arms slightly flexed with hands placed over the pelvic region.

Orientation

East-west, head to east.

Furniture

a. Obsidian flake in stomach area.

Remarks

Interred directly in front of altar (Mon. 22).

Dating

Cantera phase.
Furniture: Obsidian:

a. Partial blade found on lower portion of rib cage on left side.

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: Late Barranca or Early Cantera subphase.

Burial 98 (Fig. 7.20)

Location: Unit 1–2S/8–9W, 100 cm below surface.


Age and sex: Young juvenile, sex indeterminable.

Position: Probably extended.

Orientation: North-south, head to south.

Furniture: Ceramics:

1. Laca hemispherical bowl. Height: 10 cm. Diameter: 20 cm.

Burial 97

Location: Unit 0–2N/5–6W, 110 cm below surface.

Grave: Simple, direct.

Age and sex: Adult, sex indeterminable.

Position: Extended, supine; right arm slightly flexed, with right hand placed over pelvis. Left arm extended straight along body.

Orientation: North-south, head to north.

Furniture: Ceramics:

1. Amatlanac 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.


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.

Age and sex: Young juvenile, sex indeterminable.

Position: Probably extended, but condition of bones very poor.

Orientation: North-south, head to south.

Furniture: See Burial 98.

Remarks: Both Burials 98 and 99 may represent human sacrifices, since they are approximately the same age and were buried together.

Dating: Cantera phase.

Burial 101

Location: Unit 0–2S/7–8W, 100 cm below surface.

Grave: Simple, direct.

Age and sex: Juvenile, sex indeterminable.

Position: Extended.

Orientation: North-south, head to north.

Furniture: None.

Remarks: May be a double burial with Burial 101.

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.
<table>
<thead>
<tr>
<th>Burial 103</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 0–1N/0–1W; 200 cm below surface.</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Simple, direct.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Adult, possibly male.</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Extended.</td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
<td>North-south, head to north.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Dating</strong></td>
<td>Uncertain, Late Barranca or Early Cantera subphase.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burial 104</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 0–1S/0–1E; 100 cm below surface.</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Simple, direct (?) Disturbed.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Extended (?)</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Burial greatly disturbed. Only fragments of vertebral column and pelvis were found. Lower limbs may be under the wall.</td>
</tr>
<tr>
<td><strong>Dating</strong></td>
<td>Cantera phase.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burial 105 (Figs. 7.13–7.15)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 1–2S/2–4W; 130 cm below surface.</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Crypt, complete, placed in interior of altar (Mon. 22). The crypt was both slab-lined and covered.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Extended, supine, with arms slightly flexed and both hands placed over region of the pelvis.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Placement in burial 1 the crypt.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burial 106</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 1–2N/0–2W; 150 cm below surface.</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Simple, direct.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Adult, sex indeterminable.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Vessels 4–6 found stacked within vessel 1.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td><strong>Furniture</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burial 107 (Figs. 7.10–7.12)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 0–15/0–1E; 220 cm below surface, to east side of altar (Mon. 22).</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Simple, direct interment in pit excavated into tepetate.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Juvenile, sex indeterminable.</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td>Extended, supine, arms parallel to sides of body.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Remarks</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Remarks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burial 108</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Unit 0–1N/4–6W; 110 cm below surface.</td>
</tr>
<tr>
<td><strong>Grave</strong></td>
<td>Simple, direct. Apparently disturbed.</td>
</tr>
<tr>
<td><strong>Age and sex</strong></td>
<td>Juvenile, sex indeterminable.</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Remarks</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>Remarks</td>
</tr>
</tbody>
</table>
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 1–25/2–3W, level of tepetate, 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. 17.10). 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:
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.
Ground stone:
a. A large, well-worn metate had been placed upside down directly over the head. Four vessels were placed on each side of the individual.
Dating Cantera phase.

Burial 111 (Fig. 7.22)
Location Unit 2–3N/5–6W, 80 cm below surface.
Grave Skull burial.
Age and sex Adult, sex indeterminable.
Position Skull burial, skull placed atop a circle of stones.
Orientation Skull upright and facing north.
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. Attoyac Unslipped Polished 1 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
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: North-south, head to north.

Burial 113
Location: Unit 2–3N/6–7W, 120 cm below surface.
Grave: Simple, direct.
Age and sex: Adult, sex indeterminable.
Position: Extended, supine.
Orientation: North-south, head to north.
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.

Burial 114
Location: Unit 4–6N/9.5–11 W, 70 cm below surface.
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.
Remarks: The entire upper portion of the skeleton was missing, probably disturbed after burial.

Burial 115
Location: Unit 33–34N/11–13W, 15 cm below surface.
Grave: Simple, direct.
Age and sex: Juvenile (2–3 years), sex indeterminable.
Position: Flexed, seated.
Orientation: Facing somewhat to the north.
Remarks: The burial had intruded through a Middle Formative platform floor.

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.
Remarks: The burial had intruded through a Middle Formative platform floor.

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.
Burial 118
Location: Unit 0–2S/0–1E, 40 cm below surface.
Age and sex: Adult, sex indeterminable.
Position: Flexed, supine. Arms flexed across chest, legs folded up to body.
Orientation: North-south, head to south.
Burial 119
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.
Burial 120
Location: Unit 0–2S/0–1E, 40 cm below surface.
Grave: Stone-lined, rectangular. Double interment with Burial 119; 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.

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.

Ceramics:

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.
Burial 118 (Fig. 8.16)

Location  Unit 0–2S/0–1E; 40 cm below surface.
Grave  Stone-lined, rectangular. Double interment with Burial 117, placed north of no. 117.
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  See Burial 117.
Dating  Late Formative.

Remarks
Grave  Slab-lined, rectangular. Double interment with Burial 124.
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. Unslipped, polished composite bowl with large, hollow, “mamiform” tripod supports. Diameter: 12 cm.
Ornamental stone:
a. Tubular jade bead. Length: 1.3 cm. Rounded and polished. Placed to southeast of burial. Association is not certain, but possible.
Vessels placed east of lower portion of body.

Burial 121

Location  Unit 22–23N/1–2E; 40 cm below surface.
Grave  Slab-lined, rectangular.
Age and sex  Adult, sex indeterminable.
Position  Flexed, supine.
Orientation  East-west, head to west.
Furniture  Ceramics:

Remarks
The secondary burial (124) was placed to north of Burial 123.

Burial 122

Location  Unit 0–1N/2–4E, 40 cm below surface.
Grave  Grey ware cantarito. Height: 13 cm. Placed south of upper portion of body.
Ornamental stone:

Remarks
Burial 123 (Fig. 8.18)

Location  Unit 0–2S/1–3W, 50 cm below surface.

Remarks
Burial 124 (Fig. 8.18)

Location  Unit 0–2S/1–3W, 50 cm below surface.
Grave  Slab-lined, rectangular. Double interment with Burial 123.
Age and sex  Adult, sex indeterminable.
Position  Appears to be a flexed bundled secondary interment.
Orientation  Indeterminable.
Furniture  See Burial 123.
Remarks  See Burial 123.
Dating  Late Formative.

Burial 125

Location  Unit 20–21N/1–2W, 40 cm below surface.
Grave  Slab-lined, rectangular. Disturbed [?].

**Burial 126**


**Burial 130**


**Burial 131**


**Burial 132**


**Burial 133**


**Burial 127**


**Burial 134**


**Burial 135**

spherical ring base bowl. Diameter: 24.6 cm.
6. Orange hemispherical ring base bowl with deep irregular punctations around outer rim. Diameter: 20.7 cm.
7. Orange hemispherical ring base bowl with black painted designs on interior base. Diameter: 25 cm.
10. Orange hemispherical bowl. Diameter: 17.7 cm.
12. Thin Orange cylindrical tripod bowl with stamped design around lower exterior. Tripod feet broken off and missing. Diameter: 14.3 cm.
Ornamental stone: 
a. Large, polished stone bead. Height: 1.5 cm.
b. Large, polished stone bead. Height: 1.3 cm.
Remarks 
The box contained only a human mandible and scattered bone fragments.
Dating Classic.

Burial 137
Location: Unit 6–7S/20–22W, 10–30 cm below surface.
Grave 
Age and sex 
Position 
Orientation 
Furniture 
Remarks 
Other:

Ornamental stone:
a. Jade ear spool, in fragments near left ear. Height: 2.5 cm. Diameter of flaring end: 5.7 cm.
Remarks 
Three large stones flanked the burial on the south side in area of lower back and thighs. No other stones remained.
Dating Cantera phase.

Burial 138
Location: Unit 6–7S/0–1E, 30–40 cm below surface.
Grave 
Age and sex 
Position 
Orientation 
Furniture 
Remarks 
Interred in obsidian concentration, with obsidian packed both above and below.
Dating Cantera phase.

Burial 139
Location: Unit 5–6S/9–10E, 10–20 cm below surface.
Grave 
Age and sex 
Position 
Orientation 
Furniture 
Remarks 
Interred in obsidian concentration, with obsidian packed both above and below.
Dating Cantera phase.

FIELD S-39
Burial 141
Location: Unit 6.5–7.5S/2–3W, 40–50 cm below surface.
Grave Simple, direct. Disturbed or burial of hands only.
Age and sex Adult (?), sex indeterminable.
Position Indeterminable.
Orientation Indeterminable.
Furniture None.
Remarks Burial consisted of two well-preserved hands and nothing else.
Dating Cantera phase.

Burial 142
Location: Unit 6–7S/4–5W, 25–40 cm below surface.
Grave Stone-associated.
Age and sex Adult, sex indeterminable.
Position Extended, supine, with lower legs crossed and arms slightly flexed.
Orientation North-south, head to north.
Furniture Ceramics:
1. Amatzinac White hemispherical bowl with incising on exterior near rim. Diameter: 16 cm.
2. Atoyac Unslipped Polished contaro.
3. Atoyac Unslipped Polished hemispherical bowl. Slightly pinched

Burial 140
Location: Unit 6–7S/37–38E, 30–40 cm below surface.
Grave Simple, direct.
Age and sex Juvenile, sex indeterminable.
Position Flexed.
Orientation East-west, head to west.
Furniture Ceramics:

Dating Cantera phase.
Remarks
in at sides. Diameter: 13.5 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.

Dating
Cantera phase.

Burial 143
Location
Unit 8–9N/1E–1W, 35–50 cm below surface.
Grave
Stone-associated.
Age and sex
Adult, sex indeterminable.
Position
Extended, supine, but leaning slightly to left side. Lower legs crossed.
Orientation
North-south, head to south.
Furniture
Ceramics:
1. Amatitlan White bowl with straight sides. Diameter: 11.5 cm. Placed over knees.
2. Amatitlan White shallow bowl, incising on interior rim [partial].
3. Atotonilco Black hemispherical bowl. Diameter: 18.5 cm.
Remarks
Two stones occurred along either side of body and one at head.
Dating
Cantera phase.

Burial 146
Location
Unit 5N/3W, 57 cm below surface.
Grave
Simple, direct.
Age and sex
Adult, sex indeterminable.
Position
Indeterminable.
Orientation
Indeterminable.
Furniture
None.
Remarks
Only identification of this burial was a few scattered bone fragments and teeth.
Dating
Cantera phase.

Burial 147
Location
Unit 6–7N/3–5W, 26–60 cm below surface.
Grave
Simple, direct. Disturbed.
Age and sex
Adult, sex indeterminable.
Position
Indeterminable.
Orientation
Indeterminable.
Furniture
Ceramics:
1. Amatitlan White shallow bowl. Diameter: 12 cm.
3. Amatitlan White shallow bowl. Diameter: 20.5 cm.
9. Eroded hemi-
spherical bowl. Diameter: 18 cm.
Remarks
Bural consisted of a few scattered bone fragments surrounded by ceramic vessels.
Dating
Cantera phase.

Burial 148
Location
Unit 12–15N/5–7W, 19–25 cm below surface.
Grave
Simple, direct.
Age and sex
Adult, sex indeterminable.
Position
Extended, supine [?].
Orientation
East-west. Head to west.
Furniture
Ceramics:
1. Amatitlan White shallow bowl. Diameter: 8 cm. Placed at right shoulder.
10. Amatitlan White straight-sided bowl. Diameter: 22 cm.
FIELD N-2

Burial 149
Location Unit 3-6 N/0-1E; 120 cm below surface.
Grave Simple, direct.
Age and sex Adult, sex indeterminable.
Position Extended, supine, arms slightly flexed and placed over pelvis.
Orientation North-south, head to south.
Furniture Ceramics:
1. Eroded cantarito fragments, at feet of corpse.
Remarks The cantarito fragments may represent an offering.
Dating Barranca phase.

Burial 152
Location Unit 3-4S/0-1E; 65 cm below surface.
Age and sex Infant, sex indeterminable.
Position Indeterminable.
Furniture Ceramics:
1. Unslipped Polished bowl with slight ridging on side. Height: 12 cm. Diameter: 13 cm.
Remarks Vessels placed at left knee.
Dating Late Formative.

FIELD N-5

Burial 150
Location Unit 0.6-2.1 N/1 W-1 E; 94 cm below surface.
Grave Simple, direct.
Age and sex Adult, sex indeterminable.
Position Extended, supine.
Orientation East-west, head to east.
Furniture Other:
1. Fragment of perforated iron ore disc [Fig. 16.22.d].
Remarks Only upper portion of burial remained [waist up].
Dating Probably Barranca phase.

Burial 156
Location Unit 3-4N/1-2 W; 83-89 cm below surface.
Grave Simple, stone-associated.
Age and sex Adult, sex indeterminable.
Position Extended, supine. Arms flexed and placed over stomach area.
Orientation North-south, head to south.
Furniture Ceramics:
1. Amatzinac White shallow bowl. Diameter: 12 cm.
3. Carrales Coarse Grey composite bowl. Diameter: 11.5 cm.
4. Carriazo Orange cantarito. Height: 10 cm.
Remarks Four vessels placed in the general grave.
Dating Cantera phase.

CERRO DELGADO, CAVE 1

Burial 151
Location Unit 3-4S/3-4E; 80 cm below surface.
Grave Simple, direct.
Age and sex Young adult, sex indeterminable.
Position Flexed, supine. Legs crossed and left hand placed under head.
Orientation East-west, head to west.
Furniture Ceramics:
Remarks Remarks
Dating Cantera phase.

Burial 153
Location Unit 3-4S/0-1E; 65 cm below surface.
Grave Simple, direct. Disturbed. See Burial 152.
Age and sex Juvenile, sex indeterminable.
Position North-south.
Furniture Ceramics:
1. Obsidian needle, double-pointed, unifacially chipped. Found in the middle of pelvis.
Remarks Four vessels placed east of midsection. Stones placed at either side and one on top of head.
**Burial 157**

**Location**  
Unit 2–3N/0.35–1E;  
112–120 cm below surface.

**Grave**  
Stone-associated.

**Age and sex**  
Adult, possibly female.

**Position**  
Extended, supine. Left arm flexed with hand resting on right shoulder. Right foot under left foot.

**Orientation**  
Northeast-southwest, head to northeast.

**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:  
   a. Long, thin blade.  
   Placed above knee of right leg.  
Ground stone:  
   b. Two partial metates.  
   One placed over cranium, the other over flexed elbow of right arm.  
   c. Mano fragment placed on left shoulder.

**Remarks**  
Stones placed around and over the body but lacked definite arrangement. Head of burial resting on back wall of cave.

**Dating**  
Cantera phase.

---

**Burial 160**

**Location**  
Unit 4–6S/0–2W, Feature 1.

**Grave**  
Simple, cremation.

**Age and sex**  
Indeterminable.

**Furniture**  
Ceramics:  
1. Graphite-Black on Red ware bowl fragment.  
Diameter: 16 cm.  
Ornamental stone:  
   a. Pale green jadeite bead. Height: 1.6 cm.  
   b. Eight obsidian blades, one flake, two cores.  
Utilitarian stone:  
   c. Bifacial knife manufactured of chert. Length: 8.4 cm. Width: 5 cm.  
   d. C8 [Middle Formative] figurine head.  
   e. Mold-made figurine head fragment, unclassifiable.  
   f. Mold-made figurine body fragment, unclassifiable.  
   g. Three spindle whorls [Fig. 25.6].  
   h. Bone awl fragment. Length 4.5 cm.

**Remarks**  
The tool kit [lithics and especially the spindle whorls] may suggest this was the burial of a female.

**Dating**  
Middle Postclassic.

---

**Burial 161**

**Location**  
Unit 0–3N/0–1W, 96 cm below surface.

**Grave**  
Simple, cremation.

**Age and sex**  
Indeterminable.

**Furniture**  
Ceramics:  

---

**Burial 159**

**Location**  
Unit 6–7S/18–20W, 135 cm below surface.

**Grave**  
Direct.

---

**Burial 158**

**Location**  
Unit 0–1S/1–2E;  
83–129 cm below surface.

**Grave**  
Simple, direct. Disturbed.

**Age and sex**  
Indeterminable.

**Position**  
Indeterminable.

**Orientation**  
Northeast-southwest (?)  

**Remarks**  
Only a few fragments of bone were found.

**Dating**  
Cantera phase.

---

**TERRACE 29**

**Burial 159**

**Location**  
Unit 6–7S/18–20W, 135 cm below surface.

---

**Burial 157**

**Location**  
Unit 2–3N/0.35–1E;  
112–120 cm below surface.

**Grave**  
Stone-associated.

**Age and sex**  
Adult, possibly female.

**Position**  
Extended, supine. Left arm flexed with hand resting on right shoulder. Right foot under left foot.

**Orientation**  
Northeast-southwest, head to northeast.

**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:  
   a. Long, thin blade.  
   Placed above knee of right leg.  
Ground stone:  
   b. Two partial metates.  
   One placed over cranium, the other over flexed elbow of right arm.  
   c. Mano fragment placed on left shoulder.

**Remarks**  
Stones placed around and over the body but lacked definite arrangement. Head of burial resting on back wall of cave.

**Dating**  
Cantera phase.

---

**Burial 160**

**Location**  
Unit 4–6S/0–2W, Feature 1.

**Grave**  
Simple, cremation.

**Age and sex**  
Indeterminable.

**Furniture**  
Ceramics:  
1. Graphite-Black on Red ware bowl fragment.  
Diameter: 16 cm.  
Ornamental stone:  
   a. Pale green jadeite bead. Height: 1.6 cm.  
   b. Eight obsidian blades, one flake, two cores.  
Utilitarian stone:  
   c. Bifacial knife manufactured of chert. Length: 8.4 cm. Width: 5 cm.  
   d. C8 [Middle Formative] figurine head.  
   e. Mold-made figurine head fragment, unclassifiable.  
   f. Mold-made figurine body fragment, unclassifiable.  
   g. Three spindle whorls [Fig. 25.6].  
   h. Bone awl fragment. Length 4.5 cm.

**Remarks**  
The tool kit [lithics and especially the spindle whorls] may suggest this was the burial of a female.

**Dating**  
Middle Postclassic.
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>
<thead>
<tr>
<th>Table D.1. Bowl Form Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beveled rim bowls</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Braziers</td>
</tr>
<tr>
<td>Braziers, annular based</td>
</tr>
<tr>
<td>Composite silhouette bowls</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Composite silhouette bowls, direct rim</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Composite squash-like bowls</td>
</tr>
<tr>
<td>Cylindrical bowls</td>
</tr>
<tr>
<td>Double bowls</td>
</tr>
<tr>
<td>Double-loop handle censers</td>
</tr>
<tr>
<td>Everted rim bowls</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Everted rim bowls, heavy</td>
</tr>
<tr>
<td>Exotic bowl forms</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Exterior ridged, bowls with</td>
</tr>
<tr>
<td>Flanged shoulder bowls</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Flaring wall bowls</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Flaring wall bowls, angular</td>
</tr>
<tr>
<td>Flower pot bowls</td>
</tr>
<tr>
<td>Globular bowls</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Hemispherical bowls</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

| Highly outcurved rim bowls  | RB-76  |
|                            | RB-90  |
|                            | RB-130 |
| Incurved rim bowls         | RB-3   |
|                            | RB-6   |
|                            | RB-66  |
|                            | RB-123 |
|                            | RB-128 |
|                            | RB-133 |
| Incurred ledged rim bowls   | RB-112 |
| Outcurving wall bowls       | RB-23  |
|                            | RB-25  |
|                            | RB-129 |
| Outslanting wall bowls      | RB-17  |
|                            | RB-18  |
|                            | RB-19  |
|                            | RB-65  |
|                            | RB-119 |
| Outslanting slightly curved rim bowls | RB-21 |
|                            | RB-22  |

| Outslanting slightly everted rim bowls | RB-20 |
| Ovate bowls                      | RB-16  |
| Ridge composite bowls            | RB-85  |
| Ridge wall bowls                 | RB-81  |
| Rippled wall bowls               | RB-124 |
| Shallow bowls                    | RB-41  |
| Shallow bowls, heavy             | RB-121 |
| Shallow bowls, small             | RB-115 |
| Small bowls                      | RB-67  |
| Slightly everted rim bowls       | RB-70  |
| Small bowls                      | RB-77  |
| Tecomates                        | RB-135 |
|                                | RB-4   |
|                                | RB-131 |
**Design Codes**

Design codes were separated according to ceramic type. The following types had designs included in this analysis: Amatzi-nac 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 Ventia and Tres Zapotes ceramics used in the comparative analysis are given in Figure D.6.

---

**Table D.2. Olla Form Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO-8</td>
<td>Flaring neck ollas</td>
</tr>
<tr>
<td>RO-35</td>
<td>Flaring neck ollas with</td>
</tr>
<tr>
<td></td>
<td>drooping rims</td>
</tr>
<tr>
<td>RO-1</td>
<td>Flaring mouth ollas</td>
</tr>
<tr>
<td>RO-2</td>
<td>Ridge-necked ollas</td>
</tr>
<tr>
<td>RO-3</td>
<td>Rolled-lip ollas</td>
</tr>
<tr>
<td>RO-26</td>
<td>Rolled-lip ollas, short</td>
</tr>
<tr>
<td>RO-5</td>
<td>Necked</td>
</tr>
<tr>
<td>RO-11</td>
<td>Sharply outflaring ollas</td>
</tr>
<tr>
<td>RO-12</td>
<td>Short necked ollas</td>
</tr>
<tr>
<td>RO-23</td>
<td>Super flaring neck ollas</td>
</tr>
<tr>
<td>RO-34</td>
<td>Very short necked ollas</td>
</tr>
</tbody>
</table>

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**Table D.3. Other Form Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Bases, flat</td>
</tr>
<tr>
<td>H</td>
<td>Bases, round</td>
</tr>
<tr>
<td>I</td>
<td>Cantaritos</td>
</tr>
<tr>
<td>R</td>
<td>Handles, regular</td>
</tr>
<tr>
<td>A</td>
<td>Handles, twisted</td>
</tr>
<tr>
<td>B</td>
<td>Plates</td>
</tr>
<tr>
<td>C</td>
<td>Plates, roughened bottom</td>
</tr>
<tr>
<td>O</td>
<td>Plates, spouted tray</td>
</tr>
<tr>
<td>P</td>
<td>Supports, pointed-nub</td>
</tr>
<tr>
<td>Q</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td></td>
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<td>S</td>
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<td>V</td>
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<td>W</td>
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<td>X</td>
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<td>Y</td>
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</tr>
<tr>
<td>Z</td>
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</tr>
</tbody>
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**Table D.4. Olla Form Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO-8</td>
<td>Flaring neck ollas</td>
</tr>
<tr>
<td>RO-35</td>
<td>Flaring neck ollas with</td>
</tr>
<tr>
<td></td>
<td>drooping rims</td>
</tr>
<tr>
<td>RO-1</td>
<td>Flaring mouth ollas</td>
</tr>
<tr>
<td>RO-2</td>
<td>Ridge-necked ollas</td>
</tr>
<tr>
<td>RO-3</td>
<td>Rolled-lip ollas</td>
</tr>
<tr>
<td>RO-26</td>
<td>Rolled-lip ollas, short</td>
</tr>
<tr>
<td>RO-5</td>
<td>Necked</td>
</tr>
<tr>
<td>RO-11</td>
<td>Sharply outflaring ollas</td>
</tr>
<tr>
<td>RO-12</td>
<td>Short necked ollas</td>
</tr>
<tr>
<td>RO-23</td>
<td>Super flaring neck ollas</td>
</tr>
<tr>
<td>RO-34</td>
<td>Very short necked ollas</td>
</tr>
</tbody>
</table>
Figure D.1 Bowl form codes.
Table D.4. Design Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-1</td>
<td>Amatzinac White interior rim thin raspada incising</td>
</tr>
<tr>
<td>DC-2</td>
<td>Amatzinac White everted rim punctate incising</td>
</tr>
<tr>
<td>DC-3</td>
<td>Amatzinac White interior rim scallops</td>
</tr>
<tr>
<td>DC-4</td>
<td>Amatzinac White exterior shoulders incising</td>
</tr>
<tr>
<td>DC-5</td>
<td>Amatzinac White exterior flower</td>
</tr>
<tr>
<td>DC-6</td>
<td>Amatzinac White exterior raindrop</td>
</tr>
<tr>
<td>DC-7</td>
<td>Amatzinac White interior rim cross-hatching</td>
</tr>
<tr>
<td>DC-8</td>
<td>Amatzinac White interior rim pennants</td>
</tr>
<tr>
<td>DC-9</td>
<td>Amatzinac White exterior rainbow</td>
</tr>
<tr>
<td>DC-10</td>
<td>Amatzinac White exterior areas</td>
</tr>
<tr>
<td>DC-11</td>
<td>Amatzinac White interior rim wide raspada incising</td>
</tr>
<tr>
<td>DC-12</td>
<td>Amatzinac White RB-30 modeled punctate</td>
</tr>
<tr>
<td>DC-13</td>
<td>Amatzinac White RB-7 egg</td>
</tr>
<tr>
<td>DC-14</td>
<td>Amatzinac White exterior cross-hatching</td>
</tr>
<tr>
<td>DC-15</td>
<td>Amatzinac White exterior raspada incising</td>
</tr>
<tr>
<td>DC-16</td>
<td>Amatzinac White pseudo-graters</td>
</tr>
<tr>
<td>DC-17</td>
<td>Laca interior rim double-line-break with slashes</td>
</tr>
<tr>
<td>DC-18</td>
<td>Laca rims single line, line-breaks</td>
</tr>
<tr>
<td>DC-19</td>
<td>Laca RB-30 modeled punctate</td>
</tr>
<tr>
<td>DC-20</td>
<td>Laca pseudo-graters</td>
</tr>
<tr>
<td>DC-21</td>
<td>White-Rimmed Black interior rim punctates</td>
</tr>
<tr>
<td>DC-22</td>
<td>White-Rimmed Black pseudo-graters</td>
</tr>
<tr>
<td>DC-23</td>
<td>Carrales Coarse Grey exterior basal break punctates</td>
</tr>
<tr>
<td>DC-24</td>
<td>Carrales Coarse Grey exterior body ridging</td>
</tr>
<tr>
<td>DC-25</td>
<td>Carrales Coarse Grey RB-16 body lugs</td>
</tr>
<tr>
<td>DC-26</td>
<td>Carrales Coarse Grey exterior zoned slashes</td>
</tr>
<tr>
<td>DC-27</td>
<td>Carrales Coarse Grey exterior zoned V's</td>
</tr>
<tr>
<td>DC-28</td>
<td>Carrales Coarse Grey exterior zoned stairs or steps</td>
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<tr>
<td>DC-29</td>
<td>Carrales Coarse Grey exterior zoned X's</td>
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<tr>
<td>DC-30</td>
<td>Peralta Orange exterior shoulder punctates</td>
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<td>DC-31</td>
<td>Peralta Orange H-1 with incising on handle</td>
</tr>
<tr>
<td>DC-32</td>
<td>Pavón Fine Grey exterior body ridging</td>
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<td>Pavón Fine Grey wide incising</td>
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<td>Atoyac Unslipped Polished I RB-67 stick impressions on lip</td>
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<td>DC-38</td>
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<td>DC-39</td>
<td>Atoyac Unslipped Polished I cantaritos body lugs</td>
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Figure D.2. Bowl form codes.
Figure D.3. Base, dish, and olla form codes.
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–i, 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 punctuation. The two punctations are elongated and drawn slightly downward 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 appliquéd 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.1q): A straight-line opening lacking well-defined lips; about half open.
Mouth Form 2 (Fig. E.1r): A straight-line opening lacking well-formed lips; about three-fourths open.
Mouth Form 3 (Fig. E.1t): Turned down at the corners and lacking well-defined lips; about half open.
Mouth Form 4 (Fig. E.1g): Strongly downturned 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.1f): 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.1v): Broad and slightly triangular, raised only slightly above the face.
Nose Form 3 (Fig. E.1w): Broad, rectangular in plan, and triangular in cross section, set off from the face by incising along both sides.
Nose Form 4 (Fig. E.1x): Broad, triangular in plan, and flattened in cross section. It is appliquéd rather than modeled directly on the face.
Nose Form 5 (Fig. E.1y): 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.1z): Very broad in both plan and cross section. Its outline is slightly curved.
Nose Form 7 (Fig. E.1.m): Characterized by the depiction of the nostrils by punctuation.

**Hair Forms**

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

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

**Turban Forms**

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

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

Turban Form 3 (Fig. E.1.v): 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.1.f): 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.1.w): A hat-like object with a cord drawn across the front and allowed to hang down the side.

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

Turban Form 8 (Fig. E.1.y): 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.1.z): A double wrap arranged to form a rectangle at the top and an arc over the forehead.

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

Turban Form 11 (Fig. E.1.bb): 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.1.cc): 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.1.dd): A rectangle raised high above the head and set off from the face by a well-defined groove.

Turban Form 14 (Fig. E.1.lee): 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.

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Figure E.1. Figurine attributes: heads.
Turban Form 16 (Fig. E.1f): 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.1jf): 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 appliqued fillet with gouged incising, perhaps intended to depict a twisted cord.

Turban Embellishment 4 (Fig. E.1lj): 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 appliqued oval disk.

Turban Embellishment 8 (Fig. E.1pp): An appliqued 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 appliqued 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 ear spool.

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.1da): A simple pendant without a spool.

Ear Ornament 7 (Fig. E.1lt): 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 groove 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.2a]: 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.29]: Each breast is roughly circular in plan and has its greatest projection just below the shoulder.
Breast Form 3 [Fig. E.2f]: Both breasts are shaped like cones which have been flattened along the main axis of the figure's body.
Breast Form 4 [Fig. E.2a]: 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.21]: 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 punctuation straight into the abdomen.
Navel Form 2 [Fig. E.2y]: 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 downward 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 outward-turning 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.2f]: 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.2ij]: 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.2jl]: A headdress chin strap composed of a broad band which covers the chin and mouth.
Clothing Type 12 [Fig. E.1mm]: A narrow headdress 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 figure's back, under the buttocks, and along one side. The figureine and the chair seem to have been modeled separately.
Figure E.2. Figurine attributes: bodies.
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 pigmenting 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 María 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 chromatic 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 from 0/ for a neutral grey to 10/ 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" earspools. 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-variable comparisons of the sample lithic assemblages summarized in Chapter 18.

PART I. 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 multi-faceted. 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.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>15.5-80</td>
<td>25.89</td>
<td>3.74</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>11-25</td>
<td>20.00</td>
<td>3.74</td>
</tr>
<tr>
<td>Weight (gm)</td>
<td>4-44</td>
<td>22.44</td>
<td>10.07</td>
</tr>
<tr>
<td>Platform circumference (mm)</td>
<td>35-74</td>
<td>52.67</td>
<td>12.32</td>
</tr>
<tr>
<td>Number of facets around core circumference</td>
<td>8-13</td>
<td>9.44</td>
<td>1.89</td>
</tr>
<tr>
<td>Maximum facet width (mm)</td>
<td>6-9</td>
<td>7.78</td>
<td>0.92</td>
</tr>
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</table>

*T-37 obsidian concentration not included.

<table>
<thead>
<tr>
<th>Core Type and Dimension</th>
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<th>Mean</th>
<th>SD</th>
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<tr>
<td>Blocky cores (N = 12)</td>
<td>43-87</td>
<td>67.25</td>
<td>11.66</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>38-77</td>
<td>56.58</td>
<td>10.47</td>
</tr>
<tr>
<td>Max. width (mm)</td>
<td>32-75</td>
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<td>12.08</td>
</tr>
<tr>
<td>Max. thickness (mm)</td>
<td>72-535</td>
<td>208.00</td>
<td>113.34</td>
</tr>
<tr>
<td>Weight (gm)</td>
<td>25-62</td>
<td>43.40</td>
<td>11.74</td>
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<tr>
<td>Prepared cores (N = 5)</td>
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<td>33.60</td>
<td>11.98</td>
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<td>Length</td>
<td>20-41</td>
<td>30.60</td>
<td>7.86</td>
</tr>
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<td>Max. width (mm)</td>
<td>17-130</td>
<td>61.60</td>
<td>40.30</td>
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<td>Max. thickness (mm)</td>
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<tr>
<td>Weight (gm)</td>
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<td></td>
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</tbody>
</table>
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 flaking along the individual working edges of at least 5 mm and often more. As a result, a 5 mm maximum flaking depth was established as a useful dividing line between the utilized and retouched subcategories. Edges with depth of flaking from 1 to 4 mm are classified as utilized, while edges with 5 mm or greater flaking depth are classified as retouched.

Ground edges have been rounded, smoothed, and polished as a result of tool use. They may show utilization flaking 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 flaking 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 flaking. Bifacial flaking 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**

<table>
<thead>
<tr>
<th>Artifact Category and Dimension</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete blades (N = 5)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length [mm]</td>
<td>50–58</td>
<td>54.50</td>
<td>3.14</td>
</tr>
<tr>
<td>Max. width [mm]</td>
<td>13–34</td>
<td>18.00</td>
<td>8.07</td>
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<tr>
<td>Max. thickness [mm]</td>
<td>4–6</td>
<td>5.00</td>
<td>0.63</td>
</tr>
<tr>
<td>Weight [gm]</td>
<td>3–8</td>
<td>4.60</td>
<td>.85</td>
</tr>
<tr>
<td>Sample of incomplete blades (N = 105)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length [mm]</td>
<td>15–58</td>
<td>31.50</td>
<td>10.21</td>
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<tr>
<td>Max. width [mm]</td>
<td>8–22</td>
<td>13.57</td>
<td>2.86</td>
</tr>
<tr>
<td>Max. thickness [mm]</td>
<td>2–7</td>
<td>3.32</td>
<td>.04</td>
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<tr>
<td>Weight [gm]</td>
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<td>1.73</td>
<td>.19</td>
</tr>
<tr>
<td>Complete flakes (N = 48)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length [mm]</td>
<td>10–104</td>
<td>36.31</td>
<td>14.48</td>
</tr>
<tr>
<td>Max. width [mm]</td>
<td>10–58</td>
<td>29.23</td>
<td>12.20</td>
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<tr>
<td>Max. thickness [mm]</td>
<td>2–21</td>
<td>8.73</td>
<td>4.88</td>
</tr>
<tr>
<td>Weight [gm]</td>
<td>1–100</td>
<td>11.54</td>
<td>16.57</td>
</tr>
<tr>
<td>Chunks (N = 4)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length [mm]</td>
<td>25–86</td>
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<td>23.30</td>
</tr>
<tr>
<td>Max. width [mm]</td>
<td>16–45</td>
<td>29.75</td>
<td>10.38</td>
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<tr>
<td>Max. thickness [mm]</td>
<td>9–40</td>
<td>19.25</td>
<td>12.48</td>
</tr>
<tr>
<td>Weight [gm]</td>
<td>3–94</td>
<td>32.00</td>
<td>36.20</td>
</tr>
<tr>
<td>Distal blade core fragments (N = 6)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Length [mm]</td>
<td>23–40</td>
<td>31.00</td>
<td>6.83</td>
</tr>
<tr>
<td>Max. width [mm]</td>
<td>13–22</td>
<td>16.00</td>
<td>3.37</td>
</tr>
<tr>
<td>Weight [gm]</td>
<td>2–13</td>
<td>6.33</td>
<td>1.73</td>
</tr>
</tbody>
</table>

* 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**

<table>
<thead>
<tr>
<th>Artifact Subcategory</th>
<th>Maximum Depth of Chipping (mm)</th>
<th>Edge Angle (° intervals)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>Sample of utilized blade edges (N = 123)^a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retouched blade edges (N = 12)</td>
<td>1–4</td>
<td>1.56</td>
</tr>
<tr>
<td>Ground blade edges (N = 89)</td>
<td>1–5</td>
<td>1.84</td>
</tr>
<tr>
<td>Utilized flake edges (N = 144)</td>
<td>1–4</td>
<td>2.36</td>
</tr>
<tr>
<td>Retouched flake edges (N = 61)</td>
<td>5–17</td>
<td>8.05</td>
</tr>
<tr>
<td>Ground flake edges (N = 17)</td>
<td>1–6</td>
<td>2.75</td>
</tr>
<tr>
<td>Retouched chunk edges (N = 4)</td>
<td>7–17</td>
<td>11.00</td>
</tr>
</tbody>
</table>

^a A 20 percent random sample of the 615 recorded blade edges.

^b Because of the rounding created by grinding, edge angle is not accurately measurable.
Three of the utilized edges have small graver tips in addition to the general use of flaking. 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), concavo-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), concavo-convex (10), concave (9), rectangular (1), and sinusoidal (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), concavo-convex (10), pointed (6), denticulate (3), sinusoidal/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 face), and 5 are bifacial. Again, irregular chipping is dominant (10 specimens). Edge outlines for all specimens include convex (10), straight (3), concavo-convex (2), concave (1), sinusoidal/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, 39 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 ofhafting 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 specimen 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, with 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 excursive or ovate, 3 are triangular or straight-sided, and 3 are incurved. (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 Chsidian Tools in the Analyzed Lithic Collection from Chalcatzingo

<table>
<thead>
<tr>
<th>Artifact Category and Dimension</th>
<th>Number (N)</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projectile points</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete length (mm)</td>
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<td>29–39</td>
<td>33.92</td>
<td>3.86</td>
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<tr>
<td>Stem length (mm)</td>
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<td>4–14</td>
<td>7.91</td>
<td>2.91</td>
</tr>
<tr>
<td>Max. width (mm)</td>
<td>12</td>
<td>14–29</td>
<td>19.00</td>
<td>4.90</td>
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<td>Max. thickness (mm)</td>
<td>12</td>
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<td>Weight (gm)</td>
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<td>1–5</td>
<td>2.75</td>
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<tr>
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<td>45–90</td>
<td>70.77</td>
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<td><strong>Drill-like pieces</strong></td>
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<td>Basal section length (mm)</td>
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<td>17–54</td>
<td>29.00</td>
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<tr>
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<td>14–39</td>
<td>22.86</td>
<td>8.48</td>
</tr>
<tr>
<td>Max. blade width (mm)</td>
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<td>7–20</td>
<td>10.11</td>
<td>5.30</td>
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<tr>
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<td>3–14</td>
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<td>65–95</td>
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<td>8.89</td>
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<td>10.82</td>
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<td>11.17</td>
<td>4.34</td>
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<tr>
<td>Weight (gm)</td>
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<td>1–25</td>
<td>9.34</td>
<td>7.79</td>
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<td>Working edge angle*</td>
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<td>50–105</td>
<td>81.15</td>
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<td><strong>Coarsely shaped pieces</strong></td>
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<td>Length (mm)</td>
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<td>4–22</td>
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<td>4.37</td>
</tr>
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<td>Weight (gm)</td>
<td>31</td>
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<td>16.25</td>
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<td>40–105</td>
<td>77.30</td>
<td>12.50</td>
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<td><strong>Finely retouched blades</strong></td>
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<td></td>
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<tr>
<td>bipointed</td>
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</tr>
<tr>
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<td>3–6</td>
<td>4.36</td>
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<td>1–3</td>
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<td><strong>Finely retouched blades</strong></td>
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<tr>
<td>constricted outline</td>
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<tr>
<td>Basal section length (mm)</td>
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<td>19–25</td>
<td>21.86</td>
<td>2.17</td>
</tr>
<tr>
<td>Max. basal sec. width (mm)</td>
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<td>6–15</td>
<td>10.08</td>
<td>2.66</td>
</tr>
<tr>
<td>Max. blade width (mm)</td>
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<td>5–9</td>
<td>6.71</td>
<td>1.28</td>
</tr>
<tr>
<td>Max. tool thickness (mm)</td>
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<td>2–5</td>
<td>3.50</td>
<td>1.89</td>
</tr>
<tr>
<td>Blade edge angle*</td>
<td>12</td>
<td>50–85</td>
<td>67.50</td>
<td>11.46</td>
</tr>
<tr>
<td><strong>Other shaped blades</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pointed specimens</td>
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<td></td>
</tr>
<tr>
<td>Edge angle*</td>
<td>17</td>
<td>40–95</td>
<td>64.12</td>
<td>14.78</td>
</tr>
<tr>
<td>Other fragments</td>
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<td>6</td>
<td>45–85</td>
<td>70.00</td>
<td>13.84</td>
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<td><strong>Unidentifiable shaped pieces</strong></td>
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<td>Fragments on flake blanks</td>
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<td>77.14</td>
<td>9.95</td>
</tr>
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<tr>
<td>Unidentified blank type</td>
<td>5</td>
<td>40–85</td>
<td>76.00</td>
<td>16.25</td>
</tr>
</tbody>
</table>

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

*Edge angle measured in 5° intervals.
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, 4 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 consists 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 delicate. 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 worked 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, 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 paralleled sides, 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 uniffacially 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 uniaxially 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 uniaxially worked on the dorsal side, and 3 uniaxially 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.)

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

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<th>Range</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>Edge-modified pieces:</td>
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<tr>
<td>Complete flakes (N = 37)</td>
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<td>Max. thickness (mm)</td>
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<tr>
<td>Weight (gm)</td>
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<td>Chunks (N = 6)</td>
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<td></td>
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<td>Length (mm)</td>
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<td>Max. thickness (mm)</td>
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<tr>
<td>Weight (gm)</td>
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<td>Shaped pieces:</td>
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<tr>
<td>Edge angle†</td>
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*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**

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<th>Range</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td>Ground flake edges (N = 13)</td>
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<td></td>
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<tr>
<td>Retouched chunk edges (N = 5)</td>
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<td>60–95</td>
<td>85.00</td>
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</table>

*Because of the rounding created by grinding, edge angle is not accurately measurable.
ventrally, 1 on alternate faces, and 1 unidentified. 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 classification 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 specimens measure 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.

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

#### Table G.8. Variable 1: Raw Material

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

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

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Table G.11. Variable 4: Lithic Workshop Identifiers

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

Table G.12. Variable 5: General Tool Classes

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<th>Assemblage</th>
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<th>Edge-Modified Pieces</th>
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Table G.13. Variable 6: Modified Tool Classes

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*Flakes, chunks, cores.
### Table G.14. Variable 7: Shaped Tool Categories

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<th>Wedge-shaped Pieces</th>
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*Percentages omitted because of small sample size.

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*Flakes, chunks, cores.

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*Percentages omitted because of small sample size.

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

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*Flakes, chunks, cores.

*Percentages 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 21.5). 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 hillside 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 oxcart.

Middle Formative Occupation: Archaeological remains: Middle Formative ceramics were recovered from the surface of some RAS-1A terraces, indicating that these terraces are probably contemporary with terrace construction 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-Lázaro highway, north-northeast of the present village of Chalcatzingo.

Natural setting: The site is 355 m east of the Río Amatzinac between the 1,450–1,400 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 farmed 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-Lázaro 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 x 5 x 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° 41' 16.7”
Longitude: 98° 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 Rio Frio. An impermanent barranguilla runs along the eastern edge of the site, and the Rio Amatizanac 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 context, including both Barranca and Cantera phase materials. A Cantera phase double-loop handle ceaser 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° 41' 50.1”
Longitude: 98° 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 Rio Frio. 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° 41' 6.68”
Longitude: 98° 48' 51.77”

Location: South of the town San Gabriel Amacutlapilco.

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 ozen. 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° 41' 15.03”
Longitude: 98° 48' 55.11”

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

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 Rio Frio-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 ozen. 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° 42' 0”
Longitude: 98° 48' 23.38”

Location: In the irrigated fields northeast of San Gabriel Amacutlapilco.

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 Rio Frio.

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

**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 Frio, at the 1,400 m contour interval. Springs can be found in the barranca below the site. The vegetation community is the Pitehecollium 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 Frio. 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 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 Frio north of San Gabriel Amacuitlapilco.

Natural setting: The topographic zone is Flat Plains and the vegetation zone is Pitehecollium Woodland. Site elevation is 1,400 m. The closest permanent water source is the Río Frio 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 Frio, directly on an east-west crossing through the barranca. The topographical zone is Flat Plains, and the vegetation zone is Pitehecollium 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' 8.85"

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

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

Modern utilization: The site 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 permanent 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 380 m east of the Rio Frio.
Modern utilization: The area is irrigated and planted year round in maize. Utilization is with teams of oxen. Late Formative Occupation: Archaeological remains: A light scatter of Late Formative materials was found. 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 (Firth 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-Izucar 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 chillies 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 Rio Frio 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-Izucar 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 Rio Frio 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 Rio 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 barrío.
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 Rio 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 Rio 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 barrío 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 Rio 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 architectural 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, southeast of the town of Huazulco.

Natural setting: The site is situated in the Huizachte Grassland vegetation zone, about 45 m east of the Rio 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 Huizachte Grassland with access to the Barranca zone. The site is 150 m east of the Rio Amatzinac on the Barranquilla de las Tres Escaleras. It is situated between two north-south running barrancas where they merge with the Rio 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: Archaeological remains: This 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 Huizachte Grassland. The site is 245 m east of the Rio 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 Amayauc.

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 plain wares 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 Amayauc 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: Archaeological 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 Pitheclebo-
bium Woodland and Flat Plains zones. It is 1,250 m west of the Rio Amatzinac and 980 m east of the Rio 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-71**

**Latitude**: 18° 46' 5.01"
**Longitude**: 98° 46' 13.36"

**Location**: 200 m east of Temoca 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 Pithecleboium Woodland, although the site has easy access to the Rio 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**: 200 m east of Temoca in the municipio of Zacualpan.

**Natural setting**: This site is in the Pithecleboium Woodland zone 70 m west of the Rio 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 Pithecleboium Woodland. The site is 345 m west of the Rio 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 Occupations**: 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 Temoc.

**Natural setting**: This site is in the Pithecleboium woodland zone 280 m west of the Rio 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 Occupations**: 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 Temoa 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 Amatitlán. 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 Amatitlán, 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 Amatitlán 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 Amatitlán.

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-white 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 Amatitlán. 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 Amatitlán 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 Tepalcinto.

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 Amatitlán, 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 Tepalcinto.

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 Tepalcinto.

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 Tepalcinto, 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-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 imperfect 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 topographic 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 rancheria 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 Rio 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 Rio 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-112 (El Palacio)
Latitude: 18° 32′ 33.4″
Longitude: 98° 50′ 13.36″
Location: Along the riveri el Grande – riveri el Chico mountain road in the municipio of Tepalcingo.

Natural setting: This site is situated on rolling hills bordering the west side of the Rio Frio 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 Rio Frio. 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 constructed 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 Rio Frio. 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 Rio Frio 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 Occupation: 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 Rio Tepalcino due north of Ixtilco 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 Ixtilco 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 Rio 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 material 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 Ixtilco 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 Rio 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 Ixtilco el Chico in the municipio of Tepalcino.

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 Rio 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 fallow 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 railroad, 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 appear 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 Rio 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 Rio 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 Amatitlan. 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, Late Classic Isolated Residence.

**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 Amatitlan 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 Rio 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 Frío 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 dispersions. 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 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 m 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 Amatiznac 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 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-210
Latitude: 18° 30' 0"
Longitude: 98° 43' 51.77"
Location: Just to the south of the Axochiapan 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 Amatiznac 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 Atitzitlca.

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 Amatiznac 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, sugar cane, 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 3,800 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' 0.00"

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.

**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 Frío 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 permanent 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.

**RAS-243**

Latitude: 18° 38' 33.4"
Longitude: 98° 45' 15.03"

Location: At the southeast corner of the Cerro Tenango alongside the Río Amatizinac.

Natural setting: The site lies in a natural pocket formed by the eastern slopes of the Cerro Tenango and the Río Amatizinac. 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 survey, 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 sherdswere 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 building sites 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 Jaconatepec.

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 Amatizinac 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 scatter of Middle 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: 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.
Middle Formative Occupation: Archaeological remains: This is largely a Middle 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 Jocacatepec.

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 Pithecellodium Woodland, River Bottomland, and Interior Valley Cerros vegetation zones. It is 2.20 km west of the Río Amatznica 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 Amatznica, in the Flat Plains topographic zone between the 1,350 and 1,400 m contour intervals. It is in the Pithecellodium 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. Collections 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 Pithecellodium 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 Amatznica 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.


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 shine.
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, spiral 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 sherdss 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 1 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 “oj estelar,” the xicalcoliuhqui motif (e.g., Fig. I.1h) 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 in-curving 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.3a–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 in-curving 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.3n–s).

A single everted rim form was found in the subfloor platform fill of the house (Fig. I.3j) and a single olla sherd from the house fill (Fig. I.3m).

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 “bus” than those which have just been described (Fig. I.3t–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 splashes 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 1.1. Black on Orange wares, vertical to incurving wall, recurved rim bowls. [In Figures 1.1–1.16, 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

<table>
<thead>
<tr>
<th>Ceramic Ware</th>
<th>Olla</th>
<th>Bowl</th>
<th>Comal</th>
<th>Totals</th>
</tr>
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<tbody>
<tr>
<td>Black on Orange</td>
<td>1/0</td>
<td>78/45</td>
<td></td>
<td>79/45</td>
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<tr>
<td>Polished Red</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plain Polished Red</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black on Red</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphite-Black on Red</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Black and White on Red</td>
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<td></td>
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<td></td>
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<td>Graphite-Black and White on Red</td>
<td></td>
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<tr>
<td>White on Red</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black and White and Orange on Red</td>
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<td></td>
<td></td>
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<tr>
<td>White-Slipped Orange Ware Polychromes</td>
<td>25/18</td>
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<td>25/18</td>
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<tr>
<td>Red on Burnished Buff</td>
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<td>62/26</td>
<td>67/26</td>
<td></td>
</tr>
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<td>1/1</td>
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<tr>
<td>Brown-Banded Orange-Slipped</td>
<td>12/6</td>
<td></td>
<td>12/6</td>
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</tr>
<tr>
<td>Brown or Orange-Slipped Utilitarian</td>
<td>4,708/153</td>
<td>1,238/230</td>
<td>624/97</td>
<td>6,570/480</td>
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<tr>
<td>Unslipped Burnished</td>
<td>766/6</td>
<td>631/112</td>
<td>4/4</td>
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<tr>
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</table>

Note: Sherd totals shown include rims, which are also tabulated separately.

may indicate that they were once greater 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. I.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 Oxtotipac excavations in the Teotihuacan Valley. Oxtotipac 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 Hueoxtoc phase, which corresponds temporally to Griffin and Espejo's Culhuaucan 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 sequence 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 zoomicromorphic 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. I.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; l–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 (68 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 Oxtotpec 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.

**White Slipped Orange Ware Polychromes (25 sherds/18 rims; Fig. 1.10)**

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. 1.8s)**

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 on 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. 1.8y).

**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 polished 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.
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 L.6. Polished Red wares: Graphite-Black on Red plate forms.
Figure 1.7. Polished Red wares: Graphite-Black on Red engraved bowls.
Figure L8. 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 Tlalhuica ceramics of western Morelos, although their association at this time is anything but clear.

**Red on Burnished Buff Ware (67 sherds/26 rims; Fig. 1.11)**

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 (5YR6/1, 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. 1.11a–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. 1.11q–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. 1.12)**

**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 Tlalhuica Black and Red on White and Orange ware 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. 1.13)**

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 1.10. 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 (5 YR5-6/8 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–v) 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 [1], Parsons 1966: Figs. 65, 66. Strap handles which were found in the Tetla collection (Fig. I.14 s–w) 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.14 v) 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.14 w–j]]

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 measureable 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.14 ii, jj).

Bowls [1,238 sherds/230 rims; Fig. I.14kk–jj]]

With the exception of one direct rim hemispherical bowl fragment (Fig. I.14rr), 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 moicacite fondo sellado (stamped grater bottom; Fig. I.14 jj) 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.14kk–III]]

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.14 mm; Fig. 255 (a)]

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 [10YR 5/1] to light brown [7.5YR 5–6/4 and 5YR 4/4] and reddish brown [7.5YR 5/3 and 2.5YR 5/4–6].

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–jj, bowls; kkk–III, colander or incensario sherds; mmm, shoe-pot.
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.

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**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 punctuates 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 unslied 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. Unre touched blades, flakes, and cores make up 96 percent of the total lithic collection. The remaining 4 percent includes projectile points, bifaces, scrapers, eccentricities, 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 Suhn and Kriger 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
Postclassic Artifacts from Tetla

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 bars recovered by George C. Vaillant from Teotihuacan. These points

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**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

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<td>White</td>
<td>Other</td>
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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 carpool 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 Ticon Alare, 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 Pithecellodium Woodland zone (see Chapter 3 for an explanation of these zones). Rabbits were exploited in the Huazache 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>
<thead>
<tr>
<th>Class and Genus</th>
<th>Common Name</th>
<th>Number of Specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reptilia</td>
<td></td>
<td>Class</td>
</tr>
<tr>
<td>Kinosternon</td>
<td>Turtle</td>
<td>3</td>
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<tr>
<td>Aves</td>
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<td>4</td>
</tr>
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<td>Accipitridae</td>
<td>Hawk</td>
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</tr>
<tr>
<td>Anatidae</td>
<td>Goose, duck</td>
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</tr>
<tr>
<td>Amazona</td>
<td>Parrot</td>
<td>1</td>
</tr>
<tr>
<td>Meleagris</td>
<td>Turkey</td>
<td>1</td>
</tr>
<tr>
<td>Icteridae</td>
<td>Oriole</td>
<td>(1 skeleton)</td>
</tr>
<tr>
<td>Corvidae</td>
<td>Crow</td>
<td></td>
</tr>
<tr>
<td>Mammalia</td>
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</tr>
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<td>Didelphis</td>
<td>Opossum</td>
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</tr>
<tr>
<td>Sylvilagus</td>
<td>Rabbit</td>
<td>69</td>
</tr>
<tr>
<td>Orthogeomys</td>
<td>Gopher</td>
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</tr>
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<td>Dog</td>
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<tr>
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<td>Fox</td>
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<tr>
<td>Procyon</td>
<td>Raccoon</td>
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<tr>
<td>Nasua</td>
<td>Coati-mundi</td>
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</tr>
<tr>
<td>Mephitus</td>
<td>Skunk</td>
<td>1</td>
</tr>
<tr>
<td>Felis</td>
<td>Puma</td>
<td>1</td>
</tr>
<tr>
<td>Dicostyles</td>
<td>Peccary</td>
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</tr>
<tr>
<td>Odosorales</td>
<td>Deer</td>
<td>40</td>
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### Table J.2. Distribution of Faunal Remains by Phase

<table>
<thead>
<tr>
<th>Class and Genus</th>
<th>Amate</th>
<th>Barranca</th>
<th>Cantera</th>
<th>Classic</th>
<th>Undated</th>
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<tr>
<td><strong>Reptilia</strong></td>
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<td></td>
</tr>
<tr>
<td>Kinosternon</td>
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<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accipitridae</td>
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<tr>
<td>Anatidae</td>
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<td></td>
</tr>
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<td>Amazona</td>
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<td></td>
<td></td>
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<td>Meleagris</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Icteridae</td>
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<td></td>
<td></td>
<td>[1 skeleton]</td>
<td></td>
</tr>
<tr>
<td>Corvidae</td>
<td></td>
<td></td>
<td></td>
<td>[1 skeleton]</td>
<td></td>
</tr>
<tr>
<td><strong>Mammalia</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didelphis</td>
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<td>2</td>
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<td>14</td>
<td>6</td>
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<td>(+ 1 skeleton)</td>
<td></td>
<td></td>
<td>(+ 2 skeletons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urocyon</td>
<td>2</td>
<td></td>
<td>3</td>
<td></td>
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<tr>
<td>Procyon</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasua</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mephitis</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felis</td>
<td></td>
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</tr>
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<td>Dicoteles</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ocelocolus</td>
<td>4</td>
<td>2</td>
<td>30</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

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 revealed 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 (Schoening 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.](image)

![Figure J.2. Distribution of faunal remains for the Cantera phase.](image)