

13. Ceramics

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Over one million sherds from the Chalcatzingo excavations were analyzed in the project laboratory in Cuautla, Morelos. The descriptive typology which follows is based upon this lengthy analysis. The temporal ranges of types and forms derive from the sherds from the thirty-eight Selected Stratigraphic Units (see Chapter 5 and Appendix B), where dating to subphase was most secure.

The principal goals of the ceramic analysis were (1) to devise classificatory units (types) for describing the artifacts, and (2) to determine which ceramic attributes could be used as chronological markers. Surface treatment and paste were the major criteria for defining the types. Vessel form proved to be the most useful attribute for determining change through time. The form analysis was organized so that this attribute could be handled either independently or in conjunction with the descriptive typology.

Sherds were analyzed by catalogued provenience units. In the analysis of each sherd the following information was recorded.

1. Surface treatment:

- a. Color, designated in the Munsell Soil Color System (Munsell 1971).

- b. Luster, designated as highly polished, poorly polished, "stick" polished, matte, smoothed, or roughened.

- c. The presence or absence of slip.

- d. The presence or absence of painting.

- e. The presence or absence of fire-clouding.

2. Paste characteristics:

- a. Color, designated in the Munsell Soil Color System.

- b. Presence or absence of a grey or black (reduced) core.

- c. Kind, size, and abundance of temper.

- d. Fracture, designated as sharp, medium, or crumbly.

- e. Wall thickness.

3. Form.

4. Plastic decoration.

The analysis of form involved the construction of rim and body form charts (Appendix D) in which all known forms within Chalcatzingo's Formative period ceramics have been accommodated and coded. The following categories were used: bowls (RB), ollas (RO), dishes or plates (RD), bases (various codes), supports (S), handles (H), and *cantaritos* (C). Braziers constitute special cases which do not fit in well with the established categories due to their generally eroded state. Brazier forms are discussed in detail later in this chapter.

In the type descriptions, forms are given for each subphase, noting diagnostic and common forms. Forms possibly having chronological significance are marked with an asterisk (*).

Categories were also devised for the different kinds of plastic decoration. The resulting design codes (DC) are based on the design or form of decoration, pottery type, and in some cases vessel form. These categories are defined and illustrated in Appendix D. Decoration proved to be an important temporal marker for some, but not all types.

Following the creation of the descriptive typology, I conducted, under the supervision of Fernando Ortega at UNAM, a petrographic analysis using thin sections of the major types. The results of fifty-three thin section samples are given in Table 13.1, and a general summary of the analysis is provided in the type descriptions. This analysis greatly aided in distinguishing ceramics local to the Chalcatzingo area (those having temper derived from local volcanic tuffs) from imported types.

The bulk of the Chalcatzingo ceramics show the same petrographic character.

The use of volcanic tuff as tempering material was continuous through the Early and Middle Formative. Petrographic comparisons of sherd samples with volcanic tuff from Chalcatzingo itself show the similarity of constituents. Although the distribution of tuffs is widespread in Mexico, the high frequency of these ceramics in the Chalcatzingo assemblage probably indicates their local character. Two major types shown by the petrographic analysis to be non-local imports are Del Prado Pink and Pavón Fine Grey.

The ceramic type descriptions are presented here generally in chronological rather than alphabetical order, beginning with the major types of the Amate phase. The descriptions include temporal range (when it could be determined), surface treatment, paste and temper characteristics, forms occurring in each subphase, and plastic decoration. Following the description is a discussion of comparisons of the type to Formative ceramics from other sites in Mesoamerica. A glossary is provided at the end of the chapter for defining the more technical terms associated with ceramic description.

Summary data derived from the Selected Stratigraphic Units are provided in Tables 13.2, 13.3, and 13.4.* These data will give the reader a better understanding of changes in ceramic attributes through time, and can be used for serializing these attributes. However, it should be remembered that the ceramic analysis as a whole was derived from all of the excavations and not just these selected units.

* Editor's note: These tables are syntheses of lengthy, detailed appendices submitted by the author to supplement this chapter. Unfortunately, space considerations did not permit their publication. The editor takes responsibility for any inaccuracies in these summary tables.

Table 13.1. Petrographic Analysis of Thin Sections

TYPE	MINERALS										ROCK FRAGMENTS					
	Plg	An	Opy	Hbl	Cpy	Qtz	Musc	CorP	AlkF		And	Dac	Qtz	MicS	SS	RhyR
Amatzinac White	1	30	2	3	4						+	+	X			
Amatzinac White	1	25	2	3							+	+				
Amatzinac White	1	28	2	3	3						+	+				
Amatzinac White	1	28	2	3	4	X					+					
Amatzinac White	1	27	2	3				X			+	+				
A.W. Ext. White, Int. Plain	1	34	2	3	4						+					
A.W. Paste Variant	1	28	2	2	4						+					
A.W. Ruddy Paste Variant	1	33	2	3							+					
A.W. Surface Treatment Var.	1	30	2	2	4						+					
Amayuca Ruddy	1	28	2	3	4						+				X	
Arboleda Coarse	1	26	2	2												
Arboleda Coarse	1	26	2	2	3						+				X	
Atoyac Unslipped Pol. I	1	28	2	2							+					
Atoyac Unslipped Pol. I	1	29	2	2	4						+				X	
Atoyac Unslipped Pol. II	1	27	2	2	3											+
Atoyac Unslipped Pol. II	1	28	2	3							+				X	
Brazier, Type I	1	26	3	2	4				X				X			
Brown-Slipped, Streaky	1	31	2	3							+					
Carrales Coarse Grey	1	28	2	3	4						+	+				
Carrales Coarse Grey	1	26	2	3	4						+	+				
Carrales Coarse Grey	1	30	2	4	3						+					
Carrales Coarse Grey	1	31	2	3	3						+	+				
Carved Grey	1	28	2	3							+					
Cuautla Brown	1	30	2	3				X			+					
Cuautla Brown	1	31	2	3				X			+					
Cuautla Red-Slipped	1	29	2	3				X			+	+	+			
Cuautla Red-Slipped	1	29	2	3	4			X			+					
Del Prado Pink						2							1	1		
Del Prado Pink													2	1		
Kaolin					1								2			
Laca	1	30	2	3	4						+					
Laca	1	32	2	3	3						+	+				
Laca	1	29	2	3	3						+	+				
Laca, Imitation	1	28	3	2							+					
Manantial Orange-on-White	1	27	2	3	4											
Mingo Fine Brown	1	30	2	2								+				
Pavón Fine Grey	X							Altered					X			
Pavón Fine Grey								Altered					1			
Pavón Fine Grey	X							Altered					1			
Peralta Orange	1	31	2	3	4						+	+				
Peralta Orange	1	30	2	2		X					+	+				
Peralta Orange	1	26	2	3		X						+				
Peralta Orange	1	28	2	3							+	+				
Santa Clara Orange	1	28	2	3	3						+					
Tadeo Coarse	1	26	2	3	4										X	
Tadeo Coarse	1	26	2	3	4						+					
Tenango Brown	1	27	2	2								+				
Tenango Brown	1	25	2	3	4						+	+				
White-on-Red	1	28	2	2	4			X			+					
White-Rimmed Black	1	30	2	3							+					
White-Rimmed Black	1	33	2	2	3						+					
Xochitengo Polychrome	1	22	2	3	3						+					
Xochitengo Polychrome	1	30	2	3							+					

MINERALS

Plg: plagioclase.

An: anorthite.

Opy: orthopyroxene.

Hbl: hornblende.

Cpy: clinopyroxene.

Qtz: quartz.

Musc: muscovite.

CorP: corroded plagioclase.

AlkF: alkaline feldspar.

ROCKS

And: andesite.

Dac: dacite.

Qtz: quartzite.

MicS: micaceous schist.

SS: sandstone.

RhyR: rhyolitic rock.

The numbers 1–4 represent the order of frequency of the minerals, with 1 being the highest order (Sánchez-Rubio 1977).

The An (anorthite) numbers represent the composition of the plagioclase, forming a series ranging from sodic to calcic (albite to anorthite).

X is equivalent to a trace (one or two grains).

+ indicates presence ranging from 1 to 10 percent.

Table 13.2. Selected Stratigraphic Units: Distribution of Types by Subphase (Sherd Counts)

Type	EA	LA	EB	Subphase		EC	LC
				MB	LB		
Cuautla Brown	151	2,819	18	86	485	913	760
Cuautla Red-Slipped	52	888	12	21	186	304	173
Atoyac Unslipped	155	2,817	133	108	772	873	2,046
Polished *							
Arboleda Coarse	159	2,361	39	41	153	65	86
Del Prado Pink		148	2	8	23	18	15
Tadeo Coarse	2	173	3	15	96	107	352
Carved Grey		6			4	4	10
Kaolin		2		1	18	6	4
Manantial Orange-on-White			1	14	51	18	32
Amatzinac White	3	111	247	493	3,560	5,941	16,056
Variants:							
Red Paste		1	2	3	32	12	72
Ruddy Paste					1	1	5
Surface Treatment		3	1		1	1	10
Paste		5		1		4	
Exterior White-Slipped, Interior Plain		2					6
Laca		10	56	135	862	872	1,248
Imitation Laca	1	1		3	5	26	39
Tenango Brown	22	848	395	998	6,487	7,320	13,257
White-Rimmed Black	4	64	35	89	614	753	788
Peralta Orange	5	123	248	300	2,463	3,824	12,316
Pavón Fine Grey		1	7	9	66	131	326
Carrales Coarse Grey		25	2	13	80	237	2,534
Xochitengo Polychromes		2			9	61	169
Amayuca Ruddy		1			12		138
Mingo Fine Brown				2	3	13	157
Santa Clara Orange					1		13
Atotonilco Black	1	50	3	9	58	56	86
Brown-Slipped Streaky			1		2		2
White-on-Red						2	
Totals	555	10,461	1,205	2,349	16,044	21,562	50,700

Subphases: EA, Early Amate; LA, Late Amate; EB, Early Barranca; MB, Middle Barranca; LB, Late Barranca; EC, Early Cantera; LC, Late Cantera.

* Data not separated by I, II, or III.

The chapter concludes with some comments and comparisons to Gulf Coast Formative ceramics. At the time of the laboratory analysis it was difficult to compare the Chalcatzingo ceramics with those from major Gulf Coast centers, since the San Lorenzo data were still in preparation, and the descriptions from La Venta (P. Drucker 1952; P. Drucker, Heizer, and Squier 1959) and Tres Zapotes (P. Drucker 1943a; Weiant 1943) were either too brief or for other reasons incompatible with our analysis.

Nevertheless, because such comparisons could be of value, travel funds were acquired in 1977 from a private donor in

order to make an inspection of the various collections. The La Venta and Tres Zapotes ceramics at the Smithsonian Institution (see Fig. D.6) and the San Lorenzo ceramics at Yale University were briefly studied. The analysis of these artifacts provided a clearer idea of general and temporal relationships between Chalcatzingo's ceramics and those of Gulf Coast sites as well as relationships between the ceramics of the Gulf Coast centers.

TYPE DESCRIPTIONS

Cuautla Brown

Temporal Range: Cuautla Brown was abundant in the Early and Late Amate subphases, began to diminish in the Early Barranca, and was present in the later subphases only in minute quantities.

Surface Treatment: Vessel surfaces tend to be well polished; occasional "stick" polishing is evident. Surface color is variable: 2.5 YR 3-5/4-6, 3-5/2, 3/0; 5 YR 2.5/2, 3-4/1-2, 3-5/3-4; 10 YR 2.5-3/1, 5/1-2, 4-5/3; 7.5 YR 2/0, 4/0, 3-6/2, 4/4.

Paste and Temper: The paste is fine particled and has a sharp fracture. The paste color range is 2.5 YR 4-5/4, 3-5/2, 3-5/6, 3/0; 5 YR 3/1-2, 3-5/4, 3-5/6; 10 R 2.5-3/1-2.

No more than 9 percent of the paste volume is aplastics. Plagioclase (An 30-31) is the most frequently occurring mineral, 5 percent of the total volume, and grains range in size from 80 to 580 microns. Many plagioclase grains present evidence of magmatic corrosion. Orthopyroxene composes 1-3 percent of the volume, and grains measure 120-800 microns. Some of the orthopyroxenes are poikilitic. Less than 1 percent of the volume is hornblende, whose grain size is 160-700 microns. Basaltic andesite, iron stains, and leucoxene are present.

Forms (Figs. 13.1, 13.2):

Early Amate subphase

Outslanting wall bowls (RB-17)
Outcurving wall bowls (RB-25)
Flaring neck ollas (RO-12, 15)
Flat bases predominate

Late Amate subphase

Diagnostic phase markers
Beveled rim ollas (RO-8)
Bottles (RO-35)
High shoulders (Base M)

Common forms

Hemispherical bowls (RB-7)
Outslanting wall bowls (RB-17, 18)
Shallow bowls (RB-41)

Other forms

Hemispherical bowls (RB-66, 93)
Outslanting wall bowls (RB-19)
Cylindrical bowls (RB-14) *
Beveled rim bowls (RB-37) *
Tecomates (RB-1)
Incurved rim bowls (RB-3)
Outcurving wall bowls (RB-23, 25)
Flaring wall bowls (RB-26)
Highly outcurved bowls (RB-76)
Flaring neck ollas (RO-5, 12)

Flaring neck ollas with drooping rims (RO-9)

Super flaring neck ollas (RO-17)

Collared ollas (RO-2)

Flat and rounded bases

While Cuautla Brown ollas (RO-35; Fig. 13.1v-*jj*) ended with the Late Amate subphase, some Late Amate forms continued into the Early Barranca. From the Middle Barranca through the Late Cantera, Cuautla Brown declined markedly as an important type, and may be in our sample only as "float" material.

Plastic Decoration: Exterior incising on *tecomate* forms, incurved rim bowls, and hemispherical bowls often takes the form of the "Tlatilco panel" (Paul Tolstoy, personal communication; see Fig. 13.1g and 13.2). Gadrooning and finger impressions occur as olla decorative techniques. Grooving is present on the exteriors of both ollas and bowls (Fig. 13.1hh). One incised line was often executed immediately below the rims of bowls.

Comparisons: Café Rojizo, Bayo, and Café Oscuro types from Piña Chan's Chalcatzingo excavations (1955: Figs. 4t, 9ñ, o, t-x, 18f, j) are similar to Cuautla Brown. Café Oscuro and Café Claro from Atlahuayan, Morelos, and Café Rojizo o Bayo and Café Claro from Tlatilco have hemispherical bowls with the Tlatilco panel incised motif (Piña Chan and López González 1952: Fig. 1; Piña Chan 1958: Figs. 10i, j, 39o-q, 45p, q). Brown ware flaring wall bowls, everted rim bowls, and globular bottles are typical of the Early Nexpa phase of the Río Cuautla area, while during the Late Nexpa phase, cylindrical bowls appear (Grove 1974b: 30, 77-78). Tlatilco panel motifs, along with gadrooning and ledged bottle necks, are present on Incised Brown and Black ware and Brown bottles from Gualupita (Vaillant and Vaillant 1934: Figs. 20-22). At Iglesia Vieja, Morelos, globular bottle forms and the Tlatilco panel design are present in La Manuela subphase (Grennes-Ravitz 1974: 102). The Tlatilco panel design on hemispherical bowls apparently is a decorative motif restricted to the central highlands, principally in the Valley of Mexico and Morelos. Gadrooned brown vessels are present during the Bajío phase at San Lorenzo (Coe 1970: 24).

Cuautla Red-Slipped

Temporal Range: Cuautla Red-Slipped began in the Early Amate subphase, was abundant in the Late Amate, and diminished in the Early Barranca.

Table 13.3. Selected Stratigraphic Units: Distribution of Forms by Subphase (Sherd Counts)

Form	Subphase						
	EA	LA	EB	MB	LB	EC	LC
RB-1		19	2	5	15	14	64
RB-3	1	44	5	19	82	121	172
RB-6		2					5
RB-7	4	75	19	40	252	289	655
RB-14	1	30	2	1	45	53	98
RB-16			6	18	50	33	96
RB-17	6	112	11	36	185	275	616
RB-18	2	111	15	34	205	484	632
RB-19		36	12	21	171	253	768
RB-20				1	25	16	27
RB-21		1		2	19	20	26
RB-22				1	5	5	16
RB-23	8	66	8	19	152	288	768
RB-25	4	39	9	43	228	410	1,353
RB-26		7	11	26	147	119	202
RB-30			8	17	125	103	234
RB-31		1			7	14	63
RB-35		10			11	14	19
RB-37	1	65	3	3	29	40	71
RB-38		6	1		14	19	16
RB-41	7	61	9	24	279	382	811
RB-45			1	1	5	28	226
RB-60		6			3	10	11
RB-62				9	19	26	70
RB-65		1					2
RB-66		7				2	8
RB-67	1	2			6	20	413
RB-70		1			3	12	118
RB-71						9	52
RB-74					1		3
RB-75		1			4	4	6
RB-76		1		2	7	14	48
RB-77		1	3	3	27	57	77
RB-78					1		4
RB-79						1	2
RB-80						5	2
RB-81							1
RB-85						1	6
RB-88					5	1	3
RB-89						2	65
RB-90		3	1	2	38	14	511
RB-91		6				1	8
RB-93		2	1		3	1	4
RB-99				1	2		5
RB-100				1	6	11	20
RB-101		2	1		6	7	74
RB-102					1		22
RB-109							1
RB-115		2		1	2	6	5
RB-116							5
RB-117							1
RB-119							1
RB-120							2
RB-121							2
RB-122					1		
RB-123							2
RB-125					1	4	1
RB-128							1
RB-130							1
RB-131						1	1
RB-132						2	
RB-133		1					

Table 13.3 (continued)

Form	Subphase						LC
	EA	LA	EB	MB	LB	EC	
RB-134							1
RB-135							1
RB-137					1		
RO-1	1	3	1	5	18	30	30
RO-2						5	8
RO-3					1		
RO-5	6	81	10	12	64	129	203
RO-8	2	60		6	29	37	39
RO-9		8			14	23	17
RO-11		2			4	5	7
RO-12	1	33	6	3	48	87	259
RO-15	1	1			2	8	17
RO-16		1			2		1
RO-17		18	3	6	27	34	44
RO-25		1				3	19
RO-26							1
RO-27						2	40
RO-28			1		4	9	16
RO-29		2			2	2	48
RO-30						5	22
RO-31		1			1	1	19
RO-32							2
RO-33							1
RO-34							1
RO-35		6			3	1	
Flat base	1	39	12	41	258	273	422
Rounded base	3	25	47	54	457	723	1,515
Base M	1	18		1	10	38	312
RD-1		1			9	1	7
RD-2		2		1	8	6	27
RD-3				1	10	16	24
RD-4			1	2	22	15	36
RD-5				2	10	5	1
RD-7					1	1	3
RD-8			2	4	24	20	23
RD-9					3	1	35
RD-10				1			1
H-1		3			12	22	128
H-4					3		19
S-1						1	4
S-2					1	1	2
S-3-4					1		2
S-6		1				1	
S-7		17		1	5	1	9
C		2			3	2	14
Totals	51	1,046	211	470	3,244	4,699	11,876

Subphases: EA, Early Amate; LA, Late Amate; EB, Early Barranca; MB, Middle Barranca; LB, Late Barranca; EC, Early Cantera; LC, Late Cantera.

Surface Treatment: The interiors of bowls may be entirely slipped in red, the rims of vessels may be painted red, or the exteriors of vessels may be painted with horizontal or vertical bands of red slip over a beige-brown background (Fig. 13.3a-c). Ollas characteristically have zoned red painting. Surfaces are well polished except for grater vessels, whose interior bases are unfinished. The color range for the red slip is 7.5 YR 3/4-6, 3-4/6-8; 10 R 3/6, 5/6. The background color is variable: 7.5 YR 6-7/4, 4-5/2; 10 YR 6-7/2-4; 5 YR 5/6, 4/2; 2.5 YR 5/6, 3/2-4, 3/0.

Paste and Temper: The paste is fine particled and has a sharp fracture. The paste color range is 2.5 YR 4-5/4, 3-5/2, 3-5/6, 3/0; 5 YR 3/1-2, 3-5/4, 3-5/6; 10 R 2.5-3/1-2.

Aplastics do not exceed 15 percent of the paste volume. Plagioclase (An 29) is the abundant mineral, 5-8 percent of the volume. The range of grain size is 80-600 microns. Magmatically corroded plagioclase reaches a maximum frequency of 1 percent in one sample. Orthopyroxenes constitute 3-5 percent of the paste volume, and grains measure 100-700 microns. A few grains of clinopyroxene are present in one sample. Hornblende is present in proportions of less than 1 percent of the volume, and the grain size range is 120-500 microns. Iron stains and leucoxene are present in addition to dacite and basaltic andesite.

Forms:

Early Amate subphase (Figs. 13.3, 13.4a-d)

Cylindrical bowls (RB-14) *

Hemispherical bowls (RB-7)

Outslanting wall bowls (RB-17, 18)

Beveled rim bowls (RB-37)

Rounded bases

High shoulders (Base M)

Late Amate subphase (Fig. 13.4i-l)

Diagnostic phase markers

Beveled rim ollas (RO-8)

Bottles (RO-35)

High shoulders (Base M)

Common forms

Outcurving wall bowls (RB-23)

Outslanting wall bowls (RB-17, 18)

Other forms

Outcurving wall bowls (RB-25)

Outslanting wall bowls (RB-19)

Everted rim bowls (RB-35) *

Beveled rim bowls (RB-37) *

Cylindrical bowls (RB-14) *

Tecomates (RB-1)

Incurved rim bowls (RB-3, 6)

Shallow bowls (RB-41)



Figure 13.1. Cuautla Brown: a–u, Early and Late Amate subphase bowls; v–jj, Early and Late Amate subphase ollas.

Hemispherical bowls (RB-7, 66)
 Globular bowls (RB-60)
 Flaring neck ollas (RO-5, 12)
 Flaring neck ollas with drooping
 rims (RO-9)
 Flat and rounded bases

Many of the Early Amate forms continue into the Late Amate subphase as well. While some Late Amate forms continue into the following Early Barranca subphase, there is a distinct decrease in the quantity of Cuautla Red-Slipped ceramics.

Plastic Decoration: Decorative techniques on this type are the same as those of Cuautla Brown: gadrooning, grooving, finger impressions, and incising (Figs. 13.3c, 13.4a–b, 11). Bowl shapes with true interior grater bottoms created by deep, crude incising or punctation on unsmoothed interiors also occur (Figs. 13.3d, 13.4c–d).

Comparisons: Cuautla Red-Slipped corresponds to Rojo sobre Café as defined by Román Piña Chan at Chalcatzingo (1955:60), Mapache Borde Rojo and Ventana Rojo sobre Bayo of the Nevada phase at Zohapilco (Niederberger 1976:Pls. 37, no. 6, 38 nos. 1–4), and to Pilli Rojo sobre Bayo of the Nevada-Ayotla phases at that same site (Niederberger 1976:Pl. 40). It is common at Tlatilco (Piña Chan 1958:85, Figs. 15a, b, 40, 41). Along the Río Cuautla, in Morelos, red-slipped ceramics are present in the Middle Nexpa phase (Grove 1974b:32). It may also be similar to Coatepec Red-on-Buff of the Late Ajalpan phase of the Tehuacan Valley (MacNeish, Peterson, and Flannery 1970:47).

More tenuous similarities are with Fidencio Coarse from Fábrica San José, Oaxaca (Drennan 1976). Red rim bands and vertical striping are found in the Tierras Largas and San José phases of the Valley of Oaxaca (Kent V. Flannery, personal communication). These Oaxacan examples lack the exotic bottle forms found in central Mexico. San Lorenzo, Veracruz, has red-on-buff *tecomates* with red rims and red striping during the Ojochi phase, and Tatagapa Red of the Chicharras phase has red-slipped *tecomates* with parallel-line incising, cross-hatching, and false rocker-stamping (Coe 1970:25).

At Altamira, Chiapas, Tusta Red is common to the Barra phase, and Mendez Red-Rimmed to the Cuadros phase (Green and Lowe 1967:104). Mendez Red-Rimmed is known from Izapa during the Cuadros phase (S. Ekholm 1969:

Table 13.4. Selected Stratigraphic Units: Distribution of Design Motifs by Subphase (Sherd Counts)

Design Code	Subphase					
	LA	EB	MB	LB	EC	LC
DC-1		2		4	14	76
DC-2		6	4	36	33	67
DC-3		5	5	45	93	186
DC-4		1	1	3	3	3
DC-5				1		1
DC-6				3	3	5
DC-7				5	8	6
DC-8				3		
DC-9			2	28	40	60
DC-10				7	1	4
DC-11			1		58	588
DC-12				1	1	
DC-13				4	9	55
DC-14				2		
DC-15				2	20	121
DC-16		15	30	280	352	542
DC-17			1	5	6	2
DC-18		6	29	159	124	168
DC-19			1	5	7	5
DC-20	1	4	26	163	107	128
DC-21		1	4	28	10	15
DC-22	1	7	15	66	106	84
DC-23						22
DC-24					1	5
DC-25						2
DC-26			1		1	76
DC-27					1	7
DC-28						2
DC-29						4
DC-30					7	134
DC-31						1
DC-32				2	4	10
DC-33		1			1	4
DC-34				1		2
DC-35			1	2	5	11
DC-36					2	56
DC-37					2	21
DC-38						6
Totals	2	48	121	855	1,019	2,479

Subphases: LA, Late Amate; EB, Early Barranca; MB, Middle Barranca; LB, Late Barranca; EC, Early Cantera; LC, Late Cantera.

41). At Santa Cruz, Burrero Red of the Burrero phase follows the same pattern (Sanders 1961:17). Finally, in the Ocos phase at La Victoria, Guatemala, vessels with vertical red stripes are present (Coe 1961:Fig. 20).

Red-slipped buff or brown ceramics appear quite common throughout much of central Mesoamerica during the Early Formative. What distinguishes different regions is the complex of vessel forms. *Tecomates* and bowls seem far more common in the southern tropical areas, while exotic bottle forms are more common in central Mexico.

Figure 13.4. Cuautla Red-Slipped: a–b, Early and Late Amate subphase bowls; c–d, Early and Late Amate subphase bowls with true grater incised interiors; e–h, Early and Late Amate subphase ollas; i–k, Late Amate subphase bottle rims; l, bottle body (hatched area indicates red).

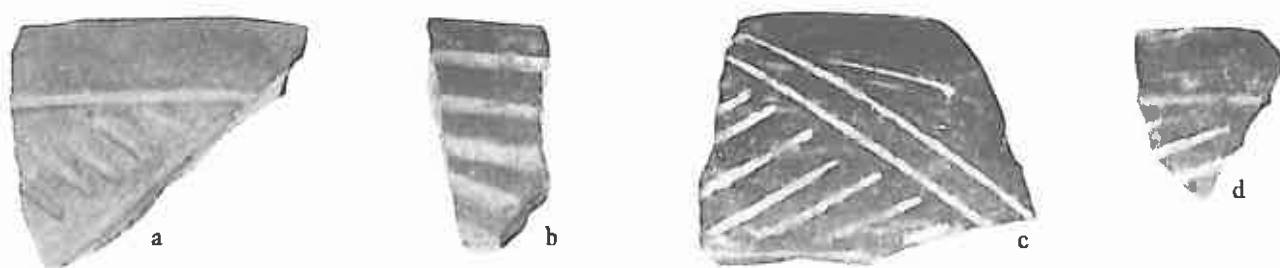


Figure 13.2. Cuautla Brown, Early and Late Amate subphase hemispherical bowls with exterior incising.

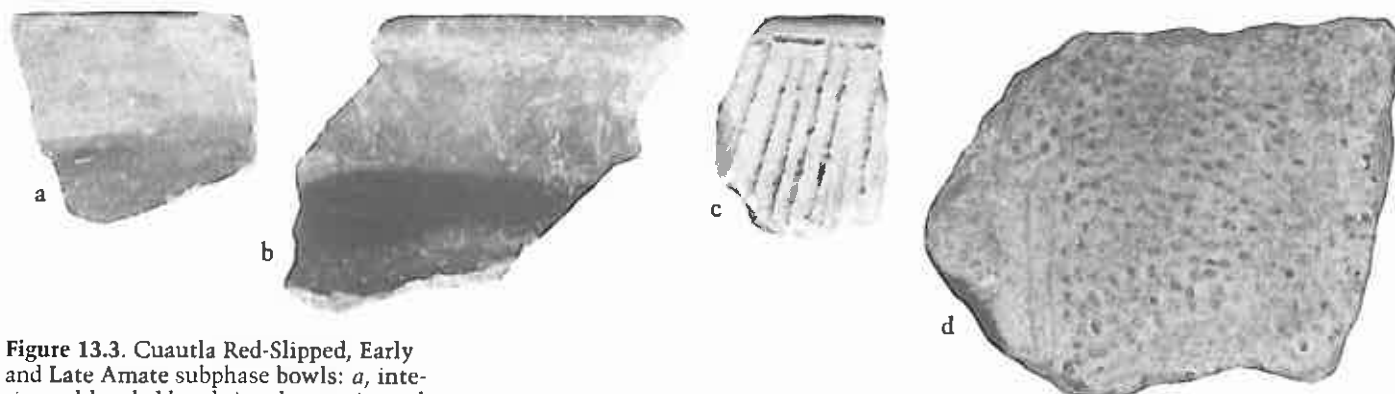
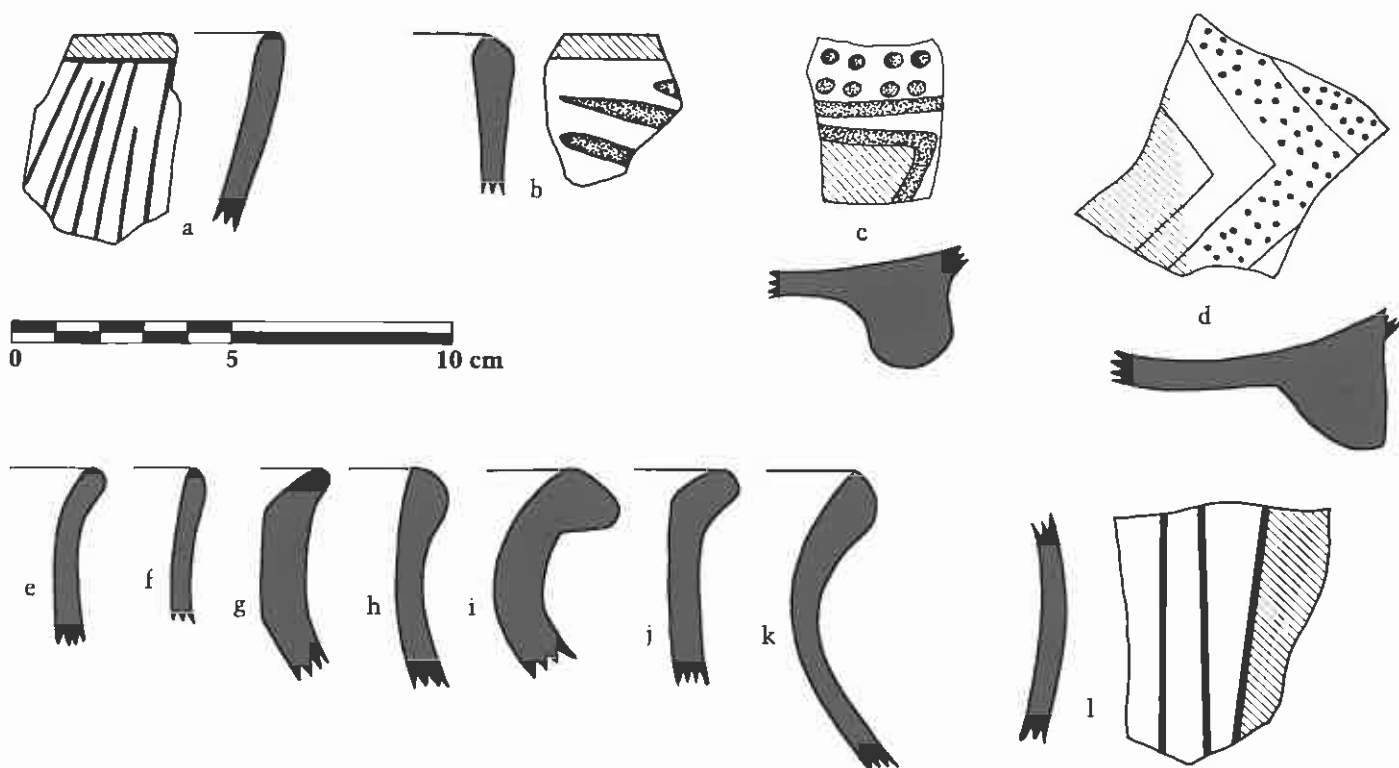


Figure 13.3. Cuautla Red-Slipped, Early and Late Amate subphase bowls: *a*, interior red-banded bowl rim; *b*, exterior red-banded bowl rim; *c*, red-rimmed bowl with interior incising; *d*, true grater incised interior bowl base.



Both Cuautla Brown and Cuautla Red-Slipped, two major forms of the Amate phase, contain magmatically corroded plagioclase. This plagioclase is typical of these types and is not consistently present in other types of the phase or other phases. Its seemingly restricted presence in Amate phase types could suggest the possibility of a different center of manufacture for these two types. However, since igneous terrain, from which corroded plagioclase derives, is characteristically heterogeneous, a single formation could feasibly contain both corroded and noncorroded plagioclase. Nonetheless, the possibility exists that the specific quarry containing the corroded plagioclase was exploited only during the Early Formative Amate phase.

Atoyac Unslipped Polished III

Temporal Range: Atoyac Unslipped Polished III was typical of the Early and Late Amate subphases.

Surface Treatment: Although unslipped, the highly polished surface of these ceramics often gives the illusion of a slip. The surface color is distinct, usually having ruddy brown tones: 2.5 YR 3-5/4, 3-5/6, 4/2; 5 YR 4/1, 3-5/3-4, 3-4/2, 4-5/6; 7.5 YR 3/2, 6-7/2-4, 5/1; 10 YR 3/1, 6-7/2-4, 5/1; 10 R 4/6-8.

Paste and Temper: The paste is identical to that of Cuautla Brown. Wall thickness varies with the size of the vessel, reaching a maximum thickness of 1.5 cm.

Forms (Fig. 13.5):

Early and Late Amate subphases

Diagnostic phase markers

Incurved rim bowls (RB-3)

Hemispherical bowls (RB-7)

Beveled rim bowls (RB-37)

Beveled rim ollas (RO-8)

Flaring neck ollas (RO-15)

Flaring neck ollas with drooping rims (RO-9)

Plastic Decoration: Incising and grooving were popular decorative techniques (Fig. 13.5b). One example of zoned punctation was noted.

Comparisons: None.

Arboleda Coarse

Temporal Range: Arboleda Coarse spanned Early Amate, Late Amate, and Early Barranca subphases.

Surface Treatment: The surfaces of this utilitarian ware are unslipped and poorly finished, being only slightly smoothed. Surface color varies from brown to grey due to irregular firing and conditions of usage: 5 YR 4-6/1-3, 5-7/3-4, 3/1-2,

7/6, 2.5/2, 7/2, 5/6, 5/2, 4/4; 7.5 YR 2-4/0-2, 4-5/2-4, 7/2-3, 3/0, 5-6/2, 6/4; 10 YR 3/1, 7/2; 2.5 YR 5-6/6, 3-4/2.

Paste and Temper: The paste is fine particled and has a sharp fracture. The range of paste color is 5 YR 5/6, 5/8, 4/3, 6/6, 4/6; 7.5 YR 5-6/4, 3/0, 7/6, 4/4, 2/0, 6/6; 10 YR 7/3.

The proportion of aplastics in the total paste volume is 10 percent. The principal aplastic constituent is plagioclase (An 26) at 8 percent, ranging in grain size from 100 to 600 microns. Less than 1 percent of orthopyroxene and hornblende is present. Hornblende grain size is 80-260 microns; orthopyroxenes range from 200 to 360 microns. An occasional clinopyroxene, sometimes twinned, is evident. Basaltic andesite, iron stains, and occasionally sandstone and leucoxene are evident. These minerals are typical of the area's volcanic tuffs.

Forms:

Early Amate subphase

Common forms

Flaring neck ollas (RO-5)

Other forms

Outcurving wall bowls (RB-23)

Shallow bowls (RB-41)

Late Amate subphase (Fig. 13.6)

Common forms

Outslanting wall bowls (RB-17, 18)

Outcurving wall bowls (RB-23)

Flaring neck ollas (RO-5)

Spider-leg supports (S-7)

Other forms

Outslanting wall bowls (RB-19)

Outcurving wall bowls (RB-25)

Flaring neck ollas (RO-12, 16)

Everted rim bowls (RB-35)*

Cylindrical bowls (RB-14)*

Heavy everted rim bowls (RB-38)*

Beveled rim ollas (RO-8)*

Bottles (RO-35)*

Plate with roughened exterior (RD-2)

Nub supports (S-2)

Flat bases

Tecomates (RB-1)

Beveled rim bowls (RB-37)

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Flaring wall bowls (RB-26, 75)

Highly outcurved bowls (RB-90)

Incurved rim bowls (RB-3)

Globular bowls (RB-60)

Super flaring neck ollas (RO-17)

Collared ollas (RO-1)

High shoulders (Base M)

The same Late Amate forms continued through to the Late Barranca subphase even as the type decreased in importance.

Plastic Decoration: Single incised lines along the interior or exterior rims and incised pseudo-grater designs in bowls constitute the occasional decorative aspect of Arboleda Coarse.

Comparisons: None.

Del Prado Pink

Temporal Range: Del Prado Pink was present in the Late Amate and Early Barranca subphases. Its appearance in the stratigraphic record during the Late Amate is one distinguishing trait between the Early and Late Amate subphases.

Surface Treatment: Both slipped and unslipped surfaces are only slightly smoothed. Surface color is quite variable, but usually has a pinkish tinge: 10 R 6/6; 2.5 YR 5-6/6, 4/4; 5 YR 4-5/1-3, 5-6/4, 5-7/6; 7.5 YR 3-6/2, 5-6/4. **Paste and Temper:** Temper composed of large angular crystals is diagnostic in the identification of this type. Large flakes of mica are often obvious without the use of a hand lens. Fracture is very jagged due to the temper size. The paste color range is 2.5 YR 4-5/6, 4/4; 10 R 6/6; 5 YR 6/6, 5/1.

Muscovitic mica, possibly originating in a plutonic terrain, constitutes 3-5 percent of the paste volume. The range of grain size is 400 microns to 1.6 mm. Quartzite comprises 8-10 percent of the volume with a grain size ranging from 320 microns to 2.8 mm. Micaceous (sericitic) schist is found to reach a frequency of 10-15 percent. Grains range in size from 700 microns to 1.8 mm. The mineral inclusions are markedly different from the local volcanic tuffs and indicate a metamorphic source area. Petrographic comparison with similar sherds from Las Bocas, Puebla, indicates a high degree of similarity, and Las Bocas is located very close to a metamorphic terrain which could be the source of these minerals.

Forms (Fig. 13.7):

Late Amate subphase

Outslanting wall bowls (RB-17, * 18*)

Outcurving wall bowls (RB-25)*

Flaring neck ollas (RO-5)*

Shallow bowls (RB-41)

Everted rim bowls (RB-35)

Rounded bases

Early Barranca subphase

Incurved rim bowls (RB-3)

Hemispherical bowls (RB-7)

Outslanting wall bowls (RB-17, 18)

Outcurving wall bowls (RB-23, 25)

Shallow bowls (RB-41)

Plastic Decoration: None of the sherds had plastic decoration.

Comparisons: The most important similarity occurs between Del Prado Pink and virtually identical ceramics from the surface of Las Bocas, Puebla. The forms and paste appear identical. Another pottery, possibly similar to Del Prado Pink, is Río Salado Coarse of the Early Santa María phase of the Tehuacan Valley. The heavy temper, including mica, and the surface color range are like Del Prado Pink, but Río Salado Coarse is usually very thick (MacNeish, Peterson, and Flannery 1970:76–78). The metamorphic nature of the temper indicates that this type is an import into the Río Amatzinac Valley–Chalcatzingo area.

Tadeo Coarse

Temporal Range: Tadeo Coarse was typical of the Early and Late Amate subphases, and continued in minor amounts through the Late Cantera.

Surface Treatment: The surface of this utilitarian pottery is poorly smoothed and unslipped. Surface color is variable, brown to grey, due to firing and use conditions: 2.5 YR 3–5/4, 3–6/6, 4–5/8; 5 YR 4–5/4, 4/6, 4/2, 3/2; 7.5 YR 6/3.5–4; 10 YR 4–5/1–2.

Paste and Temper: Tadeo Coarse is differentiated from Arboleda Coarse on the basis of paste. The paste of Tadeo Coarse is softer with a more crumbly texture. The fracture is jagged as a result of the texture and abundant temper. Wall thickness range is 0.8–1.9 cm. The paste color range is 2.5 YR 3–5/4, 3–6/6, 4–5/8; 5 YR 4–5/4, 4/6, 4/2, 3/2; 7.5 YR 6/3.5–4; 10 YR 4–5/1–2.

The total volume of aplastics is 9 percent. Plagioclase (An 26) makes up 4–6 percent of the paste volume, and its grains range in size from 80 to 600 microns. Orthopyroxenes constitute 2–4 percent of the total volume, present some twinned examples, and range in size from 160 to 240 microns. Hornblende or clinopyroxene is present in less than 1 percent. Hornblende has a range of size from 80 to 440 microns; clinopyroxenes from 260 to 300 microns. Basaltic andesite, sandstone, and iron stains are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms: The Early Amate subphase forms are not known.

Late Amate subphase

Beveled rim bowls (RB-37)*

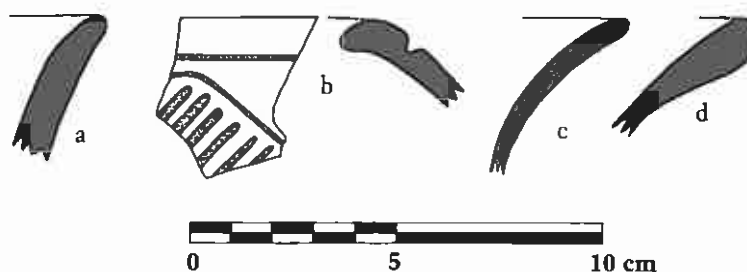


Figure 13.5. Atoyac Unslipped Polished III: a–b, Early and Late Amate subphase bowls; c–d, Early and Late Amate subphase ollas.

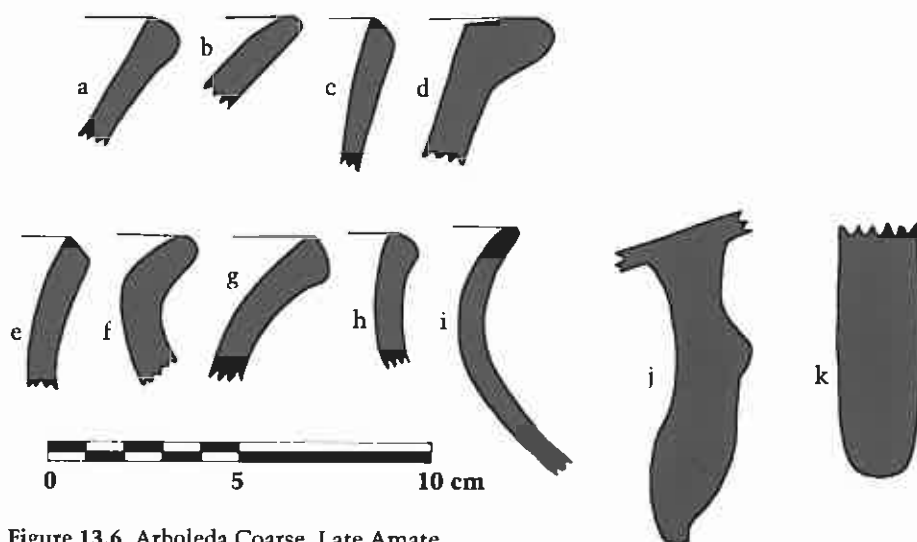


Figure 13.6. Arboleda Coarse, Late Amate subphase: a–d, bowls; e–i, ollas; j–k, spider-leg supports.

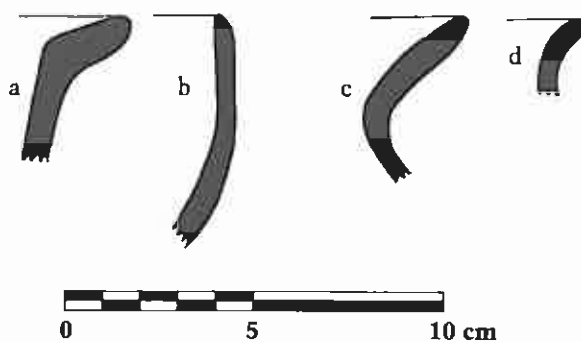


Figure 13.7. Del Prado Pink, Late Amate and Early Barranca subphases: a–b, bowls; c–d, ollas.

High shoulders (Base M)*
 Outslanting wall bowls (RB-18)
 Outcurving wall bowls (RB-25)
 Flaring wall bowls (RB-26)
 Shallow bowls (RB-41)
 Super flaring neck ollas (RO-17)
 Flaring neck ollas (RO-5)
 Flat and rounded bases
 The sample of Tadeo Coarse in Early Barranca levels is small, with the only recognized form being outslanting wall bowls (RB-18).
 Middle Barranca subphase
 Incurved rim bowls (RB-3)
 Plate forms with roughened exteriors (RD-2, 3, 5, 7, 8)
 Flat bases
 Late Barranca subphase
 Common forms
 Shallow bowls (RB-41)
 Outcurving wall bowls (RB-23, 25)
 Other forms
 Everted rim bowls (RB-30)*
 Collared ollas (RO-1)*
 Outslanting wall bowls (RB-18, 19)
 Highly outcurved bowls (RB-90)
 Hemispherical bowls (RB-7)
 Flaring wall bowls (RB-26)
 Braziers, annular based (RB-100)
 Incurved rim bowls (RB-3)
 Plate form with roughened exterior (RD-4)
 Flat and rounded bases
 Early Cantera subphase
 Common forms
 Outcurving wall bowls (RB-23, 25)
 Small shallow bowls (RB-70)*
 Plate form with roughened exterior (RD-4)
 Other forms
 Plate form with roughened exterior (RD-2)
 Flower pot bowls (RB-62)*
 Highly outcurved bowls (RB-90)*
 Outslanting wall bowls (RB-18)
 Shallow bowls (RB-41)
 Double-loop handle censer (RB-101)
 Flat and rounded bases
 Late Cantera subphase
 Common forms
 Outcurving wall bowls (RB-23, 25)
 Shallow bowls (RB-41)
 Other forms
 Braziers (RB-99)*
 Small shallow bowls (RB-70)*
 Double-loop handle censers (RB-101)*
 Highly outcurved bowls (RB-90)*
 Flaring mouth ollas (RO-28)*
 Plate form with roughened exterior (RD-3,* 8,* 1, 2, 4)
 Spouted tray (RD-9)*

Regular handles (H-1)
 Flat and rounded bases
 Cylindrical bowls (RB-14)
 Heavy shallow bowls (RB-115)
 Incurved rim bowls (RB-3, 128)
 Outslanting wall bowls (RB-17, 18, 19)
 Flaring wall bowls (RB-26)
 Everted rim bowls (RB-30)
 Braziers, annular based (RB-100)
 Flaring neck ollas (RO-5, 12)
 Super flaring neck ollas (RO-17)

Plastic Decoration: No examples of plastic decoration were noted.

Comparisons: None.

Carved Grey

Temporal Range: Carved Grey first appeared in Late Amate subphase levels.

Surface Treatment: Surfaces are unslipped and well polished. Due to firing clouds, the surface color is variable: 5 YR 5-6/1; 10 YR 4/1, 5/3, 7/3, 7-8/1-2.
Paste and Temper: The soft paste has a jagged, crumbly fracture. The color range is 5 YR 5-6/1; 10 YR 4/1, 5-6/1; 7.5 YR 6/6, 5-6/2.

Approximately 7 percent of the volume of the paste is aplastics. Plagioclase (An 28) is the most frequently occurring mineral, 5 percent of the volume, and ranges in grain size from 80 to 540 microns. Orthopyroxenes compose 1 percent of the volume and range in size from 140 to 400 microns. The common amphibole, hornblende, constitutes less than 1 percent of the paste volume; grain size ranges from 200 to 320 microns. Basaltic andesite is present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms (Fig. 13.8):

Late Amate subphase contexts

Outslanting wall bowls (RB-18)

Outcurving wall bowls (RB-23)

Shallow bowls (RB-41)

Other known forms

Diagnostic phase marker

Everted rim bowls (RB-35)

Other forms

Hemispherical bowls (RB-7)

Incurved rim bowls (RB-3)

Heavy everted rim bowls (RB-38)

Plastic Decoration: The most notable characteristic of Carved Grey is the deep, wide, incised decoration, often depicting crossed bands (Fig. 13.8a). Red pigment was sometimes rubbed into the incised areas. Excision also occurs occasionally.
Comparisons: Carved Grey is similar to certain examples of Café Negruzco and

Negro Pulido defined by Piña Chan at Chalcatzingo (1955: Figs. 3g, 8ñ-q). Chalcatzingo's Carved Grey is closely parallel in form, decoration, and color to Calzadas Carved of the San Lorenzo A phase of San Lorenzo. In the central highlands of Mexico, similar pottery types have a wide spatial distribution but do not occur in abundance at any one site. In Morelos it is reported from the Río Cuautla area during the Late Nexpa (San Pablo B) phase (Grove 1974b: 33), from Cerro Chacaltepec (Grove 1968b: 68-69, Fig. 64), from Atlahuayan (Iglesia Vieja) as Café Negruzco in the Olmeca-Arcaico complex (Piña Chan and López González 1952: Fig. 1), and in El Zarco subphase (Grennes-Ravitz 1974). Similar grey wares are found in the San José phase of the Valley of Oaxaca (Flannery 1968: 82-83), in the Moyotzingo A phase of Moyotzingo, Puebla (Aufdermauer 1973: 12), and at Ayotla in the Valley of Mexico during the Ayotla and Justo phases (Tolstoy and Paradis 1970: 347). At Tlatilco, some examples of Café Negruzco and Café Oscuro are like Chalcatzingo's Carved Grey (Piña Chan 1958: Figs. 34h, 37m).

From the Middle Grijalva region, flat-bottomed everted rim bowls are known from the Bombana phase, but the carved designs do not appear until the Cocahuano phase (Lee 1974: 5-7). At Altamira, Chiapas, Pampas Black and White of the Cuadros phase includes both white-rimmed black pottery and everted rim bowls with carved designs (Green and Lowe 1967: 108-109). Coapa Black of the Cuadros phase of Izapa evidences everted rim bowls and excised motifs (S. Ekholm 1969: 45). Burrero Grey of the Burrero phase of Santa Cruz, Chiapas, has the typical flat based everted rim bowls, but there is no mention of carved or excised designs (Sanders 1961).

Kaolin

Temporal Range: The exact temporal placement of Kaolin pottery at Chalcatzingo is unknown. Its earliest occurrence is in a Late Amate subphase level. Several Kaolin sherds occurred in Middle Barranca levels, and others in Cantera phase levels. Since only small amounts of Kaolin ceramics are present at Chalcatzingo, and in contexts which are temporally scattered, an exact temporal placement will not be attempted.

Surface Treatment: The unslipped, well-polished surfaces are distinguished by their stark white color.

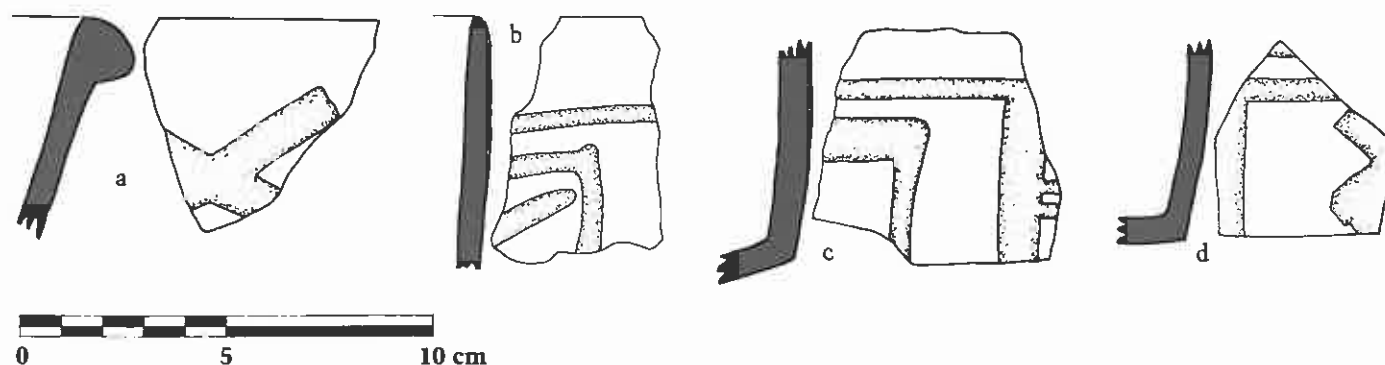


Figure 13.8. Carved Grey, Late Amate sub-phase bowls.

Paste and Temper: Cross-sections of sherds show a completely white core. There is little or no temper. The fracture is generally sharp. Wall thickness is extremely thin, ca. 0.3 cm.

Less than 2 percent of the total paste volume is aplastics. Quartz comprises 1 percent of the paste volume, its grains measuring 140–600 microns. A trace of plagioclase, a few grains of quartzite, and iron stains were noted.

Forms (Fig. 13.9): The small quantity of sherds in our sample are all irregularly shaped or warped forms and do not fit within our established categories.

Plastic Decoration: Rippled surfaces of some sherds in our sample probably represent a decorative technique.

Comparisons: Kaolin pottery called Xochiltepec White is present beginning with the Chicharras phase at San Lorenzo (Coe 1970:25). Hollow figurines made of kaolin are known from La Venta (museum collection of the Museo Nacional de Antropología, Mexico City). Porous White Ware from Tres Zapotes may be similar to Kaolin (Weiant 1943:17). Kaolin sherds are present in the San Pablo B phase of the Río Cuautla region (Grove 1974b) and at Iglesia Vieja, Morelos, during the El Zarco subphase (Grennes-Ravitz 1974). Kaolin ceramics occur as burial furniture at Tlatilco (Piña Chan 1958:91).

The petrographic analysis of Kaolin ceramics should not be expected to correspond to that of other types. Kaolin ceramics represent a special case, as aplastics were apparently not added during the manufacturing. Chalcatzingo is located near a kaolin source (see Chapter 23), although at this time we have not

completed trace analyses of this source and therefore cannot ascertain whether the Kaolin ceramics present in our samples were locally manufactured or imported. Their small quantity suggests that they may not have been locally manufactured.

Manantial Orange-on-White

Temporal Range: Manantial Orange-on-White appeared during the Middle Barranca subphase and was also present in small quantities into the Cantera phase. Its true chronological position is probably within the Middle to Late Barranca subphases.

Surface Treatment: The often polished surface is slipped with painted bands of orange or sometimes red on the exterior. The painted bands are usually delimited by incising (Figs. 13.10, 13.11e–f). The color range of the white background is 10 YR 8/1–4, 7/1–2. The orange slip has a range of 5 YR 4–6/6.

Paste and Temper: The paste is like that of Amatzinac White. Probably as a function of the extraordinary thickness of the vessel walls (over 2 cm), the paste usually contains abundant inclusions. The paste color range is 7.5 YR 6/4, 5–7/4–6.

The total frequency of aplastics in the paste is 8–9 percent. As in most samples with volcanic tuff temper, plagioclase (An 27) is the major mineral, constituting 5 percent of the volume. Grain size range is 100–600 microns. Orthopyroxenes compose 1–2 percent of the volume, with a grain size range of 180–260 microns. Some twinned examples of orthopyroxenes are present. Basaltic andesite, iron stains, and leucoxene are

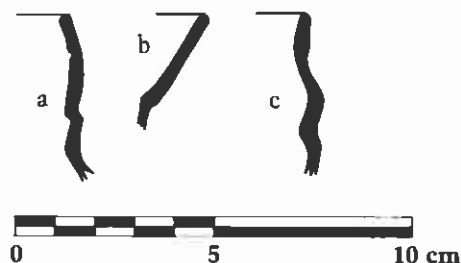


Figure 13.9. Kaolin rims.

present, while a trace of clinopyroxene is noted.

Forms (Figs. 13.10, 13.11): Large heavy everted rim bowls (RB-38; Fig. 13.11d) and flower pot bowls (RB-62) are typical. *Plastic Decoration:* Incising to outline the orange-painted areas is common (Figs. 13.10, 13.11e–f).

Comparisons: Aguatepec Thick of the San Lorenzo phase of San Lorenzo has identical thick, heavy RD-38 forms (Coe, personal communication).

Amatzinac White

Temporal Range: Amatzinac White was present in minute quantities in the Late Amate subphase. It became a major part of the Chalcatzingo ceramic assemblage at the beginning of the Early Barranca and continued in that role through the Late Cantera.

Surface Treatment: Vessel surfaces are slipped with a thick slip which varies in color from a stark white to a creamy or greyish white: 10 YR 7–8/1–4. During the Barranca phase, this type is generally well polished, and the slip is durable. During the Cantera phase, however, the slip is of a poorer quality and tends to wear off (fugitive white). Hemispherical bowls and incurved rim bowls are always slipped white on both interior and exterior surfaces. During the Barranca phase,

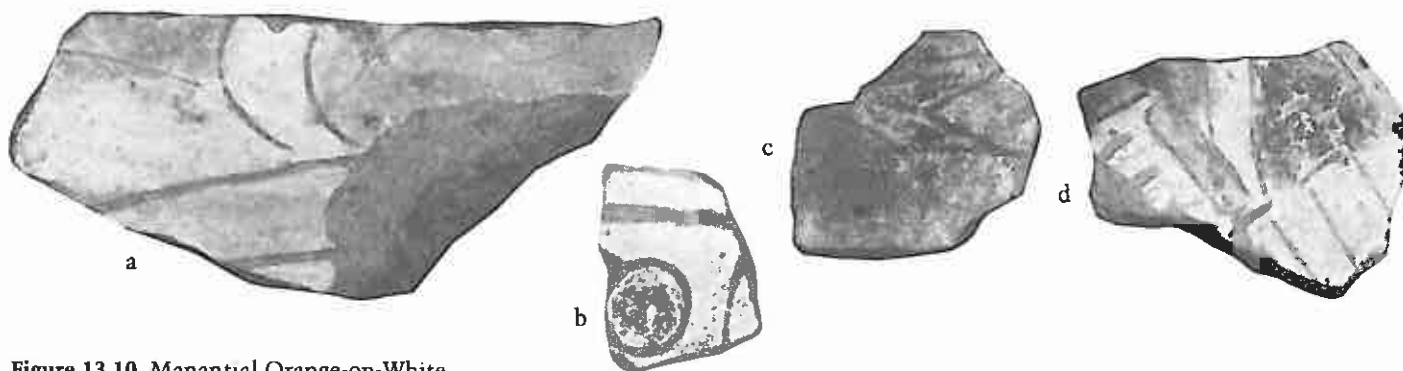


Figure 13.10. Manantial Orange-on-White bowl sherds with zoned painting.

some outcurving wall and everted rim vessels are unslipped on the exterior. Almost all Amatzinac White vessels during the Cantera phase are slipped on the exteriors as well as interiors.

Paste and Temper: The paste is crumbly and has a jagged fracture. The paste color range is 7.5 YR 6/4, 5-7/4-6, 3-5/0; 10 YR 6-7/3-4. A brown and dark grey sandwiched core is typical of Amatzinac White.

The total volume of aplastics is approximately 20 percent. Plagioclase (An 25, 27, 28, 30) occurs most frequently, as 10 percent of the total paste volume. Grain size is 100 microns to 1.0 mm. Orthopyroxenes constitute 2-5 percent of the volume, and grains measure 100 microns to 1.3 mm. Hornblende may be the second most abundant mineral, never more than 1 percent of the volume, or may be equaled in proportion by clinopyroxene. Some grains of clinopyroxene are twinned. Clinopyroxenes measure from 100 to 400 microns; hornblende grains range from 140 to 640 microns. Basaltic andesite, dacite, iron stains, leucoxene, and opaque iron-titanium ores are observed. Occasional grains of quartzite and poikilitic plagioclase are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms:

Late Amate subphase

- Cylindrical bowls (RB-14)
- Outcurving wall bowls (RB-23)
- Outslanting wall bowls (RB-17)
- Everted rim bowls (RB-35)
- Flat and rounded bases

Early Barranca subphase (Figs.

13.12a-g, 13.13, 13.14, 13.15a-j)

Common forms

- Hemispherical bowls (RB-7)

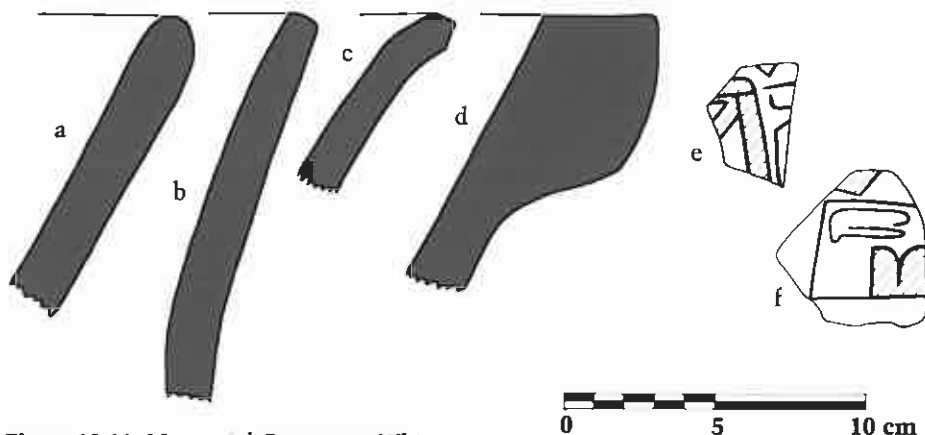


Figure 13.11. Manantial Orange-on-White: a-d, bowl rims; e-f, bowl sherds with zoned painting (hatched area indicates orange).

Outslanting wall bowls (RB-17, 18, 19)

Flaring wall bowls (RB-26)

Slightly everted rim bowls (RB-77)

Other forms

Ovate bowls (RB-16)*

Everted rim bowls (RB-30, * 35*)

Outcurving wall bowls (RB-23, 25)

Shallow bowls (RB-41)

Flat and rounded bases, with a higher frequency of flat bases

Infrequent and sporadic forms

Highly outcurved bowls (RB-76)

Composite silhouette bowls (RB-45)

Super flaring neck ollas (RO-17)

Middle Barranca subphase (Figs.

13.12h-k, 13.13, 13.14, 13.15a-j)

Common forms

Outcurving wall bowls (RB-25)

Outslanting wall bowls (RB-18)

Flaring wall bowls (RB-26)

Hemispherical bowls (RB-7)

Everted rim bowls (RB-30)*

Other forms

Outcurving wall bowls (RB-23)

Outslanting wall bowls (RB-17, 19)

Ovate bowls (RB-16)*

Flower pot bowls (RB-62)*

Slightly everted rim bowls (RB-77)*

Incurved rim bowls (RB-3)

Shallow bowls (RB-41)

Outslanting, slightly everted rim bowls (RB-20)

Highly outcurved bowls (RB-76)

Fragment of a possible cloverleaf-shaped bowl

Flat and rounded bases

Late Barranca subphase (Figs. 13.12h-j, 1-p, 13.16-13.18)

Common forms

Outcurving wall bowls (RB-25)*

Outslanting wall bowls (RB-18)*

Flaring wall bowls (RB-26)

Everted rim bowls (RB-30)*

Other forms

Outcurving wall bowls (RB-23)*

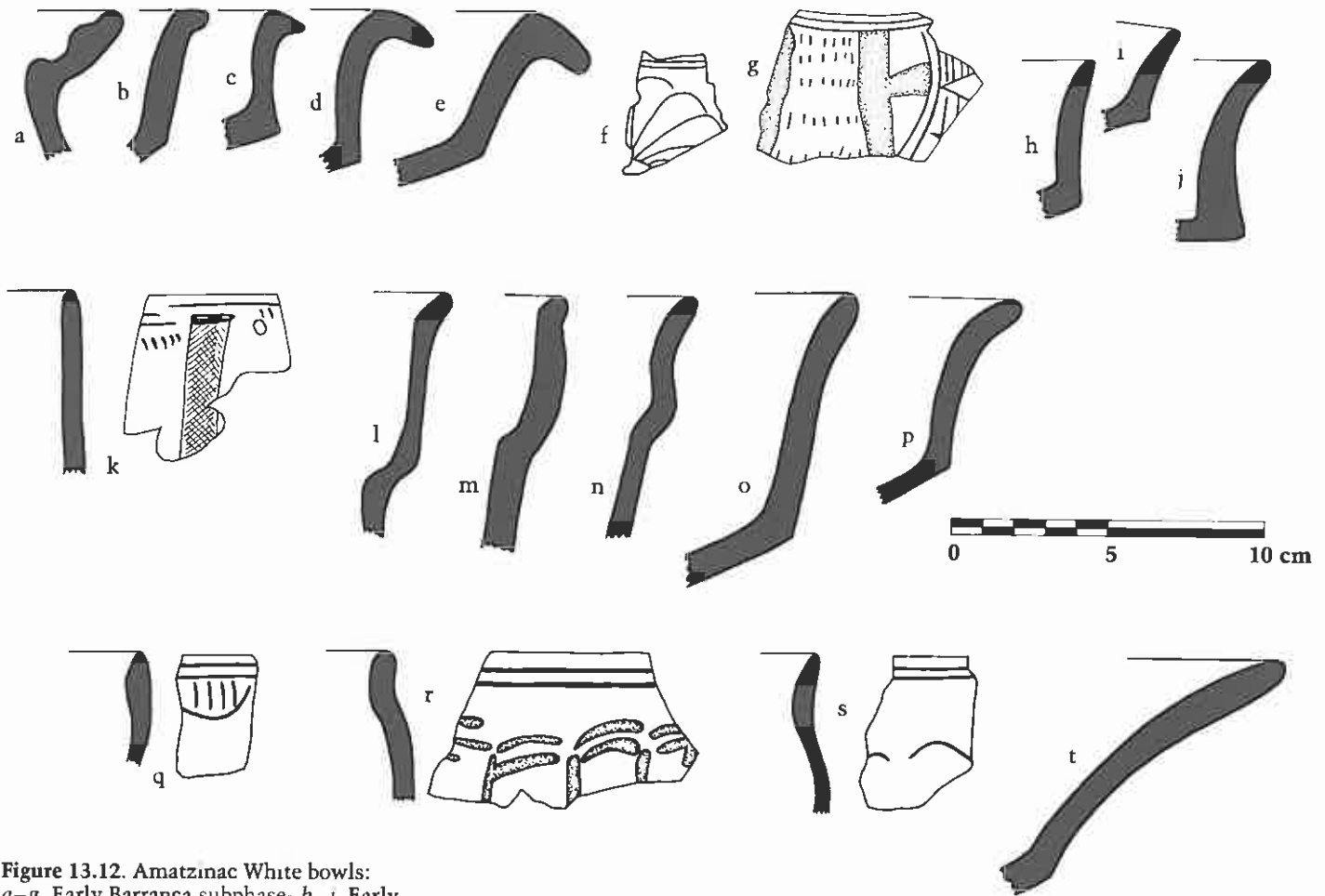


Figure 13.12. Amatzinac White bowls: *a–g*, Early Barranca subphase; *h–j*, Early to Late Barranca; *k*, Middle Barranca; *l–p*, Late Barranca; *q–s*, Early Cantera; *t*, Early to Late Cantera.

Outslanting wall bowls (RB-17, * 19*)
 Everted rim bowls (RB-35, 125)
 Double-loop handle censer (RB-101)
 Flower pot bowls (RB-62)
 Slightly everted rim bowls (RB-77)*
 Highly outcurved bowls (RB-76, * 90*)
 Ovate bowls (RB-16)*
 Small shallow bowls (RB-67, 70*)
 Direct rim composite silhouette bowls (RB-31)*
 Hemispherical bowls (RB-93, * 7)
 Spouted trays (RD-9)*
 Incurved rim bowls (RB-3)
 Outslanting, slightly everted rim bowls (RB-20, 21)
 Shallow bowls (RB-41)
 Beveled rim bowls (RB-37)
 Cylindrical bowls (RB-14)
 Heavy shallow bowls (RB-115)
 Composite silhouette bowls (RB-45)
Tecomates (RB-1)

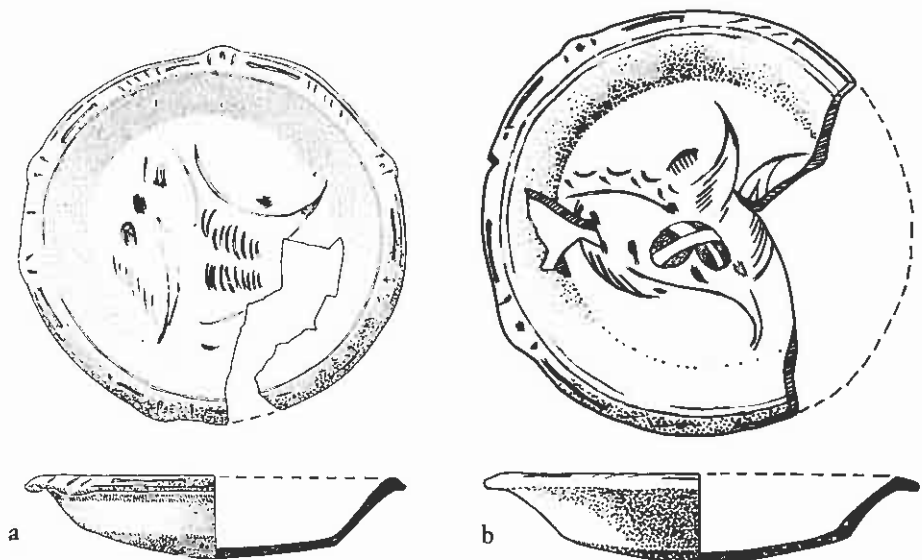


Figure 13.13. Amatzinac White, Early and Middle Barranca subphase bowls with interior pseudo-grater bottom incising.

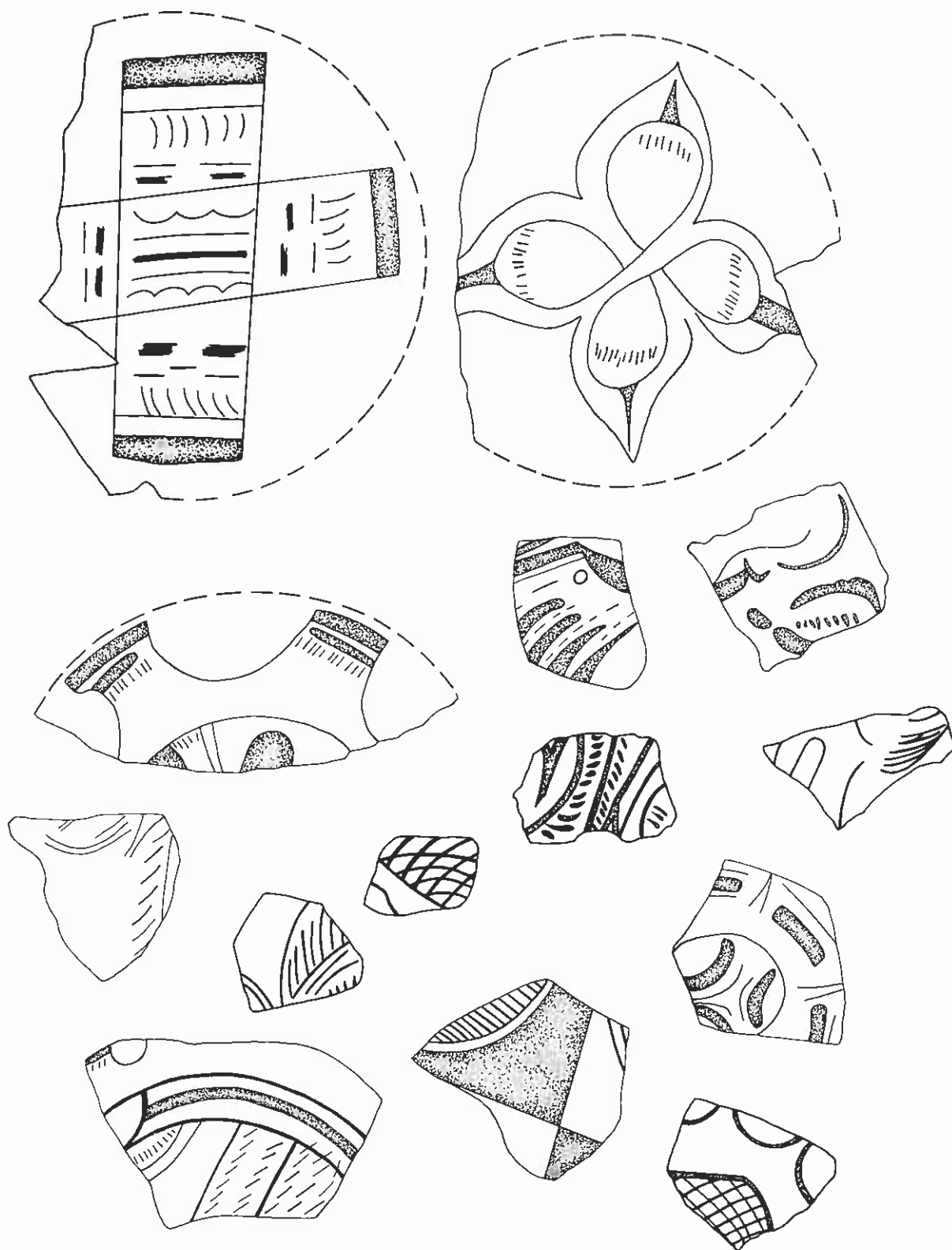


Figure 13.14. Amatzinac White, Early and Middle Barranca subphase pseudo-grater bottom bowl incised designs.

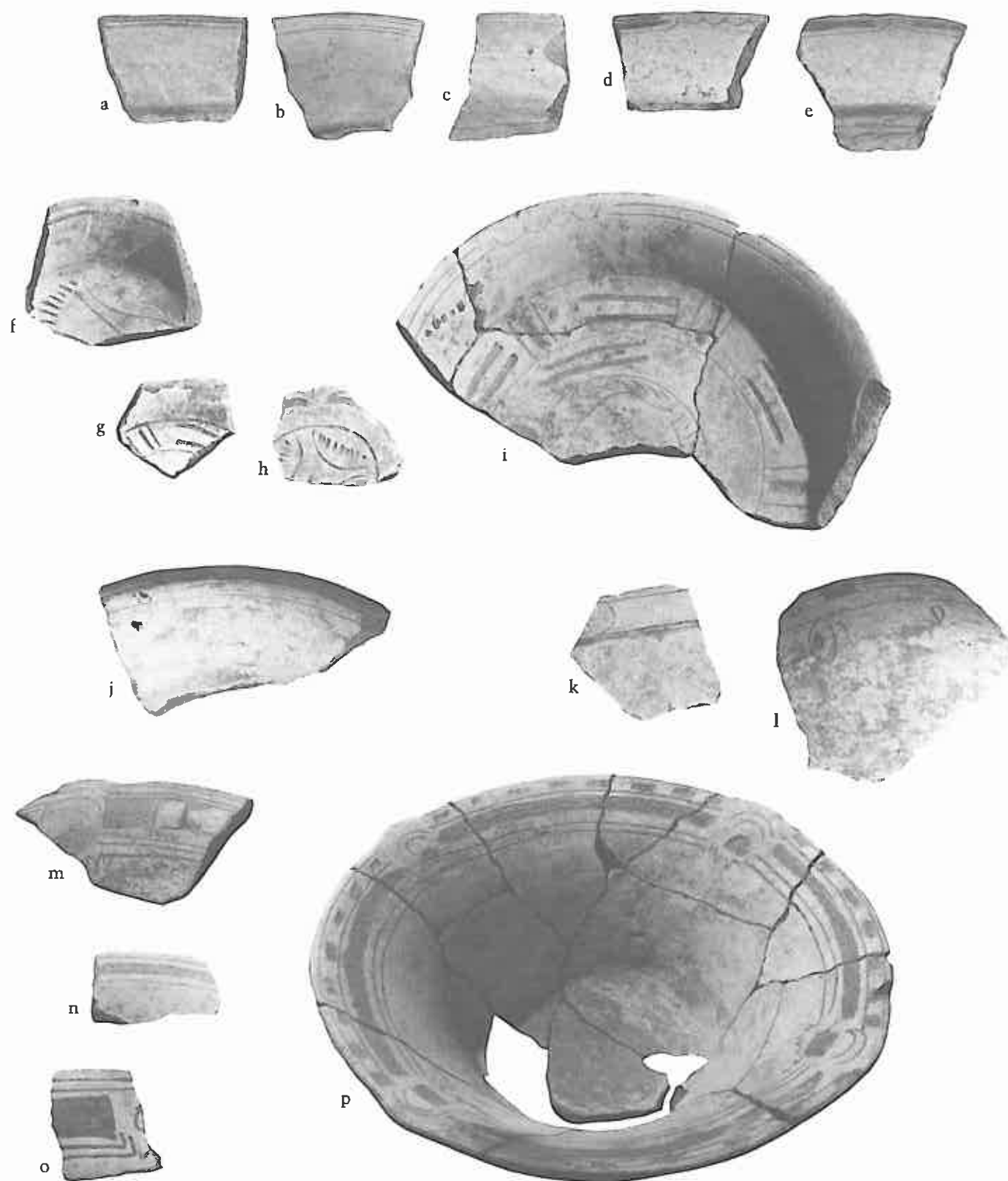


Figure 13.15. Amatzinac White bowls: *a–e*, Early and Middle Barranca subphase outslanting and outcurving walls; *f–i*, Early and Middle Barranca subphase pseudo-grater bottoms; *j*, Early and Middle Barranca subphase everted rim; *k–l*, Early

and Late Cantera subphase hemispherical bowls; *m–o*, Early and Late Cantera subphase *raspada*-decorated bowls; *p*, Early and Late Cantera subphase highly outcurving wall bowl with *raspada* decoration.

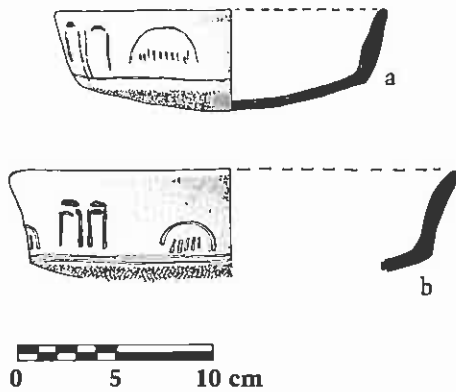


Figure 13.16. Amatzinac White, Late Baranca subphase bowls with exterior incising.

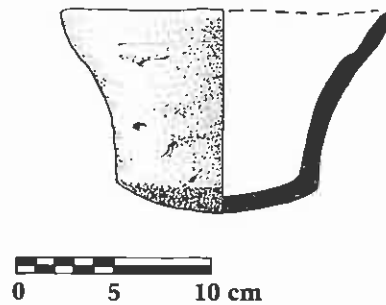


Figure 13.17. Amatzinac White, Late Baranca subphase bowl.

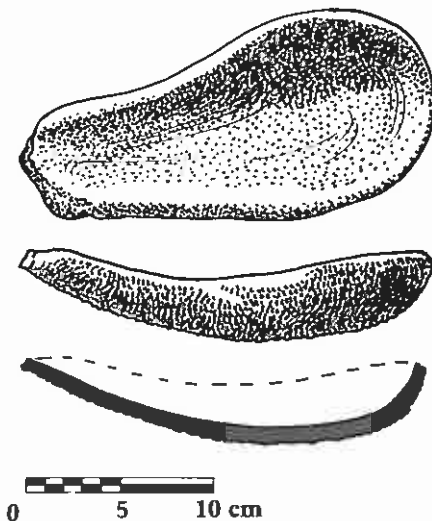


Figure 13.18. Amatzinac White, Late Baranca to Late Cantera subphase ladle.

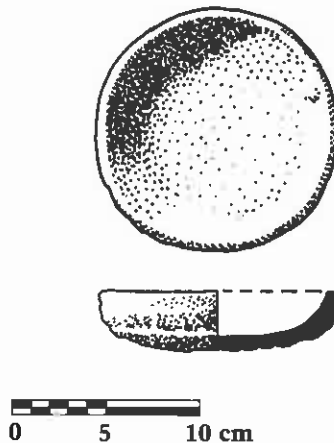


Figure 13.19. Amatzinac White, Early and Late Cantera subphase small bowl.

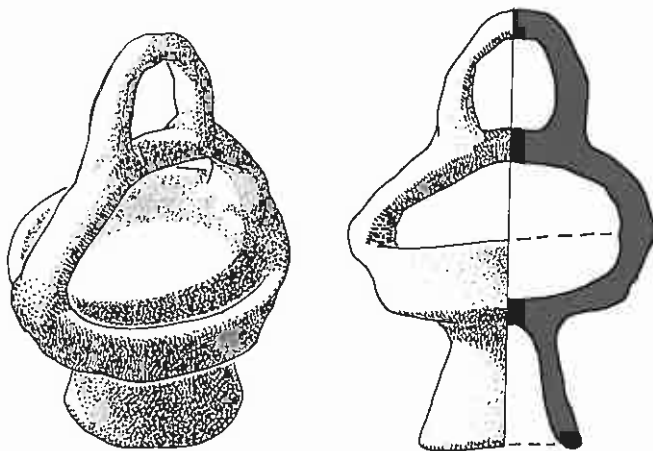


Figure 13.20. Amatzinac White, Early and Late Cantera subphase double-loop handle censer.

Globular bowls (RB-60)
High shoulders (Base M)
Flat or slightly rounded bases

The Cantera phase continued many Baranca phase forms, but new ceramic forms also appeared. Many of the Cantera phase Amatzinac White vessels occurred as burial offerings, and it should be remembered that most Formative period burials recovered by our project date to the Cantera phase, so our burial furniture is strongly biased to this phase. In our sample, the basket censer with the double-loop handle (RB-101; Fig. 13.20) and small shallow bowls (RB-70; Fig. 13.19) appear in significant numbers for the Early Cantera phase. Both were important as burial furniture.

Early Cantera subphase (Figs. 13.12q-t, 13.15k-p, 13.18-13.22, 13.25-13.26)

Diagnostic phase markers

Highly outcurved bowls (RB-90)

Common forms

Outcurving wall bowls (RB-23, * 25*)

Outslanting wall bowls (RB-17, * 18*)

Other forms

Outslanting wall bowls (RB-19)*

Highly outcurved bowls (RB-76)*

Globular bowls (RB-60, * 79*)

Spouted trays (RD-9)*

Flower pot bowls (RB-62)*

Direct rim composite silhouette bowls (RB-71)*

Braziers annular base (RB-100)*

High shoulders (Base M)*

Incurved rim bowls (RB-3)

Hemispherical bowls (RB-7, 93)

Shallow bowls (RB-41)

Cylindrical bowls (RB-14)

Tecomates (RB-1)

Flaring wall bowls (RB-26)

Everted rim bowls (RB-30, 35, 125)

Outslanting, slightly everted rim bowls (RB-20, 21, 22)

Ovate bowls (RB-16)

Slightly everted rim bowls (RB-77)

Beveled rim bowls (RB-37)

Small shallow bowls (RB-67)

Plate form with roughened exterior (RD-4)

Flat or rounded bases

Supports infrequent

The Late Cantera subphase assemblage is practically identical to that of the Early Cantera subphase, with frequency changes being the most notable characteristic. RB-79, present in the Early Cantera subphase, does not carry over into Late Cantera.

Late Cantera subphase (Figs. 13.12t,

13.15*k-p*, 13.18–13.22, 13.25–13.26)

Common forms

Outcurving wall bowls (RB-23, 25)

Outslanting wall bowls (RB-17, 18, 19)

Hemispherical bowls (RB-7)

Other forms

Shallow bowls (RB-121)

Heavy everted rim bowls (RB-38)

Flaring wall bowls (RB-75)

Direct rim composite silhouette bowls (RB-31)

Incurved rim bowls (RB-6, 123)

Composite silhouette bowls (RB-45)

Globular bowls (RB-60)

Flanged shoulder bowls (RB-89)

Exotic forms (RB-91, 88)

Ridged composite bowls (RB-85)

Supports infrequent

Plastic Decoration: Our classification and analysis of design motifs (see Table D.4, Fig. D.5) has yielded a sequence of appearance of designs. Design motifs were generally not restricted to particular subphases but continued for quite a while after their appearance. During the Early Barranca subphase, a thin “*raspada*” incising composed of a wide, shallow band incised through the white slip and bordered on either side by single incised lines (Design Code [DC]-1) appeared. This design occurred on many vessel forms but was most common on direct rim outslanting or outcurving wall bowls (RB-17, 18, 19, 23, 25).

On everted rim bowls (RB-77, 30), incised designs composed of several incised lines and shallow, round, or elongated punctates are present on the upper surface of the everted rim (DC-2; Fig. 13.13). A variation of the double-line-break motif began during the Early Barranca subphase. This usually consists of two or three lines incised around the interior rim, where the lines terminate, a series of scallops are introduced (DC-3; Fig. 13.23). These motifs carried over into other subphases. A new incised design, termed the “rainbow” motif, appeared during Middle Barranca (DC-9; Fig. 13.16). Unusually elaborate designs are found on cylindrical bowl forms (Fig. 13.24).

The Late Barranca subphase is characterized by several innovations in design. The “falling raindrop” motif (DC-6) usually occurs on the exterior of outslanting wall bowls. The use of cross-hatch incising on the interior rim of vessels (DC-7) began in this phase. Commonly this cross-hatching occurs on everted rim bowls. The pennant motif

(DC-8) consists of incised lines delimiting a pennant form which has been incised through the slip. Interior pseudo-graters attained their greatest frequencies during the Barranca and Early Cantera phases (Figs. 13.13, 13.14). Modeled everted rim bowls with deep punctation (DC-12) are a good marker for the Late Barranca subphase.

Hemispherical bowls of the Early and Late Cantera subphases are typified by exterior rim incising with the “egg” motif (DC-13; Fig. 13.25). A sloppy style of incising, which we term “wide *raspada*” (DC-11; Fig. 13.26), began during the Early Cantera subphase. The common form associated with “wide *raspada*” is the highly outcurved bowl (RB-90), which has the design along the interior rim. This form never has pseudo-grater incising in its interior but is usually incised on the exterior (DC-15; Figs. 13.21, 13.22, 13.26). Other incised rim designs are found on Amatzinac White as well as Laca and Carrales Coarse Grey types (Fig. 13.27).

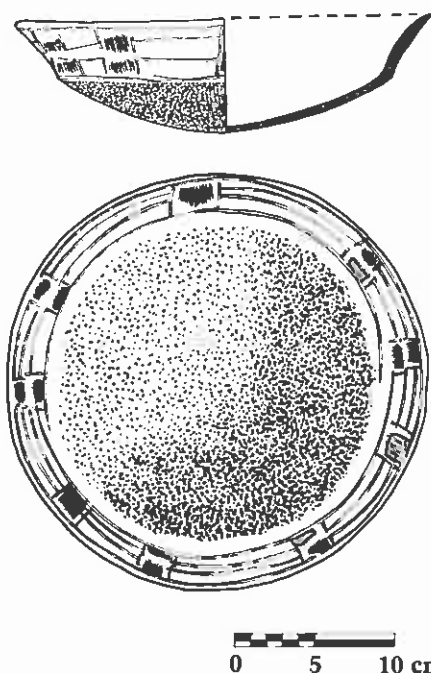


Figure 13.21. Amatzinac White, Early and Late Cantera subphase bowl with exterior incising and interior *raspada* designs.

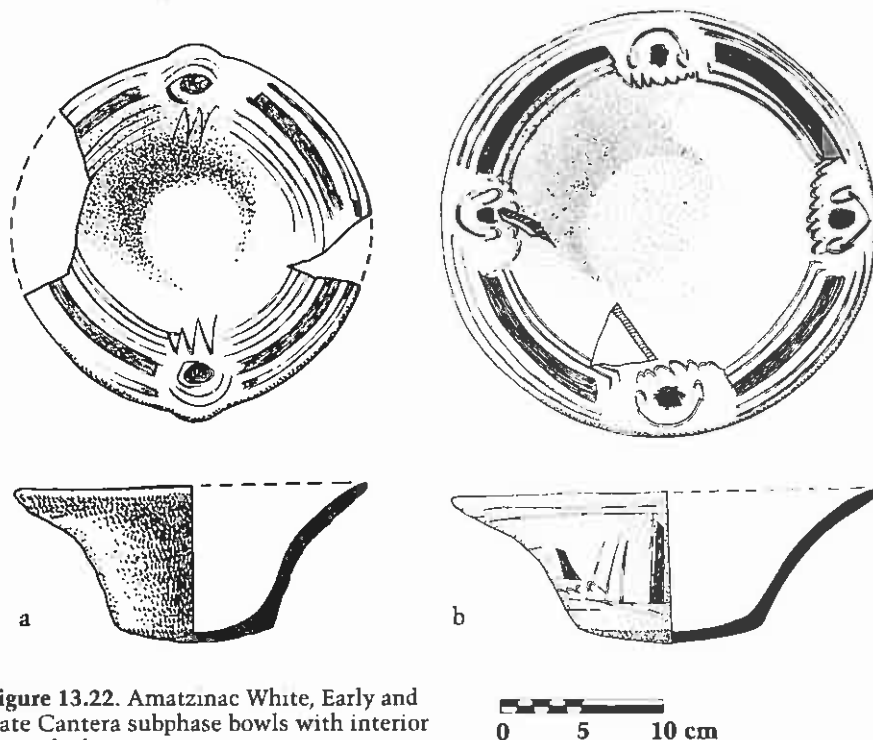


Figure 13.22. Amatzinac White, Early and Late Cantera subphase bowls with interior *raspada* design.

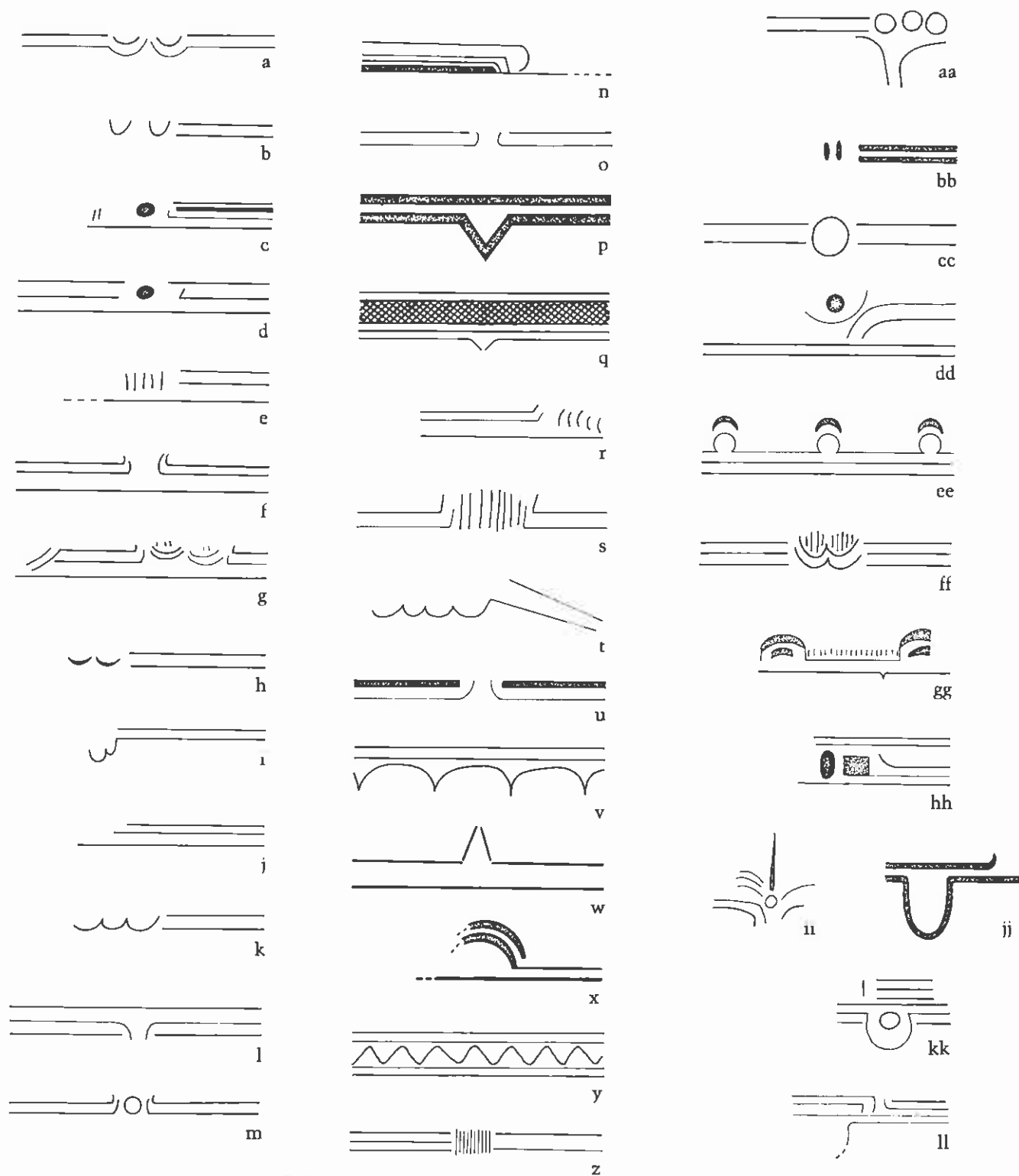


Figure 13.23. Amatzinac White variations of double- and triple-line-break motifs.

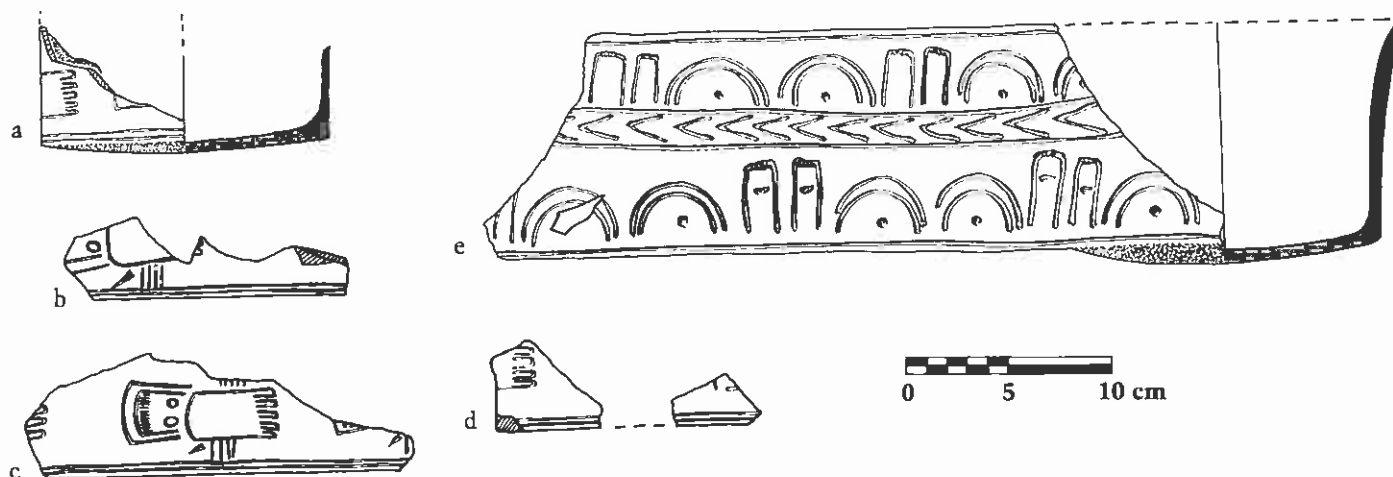


Figure 13.24. Amatzinac White cylindrical bowls with elaborate exterior incised designs.

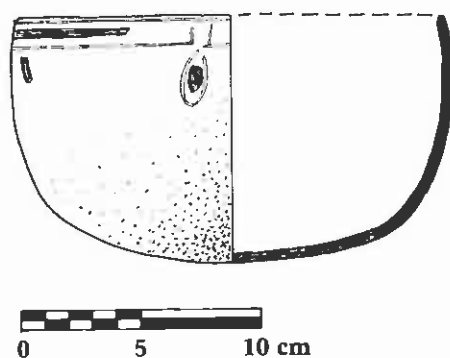


Figure 13.25. Amatzinac White, Early and Late Cantera subphase bowl with exterior "egg" motif incising.

Comparisons: Amatzinac White correlates with Blanco Pulido and Blanco Laca in Piña Chan's classification of Chalcatzingo ceramics (1955: Figs. 5–7, 15–17). In the Valley of Mexico, at El Arbolillo East, the rainbow motif on white-slipped pottery was present in La Pastora phase (Tolstoy and Paradis 1970: 345). Pseudo-grater interiors were present at El Arbolillo during El Arbolillo subphase and at Ayotla during the Bomba subphase (ibid.: 347). White basket censers and ovate bowls were recovered by George C. Vaillant at Zacatenco (1930: Pl. IVm, p), and thus are similar to Cantera phase Amatzinac White vessels. Manantial phase Cesto Blanco ceramics from Zohapilco are similar to the Barranca phase Amatzinac White pottery, but Cesto Blanco Tardío from the Zacatenco phase at that site shows no resemblance in form or decoration (Niederberger 1976: 132–135, Pls. 50–52). Blanco Pulido from Middle Formative contexts at Tlatilco (Piña Chan 1958: Figs. 11–12) is typified by outflaring and outcurving wall bowls with single-line, double-line, and scallop incised motifs. Basket censers of the same type are illustrated. The Blanco Pulido at Atlahuayan (Piña Chan and López González 1952: Fig. 1) is also comparable to Amatzinac White, as are Las Juntas White and Grey White from Cerro Chalcatpec in south-central Morelos (Grove 1968b: 71–73, Figs. 59–61).

Early Santa María phase Canoas White of the Tehuacan Valley has flaring wall bowls with flat and rounded bases, sim-

ple double-line-break incising, pseudo-graters, and everted rim bowls similar to Amatzinac White of the Barranca phase (MacNeish, Peterson, and Flannery 1970: 59–68). White Cerámica Olmeca Tardía of the Moyotzingo B phase (Aufdermauer 1973) is similar and includes the flower pot bowl (RB-62). Similar pseudo-grater designs and rainbow motifs are present. In Oaxaca, white-slipped pottery vessels with outslanting walls and flat bases are reported from the Guadalupe and Rosario phases of San José Mogote (Flannery 1968: 82; personal communication). This is presumably like Atoyac Yellow-White from Fábrica San José (Drennan 1976). From the Panuco region, white-slipped pottery with pseudo-grater designs is reported from the Pavón site (G. Ekholm 1944). Progreso White of the Pavón and Ponce phases includes flaring wall bowls, pseudo-graters, and flat bases (MacNeish 1954: 566). Cerámica Blanca is reported from Chalahuite and El Trapiche also (García Payón 1966).

At La Venta, Coarse Buff is probably similar to Amatzinac White in style, although no pseudo-graters are present there (P. Drucker 1952: 85–87). San Lorenzo's La Mina White of the San Lorenzo A subphase (Coe 1970) is similar to Amatzinac White in the hemispherical bowl form (RB-93), which is present in Amatzinac White during the Late Barranca subphase. White-slipped ceramics are reported from Tres Zapotes A phase (Weiant 1943: 17). The Cream-White pottery from Tres Zapotes is a fine-paste, thin pottery whose forms include flat

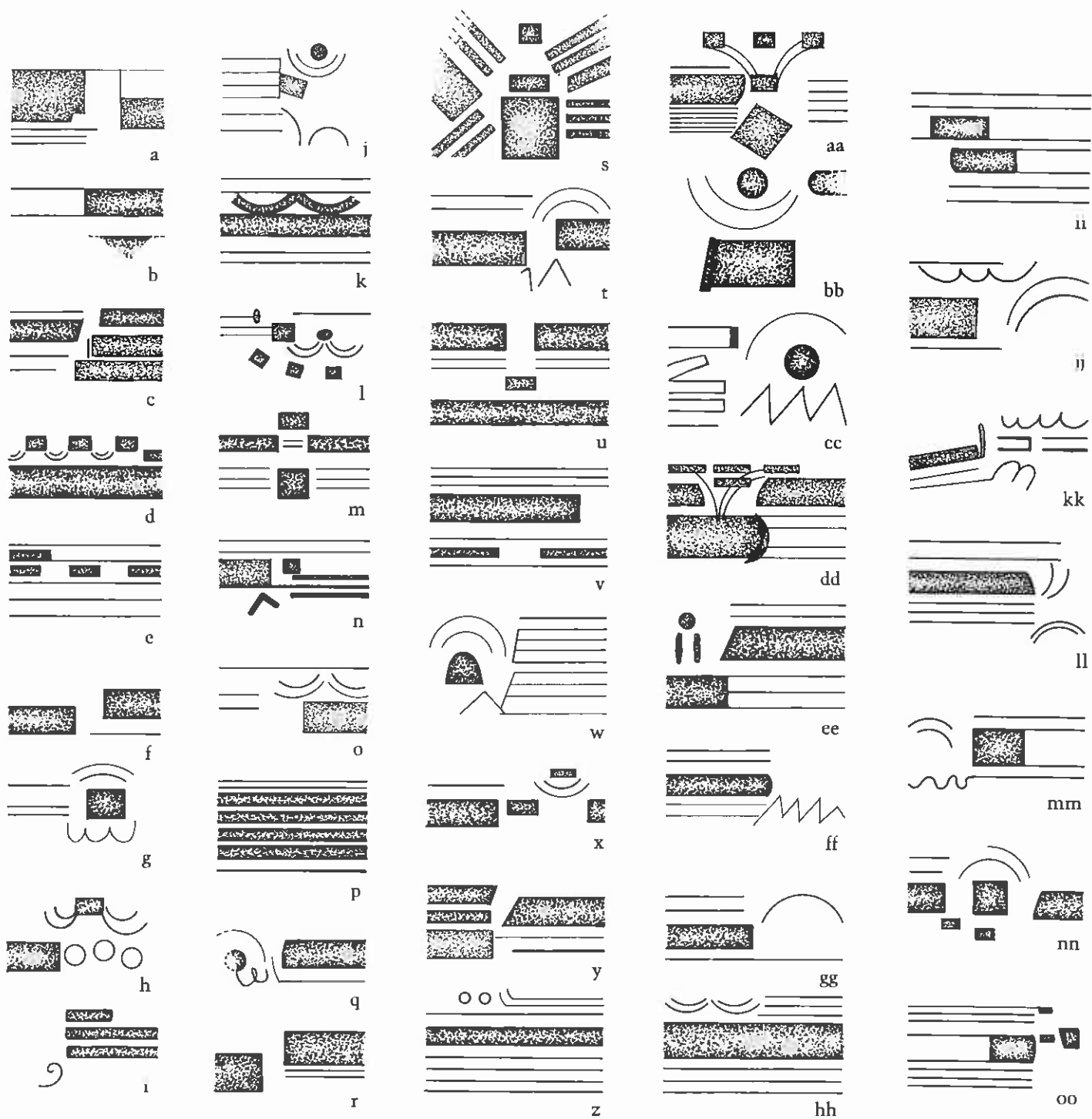
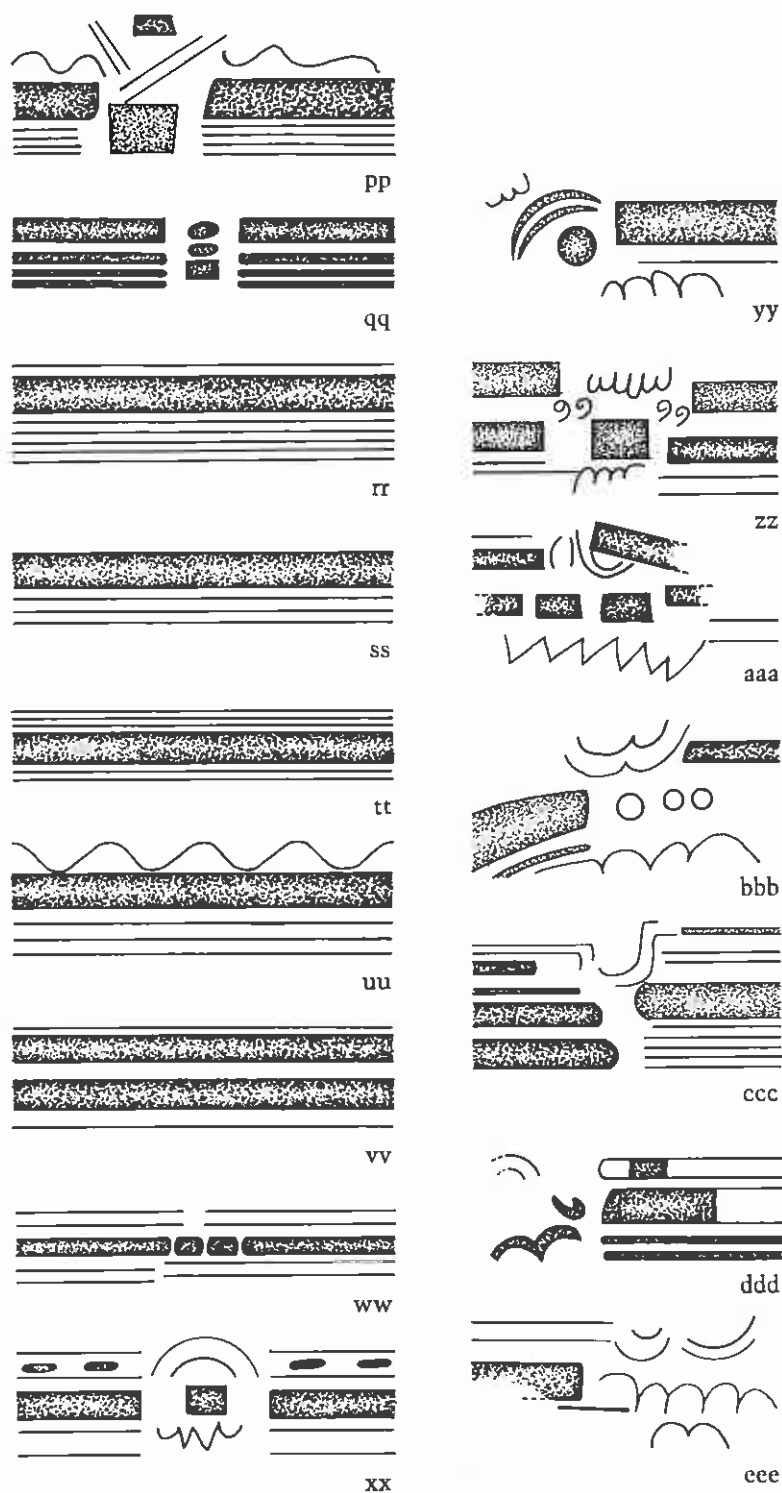


Figure 13.26. Amatzinac White, Early and Late Cantera subphase variations of wide *raspada* interior rim incising.



base flaring wall bowls, everted rim bowls, and hemispherical bowls (Drucker 1943a:38). The white-slipped pottery in the Smithsonian collection (Fig. D.6) has a hard brown paste, and vessel form is mainly ollas and hemispherical bowls with little or no incising.

A notable form at Chalcatzingo is the spouted tray [or ladle; RD-9] often found in burial context (but also found in midden context). Ladles are reported from Santa Cruz, Chiapas, by Sanders (1961), but those ladles have a very elongated spout or handle. Ladles (*charolas*) from Monte Albán are reported by Caso, Bernal, and Acosta (1967:253, Fig. 231). Only eight examples were noted from Monte Albán in K.19 type paste. They were reported as "offerings," but no other context is given.

Amatillo White of the Cuadros phase of Altamira, Chiapas, is similar in form and decoration to Barranca phase Amatzinac White (Green and Lowe 1967:110). Tacana Incised White of the Late Jocotal phase has similar design motifs (*ibid.*:118). Amatillo White of the Cuadros phase, and Siltepec White and Tacana Incised of the Jocotal phase of Izapa follow the same style. Outslanting wall bowls with the double-line-break, flaring wall bowls, and cylindrical bowls were popular during those phases (S. Ekholm 1969:48, 51, 65-66). White Monochrome from Chiapa de Corzo has everted rim bowls with the interior rim cross-hatch design similar to Late Barranca Amatzinac White (Dixon 1959:26, Fig. 27a). Smudged White of the Mirador II phase from Mirador, Chiapas, is typified by flaring wall bowls with flat and rounded bases and decorated with the double-line-break motif (Peterson 1963:8, Fig. 9). Conchas White-to-Buff of the Conchas phase of La Victoria, Guatemala, follows the same pattern of style in white-slipped pottery (Coe 1961:Figs. 25-27). Salinas La Blanca has a complex similar to that of La Victoria (Coe and Flannery 1967). In the coastal regions of Guatemala and Chiapas, pottery forms are different from the highland ones due to different functions and traditions. *Tecomates*, for example, were not a common form in the highlands but were very popular in the coastal lowlands. Huetché White of the Xe complex of Altar de Sacrificios, Guatemala, is described as similar to Teopisca White: Teopisca Variety of Chiapa IV-V, and to Vergel White-to-Buff: Tzutzuculi Variety of Chiapa III (Adams 1971).

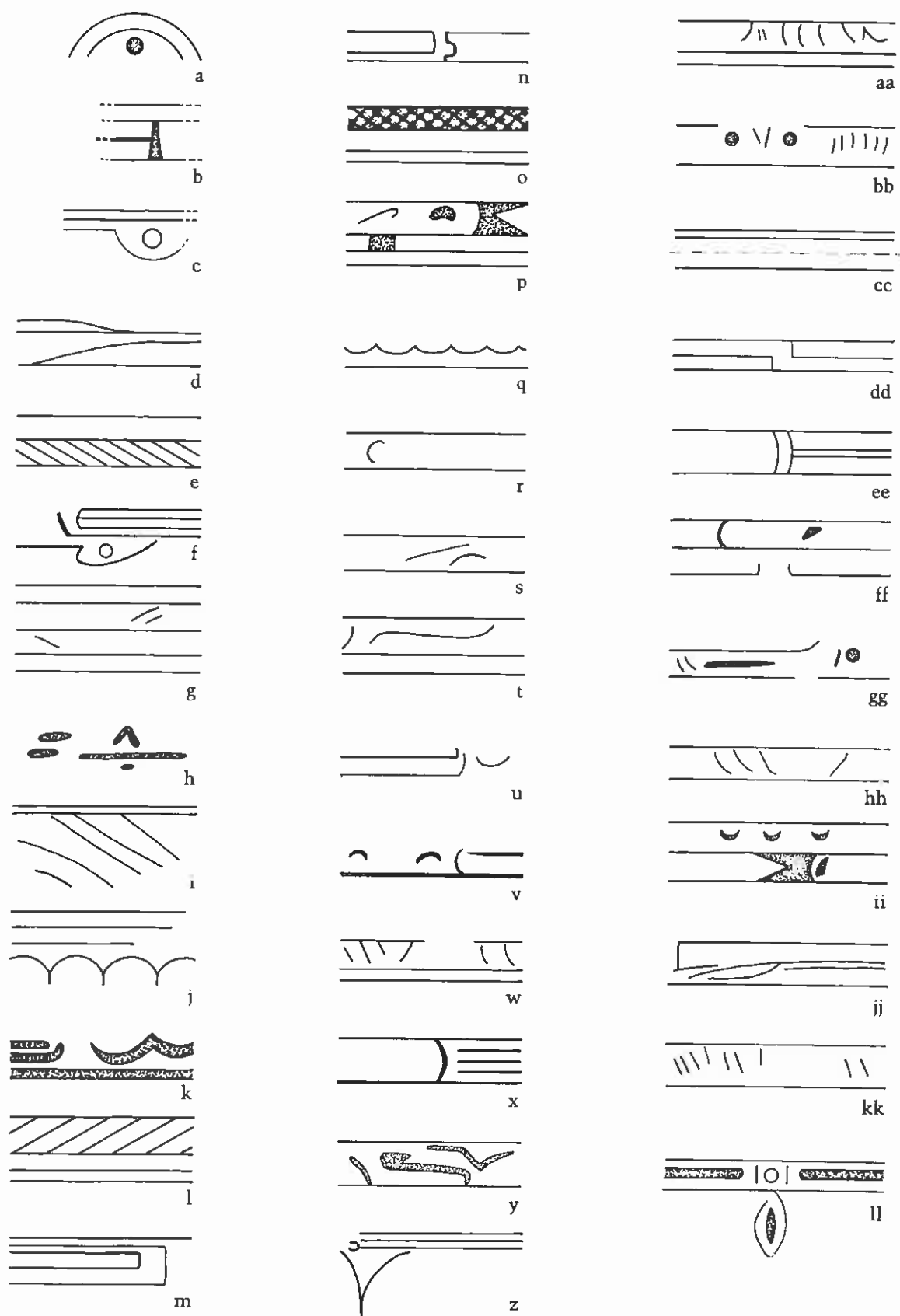


Figure 13.27. Examples of incised rim designs of Amatzinac White, Laca, and Carrales Coarse Grey.

It is important to point out that "wide *raspada*" decoration is known only at Chalcatzingo.

Amatzinac White, Red Paste Variant

Surface Treatment: Surface treatment is identical to that of Amatzinac White.

Paste and Temper: The paste differs from the normal Amatzinac White paste in that it is a bright orange-red color: 7.5 R 4/8; 2.5 YR 5/8, 4/6; 10 R 4/6–8, 6/6, 5/8. Because the paste is like Amatzinac White in all except color, this variant could represent only a difference in firing atmosphere.

Forms: Outflaring wall bowls and everted rim bowls are present.

Plastic Decoration: See Amatzinac White.

Amatzinac White, Ruddy Paste Variant

Surface Treatment: The interiors of the vessels are unslipped and highly polished. The exteriors are slipped white and highly polished. The color range is 2.5 YR 4/8 (interior) and 5 YR 8/1 (exterior).

Paste and Temper: The paste is compact and the fracture sharp. Paste color is 2.5 YR 4/8. There is little or no temper.

The principal mineral constituent is plagioclase (An 33), 5 percent of the total paste volume. Grain size range is 120–600 microns. Orthopyroxene is observed as comprising not more than 1 percent of the volume and having a grain size range of 120–280 microns. Horneblende is present in frequencies of less than 1 percent. Its range of grain size is 100–120 microns. Iron stains, andesite, and leucoxene were observed. These inclusions show similarities to mineral inclusions found in the volcanic tuff of the region.

Forms: The exact bowl forms are unknown.

Plastic Decoration: None.

Amatzinac White, Surface Treatment Variant

Surface Treatment: The white-slipped surfaces are very highly polished and are quite compact. Surface color is distinct from that of Amatzinac White: 10 YR 5/1–2, 6/4. The surface is streaky due to uneven application of slip.

Paste and Temper: The paste is similar to that of Amatzinac White. It has a moderate amount of temper, and the fracture is jagged. Paste color range is 7.5 YR 5/4; 5 YR 3/4.

The principal mineral constituent is plagioclase (An 30), forming 5 percent of

the paste volume and having a range of grain size of 100–600 microns. Orthopyroxene and horneblende each comprise less than 1 percent of the volume. Orthopyroxene ranges in grain size from 200–400 microns; horneblende ranges from 140–220 microns. Only a trace of clinopyroxene is noted. Andesite is present. These inclusions show similarity to the mineral inclusions of the volcanic tuff of the region.

Forms:

Outslanting wall bowls (RB-17, 18, 19)

Flaring wall bowls (RB-26)

Direct rim composite silhouette bowls (RB-31)

Ollas (unknown form)

Plastic Decoration: Shallow exterior grooving, fine-line incising, and patterned "stick" polishing were noted.

Amatzinac White, Paste Variant

Surface Treatment: The surface treatment is similar to that of Amatzinac White. Color range is 10 YR 6/4, 6/2, 7/2; 7.5 YR 6/4, 8/2; 5 YR 7/2.

Paste and Temper: The paste has little temper and is very compact. The fracture is very sharp and even. Paste color is diagnostic: 2.5 YR 3/2, 3–4/6; 5 YR 5/3–4, 4/6.

Plagioclase (An 28) forms 6 percent of the paste volume, and its grains measure 180–840 microns. Horneblende and orthopyroxene each constitute less than 1 percent of the volume. Horneblende has a range of grain size of 200–420 microns. One grain of clinopyroxene was noted. Andesite and iron stains are present. These inclusions show similarities to those of the volcanic tuff of the region.

Forms:

Flaring wall bowls (RB-26)

Hemispherical bowls (RB-7)

Ollas (unknown forms)

Plastic Decoration: Fine-line incising is the only decorative technique present.

Amatzinac White, Exterior White-Slipped, Interior Plain Variant

Surface Treatment: The interiors of the vessels are unslipped and polished. Interior color range is 5 YR 3–4/1, 4/4; 7.5 YR 4/2. The exteriors are white-slipped and polished. Color range is 7.5 YR 8/2.

Paste and Temper: The paste is similar to Amatzinac White. Plagioclase (An 34) constitutes 5 percent of the paste volume. Grains range in size from 180 to 380 microns. Orthopyroxene is the sec-

ond most abundant mineral, 1 percent of the volume. Grains range in size from 140 to 440 microns. Horneblende is present, but forms less than 1 percent of the paste volume. Grains measure 300–540 microns. One twinned example was observed. One grain of clinopyroxene was noted. Iron stains, andesite, and leucoxene are present. These inclusions show similarities to mineral inclusions in the volcanic tuff of the region.

Forms: Bowl body sherds are present, but rim forms are not known.

Plastic Decoration: Punctuation, patterned "stick" polishing, and incising occur.

Laca

Temporal Range: Laca appeared in significant quantities at the beginning of the Early Barranca subphase and was typical of the ceramic assemblage during the Early, Middle, and Late Barranca and Early Cantera subphases. During the Late Barranca, it began to diminish in popularity.

Surface Treatment: Vessel surfaces first received a white slip and then an orange-red colored wash over the white slip. The transparency of the colored wash gives the impression of lacquer technique, although this pottery is not a true lacquer (*laca*) ware. Laca shows varying degrees of polishing, from highly to poorly polished, often dependent upon conditions of preservation. Due to firing conditions, surface colors vary from bright orange to yellow and sometimes brown: 2.5 YR 3–6/6–8, 3/2; 5 YR 4–6/6, 5–7/8, 7/6–8, 3–4/2–3, 3–5/4–5, 3/1, 5/6–8; 10 YR 4–5/4, 7/5, 7/8; 2.5 YR 3/2–4, 4–5/8; 7.5 YR 6–8/6, 5–7/8. Piña Chan (1955: 19–20, Fig. 14a–j) originally divided Chalcatzingo Lacas into two subgroups on the basis of color: Amarillenta and Naranja. Grove (1968b: 76–79) created orange, yellow, and brown Laca types for Cerro Chacaltepec.

Hemispherical, incurved, and shallow bowls invariably have the slip and colored wash on both interior and exterior surfaces. Some outcurving and outslanting wall bowls during the Early and Late Barranca subphases tend to be slipped only on interiors. Occasionally everted rim bowls were left with a white rim when the colored wash did not extend to the lip of the vessel. During the Cantera phase, bowls were slipped and decorated on the exteriors.

Paste and Temper: The paste is crumbly and has a jagged fracture. Paste color

range is 7.5 YR 6/4, 5-7/4-6, 3-5/0; 10 YR 6-7/3-4. A reduced black or grey sandwiched core is common.

The maximum frequency of aplastics is 19 percent of the total paste volume. The most frequently occurring mineral is plagioclase (An 29-32), as 5-8 percent of the total volume. The range of grain size is 140-400 microns. Orthopyroxene grains measure 100-500 microns and constitute 3-4 percent of the volume. Clinopyroxene grains, ranging in size from 200 to 340 microns, are less than 1 percent of the volume. Hornblende never exceeds 1 percent of the volume, and the grains have a size range of 160-360 microns. Basaltic andesite, dacite, iron stains, and occasional leucoxene are present. Opaque iron-titanium ores reach a maximum of 5 percent of the total volume. The mineral inclusions show similarities to the mineral fragments found in the volcanic tuff of the area.

Forms:

Late Amate subphase contexts

Shallow bowls (RB-41)

Outslanting wall bowls (RB-17, 18)

Outcurving wall bowls (RB-23)

Rounded bases

Early Barranca subphase (Fig. 13.30a-e, i-k)

Hemispherical bowls (RB-7)

Outslanting wall bowls (RB-17, 18, 19) with flat and rounded bases

Shallow bowls (RB-41)

Cylindrical bowls (RB-14)

The Early Barranca forms continued into the Middle Barranca.

Middle Barranca subphase (Figs.

13.28a-g, 13.30a-e, i-k)

Common forms

Incurved rim bowls (RB-3)

Outslanting wall bowls (RB-19)

Outcurving wall bowls (RB-25)

Other forms

Outcurving wall bowls (RB-23)

Everted rim bowls (RB-30)*

Ovate bowls (RB-16)

Outslanting, slightly everted rim bowls (RB-21, 22)

Early and Middle Barranca forms continued into the Late Barranca.

Late Barranca subphase (Figs. 13.28h-o, 13.29, 13.30)

Diagnostic phase markers

Everted rim bowls (RB-30)

Flower pot bowls (RB-62)

Common forms

Outslanting wall bowls (RB-17, 18, 19)

Outcurving wall bowls (RB-25)

Other forms

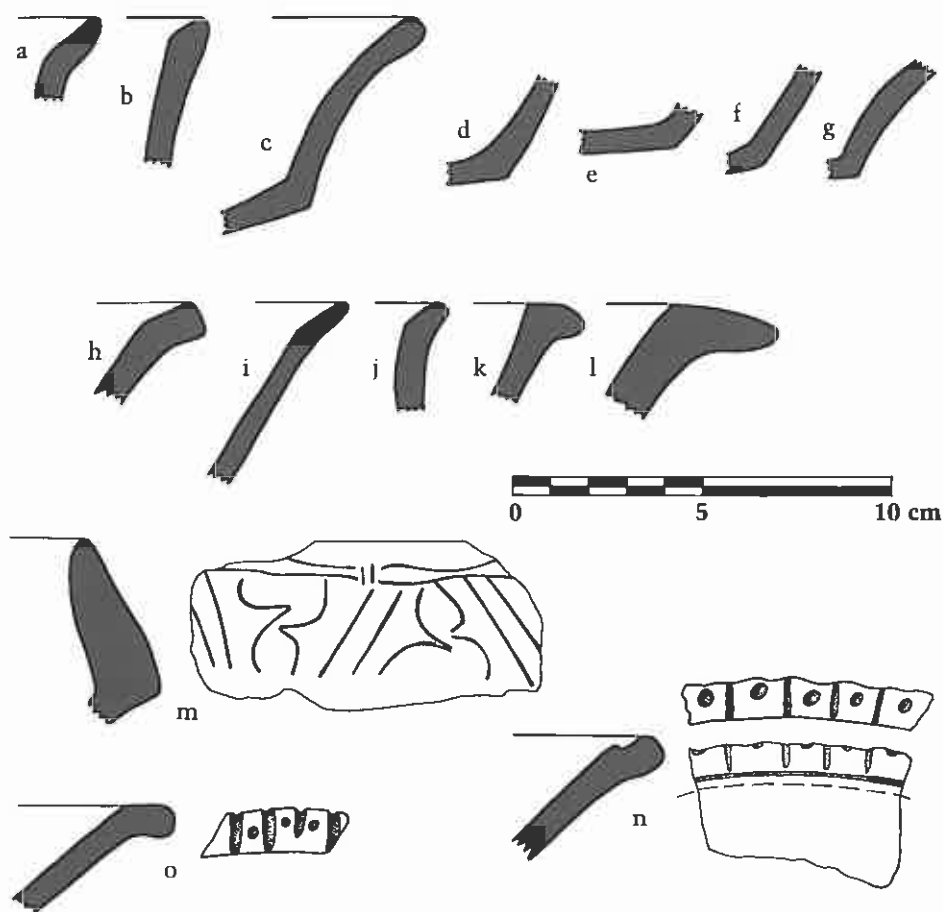


Figure 13.28. Laca: a-c, Middle Barranca subphase bowls; d-g, Middle Barranca subphase bases; h-o, Late Barranca subphase bowls.

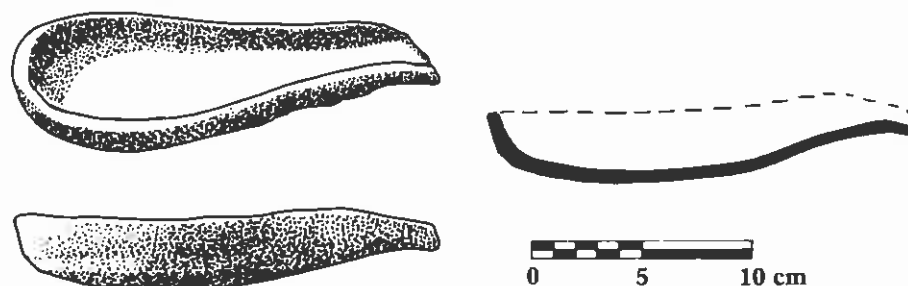


Figure 13.29. Laca, Late Barranca to Late Cantera subphase ladle.

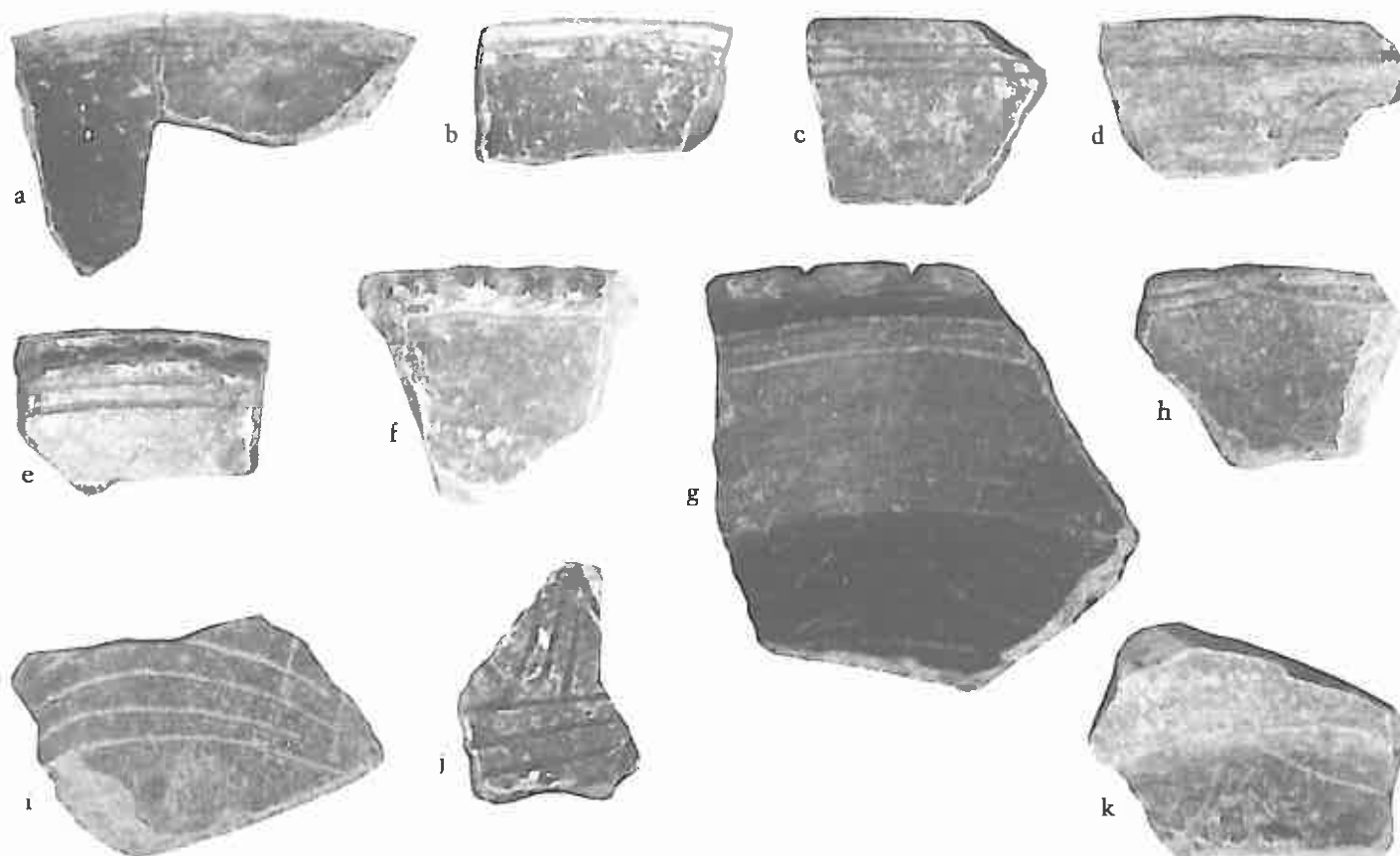


Figure 13.30. Laca: *a–e*, Early to Late Barranca subphase outslanting wall bowls with rim incising; *f–h*, Late Barranca subphase modeled and punctated everted rim bowls; *i–k*, Early to Late Barranca subphase pseudo-grater bowl interiors.

Spouted tray (RB-9)*
 Direct rim composite silhouette bowls (RB-31)*
Tecomates (RB-1)
 Outslanting, slightly everted rim bowls (RB-20)
 Flaring wall bowls (RB-26)
 Highly outcurved bowls (RB-90)
 Globular bowls (RB-60)
 Beveled rim bowls (RB-37)
 Everted rim bowls (RB-35)
 Heavy shallow bowls (RB-115)
 High shoulders (Base M)

Laca diminished in popularity during the Early and Late Cantera subphases; interestingly, while frequency decreased, the variety of forms increased. The forms of previous phases continued.

Cantera phase

Common forms

Outslanting wall bowls (RB-17, 18)

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Other forms

Direct rim composite silhouette bowls (RB-71)

Composite silhouette bowls (RB-45)

Heavy everted rim bowls (RB-38)

Flaring wall bowls (RB-75)

Highly outcurved bowls (RB-76)

Some Amatzinac White forms are paralleled, such as RB-90 and RB-71. Peralta Orange forms are also imitated, particularly RB-45.

Plastic Decoration: Interior and exterior rim incising with the single-line, double-line, triple-line, double-line-break, or triple-line-break motifs is common (Fig. 13.30*a–e*). Pseudo-grater interiors were more common during the Barranca phase than in the Cantera phase (Figs. 13.30*i–k*, 13.31). Modeling of everted

rim during the process of manufacturing with deep punctation into the tops of these rims is a good marker for the Late Barranca subphase (Figs. 13.28*n–o*, 13.30*f–h*).

Otherwise, there seems to be little temporal significance to Laca designs, although occasionally a copy of an Amatzinac White design will appear and can be temporally correlated within that sequence (DC-18–20).

Comparisons: This pottery type appears in greatest quantities in Morelos and apparently is present in only minor amounts in the Valley of Mexico and the Valley of Toluca (Yoko Sugiura, personal communication). In Morelos it has been reported by Grove (1968:76–79, Figs. 67–68) at Cerro Chacaltepec and by Piña Chan and López González (1952:Fig. 1) for Atlahuayan. It is an important type at

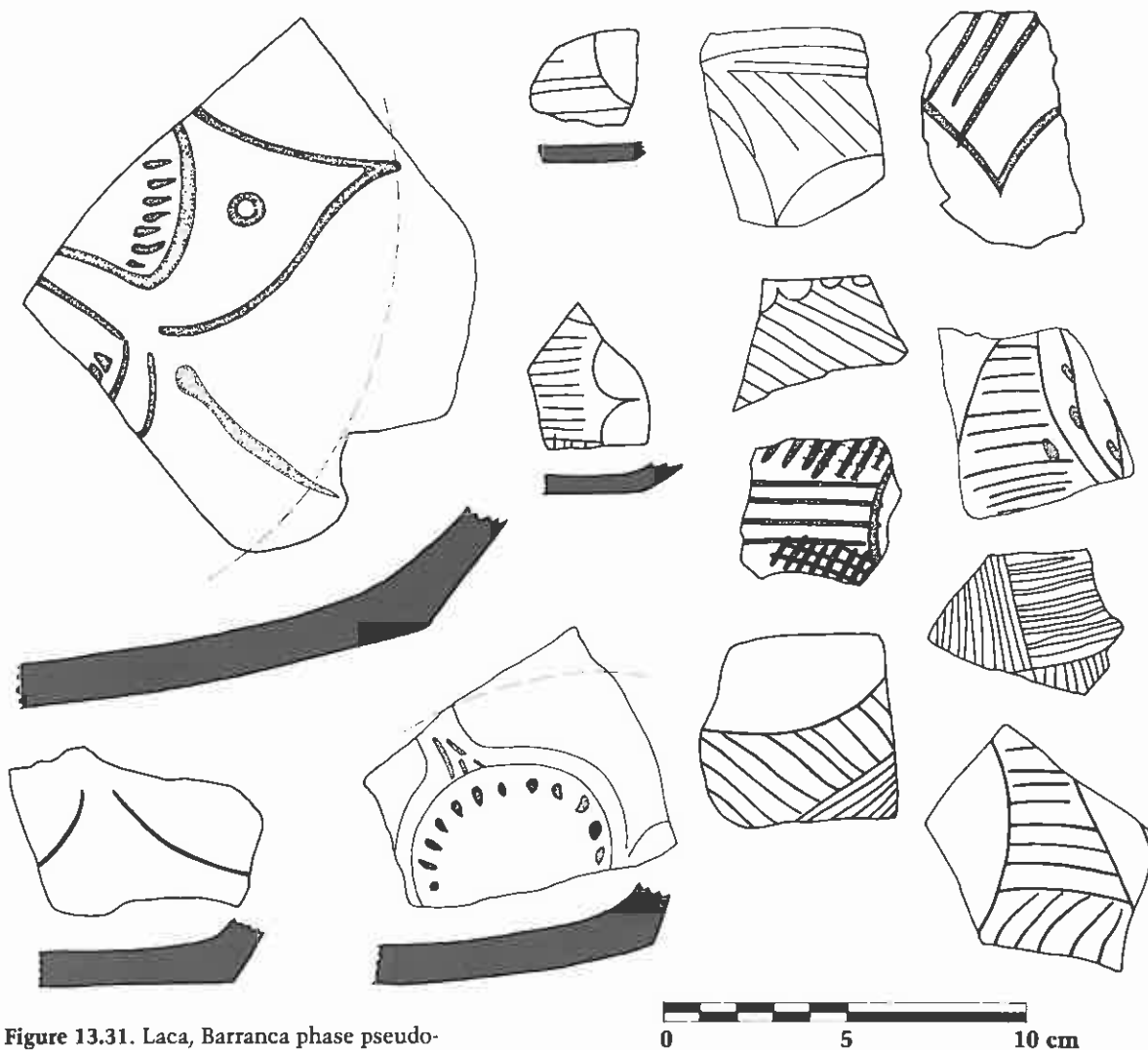


Figure 13.31. Laca, Barranca phase pseudo-grater bottom designs.

Chalcatzingo, and it is possible that the Río Amatzinac Valley area is its major focus (as is also the case with Peralta Orange). Further analyses are necessary to determine whether when present at Valley of Mexico sites it was locally manufactured or represented a Morelos "export" ware.

Imitation Laca

Temporal Range: This pottery occurred during the Middle and Late Barranca and Early Cantera subphases.

Surface Treatment: Imitation Laca looks nearly identical to Laca but lacks the white-slipped base. The thin colored wash was applied directly to the light buff ceramic body, and then the surface was polished. This wash appears identical to that applied to Laca sherds. Surface color range is 2.5 YR 3–5/6–8, 3/2;

10 R 4–5/8, 3/6; 5 YR 4/6–8, 6/6; 7.5 YR 6/6.

Paste and Temper: The paste is identical to that of Laca sherds. Plagioclase is the most frequently occurring mineral, comprising 4–5 percent of the paste volume. Its grains range in size from 100 to 800 microns. Hornblende constitutes 1–2 percent of the paste volume, and its grains measure 80–400 microns. Orthopyroxene is present in frequencies of less than 1 percent of the paste volume. Andesite is observed. These inclusions probably originate from volcanic tuff.

Forms:

Outcurving wall bowls (RB-23, 25)
with rounded bases

Flaring neck ollas (RO-15)

Plastic Decoration: None of the decorations found on Laca are known to occur on Imitation Laca.

Comparisons: Imitation Laca may be similar to Santa María Orange which Grove (1968b:80) recovered in minor quantities at Cerro Chacaltepec.

Tenango Brown

Temporal Range: Although Tenango Brown was present as early as the Early Amate subphase, it was overshadowed in quantity by Cuautla Brown, Arboleda Coarse, Tadeo Coarse, and Atoyac Unslipped Polished III, the major plain wares of the Amate phase. Tenango Brown became a major part of the assemblage during the Early Barranca subphase and continued into the Late Cantera, although its quantities diminished when Peralta Orange gained popularity during the Early Cantera.

Surface Treatment: The surface finish varies from well polished to streaky and

poorly finished. Surface color range is 5 YR 1–5/2–6. For the Early, Middle, and Late Barranca subphases, Tenango Brown and Peralta Orange show similar Munsell color ranges along with similar form assemblages. However, by the Early Cantera subphase, there is a distinct difference between Tenango Brown and Peralta Orange on the basis of both surface color and form.

Paste and Temper: The paste has a crumbly texture, and the fracture is jagged. The paste color range is 7.5 YR 6/4, 6/6; 5 YR 5–6/6, 7/4, 3–4/1, 5–6/4. Core section has the typical dark grey center and lighter outer layers.

The aplastics constitute 1 percent of the paste volume. Plagioclase (An 25, 27) constitutes 5–7 percent of the total volume as the most abundant mineral inclusion. Grain size ranges from 100 microns to 1.8 mm. Orthopyroxenes are present in equal proportions with hornblende in one sample, and reached 2 percent of the total volume in another. Grains measure 80–240 microns. Hornblende occurs as less than 1 percent of the total volume, and the grain size range is 80–440 microns. Basaltic andesite, dacite, iron stains, and leucoxene are present. Occasional grains of clinopyroxene and sandstone are observed. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms:

Late Amate subphase

Common forms

- Hemispherical bowls (RB-7)
- Outslanting wall bowls (RB-17, 18)
- Flaring neck ollas (RO-5)

Other forms

- Hemispherical bowls (RB-93)
- Outslanting wall bowls (RB-19)
- Flaring neck ollas (RO-12, 11)
- Outcurving wall bowls (RB-25)
- Flaring wall bowls (RB-26)
- Cylindrical bowls (RB-14)
- Beveled rim bowls (RB-37)
- Tecomates* (RB-1)
- Incurved rim bowls (RB-3)
- Shallow bowls (RB-41)
- Heavy everted rim bowls (RB-38)
- Super flaring neck ollas (RO-17)
- Flat and rounded bases
- High shoulders (Base M)

Early Barranca subphase (Fig. 13.32a–i)

Diagnostic phase marker

- Collared ollas (RB-1)

Common forms

- Incurved rim bowls (RB-3)
- Plates with roughened exteriors (RD-8)*

Other forms

- Tecomates* (RB-1)
- Hemispherical bowls (RB-7)
- Outcurving wall bowls (RB-25)
- Flaring wall bowls (RB-26)
- Flaring neck ollas (RO-5)
- Flat and rounded bases

Middle Barranca subphase forms are identical to those of Early Barranca, and a number of new forms were introduced.

Middle Barranca subphase (Fig. 13.32a–j)

Common forms

- Beveled rim ollas (RO-8)
- Collared ollas (RO-1)

Other forms

- Outcurving wall bowls (RB-23)
- Outslanting wall bowls (RB-17, 18, 19)
- Highly outcurved bowls (RB-90)
- Shallow bowls (RB-41)
- Heavy everted rim bowls (RB-38)
- Ovate bowls (RB-16)
- Flaring neck ollas (RO-12)
- Super flaring neck ollas (RO-17)
- Plates with roughened exteriors (RD-4, 5)

Early and Middle Barranca forms continued into the Late Barranca subphase, and again new forms came into use.

Late Barranca subphase (Fig. 13.32j–q):

Common forms

- Hemispherical bowls (RB-7)
- Shallow bowls (RB-41)
- Flaring neck ollas (RO-5, 12)

Other forms

- Flaring neck ollas (RO-9, 15, 11)
- Collared ollas (RO-1, * 2)
- Basins* (Fig. 13.32m–n)
- Braziers, annular based (RB-100)
- Cylindrical bowls (RB-14)
- Outslanting wall bowls (RB-17, 18, 19)
- Outslanting slightly everted rim bowls (RB-20)
- Everted rim bowls (RB-30, 35)
- Beveled rim bowls (RB-37)
- Heavy everted rim bowls (RB-38)
- Composite silhouette bowls (RB-45, 132)
- Flower pot bowls (RB-62)
- Highly outcurved bowls (RB-90)
- Slightly everted rim bowls (RB-77)
- Beveled rim ollas (RO-8)
- Super flaring neck ollas (RO-17)
- Plates with roughened exteriors (RD-1, 2, 3, * 4, 5, 8*)
- Regular handles (H-1)
- Rolled-lip ollas (RO-30)
- Direct rim composite silhouette bowls (RB-127)
- Flaring wall bowls (RB-75)

Except for RB-90, RB-16, RB-75, and H-1, these forms continued into the Early Cantera subphase.

Early Cantera subphase (Fig. 13.32q–z)

Diagnostic phase markers

- Rolled-lip, short-neck ollas (RO-27)
- Rolled-lip ollas (RO-30)
- Short-necked ollas (RO-29)
- Flaring mouth ollas (RO-28)

Common forms

- Flaring neck ollas (RO-5)
- Shallow bowls (RB-41)
- Outslanting wall bowls (RB-18)
- Hemispherical bowls (RB-7)

Other forms

- Tecomates* (RB-131)
- Globular bowls (RB-60)
- Direct rim composite silhouette bowls (RB-31)
- Incurved rim bowls (RB-133)
- Small shallow bowls (RB-67)
- Composite silhouette bowls (RB-132)
- Collared ollas (RO-2)
- Plates with roughened exteriors (RD-1, 2)

The Late Cantera subphase forms include all previous forms except for RB-75 and RD-5.

Late Cantera subphase (Fig. 13.32t–cc)

Diagnostic phase markers

- Twisted handles (H-4)
- Ridged-neck ollas (RO-25)

Common forms

- Flaring neck ollas (RO-12, 5)
- Outslanting wall bowls (RB-17, 19)
- Hemispherical bowls (RB-7)

Other forms

- Flaring neck ollas (RO-11)
- Small shallow bowls (RB-67)
- Incurved rim bowls (RB-66, 6)
- Outslanting, slightly everted rim bowls (RB-21, 22)
- Highly outcurved bowls (RB-76)
- Ridged composite bowls (RB-85)
- Heavy shallow bowls (RB-115)
- Beveled rim bowls (RB-120)
- Plates with roughened exteriors (RD-1)

Composite silhouette bowls (RB-45) and rolled-lip short-necked ollas (RO-27) reached their peak of popularity during the Late Cantera subphase.

Plastic Decoration: Tenango Brown vessels are usually undecorated. Punctuation along the shoulders of composite silhouette bowls (RB-45) occurred during the Cantera phase in imitation of Peralta Orange. Twisted handles (H-4) sometimes have incisions near the top of the handles or in rows on the twisted sections (Fig. 13.32z). Body incising on all

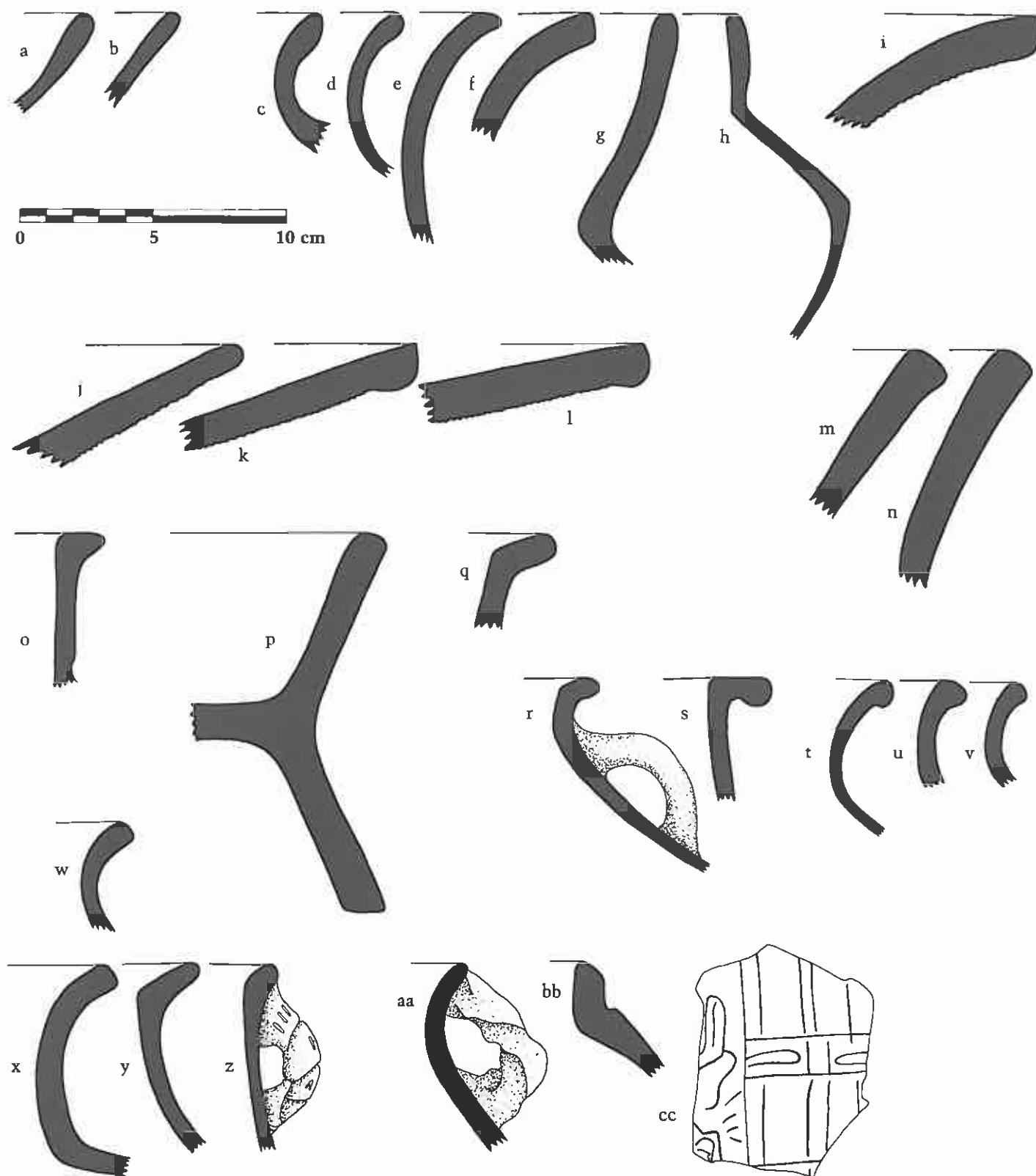


Figure 13.32. Tenango Brown. Early and Middle Barranca subphase: *a–b*, bowls; *c–h*, ollas; *i*, plate. Late Barranca subphase: *j–l*, plates; *m–n*, basins; *o*, collared olla; *p*, annular base brazier. Late Barranca to Cantera subphase: *q*, olla.

Early Cantera subphase: *r–s*, ollas. Early and Late Cantera subphase: *t–z*, ollas. Late Cantera Subphase: *aa–bb*, ollas; *cc*, exterior incising.

forms is rare (Fig. 13.32cc).

Comparisons: Tenango Brown appears similar to Café Claro and Bayo defined by Piña Chan at Chalcatzingo (1955: Figs. 1, 9).

Tenango Brown is a local utilitarian ware. Because utilitarian wares tend to be more regionally restricted than decorated wares, there are few comparisons to be made with other regions. The only important comparison to be made here is with the collared olla (RO-1). This form was present at San Lorenzo beginning with the Chicharras phase (Coe, personal communication). It was also found with Quachilco Mica ceramics during the Late Santa María phase at Tehuacan (MacNeish, Peterson, and Flannery 1970: Fig. 65, row 3), but this context is later than its presence at Chalcatzingo.

White-Rimmed Black

Temporal Range: White-Rimmed Black began in small quantities in the Late Amate subphase, became common during the Barranca phase, and began to diminish in popularity in the latter part of the Early Cantera subphase.

Surface Treatment: The exterior and/or interior rim surfaces are a beige-to-cream color while the rest of the vessel is black (Fig. 13.33). This pottery is unslipped, but the high polish gives the impression of a slip. Rim color is in the 10 YR 7/2–3 range; the black surface is invariably 7.5 YR 2.5/0. In the Late Amate subphase, the technique of differential

firing, a resist technique, was imperfect, and most pieces were irregularly clouded. During the Barranca phase, occasional imitations of White-Rimmed Black were manufactured using white-slipped rims.

Paste and Temper: The paste is crumbly and has abundant temper. Wall thickness is always less than 1 cm. The black part of the core profile has a Munsell color of 7.5 YR 2.5/0. The lighter sections range 10 YR 7/2–3.

The maximum frequency of aplastics in the total paste volume is 15 percent. Plagioclase (An 30, 33) is the principal aplastic, constituting 8–10 percent of the total paste volume. Grains range in size from 120 to 500 microns. Orthopyroxenes compose 5 percent of the volume in one section, less than 1 percent in another. Grain size range is 140–300 microns. Horneblende never exceeds 1 percent of the total volume, and grains measure 100–460 microns. Clinopyroxenes, sometimes twinned, may be present but in less than 1 percent of the volume. Basaltic andesite, iron stains, opaque iron-titanium ores, and leucoxene are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms (Figs. 13.33, 13.34): There is no regular change in forms through time in White-Rimmed Black. Variability between the subphases is therefore probably a function of sample size.

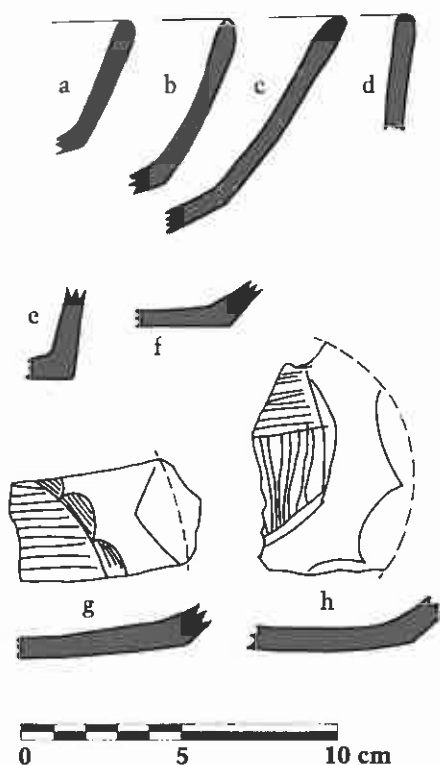


Figure 13.34. White-Rimmed Black, Early to Late Barranca subphase bowls.

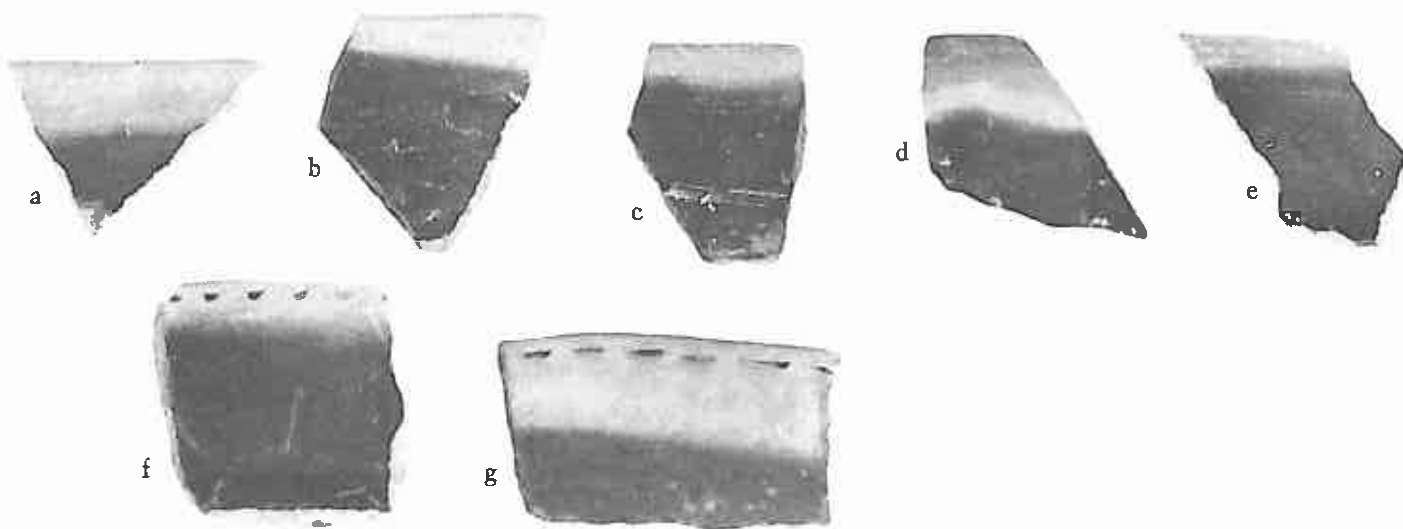


Figure 13.33. White-Rimmed Black: a–e, bowl rims; f–g, interior rim punctation.

Amate phase**Common forms**

Shallow bowls (RB-41)

Other forms

Hemispherical bowls (RB-7)

Beveled rim bowls (RB-37)

Everted rim bowls (RB-35)

Outslanting wall bowls (RB-17)

Rounded bases

Early Barranca subphase**Common forms**

Shallow bowls (RB-41)

Other forms

Heavy everted rim bowls (RB-38)

Flat and rounded bases

Middle Barranca subphase**Common forms**

Shallow bowls (RB-41)

Other forms

Outcurving wall bowls (RB-23, 25)

Incurved rim bowls (RB-3)

Ovate bowls (RB-16)

Outcurving wall bowls (RB-17, 18, 19)

Hemispherical bowls (RB-7)

Cylindrical bowls (RB-14)

Flat and rounded bases

Late Barranca subphase**Common forms**

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Other forms

Outslanting wall bowls (RB-17, 18, 19)

Cylindrical bowls (RB-14)

Beveled rim bowls (RB-37)

Outcurving wall bowls (RB-23, 25)

Incurved rim bowls (RB-3)

Everted rim bowls (RB-35)

Flaring wall bowls (RB-26)

Flat and rounded bases

Early Cantera subphase**Common forms**

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Other forms

Outslanting wall bowls (RB-17, 18, 19)

Beveled rim bowls (RB-37)

Cylindrical bowls (RB-14)

Outcurving wall bowls (RB-25)

Incurved rim bowls (RB-3)

Flat and rounded bases

Late Cantera subphase**Common forms**

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Other forms

Flower pot bowls (RB-62)*

Incurved rim bowls (RB-3)

Beveled rim bowls (RB-37)

Outslanting wall bowls (RB-17, 18, 19)

Outcurving wall bowls (RB-23)

Outslanting, slightly everted rim bowls (RB-20, 21, 22)

Small shallow bowls (RB-67)

Flat and rounded bases

Plastic Decoration: Interior pseudo-grater bottom incising is common, especially during the Barranca phase. The designs are usually stiffly geometric (Fig. 13.34g-h). Single or double incised lines along the interior or exterior rims or exterior incising are present but not common. The most common decorative technique consists of a double row of elongated punctates on the interior rim (Fig. 13.33f-g).

Comparisons: White-Rimmed Black pottery is another widespread ceramic style of the Middle Formative period. Local variations from region to region are noted. As one example, the rim punctates on the Chalcatzingo type seem unique to the region around Chalcatzingo.

In Morelos, white-rimmed black pottery is reported from Iglesia Vieja in El Zarco subphase (Grennes-Ravitz 1974). In the Valley of Mexico, it was present in the Nevada, Ayotla, Manantial, and Zacatenco phases at Zohapilco (Niederberger 1976: 127-128, Pl. 45). At Ayotla, white-rimmed black pottery was common during the Ayotla and Justo phases, and then declined in popularity during the Bomba phase (Tolstoy and Paradis 1970:347). In the Tehuacan Valley, Puebla, Coatepec White-Rim Black of the Late Santa María phase has a greater variety of forms than at Chalcatzingo but follows the same style (MacNeish, Peterson, and Flannery 1970:108-110, Fig. 64).

Differentially fired ceramics began in the Bajío phase at San Lorenzo, but white-rimmed black ware was present predominantly in the Chicarras and San Lorenzo phases (Coe 1968b:46; 1970:24-27). It is present at La Venta (P. Drucker 1952:92), and at Tres Zapotes it occurred during the Middle Tres Zapotes A phase (Weiant 1943).

In the Middle Grijalva region of Chiapas, White-Rim Black was prevalent in the Cacahuano phase (Lee 1974:6-7). At Altamira and Izapa, Pampas Black and White was present in the Cuadros phase (Green and Lowe 1967:108-109; S. Ekholm 1969:39). Smudged Black and White-Rim Black of the Mirador IV phase of Mirador exhibit shallow bowls with flat bases (Peterson 1963:9, Fig. 10a-d). A white-rimmed black pottery

was present in the Cuadros and Jocotal phases at Salinas La Blanca (Coe and Flannery 1967:33). An unnamed white-rimmed black pottery is present in the Xe complex at Altar de Sacrificios (Adams 1971:27).

Atoyac Unslipped Polished II

Temporal Range: Atoyac Unslipped Polished II was typical of the Early, Middle, and late Barranca subphases, although it began as early as the Late Amate subphase.

Surface Treatment: The unslipped surface has been evenly polished in most cases, although occasional "stick" polishing is evident. Surface color is variable from grey to brown: 2.5 YR 6/6; 5 YR 4-6/6, 5/3, 4/1; 7.5 YR 5-6/4, 4/4; 10 YR 6/2, 5/3, 4/3-4, 3/3.

Paste and Temper: The paste is coarse with a crumbly, jagged fracture. Paste color range is 10 YR 6/5, 3/2-3, 7/3; 7.5 YR 6/6, 6/4, 4/4; 2.5 YR 3/0; 5 YR 5/6, 4/4, 5/8. A grey sandwiched core in the section is common.

Mineral grains form 10-11 percent of the total paste volume. Plagioclase (An 27-28) comprises 8 percent of the volume, ranges in grain size from 80-880 microns, and is the most frequently occurring mineral. Orthopyroxene is usually the second most frequent mineral but constitutes less than 1 percent of the total volume. Grain size ranges from 100 to 680 microns. Hornblende is consistently present but never exceeds 1 percent of the total volume. It ranges in grain size from 100 to 400 microns. Occasional clinopyroxenes, sandstone, rhyolitic rocks, iron stains, and leucoxene are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms (Figs. 13.35, 13.36): The range of forms for Atoyac Unslipped Polished II follows that of Tenango Brown.

Barranca phase**Diagnostic phase markers**

Collared ollas (RO-1)

Plate forms (RD-2)

Other forms

Tecomates (RB-1)

Outslanting wall bowls (RB-17)

Outcurving wall bowls (RB-23, 25)

Everted rim bowls (RB-30)

Shallow bowls (RB-41)

Flaring neck ollas (RO-5)

Plastic Decoration: In the Late Amate subphase, rocker-stamped pseudo-grater incising occurred on the interior of flat-bottomed flaring wall bowls (Fig. 13.37).

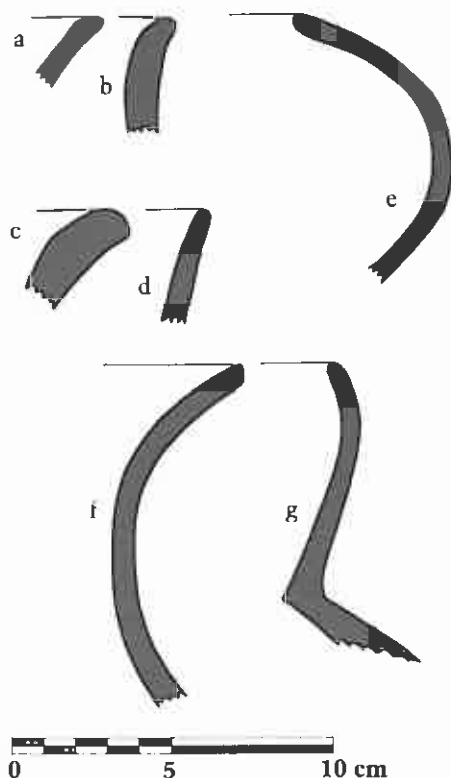


Figure 13.35. Atoyac Unslipped Polished II, Barranca phase: a–e, bowls; f–g, ollas.

Present in the Late Barranca subphase were modeled, punctated everted rims and pseudo-grater incising (Fig. 13.36; see also Laca, Fig. 13.28n–o).
Comparisons: None.

Peralta Orange

Temporal Range: Peralta Orange was present in the Amate phase in minute quantities. There was a considerable increase in the proportion of Peralta Orange in the Early Barranca subphase, and it continued to be a major type through the Cantera phase.

Surface Treatment: For the Barranca phase, the surface color of Peralta Orange tended to be in the brown range, and at this time the color and form differences between Peralta Orange and Tenango Brown were minimal. To determine any shift in color emphasis, the distinction between the two types was maintained artificially in our analysis by using defined Munsell color ranges. Because of the overlap in form and color between the two types during the Barranca phase, they should be considered as one classificatory unit for that phase. Better control of firing conditions apparently enabled the Cantera phase potters to

produce a clear, bright orange-slipped pottery. The well-polished vessel surfaces are generally an even, bright color though occasionally marred by tiny, possibly intentional, firing clouds. Range of surface color is 2.5 YR 4–5/4–8, 3/4–6, 3–4/2–4; 5 YR 6–7/6–8, 4–5/6–8. Red painting, in bands on exterior surfaces, has been noted, but its temporal position is unclear.

Paste and Temper: The typical core section of this pottery shows a grey sandwiched center. Paste color range is 7.5 YR 6–7/4, 4–5/2, 4/0; 10 YR 5–7/4–3. Fracture is jagged.

Plagioclase (An 26–28, 30–31) is the most abundant mineral, 5–8 percent of the volume, and ranges in grain size from 60 to 800 microns. Orthopyroxenes constitute 1–2 percent of the volume, and grains measure 100–600 microns. Hornblende is present in proportions of usually less than 1 percent, and the grain size ranges from 160 to 860 microns. A trace of clinopyroxene was observed in two samples. Basaltic andesite, dacite, iron stains, and leucoxene are present. Occasional quartz grains are noted. Opaque iron-titanium ores were observed in one of the samples. Possible microcline was present in one sample. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Vessel wall thickness varies with the size of the vessels; thus, there are thin as well as very thick vessels.

Forms:

Late Amate subphase

- Flaring wall bowls (RB-26)
- Heavy everted rim bowls (RB-38)
- Cylindrical bowls (RB-14)
- Outcurving wall bowls (RB-25)
- Flaring neck (RO-12, 15)
- Short-necked ollas (RO-29)
- Flat and rounded bases

Early Barranca subphase (Fig. 13.38a–k)

Common forms

- Flaring neck ollas (RO-5)

Other forms

- Flaring neck ollas (RO-12)
- Incurved rim bowls (RB-3)
- Hemispherical bowls (RB-7, 93)
- Outslanting wall bowls (RB-17, 18, 19)
- Outcurving wall bowls (RB-25)
- Beveled rim ollas (RO-8)
- Super flaring neck ollas (RO-17)
- Plate forms with roughened exteriors (RD-4)
- Rounded bases
- High shoulders (Base M)

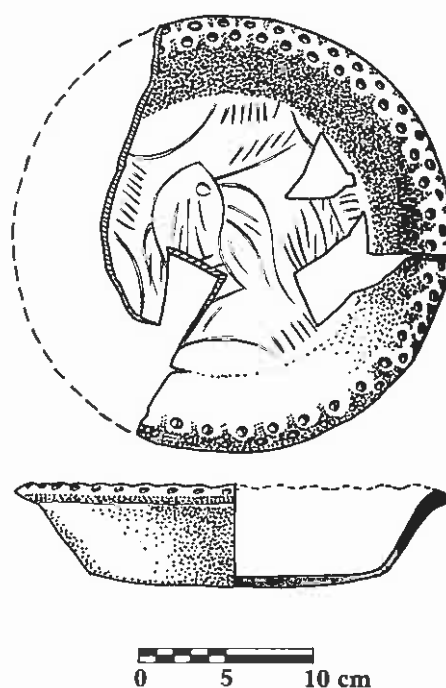


Figure 13.36. Atoyac Unslipped Polished II, Late Barranca subphase bowl with modeled punctate rim and pseudo-grater bottom incising.

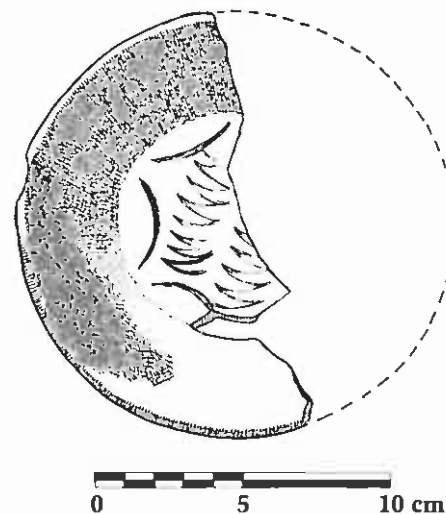


Figure 13.37. Atoyac Unslipped Polished II, Late Amate subphase bowl with interior rocker-stamping.

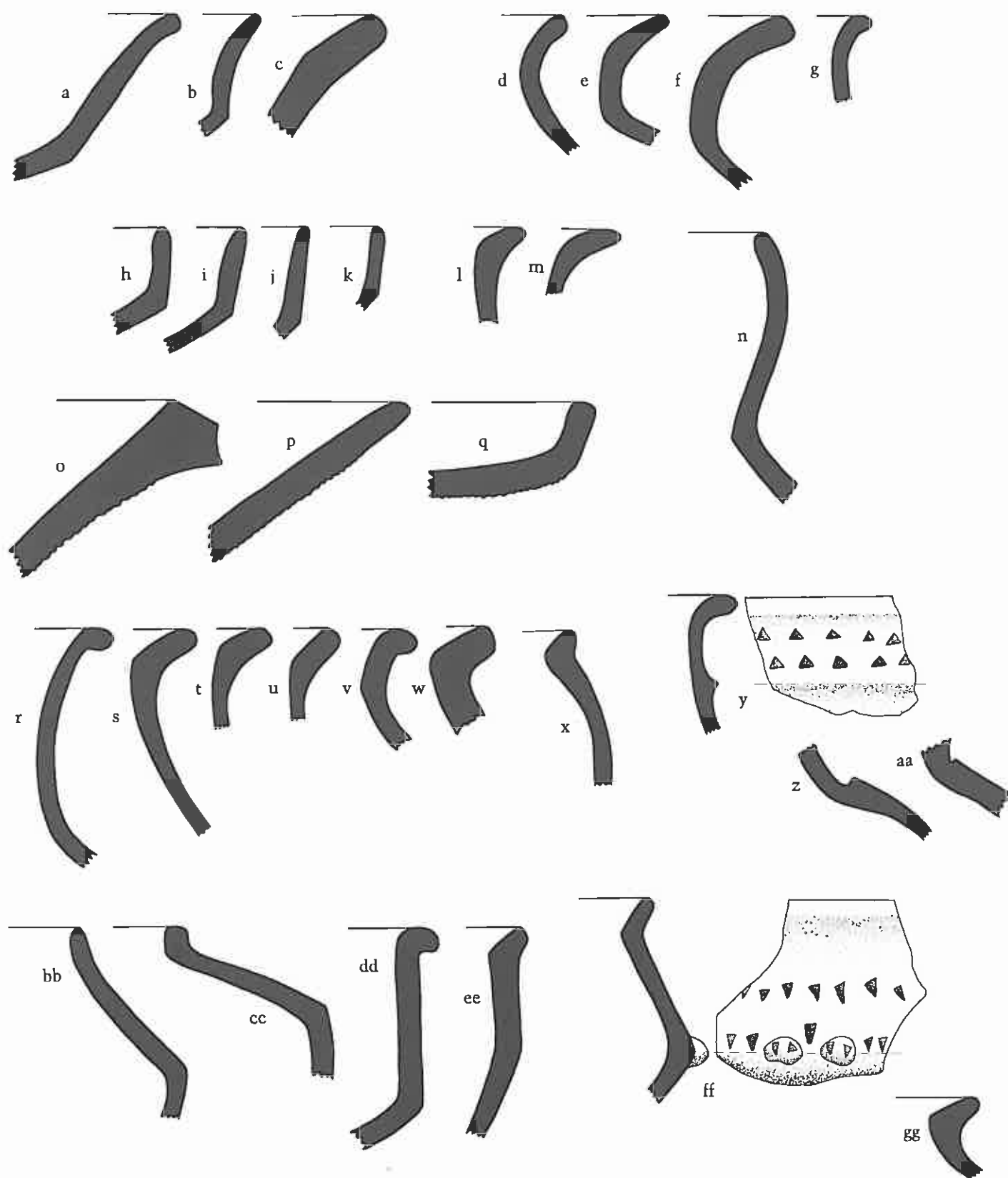


Figure 13.38. Peralta Orange. Early and Middle Barranca subphase: *a–c*, bowls; *d–g*, ollas. Early to Late Barranca subphase: *h–k*, bowls. Late Barranca subphase: *l–m*, ollas. Late Barranca to Late

Cantera subphase: *n*, olla. Early Cantera subphase: *o–q*, plates; *r–w*, ollas. Early and Late Cantera subphase: *x*, bowl; *y–aa*, ollas and olla necks. Late Cantera subphase: *bb–ff*, bowls; *gg*, olla.

0 5 10 cm

Middle Barranca subphase (Fig. 13.38a–k)

Common forms

- Outcurving wall bowls (RB-25)
- Flaring neck ollas (RO-12)

Other forms

- Outcurving wall bowls (RB-23)
- Flaring neck ollas (RO-5, 16)
- Plate forms with roughened exteriors (RD-8)*
- Brazier forms (RB-99, * 100*)
- Outslanting wall bowls (RB-17, 18, 19)
- Heavy shallow bowls (RB-115)
- Composite silhouette bowls (RB-45)
- Shallow bowls (RB-41)
- Hemispherical bowls (RB-7)
- Heavy everted rim bowls (RB-38)
- Beveled rim ollas (RO-8)
- Super flaring neck ollas (RO-17)
- Flaring neck ollas with drooping rims (RO-9)
- Plate forms with roughened exteriors (RD-4)
- Flat and rounded bases

There was an expansion of the form assemblage during the Late Barranca subphase. This is another indication of the increasing popularity of Peralta Orange. Forms of the Middle Barranca subphase continued.

Late Barranca subphase (Fig. 13.38h–n)

Common forms

- Flared neck ollas (RO-5, 12)
- Outcurving wall bowls (RB-25)
- Hemispherical bowls (RB-7)

Other forms

- Flaring neck ollas (RO-11)
- Flower pot bowls (RB-62)*
- Collared ollas (RO-1)
- Deep basins*
- Spouted trays (RD-9)*
- Tecomates* (RB-1, 131)
- Cylindrical bowls (RB-14)
- Outslanting, slightly everted rim bowls (RB-20, 21, 22)
- Flaring wall bowls (RB-26)
- Everted rim bowls (RB-30, 35)
- Globular bowls (RB-60)
- Slightly everted rim bowls (RB-77)
- Highly outcurved rim bowls (RB-90)
- Flaring neck ollas (RO-15)
- Flaring mouth ollas (RO-28, 31)
- Short-necked ollas (RO-29)
- Incurved rim bowls (RB-3)
- Beveled rim bowls (RB-37)
- Direct rim composite silhouette bowls (RB-31)
- Rolled-lip ollas (RO-30)
- Plate forms with roughened exteriors (RD-3, 5, 7)
- Flat and rounded bases

High shoulders (Base M)

Early Cantera subphase (Figs.

13.38n–aa, 13.39, 13.40, 13.42)

Diagnostic phase markers

- Composite silhouette bowls (RB-45)
- Rolled-lip, short-necked ollas (RO-27)
- Rolled-lip ollas (RO-30)
- Ridge-necked ollas (RO-25)
- Short-necked ollas (RO-29)
- Flaring mouth ollas (RO-31)
- Twisted handles (H-4)

Common forms

- Outcurving wall bowls (RB-23, 25)
- Composite silhouette bowls (RB-45)
- Flaring neck ollas (RO-5, 12)
- Super flaring neck ollas (RO-17)

Other forms

- Flaring neck ollas (RO-15, 11)
- Flaring mouth ollas (RO-28)
- Braziers, annular based (RB-100)
- Plate forms with roughened exteriors (RD-8, * 2, 3, 4, 5, 7)
- Highly outcurved bowls (RB-90)
- Hemispherical bowls (RB-7)
- Outslanting wall bowls (RB-17, 18, 19)

Tecomates (RB-1)

- Flaring wall bowls (RB-26, 75)

Direct rim composite silhouette bowls (RB-31)

- Incurved rim bowls (RB-3, 66)
- Shallow bowls (RB-41)
- Cylindrical bowls (RB-14)
- Outslanting, slightly everted rim bowls (RB-20, 21)
- Small shallow bowls (RB-67)
- Everted rim bowls (RB-30)
- Heavy shallow bowls (RB-115)
- Double-loop handle censors (RB-101)
- Beveled rim ollas (RO-8)
- Flaring neck ollas with drooping rims (RO-9)
- Collared ollas (RO-1, 2, 3)
- Regular handles (H-1)

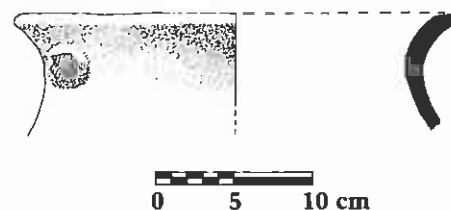


Figure 13.39. Peralta Orange, Early and Late Cantera subphase olla with handle attachment.

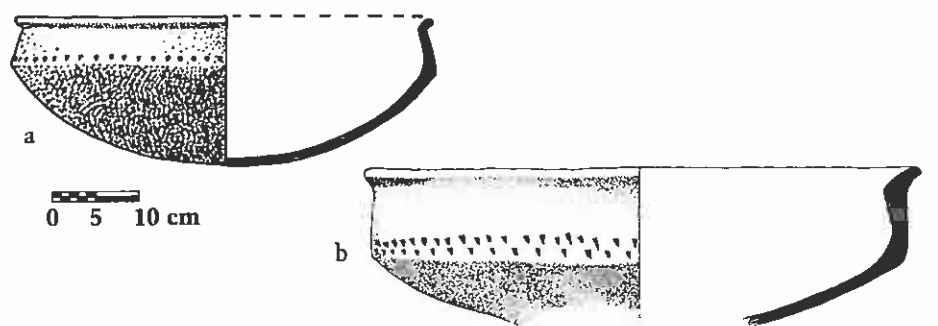


Figure 13.40. Peralta Orange, Early to Late Cantera subphase composite silhouette bowl with shoulder punctation.



Figure 13.41. Peralta Orange, Late Cantera subphase olla with twisted handle.

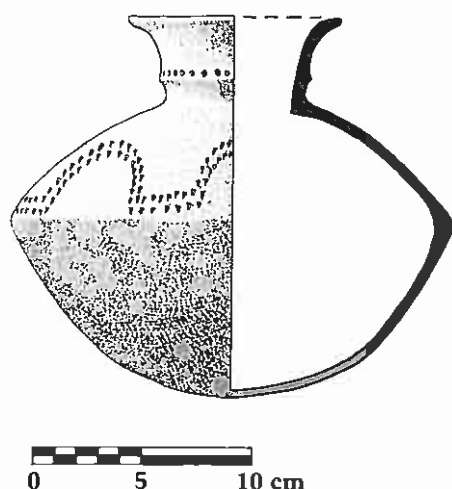


Figure 13.42. Peralta Orange, Early and Late Cantera subphase olla with ridged neck and shoulder punctations.

An occasional *cantarito* was made in Peralta Orange, although this was not common. The Early Cantera forms continued into the Late Cantera with the exception of RB-75, RB-101, and RO-3.

Late Cantera subphase (Figs. 13.38n, x-gg, 13.39–13.42)

Diagnostic phase markers

Composite silhouette bowls (RB-45)

Brazier forms (RB-99)

Sharply outflaring ollas (RO-32)

Common forms

Composite silhouette bowls (RB-45)

Flaring neck ollas (RO-12, 5)

Outcurving wall bowls (RB-25, 23)

Shallow bowls (RB-41)

Hemispherical bowls (RB-7)

Outslanting wall bowls (RB-19)

Other forms

Angular flaring wall bowls (RB-102)*

Direct rim composite silhouette bowls (RB-71)*

Beveled rim bowls (RB-37)

Outslanting, slightly everted rim bowls (RB-22)

Heavy everted rim bowls (RB-38)

Everted rim bowls (RB-35)

Ovate bowls (RB-16)

Flower pot bowls (RB-62)

Incurved rim bowls (RB-6)

Tecomates (RB-131)

Very short-necked ollas (RO-33)

Spider-leg supports (S-7)

Nub supports (S-2) infrequent

Spouted trays (RD-9)

Globular bowls (RB-60)

Flanged shoulder bowls (RB-89)

Composite silhouette bowls (RB-45) were very popular during this subphase and are often found as burial furniture (Figs. 13.38dd–ff, 13.40). Twisted handles (H-4) on ollas were restricted to the Late Cantera subphase (Fig. 13.41). Regular handles (H-1) also became more abundant.

Plastic Decoration: Punctation along the upper shoulder or along the basal break of composite silhouette bowls (RB-45) began during the Early Cantera subphase and continued during the Late Cantera (Figs. 13.38ff, 13.40). Punctation along the neck ridge of RO-25 ollas and along the upper shoulder (Base M) was also a common decorative technique of these subphases (Figs. 13.38y, 13.42). Simple incising, such as single or double lines, occurs along the rims or on the exterior bodies.

Comparisons: Peralta Orange corresponds to some examples of Piña Chan's Café Claro and Roja Amarillenta from his 1952 Chalcatzingo excavations (Piña Chan 1955: Figs. 1d–f, 11f–h). It is difficult to draw comparisons to similar types in Mexico's central highlands because we know of none which are closely similar. At Zacatenco, composite silhouette bowls with shoulder punctates and olla handles with incising were reported by Franz Boas (1911–1912: Pls. 38, 40). George C. Vaillant also reported them from Zacatenco (1930: 95, Pl. VIII) and from Ticoman (1931: Pl. LXIX).

Based on the present data, certain vessel forms of Peralta Orange appear to be local, restricted to the Río Amatzinac Valley, and probably closely related to Chalcatzingo's interaction with the Gulf Coast. This statement is made because while Peralta Orange ceramics show no close highland ties, they do exhibit strong similarities to the Gulf Coast and possibly to the lowland Maya area.

The analysis of collections at the Smithsonian Institution (Appendix D) revealed that orange-slipped wares (Red Wares; Weiant 1943: 18) were common at Tres Zapotes during the Middle Tres Zapotes A period. Included in that sample are ridge-necked ollas (RO-25) with neck punctations. The Tres Zapotes ridge-necked ollas often have "faces" created by punctations on the vessel neck (cf. Weiant 1943: Pls. 56, 1–5). These attributes also occur in Chalcatzingo's Peralta Orange ridge-necked ollas and are similar enough to suggest that these similarities are significant and more than fortuitous (see Figs. 13.42, 13.69).

San Lorenzo and La Venta collections at the Smithsonian also contain sherds which have strong similarities to Chalcatzingo's Peralta Orange.

In general terms, Peralta Orange ceramics show strongest affinities not to the central highlands but to southern Mesoamerica. In fact, in terms of basic similarities, they exhibit strong correspondences to Middle Formative orange wares from the Maya area, including Mars Orange from Uaxactun (R. Smith 1955: 110–115), Jovetud Red (Jolote and Mocho varieties) from Altar de Sacrificios and Seibal (Adams 1963: 89; 1971: 20; Sabloff 1975: 61–62), San Agustín Red Polished of San Agustín, Chiapas (Navarrete 1959), Chiapilla Polished Red from Santa Cruz, Chiapas (Sanders 1961: 20–21), and Conchas Orange from Salinas La Blanca (Coe and Flannery 1967: 48), to name a few.

Pavón Fine Grey

Temporal Range: Pavón Fine Grey is a non-local type which began appearing at Chalcatzingo in small quantities during the Early Barranca subphase. The period of greatest frequency of this type is the Late Cantera subphase.

Surface Treatment: The unslipped, well-polished surfaces of Pavón Fine Grey tend to be very compact and dense, with uniform surface color. Surface color is not the most important defining characteristic of this pottery because of the variability of color. Paste is the distinguishing feature between Pavón Fine Grey and Carrales Coarse Grey. The surface color range is 5 YR 6/1; 7.5 YR 4–7/0; 10 YR 7/1; 5 Y 5/1; 2.5 Y 4/0.

Paste and Temper: The fracture of this pottery is sharp and even. In the core section, lenticular holes, where some tempering material has burned or leached out, are visible. Paste color is 5 YR 6/1; 7.5 YR 5–7/0; 10 YR 7/1, 5/1–2. The paste is fine particled and has few inclusions.

No more than 7 percent of the volume is aplastics. Magnetite reaches 5 percent in abundance. Quartzite, never more than 1 percent, ranges in size from 140 microns to 1.3 mm. Altered mica (possibly sericitic) is less than 1 percent of the volume and ranges in size from 120 to 460 microns. Leucoxene, a trace of plagioclase, and possibly alkaline feldspars are present. Paste composition indicates that the source of the aplastics is an area of metamorphism.

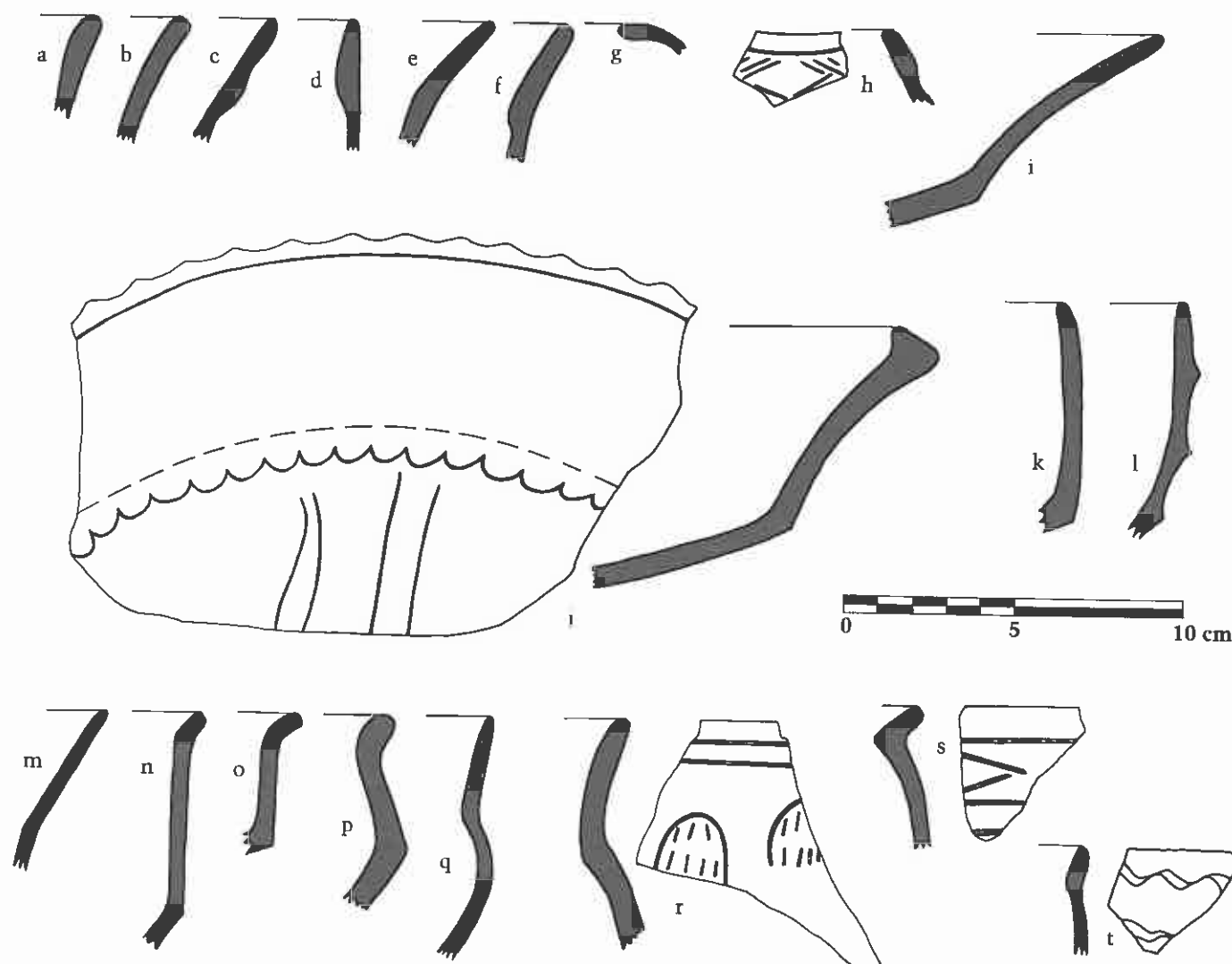


Figure 13.43. Pavón Fine Grey bowls: *a-i*, Early Barranca to Early Cantera subphase; *j-t*, Late Cantera subphase.

Forms:

Barranca phase (Fig. 13.43 *a-i*)

Common forms

Outslanting wall bowls (RB-17)

Other forms

Outcurving wall bowls (RB-18)

Exotic forms (RB-88)*

Globular bowls (RB-78)*

Hemispherical bowls (RB-7)

Ovate bowls (RB-16)

Outcurving wall bowls (RB-23, 25)

Flaring wall bowls (RB-26)

Shallow bowls (RB-41)

Flower pot bowls (RB-62)

Beveled rim bowls (RB-37)

Outslanting, slightly everted rim bowls (RB-21)

Bases tend to be rounded

Barranca phase forms continued into

the Early Cantera subphase except for RB-37, RB-21, and RB-78.

Early Cantera subphase (Figs. 13.43 *a-i*, 13.44)

Diagnostic phase markers

Exotic forms (RB-87)

Flanged shoulder bowls (RB-116)

Common forms

Hemispherical bowls (RB-7)

Ovate bowls (RB-16)

Other forms

Composite silhouette bowls (RB-45)*

Incurved rim bowls (RB-3)

Cylindrical bowls (RB-14)

Outslanting wall bowls (RB-17, 19)

Tecomates (RB-1)

For the Late Cantera subphase, the Early Cantera forms continued except for

RB-87 and RB-116.

Late Cantera subphases (Figs. 13.43 *j-t*, 13.44, 13.45, 13.46)

Common forms

Ovate bowls (RB-16)

Shallow bowls (RB-41)

Outcurving wall bowls (RB-23, 25)

Other forms

Shallow bowls (RB-121)

Ridge composite bowls (RB-85)*

Exotic forms (RB-88, * 91)

Everted rim bowls (RB-35)

Composite silhouette forms (RB-74)

Hemispherical bowls (RB-93)

Collared ollas (RO-2)

Direct rim composite silhouette bowls (RB-31, 71)

Outslanting wall bowls (RB-119)

Super flaring neck ollas (RO-17)

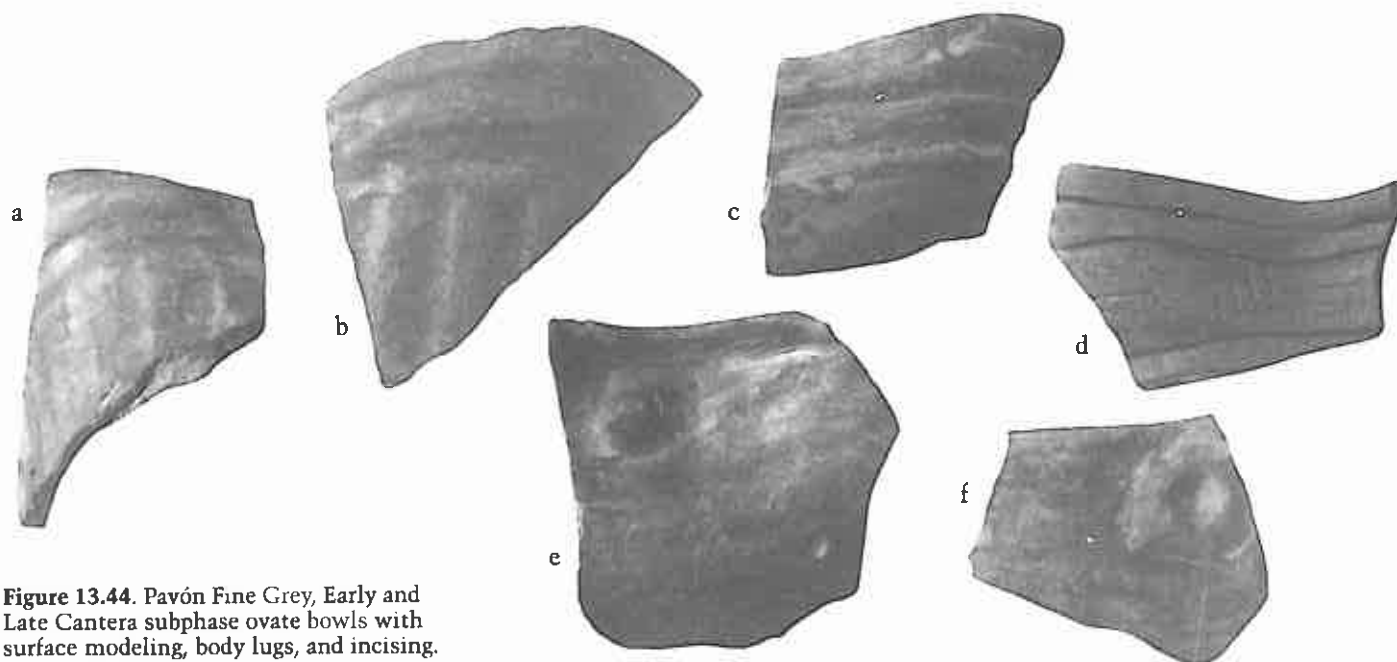


Figure 13.44. Pavón Fine Grey, Early and Late Cantera subphase ovate bowls with surface modeling, body lugs, and incising.

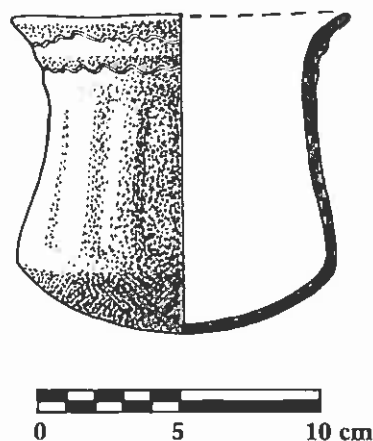
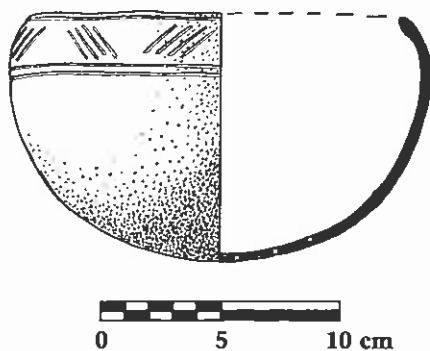


Figure 13.45. Pavón Fine Grey, Late Cantera subphase bowl with rippled walls.



The Late Cantera subphase has the great variety of forms and the maximum frequency of Pavón Fine Grey ceramics.

Plastic Decoration: Double-line and double-line-break motifs and fine-line body incising are typical. Body lugs on ovate forms (RB-16) are present but not common (Fig. 13.44e-f). Surfaces modeled into rippled vessel walls are also present but atypical (Fig. 13.45).

In general Pavón Fine Grey does not show clear temporal changes in terms of decoration except for examples which are decorated like Carrales Coarse Grey (Fig. 13.46).

Comparisons: Pavón Fine Grey was designated Tipo Gris by Piña Chan at Chalcatzingo and was recognized as a non-local pottery (1955: 16, Fig. 11a-c). Petrographic analysis of this fine-paste grey pottery has shown it to be composed of minerals of metamorphic origin, far different from those in the local Chalcatzingo ceramics. Metamorphic minerals and the general style suggest an origin of this pottery somewhere east or southeast of Chalcatzingo. Analyses show that the greatest similarity of Pa-

vón Fine Grey is with the grey wares from sites in the nearby state of Puebla.

Río Salado Grey of the Early Santa María phase at Tehuacan has forms and decoration similar to those of Pavón Fine Grey: ovate bowls, hemispherical bowls, flaring wall bowls, and pseudo-grater interiors. Quachilco Gray of the Late Santa María phase is also similar to Pavón Fine Grey (MacNeish, Peterson, and Flannery 1970: 120-133, Figs. 70-72).

On the Gulf Coast, fine-paste grey wares are present at San Lorenzo during the Palangana and Remplás phases (Coe, personal communication). Philip Drucker's Fine Paste Gray-Black ware from La Venta (1952: 102) and some examples of Cerámica Negra from Chalahuite and El Trapiche, Veracruz (García Payón 1966: 39-45) are similar in paste, form, and decoration to Pavón Fine Grey. The Tres Zapotes collection at the Smithsonian Institution has abundant fine-paste grey wares. Nevertheless, preliminary petrographic analyses of Gulf Coast grey ceramics demonstrate marked differences with Pavón Fine Grey.

During the Guadalupe phase at Fábrica San José, Oaxaca, Socorro Fine Grey was popular and is similar to the grey wares from Monte Albán I (Drennan 1976; see discussion of Carrales Coarse Grey). Grey wares were present in the

Figure 13.46. Pavón Fine Grey, Late Cantera subphase bowl with exterior incising.

Valley of Oaxaca as early as the Tietras Largas phase (Flannery, personal communication).

Pottery comparable to Río Salado Gray of the Tehuacan Valley is found at Salinas La Blanca, Guatemala, beginning in the Jocotal phase, and is called Ocos Grey (Coe and Flannery 1967:46). At Altamira, Chiapas, Culebra Grey is present (Green and Lowe 1967:118–119).

Several duck effigy vessels were excavated as burial offerings at Chalcatzingo. Bird effigy vessels are reported from Monte Albán by Caso, Bernal, and Acosta (1967): turkey effigy (1967:54, Fig. 94b), a bird effigy with its head twisted back (1967:156, Fig. 99), a small ovate bowl with the head facing backward (1967:157, Fig. 101), and a bird effigy from the Museo Nacional de Antropología (1967:201, Fig. 171).

Atoyac Unslipped Polished I

Temporal Range: Atoyac Unslipped Polished I is typical of the Cantera phase.

Surface Treatment: This unslipped pottery is typified by streaky polishing often referred to as "stick" polishing. The type's pale beige to rose color is diagnostic: 2.5 YR 6/6; 5 YR 5/3, 5–8/4, 4–5/1, 6–7/6, 4/2; 7.5 YR 5–7/4, 6–7/2; 10 YR 4/1, 4/6.

Paste and Temper: The paste is fine grained and has a sharp fracture. Wall thickness is always less than 1 cm. Paste color range is 7.5 YR 7/2–4, 6/4, 6–7/2; 5 YR 7/6, 5/4; 2.5 YR 5/6.

From 5–6 percent of the paste volume is aplastics. Plagioclase (An 28–29) is the principal mineral, constitutes 2–3 percent of the volume, and ranges in particle size from 60 to 300 microns. Horneblende and orthopyroxene are the second and third most frequently occurring minerals, but compose less than 1 percent of the total volume. Orthopyroxene ranges in grain size from 100 to 320 microns; horneblende, from 120 to 500 microns. Andesite, iron stains, opaque iron-titanium ores, and leucosene are present. Occasional grains of clinopyroxene are evident. The mineral inclusions show similarities to the mineral fragments found in the volcanic tuff of the area.

Forms (Figs. 13.47–13.49):

Cantera phase

Diagnostic phase markers

Small shallow bowls (RB-67), with a radius of 4–10 cm, most abundant during the Late Cantera subphase

Small shallow bowls (RB-70) *Cantaritos* (C), occur as burial furniture during the Late Cantera subphase

Plastic Decoration: Late Cantera subphase decoration on the small shallow dishes (RB-67) includes stick impressions on the lip (DC-36; Fig. 13.47) and appliqué lugs on the lip (DC-37; Fig. 13.48c). These small bowls often have red pigment stains on the interiors, indicating a possible function as paint dishes.

Incising on the upper shoulders and body lugs on the shoulder breaks of *cantaritos* are typical of the Late Cantera subphase (DC-38, 39; Fig. 13.49b–c).

Comparisons: *Cantarito* vessels at Chalcatzingo occur primarily as burial offerings, yet they are atypical of burial furniture at other central Mexican Formative period sites. The small dishes are also uncommon. However, both have counterparts at Gulf Coast sites. "Small thick-wall jars" were reported at La Venta by Philip Drucker (1952:119), who also mentions "miniature dishes" at Tres Zapotes (1943a:56, Fig. 29). These latter are similar in form to Chalcatzingo bowl forms RB-67 and RB-70.

Carrales Coarse Grey

Temporal Range: Significant quantities of Carrales Coarse Grey appeared during the Late Barranca subphase, and maximum frequency was reached during the Cantera phase.

Surface Treatment: A waxy luster is characteristic of this well-polished unslipped pottery. A typical cloudy film on the sherds may be due to conditions of preservation. Beige, pink, and yellow firing blotches are occasionally present. The surface color is variable: 2.5 YR 4–8/0, 5–6/4–6, 6/7–8; 10 YR 3–6/1, 6/4, 5/3; 7.5 YR 7–8/0, 7/4–6, 6–7/6; 5 YR 4–7/1, 3/1, 5/3; 2.5 YR 5–6/4–6.

Paste and Temper: The core section of this pottery is distinctive, with several alternating layers of dark and light grey. The range of the paste color is 10 YR 6/3–4, 4/1, 6/1, 3/4; 5 YR 6/1; 2.5 YR 7/0. The paste is crumbly, and the fracture is jagged.

The maximum frequency of aplastics is 22 percent. Plagioclase (An 26, 28, 30–31) is the most abundant mineral, making up 10 percent of the total paste volume. Grains measure from 100 microns to 1.5 mm. Orthopyroxenes, constituting 1–3 percent of the volume, range in grain size from 80 to 500 mi-

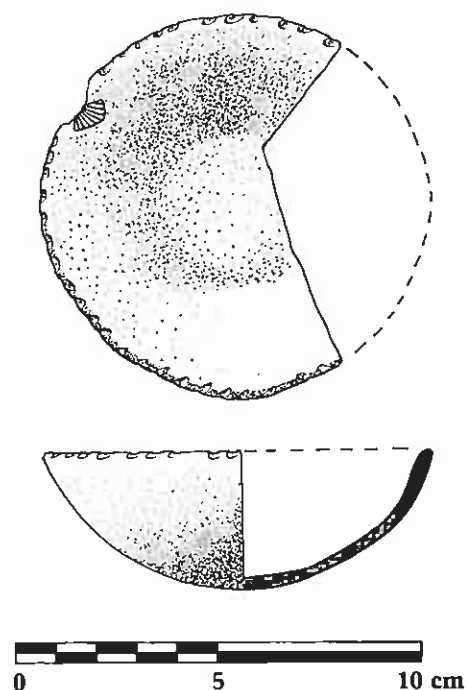


Figure 13.47. Atoyac Unslipped Polished I, Late Cantera subphase small shallow bowl with stick impressions on the lip.

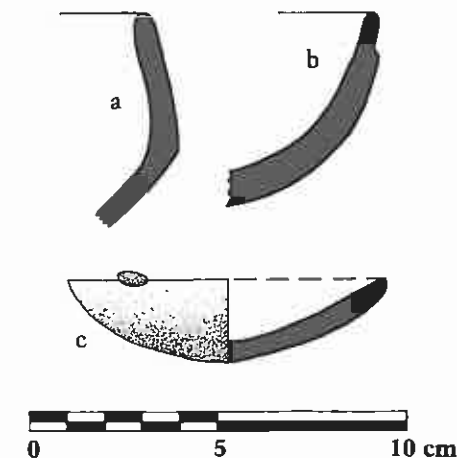


Figure 13.48. Atoyac Unslipped Polished I: a–b, Early and Late Cantera subphase small bowls; c, Late Cantera subphase small shallow bowl with lip lug.

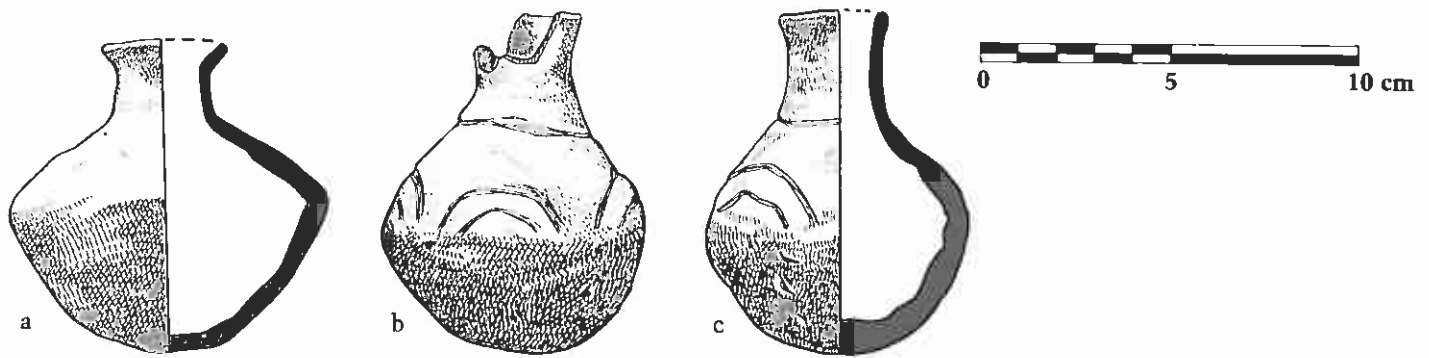


Figure 13.49. Atoyac Unslipped Polished I *cantaritos*: *a*, Early and Late Cantera subphase; *b-c*, Late Cantera subphase with shoulder incising.

crons. Horneblende or clinopyroxene may be the next most abundant mineral. Horneblende never exceeds 1 percent of the paste volume; clinopyroxenes reached a maximum of 2 percent in one sample. Grains of horneblende measure 100–700 microns; those of clinopyroxene, 140–600 microns, and some are twinned. Basaltic andesite, dacite, opaque iron-titanium ores, iron stains, and leucoxene are present. Occasional sherd and sandstone temper are observed. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms: Although minor quantities of Carrales Coarse Grey are occasionally present in Middle Barranca levels, the forms present during that subphase are few. Carrales Coarse Grey began to be important during the Late Barranca, and the range of forms in that subphase is broad and clearly parallels those of Amatzinac White.

Middle Barranca subphase

Outslanting wall bowls (RB-17, 19)

Ovate bowls (RB-16)

Late Barranca subphase (Fig. 13.50*a-h*)

Common forms

Hemispherical bowls (RB-7)

Other forms

Exotic forms (RB-88)*

Outslanting wall bowls (RB-17, 18, 19)

Outslanting, slightly everted rim bowls (RB-22)

Outcurving wall bowls (RB-23, 25)

Flaring wall bowls (RB-26)

Everted rim bowls (RB-30)

Shallow bowls (RB-41)

Flower pot bowls (RB-62)

Composite silhouette forms (RB-74)

Cylindrical bowls (RB-14)

Incurved rim bowls (RB-3)

Late Barranca subphase forms continued into the Early Cantera subphase with the exception of RB-22 and RB-88.

Early Cantera subphase (Figs. 13.50*i*, 13.51)

Common forms

Outcurving wall bowls (RB-25)

Hemispherical bowls (RB-7)

Outslanting wall bowls (RB-17, 18)

Shallow bowls (RB-41)

Incurved rim bowls (RB-3)

Other forms

Incurved rim bowls (RB-66)

Direct rim composite silhouette bowls (RB-31, * 71*)

Composite squash-like bowls (RB-80)*

Ridged composite bowls (RB-85)*

Ovate bowls (RB-16)*

Flanged shoulder bowls (RB-89)*

Highly outcurved bowls (RB-90)

Outslanting, slightly everted rim bowls (RB-21)

Flaring neck ollas (RO-12)

Collared ollas (RO-1)

Plate forms with roughened exteriors (RD-4)

Ridged-wall bowls (RB-81)

With the exception of RB-21, the Early Cantera subphase forms continued into the Late Cantera.

Late Cantera subphase (Figs. 13.50*i-bb*, 13.51–13.55)

Diagnostic phase markers

Flanged shoulder bowls (RB-89)

Direct rim composite silhouette bowls (RB-71)

Exotic forms (RB-87, 91)

Common forms

Outcurving wall bowls (RB-25, 23)

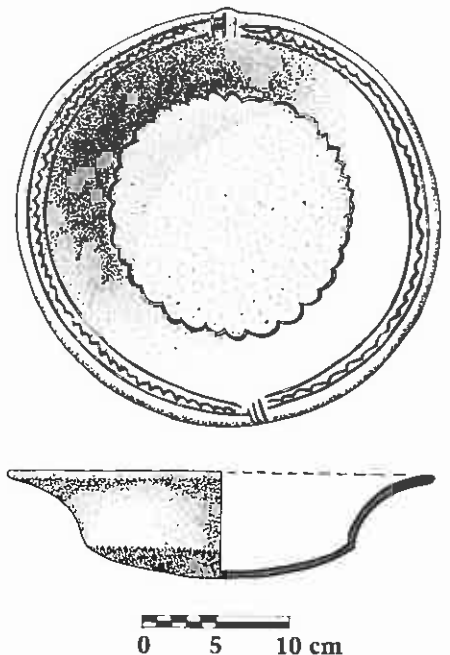


Figure 13.51. Carrales Coarse Grey, Early and Late Cantera subphase bowl with interior rim incising and pseudo-grater bottom incising.

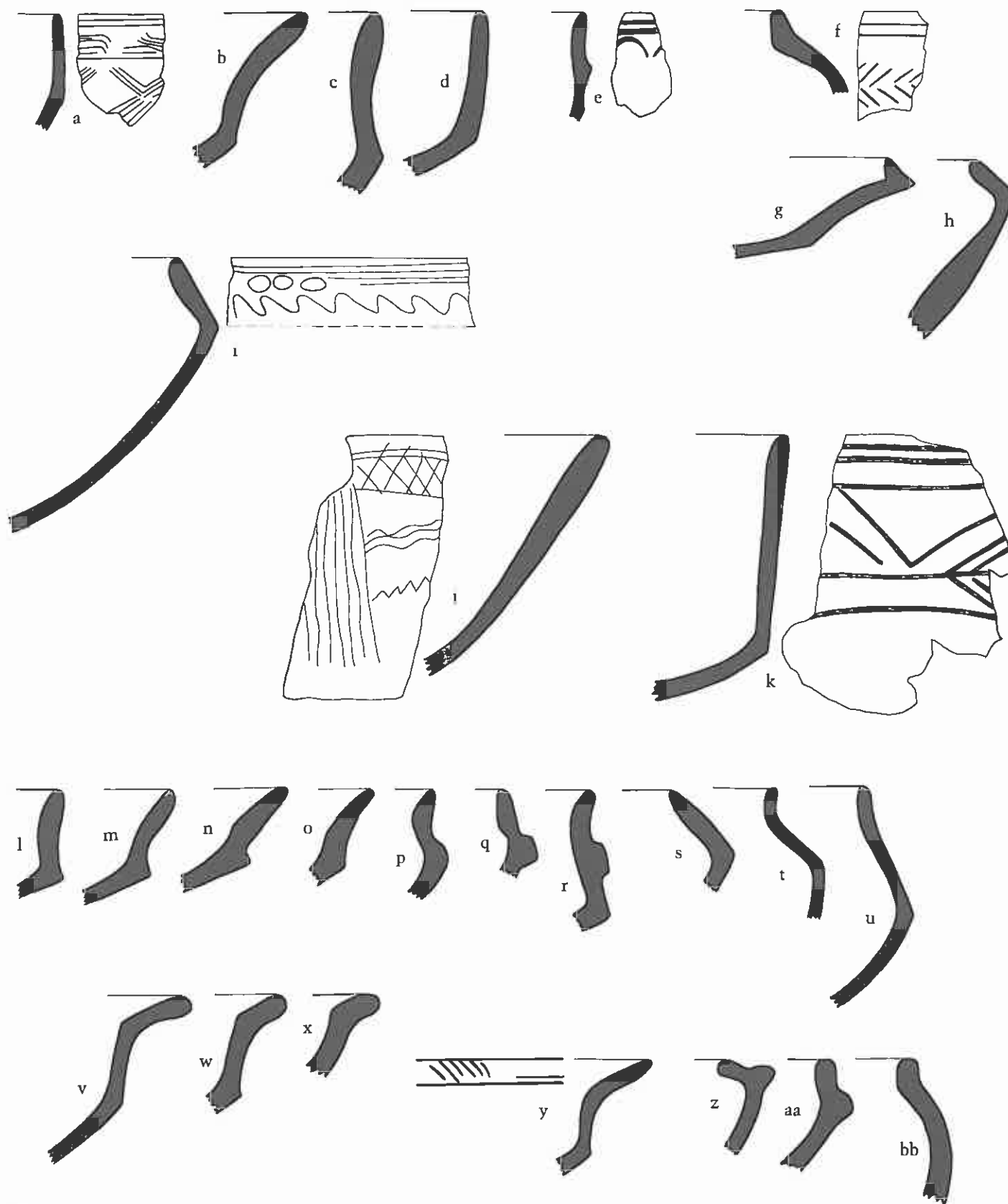
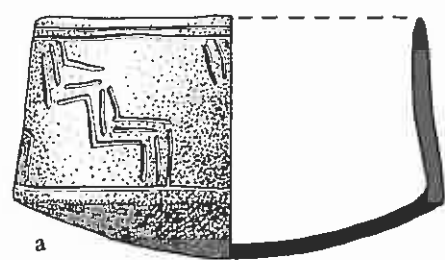
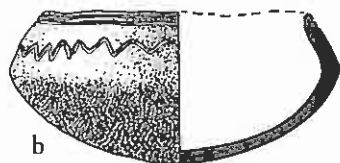


Figure 13.50. Carrales Coarse Grey bowls:
a–h, Late Barranca subphase; *i*, Early
 Cantera subphase; *j–bb*, Late Cantera
 subphase.

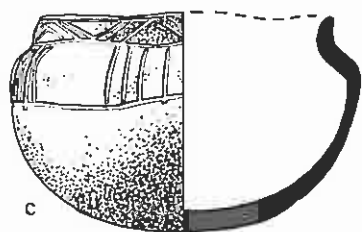
0 5 10 cm



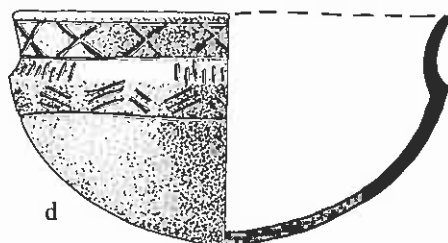
a



b



c



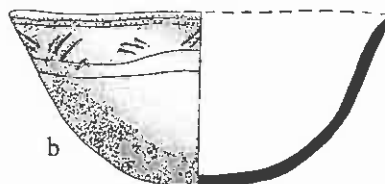
d



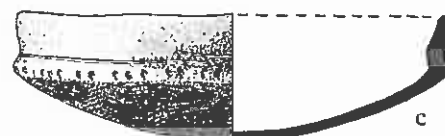
Figure 13.52. Carrales Coarse Grey, Late Cantera subphase bowls with exterior incising.



a



b



c



Figure 13.53. Carrales Coarse Grey, Late Cantera subphase bowls: a, rippled wall and exterior incising; b, ovate bowl with exterior incising; c, bowl with basal flange and punctuation.

Shallow bowls (RB-41)

Flanged shoulder bowls (RB-89; Fig. 13.53c)

Outslanting wall bowls (RB-17)

Hemispherical bowls (RB-7)

Other forms

Flanged shoulder bowls (RB-116)

Outslanting wall bowls (RB-65)

Hemispherical bowls (RB-93)

Direct rim composite silhouette bowls (RB-31)*

Globular bowls (RB-60)*

Angular flaring wall bowls (RB-102)* (parallel to Amayuca Ruddy)

Globular bowls (RB-78)*

High shoulders (Base M)

Composite silhouette bowls (RB-45) (parallel to Peralta Orange)

Beveled rim bowls (RB-37)

Tecomates (RB-1)

Outslanting, slightly everted rim bowls (RB-20, 22)

Small shallow bowls (RB-67)

Heavy shallow bowls (RB-115)

Double bowls (RB-137)

Highly outcurved bowls (RB-76)

Slightly everted rim bowls (RB-77)

Plate forms with roughened exterior (RD-2)

Ovate bowls (RB-16; Fig. 13.55)

Plastic Decoration: Rim incising is often similar to that found on Amatzinac White (Figs. 13.27, 13.56). As Carrales Coarse Grey increased in quantity during the Cantera phase, its forms and decorations increased in variety. The Early Cantera subphase specimens had little elaborate decoration, but during the Late Cantera this type possessed a wide range of decorative styles. Punctations along

the exterior basal ridge of the RB-89 bowls (DC-23; Fig. 13.53c) were typical of the Late Cantera, as was ridging or modeling of the exterior vessel walls (DC-24). Occurring only during this time were body lugs applied to the pinched-in section of ovate bowls (RB-16) (DC-25; Fig. 13.55) and decorative bands of incised stairsteps, slashes, X's, and V's (DC-26–29; Figs. 13.52a, c, d, 13.53a–b).

Comparisons: Grey pottery was almost as widespread as white-slipped pottery during the Middle Formative period. It is yet another pottery style which is indicative of long distance information networks. Grey pottery is classified in a different way by each researcher. It is called black by some and brown by others. Therefore, to get a coherent idea of grey pottery from the literature is extremely difficult unless criteria other than color are used. In this discussion, Munsell color (when available), paste description, and, most important, forms were used as the criteria for identification of grey pottery.

Carrales Coarse Grey shows similarities to some examples of Café Negruzco defined by Piña Chan at Chalcatzingo (1955: Figs. 2j–l, 3a–b). From Zacatenco a black ware vessel with a ridged-rippled wall is designated in the Early Period (Vaillant 1931: Pl. 1b) and is very similar to Figure 13.53a. Boas (1911–1912: Pls. 37, nos. 3, 15; 39, nos. 1, 2; 40, no. 12) reported pottery from Zacatenco with design elements very similar to those of Carrales Coarse Grey, but no temporal placement for these is known.

Río Salado Gray of the Early Santa María phase and Quachilco Brown and

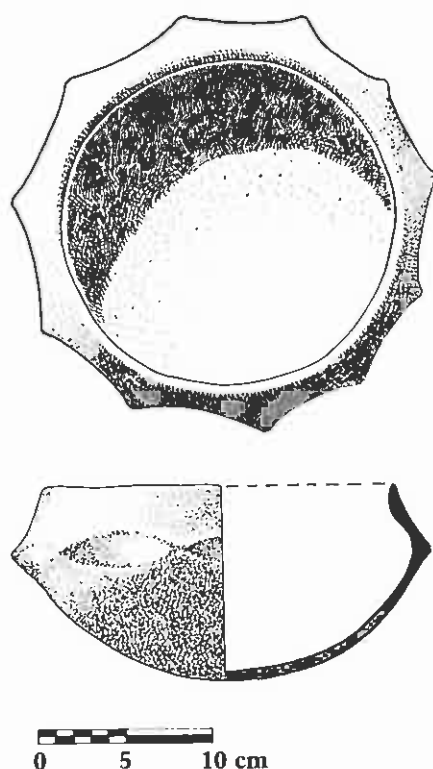


Figure 13.54. Carrales Coarse Grey, Late Cantera subphase bowl.

Quachilco Gray of the Late Santa Maria phase of the Tehuacan Valley (MacNeish, Peterson, and Flannery 1970:117–133) have basal break ridges or flanges, cross-hatch incising, stairstep incising, and basal break punctates that make them similar to Carrales Coarse Grey.

Coarse and fine-paste grey ceramics are found in relative abundance in the Gulf Coast heartland Olmec sites of San Lorenzo, La Venta, and Tres Zapotes. Carrales Coarse Grey is similar in form and decoration to the Palangana phase grey ceramics and to Ixpuchuapa Black Incised of the Remplás phase at San Lorenzo (Coe, personal communication). At Tres Zapotes, Grey Wares were reported from the Middle Tres Zapotes A phase (Weiant 1943:17). An exotic form similar to Chalcatzingo's RB-87 form with basal break punctates was published under "*incensario* wares" from Tres Zapotes (P. Drucker 1943a: Fig. 41f). The collections viewed in the Smithsonian possessed an abundance of coarse grey pottery, often with the basal break ridge, or flange, and zoned incising (slashes, stairsteps). Ceramics known as Coarse Black at La Venta (P. Drucker

1952:90–92) and as Black Ware at Tres Zapotes (P. Drucker 1943a:59–64) may also relate to our grey ware classification.

Several pottery types from Monte Albán, Oaxaca, may be similar to Carrales Coarse Grey and to Pavón Fine Grey. Type G.12 has flaring and outcurving wall bowls with single, double, and triple lines on the rim and slashes and undulating lines. Types G.15 and G.16 of Monte Albán I also exhibit these forms and designs, plus zoned slashes, wavy lines, and cross-hatching (Caso, Bernal, and Acosta 1967).

Culebra Gray of the Jocotal phase of Izapa is typified by plain flaring wall bowls (S. Ekholm 1969:63–65). There are forms similar to Carrales Coarse Grey from Altamira, Chiapas, but in pottery other than grey wares. The Red-on-Orange of the Late Crucero phase has forms like RB-91 and RB-116 (Green and Lowe 1967:120–121, Fig. 92). In Santa Cruz, the same situation exists. Chiapilla Matte Red of the Chiapilla phase has RB-116, RB-91, and RB-87 (Sanders 1961). Flanges, rippled vessel walls, and designs are similar. From La Victoria, Guatemala, Conchas Streaky Brown-

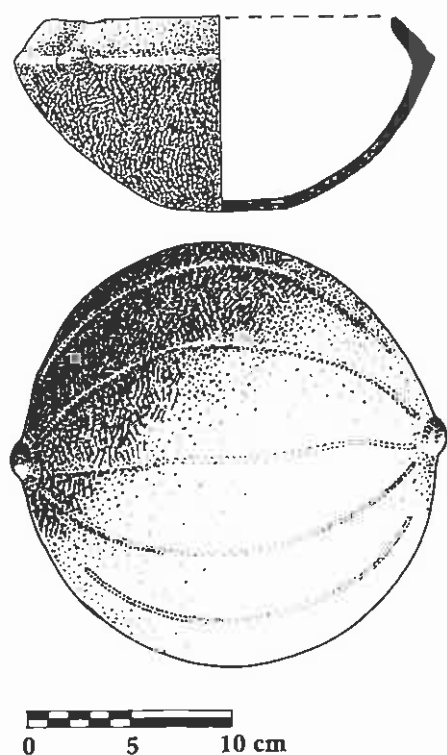


Figure 13.55. Carrales Coarse Grey, Late Cantera subphase bowl with exterior incising and body lugs.

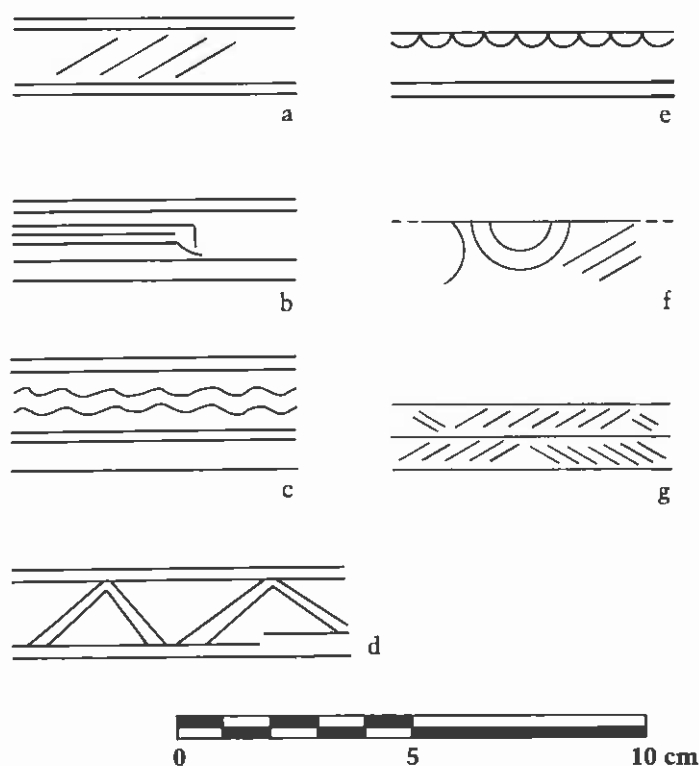


Figure 13.56. Carrales Coarse Grey incised interior rim designs.

Black of the Conchas phase has forms and designs similar to Carrales Coarse Grey such as the composite silhouette bowls with zoned slashes (Coe 1961: Figs. 35, 36). Conchas Orange of the Cru-cero phase exhibits forms similar to RB-74 (Coe 1961: Fig. 36n). Polished Brown from Mirador, Chiapas, has the RB-88 form and the zoned stairstep designs, although the surface color and paste descriptions do not concur with those of Carrales Coarse Grey (Peterson 1963: 12–13).

Bowls with punctated basal ridges or flanges (RB-89) are present at Uaxactun, but the ceramics have red, orange, or black surface finishes (R. Smith 1955: Fig. 77b, nos. 1–3).

Xochitengo Polychromes

Temporal Range: Xochitengo Polychromes were restricted to the Cantera phase.

Surface Treatment: Designs are painted in red, orange, brown, and black slips over a white base slip. Interior and exterior rims are generally painted with a band of red. The remainder of the painting commonly occurs on the exterior of the vessel near the lip (Figs. 13.57–13.59). The Munsell color for the surface slips are as follows:

Red	10 R 3–4/6, 3/4, 4/8
Orange	2.5 YR 3/2, 5–6/8; 5 YR 5/8
Brown-black	5 YR 3/2, 2.5/2
White	10 YR 8/2

Xochitengo Polychromes are frequently highly polished.

Paste and Temper: The paste and temper are identical to those of Amatzinac White. Paste color range is 7.5 YR 6/4, 5–7/4–6, 3–5/0; 10 YR 6–7/3–4.

The volume of aplastics is approximately 16 percent. Plagioclase (An 22, 30) is the most abundant mineral, composing 5–10 percent of the total paste volume. Grain size range is 180–280 microns. Orthopyroxenes, not more than 3 percent of the total volume, have a grain size range of 100–700 microns. Occasionally the grains are twinned. Hornblende is observed as not more than 1 percent of the volume, and the grains measure 120–400 microns. Clinopyroxenes, not invariably present, constitute less than 1 percent of the volume. Grain size is 420–440 microns. Basaltic andesite, opaque iron-titanium ores, and leucoxene are present. The mineral inclusions show similarities to mineral

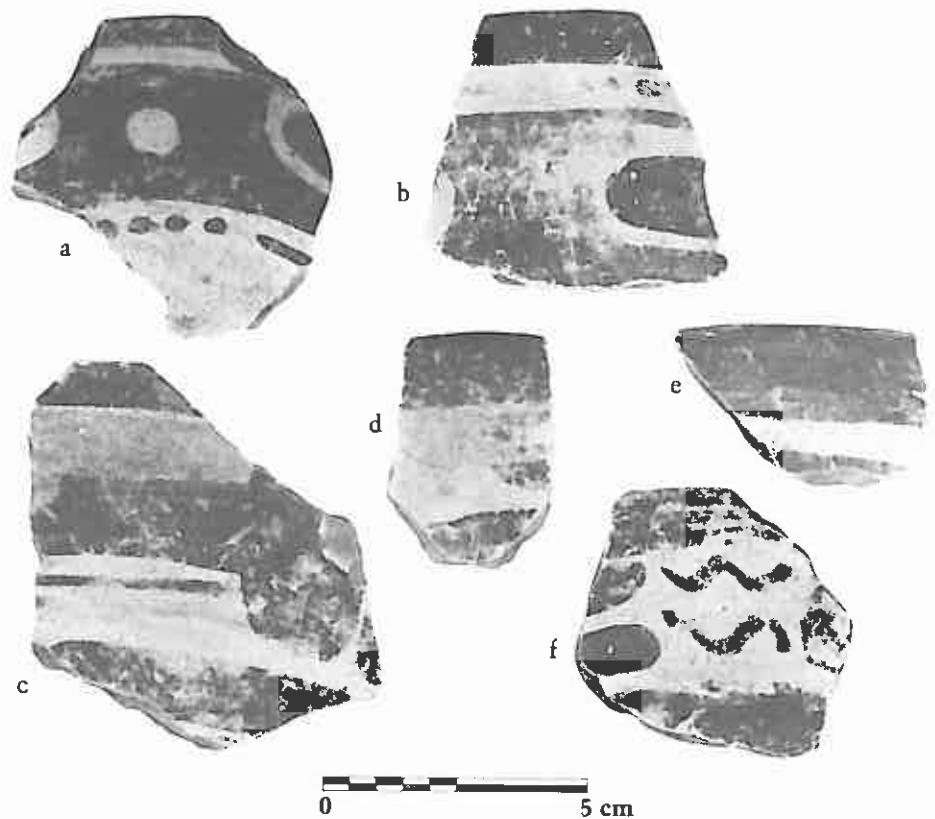


Figure 13.57. Xochitengo Polychrome, Early and Late Cantera subphase hemispherical bowl exteriors.

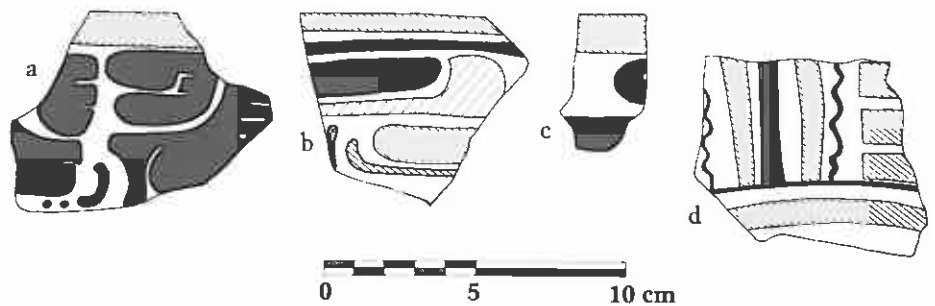


Figure 13.58. Xochitengo Polychrome, Early and Late Cantera subphase bowls.

fragments found in the volcanic tuff of the area.

Forms (Figs. 13.57–13.59):

Cantera phase

Common forms

Hemispherical bowls (RB-7)

Shallow bowls (RB-41)

Other forms

Tecomates (RB-1)

Ovate bowls (RB-16)

Outslanting wall bowls (RB-17, 18, 19)

Flaring wall bowls (RB-26)

Slightly everted rim bowls (RB-77)

Outcurving wall bowls (RB-23, 25)

Incurved rim bowls (RB-3)

Plastic Decoration: None.

Comparisons: The Las Juntas Polychromes from Cerro Chacaltepec in south-central Morelos (Grove 1968b: 74–76, Fig. 62) are identical to the Chalcatzingo polychromes. Bichromes and trichromes are known from the Valley of Mexico, and these provide the closest regional similarities. Red-and-orange-on-white sherds were found in a Totolica level from Atoto (Paul Tolstoy, personal communication to Grove), and red-on-white wares (which we have included within this type) in the Early, Middle, and Late periods at Zacatenco (Vaillant 1930: 83, 89, 96).

On the basis of our current data, Xochitengo Polychrome appears to be a type restricted to Morelos, with a possible center of importance in the Chalcatzingo area. Polychrome ceramics have also been reported from Chalchuapa, El Salvador, where Perulapan Polychrome occurs in minor quantities in the Colos Ceramic complex (900–650 ac) (Sharer 1978: 19, 115; Fig. 9h4–1). However, the similarity to Xochitengo Polychrome lies only in the use of several colored slips. Forms and painted designs are distinct in each case.

Amayuca Ruddy

Temporal Range: Amayuca Ruddy began at the end of the Early Cantera and is a phase marker for the Late Cantera subphase.

Surface Treatment: The surfaces may be slipped with the same clay as the paste. Surfaces are unevenly polished, often with the streaks of the polishing tool evident. Surface color range is 10 R 3/4, 3/6; 5 YR 2.5/1, 4/4, 2.5–3/2–3; 2.5 YR 5/8, 4/6–8, 3–4/4–6, 5/6; 7.5 YR 8/4.

Paste and Temper: The paste is very hard, and the fracture is sharp. The paste color range is 2.5 YR 4–5/6, 6/8, 3/2,

3–4/4–8, 5/6–8; 7.5 R 4/2; 5 YR 4/4, 3/2.

The total volume of aplastics is 9 percent. Plagioclase (An 28) comprises 5 percent of the volume as the principal mineral and ranges in grain size from 180 to 660 microns. Orthopyroxenes constitute 2 percent of the volume and the grain size range is 280–460 microns. Horneblende, less than 1 percent of the volume, ranges from 500 to 540 microns. Grains of clinopyroxene, also less than 1 percent of the volume, measure 260 microns. Basaltic andesite, sandstone, iron stains, and leucoxene are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms (Fig. 13.60):

Cantera phase

Diagnostic phase markers/common forms

Angular flaring wall bowls (RB-102)

Sharply outflaring ollas (RO-32)

Other forms

Incurved rim bowls (RB-3)

Hemispherical bowls (RB-7)

Cylindrical bowls (RB-14)

Outslanting, slightly everted rim bowls (RB-21)

Outcurving wall bowls (RB-23, 25)

Highly outcurved bowls (RB-76, 90)

Plastic Decoration: Simple incising is occasionally present.

Comparisons: None.

Mingo Fine Brown

Temporal Range: Mingo Fine Brown may have begun in the Early Cantera and was typical of the Late Cantera subphase.

Surface Treatment: The rich, dark brown, slipped surface of this pottery is very highly polished. Surface color range is 10 YR 3/1–2; 5 YR 2.5–3/1–4; 7.5 YR 3/2, 4/2–4, 3/0.

Paste and Temper: The paste is very hard and fine particled, with a sharp fracture. Wall thickness is diagnostic, ranging from 0.3 to 0.6 cm. The color range of the paste is 5 YR 4/2, 5–6/4, 3–4/2; 10 YR 3/1; 7.5 YR 5/4, 3–4/2.

Plagioclase (An 30) is the most abundant mineral, constituting 5 percent of the volume, and grains measure 80–400 microns. Horneblende constitutes less than 1 percent of the volume, and grain size is 120–240 microns. Orthopyroxenes also comprise less than 1 percent of the volume, and the range of grain size is 100–200 microns. Dacite and leucoxene are present. The mineral inclusions show similarities to mineral fragments found

in the volcanic tuff of the area.

Forms (Fig. 13.61):

Cantera phase

Ovate bowls (RB-16)

Highly outcurved bowls (RB-76, * 130)

Incurved rim bowls (RB-3)

Everted rim bowls (RB-35)

Rounded bases

Other forms

Tecomates (RB-1)

Hemispherical bowls (RB-7)

Cylindrical bowls (RB-14)

Outslanting wall bowls (RB-17, 18)

Outslanting, slightly everted rim bowls (RB-21, 22)

Outcurving wall bowls (RB-23)

Flaring wall bowls (RB-26)

Everted rim bowls (RB-30)

Shallow bowls (RB-41)

Globular bowls (RB-79)

Collared ollas (RO-1)

Beveled rim ollas (RO-8)

Short-necked ollas (RO-29)

Flaring neck ollas (RO-34)

High shoulders (Base M)

Plastic Decoration: Fine-line incising is occasionally present (Fig. 13.61o).

Comparisons: None.

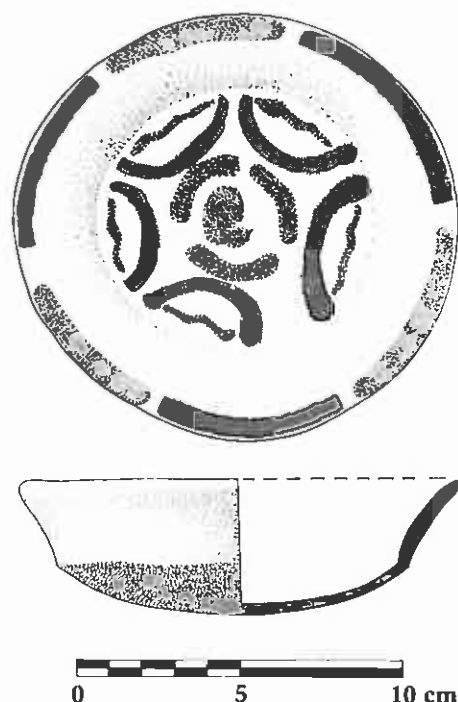


Figure 13.59. Xochitengo Polychrome, Early and Late Cantera subphase bowl.

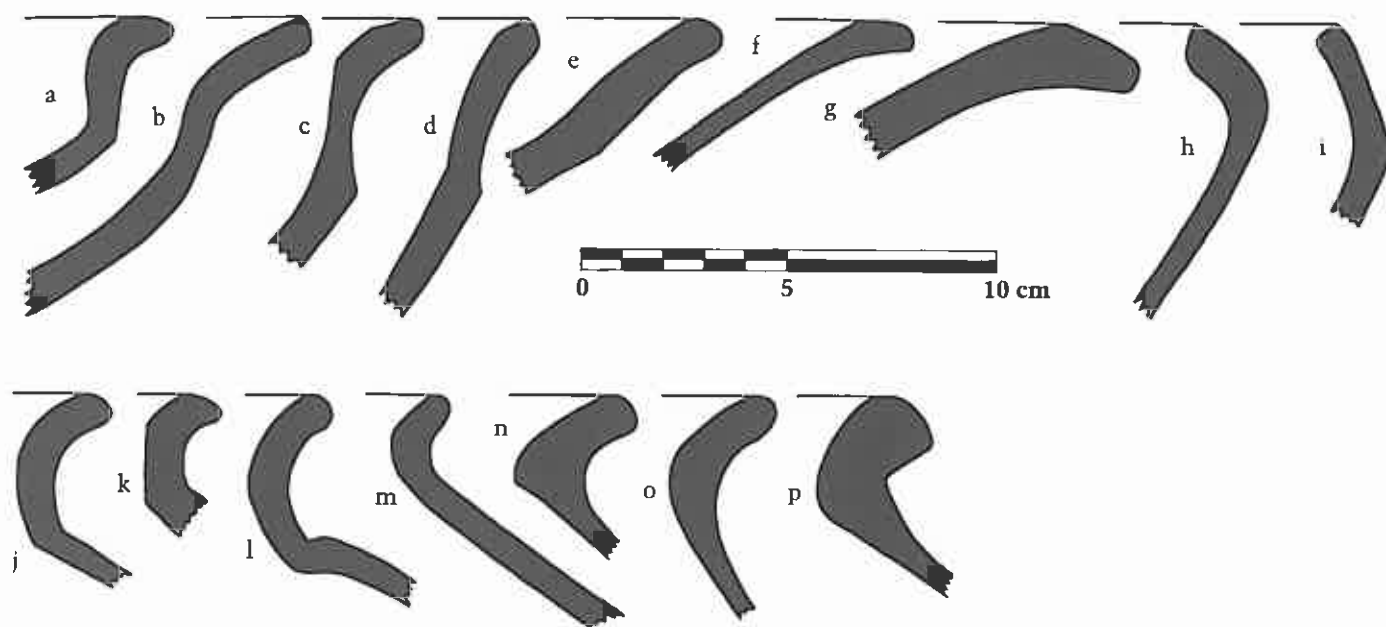


Figure 13.60. Amayuca Ruddy, Late Cantera subphase: a–i, bowls; j–p, ollas.

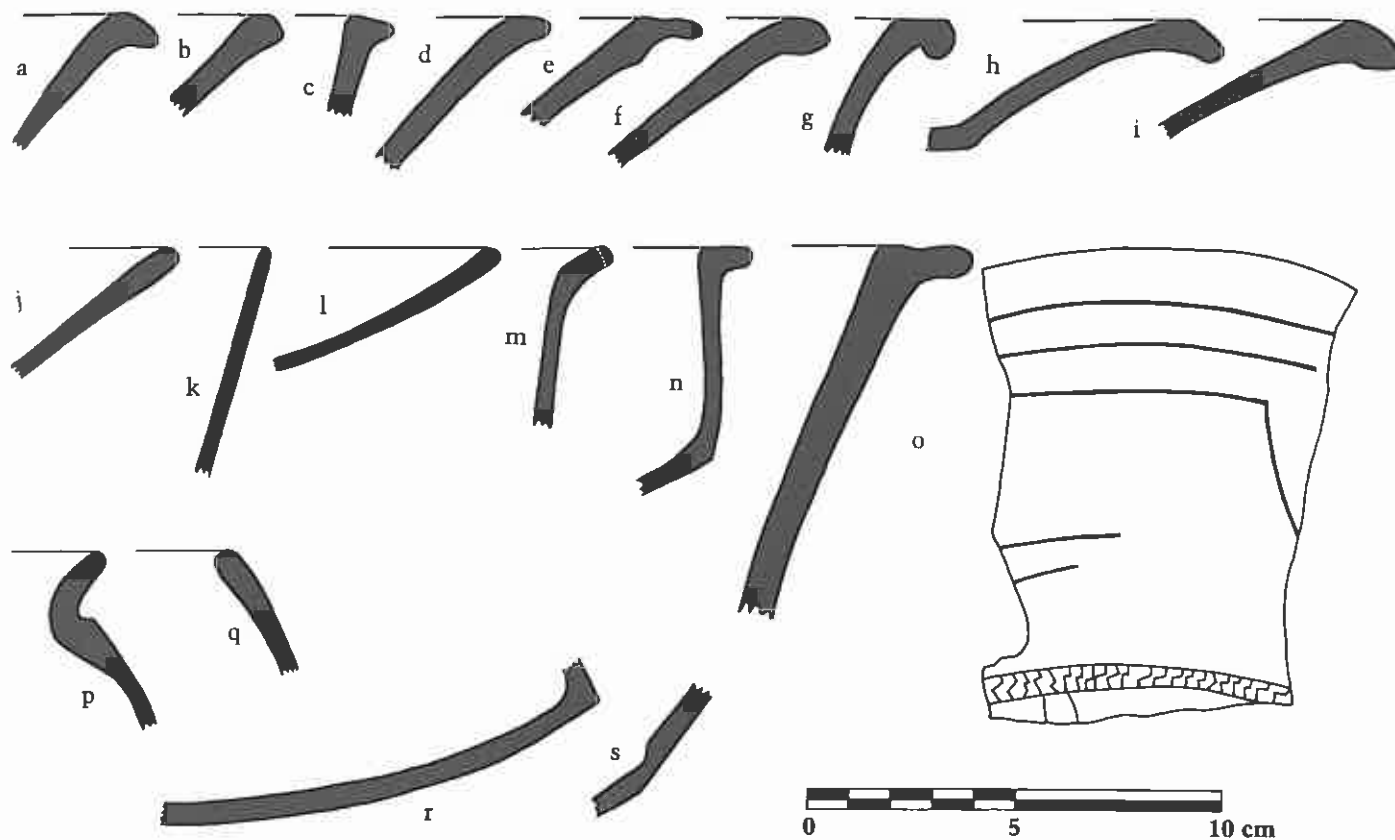


Figure 13.61. Mingo Fine Brown, Late Cantera subphase bowls.

Santa Clara Orange

Temporal Range: Santa Clara Orange was restricted to the Late Cantera sub-phase.

Surface Treatment: A thin, well-polished slip is the trademark of Santa Clara Orange. The color is diagnostic: 2.5 YR 5/8; 7.5 YR 5–6/4. Vessels were often slipped and polished only on the interior, leaving the exterior unslipped and smoothed.

Paste and Temper: The paste has few or no inclusions and is very fine particled, with a sharp fracture. Wall thickness averages 4.5 mm. Paste color is invariable: 7.5 YR 7/6; 5 YR 5–6/6.

Aplastics constitute 13 percent of the paste volume. The most frequently occurring mineral is plagioclase (An 28), comprising 8 percent of the volume. Grain size ranges widely from 80 microns to 1.0 mm. Orthopyroxenes, occasionally twinned, constitute 3 percent of the volume and range in grain size from 120 to 400 microns. Horneblende and clinopyroxene are present in fairly equal proportions, but make up less than 1 percent of the volume. Horneblende ranges in grain size from 220 to 540 microns; clinopyroxene ranges from 220 to 500 microns. Basaltic andesite, iron stains, and some leucoxene are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms (Fig. 13.62):

Late Cantera subphase

Incurved rim bowls (RB-3)

Ovate bowls (RB-16)

Outcurving wall bowls (RB-23)

Plastic Decoration: None.

Comparisons: None.

Atotonilco Black

Temporal Range: Atotonilco Black spans all the phases, from the Early Amate subphase through the Late Cantera. This classificatory unit, Atotonilco Black, might actually represent a catch-all category for errors in firing.

Surface Treatment: The surfaces are highly polished and lustrous. Because the paste color is also black, it is difficult to discern if this pottery is slipped or not. Surface color range is 5 YR 2.5/1; 7.5 YR 2.5/0.

Paste and Temper: The core section shows complete reduction. The paste has a soft, crumbly fracture. Paste color is 5 YR 2.5/1; 7.5 YR 2.5/0.

Forms (Figs. 13.63, 13.64):

Hemispherical bowls (RB-7)

Cylindrical bowls (RB-14)

Outslanting wall bowls (RB-17, 18, 19)

Everted rim bowls (RB-30)

Shallow bowls (RB-41)

Plastic Decoration: Modeling of rims, incised lines along rims, and pseudo-grater incising are occasional decorative techniques (Fig. 13.64).

Comparisons: Black pottery styles seem to have strong local variations. Our data do not indicate that there was a significant black ware tradition at Chalcatzingo as there seems to have been in the Valley of Mexico. Tlatilco, for example, has scores of black vessels (Piña Chan 1958:74, Fig. 35), and many were reported from Zacatenco and El Arbolillo also (Vaillant 1930:80–87; 1935:223–227).

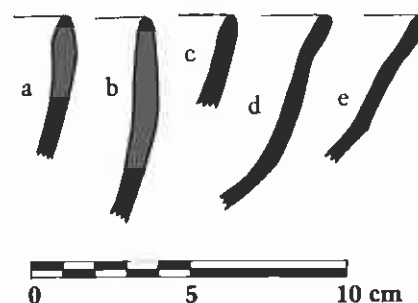


Figure 13.62. Santa Clara Orange, Late Cantera subphase bowls.

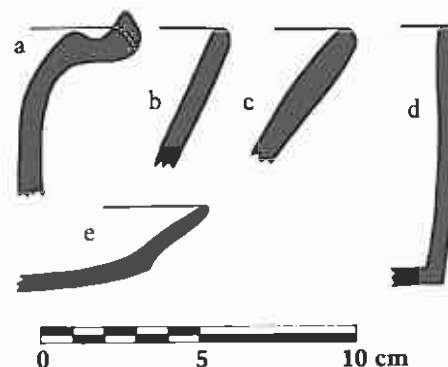


Figure 13.63. Atotonilco Black bowls.

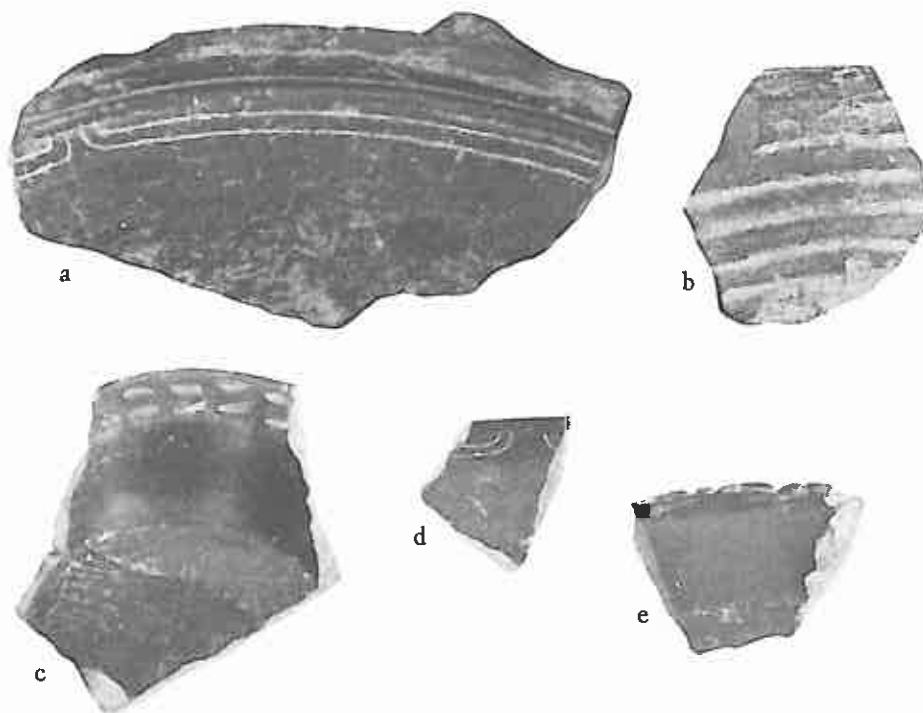


Figure 13.64. Atotonilco Black bowl interiors.

Brown-Slipped, Streaky

Temporal Range: Our sample is too small to determine the temporal range of Brown-Slipped, Streaky.

Surface Treatment: The surfaces are well polished, but the surface slip is very streaky. Surface Munsell color is 7.5 YR 4/4, 5-6/4-6; 5 YR 5/3; 10 YR 6/4. Zoned toning may have been used.

Paste and Temper: The temper is a fine sand, and the fracture is crumbly and jagged. Paste color is 5 YR 5-6/6. Vessel wall thickness is always less than 1 cm.

Plagioclase (An 31) is the most frequently occurring mineral, comprises 5 percent of the paste volume, and has a grain size range of 80-420 microns. Orthopyroxene constitutes 1 percent of the volume, with grains measuring 140-240 microns. Less than 1 percent of the volume is hornblende, measuring 200-260 microns. Andesite and leucoxene are present. The mineral inclusions show similarities to mineral fragments found in the volcanic tuff of the area.

Forms: Highly outcurved bowls (RB-76) and ollas are the only known forms.

Plastic Decoration: None.

Comparisons: None.

White-on-Red

Temporal Range: Our sample is too small to determine the temporal range of White-on-Red.

Surface Treatment: The surface is red-slipped, 10 R 3/6, and has unknown designs painted in white over the red base slip. The surface is evenly polished.

Paste and Temper: The paste is dark grey with a crumbly fracture. Sand temper is abundant.

Plagioclase (An 28) is the predominant mineral, comprising 6 percent of the volume. Grain size ranges from 120 to 480 microns. Orthopyroxenes constitute less than 1 percent of the volume, and the grains range in size from 80 to 180 microns. Hornblende also occurs in frequencies of less than 1 percent of the total paste volume. Its grain size range is 200-300 microns. One grain of poikilitic plagioclase was noted, in addition to a few grains of clinopyroxene. Andesite and leucoxene are present. The mineral inclusions show similarities to mineral inclusions found in the volcanic tuff of the area.

Forms: Olla body sherds were the only examples of this type.

Plastic Decoration: None.

Comparison: White-on-Red ceramics occur at Zacatenco (Vaillant 1930:Pl.

Ilg-o), El Arbolillo (Vaillant 1935:231), and the Middle Formative Atoto area near Tlatilco (Piña Chan 1958:Figs. 28, 29), and are placed within the Early La Pastora phase of the Valley of Mexico by Tolstoy (1979:Fig. 1). Chalcatzingo's White-on-Red ceramics may be compared with the Valley of Mexico types only on the basis of color since the designs and forms are unknown.

Yellow Paste Wares

Temporal Range: The sample is too small to determine the temporal range of Yellow Paste Wares.

Surface Treatment: The surfaces are sometimes slipped in red but are usually brown. The color range is 10 YR 4/6. Surfaces are not well polished.

Paste and Temper: The paste distinguishes these wares from the normal Chalcatzingo pottery. It is a distinctive yellow color: 7.5 YR 7/6. The paste is compact, with fine sand temper, and has a hard, even fracture. This is a minor type, and no thin-section analysis was performed.

Forms: Globular bowls (RB-60) and other indeterminable bowl forms occur.

Plastic Decoration: None.

Comparisons: None.

"Cement" Ware

Temporal Range: The sample is too small to determine the temporal range.

Surface Treatment: The surfaces are poorly polished and are mottled due to fire clouding. The color range is 7.5 YR 6/6; 5 YR 5/6, 4/1.

Paste and Temper: The clay of the paste is fine particled and well fired but contains large, coarse temper grains, which give it the texture of cement. Paste color range is the same as the surface color range. This is a minor type, and no thin-section analysis was performed.

Forms: Forms were indeterminable.

Plastic Decoration: None.

Comparisons: The coarseness of the temper is unlike that of other Chalcatzingo pottery types.

Grey-Slipped, Red Paste

Temporal Range: The sample is too small to determine temporal range.

Surface Treatment: The surfaces are only slightly polished. The grey slip tends to be mottled. Color is 2.5 YR 4-6/0.

Paste and Temper: The paste is a bright red, 2.5 YR 5/8. The temper is abundant, causing a crumbly texture. Petrographic analysis was not conducted.

Forms: Olla and bowl body sherds make up the sample, and precise forms were not determined.

Plastic Decoration: Pseudo-grater incising is present.

Comparisons: None.

BRAZIERS

Four types of braziers are known from Chalcatzingo. All are Formative period in date and are made of the sandy, crumbly paste typical of local ceramic types at the site. Because the majority of brazier sherds in our sample have eroded surfaces, we have been unable to classify most of them within our general ceramic typology, and therefore they are discussed separately by form.

Type I

The first type consists of small, crude, unslipped and unpolished braziers or incense burners with spider-leg supports and small conical nubs on the flat upper surface (Fig. 13.65). Although they definitely date to the Formative period, their exact phase placement cannot be determined because our sample comes from fill or mixed contexts. The spider-leg supports (S-7) suggest they may be Amate phase. Reduced (fire-clouded) areas around the conical nubs suggest that coals or incense were held on the upper surface. (This form is not illustrated in the Appendix D form chart.)

Type II

The heavy, squat hourglass-shaped Type II braziers (RB-100) began in the Middle Barranca subphase and continued through the Late Cantera. They occur with Peralta Orange surface finish and paste and also in an unidentifiable eroded condition. Their form and their blackened interior bases suggest they function as braziers.

Type III

The three-handled braziers (RB-99) composing the third type are only infrequently represented in the Late Barranca and Early Cantera subphase assemblages, but were typical of the Late Cantera subphase. Three openings in the basal wall are common, as are tiny appliqué lugs on the handles (Fig. 13.66). Uneroded identifiable sherds of this brazier type are Tadeo Coarse in paste and finish.

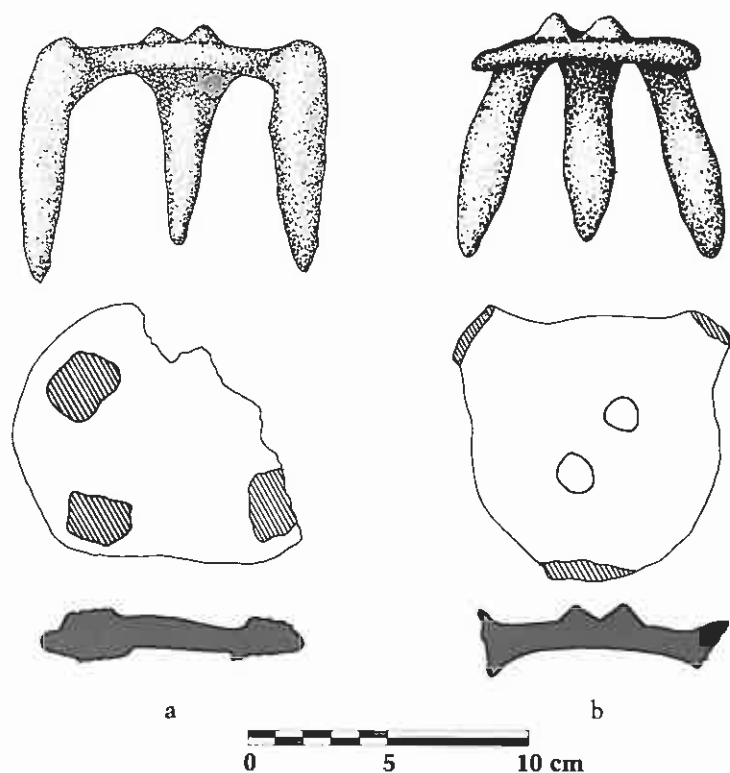


Figure 13.65. Brazier I, possibly Amate phase.

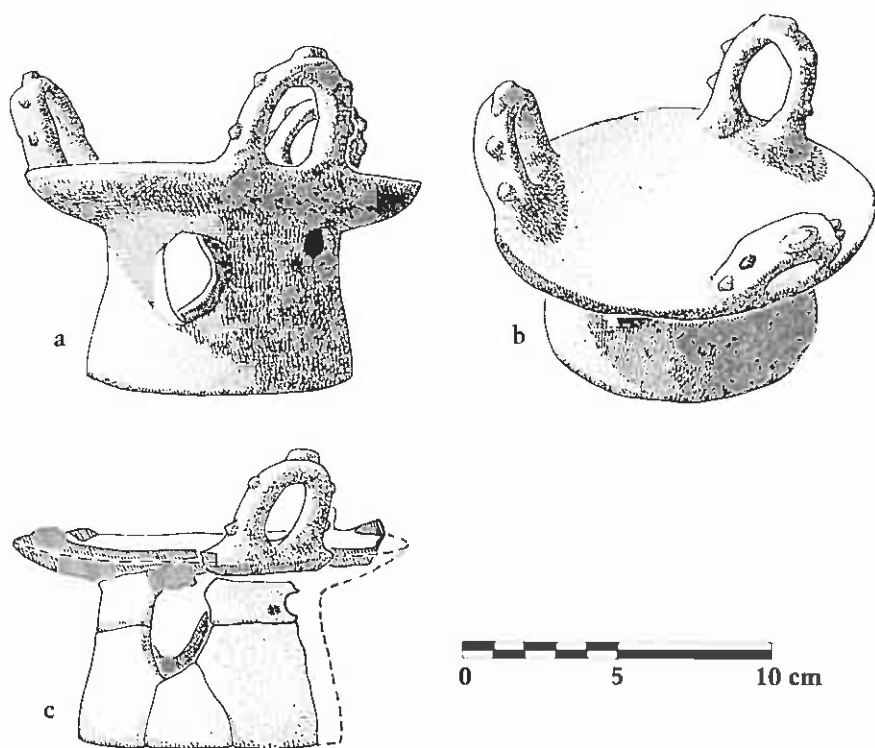


Figure 13.66. Brazier III, Late Cantera subphase.

Type IV

The largest number of brazier fragments recovered at Chalcatzingo belong to three-prong braziers with thick walls. These occurred in greatest frequency during the Late Cantera subphase. An important feature of this type is that the prongs are zoomorphic. No complete braziers were recovered, and the sherds allow two possible reconstructions of the original form—heavy basins or hourglass-shaped. Either form would have had the zoomorphic prongs jutting upward and inward from the rim (Fig. 13.67).

Brazier size varied from about 12 to 53 cm in diameter, although most ranged from 24 to 28 cm. Vessel walls on all brazier sizes were 1–2 cm in thickness, and thickness is unrelated to diameter. While most of the sherds have eroded surfaces, a few have traces of brown or orange slip.

The majority of the zoomorphic prongs are rounded and elongated (Figs. 13.67, 13.68a–c). They show no close resemblance to any specific animals. Other prongs can be identified as canines and peccaries (Fig. 13.68d–f). These prongs vary in length from 4 to 13 cm, and in diameter from 2.5 to 9 cm. The majority of the prongs are hollow, but a few smaller examples are solid. The upper surface of the prongs is normally smudged or blackened, indicating that a cover or vessel rested upon them at times when the brazier was heated.

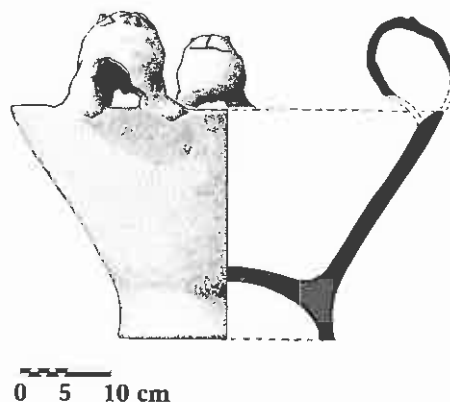


Figure 13.67. Three-pronged brazier reconstruction, Late Cantera subphase.

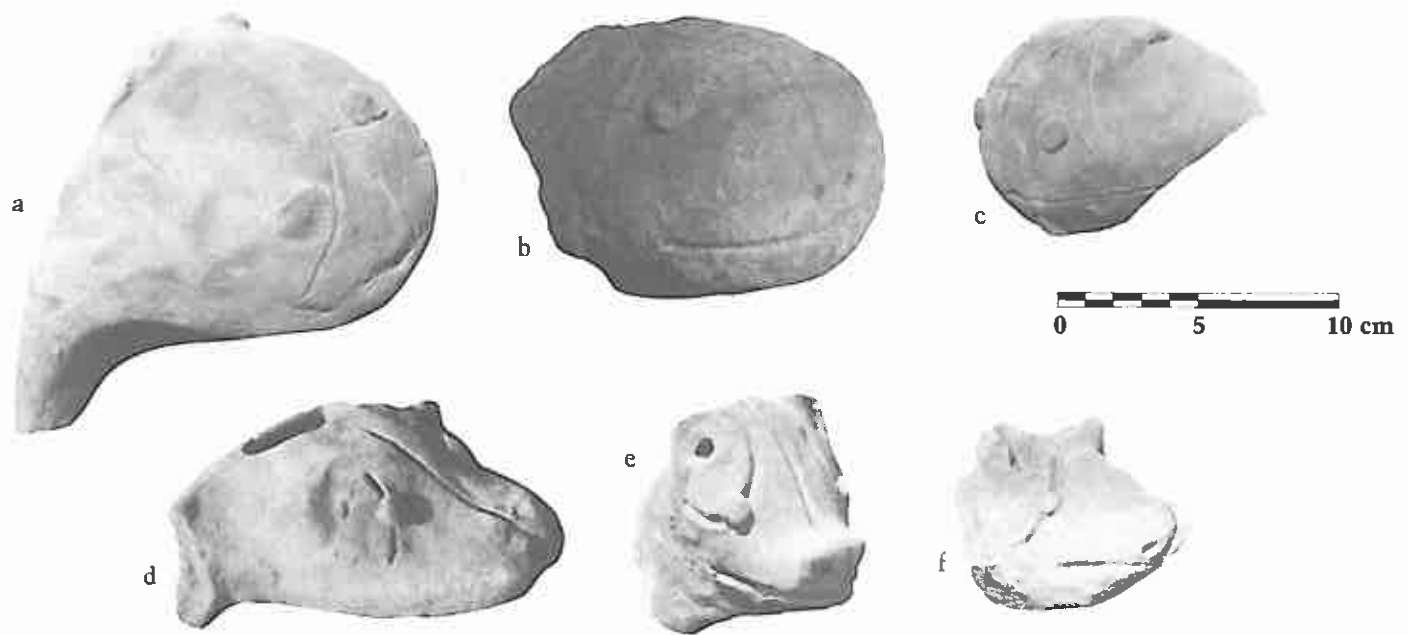


Figure 13.68. Zoomorphic brazier prongs, Late Cantera subphase: *a–c*, “super-natural” heads; *d–f*, dog and peccary heads. Scale is approximate.

Comparisons

Brazier Type I has no counterpart in sites published to date. An Early Formative Chicharras phase brazier from San Lorenzo (Coe 1970:25) shows similarities to Dili-Escalera phase braziers from Chiapas (Lowe 1962:98, Pl. 18c, g), but the only similarities of these braziers with Chalcatzingo’s Type I are in the small interior lugs.

Brazier Type II has many more counterparts. Pot rests or *incensarios* are reported from Chiapa de Corzo (Dixon 1959:31, Figs. 37a–b, 43a–b). Canoas Heavy Plain and Canoas Orange-Brown of the Early Santa María phase of the Tehuacan Valley include an annular base form (MacNeish, Peterson, and Flannery 1970:73, Fig. 40). Similar forms are reported but not illustrated from Oaxaca by Flannery (1968:91) and Drennan (1976:73, Fig. 17). This form occurs at La Victoria on Conchas Red-on-Buff (Coe 1961:Fig. 33). Deep, heavy annular bases are present among the La Venta sherds observed at the Smithsonian Institution.

The only form found similar to Brazier Type III is a fragment from Tres Zapotes (P. Drucker 1943a:Fig. 42f) which is identified as a “*comal* with a strap handle.”

The three-prong brazier, Type IV, was a

popular and widespread form during the Cantera phase. A fragment of one of these is present in the La Venta collection, and many occur in the Tres Zapotes collection at the Smithsonian. These latter were published as “effigy handles” of the Middle Tres Zapotes A phase by Weiant (1943:Pl. 54, nos. 1–9), and by Philip Drucker (1943a:74, Fig. 43c–d) as Upper phase “Unslipped Ollas.” At Izapa they are found in the Dili phase (Chiapa II; Lowe 1965:Fig. 2b).

Animal head brazier prongs are known from Middle Formative Oaxaca (Marcus Winter, personal communication; Kent V. Flannery, personal communication). A probable prong attachment from Fábrica San José is illustrated and called an “effigy grip” (Drennan 1976:30–31), but no temporal position is defined. At Mirador, Chiapas, attached burner horns with perforations from the exterior into the horn are present (Peterson 1963:68, Fig. 101, no. 2).

Three-prong braziers are known from Las Charcas phase at Kaminaljuyú (Rands and Smith 1965:Fig. 6; M. Weaver 1972:Fig. 5gg). It is important to note that three-prong braziers are depicted on stelae from Izapa and Kaminaljuyú: Kaminaljuyú Stela 11 (Norman 1976:289, Fig. 6.2) and Izapa Stelae 5, 12, 24,

and possibly Stela 18 (Norman 1973:Pls. 9, 10, 23, 24, 27, 28).

GULF COAST CERAMICS

Our excavations and analyses have disclosed several important similarities between the Chalcatzingo and Gulf Coast sites. In order to better understand the affinities among the ceramics of the Gulf Coast, and between the Gulf Coast and Chalcatzingo, I examined Michael Coe’s San Lorenzo collection and the Smithsonian’s La Venta and Tres Zapotes collections to supplement the published data on Gulf Coast ceramics, most of which deal with the Early Formative (whereas Chalcatzingo attained its greatest importance during the late Middle Formative; see Appendix D).

There are a number of ceramic ties among the Gulf Coast Olmec sites, and many of them occur at Chalcatzingo as well. These linking traits are not iconographic, but are far more subtle and relate to vessel forms and types.

Early Formative Ceramics

The Early Formative (pre–Nacaste phase) ceramics of San Lorenzo (Coe 1970:21–28) show several similarities to La Venta and Tres Zapotes sherds in

the Smithsonian collections. San Lorenzo's Aguatepec Thick everted rim bowl form (similar to Chalcatzingo's RB-38) of the San Lorenzo phase is comparable to a form known in La Venta's Coarse Brown Ware (e.g., P. Drucker 1952:92–96) and Chalcatzingo's Manantial Orange-on-White. Similar forms in White-Rimmed Black are found at San Lorenzo, La Venta, and Barranca phase Chalcatzingo. San Lorenzo's white-slipped bowls with pseudo-grater incised interiors have counterparts at La Venta and Tres Zapotes, where this decorative technique occurs on other types of ceramics as well (Ortiz Ceballos 1975: Fig. 36).

The characteristic markers of the San Lorenzo A and B phases, Calzadas Carved and Limón Carved Incised (Coe 1970:26–27) are not present in the Smithsonian collections for La Venta and Tres Zapotes. However, in Ponciano Ortiz Ceballos' study (1975) of *Pozo 3* from Squier's Tres Zapotes excavations, levels 14–11 do contain examples of these types. Although they are dated by Ortiz Ceballos to 800–300 BC, levels 14–11 (Tres Zapotes A and B phases in his chronology; 900–300 BC) should be considered contemporaneous with the San Lorenzo phase at San Lorenzo. Re-examination of his data could push the dating of these phases back to ca. 1100 BC. Tres Zapotes, therefore, contains a San Lorenzo phase occupation, though of unknown size and extent.

Middle and Late Formative Ceramics

In general, fine- and coarse-paste grey-black ceramics are excellent temporal markers for the Middle and Late Formative. Bowls with exterior "ridging" (RB-134), outcurving wall bowls (RB-23, 25, 90), hemispherical bowls (RB-7), and other bowls (RB-31, 71, 78, 79, 80, 85, 87, 89, 91, 116) are common forms throughout much of non-Maya Mesoamerica. At San Lorenzo, a fine-paste grey-black ware is present in the Middle Formative Palangana phase, and Ixpachuapa Black Incised is typical of the Remplás phase, which Coe (1970:30–31) dates as Late Formative. Slight basal ridges on composite silhouette bowls are present at both San Lorenzo and Tres Zapotes but are absent in the sample from La Venta. Punctations infrequently occur on the basal ridge. Decorative motifs of zoned slashes, zoned cross-hatching, and zoned stairsteps are common at La Venta, Tres Zapotes, and during the Palangana and Remplás phases at San Lorenzo. These

various attributes can serve as broad temporal markers between these sites and help identify ties with Chalcatzingo.

Punctuation, particularly in association with orange-slipped ceramics, appears to be an important shared attribute. Ollas with "human" faces created by punctuation (discussed above) are illustrated for Tres Zapotes by Philip Drucker (1943a: Pls. 17*j*, 18*a–b*) and by Bertha Aguayo L. and Ponciano Ortiz Ceballos (1975:304, 308, lower right photo). An olla of this type was uncovered at San Lorenzo in a San Lorenzo phase context (Coe, personal communication), but none were seen in the La Venta collection, nor are they mentioned in that site's reports. A Chalcatzingo example occurs on a Peralta Orange olla (Fig. 13.69).

Also important is the correspondence between Peralta Orange ridged-neck ollas (RO-25, Figs. 13.42, 13.69) with punctations, which are characteristic of the site's Cantera phase, and ridge-necked olla sherds (many with orange slip) in the Tres Zapotes sample. Peralta Orange sherds from composite silhouette bowls (RB-45, Fig. 13.40) with punctations along the shoulder edge are present at Chalcatzingo, and similarly placed punctations are found at La Venta on Coarse Buff sherds (P. Drucker 1952: Fig. 28*d–e*, *g*) and at Tres Zapotes on orange-slipped sherds.

There are similarities in some of the more unusual forms, such as the three-pronged braziers with zoomorphic prongs. One probable brazier fragment is present in the La Venta collection. The Gulf Coast examples are occasionally zoomorphic and sometimes have plain prongs.

Drucker noted the abundance of small ollas at both La Venta and Tres Zapotes. La Venta's "small thick-wall jars" (P. Drucker 1952: 119) and the "toy ollas" from Tres Zapotes (P. Drucker 1943a: 40, Pl. 16*b*, *d–e*, *g*) appear equivalent to Chalcatzingo's *cantaritos* (C-5) which occur with some Cantera phase burials. The Smithsonian's Tres Zapotes collection includes many *cantarito*-like sherds from Trench 20. Tiny bowls or flat-based dishes with low walls were made of Tres Zapotes Brown Ware (P. Drucker 1943a: Fig. 29). Similar small vessels were found at Chalcatzingo. It is possible that at both sites they functioned as paint dishes.

Summary of Comparisons between Chalcatzingo and the Gulf Coast

Chalcatzingo's apogee during the Early and Late Cantera similarities, 700–500 BC, is clearly contemporaneous with the Palangana phase of San Lorenzo and late Middle Formative La Venta and Tres Zapotes. The similarities in ceramics, apart from those in portable art, monumental art, and other artifactual categories, can be summarized as follows:

1. Carrales Coarse Grey and Pavón Fine Grey show form, decoration, and surface color similarities to Gulf Coast pottery. Particularly notable are bowls with basal ridges, punctuation along basal ridges, zoned exterior incising in the form of zoned slashes, stairsteps, and X's, flaring wall bowls, and modeled or ridged composite silhouette bowls.

2. Peralta Orange pottery, typical of the Cantera phase, has composite silhouette bowl forms with punctuation above or on the shoulder and the ridge-necked ollas with punctuation along the ridges. The latter form is similar to the punctate face ollas of Tres Zapotes.

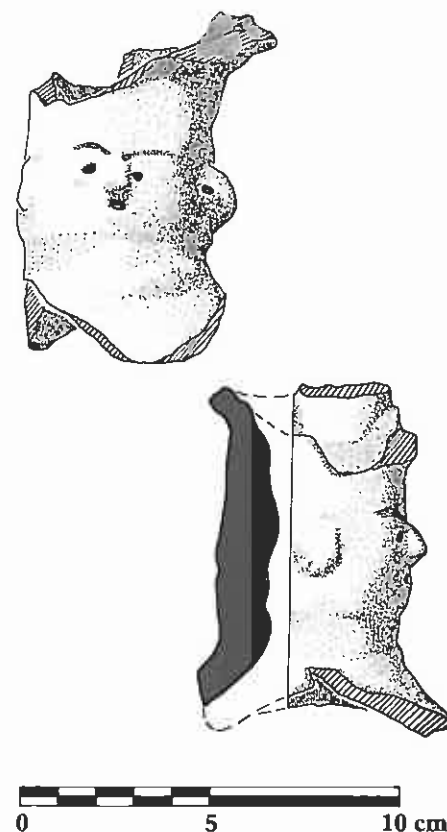


Figure 13.69. Peralta Orange olla neck with human face made by punctuation.

3. Three-prong braziers are found at Tres Zapotes and are common at Chalcatzingo, where they are restricted to the Cantera phase.

4. The small dishes and *cantaritos* of Atoyac Unslipped Polished I at Chalcatzingo are similar to the miniature bowls and ollas from the Gulf Coast sites.

5. White-slipped ceramics and white-rimmed black ceramics have a long temporal span at Chalcatzingo, as they do at most Formative sites. They represent general points of similarity among the assemblages.

GLOSSARY

BASE: the lower part or bottom of a vessel.

BASIN: a deep, wide-mouthed vessel finished on the exterior and interior; in the Chalcatzingo assemblage, it may have a composite silhouette.

BOTTLE: an olla with a globular body and a long, narrow neck (RO-35).

BOWL: a ceramic form with an unrestricted mouth and always finished on the interior.

BRAZIER: a specific function vessel form used for burning.

CANTARITO: a miniature olla or jar form made by hand-modeling or pinching technique.

DOUBLE-LOOP HANDLE CENSER: a specific function ceramic vessel, probably used for burning incense; a low dish form atop an annular or ring base with a double-loop handle (also called basket censer).

ENGRAVING: a post-firing decorative technique involving the scratching or cutting of decorative elements into the hardened surface of the vessel.

EXCISING: a pre-firing decorative technique in which a portion of the surface is cut away to achieve a design in relief.

FLUTING: a technique of modeling used to achieve shallow canals or low ridges on a vessel (Smith and Piña Chan 1962:1).

GADROONING: a technique of modeling used to achieve a lobed or pumpkin-like vessel form.

GROOVING: wide incising; here used to indicate a form of incising slightly deeper and wider than usual.

INCISING: "freehand decoration by pressing or cutting lines" into the leather-hard vessel surface; a pre-firing decorative technique (after Shepard 1963: 195–203).

LUSTER: shine.

MATTE: an unpolished surface.

MODELED: hand manipulation of the vessel while still in a wet, plastic stage (Shepard 1962:55).

OLLA: a ceramic jar form with a defined neck; the neck area is finished on the interior but the interior of the body is unfinished.

PLATE: a low, extended form with a roughened exterior.

POLISH: both a technique and a property; rubbing of a leather-hard clay surface with a tool to achieve luster or shine (often called "burnish").

RASPADA: a technique of wide, shallow incising; at Chalcatzingo, it refers to a specific, sloppy incising which barely removed the slip. It is restricted to specific design motifs.

RIDGING: the formation of elongated, raised areas on either the interior or exterior of a vessel wall without deforming the lateral contour of the vessel.

RIM: vessel mouth or lip.

SHOULDER: that part of a vessel form between the base and the neck where the curvature changes; in the case of a composite form, the shoulder is a sharp angle.

SLIP: a clay in liquid suspension used as a pre-firing paint on vessels (after Nelson 1971:338).

SMOOTHING: a surface finishing technique which leaves no luster.

"STICK" POLISHING: polishing which does not cover the entire surface and produces a streaky luster with the marks of the polishing tool evident; the polishing tool is not necessarily a stick.

TECOMATE: a globular ceramic vessel form with a restricted neckless mouth.

RESUMEN DEL CAPÍTULO 13

La tipología descriptiva para la cerámica tuvo como base más de un millón de tepalcates, con lo cual se produjeron las unidades de clasificación para el análisis de los artefactos así como para determinar que atributos de la cerámica mejor reflejaban los cambios en la secuencia temporal. Los tipos de cerámica resultantes se definen en base al tratamiento de superficie recibido y al de empastado. Se encontró que son las formas el indicador de cambio temporal más sensible. Las fases para los tipos de cerámica y las formas fueron basadas en la derivación obtenida de los tepalcates provenientes de treinta y ocho Unidades Estratigráficas Selectas (SSU). El análisis petrográfico permitió separar los tipos locales de los no locales (importados).

Los objetos utilitarios principales de la fase Amate (Formativo Temprano) son de los materiales pertenecientes a las clasificaciones Cuautla Café, Cuautla Engobe Rojo, Atoyac sin Engobe Pulido III, e Arboleda Burdo. Los tipos secundarios incluyen las diferentes decoraciones y para esta ocupación temprana son Del Prado Rosa (importado), Atotonilco Negro, Gris Esgrafiado, y Kaolin. Las cerámicas Kaolin se consideran generalmente un marcador de la cultura "Olmeca" del Formativo Temprano, pero son muy raras en Chalcatzingo. La mayor afinidad de Chalcatzingo con la cultura mexicana del Formativo se revela por las cerámicas café y rojo sobre café y las formas de botella.

Los restos utilitarios principales de las fases Barranca y Cantera (Formativo Medio) son los que presentan los terminados Tenango Café y Peralta Naranja; los de importancia secundaria presentan el Atoyac sin Engobe Pulido II y el I. El acabado que tipifica los blancos del Formativo Medio es el Amatzinac Blanco, el cual presenta una gran variedad en tratamiento de superficie, pasta, forma, y decoración plástica, incluyendo el marcador del Formativo Medio, el motivo de interrupción de doble línea. Los tipos principales de decoración incluyen el Laca, el Negro con Borde Blanco (representativo del material quemado diferencial típico del Formativo Medio de Chalcatzingo), y el policromo, Xochitengo Policromo. Los acabados grises también característicos del Formativo Medio son el Carrales

Gris Burdo y el Pavón Gris Fino, este último de importación en el Valle del Río Amatzinac. Los tipos secundarios son el Laca Imitación, el Manantial Naranja sobre Blanco, Amayuca Rijizo, Mingo Café Fino, Santa Clara Naranja, Atotonilco Negro, Baño de Café Rayado, y Blanco sobre Rojo.

Los tipos principales claramente indican el alcance de la relación interregional de tradiciones de cerámica en las que Chalcatzingo participó. Las únicas excepciones son los acabados utilitarios, los cuales tienden a ser regionalmente más restringidos que los acabados decorados, y tanto el Peralta Naranja como el Tenango Café entran en esta generalización. De hecho, el Peralta Naranja parece tener sus afines más próximos con los del sur de Mesoamérica. Dos tipos decorados que parecen estar restringidos a Morelos y no tener contrapartes en ningún otro lado son el Laca y el Xochitengo Policromo.

Una categoría cerámica importante, que no fue incluida en la tipología descriptiva, es la de los braceros, la cual generalmente careció de los restos de tratamiento de superficie que son cruciales para su tipificación. Cuatro formas de braceros pudieron distinguirse, siendo la más importante el bracero trípode con podes zoomórficos. Esta forma tiene también afinidades con el sur de Mesoamérica.

Las relaciones de Chalcatzingo con la cultura Olmeca de la costa del Golfo se expresan, no sólo mediante el hecho de compartir las tradiciones de cerámica Panmesoamericanas sino también, por la co-ocurrencia de más atributos específicos en las dos áreas. En particular los sitios de Chalcatzingo y de la costa del Golfo, ambos, se encuentran ligados por la presencia de braceros trípodes, ollas de cuello labiado con "caras" (en el Peralta Naranja de Chalcatzingo), y ciertos tipos de decoración plástica en los materiales grises. De otra manera, la mayoría de las cerámicas de Chalcatzingo parecen ser las más semejantes a las cerámicas del Formativo de Morelos y del Valle de México.

14. Chalcatzingo's Formative Figurines

MARK HARLAN

The Chalcatzingo excavations produced nearly six thousand recognizable fragments of anthropomorphic figurines. These were the object of an analysis which had two basic purposes: to generate a reasonably complete description of the figurines' variability and to use the distribution of patterned variability to investigate the organization of Chalcatzingo's prehistoric population. To these ends, a design attribute analysis was carried out, which is presented elsewhere in detail (Harland 1975, 1979). The results of that analysis are summarized in the second section of this chapter. In order that the Chalcatzingo figurines could be used for comparisons with other areas of Mesoamerica, they have been classified according to a whole piece typology based on the work of George C. Vaillant (1930) in the Valley of Mexico. The Chalcatzingo whole piece typology forms the first section of the chapter.

WHOLE PIECE TYPOLOGY

While minor attempts have been made to revise Vaillant's typology, primarily to reflect regional differences in figurine styles, there has been only one lengthy reanalysis of central Mexican Formative figurines, the thesis of Rosa María Reyna Robles (1971). Her study is broad in geographic scope and is not site specific. She reclassified most of Vaillant's types into a series of "traditions." For example, Vaillant's numerous Middle Formative C types were placed into two traditions. In my analysis of Chalcatzingo figurines, I have taken her criticisms of Vaillant's typology into account, but I have not followed her system of reclassification since it does not fit the Chalcatzingo sample well.

The research of Paul Tolstoy and Louise Paradis (1970) significantly revised the Formative period sequence in the Val-

ley of Mexico and placed Formative period figurines in a finer sequence than that provided by Vaillant. The temporal sequence of figurines has been further refined through Tolstoy's continued work (e.g., 1978:253-260; 1979:Fig. 1) and through research in the northern Valley of Mexico (McBride 1974) and in the southern valley (Niederberger 1976).

Unfortunately, attempts to order the Chalcatzingo figurine types chronologically, e.g., by seriation, proved generally unsuccessful, since erosion, land modification, and frequent rebuilding had created numerous mixed levels with few pure strata. In addition, figurines were seldom abundant in areas with good, unmixed stratigraphy; therefore, only general chronological observations can be made. In spite of the revisions by other researchers, the classification of the Chalcatzingo figurines primarily follows Vaillant's original typology published in his Zacatenco report (Vaillant 1930). The Zacatenco collection contains nearly the full range of figurines and variability seen at Chalcatzingo, and many of the types are truly identical. In using Vaillant's categories, primary reliance was placed on the photographs of his various types and less emphasis on his written descriptions, although portions of these proved valuable and are quoted in some of the Chalcatzingo descriptions. A copy of the Zacatenco report was kept on hand throughout the classification procedure, and attempts were made to match each piece in our collection with figurine photographs in the report. Thus, when a Chalcatzingo figurine bears the same type designation as one of Vaillant's types, a high degree of correspondence can be assumed.

Because Chalcatzingo and Zacatenco are regionally distant, exact similarities in all figurine types were not expected, and, as anticipated, many specimens in our sample failed to correspond closely

to types from the Zacatenco assemblage. Vaillant's Types C1-C9, K, E, A, F, G, D1, and D2 each occurred at least once in our sample. However, some figurines were dissimilar enough from Valley of Mexico types to justify new type designations. These were Chalcatzingo 1 (Ch1), varieties 1-5 (labeled Ch1-1-Ch1-5), and Chalcatzingo 2 (Ch2).

The main difference between the Ch1 series and Vaillant's C series of figurine heads is in the depiction of the eyes, which are quite distinct in the Ch1 figurines. Ch2 figurines are in the same stylistic tradition as the C and Ch1 types but possess a series of features which warrant a separate category, the main difference again being in the eye form.

Complete figurines (some examples of which are shown in Figs. 14.1 and 14.2) are extremely rare. Our large sample clearly shows that most had been broken at the neck area, a pattern so regular that it strongly indicates purposeful breakage. Such decapitation may be akin to the decapitation of monuments (e.g., Grove 1981b). It is important to note that even those few figurines which were complete when found were usually also broken.

Two of the whole figurines found were in good association with a child burial (no. 45) from PC Structure 2 (Fig. 8.2), although figurines were rarely included as mortuary furniture at Chalcatzingo. One of the Burial 45 figurines (Type Ch1; Fig. 14.1b) depicts a person seated with knees flexed, arms encircling the knees. Significantly, the person is wearing a zoomorphic headdress which continues down the back almost to the waist. The features of the headdress resemble a horned owl. The second figurine with the burial was of the C8 type. Other whole figurines were of the C8, Ch1, and Ch2 types.

In view of the small number of whole figurines and the difficulty of associating

heads with specific bodies, I also set up four body (BD) types to classify figurines lacking heads. These are B-C, Ch, D, and E bodies. Since the vast majority of the figurines were fragmentary, it seemed important to classify them as well even though they could not be put into the established whole piece typology.

Detailed descriptions of the types are given below, along with a discussion of comparisons between Chalcatzingo and other Mesoamerican figurine types. Comparisons to types with the same numerical designation from sites in the Valley of Mexico and Morelos are taken for granted and are not mentioned unless the Chalcatzingo designation is somehow different. Distributional data for both head and body types are displayed in Tables 14.1 and 14.2.

Head Type Descriptions and Comparisons

C
Vaillant (1930:99) described Type C as the most common figurine type in the Valley of Mexico. He subdivided the type into eight groups (Ci–Cviii; our designations substitute Arabic numerals for Roman ones) to provide “greater ease in description” (1930:99).

C1 (Fig. 14.3a–b; 24 specimens [specimen numbers for Chalcatzingo only, not Telixtac and Huazulco])

The C figurines generally have coffee bean eyes with the fillet of clay which forms the eyes left protruding. Type C1 has a prognathic face, and the chin is undeveloped. The mouth is most frequently depicted as a simple gash under the nose. The C1 figurines from Chalcatzingo were among the most crudely modeled in the collection. Vaillant (1930:99) described C1 figurines as “characterized by a relatively small trunk, usually erect posture, heads which are prognathic and relatively large in proportion to the body. The features, eyes, nose, and mouth are indicated by fillets of clay, the mouth is developed to the exclusion of the chin. The prognathic chinlessness is the definitive trait.”

Tolstoy (1979: Fig. 1) places C1's in the Valley of Mexico within the Bomba and El Arbolillo phases, both within the time range of Chalcatzingo's Barranca phase. However, C1's were absent in most Barranca phase contexts at Chalcatzingo other than on the Plaza Central (see Table 14.1). None were recovered at Huazulco, but one occurs in the Telixtac sample.



Figure 14.1. Whole figurines: a, C8 Person M, 15.5 cm tall; b, CH1, 9.0 cm tall; c, C8 Person F, 13.8 cm tall.

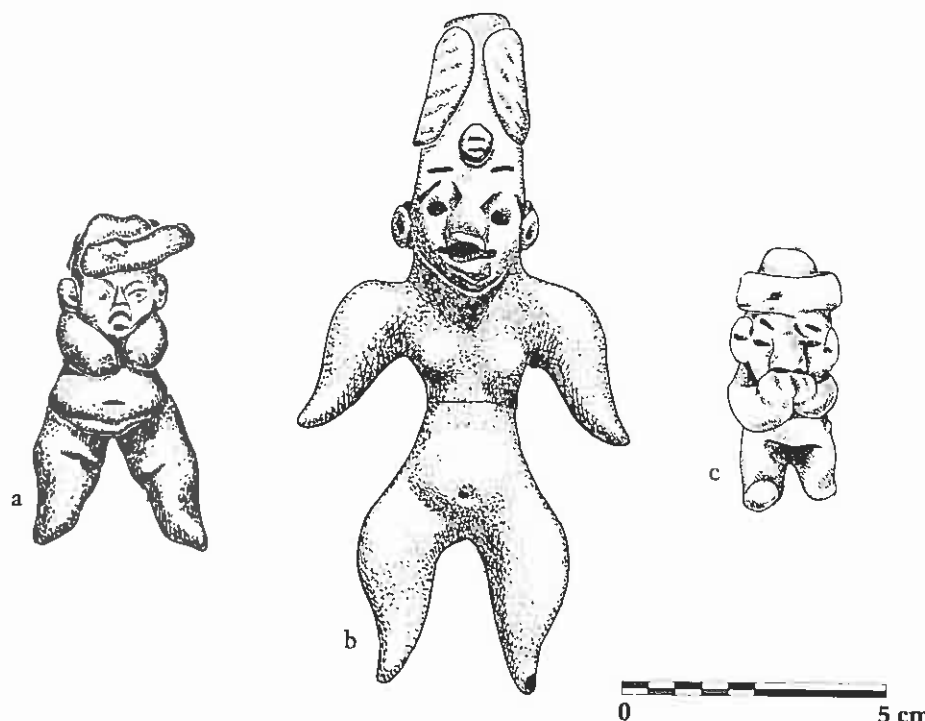


Figure 14.2. Whole figurines: a, C8; b, CH1; c, Ch2.

Table 14.1. Distribution of Figurine Head Types

Area	C1	C2	C3	C4	C5	C6	C7	C8	C9	Ch1-1	Ch1-2	Ch1-3	Ch1-4	Ch1-5	Ch2	D1	D2	K	KC	A	E	F	G	Totals
PC Strs. 1 & 2	10	18	5		5		2	111		5	34	16	3	20	2	3	33	2	3					272
PC Str. 6					1												1							2
PC other	13	33	35	4	40	2	12	169	2	32	76	26	6	29	26	15	97	27	14	14	12	4	3	691
CT-1		1	1		1			14			10	2					1	1				2		33
CT-2		1	4					20	2		2						4							33
T-4		1	1				1	40		2	7	2		2	2		9	1	4	1				73
T-6		3	2		3		2	9		1	5	1		1	6	1	7	6	3	2	2			54
T-9A		3	2		1			7		2		4		2	3		1							25
T-9B		1	1				2	1				2		1	2		1							11
T-11		6	9		5	1	8	11			26	10		5	13	1	1		1		1			98
T-15 Str. 1		3	2			3										5	27	15	3	2		4	1	65
T-15 Str. 5		1			1			1			4	1					5	3		1				17
T-15 other		7	2					7				1			1		5	1						24
T-17								3			1				1		1							6
T-20			13		3	1	3	19		2	11	3		3	1		5	5	5					74
T-21			3		2			14		1	1	1		3	1			1	2					29
T-23		6	3		1	1	1	48		6	31	4		1	2	1	3					3		111
T-24		7	6		2		2	58		1	13	7	2	4	5	2	5	2	3					119
T-25		6	3		1		2	73		3	9	2		1	9	1	9	1	1			1	2	124
T-27			4		2			47			20	5			3		4		2		1	5		93
T-29		5	8		8			2	2	1							10	4	2	2			1	45
T-31					1			1		1		1					1							5
T-37		1	5					8			11	5			4		1		2					37
S-39			1				3	14			9	1			9		2							39
N-2															1		1							2
N-5	1		1					3		1				1										7
N-7																								0
Caves								4		1	4						1				12	3		25
Telixtac	1		1		1			18				5		3										29
Huazulco		1			1							2												4
Totals	25	104	112	4	79	8	38	702	6	59	274	101	12	77	90	28	235	69	45	22	28	22	7	2,147

C2 (Fig. 14.3c–d; 103 specimens)

C2 figurines contrast with C1's mainly in the depiction of the chin, which is usually well formed and often pointed. The eyes of C2 figurines have the fillet of clay which forms the coffee bean shape well smoothed to leave only a soft ridge around the eye. Overall, the finishing on C2 figurines is quite superior to that found on C1's. Vaillant (1930:103) described C2's as having "a greater refinement of feature than C1. The planes of the face through the reduction of the fillets forming the features, increase to a more nearly natural size. By decreasing the size of the mouth fillet, the contours of the chin are modeled naturalistically."

As with the C1's, C2's have been chronologically classified by Tolstoy (1979:Fig. 1) within the Bomba and El Arbolillo phases, and at Chalcatzingo they do occur in good Barranca phase contexts (T-9B and T-29), although they are lacking on N-2. One was found at Huazulco, but none were recovered from the larger site of Telixtac.

C2 figurines from Chalcatzingo share general attribute similarities with the High Turban Slit Eye Heads from the Tehuacan Valley (MacNeish, Peterson, and Flannery 1970:95).

C3 (Fig. 14.3e–g; 111 specimens)

C3 figurines are distinguished from C1's and C2's in that the face is not prognathic and its outline is much more ovate than the faces of the previous two types. Noses and lips in particular do not protrude to the extent seen in the C1 and C2 figurines. C3 figurines may or may not have well-developed chins. Vaillant (1930:104) stated that the C3 type "shows more positive diagnostic traits. The face is heavy in contour and oblong in outline . . . , and the headdress is equally coarse and simple."

C3 figurines are placed by Tolstoy (1979:Fig. 1) within the Early La Pastora phase, the equivalent of the Early Cantera subphase at Chalcatzingo. The Chalcatzingo sample contains some C3 figurines from Barranca phase contexts, suggesting that perhaps our chronologies are

not well matched.

MacNeish, Peterson, and Flannery (1970:93) identified a number of Early Santa María phase specimens as C3a and C3d figurines. These identifications seem to have been made on the basis of filleting of the eyes. In my opinion the correspondences are not very close.

C4 (Fig. 14.3h; 4 specimens)

Due to the small number of figurines of this type from our collection, nothing can be added to Vaillant's original description (1930:107): "The diagnostic traits comprise a flat, thin head, conical in outline, features in relatively low relief, the chin indicated by a fillet applied and smoothed and a headdress presented in frankly two dimensions."

All C4 figurines at Chalcatzingo come from general (non-structure) excavations on the Plaza Central. The sample size renders comparisons of this type to others of little value.

C5 (Fig. 14.3i–j; 77 specimens)

Type C5 contains some of the most finely made C figurines. The face is

Table 14.2. Distribution of Figurine Body Types

Area	B-CBD	ChBD	DBD	EBD	Totals
PC Strs. 1 & 2	200	127	2	2	331
PC Str. 6			1		1
PC other	868	377	43	9	1,297
CT-1	21	13	2		36
CT-2	14	24			38
T-4	32	48		2	82
T-6	36	26	4	2	68
T-9A	23	22	1		46
T-9B	29	10			39
T-11	97	50	5	1	153
T-15 Str. 1	12	6	4		22
T-15 Str. 5	11	5			16
T-15 other	11	6	1		18
T-17	2		1		3
T-20	115	86	6	2	209
T-21	36	39	1		76
T-23	118	60	17		195
T-24	54	123			177
T-25	57	123			180
T-27	95	92			187
T-29	38	10			48
T-31	7	2			9
T-37	36	36			72
S-39	21	30			51
N-2			16		16
N-5	9	2			11
N-7	8				8
Caves	13	3	2		18
Telixtac	21	11	2		34
Huazulco	5	2			7
Totals	1,989	1,333	108	18	3,448

rounded in plan and relatively flat in cross-section. The fillets of clay used to model the various features of the face are carefully formed and well smoothed. The rather elaborate headdresses seen on the C5 figurines illustrated are characteristic of the type. Vaillant (1930:108) defined C5's in the following manner: "The heads are relatively large; the face plump and rounded. The nose, which closely follows the convexity of the face which is completed usually with the chin underdeveloped, gives the countenance a sheep-like appearance."

Tolstoy (1979: Fig. 1) has placed the C5 figurines, as well as the C3's, in the Early La Pastora phase, equivalent to Early Cantera subphase at Chalcatzingo. The Chalcatzingo C5 figurines seem to confirm this chronological placement. In addition, one C5 figurine was found at Telixtac and one at Huazulco. No close correspondences occur with types outside of the Morelos-Valley of Mexico area.

C6 (Fig. 14.3k; 8 specimens)

Type C6, very rare at Chalcatzingo, contrasts with types C1-C5 mainly in its eye form. The eyes of C6 figurines are basically a square variant of the coffee bean eye. According to Vaillant (1930:111), "The proportions of the face are naturalistic and there is a tendency to work the fillets into the base clay of the face."

In eye treatment the C6 figurines show some general similarities to figurines from a number of sites, including La Venta and Tres Zapotes. These correspondences may be insignificant, particularly in view of the small sample size from Chalcatzingo.

C7 (Fig. 14.3l-n; 38 specimens)

Type C7 has a rather great range of variability in the treatment of the facial features with the exception of the eyes. It is the eye form which contrasts C7 with the C1-C6 types. The eye is the coffee bean shape but has the pupil depicted by punctation. In all other characteristics, C7 shows as much internal variability as seen in Types C1-C5 combined. Some C7 figurines are closely similar to C8's

and are occasionally difficult to differentiate from them.

Based on eye treatment, C7's show some correspondences to five of the Tehuacan types: Hollow Lowland Heads of the Early Santa Maria phase (MacNeish, Peterson, and Flannery 1970: Fig. 48), the La Venta Hairknot type of the Early Santa Maria phase (ibid.: Fig. 53; the Chalcatzingo C7 figurine is also the type most likely to display a hairknot), the Multi-Hairknot Head of the Early Santa Maria phase (ibid.: Fig. 56), the Doughnut-eye Heads (ibid.: Fig. 55). The Tehuacan specimens of these types are quite crudely formed in comparison to Chalcatzingo's C7's.

C8 (Figs. 14.1a, c, 14.2a, 27.1; 684 specimens)

The single feature which best contrasts all C8's with the rest of the C series is the depiction of the eyes. The eye is not the basic coffee bean shape seen in other C types. Rather than by the application of a fillet, the eye is made by incising and gouging directly into the face. The pupils are almost always shown by a deep punctation in the inside corner, giving the figurines a cross-eyed appearance. An additional important characteristic is the portrayal of the eyebrows by lightly incised lines.

Whereas eye and eyebrow execution, plus the well-modeled nature of these figurines, serves as the basis for classifying these as one type, they exhibit a wide range of variation in the execution of the general facial features. This variation is apparently not random or of a type which might be expected of different figurine workshops: instead, it appears to be patterned. Grove (Chapter 27) believes that C8 figurines are not stylized in the sense of most C, D, and K type figurines, but rather are portrait figurines of specific individuals. He sees the variation within the C8 type as reflecting the personal physical differences of these personages, and points out that there is a definite correlation between the individuals portrayed and headdress shapes.

The Matamoros type figurines from the Late Santa Maria phase at Tehuacan (MacNeish, Peterson, and Flannery 1970: Fig. 80) are similar to C8's from Chalcatzingo but lack the distinctive eye attribute. Early Santa Maria phase Crescentic Cap Heads (ibid.: Fig. 51) share turban forms with some of the C8 varieties, but neither this type nor the Matamoros type appears to have portrait qualities.



Figure 14.3. Type C figurine heads: *a–b*, C1; *c–d*, C2; *e–g*, C3; *h*, C4; *i–j*, C5; *k*, C6; *l–n*, C-7.

At least three Gulf Coast (Tres Zapotes) figurine types show similarities to Chalcatzingo C8 figurines: Classic Pointed Chin type, Classic Prognathic Type, and Classic Beatific Type (Weiant 1943: Figs. 1–7). While the similarities are often general, Grove (Chapter 27) believes that some of the figurines classified within these Tres Zapotes types may be portrait figurines, in part because the figurines lack the stylized “sameness” of other figurine types. The fact that both the Gulf Coast and Chalcatzingo appear to have special portrait figurines may reflect the close ties between them.

C9 (Fig. 14.4; 6 specimens)

Vaillant's Zacatenco (1930) and El Arbolillo (1935) reports did not document the C9 figurine type. It was identified instead during his work at Gualupita, Morelos (Vaillant and Vaillant 1934: 38), and has subsequently been found at Early Formative sites throughout the central

highlands. Using the illustrated C9 figurines from Gualupita leads to some confusion in differentiating D from C9 because, while many of the figurines with Olmec baby-faces fall within the C9 type, most of the C9's originally illustrated by the Vaillants (1934: Fig. 10, nos. 2–4, 7–10) are so similar to Type D figurines that Chalcatzingo figurines with those attributes are difficult to classify. Therefore, I have followed the practice most current today (e.g., Reyna Robles 1971: 277–301, Figs. 56–66) of using the C9 type as a catch-all for baby-face figurines. When figurines were more similar to Vaillant's Type D and lacked clear baby-face attributes, they were placed in the D category.

Over three hundred Amate phase D and K figurines were recovered at Chalcatzingo, while the C9 sample is very small, comprising only about 1 percent of the Early Formative figurines. At Zoha-

pilco in the Valley of Mexico (Niederberger 1976: Chart 8), C9 (Pilli) figurines range from 9 to 69 percent of the figurine assemblage in the Early Formative levels, a striking contrast to Chalcatzingo. The low percentages of C9 figurines at Chalcatzingo may surprise many who think of Chalcatzingo as an Olmec site. All Chalcatzingo C9 baby-face figurines come from areas with Amate phase fill.

Because C9's represent the wide range of baby-face figurines, they compare readily to baby-face figurines in many areas of Mesoamerica. These comparisons include Pilli, Isla, Pahuacan, and Tenayo figurine types at Zohapilco (Niederberger 1976: 209–213, Figs. 74–76, 78, 82–83), the Baby Face type at Tres Zapotes (Weiant 1943: Pls. 18–19), and Baby Face, Plough Eye, and Tres Zapotes Chin Strap types from Tehuacan (MacNeish, Peterson, and Flannery 1970: Figs. 47, 52, 53), to name only a few.

Ch1 (Fig. 14.5a–h; 513 specimens [59 Ch1-1, 274 Ch1-2, 94 Ch1-3, 12 Ch1-4, 74 Ch1-5])

We have defined within the Chalcatzingo sample a series of types which bear strong resemblances to the C1–C5 figurines of Vaillant's typology in head shape, modeling of the face, and turban forms, but differ in eye treatment. The eyes are executed by gouging rather than filleting. Two gouges form the lateral edges of each eye, and a pupil between these is created by another smaller gouge or a punctuation. Types Ch1-3–Ch1-5 also seem considerably more prognathic than Types C3–C5.

Because the unusual eye treatment which sets the Ch1 types apart from C types appears to be a phenomenon restricted mainly to the Chalcatzingo region (see for example Reyna Robles

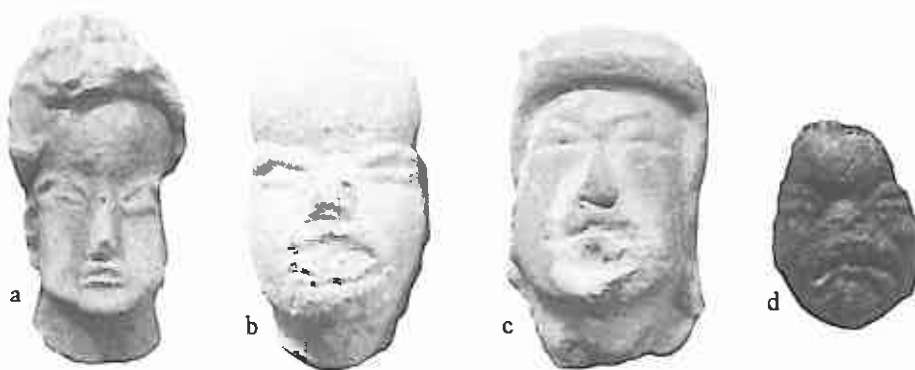


Figure 14.4. C9 figurines. Each head is ca. 4 cm tall.



Figure 14.5. Type Ch figurines: a–f, Ch1-2; g–h, Ch1-5; i–n, Ch1-1; o–q, Ch2.

1971:171, Pl. 8], they may represent a Chalcatzingo regional variation of the standard Valley of Mexico Type C figurines. In some instances the Ch1 type occurs in greater quantities than its C counterpart. The distributions of these Ch1 figurines and their C counterparts across the site are seldom identical (Table 14.1; see also Chapter 15).

Because the Ch1 type of eye execution is not common in central Mexico, it is interesting to note that among the Abarant Types at Tehuacan, which date to the Late Santa María phase (MacNeish, Peterson, and Flannery 1970:Fig. 85), there is at least one with a similar eye treatment. No figurines with this eye treatment have been published from Valley of Mexico collections.

Ch2 (Fig. 14.5o–q; 90 specimens)

The type given the designation Ch2 bears no resemblance to any of Vaillant's material. It is characterized by the following features: (1) the eyes are depicted by making three slashes in a triangle, slightly raising the area inside the triangle; (2) the nose is quite large and protruding, with the mouth usually depicted as a slash directly below the nose; and (3) the turban is high and almost always has a distinctive crossing element near the forehead, giving it the effect of an old-fashioned top hat.

There were no close correspondences between Ch2 and other central Mexican figurine types.

D (Fig. 14.6a–c; 263 specimens [28 D1, 235 D2])

As Vaillant noted (1930:116), "It is not possible . . . to predicate exactly the line of demarcation between Di and Dii." These two D types do, however, contrast sharply with the whole C series. D heads are usually oblong to square in plan and quite straight in cross section. The features are finely modeled and the fillets of clay well smoothed into the base. Nearly all D figurines are shown wearing turbans, and these usually continue in line with the forehead. Unlike most C figurines, many D's are modeled on the back as well as the front surface.

The only consistent contrast I was able to find between D1 and D2 figurines is the tendency for D1's to have heads which are rounded into cross-section. The D2 heads are always quite flat. However, even in this one diagnostic there is gradation.

Vaillant described the D figurines in the following manner (1930:115): "The most distinctive features of Type Di are a



Figure 14.6. Early Formative figurines: a–c, D2; d–e, K; f–h, K Crude.

body shown always erect and modeled in the Type C manner, but with more grace. The heads are small and in direct natural proportion to the body. The features are naturalistic and the filleting technique is refined to a point where it is no longer distinctive . . . Attention is especially given by gouging and by perforation to present the eye and its pupil realistically and to show the mouth and teeth." On the other hand, "Type Dii is characterized by the presentation of the features slightly coarser and more formalized than that of Type Di. The body is apt to be cruder, flatter and squarer than its predecessors. Especially definitive is the attenuation of the fillets composing the eyes and eyebrows" (ibid.: 119).

Few pure Early Formative levels were excavated at Chalcatzingo, and most D figurines come from mixed contexts. The Tehuacan Valley types show resemblances to type D1, i.e., the Trapiche Bunned-Helmet type of the Early Santa María phase (MacNeish, Peterson, and Flannery 1970:Fig. 49), as well as the specimens specifically identified as D1's (ibid.: Fig. 50). These latter show only a fair correspondence to Chalcatzingo's D1's, and the Tehuacan figurines tend to be cruder.

K (Fig. 14.6d–h; 114 specimens [69 K, 45 K Crude])

Vaillant (1930:112) said of Type K that it is "characterized by a round face, simple headdress with details shown by incision, a mouth made by two gouges, and the eye depicted by two broad gouges on a heavy fillet." Since Vaillant's classification was created, the sample of K figurines has become far larger, and some modifications must be made in this description.

K figurines can be readily recognized by their eye forms. The eyes are executed by two broad gouges, sometimes placed on a fillet of clay and sometimes placed directly on the face. A pupil is sometimes incised between the gouges.

The K Crude (KC) variant has a form quite similar to the generalized K type, but these figurines are much less carefully modeled. The eyes and mouth are often executed with a single deep gouge made directly on the face with a squared implement.

There are two types from the Tehuacan Valley which are similar to some of the Type K figurines from Chalcatzingo. The Flat Punched Feature Heads (MacNeish, Peterson, and Flannery 1970:Fig. 15) and the Early Ajalpan phase Spheri-

cal Punched Feature Heads (ibid.: Fig. 14) resemble some of the cruder K types recovered at Chalcatzingo.

A (22 specimens)

Type A figurines are characterized by a basically round face with the features rather crudely depicted. Few specimens show any attempt at fine modeling. The most diagnostic feature of the type is the eye form. The eyes are depicted by two ploughs into the face, sometimes with a punctuation between them to show the pupil. Vaillant (1930:120) said of this type: "Its definitive features are squat bodies . . . a broad round face with nose and mouth fillets sunk into a central groove. The eye is made usually by two ploughs with a central perforation. The headdress is simple and heavy."

The Typical Vaillant's Type A from Tres Zapotes (Weiant 1943:Pls. 10-12) actually bears only a general resemblance to A figurines from Chalcatzingo and central Mexico.

E (28 specimens)

As illustrated by Vaillant (1930:130), Type E is highly variable. Some of the specimens placed in Type E would fit as well in A or G. The specimens typed as E from the Chalcatzingo collection were placed in that type because they possess an eye form depicted by placing a single stroke through a fillet of clay. The eye fillets are not smoothed, and the majority of E figurines from Chalcatzingo are quite crude. According to Vaillant (1930:131), "The head is flat in back and the face is pinched forward into an almost bird-like prognathism." The quantity of this type at Chalcatzingo is too small to provide any meaningful distribution or temporal data.

MacNeish, Peterson, and Flannery (1970: Fig. 54) identify a number of specimens at Tehuacan as Type E, and this identification appears to be reasonably well based. The Standing Ticoman Body (ibid.: Fig. 18) is the same type of body sometimes found associated with Type E heads.

F (22 specimens)

Type F may be a residual category of very crude pieces. The face is very prognathic with the features carelessly modeled. The head is often squashed straight onto the shoulders with no attempt to depict a neck. Vaillant's (1930:128) description of this type is that "the head is almost inhuman, so crudely portrayed are the features. The nose and mouth fillets occupy a large space on the highly convex and prognathic face, while the

brow recedes." The Chalcatzingo sample is too small to provide good data on distribution.

G (7 specimens)

The figurines typed as G from the Chalcatzingo collection were all characterized by an eye form executed by two slashes perpendicular to the long axis of the face. In some specimens, a third, shorter slash was placed between the first two, and in other cases a punctuation was used to depict the pupil. Vaillant (1930:132) described these figurines as follows: "The heads are narrow and pinched into a bird rather than a human face . . . The flat-backed, pointed-faced heads receive the most rudimentary delineation of features by incision."

G figurines are very rare in the Chalcatzingo assemblage. The Tehuacan Valley specimens identified as Type G (MacNeish, Peterson, and Flannery 1970: Fig. 82) are similar to specimens of this type in our sample.

Body Types

B-C, Ch, D, and E Body (Fig. 14.7; 3,448 specimens [1,989 B-C, 1,333 Ch, 108 D, 18 E])

In this study, headless body fragments have been treated separately and classified into four types independent of the head types. These are B-C, Ch, D, and E. Other body fragments were put into a residual category which is not a type. The B-C and Ch bodies are both associated with C and Ch figurines, but not necessarily respectively. Ch heads may be found on B-C bodies, and C heads (particularly C8's) occur on Ch bodies. The plan for both of these body types is the same: a pudgy figurine, usually standing. The distinction between B-C and Ch bodies is the heavy grooving around the joints associated with the latter type.

It is sometimes (but not always) possible to distinguish D bodies from B-C and Ch bodies. The classification is based on two distinctions: D bodies tend to be slightly squared-off, especially in the limbs, and they are frequently modeled on both sides, particularly in depicting the buttocks. Another distinction, which is less diagnostic but which can be helpful, is that D figurines tend to be wasp-waisted and flat-chested, while B-C and Ch figurines tend to be chubby and barrel-chested.

E bodies are distinguished (rather unsatisfactorily) by the following criteria: legs jutting off from the body at a sharp angle, a "gingerbread man" appearance,

and breasts shown as appliquéd dots. The classification of this type is tenuous, and there is no example from Chalcatzingo of a Type E head associated with any large part of its body.

The treatment of bodies in this chapter and in studies of comparative collections precludes any useful comparisons.

Miscellaneous Figurines

Some figurine heads were recovered which were not classifiable within the Vaillant typology or that set up for Chalcatzingo, and few of these bear similarities to published figurines from other Mesoamerican sites. As these are generally solitary pieces, they do not warrant new types. Many of these unique pieces are probably non-local, but thin-section analyses have not been carried out at this time to test this assumption.

Six fragmentary figurines which appear to be modeled after the seated personage of Monument 2 (Fig. 10.13d) were found during the excavations, and a complete figurine from Chalcatzingo, in the same style, occurs in a private collection (Fig. 27.4e). All the pieces depict a seated person, arms and legs stretched forward. Two clearly show the headdress projecting slightly forward, although it does not curve upward as does the horned headdress shown in Monument 2. These same two figurines also have suspension holes at the rear of the neck. Two of the fragments were recovered from T-4, two from PC Structure 2, and one each from T-25 and T-27.

Fragments of large, hollow figurines are rare in our sample. Among the several recovered are the crown of the head of a white-slipped figurine (Fig. 14.8a) presumably from an Amate phase baby-face figure although found in a Cantera phase context; the muzzle portion of a jaguar face from a Barranca phase context (Fig. 14.8b); and a white-slipped face with red hematite pigmentation on the ear and chin areas (Fig. 14.8c) from a Cantera phase provenience. There are also a few hollow Amate phase D-K figurines.

Although Late Formative, Classic, and Postclassic figurines are not dealt with in this chapter, a few deserve mention. Among the burial furniture of Late Formative double burial 117-118 were three identical figurines, persons with duck-bill masks gazing slightly upward (Fig. 8.17). Perhaps the most spectacular figurine seen during our research was discovered by one of the villagers, who

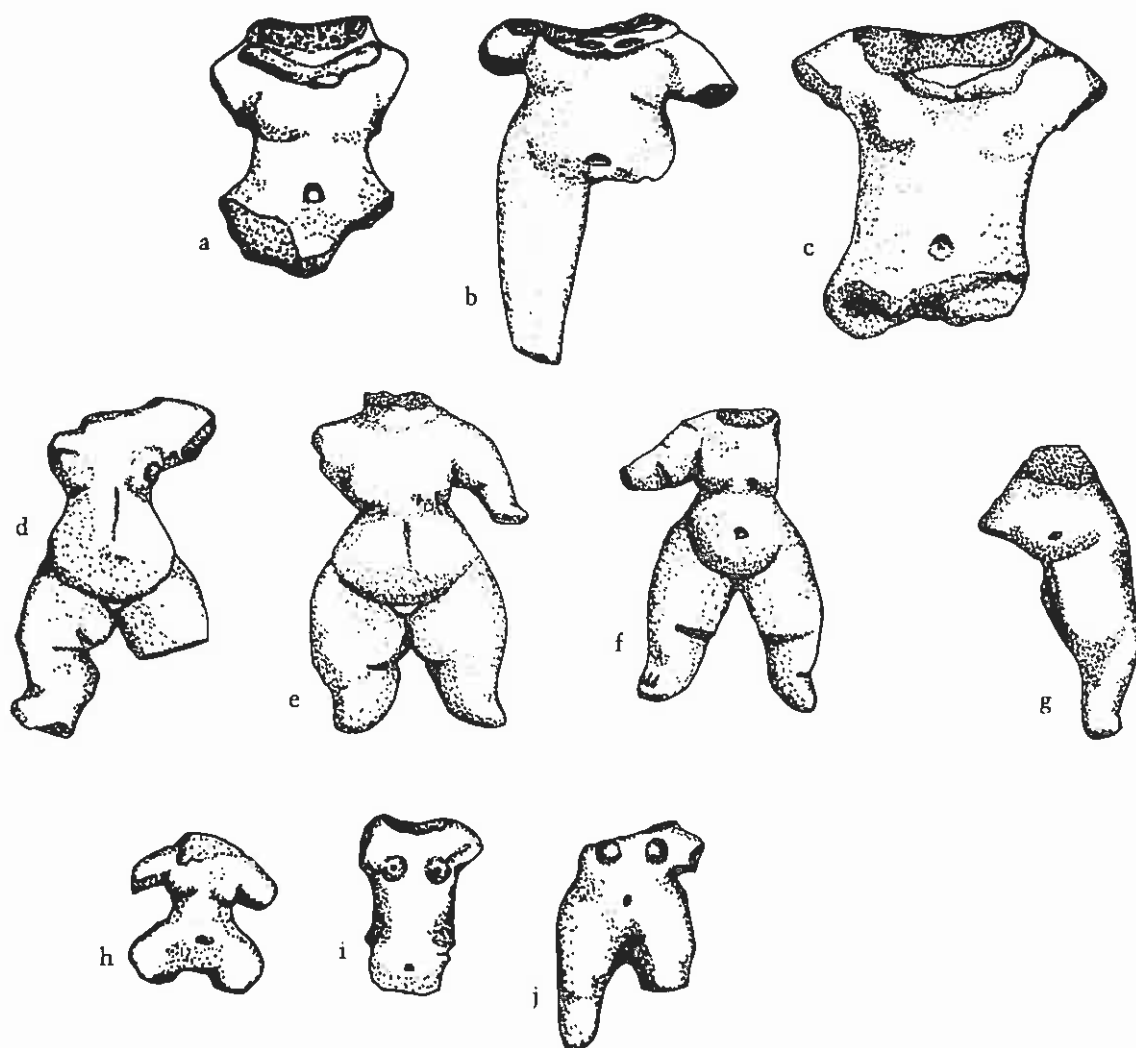


Figure 14.7. Figurine bodies: *a–c*, B-C; *d–f*, Ch1; *g*, D; *h–j*, E.

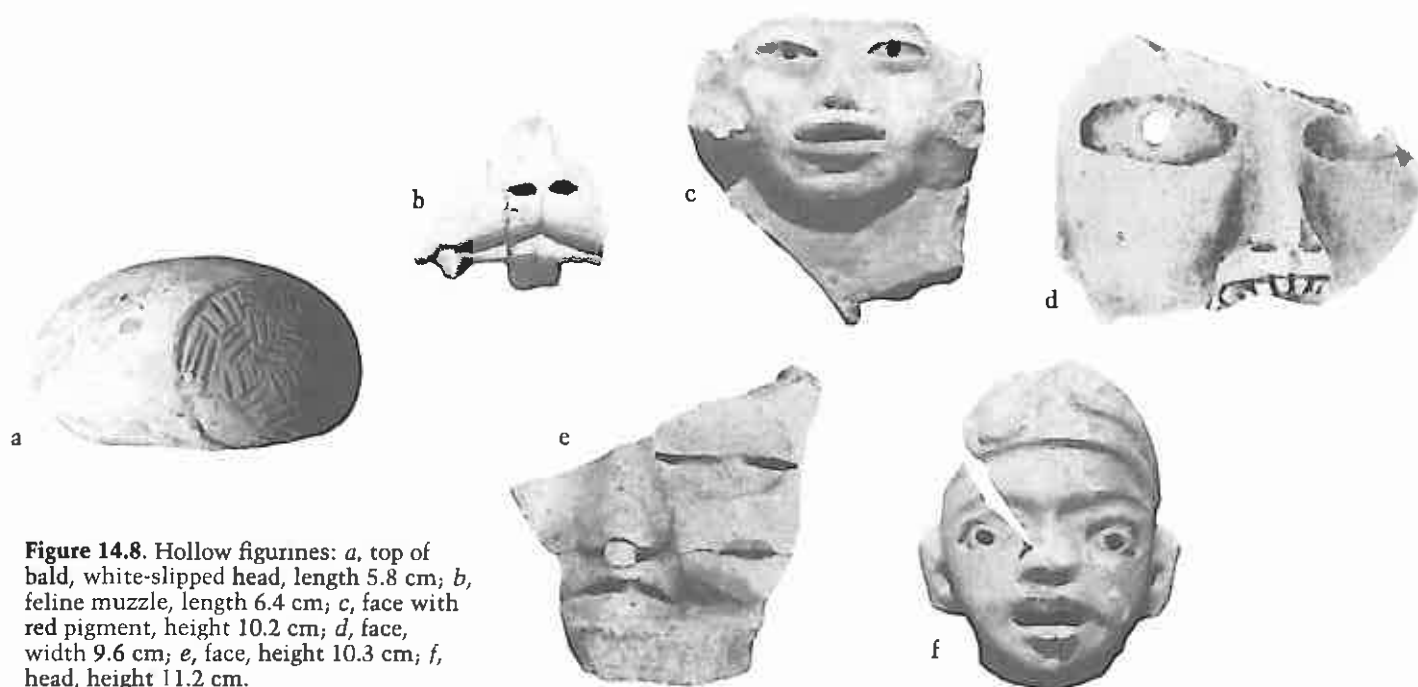


Figure 14.8. Hollow figurines: *a*, top of bald, white-slipped head, length 5.8 cm; *b*, feline muzzle, length 6.4 cm; *c*, face with red pigment, height 10.2 cm; *d*, face, width 9.6 cm; *e*, face, height 10.3 cm; *f*, head, height 11.2 cm.

stated it came from his backyard. However, because his *ejido* land includes the Plaza Central and T-3, it is possible that the piece actually came from this part of the site. This large, hollow figurine depicts a duality, the right side of the face being human while the left side is a jaguar. Stylistically, the human side of the face seems similar to some Teotihuacan art, suggesting that the figure may date to the Classic period. The figurine was donated to INAH.

SUMMARY OF DESIGN ATTRIBUTE ANALYSIS

While useful information has come from the whole piece typology, its limitations have proven particularly severe in the study of Formative figurines. This is largely the result of two binding constraints. When a whole piece typology is used, one is assuming that: (1) only the non-shared variability between types is interesting, and any variability that crosscuts types can be safely ignored; and (2) with whole piece typologies, there is no attempt to find isomorphic taxa, only types which somewhat resemble one another.

Thus, in order to deal with problems other than simple chronology, I felt that any further analysis should proceed at the attribute level where true isomorphisms can be expected to occur. Analyses at this level were performed (see Harlan 1975; 1979) using as the fundamental unit of observation the depiction of individual figurine parts. In this section I will briefly summarize the figurine attributes and discuss the implications of their observed variability at Chalcatzingo.

The 142 attribute classes used in the analysis were all based on non-unique occurrences in the assemblage. These attributes include various eye, mouth, nose, and hair forms; turban types, embellishments, and buttons; ear and neck ornaments; arm positions; pregnancy types; and hand, breast, navel, leg, and clothing forms. This last category consists of waistbands, pubic covers, knee pads, sandals, and various other clothing and ornament attributes. Body decoration and categories for items carried or formed with the figurine (such as a burden or a chair) were also included in the analysis. Each of the attribute classes is described in more detail in Appendix E.

The reasons for this attribute variability were probably many and varied,

but they are most likely associated with the functions of the figurines. Thus, variability may be expected to reflect the activities in which the figurines were used. Furthermore, changes in these activities through time are also expressed in the variability (see Harlan 1979).

Given that variability is primarily related to function in the broad sense, important sources of variability must be examined. These include tradition of manufacture, aesthetic considerations, and iconography, i.e., the need to convey meaning through symbols. Little is known of the learning tradition of figurine manufacture. However, this much can be said: (1) There are indications that figurines may have been manufactured by specialists. (2) Nearly all of the figurines found at Chalcatzingo seem to have been made in the same basic tradition. (3) There are indications that access to the specialized knowledge of figurine manufacture or perhaps to the figurines themselves changed through time (Harlan 1979).

The role of aesthetics in figurine manufacture is particularly difficult to pin down since this whole area is so poorly understood. There is no doubt that some figurine variability was generated in response to considerations of taste. What is hard to determine is how much patterning can be expected in that variability. If aesthetic considerations were purely idiosyncratic to the individual makers of figurines, then it is likely that most or all of the aesthetic variability has been drawn off into the unique design attributes. If aesthetic variability is patterned with respect to social groups or any other feature of the prehistoric community, then some part of the redundant variability must be imputed to it. At present, there is no theory of aesthetics which would permit a rational choice between these alternatives.

If the figurines functioned integrally with an ideological system, then constraints imposed by an iconography would be a major source of variability. Since this appears to me to be the most likely function of the figurines, more detailed consideration will be given to this area of variability. Here again, however, the discussion is hampered by a lack of theory.

If the figurines were used in ritual, they were symbolic of some aspect of the ideology behind that ritual and so needed to convey meaning. This view of figurine variability has implications for expected

patterning. Certain attributes should vary only within set limits, since a particular combination of symbols and depictions is required to insure that the figurine conveys its intended meaning. This combination may or may not correspond to the whole piece types set up by the archaeologist. While there is no way to specify the content of the prehistoric ideology or even to truly determine which of the attributes on the figurines carry meaning, the attributes themselves and their patterned distribution may provide some clues of how the informational system may have worked.

First, it would seem that some parts of the figurines carried the bulk of the informational load. In the Chalcatzingo collection, the main information bearers seem to be a series of features on and around the head. These parts appear to be key information carriers for two reasons: they are highly variable, yet there is a high degree of redundancy in the variability. Vaillant (1930) implicitly recognized this fact when he based his main typological distinctions on the figurines' heads.

Nevertheless, it does not seem that all of the features of the heads had an equal role in carrying information. The depictions of the turbans may have been among the most important. This is suggested by the large variety of ways in which the turbans were wrapped and in the consistent associations between wraps and ornamentation or embellishment. Ear ornaments seem another likely candidate for high symbolic content. While not nearly as variable as turban forms, their depictions are both consistent and patterned. Eye forms may have symbolic content, but here the ground is less sure. While there were eighteen different ways to show the eyes, and the occurrence of the variants is patterned archaeologically, a good deal of the variability takes place over time, and changing aesthetics or tradition of manufacture may have played a major role in this variability. Depictions of the nose, mouth, and other anatomical parts of the head seem least likely to carry iconic content. Here the differences between the forms are much less marked and distributional patterning much harder to perceive.

While the most highly variable part of any given figurine is generally its head, and all other body parts are much less variable, there may still be some iconic information below the figurine's neck.

The positions of the limbs may carry meaning, and the depiction of the thorax and abdomen sometimes distinguishes female figurines. It is interesting to note that none of the figurines in the Chalcatzingo collection were definitely male. They were either recognizably female (having developed breasts or obvious signs of pregnancy) or they were sexless. Male genitalia were never depicted, and it is impossible to say that the simple lines placed on some female figurines were intended to depict female genitalia. Sure depictions of genitalia are seen on some of Vaillant's specimens (1930: Pl. 26, middle row 8, 10, 11), but only on Type E figurines.

Other than turbans, clothing is rare in the Chalcatzingo figurine assemblage. A number of kinds of sandals are depicted, and the more common depictions are quite consistent. Garments on the body are very rare, and it may be that when used the figurines were dressed in perishable materials.

A rare but striking exception to the general nudity is the pads on the knees, hips, and thighs which may have been intended to depict equipment for the ball game. Aside from this one area, it is hard to assess the possible iconic content of the few garments which were depicted.

While it is possible to use variability and its redundancy to suggest which parts of the figurines carried iconic information, the content of the message cannot yet be decoded. Even this, however, may be possible at some future time. This interpretation will not come from archaeological material alone. The hope lies in an intensive comparative study of Formative cultures' ideologies and their material culture correlates.

In this discussion of figurine variability, attention must also be given to the level of integration of the prehistoric culture and its implications for the systems of figurine manufacture and distribution. In dealing with these two factors, much more support is available from archaeological data, both from Chalcatzingo and from other sites in the central highlands of Mexico.

It is not likely that the organization of society remained constant during the seven hundred years dealt with here (ca. 1200–500 BC). There is every indication that changes took place, and expectations concerning the figurines' variability and distribution must take account of this change. The relationship works both ways. If there is an expected

pattern of figurine variability assuming a particular level of social integration, the patterns of distribution observed in the archaeological record can be used to provide inferences about the level of social integration actually achieved during various periods.

This discussion will focus on two aspects of social organization which are particularly germane to the study of figurines: craft specialization and access to specialist-produced goods. These are at least partially independent of one another, and both have implications for expected variability and its patterned distribution.

Some degree of craft specialization can be found at almost any level of social integration. It begins to assume real importance, however, in what Morton Fried (1967) has called "ranked" societies, a level which Chalcatzingo had certainly attained by the Middle Formative. There is the possibility that the Chalcatzingo figurines (and other Formative figurines) were not produced by specialists. They may have been produced by each household unit for its own use. Although this is a likely situation for some other ceramic artifacts in Formative period culture, it does not seem applicable for figurines, assuming an "ideotechnic" (Binford 1962) function for them. Religious specialists are among the earliest to emerge in human societies and may be expected at the lowest levels of integration achieved by Formative societies. Although craft specialists have done the actual forming and firing, religious specialists would have been ultimately responsible for the iconic content. Further, while a few of the Chalcatzingo figurines appear crude and roughly made, the majority are remarkable for both the quality of the workmanship and the uniformity of that quality.

If the Chalcatzingo figurines were produced by specialists who were members of an egalitarian society, hereditary privilege would have had no influence on access to their products. Subject to need for the product, ability to compensate the specialist, and perhaps an achieved prerogative to use it, any member of an egalitarian society has equal access to the products of its specialists. Some factors might intervene to constrain the choice of an individual specialist by an individual consumer (such as kinship ties, a traditional relationship between one particular group and one specialist, or some similar mechanism), and these relation-

ships can be expected to create some clusters of variability in the archaeological record left by such a society. The range of variability, on the other hand, should be essentially consistent throughout the whole community (and thus over the entire archaeological site). In the particular case of Chalcatzingo, if the site were occupied by an egalitarian society, there might be clusters of design attributes associated with particular areas of the site, but there would be no reason to expect greater variability within any one of the clusters.

The pattern of equal variability would not hold if the specialists operated within a ranked or chiefdom level society. Here there are hereditary differences in status, and persons in the higher levels command greater access to the products of the specialists. There may even be a tendency for specialists to derive all or part of their subsistence from members of their society's upper levels.

In the archaeological remains of a ranked society, the expected pattern of figurine variability is different. In this case, not only will associations between particular groups and particular specialists create clusters of attributes, but there may also be consistent differences between the areas of the site associated with the elite and those associated with the non-elite. If the figurines were only toys or decorative items, we might expect that the only differences would be in quality and abundance. If the figurines were ideotechnic in function, there might be differences in diversity as well. Since this study assumes an ideotechnic function, this last point merits further discussion.

As indicated above, it is probably not correct to view the specialists responsible for figurine production in the same way that the craft specialists who produced pottery, stone tools, and other utilitarian items might be viewed. The key individual in determining figurine variability may have been a religious practitioner rather than a craft specialist. This would mean that the role of the religious practitioner in determining figurine variability was far more important than the role of the craft specialists who may have formed the artifacts, since any serious flaw in the iconographic content may have negated the efficacy of the figurine.

An implication of this line of reasoning is that the unequal availability of figurines reflects an unequal access to ritual.

It is for this reason that we might expect differential diversity in the design attributes placed on the figurines manufactured for the elite. Some of the design attributes would correspond to aspects of the iconography reserved for the elite. Since the elite must, by definition, have been in a minority in the society, we might also expect these reserved elements to be among the least frequent.

The results of the figurine attribute analysis (Harlan 1979) support many of these hypotheses and expectations. It is apparent that over a period of centuries figurine attributes began to cluster differently for the elite and non-elite areas of the site, a pattern "consistent with the assumption that the elite had developed as a distinct group that controlled the production and distribution of figurines" (ibid.:485). The quantity and diversity of figurines found in elite areas suggest that the elite had achieved greater access to the specialist producers. There is also a tendency for the rarest elements to occur most frequently in elite areas. These differences in attribute groupings most likely reflect the ideotechnic function of the figurines in a religious system dominated by the elite, who had access to a portion of the iconography which was not available to the non-elite.

It would seem that there were three foci of the figurine cult, each with its own particular aspect. First, there was the private ritual carried out in and around the elite residences which made use of figurines carrying a diverse range of design attributes (or iconographic elements). Second, there was the private ritual performed in or around the non-elite residences which made use of figurines with a limited range of iconographic elements. Finally, there was the ritual carried out in association with formal ceremonial features, like the altar on T-25. The figurines associated with this third activity also have a limited range of iconographic elements. This leads to the suggestion that this ritual was intended to serve the whole community.

In conclusion, the attribute analysis of the Chalcatzingo figurines suggests the following interpretation, which has implications for societal development in Mesoamerica as a whole: An elite emerged in the community and, among other things, achieved control of the religious system. Special features were constructed for elite-directed public ritual on behalf of the whole community. A portion of figurine variability (and by im-

plication an aspect of ritual) was reserved for elite use only.

This discussion has not been intended to argue any absolute superiority of design attribute analyses over whole piece typologies. Each has its advantages and drawbacks. The limitations of the design attribute analysis are most obvious in the comparative domain. The distribution of the design attributes within a single site can be highly informative, but the information produced by such analysis drops off sharply as more distant sites are included. When dealing with a Formative site like Chalcatzingo, one can presume that one deals with the archaeological remains left by members of the same community. Fluctuations in the frequencies of design attributes from one area of the site to another are not likely to result from differences in the opportunity for contact created by physical distance. This is not true when samples from geographically distant communities are included in the same analysis. Design attribute analysis and whole piece typology, then, are each important in the study of the Chalcatzingo figurines. The greater emphasis on design attribute analysis in this study stems from its greater utility in dealing with my main research problems.

RESUMEN DEL CAPÍTULO 14

Se analizaron con dos objetivos en mente, describir su variabilidad e investigar los patrones de la variabilidad a través del sitio, cerca de seis mil figurillas recuperadas en Chalcatzingo. La tipología descriptiva de pieza completa está basada en el trabajo de Vaillant en el Valle de México. Casi todos los tipos principales de figurillas del Formativo Temprano y Medio provenientes del Valle de México se encuentran también presentes en Chalcatzingo, en efecto las series D, K, y C. Además, existen en Chalcatzingo variantes de algunos de estos tipos para los cuales se produjeron nuevas designaciones: la Ch1, variedades 1 a 5, las cuales son contrapartes de las C1 a C5 de Vaillant; y la Ch2, la cual no parece corresponder a ninguno de los tipos de Vaillant; aun cuando queda claramente dentro de la misma tradición estilística que tienen las figurillas C y Ch1. Se crearon cuatro tipos de cuerpos para clasificar aquellas figurillas que no tenían cabeza.

La variabilidad de las figurillas refleja casi seguramente la función que tenían. Generalmente se presume que las figurillas fueron usadas en las actividades rituales, y que podrían proporcionar información iconográfica, en especial las características con relación a y alrededor de la cabeza. También pueden ser de alguna importancia simbólica las posiciones de las extremidades, el atuendo, indicaciones de embarazo, etc. El admitir que las figurillas tuvieran uso ritual y el que sus atributos pudieran tener connotación esotérica, implica que la manufactura y el uso de estos artefactos estaban probablemente bajo la dirección de especialistas quienes formaban parte del segmento elitico de la comunidad.

15. Distributional Analysis of Chalcatzingo Figurines

SUSAN D. GILLESPIE

The preceding chapter on figurines emphasized description, classification, and an analysis of figurine attributes. However, as the author noted, a whole piece analysis of figurine types would also be very enlightening. This chapter presents a brief analysis of the figurine types based on the data in Table 14.1, which shows the distribution of figurine (head) types across the site.

The general purpose of this study was to discern patterned variation in the manufacture, use, or deposition of figurines. Such variation may have been due to differences in chronology, preference, place of manufacture, etc., although the limited data precluded determining which of these alternatives best accounted for the figurine distribution.

Since only the distribution data given in Table 14.1 were available, the analysis was focused on some very basic problems, i.e., discerning variations in the frequencies of the different types for the site as a whole as well as for the individual terraces, and an investigation of the composition of the "figurine population" for each terrace (that is, what type combinations are present). Each of these problems is discussed in detail below.

FREQUENCIES OF EARLY AND MIDDLE FORMATIVE FIGURINE TYPES

Since Chalcatzingo is a multi-component site, the first step in this investigation of community patterning was to separate the figurines according to the period (Early, Middle, or Late Formative) they belong to, in order to hold the time factor constant. Unfortunately, a refined chronology of the Chalcatzingo figurine types is lacking. However, some types are known to date to the different periods by comparison to Valley of Mexico sites, and these comparisons were used to separate the types.

The known Early Formative types are D, K, and C9. The frequencies of these types at Chalcatzingo are shown in Figure 15.1 as percentages by comparing the frequency of each type to the total number of Early Formative types. Figure 15.2 displays similar data for the Middle Formative types (C1–C8, Ch1–Ch5, Ch2, A, and F). The Late Formative figurine types (E and G) are not considered since there was such a small occupation of the site at that time.

Figure 15.1 shows that the D2 figurine was by far the most common type during the Amate phase, comprising 61 percent of the Early Formative figurine population. It was therefore a basic type for the community, and it occurred in all the Amate phase components at the site. A similar preference for the D2 type apparently existed at other Early Formative sites in Morelos and the Valley of Mexico. As was mentioned in Chapter 14, "baby-face" (C9) figurines were rare at Amate phase Chalcatzingo.

For the Middle Formative, Figure 15.2 shows that all of the types of the C series, the major Valley of Mexico Middle Formative figurine series, were represented at Chalcatzingo. It is readily apparent that the most common Middle Formative figurine type at the site was the C8, which made up 41 percent of the figurine population of that period. Ch1-2's rank second in quantity, comprising 16 percent of the figurines, and the other types hover between 0.2 and 6 percent.

The abundance of C8's contrasts sharply with this type's rarity or absence at other Middle Formative sites outside the Chalcatzingo–Río Amatzinac area (Grove, personal communication). This distribution tends to support the hypothesis (Grove et al. 1976: 1206–1207) that the C8 type was significant to Chalcatzingo and its immediate interaction area. It is also evidence of the greater in-

dependence of this area from the Valley of Mexico during this time. This idea is further supported by the importance of the Ch series of types, which were not found in the Valley of Mexico but also seem local to the Chalcatzingo area.

Eighteen C8 figurines were recovered from Telixtac (62 percent of the figurine assemblage there), but none were found in the limited Huazulco sample (see Table 14.1). The Telixtac C8's all occurred in Area I, the location of the site's "elite" residence (Chapter 22). This distribution suggests that outside of Chalcatzingo, the C8 type may have been present only in larger villages, such as Telixtac, and then only with the elite of those villages. This is speculation, however, and project surface reconnaissance collections contain too few figurines to test these hypotheses. The importance of C8 figurines at Chalcatzingo is discussed in greater detail in a later section of this chapter.

DISTRIBUTION OF MIDDLE FORMATIVE FIGURINES AT CHALCATZINGO

Tables 14.1 and 14.2 show the distribution of all head and body figurine types for each excavation area at Chalcatzingo. None of these areas failed to yield figurines, and thus it can be presumed that general figurine usage was not restricted to certain site areas. Within the excavation areas, Harlan (1979: 472) noted that figurines were most frequently associated with structure floors, burial fill, and ceremonial features, and were less common in general fill.

Since figurines were found on all site areas, the next step in this analysis was to determine whether they were more abundant at certain parts of the site than others. In order to control for time, only Middle Formative figurines were considered for this and further analysis. Be-

cause the volume of earth excavated differed from one excavation area to the next, each area had to be weighted to make the figurine numbers comparable. A ratio of the number of figurines (head type only) to m^3 excavated was calculated for the different site areas (see Table 4.1). The ratios are presented in Table 15.1.

In calculating this ratio, some non-Middle Formative figurines were unavoidably included because this study derives from Table 14.1, which does not provide data on individual excavation units needed to separate out figurines from other periods. In order to reduce the error this procedure introduces, only certain Cantera phase terraces were selected for the analysis—PC (Strs. 1 and 2), T-4, T-11, T-20, T-23, T-24, T-25, and T-27. They were chosen because they have evidence of primarily Cantera phase structures, thus narrowing the time frame and context under consideration, and they all have a Middle Formative figurine sample size of at least fifty. These restrictions should render the data more comparable.

Table 15.1 shows that figurines are more abundant in some site areas than others, and thus are not equally distributed across the site. The ratio ranges from a low of .035 fig/ m^3 for T-4 to a high of 2.70 fig/ m^3 for T-24. Perhaps significantly, the "elite" areas of the site (PC, T-25, T-27?) do not have the highest quantities of figurines. Terraces 11, 20, and 24 all rank higher than any "elite" area in this respect.

T-24 has a ratio twice that of the next highest-ranking terraces (T-11 and T-20), indicating the radical nature of figurine frequency at this terrace, which is somewhat at a distance from the center of the site. It has been suggested (Harlan 1975) that the very high quantity of figurines on T-24 may be due to its location midway down the steep foothill slope of the Cerro Delgado. That is, many figurines may simply have washed down from areas above the terrace, areas which were not excavated. T-11 and T-20, which rank second and third in figurine quantity, are in somewhat comparable topographic positions, and the same explanation could apply. However, two terraces with the lowest figurine counts, T-4 and PC, are also in areas of heavy slopewash deposition. Thus, intrasite variation in figurine frequency may be significant for cultural rather than mechanical reasons.

An alternative, nonmechanical explanation which has been proposed for the

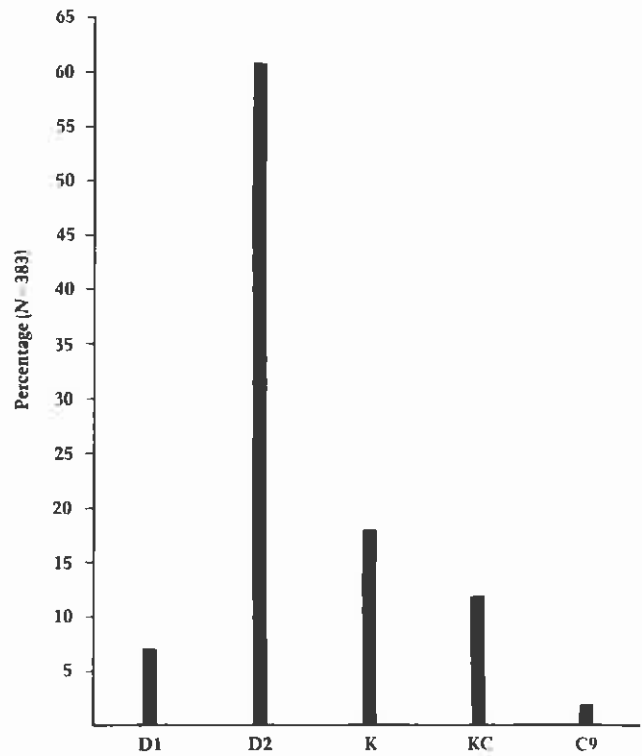


Figure 15.1. Frequency of Early Formative figurine types at Chalcatzingo.

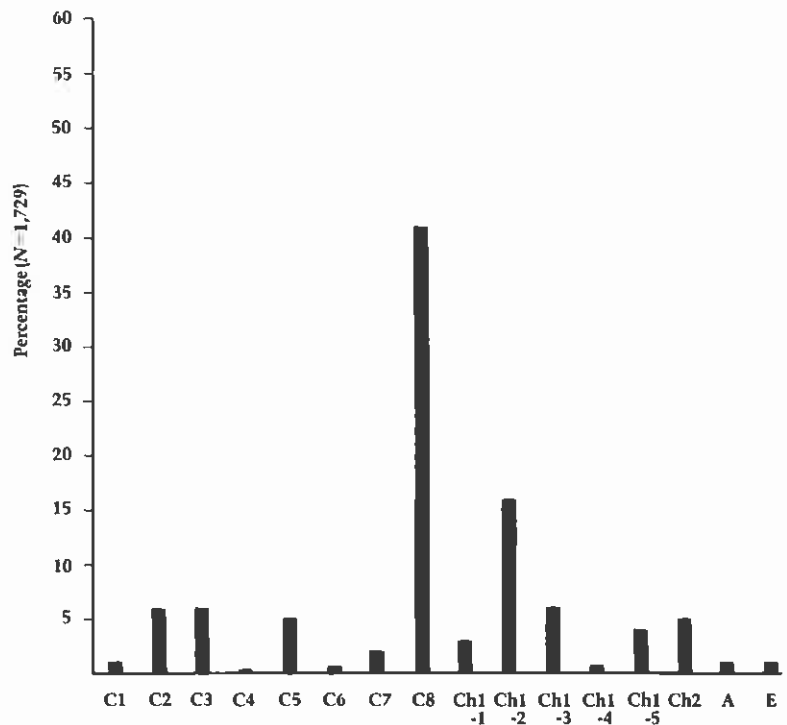


Figure 15.2. Frequency of Middle Formative figurine types at Chalcatzingo.

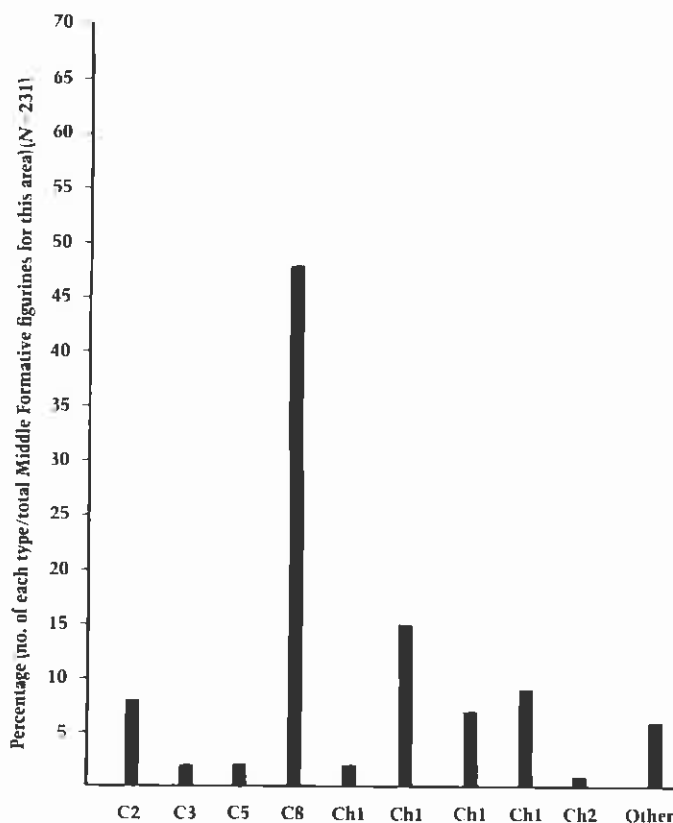


Figure 15.3. Middle Formative figurine population at PC Structures 1 and 2.

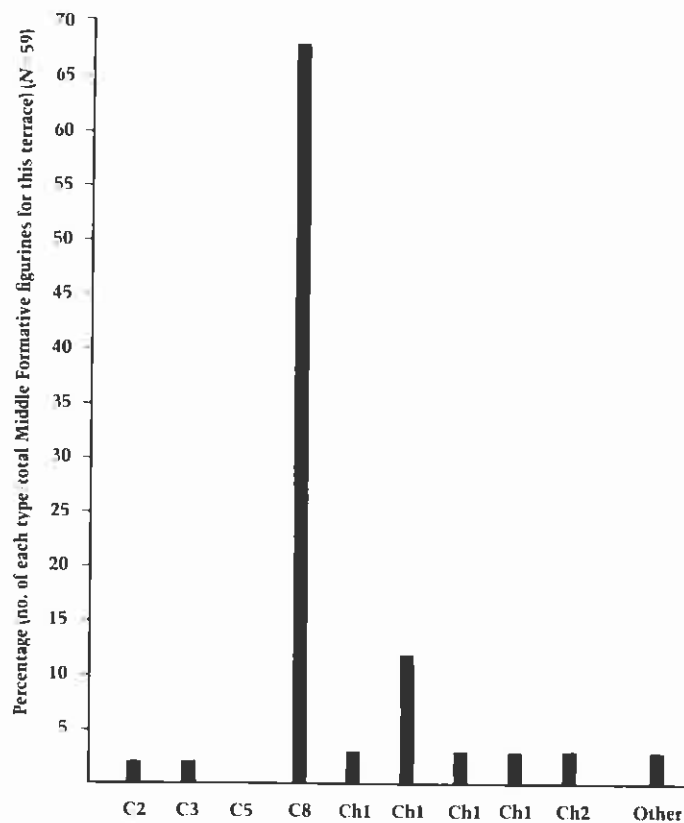


Figure 15.4. Middle Formative figurine population at T-4.

abundance of figurines on T-24 is that it was a locus of figurine manufacturing activities (Harlan 1979:488). The available data are inconclusive on this point. No kiln or evidence of firing activities was uncovered, and the T-24 figurines do not vary significantly from those of other terraces, e.g., by being broken during firing as opposed to normal breakage (Grove, personal communication). Thus, we are more likely dealing with concentrated figurine utilization and/or deposition on T-24, the purposes of which we cannot determine with the available data.

INTRASITE DISTRIBUTION OF FIGURINE TYPES

The next step in the analysis was to consider the relative percentages of the various figurine types present on individual terraces. The composition of the figurine population of the previously selected terraces was calculated by comparing the frequency of each type to the total number of Middle Formative figurines at each

terrace. The percentages obtained are displayed in Figures 15.3–15.10. Only Middle Formative figurine types with a sample size of fifty or greater were included in this part of the analysis: C2, C3, C5, C8, Ch1-1, Ch1-2, Ch1-5, and Ch2. Note that almost all of these types were present on the selected terraces. There seems to be no clear pattern of restricting particular types to certain site areas.

Table 15.2 summarizes the frequencies of each type in each terrace taken from Figures 15.3–15.10 and also gives the relative frequencies of all Middle Formative types for the entire site taken from Figure 15.2. This table shows that for the most part, the figurine assemblages on the different terraces are biased toward the C8 type, with Ch1-2's a distant second and the other types relatively low in frequency. This is generally the same distribution that was found for the site as a whole. It appears that with a few exceptions, the types are randomly distributed across the site. The major exceptions are the low representation of

C8's on T-11, the only terrace where Ch1-2 figurines outnumber C8's; the high frequency of C3's on T-20; and the very high frequency of C8's compared to the other types on T-4, T-24, T-25, and T-27.

In order to determine whether there were strong affinities between any two types in terms of their co-occurrence at the site, Pearson correlation coefficients were computed for the selected figurine types utilizing the samples from twenty-one terraces which had total figurine counts of twenty or more. A constant was added to the counts for the types, and their logarithmic values were taken to make the relationships appear more linear. The correlation coefficients displayed in Table 15.3 are derived from these transformed variables.

Table 15.3 reveals several fairly strong between-type relationships. Among the Ch1 series, the Ch1-5/Ch1-3, Ch1-5/Ch1-1, and Ch1-2/Ch1-3 correlations are high enough to warrant some comment. First, it is possible that the distinctions among the Ch1 types are not "real" in

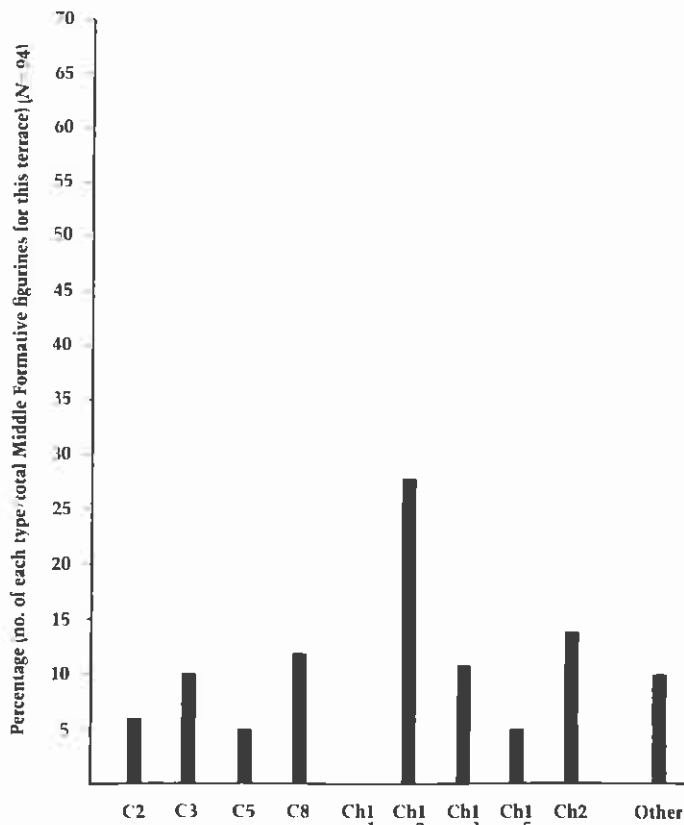


Figure 15.5. Middle Formative figurine population at T-11.

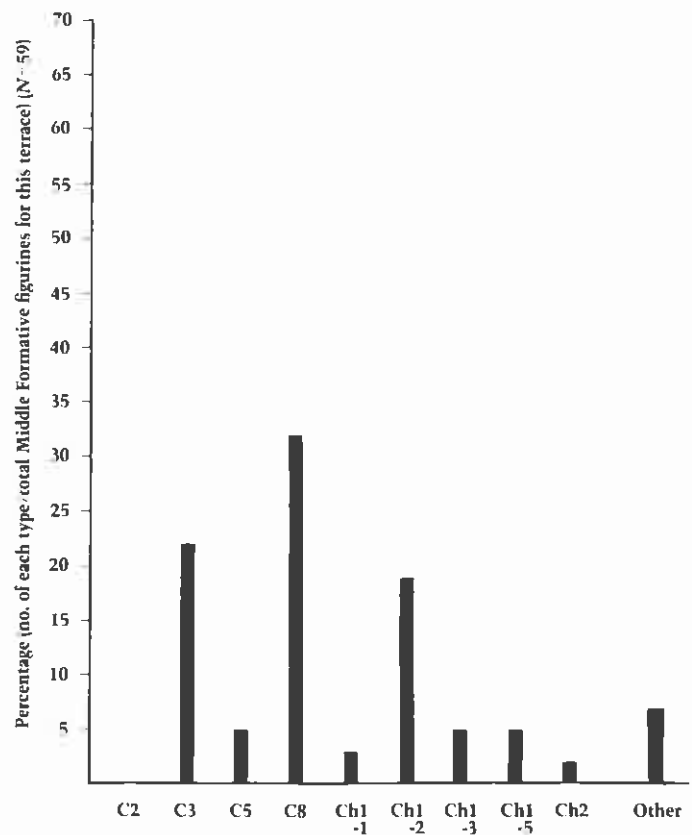


Figure 15.6. Middle Formative figurine population at T-20.

the sense of having been recognized by the people of Chalcatzingo. Instead, they may form a continuum of allowable variation in what was considered a single type. Or, alternatively, it is possible that they were recognized as different types but were used and/or deposited together in the same areas.

Within the C series, the correlation matrix shows a rather strong relationship only between C3 and C5 figurines. Paul Tolstoy (1979: Fig. 1) has shown that in the Valley of Mexico these two figurine types date to the Early La Pastora phase, corresponding to the Early Cantera subphase at Chalcatzingo. In the Valley of Mexico the C3 and C5 types postdate the C1 and C2 figurines. Thus, the correlation of the C3 and C5 types at Chalcatzingo may reflect a chronological factor, in that C3 and C5 may have been used together within a relatively limited time span during which some other types of the C series were not being used.

Comparisons between the C and Ch1 series reveals a fairly high relationship between the Ch1-5 and C5 types, al-

Table 15.1. Ratio of Figurines (Head Types) to Excavation Volume for Selected Terraces

Terrace	Figurines	Excavation Vol. (m ³)	Fig. / m ³
PC Strs. 1 & 2	272	374	0.73
T-4	73	209	0.35
T-11	98	72	1.36
T-20	74	55	1.35
T-23	111	130	0.85
T-24	119	44	2.70
T-25	124	124	1.00
T-27	93	97	0.96

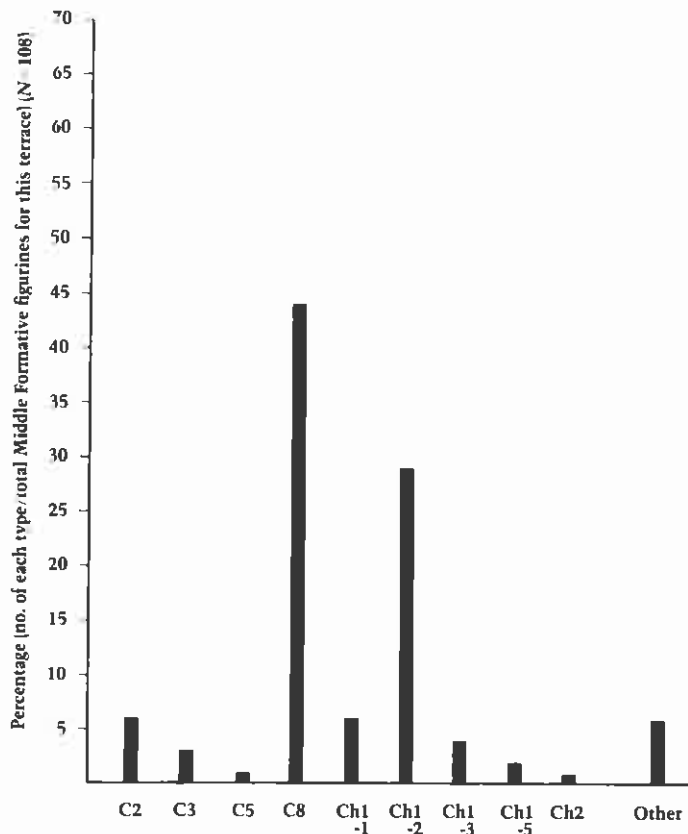
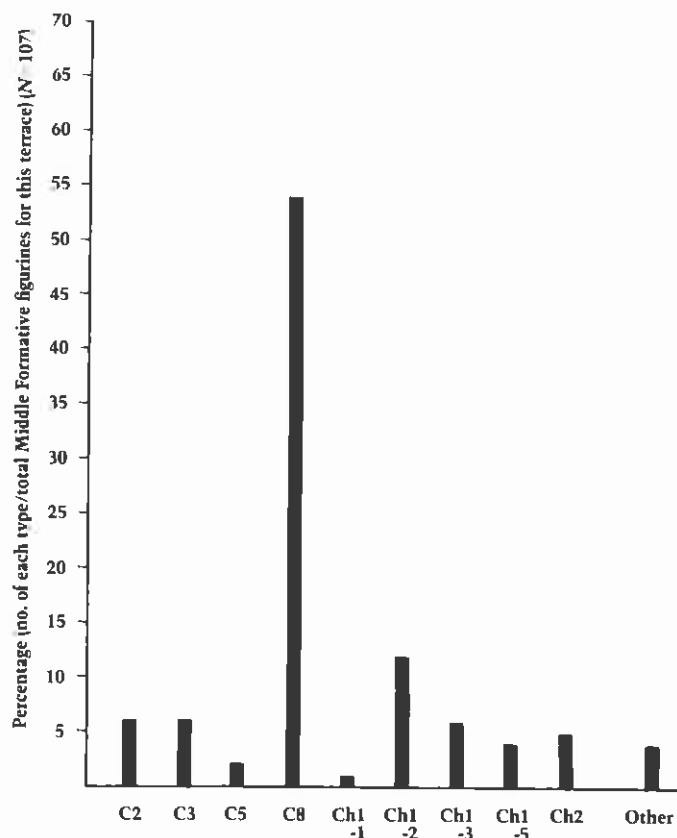
$\bar{X} = 1.16$
SD = .70

Table 15.2. Summary of Middle Formative Figurine Population at Chalcatzingo (Selected Types)

	<i>Figurine Types as % of Total Middle Formative Figurines for Each Area</i>								
	C2	C3	C5	C8	Ch1-1	Ch1-2	Ch1-3	Ch1-5	Ch2
Total site	6	6	5	41	3	16	6	4	5
PC Strs. 1 & 2	8	2	2	48	2	15	7	9	1
T-4	2	2	0	68	3	12	3	3	3
T-11	6	10	5	12	0	28	11	5	14
T-20	0	22	5	32	3	19	5	5	2
T-23	6	3	1	44	6	29	4	2	1
T-24	6	6	2	54	1	12	6	4	5
T-25	5	3	1	66	3	8	2	1	8
T-27	0	5	2	55	0	23	6	0	3

Table 15.3. Correlation Coefficients

	C2	C3	C5	C8	Ch1-1	Ch1-2	Ch1-3	Ch1-5	Ch2
C2	1								
C3	0.4943	1							
C5	0.5534	0.7390	1						
C8	0.3267	0.4313	0.3737	1					
Ch1-1	0.6481	0.5741	0.6612	0.6367	1				
Ch1-2	0.3394	0.4606	0.4408	0.7002	0.5054	1			
Ch1-3	0.4610	0.5146	0.5644	0.6864	0.5552	0.7027	1		
Ch1-5	0.5613	0.5759	0.6954	0.6490	0.7588	0.5084	0.8005	1	
Ch2	0.3545	0.3522	0.4224	0.3855	0.4018	0.6199	0.5533	0.4191	1

**Figure 15.7. Middle Formative figurine population at T-23.****Figure 15.8. Middle Formative figurine population at T-24.**

though not quite as strong as those previously mentioned. This seems to be the only case of a type in the Ch1 series co-occurring to a significant degree with its counterpart in the C series (although the samples for some other types were too small to be included in the analysis).

Finally, there is a good positive correlation between the C8 and Ch1-2 types. These two types are not from the same series and do not form counterparts of each other as do Ch1-5 and C5, for example. It is possible that these two types correlate because they functioned together in rituals or in other activities. However, the C8 and Ch1-2 figurines seem to be the numerically most important representatives of two different aspects of ritual activity, such that they may not necessarily have been used in the same rituals.

One can separate the figurines into two *kinds*—stylized and nonstylized (portrait)—based on superficial evidence. The Ch1-2 type is extremely stylized and rather carelessly made, a characteristic shared with other figurines of the C and Ch series with the exception of the C8 type. C8 figurines present great variety

and were probably portrait figurines, depicting the features of actual personages (Chapter 27). The C8 figurines are also well made, revealing more care and workmanship than any other figurine type. Furthermore, only figurines of this type received special surface treatment such as orange slip and/or polishing (Grove et al. 1976:1207).

Thus it is possible that the C8 figurines, probably made to depict the current ruler(s), were used for different purposes than the stylized figurines. For example, C8's may have been made for ritual centered on the cult of the ruler, a cult which began in the Early Formative among the Gulf Coast Olmec and is characteristic of the Classic Maya. The stylized figurines, on the other hand, may have been used in rituals of another kind, e.g., curing, calendrical celebrations, invoking other personalized or nonpersonalized supernatural powers. This is the same dichotomy that is exhibited by the site's monuments (Chapter 9): there are both portrait monuments down on the terraces and nonportrait depictions of supernatural/mythical events on the slopes of the Cerro Chalcatzingo (Grove 1981b).

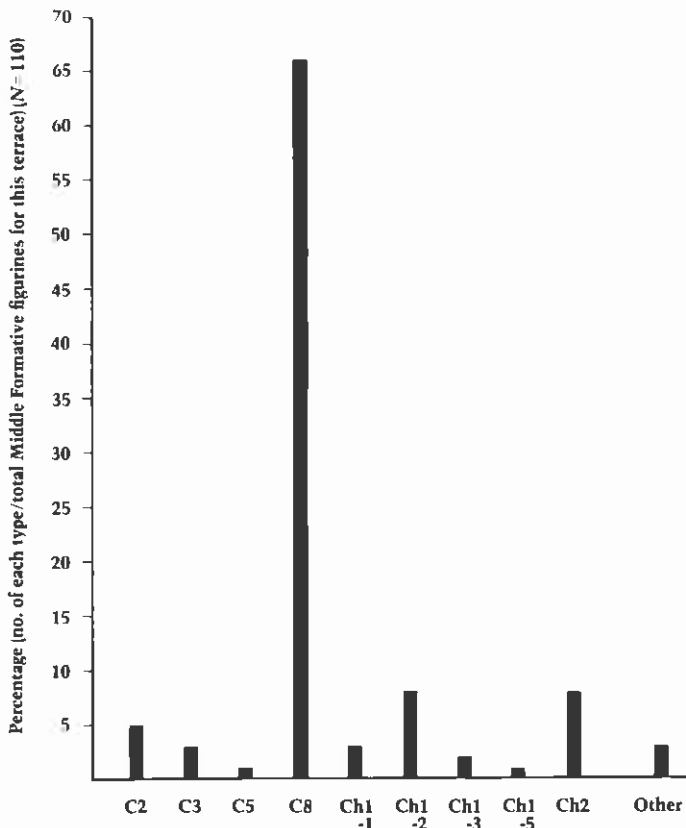


Figure 15.9. Middle Formative figurine population at T-25.

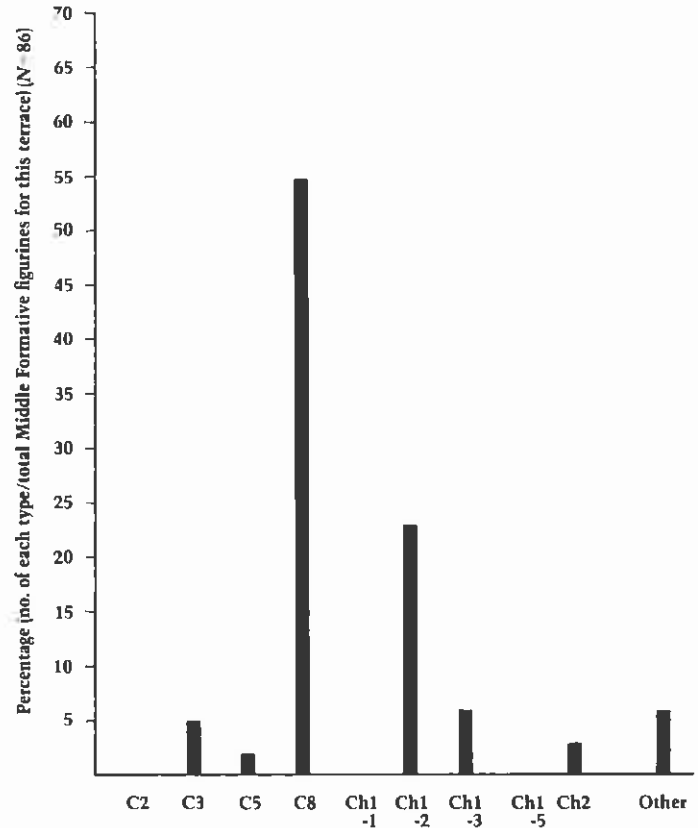


Figure 15.10. Middle Formative figurine population at T-27.

The fact that there is a good positive correlation between the C8 and Ch1-2 figurines implies that the two aspects of ritual were performed to more or less the same degree across the site, or at least that the broken figurines from each aspect were deposited on the same terraces. Two exceptions to this are T-25 and T-11. T-25 has the second highest frequency of C8's and the lowest frequency of Ch1-2's among the selected terraces (see Table 15.2). Thus, this terrace seems to have been a focus of ritual concerning the cult of the ruler; the altar and its interments of high-ranking individuals may very well have been involved as well in this cult. T-11, on the other hand, the site of a regular residence, has the lowest frequency of C8's and therefore high frequencies of several other types of both the C and Ch series, implying that rituals of the ruler cult were much less frequent here compared to the rest of the site.

On the whole, the overwhelming number of C8's at Chalcatzingo and their occurrence at nearby sites (e.g., Telixtac) demonstrate the pervasiveness of the cult of the ruler centered at Chalcatzingo. The stylized figurines are numerically best represented by the Ch1 series of types. Both the Ch types and C8's are local to Chalcatzingo and its immediate interaction area, and their manufacture and/or use may have been controlled by the Chalcatzingo elite (see Chapter 14).

Thus, Middle Formative Chalcatzingo can be contrasted with the Early Formative situation by a shift in figurine utilization and therefore in ritual using figurines away from the Valley of Mexico types toward a local tradition of stylized types, and by the influx of a new cult, the cult of the ruler, reflected in both portrait figurines and portrait monuments and probably coming from the Gulf Coast.

RESUMEN DEL CAPÍTULO 15

El análisis de la distribución de las figurillas se enfocó sobre las variaciones en frecuencia de los diferentes tipos, a través del sitio y en las terrazas individuales. Para el sitio como un todo, D2 es el tipo más común del Formativo Temprano (fase Amate), el cual comprende el 61 por ciento de los tipos del Formativo Temprano. Este es el mismo patrón que se encuentra para este mismo periodo en el Valle de México. Para el Formativo Medio, sin embargo, las figurillas de Chalcatzingo se separan del patrón del Valle de México, y sus dos tipos más frecuentes son el C8 (41 por ciento) y el Ch1-2 (16 por ciento), los cuales, ambos, se encuentran restringidos fundamentalmente a Chalcatzingo y a sus zonas más inmediatas. Otros tipos de las series C y sus contrapartes de Chalcatzingo se encuentran presentes sólo en muy pequeñas cantidades.

Este patrón de frecuencia de los tipos de figurilla del Formativo Medio es válido no sólo para el sitio como un todo, sino también para cada terraza individualmente, en donde los tipos aparecen estar distribuidos al azar dentro de los contextos de las casas de la fase Cantera. La distribución de la cantidad de figurillas (todos los tipos) es menos azarosa, presentando en T-24, por mucho, el mayor número de figurillas por volumen de tierra excavada, mayor que en ninguna otra terraza.

Los dos tipos más frecuentes, C8 y Ch1-2, representan dos maneras diferentes de figurillas—el de retrato y el estilizado. Es posible que hayan sido empleados en diferentes modos de ritual o en diferentes aspectos del mismo ritual, y presentan un patrón de co-ocurrencia, a través del sitio, bastante fuerte. Las figurillas de retrato, C8, las cuales son las más cuidadosamente hechas de todos los tipos, probablemente muestran a los gobernantes de Chalcatzingo y fueron usadas en asociación con el culto al gobernante, el cual también se encuentra presente en los monumentos del sitio, y es un culto que pudo haber tenido su origen en los centros olmecas de la costa del Golfo.