

WHAT AND WHERE IS OLMEC STYLE?

Regional perspectives on hollow figurines in Early Formative Mesoamerica

Jeffrey P. Blomster

Department of Anthropology, Brandeis University, Mail Stop 006, PO Box 549110, Waltham, MA 02454-9110, USA

Abstract

To understand better the significance of the Olmec style and its implications for Early Formative interregional interaction within Mesoamerica, one particular type of artifact—the hollow figurine—is examined. A definition of the Olmec style is provided based on Gulf Coast monumental art. One of several contemporaneous hollow-figurine types—“hollow babies” (Group 1)—is consistent with a Gulf Coast–based definition of the Olmec style. Fragments of Group 1 hollow figurines from across Mesoamerica are examined, revealing concentrations at a Gulf Coast center and, to a lesser extent, sites in southern Mexico. Rather than the primarily funerary function previously suggested for these objects, contextual data suggest multivalent meanings and functions. Group 2 figurines are related but different; variation appears in both the distribution of Group 2 fragments across Mesoamerica and their use. Available evidence suggests limited access to hollow figurines of both groups compared with contemporaneous solid figurines. A previous assertion that “hollow babies” were primarily produced and consumed in Central Mexico is rejected, and the significance of the differences among these hollow-figurine types is considered.

The nature of the “Olmec style” remains one of the most vexing problems in understanding early sociopolitical complexity and interregional interaction in Early Formative Mesoamerica. The phrase *Olmec style* has been indiscriminately applied to a vast array of both related and incongruous materials from throughout Mesoamerica, often with the implicit belief that there must be some relationship with the archaeological Olmec culture that flourished at various Gulf Coast centers, such as San Lorenzo, Veracruz. For an object both to be in the Olmec style and to have some link with Gulf Coast Olmec people, the definition of Olmec style must be based on objects, such as monumental sculpture, with a secure Gulf Coast provenience. Rather than engaging in the increasingly polarized debate over the nature of Olmec contact with contemporaneous groups throughout Mesoamerica, this paper will focus on one type of object—hollow “baby” figurines—often subsumed under the concept of the Olmec style. Although groups across Mesoamerica clearly participated in a sphere of interaction, this paper will consider whether the Olmec culture had priority in the creation of this one artifact class. The scarcity of excavated examples renders the dating of these objects problematic; these figurines appear to be largely restricted to the later portion of the Early Formative period, from 1200–850 B.C. (radiocarbon dates calibrated to calendar years are preceded by *cal*; uncalibrated dates appear without *cal*). This period of time is often referred to as the San Lorenzo Horizon (Diehl and Coe 1995:23–24). To counter the opinion that these objects had little or no relationship to the Olmec culture (Flannery and Marcus 2000), I compare formal attributes of hollow-baby figurines with a definition of Olmec style derived

from Gulf Coast monumental art. I then track distributions of hollow figurines throughout Mesoamerica.

Figurines, or representations in clay of humans at a substantially smaller than life-size scale, are found at Early Formative villages throughout Mesoamerica (Figure 1). Because they depict the human body, figurines provide a window into the self-image of ancient Formative villagers, representing one of the few artifact types that may provide an emic window into cultures that flourished 2,000 to 3,000 years ago. Although there clearly would have been many different mental conceptions of these objects based on the social identity of a given actor, certain features may have been emphasized in the production process to create easily recognizable classes of material culture. Approaches to studying solid figurines have varied through the years, often following trends in anthropological methods and theories. Early analysis focused on typologies and chronologies (Vaillant and Vaillant 1934), while recent analysis encompasses the social categories possibly represented by solid figurines, viewing them as images and manipulations of social identity (Lesure 1997). Attempts to apply only one interpretation to figurines as an artifact class homogenize the wide variety of objects classified etically by archaeologists as “figurines” and neglect the multivalent emic meanings dependent on the specific audience, temporal, and spatial contexts. Ethnographic data on figurines in a variety of media illustrate the many different uses and functions of figurines (Talalay 1993). Based on their frequency and presence in nearly all archaeological contexts in Formative Mesoamerican villages, solid figurines appear to have been deployed in households—frequently in rituals—throughout

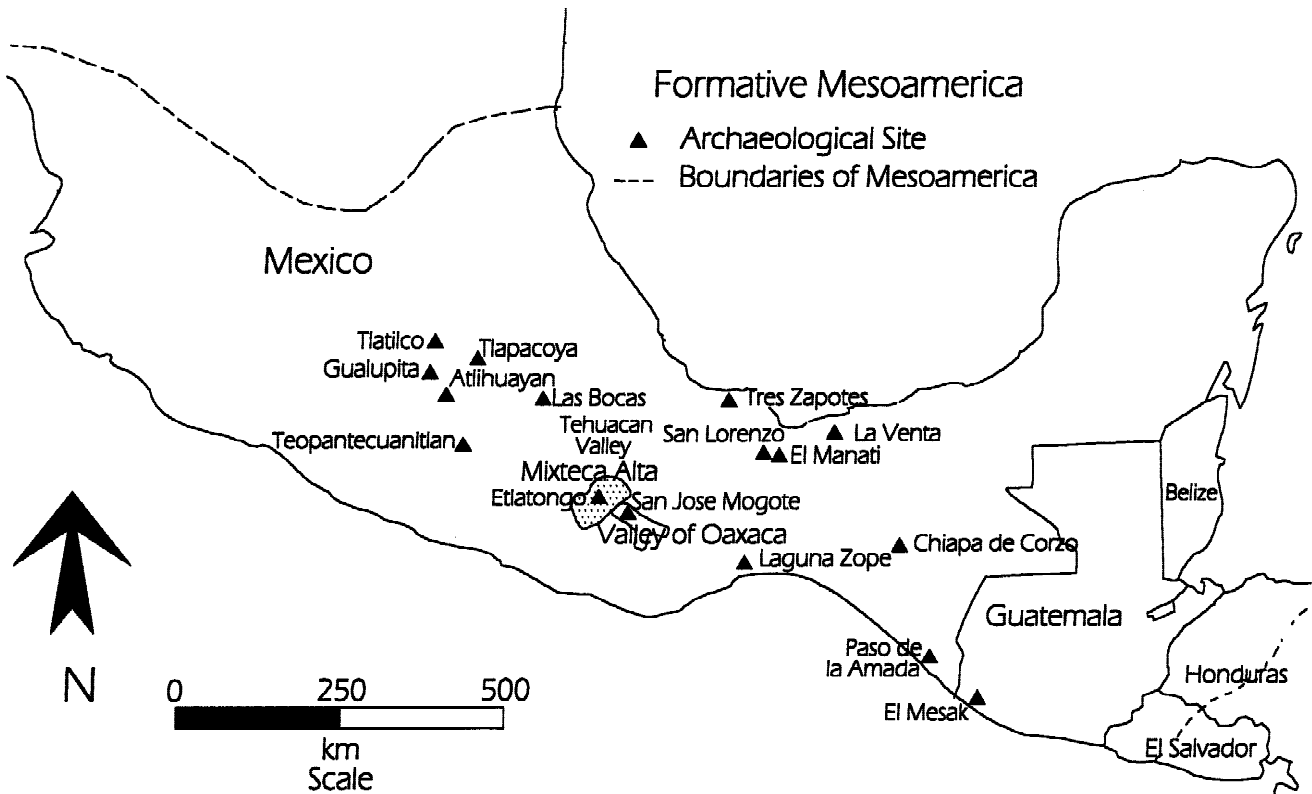


Figure 1. Map of Mesoamerica showing Early Formative sites mentioned in the text.

these early villages. Access to the majority of solid figurines does not appear to have been restricted.

Rather than postulate yet another interpretation for figurines, I am concerned here with the distribution of a substantially different type of object—hollow figurines. Generally larger than solid figurines, hollow ceramic figurines differ from solid ones in significantly formal and probably functional ways. Hollow figurines of all styles are rare relative to solid ones. The figurine assemblages of two large Formative villages illustrate this point, one from the Gulf Coast (San Lorenzo) and the other from Central Mexico (Tlapacoya; see Figure 1). The Yale University project (1966–1968) at San Lorenzo, Veracruz, recovered a total of 241 figurine fragments dating to the San Lorenzo A phase (the early portion of the San Lorenzo Horizon). Heads make up sixty of these fragments, only four (6.7%) of which are hollow (Coe and Diehl 1980:264–267). At the contemporaneous site of Tlapacoya-Zohapilco, Mexico, only 4% of the 1,207 figurine fragments reported from the 1969 excavations are hollow (Niederberger 1976:210–213). The relative scarcity of hollow figurines compared with solid ones may be significant in assessing not only the manner and frequency in which they were used but also access to them. The hollow figurines in this study appear to be additionally rare subsets of this uncommon artifact class.

Although numerous local traditions of both solid and hollow figurines coexisted during the Early Formative period, I focus here on a pan-Mesoamerican style of hollow figurines, often referred to as hollow babies (Group 1), and a variant (Group 2), possibly related stylistically and iconographically to Group 1. Chronologically, these two groups of figurines appear to be largely

restricted to the San Lorenzo Horizon (Grove 1993). Other contemporaneous hollow-figurine styles, such as the Tlatilco “acrobat” (Serra Puche 1994:Figure 11.11), will not be further considered in this paper. Although these two categories are clearly *etic*, it is hoped that, by separating these objects based on image and style, the result of consistent production choices, differences that would have been clearly observable to at least a subset of Early Formative social actors will be further clarified. Considerations of style and production may allow an approximation of an *emic* classification for some people under certain circumstances and in certain contexts.

This study encompasses three goals. The first involves the classificatory issue of defining what is a hollow baby (Group 1), identifying its relationship to the Olmec style, and establishing which figurines match this category or Group 2 (Tables 1 and 2). Second, by examining the location of Group 1 fragments encountered in archaeological excavations from across Mesoamerica, I will challenge the conclusion that hollow babies are primarily a Central Mexican phenomenon in terms of both production and use (Flannery and Marcus 2000:17; Reilly 1995:27). Third, by analyzing intrasite context, I will assess the validity of the claim that hollow babies served primarily as burial offerings (Reilly 1995:27–28).

HOLLOW FIGURINES AND THE OLMEC STYLE

Anthropologists, archaeologists, and art historians employ the concept of style in a variety of ways (Binford 1989; Layton 1981; Pasztor 1989; Sackett 1986; Schapiro 1953; Wobst 1977).

Table I. Intact Group 1 figurines from Mesoamerica

Object No.	Height (cm)	Paste ^a	Slip ^b	Site or Region	Context, Illustration Reference, and Comments
1	29.5	N	C	Atlihuayan, Morelos	Salvaged (see text); illustrated in Piña Chán and López González (1952:Figure 3); wears “Olmec Dragon” on back
2	36.6	N	W	Tlatilco, Mexico ^c	Looted; illustrated in Benson and de la Fuente (1996:Object 22); cartouche with iconographic elements on back of head
3	34	K	W	Las Bocas, Puebla ^c	Looted; illustrated as Figure 3; forefinger in mouth; extremely fat; helmet; painted iconographic element on back
4	34	N	C	Las Bocas, Puebla ^c /Veracruz, Gulf Coast ^c	Looted; illustrated in Art Museum (1995:Object 10); cartouche containing iconographic elements carved into back.
5	29	N	W	Tenenexpan, Veracruz ^c	Looted; illustrated in Parsons (1980:Object 29); body more stylized than usual for Group 1
6	25	K	W	Gualupita, Morelos	Excavated in mixed, redeposited fill; illustrated in Vaillant and Vaillant (1934:Figure 34, Number 3); part of body missing; some divergent facial features
7	39	N	C	Tenenexpan, Veracruz ^c	Looted; illustrated in Delataille et al. (1985:Object 44); leans over, with outstretched arm
8	36	N	C	Las Bocas, Puebla ^c /Zumpango, Guerrero ^c	Looted; illustrated in Art Museum (1995:Object 8); possible headgear painted red; black pigment; slender compared with other hollow babies
9	26.7	N	C	Morelos ^c	Looted; illustrated in Art Museum (1995:Object 7); body more stylized than usual for Group 1; helmet; ear ornaments
10	—	—	W	Las Bocas, Puebla ^c	Looted; illustrated in Feuchtwanger (1989:Plate 10); head extremely deformed; eyes crossed; design/incisions on top of head
11	21	N	C	Guerrero ^c	Looted; illustrated in Art Museum (1995:Object 204); similar to Object 1; ear ornaments, elaborate cap, but no “Olmec Dragon”
12	29.5	N	W	Central Mexico ^c /Gualupita, Morelos ^c	Looted; illustrated in Solís (1991:Figure 59); body more stylized than usual for Group 1; helmet
13	14.3	N	W	Guerrero ^c	Looted; illustrated in Furst and Furst (1980:Figure 37); the smallest of the hollow babies; detailed fingers
14	30	K	W	Las Bocas, Puebla ^c	Looted; illustrated in Coe (1965b:Figure 385); traces of red pigment; broken into many pieces
15	35.4	K	W	Cruz del Milagro, Veracruz ^c	Looted; illustrated in Pohorilenko (1972:Figure 83); body is slender and less realistic than usual for Group 1
16	35.8	N	W	Cruz del Milagro, Veracruz ^c /La Venta, Tabasco ^c	Looted and attributed to two Gulf Coast sites; illustrated in Pohorilenko (1972:Figure 82); slip highly eroded
17	32	N	W	Cruz del Milagro, Veracruz ^c	Looted; illustrated in Solís (1991:Figure 44); distorted arms; chest area larger than stomach; red pigment on face
18	33	N	C	Zumpango, Guerrero ^c	Looted; illustrated in Easby and Scott (1970:Object 20); thumb at mouth; traces of red pigment; Venus/star designs incised into head
19	28.6	N	W	—	Looted; illustrated in Johnson (1992:59); relatively slender
20	18–20 ^d	N	W	Etlatongo, Oaxaca	Excavated in bell-shaped pit; illustrated as Figure 7; extremely fat; stumpy arms; traces of red pigment; headgear

Note: Dash (—) indicates no data. Attributions for figurines from non-archaeological contexts follows the reference cited under “comments” and in the text. I have not made any new attributions; I have only repeated those available. Three unpublished hollow-baby figurines in the Rufino Tamayo Museum, Oaxaca, are not included in this table.

^aK, kaolin paste; N, non-kaolin paste.

^bW, white slip; C, cream slip.

^cThere is no documentation for that attribution; the object has been stylistically associated with a site or region. Some figurines have been attributed to more than one site by different authors.

^dThis is the object’s projected reconstructed height.

Enhancing the ability to compare art across cultures, art historians have imposed a series of overarching styles—initially derived from Western art (naturalism, realism, expressionism, etc.)—to the art of groups that may be either connected or isolated in time and space. One problem with the term *style* is that it has often been used to pass judgments of relative value with realism associated

with more “advanced” cultures (Layton 1981:142), an approach rejected in this paper. At the most basic level, style is seen as the formal qualities (shapes, composition, subject matter) in the art of a group (Layton 1981; Schapiro 1953). Although there may be great variability inherent in a given style, it expresses an internal order and consistency in various media and on functionally dis-

Table 2. Intact Group 2 figurines from Mesoamerica

Object No.	Height (cm)	Paste ^a	Slip ^b	Site or Region	Context, Illustration Reference, and Comments
1	28	N	O	Las Bocas, Puebla ^c	Looted; illustrated in Art Museum (1995:Object 132); body stylized and tubular; holds ball; traces of red pigment; head not elongated; three tufts of hair
2	29	N	U	Gualupita, Morelos	Excavated, found broken in a burial; illustrated in Vaillant and Vaillant (1934:Figure 34, Number 2); stylized body and face; wears turban
3	40.6	N	C	Tenenexpan, Veracruz ^c	Looted; illustrated in Art Museum (1995:Object 11); beard; head smaller than body; red pigment; incisions on back of head; ear ornaments
4	33.7	N	W	Tlatilco, Mexico ^c	Looted; illustrated in Easby and Scott (1970:Object 19); red pigment; incised and painted headgear; ear ornaments; stylized face
5	26	N	W	Tlapacoya, Mexico ^c	Looted; illustrated in Coe (1965b:Figure 392); traces of black paint and red pigment; stylized face and body; possible helmet/hairdo
6	41.5	N	G/B	Tlapacoya, Mexico	Excavated, found in refuse; illustrated as Figure 6; in many pieces; repair holes in legs and base; traces of red pigment; poorly burnished; body not modeled
7	29.7	N	W	Las Bocas, Puebla ^c	Looted; illustrated in Merrin and Schildkraut (1985:Object 27); traces of red pigment; raised arms; extremely fat and stylized body; extremely divergent because of depiction of male genitalia
8	22.8	N	U	Tlatilco, Mexico ^c	Looted; illustrated in Art Museum (1995:Object 242); traces of red pigment; combination of infant and avian attributes (very owl-like); has a beak-like nose; wears garment around groin
9	22	N	—	Tenenexpan, Veracruz ^c	Looted; illustrated in Brinckerhoff (1994:6); stylized body; helmet/hairdo
10	25.4	N	C	Gulf Coast ^c	Looted; illustrated in Cambiaghi (1990:Object 63); eyes closed; round face; body stylized; red paint covers hair/cap
11	—	N	C	Tlatilco, Mexico ^c	Looted; illustrated in Serra Puche (1994:Figure 31.7); red pigment and design on helmet; slender; fire cloud on chest
12	33.5	N	W	Las Bocas, Puebla ^c	Looted; illustrated in Parsons et al. (1988:Plate 1); red pigment; arms raised; stylized body; simplified Olmec-style face with cap/hairdo
13	26	N	—	—	Looted; illustrated in Sanchez Lacy (1992:82); broken but appears complete; wears cap; stylized head and body
14	32	N	C	Central Mexico ^c	Looted; illustrated in von Winning (1968:Plate 14); some Group 1 facial elements but limbs large; body stylized and larger than head
15	38	N	C	—	Looted; illustrated in Delataille et al. (1985:Figure 65); body more stylized version of Object 16; facial area round, with cap
16	28.9	N	W	Xochipala, Guerrero ^c /Zumpango, Guerrero ^c	Looted; illustrated in Art Museum (1995:Object 2); less stylized version of Object 15; round head constricted by cap
17	35.1	N	W	Las Bocas, Puebla ^c	Looted; illustrated in Art Museum (1995:Object 3); realistic body and head differ from Olmec style; head less than half the size of body
18	34	N	C	Tenenexpan, Veracruz ^c	Looted; illustrated as Figure 4; wears headgear/elaborate hairdo with red pigment; ear ornaments; possible breasts
19	28 ^d	N	C	Tabasco ^c	Looted; in Museo Amparo, Puebla; stylized body and ears; headgear
20	—	N	—	Tlatilco, Mexico ^c	Looted; illustrated in Piña Chán and Covarrubias (1964:73); hands blend into body; headgear/hairdo

Note: Dash (—) indicates no data. Attributions for figurines from non-archaeological contexts follow the reference cited under “comments” and in the text. I have not made any new attributions; I have only repeated those available.

^aK, kaolin paste; N, non-kaolin paste.

^bW, white slip; C, cream slip; O, orange; G/B, grayish brown; U, unslipped or there is no evidence of a slip, possibly because of erosion.

^cThere is no documentation for that attribution; the object has been stylistically associated with a site or region. Some figurines have been attributed to more than one site by different authors.

^dThis is the object's estimated height from viewing it through the museum case.

tinct objects. Traits of different styles are not always mutually exclusive, nor does a given artisan necessarily work in only one “style” (Schapiro 1953:294). There is clearly an element of intentionality behind the style of a group that goes beyond technical limitations; styles vary widely among groups using nearly identical techniques and are a way to express those elements that are of significance to the artist and/or the audience (Layton 1981:163).

Some analysts have attempted to isolate style from the material, manufacturing technique, and “function” of an artifact, recognizing that style may crosscut functionally different classes of phenomena. Such approaches negate any role style may have in meaning, examining style where functional variability is not relevant to its expression, deferring considerations of meaning to the study of iconography and visual grammar (Binford 1989:57; Lay-

ton 1981:134). As style and function are evident in the same artifacts and contribute to overall variability, separating them remains problematic. Throughout this paper, tension exists between style and iconography and subject matter. I recognize the impact of style and iconography on each other and prefer not to subordinate one to the other. As I focus on formal attributes of these objects, however, I privilege style and refer only briefly to subject matter and meaning—topics to be pursued elsewhere.

Another controversial approach has been to view style and variability as functioning as self-conscious markers of ethnic distinctiveness between different groups, with so-called ethnic styles serving as badges of group identity (Bordes 1968; Pasztory 1989). In this view, style is inseparable from social and political organization. Although style can function as a sign of group identity in some contexts, clearly there can be many constituent traits that crosscut cultural groups (Binford 1989). Different elements of these conceptions inform the approach to style employed here, where style is seen as both formal elements and potentially as a means of communication and information exchange (Schapiro 1953; Wobst 1977). Social actors can use style both to constitute roles and status and to display such information for evaluation.

OLMEC CULTURE AND THE OLMEC STYLE

It would be difficult to discuss figurines referred to as hollow babies without grappling with the thorny issues of Olmec culture and Olmec style. The definition of Olmec style used in this paper is based on only Gulf Coast examples. The myriad issues that have entangled understanding hollow-figurine distribution emanate from interpretive failures and debates over what the “Olmec style” is, uncritical acceptance of elements of this style as originating from the Gulf Coast Olmec culture, and the significance of this style to other contemporaneous Mesoamerican groups. Once defined as a precocious archaeological culture that flourished at Gulf Coast sites such as San Lorenzo and referred to as “America’s First Civilization” (Coe 1968), the Olmec for the past thirty years have been substantially downgraded in terms of sociopolitical complexity. Rather than as precocious, scholars have characterized the Olmec as one of a series of contemporaneous cultures that were roughly at the same level of sociopolitical complexity, contributing little to patterns of Mesoamerican culture (Flannery and Marcus 1994, 2000).

To define an Olmec style that actually has some relevance to the eponymous archaeological culture, it is appropriate to look at monuments recovered archaeologically from sites on the Gulf Coast. Monumental sculpture in Mesoamerica first appeared at Gulf Coast sites such as San Lorenzo and remained absent or scarce in the contemporaneous cultures that interacted during the San Lorenzo Horizon throughout Mesoamerica (for examples from Soconusco, Chiapas, see Clark and Pye 2000). The elaboration of this art at Gulf Coast sites shows a different level of commitment to the underlying themes and is perhaps indicative of Olmec priority in at least some representations. This approach does not assume all elements encompassed by the Olmec style originated on the Gulf Coast; nor does it deny that other contemporaneous groups may have contributed to its expression. But it does focus on those elements that either first appeared or were most fully expressed in this region. Before issues of priority can be fully assessed, many more carefully dated examples of this style must be recovered throughout Mesoamerica. This approach examines correspondences between monumental and portable examples of contempo-

aneous examples, eliminating features—many of which never appeared in the Gulf Coast—added to this style by scholars examining a wide range of objects from all regions of Mesoamerica (Grove 1996). A similar problem plagued the definition of the so-called Chavín Horizon in Peru: Only by eliminating many unrelated features was it possible to understand the nature of this phenomenon (Burger 1988:101). The methodology employed more than thirty-five years ago in one of the first systematic overviews of the Olmec style also relied on Gulf Coast examples in defining Olmec art (Coe 1965a:746–751).

Olmec art has been characterized as different from other Mesoamerican art styles in formal qualities of shape, line, and space. In essence, this art is sculptural—made both in the round and in relief. Art from the San Lorenzo Horizon (as opposed to the later La Venta Horizon) in particular has a three-dimensional depth. Rather than relying primarily on abstract designs, the Olmec style uses a curvilinear naturalism that marks it as “realistic” in the depiction of human and non-human creatures—animal and supernatural. No prototypes exist for the degree of realism visible on Olmec monumental art such as the colossal heads; it is also important to note that not all Olmec art in all media is realistic (Pasztory 1989, 2000). Scholars have also commented on the focus on the human form in monumental Olmec art (Coe 1965a; de la Fuente 1992). The human form is depicted in both formal poses and vigorous motion. A particular physiognomy is shown on the subjects of monumental art; details of both the face and body are emphasized and portrayed in a distinct style.

The head and facial features most clearly separate the Olmec style from other contemporaneous artistic traditions. As will be seen later, these facial features can be used consistently to distinguish Group 1 figurines from those of Group 2. The Olmec-style head is reshaped and elongated, probably representing the intentional cranial modification practiced by the Olmec. Although the body proportions vary on different types of stone sculpture (Figure 2), the head is always larger relative to the body than it would be in life; on hollow babies, the head is always as large as—or larger than—the size of the torso. Much of the illusion of realism in Olmec art was created by focusing on areas of the face—such as the cheeks—that often were not well developed in earlier and contemporaneous art (Pasztory 2000). Facial features are well modeled and are generally plump and jowly. A large, trapezoidal mouth with downturned lower corners and a thick, flaring upper lip dominates the Olmec-style face (Figure 2). Although infantile, the mouth is also cited as a non-human facial element. Often depicted with fangs, such as on the basalt San Lorenzo Monument 10 (Figure 2a) and the post-San Lorenzo Horizon jade Kunz Axe (Figure 2b), the mouth has been compared with “that of a snarling jaguar” (Covarrubias 1957:56). In general, the non-human elements (such as the fangs in Figure 2) apparent on stone sculpture and portable objects are minimized on hollow babies. On monumental sculpture, the eyes are often elongated, L-shaped troughs or slits between plump eyelids, without pupils (Figure 2a). As L-shaped troughs, the eye often resemble the incising on Calzadas Carved pottery as defined at the site of San Lorenzo (Coe and Diehl 1980:166); the eyes may be related to symbolic motifs such as the “jaguar-dragon-paw-wing” (Joralemon 1971). A short, wide nose separates the eyes; over the eyes curve strongly arched eyebrows. Full, flabby cheeks frame the mouth.

Roughly contemporaneous images exemplifying these attributes are found throughout the Gulf Coast in a variety of media, ranging from stone monuments to portable sculpture. The physiognomy

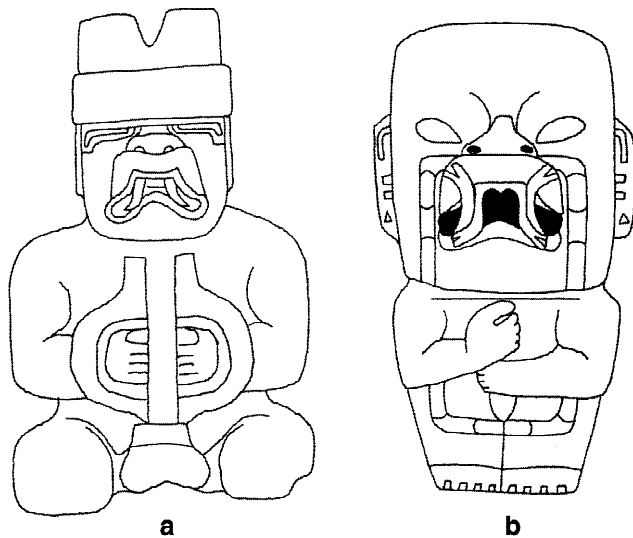


Figure 2. Two objects, one monumental (a) and one portable (b), showing distinctive traits of the Olmec style and, more particularly, the non-human elements of the face. (a) San Lorenzo Monument 10, found by Matthew Stirling at the bottom of a steep ravine. Note the L-shaped pupil-less eyes and fangs within the characteristic trapezoidal mouth. Height: 1.19 m (Coe and Diehl 1980:316). (b) The “Kunz Axe” is assumed to be post-San Lorenzo Horizon. On this large piece of jade (height: 28 cm) the fangs are combined with vegetation motifs (Joralemon 1971:58). Both figures were adapted from Joralemon (1971).

depicted on San Lorenzo Monument 6, a detached head from a larger sculpture, embodies this kind of Olmec-style face (Coe and Diehl 1980:310). Dwarf-like figures, with heads only partly preserved but with chubby bodies, hold up a tabletop throne (also referred to in the literature as “altars”) from San Lorenzo (Monument 18). Infantile creatures with these faces are carried by adults on stone monuments, such as San Lorenzo Monuments 12 and 20, as well as the post-San Lorenzo Horizon thrones at La Venta, Tabasco. On La Venta Altar 5, a baby is held by the figure emerging from the central niche of this throne, and the adults carved in lower relief on the left and right sides hold additional, frisky babies. Wooden busts with similar faces have recently been recovered from a spring on the hill overlooking the swamp at El Manatí, Veracruz (Ortiz and Rodríguez 1994, 2000). The depiction of this distinct physiognomy on portable ceramic sculpture is just one expression of it; similar faces also appear on jade sculptures, although the majority of these postdate the San Lorenzo Horizon (Figure 2b). Significantly, the portrayal of this face on monumental sculpture during the San Lorenzo Horizon appears to be restricted to Gulf Coast Olmec sites.

Monumental sculpture appears to be an Olmec innovation, but the production of hollow figurines is not. Although this ceramic form was initially attributed to the Olmec culture (Bernal 1969:74), hollow figurines clearly existed earlier at sites such as Paso de la Amada, Chiapas (Clark 1994; Lesure 1997), and San Lorenzo, Veracruz. A fragment from a pre-San Lorenzo Horizon hollow figurine, the earlier Bajío phase, may represent a predecessor to the later style at San Lorenzo (Coe and Diehl 1980:261). This body fragment features a hand resting on the knee—a typical posture for Group 1 and 2 figurines—and has a white slip, one of the defining characteristics of Group 1 figurines. This Bajío-phase

figurine fragment suggests that the Group 1 style of hollow figurines originated on the Gulf Coast, possibly at San Lorenzo, although the hollow-figurine format itself cannot be attributed to the Olmec.

Based on this discussion, I consider the minimum traits necessary for hollow figurines to be Olmec-style or baby-face as follows (compare Figures 3 and 4):

- realistic depiction of the body, with musculature indicated on all sides of the figure
- head as large as the body; head is elongated, showing cranial modification
- fat, puffy cheeks and jowls
- anatomical details indicated on ears
- trough or L-shaped eyes, generally without pupils, framed by puffy eyelids
- broad, short nose
- downturned, trapezoidal mouth, often with varying levels of anatomical detail indicated

METHODS

To understand the styles and distributions of hollow figurines, it was necessary to segregate examples into different groups based on formal attributes. To do this analysis, largely intact examples were initially examined. Once isolated, the distribution of Group 1 figurines can be assessed more accurately. This analysis was undertaken to overcome the obfuscation that results from mixing figurine types. The fact that a figurine is hollow does not in itself make it either a hollow baby or in the Olmec style. The appearance of hollow-figurine fragments, which physically are so different from solid figurines, has often led archaeologists to conflate hollow figurines as “Olmec” or white-slipped “baby dolls,” despite the failure of these objects to meet many of the basic criteria for such a designation (Flannery and Marcus 2000:16; MacNeish 1964:37; MacNeish et al. 1970:53–55). In one recent synthesis (Grove 1996:106), baby-face and other figurines are lumped together to show that they occur in both tiny rural hamlets and large villages in Central Mexico. The purported facts that they occur so frequently and are so widely distributed within villages are cited as evidence of use by peoples at all levels of society, rather than of restricted access or status. In contradiction to this, sites that have supposedly yielded hollow-baby figurines are invariably either large, regional centers or secondary centers with public architecture (Clark and Pye 2000; Flannery and Marcus 2000:16), not rural hamlets. As will be established later, the “proliferation” of these objects has been greatly exaggerated because of the lack of precision in classifying hollow figurines.

Based on the discovery of an *in situ* hollow-baby figurine during excavations at Etlatongo, Oaxaca, Mexico, a previous study focused on possible use of hollow babies and summarized their distribution across Mesoamerica, relying primarily on whole examples (Blomster 1998b). The problem with this approach is that the majority of nearly complete hollow babies have been looted, their context lost. The situation is little improved since 1943, when C. W. Weiant (1943:90), commenting on possible “baby-face” fragments from Tres Zapotes, Veracruz, said: “[D]espite the wide distribution, no site where systematic excavation has been undertaken . . . has yielded any great quantity of these figures.” The complete figurines to which he compared the Tres Zapotes fragments were largely in private collections or museums and without provenience—a situation that persists when assessing largely intact hollow figurines.

I defined the traits characteristic of Group 1 and 2 figurines based on analysis of more than sixty examples of largely complete Early Formative hollow figurines from a variety of sources: museums (especially the Museo Nacional de Antropología and the Museo Amparo), recent Olmec exhibits at the National Gallery of Art (Benson and de la Fuente 1996) and Princeton University (Art Museum 1995), catalogues, and, all too infrequently, site reports. I scored the figurines on a variety of traits, ranging from slip color to ear shape. These results are summarized in Tables 1 and 2, without all the details of formal attributes (such as ear shape, eye type, etc.) used in segregating these two groups. From the analysis, twenty hollow figurines have been categorized as Group 1, and twenty as Group 2 (Tables 1 and 2). These intact examples generally do not have a reliable provenience assigned to them (as can be seen in Tables 1 and 2, the provenience may simply be an entire Mexican state); these data are not sufficient to understand distribution.

Fortunately, excavations in the past half-century have yielded numerous hollow-figurine fragments. There are problems in classifying fragments. Often, not enough is preserved of a single figurine to determine whether the fragment is Group 1 or 2 (or “other”). Also, a hollow figurine head could have been attached to a solid body. Thus, fragments are considered only as possible Group 1 or Group 2 figurines. These archaeologically recovered fragments were analyzed to assess distribution and intra-site context.

Ideally, to understand distribution, paste samples from each hollow figurine would be subjected to compositional analysis. This procedure could show whether certain figurines had the same production location, although questions related to exchange and movement would remain. Such analysis would particularly enhance the discussion presented later of two possible production subgroups. The limited compositional analysis discussed later supports a San Lorenzo origin for at least one hollow-figurine fragment found outside the Gulf Coast. Analytical techniques such as thermoluminescence dating could also assist in determining the authenticity of many intact examples currently curated in museums. For example, one possible variant of the figurines discussed later as Group 1 depicts crawling “infants;” none of the three published examples comes from an archaeological context, casting doubt on this category (Art Museum 1995: Object 1; Con 1982: Figure 1; Parsons 1980: Object 30). This type of analysis is a promising avenue for future hollow-figurine research.

GROUP 1: HOLLOW BABIES

Group 1 figurines are usually referred to as hollow babies, although many figurines that have been labeled thus do not merit this classification. Although I continue to use this term, labeling these objects simply “babies” masks the complexity of the image. Although these figurines have been interpreted as depictions of well-fed infants (Robicsek 1983:17), I argue that they are not literal representations of infants. Rather, adult features (such as pectoral muscles) are combined with infant traits (flabby limbs, facial expression, and posture) that often appear vestigial. When comparing the twenty Group 1 figurines, the degree to which a given hollow baby appears to represent an infant varies. On some figurines, the infant traits appear to be emphasized; two hollow babies included in Table 1, Objects 3 (Figure 3) and 18, appear to suck their thumbs (or forefinger in the case of Object 3). Other Group 1 figurines appear to represent beings that are almost fully adult (such as Table 1, Object 1). As I have argued elsewhere, the

combination of adult and infant traits may be an attempt to depict supra-human or supernatural qualities (Blomster 1998b).

The twenty Group 1 figurines vary greatly in size, ranging from 14 cm to 39 cm in height. As defined here, hollow babies are always seated; the legs are either splayed or bent at the knees, sometimes in non-symmetrical positions. The arms are in a variety of poses, from one or both hands resting above the knees to arms in the air. These postures may represent ritual or symbolic gestures, the meanings of which may have been multivalent—depending on audience or context. Primary sexual characteristics are not depicted; these creatures remain unsexed, perhaps transcending Early Formative sex and gender roles (Joyce 1993). If pressed to distinguish representation of biological sex, identification as male appears most probable based on the consistent depiction of pectoral muscles, rather than anything resembling breasts, on Group 1 images. Unlike most contemporaneous figurines, artisans appear to have created hollow babies to be seen from all sides; details and musculature emphasized on the front continue to be well modeled on the back.

I expected the majority of Group 1 hollow babies to be constructed of kaolin, based on statements in the literature that the “finest” hollow babies are made of this clay (Feuchtwanger 1989:27; Robicsek 1983:7). The analysis of the Group 1 figurines revealed, however, that only four were manufactured from kaolin (Table 1). The quality of the image of kaolin figurines varied, so that there is no direct correlation between paste and overall modeling or quality of the image.

The surface treatment, however, remains consistent throughout Group 1. All Group 1 figurines were covered with a white to yellowish-cream slip, then burnished to achieve a very smooth and often lustrous surface. The degree of burnish visible is obviously related to post-depositional processes. Some figurines had only portions of the slip and burnishing preserved (such as Object 16, Table 1). Several varieties of cream slip are distinct and nearly identical among some of the Group 1 figurines (see later).

In form, the bodies of hollow babies are often depicted as fat, with realism absent from most contemporaneous figurines (Figure 3). Although not all Group 1 figures are obese, even the relatively slender ones have well-modeled bodies. Compared with the bodies, the arms and legs are generally small and undeveloped, with hands and feet often stylized to the point of being without digits. There are very few hollow babies in which fingers are individually modeled. Object 3, illustrated in Figure 3, is one such example.

The depiction of hollow-baby heads clearly exemplifies the Olmec style and consistently separates the Group 1 figurines from those of Group 2. Following the definition presented earlier of Olmec-style heads based on Gulf Coast examples of monumental art, the Group 1 head conforms to certain principles regarding both head shape and facial features. On hollow babies, the head is always as large as, or larger than, the torso. The heads of Group 1 figurines are not simple cylinders; the face always expands below the eyes, so that the diameter in the cheek region is greater than that measured anywhere else on the head (unless the forehead is exceptionally bulbous). As noted earlier, the non-human elements of this image, often encompassed by the term *were-jaguar*, are minimized on hollow babies. The generally pupil-less eyes are consistently elongated, L-shaped troughs or slits between plump eyelids.

Unlike other contemporaneous figurines, Group 1 heads have realistic ears. Their long, distended ears depict a great deal of the



Figure 3. Group 1 hollow baby attributed to Las Bocas, Puebla (Object 3, Table 1). This is probably the most elaborately modeled hollow baby and has the typical trough-shaped eyes, downturned mouth, and fleshy cheeks diagnostic of Group 1 figurines. In addition, this figurine has fingers indicated, one of which is inserted into the mouth, and glyphic motifs on its back. Height: 34 cm. (Courtesy Metropolitan Museum of Art, Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979, no. 1979.206.1134.)

outer anatomy of the ear. The helices are realistically rendered; some figurines have circular depressions in the lobes of both ears that may represent either the concha opening or the location of an ear ornament. In fact, only one Group 1 figurine (Object 6, Table 1)

has ears depicted differently (as poorly modeled elliptical slabs), although several other figurines' ears are obscured by headgear.

Group 1 figurines often wear headgear, indicated by paint and/or modeling. This headgear is more similar to the "helmets"



Figure 4. An example of a slender Group 2 figurine, possibly from Tenenexpan, Veracruz (Object 18, Table 2). Note the absence—or, at best, an approximation—of an Olmec-style face. The cheeks are slender; the eyes, divergent; and the ears, small and stylized. The torso is tubular, with no modeling of the stomach and back, except for possible breasts. The groin area is discolored. Height: 34 cm. (Courtesy Art Museum, Princeton University, Gift of Mr. and Mrs. Arnold Glimcher, no. y1980-35.)

of the colossal stone heads of the Gulf Coast Olmec culture than to the turbans—which appear to represent cloth—often worn by Group 2 figurines (such as Figure 4). Figurines without headgear usually appear to be bald, although incisions on the rear of several heads may represent hair; painted elements also may once have been present. In addition to head coverings, designs are often incised or painted on the back of the heads and bodies of

hollow babies (Table 1). Five hollow babies have iconographic designs. On Object 2, this element is enclosed by a cartouche. Strings of such elements fill the backs of Objects 3 and 4. Object 18 has a cross-shaped perforation on the back of the head. This symbol appears to be a star or Venus symbol. In form, it resembles the probable star or planet glyph, read as “matz?” in the pre–proto-Zoquean language hypothesized for the so-called Isth-

mian or epi-Olmec inscriptions found on monuments such as La Mojarra Stela 1 in Veracruz (Justeson and Kaufman 1993:1707). This may ultimately be a precursor to the later Maya *lamat* glyph (Coe 1977:189).

Thus, Group 1 figurines are characterized by a fully Olmec-style head, a non-stylized body, a white to cream slip, and a combination of adult and infant features. The faces conform to the Olmec style, with nuances in facial and body features that provide a limited degree of individuality. Whereas hollow babies have been suggested as depicting actual people, be they dwarves (Furst and Furst 1980), babies (Robicsek 1983) or important people or chiefs (Clark 1994:420–424), I argue that these images depict something that transcends—or transforms—typical social roles (Blomster 1998b). These creatures may be intentionally unsexed, transcending Western stereotypes of gender roles and their relationship to biological sex. The infant aspect of these figurines represents a supernatural or non-human dimension. Although these figurines may be based on the human form, the image has been filtered through the Olmec style to produce something else. As noted earlier, depictions of this physiognomy on monumental art occurs during the San Lorenzo Horizon at Gulf Coast Olmec sites.

Hollow-Baby Iconography: The Search for Meaning

The iconography of hollow babies—what they actually represent—remains elusive. The specific meanings conveyed by these figurines involved an audience and make up one component of a larger context in which they were deployed. I have argued that one meaning involves the portrayal of supernaturals or important beings, perhaps deified ancestors in contact or meditation with supernatural forces. As noted earlier, hollow babies resemble creatures, variously referred to as dwarves or were-jaguars, depicted on Gulf Coast monuments. On San Lorenzo stone monuments, these creatures often hold up thrones, and presumed rulers hold them as badges of legitimacy in the later art of La Venta. There appears to be a clear link between representations of these creatures and both ritual and earthly power.

These images can also be placed in the larger context of Early Formative social identity. The varying types of contemporaneous solid figurines may portray different social roles and identities; these have been linked in Soconusco with both self-image and changing economic roles of young women and the growing role of obese elders in the time before the San Lorenzo Horizon (Lesure 1997). As opposed to the social roles represented in the more common solid figurine varieties, such as the representations of many young and/or pregnant women, various hollow objects depict important personages. Group 1 images depicting unsexed and/or pre-gendered creatures may represent distant ancestors with a clear link to the supernatural. Wherever they appear outside of the Gulf Coast, they represent a clear break with preceding images of the human body (Clark and Pye 2000). In terms of surface treatment and image, the novel treatment of the human form must be central to the intended meaning of these pieces; they existed in tension with other contemporaneous human images. Rather than privileging one reading of these figurines, it is sufficient to note that this emphasis on different style—especially outside the Gulf Coast—further enhanced the power of these images (Helms 1979).

Two Possible Group 1 Production Loci

Certain formal attributes of Group 1 figurines are so similar as to be suggestive of one production locus—the same workshop or

site. I analyzed slip color and idiosyncrasies in production technique to isolate figurines that show similar manufacturing techniques. Two subgroups, each containing three figurines, are proposed. In each case, the figurines within the subgroup did not come from a documented context or site. I label the subgroups simply “A” and “B” so as not to elevate further the looted attributions of these objects. The possibility that a figurine arrived at a site through interregional exchange also complicates the issue of origin. Compositional analysis of these figurines could clarify this aspect of the production process, if indeed the clays were obtained from similar and homogenous deposits. The point is that each group may represent a distinct production locus where these objects were manufactured by or under the supervision of a full- or part-time specialist. It has been hypothesized that the labor invested in hollow figurines in Soconusco indicates patronage and craft specialization (Clark 1994; Lesure and Blake 2002).

Subgroup A. The first subgroup, comprising Objects 4, 8, and 18, has some association with the site of Zumpango, Guerrero; two of the three figurines have been attributed to that unexcavated site (Table 1). These three figurines have a nearly identical slip—a distinctive cream color with an orange hue—and a similar finish in that they have been burnished but are not as lustrous as other figurines. Once again, the condition of the slip and finish may be a result of post-depositional processes and conservation and restoration efforts. All three are in a similar position: One hand is placed on the leg, and the other is raised (and doing something different in all three cases). They are nearly identical in size, with only 3 cm difference between them; height ranges from 33 cm to 36 cm.

The facial features of the three figurines have been modeled in a similar fashion, with nearly identical ears. The body types show little variation; while not slender, none are obese. The limbs are roughly cylindrical, with limited shaping. The artisans expended the same, moderate level of detail on the hands and feet; individual digits have been delineated but not modeled. All three have headgear partly defined by red pigment.

One production trait unique to these three hollow babies is a small, raised triangle of clay in the groin area. This triangle is relatively unfinished and may have resulted from specific production steps of a particular artisan. The legs and stomach were polished before or after the legs had been joined to the torso, but this area in between was largely ignored.

Subgroup B. The second subgroup is composed of three hollow babies (Objects 15, 16, and 17) attributed to the site of Cruz del Milagro, Veracruz (Table 1), although there has also been an association with La Venta, Tabasco (see later). These objects form a less distinctive and homogeneous subgroup than Subgroup A. Although they appear to have a roughly similar white slip, it is fully preserved only on Object 15. As with the first subgroup, these three figurines are similar in size, with less than 4 cm difference (the range is 32 cm to 35.8 cm high). All three are in the exact same pose, with splayed legs and both hands resting on the legs at or around the knees.

The faces and bodies are not as similar as those within Subgroup A, although the same amount of detail is present in the hands and feet on all three figurines. The feet are positioned so the soles point away from the figurine and are perpendicular to the object's base. All three are bald and lack any headgear or iconography on the head.

All three figurines share one production idiosyncrasy: Most hollow figurines have a hole—possibly an air hole to deter breakage during firing—for the navel. The three figurines in Subgroup B lack a navel hole, although a small navel is incised on (but does not penetrate) Objects 15 and 16. Thus, although these three figurines do not show the level of similarity exhibited by Subgroup A, I suggest they also may have been manufactured at one workshop or village, probably on the Gulf Coast.

Certain similarities were also noted between Object 1 (salvaged from Atlahuayan, Morelos) and Object 11 (not attributed to a specific site). Both have a similar cream to orange slip, and they are in identical positions. The Atlahuayan figurine wears on its back the pelt of what has been referred to as the Olmec Dragon (Joralemon 1976); the identity of this zoomorphic creature remains debated. The distinctive pose of both figures may be a ritual or symbolic gesture, comparable to the distinctive pose of Gulf Coast sculptures such as Cruz del Milagro Monument 1 (“the Prince”) or of the recently discovered El Azul paired figures near San Lorenzo, which have been compared to the Hero Twins of the Maya Popol Vuh (Cyphers 1996). Although a pelt does not cover Object 11, it does show an elaborate headpiece. On both figurines, the eyes are partially closed (or squinting) as if in deep concentration or meditation, dominated by a circular design (which on Object 1 is combined with incision). This is a form of the “flame-eyebrow” design, which is associated with Olmec-style iconography in a variety of media (see Joralemon 1971).

GROUP 2: HOLLOW FIGURINES

Group 2 consists of hollow figurines that in basic form and image resemble hollow babies, as defined earlier, but lack a number of traits found in Group 1. Although there is enough consistency to define these as a group, the assemblage is less homogeneous than Group 1. Group 2 figurines are seated and in the same size range as those of Group 1 (Table 2). The finish of Group 2 figurines differs from that of Group 1. Segregating them from the white- to cream-slipped Group 1 figurines, Group 2 figurines often lack a slip (such as Object 2, Table 2) or have a thin brown or gray slip (Object 6, Table 2); preservation and post-depositional forces also play important roles in the presence of slip and finish. In addition, Group 2 figurines are less frequently burnished to achieve the lustrous surface of Group 1 figurines. Thus, although the technology involved in the production of Group 2 figurines was essentially identical to that used to produce Group 1, intentional stylistic distinctions distinguish them (Layton 1981).

The bodies of Group 2 figurines are generally stylized or less naturalistic than those of Group 1. Even when fat is depicted, the stomach is often portrayed as grossly round and inflated, with little modeling. Figure 5 shows a probable Group 2 figurine with an exaggerated, stylized stomach (because this figurine lacks a head, it eluded classification and is not included in Table 2). Other Group 2 figurines with largely unmodeled bodies are slender (Figure 4). The limbs of Group 2 figurines are often cylindrical without further shaping; hands and feet are more likely to be stylized to the point of non-existence than on Group 1 figurines.

Three Group 2 figurines further diverge from Group 1 in the depiction of primary and secondary sexual characteristics. One figure (Object 7, Table 2) has primary sexual characteristics, an applied penis, while secondary sexual characteristics are indicated on Object 3 (a beard) and Object 18 (possible breasts; see

Figure 4). Whereas the depiction of secondary sexual characteristics occurs on contemporaneous solid figurines, the presence of a penis is virtually unique among Early Formative figurines. The lack of archaeological provenience for Object 7 does not allow for confidence in the authenticity of this figurine.

A seated position is not the only requirement for Group 2 classification; indeed, I exclude many seated hollow figurines (Easby and Scott 1970: Object 18; Solís 1991: Figure 59; Taube 1988: 42). Rather, Group 2 figurines appear to have been crafted to approximate or even emulate the Olmec-style face of Group 1 figurines without duplicating it (Figures 4 and 6). This lack of a fully realized Group 1 physiognomy may be intentional and represent juxtaposed styles; Mesoamerican art abounds with examples of combinations and juxtapositions of elements of different styles and cultures to create distinctive styles or messages (Pasztor 1989). Explanations extend beyond those concerned primarily with style. Perhaps the different physiognomy represents resistance on the part of the patron or craftsman charged with creating the image (Scott 1985). Or it may represent an archaism. Or, perhaps, it represents restrictions imposed from above on the portrayal of this divine or lordly image. In terms of iconography, Group 2 figurines may represent a different subject matter (for more possibilities, see Pasztor 1989: 30).

Differences abound in the shape of the head. Group 2 figurines often have round rather than elongated heads. Unlike those of Group 1, these Group 2 heads are often much smaller than the torso, de-emphasizing the focus on the head. The eyes are more often diamond-shaped with possible pupils (Figure 6), rather than L-shaped troughs or slits, and the mouth may be open but often not downturned. Group 2 figurines more frequently wear headgear and, unlike Group 1 figures, this can take the form of a turban. The Group 2 figurines in Table 2 do not have iconographic elements incised or painted onto their heads or bodies. While the differences between Groups 1 and 2 are usually qualitative, there are exceptions (such as Object 17, Table 2). This supports an interpretation of the differences between Groups 1 and 2 as intentional rather than as a result of a lack of skill by Group 2 artisans.

When not misidentified in the literature as hollow babies, Group 2 figurines are labeled “local types” (Feuchtwanger 1989: 31), suggesting they are local variations of hollow babies. In fact, this label may reflect the relationship between Group 1 and 2 figurines—assuming these figurines are, in fact, coeval (the scarcity of examples from archaeological contexts makes this assumption difficult to assess). The differences between these two groups reflect the contrasts between a pan-Mesoamerican Olmec style (Group 1) and regional traditions (Group 2). Group 2 figurines may have been crafted to approximate Group 1 figurines, with elements selected and probably combined with regional indigenous traditions to create distinct local traditions or regional styles. I argue that Group 1 figurines include supra-human elements; Group 2 figurines de-emphasize such traits (with at least one exception—Object 8, Table 2). Rather, Group 2 figurines may show individuals without this supernatural patina and with more human traits emphasized, such as breasts, a beard, and a penis on three different Group 2 figurines. The lack of iconographic elements on Group 2 figurines may reflect a local approximation of Group 1 figurines but not the associated iconographic system, or deliberate negotiations of political and social relationships between and within interacting groups. As archaeologists report more complete examples of Group 2 figurines, it may be possible to



Figure 5. Probable Group 2—or even “other”—figurine. The lack of a head prevents definitive classification, and it is not included in Table 2. Figurine shows an extreme example of a stylized body inflated beyond the norm and tubular limbs. No provenience information was recorded. Height: 23.8 cm. [Courtesy Yale University Art Gallery, Gift of the Estate of Vincent L. Price, Jr., B.A. 1933, no. 1996.10.2.]

identify consistent local interpretations of Group 1 figurines unique to specific regions.

Group 2, Object 6: A Case Study of Classification

To clarify an object’s placement in Group 2 rather than Group 1, I explicate the classification of one of the two Group 2 figurines from an archaeological context—Object 6, excavated by Paul Tolstoy at Tlapacoya, Mexico, in 1967 (Figure 6). I selected Object 6 for this exercise because it closely resembles hollow babies, leading to some confusion in the literature (Flannery and Marcus 2000:Figure 15). Object 6 is the largest figurine included in either Table 1 or Table 2. Contrary to some descriptions of this piece (Flannery and Marcus 2000:17), this object lacks a white slip. The absence of a white or cream slip distinguishes this piece from Group 1 figurines; instead, a thin gray to brown slip or wash has been applied with minimal burnishing evident, where preserved.

The body is stylized, tubular, and exaggerated, similar to the headless body illustrated in Figure 5. Although it is fat, no additional modeling has been indicated on the inflated body. The elongated and reshaped head does not dominate the object, as it is smaller than the figure’s torso. The top of the head shows an unusual amount of cranial modification—it is quite bulbous. Un-

like Group 1 figurines, the face features elongated diamond-shaped eyes that terminate in distinct points. Small raised areas in the center of each eye may represent pupils. A narrow, pointed nose runs between the eyes. Flat clay flanges form the ears, which show only cursory incisions to represent anatomical details (Figure 6). The mouth, however, is open and roughly downturned, in accordance with the Olmec style.

DISTRIBUTION OF INTACT GROUP 1 FIGURINES

Only twenty largely intact hollow figurines were classified as hollow babies (Table 1). As the majority of these have been looted, their attribution to a site or a region is highly problematic, based on stylistic associations with other material (also often looted) from a given site or region. Although an approximate geographical location is included when available in Tables 1 and 2, these data are suspect and unreliable; they often represent merely guesses made by curators. The actual proveniences—on both the site and intrasite levels—of most of these figurines remain unknown. Hollow babies have usually been linked to sites in Central Mexico, Guerrero, and, more rarely, the Gulf Coast. The limited information available from both looted and documented Group 1 figurines contradicts the interpretation that they served primarily as burial



Figure 6. A study in what is not a hollow baby. Closeup of a Group 2 figurine (Object 6, Table 2) excavated from Tlapacoya, with a closer approximation of the Olmec style than exhibited in Figure 4. A thin brown/gray slip or wash envelops the object. The body (not shown) shows little modeling. Although the head (small compared with the body) shows cranial modification similar to the Olmec style, it is greatly exaggerated and bulbous on top. The nose is narrow; the eyes are elongated diamond shapes and may have pupils; and the ears show only cursory incisions to represent anatomical details. Photograph by Michael D. Coe.

offerings (Reilly 1995:27–28). These data will be compared with those relating to Group 2 figurines.

Assertions that hollow babies are primarily a Central Mexican phenomenon in both production and consumption are based primarily on looted objects. The ascendancy of Central Mexico as the purported primary source of hollow babies (Flannery and Marcus 1994:388, 2000:16; Reilly 1995:27) came about because of the great quantity and quality of figurines and other supposed Olmec-style objects that have been attributed to the site of Las Bocas, Puebla. This site was heavily looted throughout the 1960s. By the time Mexican archaeologists arrived in 1966 to assess this deplorable situation, Las Bocas had already gained a reputation for yielding objects of the finest caliber. None of these objects, however, was documented archaeologically (Grove 1996:108). Because of the reputation of the site, the most aesthetically pleasing hollow babies that appear in museum collections invariably are labeled

Las Bocas, even though collectors never visited the site. Unlike the situation at Tlatilco, where collectors visited the site and purchased artifacts directly from the brick makers who found them during construction work (see Covarrubias 1950), collectors purchased objects supposedly from Las Bocas in Mexico City from the pot hunters or intermediaries (David Joralemon, personal communication 1995). Las Bocas became a pedigree label that enhanced an object's prestige and price. The site, interpreted as a small village rather than as a "chiefly center," could have yielded only a fraction of the objects attributed to it (Grove 1996:109). The hollow babies supposedly from Las Bocas in Table 1 do not show attributes suggestive of a single manufacturing locus. Fortunately, there has been a recent series of archaeological investigations at Las Bocas. Although reconnaissance and limited excavations have indicated that this may have been a densely populated village, no Group 1 hollow fragments have been found

(Paillés Hernández 2001). One fragment, listed as “baby-face,” is actually part of a leg (Paillés Hernández 2001:Photograph 27); according to the criteria used in the present study, it remains too fragmentary to classify.

Only one largely intact Group 1 figurine, now in the American Museum of Natural History in New York, has come from archaeological excavations in Central Mexico, although it should be noted that the anomalous ears of this object nearly preclude Group 1 inclusion. The large portion of the body missing from this figure renders a final impression inconclusive. This figurine—Object 6 (Table 1)—was found at Gualupita, Morelos (Vaillant and Vaillant 1934:Figure 14, Number 3). The figurine was found in mixed deposits, along with Aztec figurine heads, outside the boundaries of Trench B, Cut 1, and offers little insight into the primary role of these objects (Vaillant and Vaillant 1934:18–20, 50–53). Although it was suggested that the figurine might have been associated with a skeleton previously removed by the workmen (Vaillant and Vaillant 1934:53), this assertion was not supported by any empirical evidence or observations recorded in the field.

An additional hollow baby attributed to Central Mexico (Object 1, Table 1) was accidentally found and salvaged during road construction at Atlahuayan, Morelos, in 1948 (López González 1953:12), although the razing of a series of low mounds as part of highway construction has also been dated to 1951 (Grennes-Ravitz 1974:99). The exact context of this figurine was not recorded, although the road crew supposedly uncovered Formative burials and associated objects, including other “large figurines” (Grennes-Ravitz 1974:99). Later archaeological excavation at the site failed to establish that this object came from a burial (Piña Chán and López González 1952), although fragments of a Group 2 figurine were found nearby (see later).

If hollow babies served primarily as Central Mexican burial goods, as some scholars assert, then they should prove abundant at Central Highland sites where high quantities of burials have been excavated. However, in the 214 burials explored during the 1962 to 1969 seasons at Tlatilco, Mexico (García Moll et al. 1991), archaeologists did not recover a single intact—or fragmentary—hollow baby (Reyna Robles 1971). Nearly half of the Group 1 figurines have been attributed solely to sites outside Central Mexico (Table 1). It should be noted, however, that the preserved slips and surface treatments on hollow babies loosely associated with Central Mexico are more consistent with a Highland origin. Gulf Coast soils generally erode ceramic surfaces (Coe and Diehl 1980).

A largely intact Group 1 figurine has been found in the southern highlands of Oaxaca, at the site of Etlatongo in the Mixteca Alta (Blomster 1998a). This object displays all the basic features of a hollow-baby figurine: white slip; highly polished, fat, well-modeled body; no primary sexual characteristics; slit eyes; wide nose; flabby cheeks; and downturned mouth (Figure 7). This figurine (Object 20, Table 1) was found in a large, bell-shaped Early Formative pit. Located in a deposit close to the base of this pit, secondary refuse filled the remainder of the pit above. I have argued elsewhere that, because of the association of this figurine with a variety of non-utilitarian materials, it may have been part of a cache of damaged or spent ritual paraphernalia (Blomster 1998b). In addition, the figurine was associated with refuse of a higher-status household relative to other contemporaneous households at Etlatongo. The fact that this relatively intact figurine (the portion of the head above the eyes is missing) was deposited in this pit suggests a non-funerary function for at least some hollow babies.

This figurine clearly had been used and damaged before its deposition in this pit; an examination of all ceramic fragments from this context failed to yield additional pieces of this figurine.

Intact hollow babies have been associated with the Gulf Coast, although not from documented excavations. Although two hollow “kaolin” figures are in the La Venta case at the Museo Nacional in Mexico City, these are not consistent with Group 1 style—in fact, both figures show primary sexual characteristics. Three hollow babies in a nearby case, also identified as “La Venta,” are not from documented archaeological excavations and are generally attributed to Cruz del Milagro, Veracruz (Objects 15, 16, and 17 in Table 1). Hollow babies are generally considered to be part of the San Lorenzo Horizon, before the zenith of La Venta—an assertion that must be re-evaluated in light of the few intact figurines with a documented context. Two additional hollow babies (Objects 5 and 7, Table 1) are said to come from the Gulf Coast site of Tenenexpan. An intact hollow baby has also recently been found at San Lorenzo (Ann Cyphers, personal communication 2002).

DISTRIBUTION OF INTACT GROUP 2 FIGURINES

Contextual information is also scarce for Group 2 figurines (Table 2); only two figurines (Objects 2 and 6) come from documented excavations, both from Central Mexico. These contexts, however, are instructive, and contrast with those of Group 1. Object 2 was found with a burial at Gualupita (Vaillant and Vaillant 1934:111–113); the skeleton was of a middle-aged adult, head pointing northwest, with carved incisors. Archaeologists recovered a bottle and an additional hollow figurine (of a type not included in this study) from this burial. Object 2 had been deliberately broken, with the head set between the legs of the skeleton. Found shattered in 30 to 40 pieces, Object 6 lay scattered throughout 40 vertical cm of deposits on the southern periphery of the present-day village of Tlapacoya, near the edge of the bed of Lake Chalco (Paul Tolstoy, personal communication 1996). The figurine fragments occurred in a context of household refuse deposits along with two or three concentrations of human bones; these remains suggest a disturbed burial context, but the evidence is not conclusive.

Unlike the Group 1 figurine with an undisturbed provenience, the Group 2 figurines have one possible and one definite burial association. This may suggest that Group 2 figurines ultimately may have been used differently from Group 1 figurines. As noted earlier, there are myriad possible functions for figurines, many of which were probably not mutually exclusive. Group 2 figurines may have been more physically affected by their use; the fact that Group 2, Object 2, was ritually broken in a burial supports this interpretation. Some small, locally made solid figurines deployed in household rituals are also found systematically broken in a way that suggests ritual use (Blomster 1998b). They could have been used as part of curing ceremonies or in displays related to negotiations of social identities. Group 2 figurines, interpreted as regional representations of Group 1 figurines, may have been used in a manner more similar to contemporaneous solid figurines than Group 1 figurines. It is interesting to note that, although several intact Group 2 figurines may have come from the Gulf Coast (Table 2), they do not appear to come from major Olmec centers. This may support an interpretation of Group 2 figurines as representing individuals at a different level of political and spiritual power than expressed in Group 1, but more examples of both



Figure 7. Group 1 hollow-baby figurine excavated in a bell-shaped pit at Etlatongo, Oaxaca, in 1992. Brown earthenware figure covered with white slip, highly polished. Extensive modeling of chest, fat belly, and face. Height as preserved: 15 cm. Approximated reconstructed height: 18–20 cm. Associated carbon sample yielded a calibrated age range if 1110–793 cal B.C., using 2-sigma statistics.

figurines must be recovered from archaeological contexts before these differences can be further explicated. Ultimately, the functions and meanings associated with these figurines may be multi-valent, representing a continuum rather than a dichotomy in their creation, use, and interpretation by artist and audience.

DISTRIBUTION OF GROUP 1 AND 2 FRAGMENTS

The looted nature and resulting lack of context prevent definitive conclusions about the distribution of intact Group 1 figurines. Assertions that hollow babies are primarily a Central Mexican phenomenon (Flannery and Marcus 1994:388; Reilly 1995:27) are more effectively tested by examining hollow-figurine fragments recovered from archaeological excavations throughout Mesoamerica. As noted earlier, using fragments presents a problem: Without a large portion of the figurine present, it is difficult to authoritatively classify it as Group 1 or 2. Head fragments were used exclusively in Table 3; only when a headless body was nearly complete will it be included in the discussion to follow. An attempt was made to assign all fragments to Group 1 or 2. This was not always possible, however, as shown in Table 3.

The locality information summarized in Table 3 contradicts the purported Central Mexican hegemony in hollow-baby production and consumption. Many of the contexts in which the fragments were found—often as fill—were not sufficiently informative to

conclude differential distribution of Group 1 as opposed to Group 2 figurines. Although many of the fragments are reported to have come from “household trash,” the household status is often not indicated, preventing analysis of possible differential access to these objects. The fact that these fragments have been located in fill and trash deposits—indicating breakage during use—rather than in burials supports an interpretation that hollow babies were not created primarily as burial offerings. They were used, and in some cases broken, before interment.

Pacific Coast: Chiapas and Guatemala

Numerous fragments, possibly of both Groups 1 and 2, have been found near the Chiapas coast in the Mazatán region. Group 1 and Group 2 figurines have been recovered from the full chronological spectrum of the San Lorenzo Horizon at Paso de la Amada, including a largely intact body found in 1993 in the fill of Mound 14 (Clark 1994; Lesure 1995). This fat body exhibits some modeling and was differentially fired to appear white. Possible Olmec-style figurines appear for the first time during the Cherla phase (1100–1000 B.C.); more than one hundred hollow-figurine fragments that may be associated with either Group 1 or Group 2 have been recovered (Richard Lesure, personal communication, 2002). Fragments show the distinctive white slip and appear to be in seated postures. One Paso de la Amada face fragment appears to exem-

Table 3. Facial fragments of probable Group 1 and 2 figurines from archaeological contexts in Mesoamerica

Site	Group ^a	Context, Reference, and Comments
Paso de la Amada, Chiapas	1?	Face fragment (see Figure 8). Cream-colored paste with eroded surface; slip not visible. Found in Cherla-phase platform fill from Mound 12 (Richard Lesure, personal communication, 2002).
Paso de la Amada, Chiapas	1/2	Crucial facial features missing; neck-cheek-ear fragment of large face, slipped white; from high-status midden redeposited as fill in Cherla phase platform, Mound 1 (Richard Lesure, personal communication, 2002)
El Mesak, Guatemala	1?	Face fragment excavated in Mound 2 from late Jocotal phase household refuse/midden (Pye and Demarest 1991:Figure 36). The small fragment may be an Olmec-style face but is too fragmentary to be definitive.
San José Mogote, Oaxaca	2	White-slipped figurine head, with anomalous mouth and crescent eyes. One of nine hollow “doll” fragments from “Plácido’s Midden,” Area C (Marcus 1998:Figure 10.25).
San José Mogote, Oaxaca	2?	Head fragment, with face painted red (Specimen 1). Majority of face missing. From Zone D3 midden, possibly associated with higher status (Marcus 1998:Figure 32.15).
Tierras Largas, Oaxaca	2	Two white-slipped heads, from Features 140 and 160 (Marcus 1998:Figures 14.2, 14.31).
Tierras Largas, Oaxaca	1/2	Fragment of possible baby face; post-abandonment dump, Household LSJ-1 (Marcus 1998:Figure 34.15)
Tomaltepec, Oaxaca	2?	Body recovered without head; no white slip preserved but could have eroded (Joyce Marcus, personal communication, 1995). From a young adult female burial (Burial 21) in the San Jose-phase cemetery with other offerings around and under knees (Whalen 1981:130, 147).
Etlatongo, Oaxaca	1	Large fragment of lower face, with downturned mouth containing two teeth (see Figure 9). This may represent a mask rather than a complete figure. Found in secondary refuse of possible high-status household.
Etlatongo, Oaxaca	1/2	Face fragment; slip not preserved, although some burnishing marks still visible; redeposited in platform fill.
Etlatongo, Oaxaca	2	Portions of face, top of head, and body all from same figure, covered with cream slip, and with red pigment on portions of the head (see Figure 10). Found in secondary refuse in a bell-shaped pit. Carbon date of 1100 B.C..
Etlatongo, Oaxaca	2	Half of a large face, cream slip, highly polished (see Figure 11). Found in secondary refuse of pit feature.
Teopantecuanitlan, Guerrero	2?	Half of a white-slipped head, from Site 5, a high-status residence (Niederberger 1996:Figure 6). Similar to the Etlatongo Group 2 fragment illustrated as Figure 11.
Gualupita, Morelos	1/2	About half of face recovered (Vaillant and Vaillant 1934:Figure 10, Number 3). Found in Trench A, Cut 4, in redeposited debris and refuse probably used as fill (Vaillant and Vaillant 1934:16–18, 38–39).
Iglesia Vieja, Morelos	2	Face and “helmet” fragments found in burial close to the vicinity of the Atlhuayan figurine (Table 1, Object 1), slip not preserved (Grennes-Ravitz 1974:Figure 3). Carbon date of 1190 B.C.
Tlapacoya-Zohapilco, Mexico	1/2	Complete head; drawing more in Olmec style than photo (Niederberger 1976:Foto 32, Lámina LXXVI). Has head ornament/hair bun, Venus/star design on back of head, and very stylized ears; some trace of white and red slip. Found in fill, but exact context not specified.
Tlapacoya-Zohapilco, Mexico	1/2	Complete head; finish not preserved; head ornament and possibly hair; narrow chin (Niederberger 1976: Photograph 30, Plate LXXVI). Found in fill, but exact context not specified.
Tlapacoya-Zohapilco, Mexico	2	Complete head; appears infantile, but not in Olmec style. Covered with a beige slip (Niederberger 1976: Photograph 29). Found as an offering in a secondary burial (Niederberger 1976:214, 237, 242).
Tres Zapotes, Veracruz	2?	Complete head and part of upper body (Weiant 1943:Plate 18, Figure 8); one of numerous examples cited as baby face, but would not qualify as Group 1. Probably found in platform fill.
La Venta, Tabasco	1/2	Face fragment; appears infantile, probably in Olmec style, but not enough preserved to be certain (Gallegos Gómora 1990:Photograph 1). Found in mound fill of Structure D-7, in an area of public space.
La Venta, Tabasco	1	Recorded near Stela 1, La Venta (Joyce and Knox 1931:Plate B); divergent eyes?
San Lorenzo, Veracruz	1	Complete head, without eyes/closed eyes, with Venus/star design on back of head, San Lorenzo A phase (see Figure 12b). Excavated in fill/refuse deposits.
San Lorenzo, Veracruz	1	Most of head recovered; slit eyes and jowly face, San Lorenzo A phase (Coe and Diehl 1980:Figure 327). Excavated in fill/refuse deposits.
San Lorenzo, Veracruz	2?	Complete head; forehead larger than lower face; pierced ears, San Lorenzo A phase (Coe and Diehl 1980: Figure 525). Excavated in fill/refuse deposits.
San Lorenzo, Veracruz	1	Complete head, with extensive cranial modification, San Lorenzo B phase (Coe and Diehl 1980:Figure 547). Excavated in fill/refuse deposits.
San Lorenzo, Veracruz	1	Face fragment with mouth and part of nose, portrait-like quality, San Lorenzo B phase (see Figure 12a). Excavated in fill/refuse deposits.

^aAs emphasized in the text, it is difficult to determine whether a figurine should be Group 1 or Group 2 based on a fragment. When this determination was especially unclear, a question mark or the designation “1/2” is used.

plify the Olmec style, although it lacks a slip due to erosion (Figure 8). This probable Group 1 fragment was found in the platform fill of Mound 12, probably constructed during the Cherla phase (Richard Lesure, personal communication, 2002). Additional Group 1 fragments may come from Cantón Corralito, the regional center of a large chiefdom during the San Lorenzo Horizon in the Mazatán (Clark and Pye 2000:236).

Compositional analysis supports an interpretation of figurine importation. One Paso de la Amada figurine fragment analyzed as part of a larger study of Early Formative ceramics conducted at the University of Missouri Research Reactor segregates into a group of white paste ceramics with a San Lorenzo origin (Neff and Glascock 2002:Table 1, Sample SL1044). This represents one case in which an actual object rather than just a



Figure 8. Probable Group 1 face fragment excavated from Cherla-phase platform fill at Mound 12, Paso de la Amada, Chiapas. Eye, nose, and mouth are consistent with the Olmec style. The surface of the figure is highly eroded; slip is not preserved. Photograph by Richard G. Lesure.

style was imported and supports a San Lorenzo origin for hollow babies.

Hollow figurines show more variety than contemporaneous solid Mazatán figurines; they also show more skill and higher labor costs, with a labor investment hypothesized to indicate specialization (Clark 1994). Although documenting correspondences between higher-status architecture and artifact distribution has proved difficult at Paso de la Amada, hollow figurines represent the one artifact type differentially distributed with platforms (Lesure and Blake 2002). Residents associated with the platforms from which both Group 1 and 2 figurines originate may be associated with higher status in terms of ritual knowledge and prestige rather than economic privileges. Recent analysis of these contexts provides a good cautionary tale about assumptions tied in with “high status” (Lesure and Blake 2002).

Additional hollow-figurine fragments have been found along the Pacific Coast in Guatemala. Part of an Olmec-style face was found in late Jocotal phase (950–800 B.C.) household refuse at El Mesak, Guatemala (Pye and Demarest 1991:Figure 36). This fragment could be either Group 1 or 2; archaeologists recovered only a small portion of the face. Also in Guatemala, in the Department of Escuintla, a well-modeled, chubby body was found, without a head, during farming at Los Cerritos (Shook and Heizer 1976:Figure 4). This well-polished fragment could belong to a Group 1 figurine, but because it lacks a head, it has not been included in Table 3.

The Valley of Oaxaca

Numerous hollow-figurine fragments, some of them white-slipped and chubby, come from the Valley of Oaxaca site of San José Mogote (Joyce Marcus, personal communication 1995). Fragments were found throughout the secondary refuse at the site, including the trash in at least one bell-shaped pit (Flannery and

Marcus 1994:312–317). White-slipped “doll” fragments are also associated with a late San José phase (the regional ceramic sequence contemporaneous with the San Lorenzo Horizon) stone-faced platform (Flannery 1968:85). A total of nine “white-slipped doll” (i.e., hollow-baby figurine) fragments are reported from a large midden at San José Mogote (Marcus 1998:102); one is classified as a “baby-face” type, although from the illustration it is more likely Group 2 (Marcus 1998:Figure 10.25). The mouth in particular is not formed in the Olmec style, nor is the rest of the face consistent with Group 1 figurines.

Moving approximately 10 km to the southeast of San José Mogote, archaeologists encountered hollow limb fragments, several of which have white slip, at the site of Tierras Largas (Marcus 1998:Figure 8.38; Winter 1972); these remain insufficient for classification. A white-slipped hollow figurine head was found in Feature 140, a bell-shaped pit, at Tierras Largas (Marcus 1998:Figure 34.2). This head, which I interpret as hollow, is from a typical Group 2 figurine (it is referred to in the text as solid and in the figure caption as hollow [Marcus 1998:191, 193]). Hollow and solid San José-phase figurine fragments were recovered at Tierras Largas Household Unit LSJ-1, reused as a dump after its abandonment. From this secondary context, archaeologists recovered both a white-slipped arm and the badly eroded face of a hollow “baby doll,” with traces of white slip (Marcus 1998:196, Figure 14.15). Although it is unusually small and poorly preserved (making classification difficult), it is the best candidate for inclusion in Group 1 published from the Valley of Oaxaca. A Group 2 head—similar to one reported later from Etlatongo (Figure 10)—was found in a bell-shaped storage pit (Feature 160) associated with Household Unit LSJ-2 at Tierras Largas, along with a stone figure (Marcus 1998:Figure 34.31). Based on its contents, this household has been assessed as that of a relatively high-status family (Marcus 1998:201). Farther to the north in the Etla branch of the Valley of Oaxaca, ancient villagers redeposited hollow head fragments, too incomplete to be classified, in the construction fill of later public buildings at Barrio de Rosario Huitzo (Marcus 1998:Figure 35.2). A partially complete hollow figurine body (non-Group 1) was found in a San José phase burial at the site of Tomaltepec, in the Tlacolula branch of the Valley of Oaxaca (Whalen 1981:130, 147).

The careful nature of the excavations at Tierras Largas and San José Mogote (Flannery and Marcus 1994; Winter 1972) make it possible to examine the context of some of these figurines. As noted earlier, one Group 2 fragment from Tierras Largas came from the household of a relatively high-status family, with the possible Group 1 fragment from a non-primary context. Although no convincing examples of Group 1 hollow figurines have been published from San José Mogote, the location of several other hollow-figurine fragments is instructive. Fragments of large, hollow white-slipped “dolls” were found in greater frequency in a midden (Zone D) interpreted possibly to have contained the trash of families that were more highly ranked than most at San José Mogote (Marcus 1998:158). Fragments of solid figurines of males seated in “positions of authority” were also found in higher frequency in this midden. The one illustrated hollow head fragment has a face painted red, with a prominent forelock and two lateral buns (Marcus 1998:152). This fragment may be from a Group 2 figurine—it is too incomplete to be definitively classified. The hairstyle identifies this as a representation of a biological female. Other hollow limb fragments from this midden are labeled as from “baby dolls,” an identification that cannot be accepted based on the incompleteness of the figurines represented by these frag-

ments (Marcus 1998:Figure 12.22). Data from both Tierras Largas and San José Mogote support the association of hollow figurines of various types with differently ranked families.

The Mixteca Alta

Investigations in the Mixteca Alta of Oaxaca, a mountainous area northwest of the Valley of Oaxaca, have contributed to the corpus of hollow-figurine fragments. Excavations at the site of Etlatongo in the Nochixtlan Valley, Oaxaca, encountered substantial Early Formative remains (Blomster 1995, 1998a, 2001). In addition to a largely intact Group 1 hollow baby (Figure 7), four hollow-figurine fragments classified as Group 1 or Group 2 were recovered from this large Formative village during the 1992 excavations (Blomster 1998b). A large facial fragment, with a downturned mouth and complete chin preserved (Figure 9), appears to be from a reworked Group 1 figurine, although it may be from a mask—the lower portion of this object preserves a rim. The slip is largely eroded, although traces of it, as well as additional red pigment, remain partially preserved on this face. This fragment was found

in secondary refuse in a large pit feature along with other higher-status refuse. An additional Group 1 figurine face was found without the slip preserved in redeposited refuse that served as platform fill.

Two Group 2 figurine fragments (Figures 10 and 11) were found in secondary refuse within pit features at Etlatongo. One of these (Figure 10) was found in a bell-shaped pit, with materials that date it as the earliest of the hollow-figurine fragments found at Etlatongo. Indeed, this is one of the earliest contexts documented at Etlatongo; the mixed ceramics in this refuse include fragments of types that predate the appearance of hollow babies in Mesoamerica. A carbon sample from this feature produced an uncalibrated date of 1100 B.C.; using 2-sigma statistics (Stuiver and Reimer 1993), the calibrated age range is 1303 to 899 cal B.C. The status of the household associated with this feature is inconclusive because of the limited portion of it exposed during the 1992 excavations. A cream-colored slip covered this figurine with a thick coating of red pigment applied to the top of the head—a roughened area that could symbolically represent scarification, internal organs, or hair. The facial physiognomy, as well as the color and finish, appears to result from approximating a hollow-baby tem-

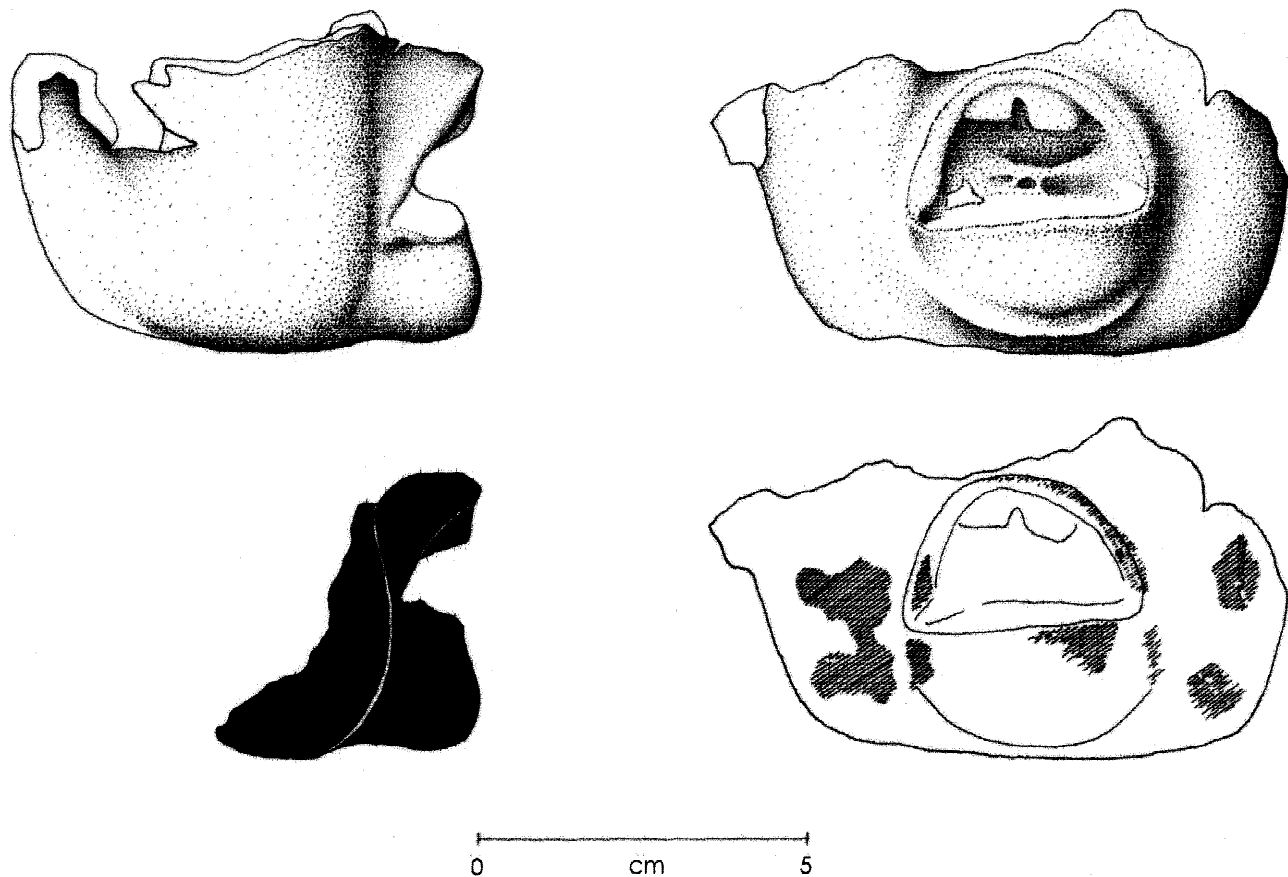


Figure 9. Large facial fragment from a reworked Group 1 figurine or mask, Etlatongo, Oaxaca. The fragment was found in secondary refuse within a pit feature; two teeth and additional bucal features are clearly depicted. The top shows side and frontal views; the bottom presents a cross-section and a plan view showing the presence of surviving red pigment on the face (diagonal lines). This piece may not have been attached to a body. Areas without stippling represent fractures. Height: 5 cm. Drawn and inked by Hugo Arturo Antonio Dominguez.

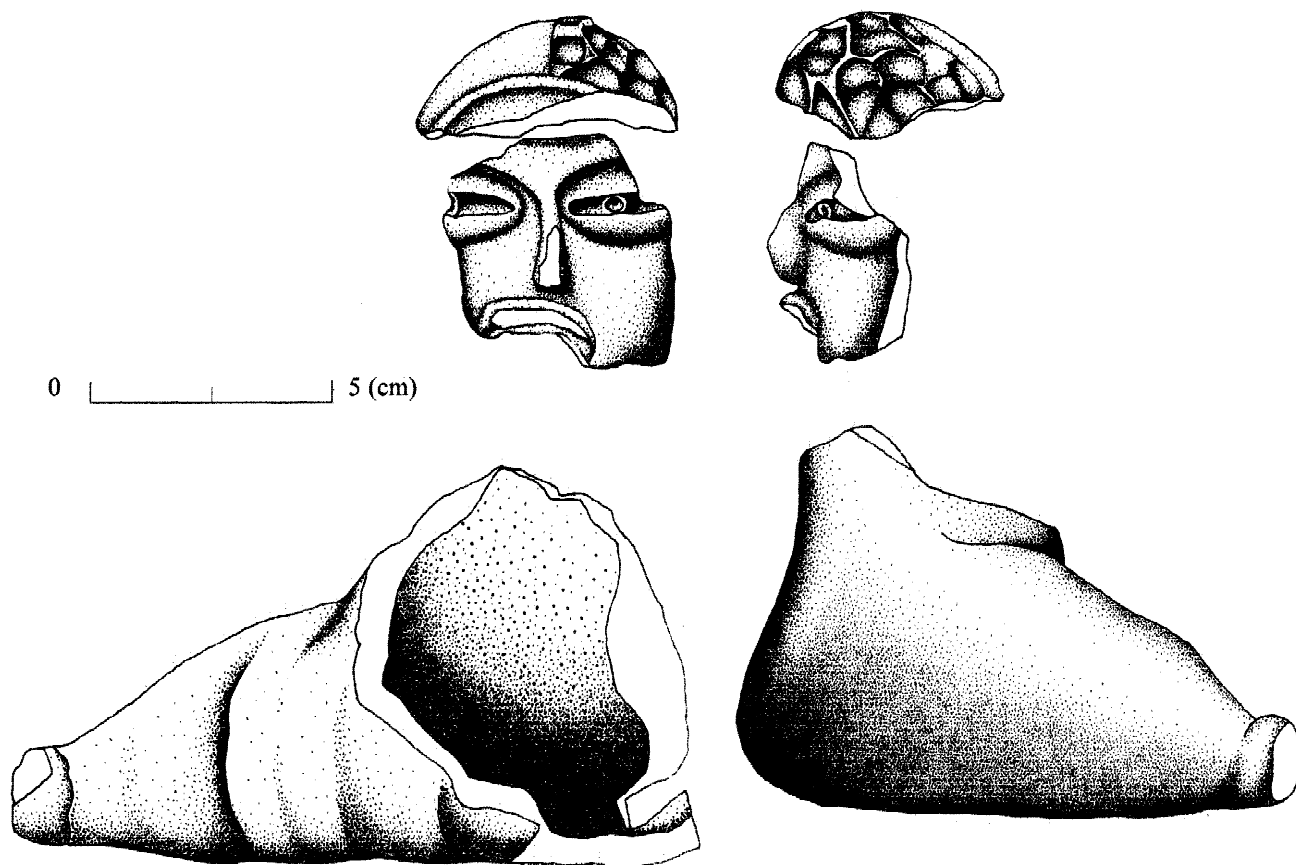


Figure 10. Face and body fragments of a Group 2 figurine from Etlatongo, Oaxaca, found in a bell-shaped pit during the 1992 excavations. A carbon sample from this same context provides a calibrated range of 1303–899 cal B.C. with the use of 2-sigma statistics. Covered with a cream slip. There was also a thick coating of red pigment on the top of the head. Areas without stippling represent fractures. Projected reconstructed height: about 25 cm.

plate. A nearly identical fragment was found at Tierras Largas, and another example has been reported from Iglesia Vieja, Morelos (see later).

A large, irregularly shaped pit feature yielded the large head fragment illustrated in Figure 11. This highly burnished piece is coated with a cream slip and is probably a Group 2 figurine. Based on the smooth, unwrinkled face, the figure appears to depict a young person with some kind of cap or headgear. The eye shape is very common on Group 2 figurines, as is the very stylized ear—lacking the anatomical detail of Group 1 figurines. Contemporaneous white-slipped hollow limb fragments were found at additional contexts during the 1992 Etlatongo excavations.

The limited figurine data from Etlatongo support observations about context and distribution from the Valley of Oaxaca. At Etlatongo, Group 1 figurines especially appear to come from higher-status households. Both the largely intact Group 1 figurine (Figure 7) and the large mouth fragment (Figure 9) were found in refuse associated with higher-status families. As noted earlier, the distinction among higher, normal, and public contexts remains difficult to discern, even at more fully sampled sites (Lesure and Blake 2002). Association with higher status is only slightly less pronounced for Group 2 figurines from Etlatongo; the features from which both Group 2 fragments (Figures 10 and 11) derive are associated with an area of public or higher-status structures. A

larger sample of households from all levels of sociopolitical complexity is necessary from both this site and the Nochixtlan Valley before definitive conclusions can be drawn.

Guerrero

In addition to yielding examples of Olmec-style stone sculpture (Martínez Donjuán 1994), the site of Teopantecuanitlan has been cited as producing numerous hollow-baby fragments (Niederberger 1986, 1996). Based on the definition presented earlier, however, none of the published fragments would qualify as Group 1. A nearly complete head with a white slip published as a hollow-baby face (Niederberger 1996:Figure 4) is not executed in the Olmec style, but it may be a Group 2 figurine—it is similar to the Etlatongo fragment illustrated as Figure 11. These purported hollow-baby fragments were found in the refuse of what may have been a high-status residence (Niederberger 1986:102). Because the Olmec-style stone sculptures at Teopantecuanitlan are more associated stylistically with the later La Venta Horizon, perhaps the lack of hollow babies relates to chronological issues.

Central Mexico

Although hollow-baby fragments are often cited as occurring primarily in Central Mexico, a review of archaeologically docu-



Figure 11. Half of a large Group 2 face from Etlatongo, Oaxaca, found in secondary refuse of a large, irregularly shaped pit feature during the 1992 excavations. The face is coated with a cream slip and highly burnished; the eye shape is common in Group 2 figurines. Note the stylized ear, complete with ear ornament. Height: 8.5 cm.

mented fragments does not support this assertion. None of the seven fragments included in Table 3 are clearly Group 1. Of the numerous figurine fragments illustrated from Gualupita, only one belongs to Group 1 or 2. Also in Morelos, fragments of a Group 2 figurine were found in a burial at Iglesia Vieja, close to the mounds from which the Group 1 Atlahuayan figurine (Object 1, Table 1) was recovered (Grennes-Ravitz 1974:99–101). Although the figurine was claimed to be an “Olmec burial figurine” by the excavator, the facial physiognomy is consistent with Group 2 figurines. In fact, the facial fragment preserved is similar to the example from Etlatongo illustrated in Figure 10. These facial fragments were found above the deceased’s head, associated with a carbon sample dating to 1190 B.C. (Grennes-Ravitz 1974).

The remaining Central Mexican specimens in Table 3 all come from the 1969 excavations of Tlapacoya-Zohapilco, Mexico (Niederberger 1976, 1987). In the published drawings, two of these resemble Group 1 figurines, but based on photographs of the same figurines they appear more similar to Group 2 figurines. Although

the faces show elements of the Olmec style, their execution is less naturalistic than is typical of this style. Both heads were found in fill deposits, with the exact context not further specified (Niederberger 1976). A Venus-like symbol is carved into the back of a possible Group 1 head. One Group 2 beige-slipped head, infant-like but not in the Olmec style, was found in a secondary burial (Niederberger 1976:Photograph 29). Thus, contrary to expectations of Group 1 distribution based on intact, looted examples (Flannery and Marcus 2000), examination of figurine fragments from archaeological contexts further supports the great scarcity of these objects in Central Mexico.

Gulf Coast

Examples of Olmec-style hollow-baby fragments have been found at San Lorenzo, Veracruz, where the majority of both solid and hollow figurine heads are in the Olmec style, although hollow heads remain rare compared with solid ones. A possible precursor to the hollow baby has already been discussed based on a Bajío-phase fragment. Four hollow head fragments that date to the San Lorenzo A or B phase, found in various refuse and fill deposits, are classified as Group 1 (Table 3). One intact head has closed eyes or is without eyes (Figure 12b)—as are some contemporane-

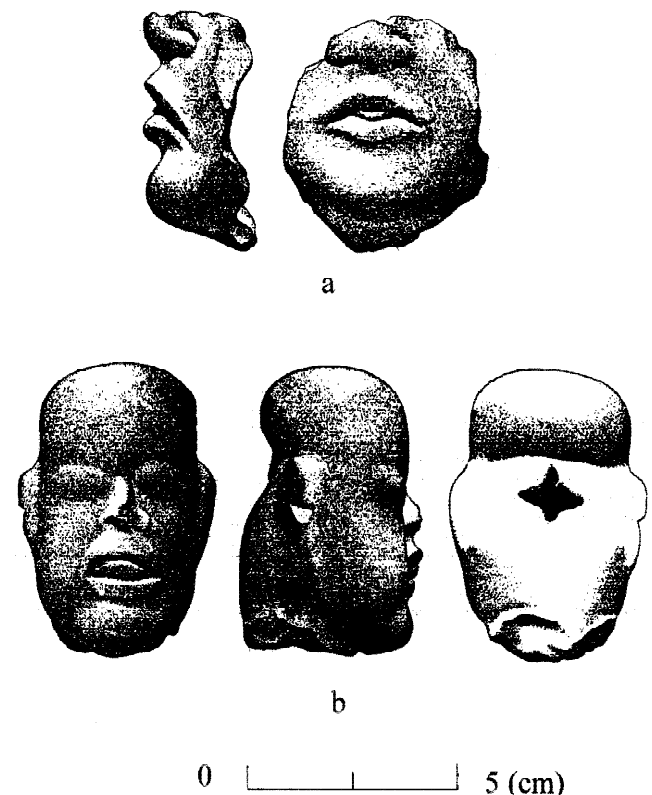


Figure 12. Two Group 1 figurine heads from San Lorenzo, Veracruz, excavated in the late 1960s. (a) This object was found in San Lorenzo B-phase refuse/fill deposits and achieves a portrait-like quality. Note the thick nose. Height: 5 cm. (b) This object was excavated in San Lorenzo A-phase fill/refuse deposits. Eyes are either closed or not fully indicated; note the full, fleshy cheeks and the Venus/star design on back of head. Height: 7.5 cm. Adapted from Coe and Diehl (1980:Figures 326, 351).

ous Olmec-style solid figurines—and has the Venus/star symbol carved into the back of its head. Of these four, the fragment that has the smallest amount of the face preserved (Figure 12a) has a portrait-like quality, while executed fully in the Olmec style. The slip has mostly eroded on these fragments because of a combination of acidic soils and high humidity (Coe and Diehl 1980:131).

The majority of hollow head fragments published from San Lorenzo classify as hollow babies. One possible Group 2 hollow head exists (Coe and Diehl 1980:Figure 325); the remaining fragments are most consistent with a non-Group 1 or 2 classification. The quantity of heads not classified as Group 1 (or Group 2) increases from the San Lorenzo A to B phase. It would be surprising if even at San Lorenzo there were not some variability in physiognomy—intentional or unintentional. Trying to interpret “intentionality” to these figurines raises emic and etic issues, such as the awareness of different levels of social actors of these categories and whether the categories and subject matter are responsible for the differential power and prestige associated with these objects rather than (or in addition to) style. Objects are not direct representations of the images they depict; this is where the issue of style is so important. As noted earlier, art is often used to isolate and present elements of the natural world that are significant to the artist and/or audience (Layton 1981:163). This analysis points to technology as probably not responsible for the differences between Group 1 and Group 2 figurines. Furthermore, metapatterns observed by archaeologists may not be cross-cultural in meaning (Parmentier 1997). Only a larger sample of figurines with better contexts could begin to address such issues. Such a sample may be forthcoming for the Gulf Coast. Additional examples of intact and fragmentary Group 1 figurines have recently been recovered at San Lorenzo (Ann Cyphers, personal communication 2002).

Two other large Olmec culture centers from the Gulf Coast have not, until recently, yielded hollow-baby fragments from controlled excavations. The absence of Group 1 figurines may be a temporal issue, as both sites reached their apogee largely after the San Lorenzo Horizon. None of the fragments from the Smithsonian project at La Venta, Tabasco, would be classified as Group 1 (Drucker 1952). One face fragment, however, from the recent Instituto Nacional de Antropología e Historia (INAH) project at that site may be part of a hollow baby (Gallegos Gómora 1990:Photograph 1). This fragment was found in fill, along with several stone monuments, in an area of public space at the site. In addition, a complete Group 1 head was photographed at the same time as La Venta Stela 1, at a location “20 miles up the river from Tonal[a]” (Joyce and Knox 1931:17). Although “baby-face” fragments were reported from the chronologically later site of Tres Zapotes, Veracruz (Weiant 1943:90), none of the hollow figurines illustrated would qualify as Group 1.

Distribution Summary

The distribution of hollow-figurine fragments reveals several important patterns. First, hollow babies come from large regional centers. Although the occasional possible Group 1 fragment derives from a smaller village (such as the possible Tierras Largas Group 1 figurine), these objects generally are associated with larger villages, in some cases representing the center of a regional chiefdom. This pattern is less robust with Group 2 figurines, which appear more widely distributed within regions. Within sites, both Group 1 and Group 2 fragments cluster near higher-status residences or possible ritual or public areas. Data from the Mazatán

region exemplifies this pattern. Artifact-distribution analysis at Paso de la Amada failed to detect economic specialization associated with the platforms at the site, but hollow figurines consistently appeared in higher frequencies at these platforms (Lesure and Blake 2002). This is consistent with an interpretation that one use of these objects may have centered on integrative rituals that involved a larger number of participants than in individual household rituals, the probable realm of small, solid figurines.

CONCLUSIONS

This review of approximately coeval hollow-figurine types and their distribution, combined with a consideration of intrasite provenience where possible, has provided insights into this one manifestation of the Olmec style in Mesoamerica. Hollow babies (Group 1) are a rare form of portable sculpture that is seemingly absent from the majority of Formative-period sites in Mesoamerica. Group 2 figurines, executed possibly to emulate the Olmec style (or elements of it), are also infrequent, although Group 2 fragments are more common outside the Gulf Coast than are Group 1 fragments. Whereas Group 1 fragments are most frequent on the Gulf Coast (6 probable examples), Group 2 examples occur less frequently, if present at all. The majority of hollow and solid head fragments from San Lorenzo, Veracruz, would be classified as Olmec-style. This contrasts with the situation at all other sites where Group 1 examples have been documented (or attributed). At these sites, Olmec-style figurines are rare and form a distinct minority of the total solid- and hollow-figurine assemblage.

The much greater frequency of Olmec-style figurine heads at San Lorenzo suggests a more likely correlation between this element of the Olmec style and the Olmec archaeological culture. This relationship is supported by the expression of this physiognomy in Gulf Coast monumental sculpture and its absence on such media during the San Lorenzo Horizon outside the Gulf Coast. The virtual absence of Group 2 figurines—considered here as interpretations of Group 1 figurines—at San Lorenzo and their greater abundance at sites outside of the Gulf Coast, especially as solid figurines, suggests a directionality in the flow of Group 1 imagery. When Group 1 figurines appear outside the Gulf Coast, they have no local precedent and represent a dramatic break with regional traditions of portraying the human body. In addition to hollow-baby origins hypothesized based on style analysis and comparison to Gulf Coast monumental sculpture, the early Bajío-phase fragment from San Lorenzo may indicate an Olmec genesis, and compositional data from the Mazatán area demonstrate figurine importation from the Gulf Coast.

Visually, these objects represent both a blend and a juxtaposition of styles (Pasztor 1989:20). While the Group 1 figurine posture is adopted, distinctive physiognomies remain expressed in Group 2 figurines. This may represent an attempt by both parties to represent the “other” and, through the repetition of the distinctive Group 1 physical attributes, the creation of a particular Olmec “brand image” (Pasztor 1989:35). There are numerous possibilities for one group’s incorporation of elements of another group’s style beyond mere influence or emulation, including appropriation, reaction, misunderstanding, and maintenance. There is also the possibility that the visual differences between Group 1 and Group 2 figurines may be more of a focus for archaeologists than for the agents who produced and consumed these objects.

The assertion that hollow babies are largely a “product” of Central Mexico (Flannery and Marcus 1994:388; Reilly 1995:27)

has been based on the great quantity of looted material claimed to come from sites such as Tlatilco and Las Bocas, as well as a conflation of a diverse sample of Formative figurines as hollow babies (Grove 1996; Niederberger 1987). Analysis of excavated materials from Central Mexico fails to support this focus. Excavations of Tlatilco burials yielded no intact hollow babies (García Moll et al. 1991). Instead, non-Group 1 fragments are prevalent in Central Mexico. Until more intact or fragmentary hollow babies are documented archaeologically, the assertion that hollow babies are largely a Central Mexican phenomenon cannot be accepted (contra Flannery and Marcus 2000). Due to the better preservation and extensive looting of Central Mexican sites, the sample from that region has been biased in favor of finding Group 1 figurines and other examples of ceramic art. The relative paucity of intact Olmec-style ceramic objects from Gulf Coast sites such as San Lorenzo may be partially attributable to the lack of excavated burials, both legal and illegal, as well as preservation issues. Once again, the recent research at San Lorenzo will undoubtedly change this situation, as Early Formative burials have been found (Ann Cyphers, personal communication 1998). Based on fragments, Group 1 figurines appear to be most common at San Lorenzo, followed by Etlatongo in the Mixteca Alta of Oaxaca and various Mazatán villages.

Although many Group 1 and 2 fragments (and nearly all of the intact specimens) have little provenience information recorded, those with such data indicate an association with higher-status households. The scarcity of these figurines relative to contemporaneous solid figurines is also indicative of limited availability and unequal access. The contexts of Group 1 fragments and one intact example suggest that these were not created primarily as burial offerings; figurines from both groups were multivalent, signifying different meanings and serving circumstantially varied functions. Group 2 figures appear to have a greater correlation with burials; one intact Group 2 figurine and three fragments were found in burials, and a second intact Group 2 figurine (from Tlapacoya) may have been associated with a burial. There may have been semiotic mediation prior to the burial of these figurines, where they served similar functions and carried meanings comparable to Group 1 figurines. There is some evidence of different physical manipulation of these figurines. The Group 2 figurine found in a Gualupita burial had been ritually broken, similar to at least some contemporaneous solid figurines deployed in household rituals. Thus, there is limited evidence suggestive of a func-

tional differentiation between Group 1 and Group 2 figurines. Figurines in both groups, however, were probably controlled by households with differential status or rank, and employed in early public rituals—activities that included more people than the immediate household. As additional examples with secure proveniences are published, the contexts of figurines from both groups can be further analyzed.

Finally, I noted the greater amount of variability among Group 2 than among Group 1 figurines (although this could be an artifact of this etic classification). This variation may be stylistic, but it could also relate to differing subject matter. Group 1 figurines, or the themes embedded in them, probably served as templates for the creation of Group 2 figurines, which were executed in a variety of regional styles. While Group 1 figurines have been interpreted as representing a combination of human and supernatural attributes (Blomster 1998b), these features are less apparent on Group 2 figurines. Instead, more human traits are emphasized. Three examples have primary or secondary sexual characteristics indicated. Although this does not preclude an association of Group 2 figures with divine status, it is significant that Group 2 artisans privileged sexual characteristics in their creations relative to Group 1 artisans. Group 2 figurines may represent actual individuals who served important roles in Formative villages, but perhaps at a different level of ideological or sociopolitical status from those associated with Group 1 figurines. There is a growing recognition of the asymmetrical relationships that the Gulf Coast Olmec enjoyed with contemporaneous San Lorenzo Horizon groups in Mesoamerica (Clark and Pye 2000; Stark 2000). The general approximation of Group 1 form shown on Group 2 figurines may show both an ideological and political alliance to powerful underlying symbols, as well as a resistance to the totalizing aspects inherent in such contact.

This paper has classified hollow figurines based on a Gulf Coast definition of the Olmec style. Through this analysis, many objects infelicitously labeled “hollow babies” or “Olmec-style” have been banished from the corpus, and the distribution, especially of hollow-baby fragments, has been clarified. I advocate this approach for other classes of artifacts included under the rubric of “Olmec-style,” including solid figurines, ceramic vessels, and stone sculpture. Before the nature of Early Formative interregional interaction can be assessed, it is vital that the myriad differences and similarities within the related material remains from regional populations participating in this interaction be recognized.

RESUMEN

A fin de entender mejor el significado del estilo “Olmeca” y sus implicaciones en los patrones de intercambio durante el formativo temprano, se analiza una clase de artefactos—la figurilla hueca. Se define el estilo olmeca en base a ejemplos de arte que se encuentran en la Costa del Golfo. Un tipo de figurillas huecas—el “bebé hueco” (Grupo 1)—parece correlacionarse con la definición del estilo. Este tipo de figuras se han encontrado, usualmente sin contexto, en la Costa del Golfo y también en el estado de Oaxaca, México. El análisis no apoya la aseveración de que los bebés huecos eran producidos y usados en el altiplano de México. Tam-

poco parece que estos objetos se utilizaron solamente para colocarlos con los entierros humanos; parece más bien que tuvieron múltiples funciones. Los bebés huecos sólo representan un tipo de figurilla hueca. Hay otros tipos contemporáneos, incluyendo uno (Grupo 2) que parece estar relacionado pero es diferente en forma y posiblemente en uso. A pesar de no contar con datos sobre contextos, se puede deducir que había acceso diferencial a los dos tipos de figurillas huecas en comparación con las figurillas sólidas. Se considera el significado de las diferencias entre los dos tipos de figurillas huecas.

ACKNOWLEDGMENTS

This article began as part of the 1998 publication of the intact Etlatongo figurine in *Ancient Mesoamerica*. I thank everyone who encouraged me to

pursue this as a separate article, especially John Clark. The 1992 Etlatongo fieldwork was supported by a Fulbright (IIE) Fellowship. Josef

Albers Fellowships and the Charles J. MacCurdy Endowment, Yale University, supported subsequent research and technical analysis. I owe special thanks to Lorena Mirambell and the Consejo de Arqueología of the Instituto Nacional de Antropología e Historia, Ernesto González Licón and the Centro Regional Oaxaca of the Instituto Nacional de Antropología e Historia, and the field crew and people of San Mateo Etlatongo for their permission and support in carrying out the field research. Special thanks is extended to Marcus Winter of the Centro Regional Oaxaca for his support during the fieldwork and ideas on figurines, and to Michael Coe, Yale University, for his support, encouragement, and photographic archive. Thanks to the Yale University Art Gallery; the Art Museum, Princeton University; and the

Metropolitan Museum of Art for permission to reproduce objects from their collections. Many people patiently answered questions regarding hollow-figurine provenience, supplied sources, or read earlier drafts of this paper, including Richard Burger, Ann Cyphers, David Joralemon, William Fowler, Gillett Griffin, Joyce Marcus, Geoffrey McCafferty, Mary Miller, Louise Paradis, Richard Parmentier, Matthew Robb, Paul Tolstoy, and Javier Urcid. This paper benefited from the efforts of five reviewers, four of whom provided their names and the offer of additional critique: Clark, Richard Diehl, David Grove, and Richard Lesure. I extend special thanks to Lesure, who provided access to his unpublished hollow-figurine data and Figure 8. I am solely responsible for any errors in content and interpretation.

REFERENCES

- Art Museum
1995 *The Olmec World: Ritual and Rulership*. Art Museum, Princeton University, Princeton, NJ.
- Benson, Elizabeth P., and Beatriz de la Fuente (editors)
1996 *Olmec Art of Ancient Mexico*. National Gallery of Art, Washington, DC.
- Bernal, Ignacio
1969 *The Olmec World*. University of California Press, Berkeley.
- Binford, Lewis R.
1989 Styles of Style. *Journal of Anthropological Archaeology* 8:51–67.
- Blomster, Jeffrey P.
1995 Micro-settlement Patterning and Demographic Change at Etlatongo, Oaxaca, Mexico. Paper presented at the 60th Annual Meeting of the Society for American Archaeology, Minneapolis.
1998a *At the Bean Hill in the Land of the Mixtec: Early Formative Social Complexity and Interregional Interaction at Etlatongo, Oaxaca, Mexico*. Unpublished Ph.D. dissertation, Department of Anthropology, Yale University, New Haven, CT.
1998b Context, Cult, and Early Formative Public Ritual in the Mixteca Alta: Analysis of a Hollow Baby Figurine from Etlatongo, Oaxaca. *Ancient Mesoamerica* 9:309–326.
- 2001 Etlatongo. In *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, edited by Susan T. Evans and David L. Webster, p. 248. Garland Publishing, New York.
- Bordes, Francois
1968 *The Old Stone Age*. McGraw-Hill, New York.
- Brinckerhoff, Deborah
1994 *A Ceramic View: Pre-Columbian Art from the John Platt Collection*. Bruce Museum, Greenwich, CT.
- Burger, Richard L.
1988 Unity and Heterogeneity within the Chavín Horizon. In *Peruvian Prehistory*, edited by R.W. Keatinge, pp. 99–144. Cambridge University Press, New York.
- Cambiaghi, Renata (editor)
1990 *Art Précolombien du Mexique*. Olivetti, Paris.
- Clark, John E.
1994 *The Development of Early Formative Rank Societies in the Soconusco, Chiapas, Mexico*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.
- Clark, John E., and Mary E. Pye
2000 The Pacific Coast and the Olmec Question. In *Olmec Art and Archaeology in Mesoamerica*, edited by John E. Clark and Mary E. Pye, pp. 217–251. Studies in the History of Art, Vol. 58. National Gallery of Art, Washington, DC.
- Coe, Michael D.
1965a The Olmec Style and Its Distributions. In *Archaeology of Southern Mesoamerica*, part 2, edited by Robert Wauchope and Gordon R. Willey, pp. 739–775. Handbook of Middle American Indians, vol. 3. University of Texas Press, Austin.
1965b *The Jaguar's Children: Pre-Classical Central Mexico*. Museum of Primitive Art, New York.
1968 *America's First Civilization*. American Heritage Publishing, New York.
1977 Olmec and Maya: A Study in Relationships. In *The Origins of Maya Civilization*, edited by Richard E.W. Adams, pp. 183–195. University of New Mexico Press, Albuquerque.
- Coe, Michael D., and Richard A. Diehl
1980 *In the Land of the Olmec. Vol. 1: The Archaeology of San Lorenzo Tenochtitlán*. University of Texas Press, Austin.
- Con, María José
1982 Nota sobre trez piezas olmecas de saqueo: Procedencia desconocida. *Revista Mexicana de estudios antropológicos* XXVIII: 59–65.
- Covarrubias, Miguel
1950 Tlatilco: El arte y la cultura preclásica del Valle de México. *Cuadernos Americanos* año IX 51(3):149–162.
1957 *Indian Art of Mexico and Central America*. Alfred A. Knopf, New York.
- Cyphers, Ann
1996 Reconstructing Olmec Life at San Lorenzo. In *Olmec Art of Ancient Mexico*, edited by Elizabeth P. Benson and Beatriz de la Fuente, pp. 60–71. National Gallery of Art, Washington, DC.
- De la Fuente, Beatriz
1992 Order and Nature in Olmec Art. In *The Ancient Americas: Art from Sacred Landscapes*, edited by R.F. Townsend, pp. 120–133. Art Institute of Chicago, Chicago.
- Delataille, Emile, Gerald Berjonneau, and Jean-Luis Sonnerly
1985 *Rediscovered Masterpieces of Mesoamerica: Mexico-Guatemala-Honduras*. Editions Arts 135, Boulogne.
- Diehl, Richard A., and Michael D. Coe
1995 Olmec Archaeology. In *The Olmec World: Ritual and Rulership*, pp. 11–25. Art Museum, Princeton University, Princeton, NJ.
- Drucker, Philip
1952 *La Venta, Tabasco: A Study of Olmec Ceramics and Art*. Bureau of American Ethnology Bulletin 153. Smithsonian Institution, Washington, DC.
- Easby, Elizabeth K., and John F. Scott
1970 *Before Cortés: Sculpture of Middle America*. Metropolitan Museum of Art, New York.
- Feuchtwanger, Franz
1989 *Cerámica olmeca*. Editorial Patria, Mexico.
- Flannery, Kent V.
1968 The Olmec and the Valley of Oaxaca: A Model for Inter-regional Interaction in Formative Times. In *Dumbarton Oaks Conference on the Olmec*, edited by Elizabeth P. Benson, pp. 79–117. Dumbarton Oaks, Washington, DC.
- Flannery, Kent V., and Joyce Marcus
1994 *Early Formative Pottery of the Valley of Oaxaca, Mexico*. Prehistory and Human Ecology of the Valley of Oaxaca, Vol. 10. Memoirs of the Museum of Anthropology, No. 27. University of Michigan, Ann Arbor.
2000 Formative Mexican Chiefdoms and the Myth of the “Mother Culture.” *Journal of Anthropological Archaeology* 19:1–37.
- Furst, Jill L., and Peter T. Furst
1980 *Pre-Columbian Art of Mexico*. Abbeville Press, New York.
- Gallegos Gómora, M. Judith
1990 Excavaciones en la Estructura D-7 en La Venta, Tabasco. *Arqueología* 3:17–24.
- García Moll, Roberto, Daniel Juárez Cossío, Carmen Pijoan Aguade, Ma. Elena Salas Cuesta, and Marcela Salas Cuesta
1991 *Catálogo de entierros de San Luis Tlatilco, México: Temporada IV*. Instituto Nacional de Antropología e Historia, Mexico.
- Grennes-Ravitz, Ronald A.
1974 The Olmec Presence at Iglesia Vieja, Morelos. In *Mesoamerican Archaeology: New Approaches*, edited by Norman Hammond, pp. 99–108. University of Texas Press, Austin.
- Grove, David C.
1993 “Olmec” Horizons in Formative Period Mesoamerica: Diffusion

- or Social Evolution? In *Latin American Horizons*, edited by Don S. Rice, pp. 83–111. Dumbarton Oaks, Washington, DC.
- 1996 Archaeological Contexts of Olmec Art Outside of the Gulf Coast. In *Olmec Art of Ancient Mexico*, edited by Elizabeth P. Benson and Beatriz de la Fuente, pp. 105–117. National Gallery of Art, Washington, DC.
- Helms, Mary W.
1979 *Ancient Panama: Chiefs in Search of Power*. University of Texas Press, Austin.
- Johnson, Harmer
1992 *Guide to the Arts of the Americas*. Rizzoli, New York.
- Joralemon, Peter D.
1971 *A Study of Olmec Iconography*. Studies in Pre-Columbian Art and Archaeology, No. 7. Dumbarton Oaks, Washington, DC.
1976 The Olmec Dragon: A Study in Pre-Columbian Iconography. In *Origins of Religious Art and Iconography in Pre-Classical Mesoamerica*, edited by H.B. Nicholson, pp. 27–71. University of California, Los Angeles, Latin American Center Publications, Los Angeles.
- Joyce, Rosemary A.
1993 Women's Work: Images of Production and Reproduction in Pre-Hispanic Southern Central America. *Current Anthropology* 34(3):255–274.
- Joyce, T.A., and H.A. Knox
1931 Sculpted Figures from Vera Cruz State, Mexico. *Man* XXXI:17, Plate B.
- Justeson, John S., and Terrence Kaufman
1993 A Decipherment of Epi-Olmec Hieroglyphic Writing. *Science* 259:1703–1711.
- Layton, Robert
1981 *The Anthropology of Art*. Columbia University Press, New York.
- Lesure, Richard G.
1995 *Paso de la Amada: Sociopolitical Dynamics in an Early Formative Community*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.
1997 Figurines and Social Identities in Early Sedentary Societies of Coastal Chiapas, Mexico. In *Case Studies in the Archaeology of Women: North America and Mesoamerica*, edited by C. Claassen and R. Joyce, pp. 227–248. University of Pennsylvania Press, Philadelphia.
- Lesure, Richard G., and Michael Blake
2002 Interpretive Challenges in the Study of Early Complexity: Economy, Ritual, and Architecture at Paso de la Amada, Mexico. *Journal of Anthropological Archaeology* 21:1–24.
- López González, Valentín
1953 *Breve Historia Antigua del Estado de Morelos*. Cuadernos de Cultura Morelense 1. Departamento de Turismo y Publicidad del Gobierno del Estado, Cuernavaca.
- MacNeish, Richard S.
1964 The Origins of New World Civilization. *Scientific American* 211(5):29–37.
- MacNeish, Richard S., Frederick A. Peterson, and Kent V. Flannery
1970 *Ceramics*. Prehistory of the Tehuacán Valley, Vol. 3. University of Texas Press, Austin.
- Marcus, Joyce
1998 *Women's Ritual in Formative Oaxaca: Figurine-making, Divination, Death and the Ancestors*. Prehistory and Human Ecology of the Valley of Oaxaca, Vol. 11. Memoirs of the University of Michigan Museum of Anthropology, no. 33. University of Michigan, Ann Arbor.
- Martínez Donjuán, Guadalupe
1994 Los olmecas en el estado de Guerrero. In *Los olmecas en Mesoamérica*, edited by J.E. Clark, pp. 142–163. El Equilibrista, Mexico.
- Merrin, Edward H., and Linda Shildkraut
1985 *Pre-Columbian Masterpieces: Mexico, Peru, Central America, American Indian*. Edward H. Merrin Gallery, New York.
- Neff, Hector, and Michael D. Glascock
2002 *Instrumental Neutron Activation Analysis of Olmec Pottery*. Report on file, Research Reactor Center, University of Missouri, Columbia.
- Niederberger, Christine
1976 *Zohapilco: Cinco milenios de ocupación humana en un sitio lacustre de la Cuenca de México*. Colección Científica 30. Instituto Nacional de Antropología e Historia, Mexico.
1986 Excavación de una área de habitación doméstica en la capital "olmeca" de Tlacoztotlán. Reporte preliminar. In *Arqueología y etnohistoria del estado de Guerrero*, edited by R. Cervantes-Delgado, pp. 83–103. Instituto Nacional de Antropología e Historia, Mexico.
- 1987 *Paleopaysages et Archeologie Pre-Urbaine du Bassin de Mexico*. Centre D'Etudes Mexicaines et Centramericaines, Mexico.
- 1996 Olmec Horizon Guerrero. In *Olmec Art of Ancient Mexico*, edited by Elizabeth P. Benson and Beatriz de la Fuente, pp. 95–103. National Gallery of Art, Washington, DC.
- Ortiz, Ponciano, and Ma. del Carmen Rodríguez
1994 Los espacios sagrados olmecas: El Manatí, un caso especial. In *Los olmecas en Mesoamérica*, edited by John E. Clark, pp. 68–91. El Equilibrista, Mexico.
2000 The Sacred Hill of El Manatí: A Preliminary Discussion of the Site's Ritual Paraphernalia. In *Olmec Art and Archaeology in Mesoamerica*, edited by John E. Clark and Mary E. Pye, pp. 74–93. Studies in the History of Art, Vol. 58. National Gallery of Art, Washington, DC.
- Paillés Hernández, María de la Cruz
2001 *Proyecto Arqueológico Las Bocas, Puebla*. Report submitted to the Foundation for the Advancement of Mesoamerican Studies, Coral Gables, FL.
- Parmentier, Richard J.
1997 The Pragmatic Semiotics of Cultures. *Semiotics* 116(1):1–115.
- Parsons, Lee A.
1980 *Pre-Columbian Art: The Morton D. May and the Saint Louis Art Museum Collections*. Harper and Row, New York.
- Parsons, Lee A., John B. Carlson, and Peter David Joralemon
1988 *The Face of Ancient Mesoamerica*. Indianapolis Museum of Art, Indianapolis.
- Pasztor, Esther
1989 Identity and Difference: The Uses and Meanings of Ethnic Styles. In *Cultural Differentiation and Cultural Identity in the Visual Arts*, edited by S.J. Barnes and W.S. Melion, pp. 15–38. Studies in the History of Art, Vol. 27. National Gallery of Art, Washington, DC.
2000 The Portrait and the Mask: Invention and Translation. In *Olmec Art and Archaeology in Mesoamerica*, edited by John E. Clark and Mary E. Pye, pp. 265–275. Studies in the History of Art, Vol. 58. National Gallery of Art, Washington, DC.
- Piña Chan, Román, and L. Covarrubias
1964 *El Pueblo del Jaguar*. Museo Nacional de Antropología, Mexico.
- Piña Chan, Román, and Valentín López González
1952 Excavaciones en Atlahuayán, Morelos. *Tlatoani* 1(1):12–15.
- Pohorilenko, Anatole
1972 Small Sculptures: Man and His Artistic-Religious Experience. *Artes de México* XIX 154:37–62.
- Pye, Mary E., and Arthur A. Demarest
1991 The Evolution of Complex Societies in Southeastern Mesoamerica: New Evidence from El Mesak, Guatemala. In *The Formation of Complex Society in Southeastern Mesoamerica*, edited by W.L. Fowler, pp. 77–100. CRC Press, Boca Raton, FL.
- Reilly, F. Kent, III
1995 Art, Ritual, and Rulership in the Olmec World. In *The Olmec World: Ritual and Rulership*, pp. 27–45. Art Museum, Princeton University, Princeton, NJ.
- Reyna Robles, Rose María
1971 *Las figurillas preclásicas*. Unpublished master's thesis, Escuela Nacional de Antropología e Historia, Mexico, DF.
- Robicsek, Francis
1983 Of Olmec Babies and Were-Jaguars. *Mexicon* 5(1):7–19.
- Sackett, James R.
1986 Style, Function, and Assemblage Variability: A Reply to Binford. *American Antiquity* 51:628–634.
- Sanchez Lacy, Albert Ruy
1992 A Fascination with the Terrible. *Artes de México* 17:82.
- Schapiro, Meyer
1953 Style. In *Anthropology Today: An Encyclopedic Inventory*, edited by A.L. Kroeber, pp. 287–312. University of Chicago Press, Chicago.
- Scott, James C.
1985 *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yale University Press, New Haven, CT.
- Serra Puche, Marí Carmen
1994 Presencia olmeca en el altiplano. In *Los olmecas en Mesoamérica*, edited by John E. Clark, pp. 175–187. El Equilibrista, Mexico.

- Shook, Edwin, and Robert Heizer
1976 An Olmec Sculpture from the South (Pacific) Coast of Guatemala. *Journal of New World Archaeology* 1:1–18.
- Solis Olguin, Felipe
1991 *Tesoros artísticos del Museo Nacional de Antropología*. Aguilar, Mexico.
- Stark, Barbara L.
2000 Framing the Gulf Olmecs. In *Olmec Art and Archaeology in Mesoamerica*, edited by John E. Clark and Mary E. Pye, pp. 31–53. *Studies in the History of Art*, Vol. 58. National Gallery of Art, Washington, DC.
- Stuiver, M., and P.J. Reimer
1993 University of Washington Quaternary Isotope Lab Radiocarbon Calibration Program Rev. 3.03A, MAC Test Version #6. *Radiocarbon* 35:215–230.
- Talalay, Lauren E.
1993 *Deities, Dolls, and Devices: Neolithic Figurines from Franchthi Cave, Greece*. Indiana University Press, Bloomington.
- Taube, Karl
1988 *The Albers Collection of Pre-Columbian Art*. Hudson Hills Press, New York.
- Tolstoy, Paul, and Louise I. Paradis
1970 Early and Middle Preclassic Culture in the Basin of Mexico. *Science* 167(3917):344–351.
- Vaillant, Susannah B., and George C. Vaillant
1934 *Excavations at Gualupita*. Anthropological Papers of the American Museum of Natural History, Vol. 35, Pt. 1. American Museum of Natural History, New York.
- Von Winning, Hasso
1968 *Pre-Columbian Art of Mexico and Central America*. Harry N. Abrams, New York.
- Weiant, C.W.
1943 *An Introduction to the Ceramics of Tres Zapotes, Veracruz, Mexico*. Bureau of American Ethnology Bulletin 139. Smithsonian Institution, Washington, DC.
- Whalen, Michael E.
1981 *Excavations at Santo Domingo Tomaltepec: Evolution of a Formative Community in the Valley of Oaxaca, Mexico*. Prehistory and Human Ecology of the Valley of Oaxaca, Vol. 6. Memoirs of the University of Michigan Museum of Anthropology, No. 12. University of Michigan, Ann Arbor.
- Winter, Marcus C.
1972 *Tierras Largas: A Formative Community in the Valley of Oaxaca, Mexico*. Unpublished Ph.D. dissertation, Department of Anthropology, Tucson, University of Arizona.
- Wobst, Martin
1977 Stylistic Behavior and Information Exchange. In *For the Director: Research Essays in Honor of James B. Griffin*, edited by C.E. Cleland, pp. 317–342. Anthropological Papers No. 61. University of Michigan Museum of Anthropology, Ann Arbor.