

---

## 28. Chalcatzingo in a Broader Perspective

DAVID C. GROVE

---

Although various chapters in this book have occasionally commented upon Chalcatzingo's interactions with other areas of Mesoamerica, the major emphasis has been on the site itself. It would be difficult, however, to discuss Chalcatzingo without considering contemporaneous developments in Central Mexico, the Gulf Coast, and Mesoamerica in general. Thus, this chapter begins with summary discussions, placing Chalcatzingo within larger frameworks. It concludes by reviewing various hypotheses which have been previously offered for the development of Chalcatzingo and with a presentation of my own personal observations and hypotheses. Admittedly there are occasional conflicts or contradictions in the reconstruction, at least some of which I must attribute to the nature of the data and the unfortunate lack of comparative archaeological data elsewhere.

### INTERACTIONS WITH OTHER AREAS

#### *Chalcatzingo and the Central Highlands*

Early Formative settlements in Morelos and the Valley of Mexico consisted primarily of hamlets and small villages. No large centers have been defined for this early period. Throughout the region the ceramic assemblage is characterized by Red-on-Brown "exotic bottles," and D2, K, and red-slipped hollow D-K figurines. A minor component (less than 10 percent) of the assemblage consists of vessels with so-called Olmec iconographic motifs ("jaguar-paw-hand" and "fire serpent") and baby-face C9 figurines. This minor component occurs on all settlement levels from solitary rural residences to villages, here as well as elsewhere in Mesoamerica. It does not seem to be indicative necessarily of Gulf Coast contacts or influences (Flannery and Marcus 1976b; Grove 1974a).

While regional variation exists within this Morelos-Valley of Mexico ceramic assemblage, the far stronger similarities allow the identification of a "Tlatilco culture" interaction sphere encompassing this area. Economic interaction between villages within this sphere can be inferred not only from certain of the exotic ceramics (which may have been manufactured at only a few production villages) but also through obsidian analysis. Characterization of obsidian from sites within the sphere shows it to be mainly from the Otumba (Teotihuacan Valley) and Paredón sources (Charlton, Grove, and Hopke 1978). These sources were apparently controlled by villages within the interaction sphere.

The Amate phase artifact assemblage from Chalcatzingo contains Red-on-Brown "exotic bottle" sherds (Cauatla Red-Slipped, Chapter 13), D2 and C9 figurines (Chapter 14), and Paredón and Otumba obsidian (Chapter 23), indicating that the site was within the "Tlatilco culture" interaction sphere. At the same time, Del Prado Pink sherds, identical to those in surface collections from the site of Las Bocas in the Izúcar de Matamoros Valley to the east, indicate some form of interaction with that area as well. The ceramics from Las Bocas, apparently typical of Early Formative ceramics from the Izúcar de Matamoros Valley in general, have been incorrectly associated in the literature with the Tlatilco culture assemblage (e.g., Coe 1965a). Although some similarities exist, enough major differences are present to indicate that Las Bocas ceramics are part of a different interaction sphere. Chalcatzingo is apparently situated at the eastern extent of the Tlatilco culture interaction sphere and on the western border of the Izúcar (Las Bocas) sphere.

In contrast to the cultural cohesiveness in Morelos and the Valley of Mexico area during the Early Formative, when

we can speak of a Tlatilco culture interaction sphere (demonstrated in ceramics and obsidian), greater intra-regional variation occurs during the Middle Formative period. Shared ceramic attributes within the region include white-slipped vessels decorated with the double-line-break motif and some basic figurine types, such as C1-C7. In fact, it is primarily in the figurines that Morelos-Valley of Mexico similarities are most apparent.

The Middle Formative period is not well documented in the archaeology of central Mexico. Comparative published materials come primarily from El Arbolillo and Zacatenco (Vaillant 1930; 1935) and Atlamica (McBride 1974), and intra-regional differences are apparent in these collections. The nature of these communities remains virtually unknown, although some inferences can be made with El Arbolillo data. Wall lines and burials uncovered in El Arbolillo Trench C (Vaillant 1935: Fig. 8) seem to represent the remains of a house foundation and the house's subfloor interments. Most of the Trench C graves were slab-covered and/or lined, making them very similar to the crypt graves of Chalcatzingo's PC Structure 1. A pair of jade earspools was discovered with a non-crypt infant burial in Trench C, and George C. Vaillant (1935: 175) notes that the burials from this trench were richer than others recovered. By analogy to Chalcatzingo, the Trench C structure seems to represent the remains of an elite residence. The other burials recovered by Vaillant at the site would thus be the remains of lesser-ranking individuals. The lack of architectural features with or near these other burials suggests that they may not be residential subfloor interments.

Crypt ("cist") elite graves are also known from La Venta (P. Drucker 1952: 67-71). While the use of such burial

embellishment at Chalcatzingo could be taken as evidence of Gulf Coast influence, the presence of crypt graves at El Arbolillo as well suggests that crypt graves for elite individuals may have been a relatively widespread practice.

One problem in understanding the position of Chalcatzingo within the larger scope of central Mexico during the Middle Formative lies with the nature of the site of Cuicuilco at that time. This site, in the southwest Valley of Mexico, was the major Late Formative period center in the Valley of Mexico prior to 100 BC. However, its size and importance during the Middle Formative are uncertain. Robert Heizer and James Bennyhoff (1972) interpret the data from their limited excavations there to indicate that Cuicuilco had been a large Middle Formative ceremonial center with platform mounds and pyramids. But the Cuicuilco excavation data and chronology present numerous problems. Much of the excavated material comes from mixed levels, and while there may have been a Middle Formative community at Cuicuilco, the size and architectural component of that community are still very uncertain.

If Heizer and Bennyhoff are correct, then the presence of such a large center contemporaneous to Chalcatzingo but with more numerous and elaborate architecture would necessitate a reconsideration of Chalcatzingo's role in the highlands. The Chalcatzingo antecedents hypothesized for Cuicuilco by Heizer and Bennyhoff (1972:98) are no longer tenable in terms of new data from both the Valley of Mexico and Morelos. Reconstruction of Chalcatzingo's non-ritual functions later in this chapter is based on the assumption that Cuicuilco was not a large center at the time Chalcatzingo was at its prime. It is possible, however, that Cuicuilco's growth did take place during the Middle Formative period. If so, the ascendancy of that center in the southwestern Valley of Mexico may be partially responsible for Chalcatzingo's decline.

If viewed solely on its ceramic and figurine inventory, with no thought to monumental art and greenstone artifacts, Middle Formative Chalcatzingo has to be classified as culturally central Mexican. As in the Early Formative period, the site's strongest ties outside of the Río Amatzinac Valley were with the Valley of Mexico, but with additional interaction with the Izúcar de Matamoros Valley and western Puebla. The Izúcar de Matamo-

ros interaction is particularly demonstrated by the C8 figurines found in that area, and general ties with western Puebla are suggested by Pavón Fine Grey ceramics. Not only are grey ceramics more common in the Puebla area (as well as Oaxaca, and, as noted in Chapter 13, they are found on the Gulf Coast as well), but thin-section analyses (Chapter 13) show Pavón Fine Grey to have a clay body with aplastics derived from metamorphic rocks. Metamorphic rocks occur in a band across the southern part of the state of Puebla, starting almost at the Río Amatzinac Valley and running eastward. Some occur in the area of the Izúcar de Matamoros Valley.

### *Chalcatzingo and the Gulf Coast*

The similarity of Chalcatzingo's bas-relief carvings to those of the Gulf Coast Olmec has long been recognized. A number of other artifacts recovered by our excavations likewise have Gulf Coast counterparts and are mentioned in various chapters of this book. It is obviously important that these Olmec traits at the site be viewed in a balanced perspective and be neither overemphasized (as is normally the case) nor completely dismissed. These traits are briefly reviewed here, and later in this chapter they will be used in discussing the validity of a number of hypotheses concerning the nature of Chalcatzingo.

As mentioned frequently throughout this book, the Middle Formative period ceramics from Chalcatzingo and the Río Amatzinac Valley include a component which is not found in the rest of the central Mexican highlands and which I have used to define the Río Amatzinac Valley as the local interaction area of Chalcatzingo. Included in this ceramic component are Peralta Orange ceramics, Pavón Fine Grey ceramics, three-pronged braziers, and C8 portrait figurines. Traits found at Chalcatzingo (but whose distribution elsewhere in the valley is uncertain) include the placement of *cantaritos* within small bowls as mortuary furniture for some higher-ranked individuals, and animal whistles depicting opossums, etc., with paws over their muzzles. Each artifact type of this component is virtually absent at other highland sites but can be found on the Gulf Coast (see Chapter 13).

Artifacts other than ceramics can be added to the list of Gulf Coast traits. Chapter 17 discusses a variety of jade artifacts, such as T-shaped and duck-bill

pendants, which replicate pendants from La Venta in form. At the same time, no large celt offerings such as were found at La Venta (P. Drucker, Heizer, and Squier 1959:133–146, 174–189) or even San Isidro, Chiapas (Lowe 1981) were found in our excavations. With few exceptions there is nothing spectacular about the jade recovered. Rumors exist of an "engraved green axe" found by a visiting schoolteacher (who when located and interviewed denied any such find). Frans Feuchtwanger (personal communication) recalls that a jade figure in the collection of the National Museum of Anthropology (Pohorilenko 1972: Fig. 68) was originally provenienced in museum records as from Chalcatzingo, but this remains unverified by us. In Chapter 17, Charlotte Thomson suggests that the dearth of jade at the site may indicate that Chalcatzingo had only minor religious and economic importance to the Gulf Coast. Other data do not bear this out. It is more probable that Gulf Coast control and demand for jade effectively relegated Chalcatzingo to the role of intermediary rather than consumer of this and other exotic materials.

Middle Formative period Gulf Coast centers are notable for their mound architecture, which includes both long platform mounds flanking plazas and, occasionally, pyramid-like structures (e.g., Bove 1978: Map A; Coe and Diehl 1980: Map 2; P. Drucker, Heizer, and Squier 1959: frontispiece, Fig. 4). Mound and plaza arrangements at this time were not unique to the Gulf Coast but occurred in Chiapas as well (Lowe 1977: 224–226). In the central highlands of Mexico, however, long platform mounds are currently known only from Chalcatzingo and the Río Amatzinac Valley. As mentioned earlier, the evidence for public architecture at Cuicuilco is extremely tenuous.

The inspirational source of Chalcatzingo's mound architecture has not yet been determined, and in one sense presents a paradox. PC Structure 4d, the 70 m long Cantera phase platform mound, resembles the long platform mounds in the Olmec heartland. However, this mound is only the final stage of several mound rebuildings, with the earliest mound (Str. 4a) apparently dating to the Amate phase (see Chapters 4 and 6). Evidence of significant interaction between the Gulf Coast and Chalcatzingo (specifically) during the Amate phase is lacking. Whether the Amate phase Structure 4a was an indigenous development or Gulf Coast-

inspired cannot presently be determined.

There is little question that Chalcatzingo's reliefs contain a multitude of stylistic similarities to Gulf Coast monumental art. These similarities are not simply iconographic but also extend to the types of monuments, to the techniques of manufacture, and to the monuments' ultimate disposition (mutilation). At the same time, strong dissimilarities are present in the art, and the same dissimilarities can be found in the monumental art at sites such as Chalchuapa, Xoc, Piedra Parada, Pijijiapan, Oxtotitlan, and San Miguel Amuco. In fact these differences are so standardized that an Olmec "frontier art style" can be distinguished (Kann and Grove 1980). At all of these "frontier" sites, including Chalcatzingo, there are no local antecedents to bas-relief rock art. The concept and techniques were imported fully developed. The similarities and standardized dissimilarities to the Olmec heartland style, together with the inescapable fact that only the Gulf Coast is known to have a monumental art carving tradition, imply that the variant "frontier" art style was specifically taught as a separate style on the Gulf Coast and disseminated outward from there.

Olmec monumental art, whether in the heartland or in its frontier variant, was meant to communicate a set of ideas and messages to those viewing it. The presence of a separate style for sites outside the Gulf Coast, to communicate ideas somewhat different from those presented on Gulf Coast monuments, suggests that the frontier monuments' messages were directed to non-Olmec audiences. It is also highly important to recognize that for those specific sites outside the Olmec heartland there was a felt need to communicate via monumental art.

That this presentation was for peoples not familiar with Gulf Coast iconography and symbolism can be demonstrated with Chalcatzingo's hillside art. Here the symbolism which was only implied in Gulf Coast iconography is overtly and graphically expressed. For instance, the implied symbolism of the shallow niches found on the front of Gulf Coast altars is explicitly detailed in Chalcatzingo Monument 1, where the niche is shown as the mouth of the earth monster, the underworld, the heart of the earth, the source of rain and plant fertility.

Frontier art may have served to legitimize the presence, no matter how small

or infrequent, of Gulf Coast persons at those sites, or it may have been commissioned (with Gulf Coast assistance) by a local ruler to demonstrate his special power through showing that he controlled and understood the complex esoteric knowledge of the supernatural realm, gained via interaction with the Gulf Coast (e.g., Helms 1979:119-129). Whatever the reason, those sites which manifest such art were clearly special, and different from the communities in their respective areas lacking the art.

Chalcatzingo has two different but integrated and contemporaneous artifact assemblages, one central Mexican, the other with ties to Puebla and to the Gulf Coast. These distinctive components must not be used to infer two separate ethnic populations in the Middle Formative community. The artifact components occur together and are not separated between houses, *barrios*, etc. Their nature, however, is different. The Gulf Coast-like component is strongly ritualistic and rulership-oriented. During the Cantera phase this can be seen in the monuments, jade figurines, C8 figurines, and mound architecture. The central Mexican component includes more utilitarian pottery types and generalized figurines. From this it can be inferred that Chalcatzingo's Gulf Coast ties were through the ruler (directly or by marriage), and that via these ties a number of traits from the Gulf Coast inventory were introduced to the site. At Chalcatzingo these traits blended with the local assemblage and ultimately diffused throughout the Río Amatzinac Valley. Their presence at Chalcatzingo and their ultimate local diffusion occurred over a long period of time and does not imply that a large number of Gulf Coast persons were involved.

Gulf Coast contacts were most probably periodic rather than sustained and continuous. In either case, they appear to have increased in importance and intensity through time. Mound architecture may be the earliest trait to appear, but as mentioned earlier, the inspirational source for the few examples of Early Formative period mound architecture at Chalcatzingo is uncertain. Even Gulf Coast mound architecture is poorly documented for this period. It is Chalcatzingo's Middle Formative Cantera phase platform mound, PC Structure 4d, which is similar to Gulf Coast structures.

Other artifacts which may represent Gulf Coast influence do not appear in the Chalcatzingo artifact assemblage all at

once but range from early to late Middle Formative. Peralta Orange ceramics were first present in significant quantities in the Early Barranca subphase, and this type became increasingly popular through time. However, the most important attributes linking this ceramic type to the Gulf Coast, punctations and ridged necks on olla forms, appeared first in the Early Cantera subphase. Pavón Fine Grey first appeared in the Early Cantera subphase but became most important in the Late Cantera subphase. Three-pronged braziers, abundant in the Cantera phase, were first present in the Middle Barranca subphase. The chronological control on C8 figurines needs further refinement, but present data suggest that they occurred only during the Cantera phase. The dating of the site's monuments is also extremely tenuous, but their symbolism and iconography appear most similar to La Venta's period IV monuments, placing them also within the Cantera phase.

Unfortunately, it is difficult to draw specific conclusions from the occurrence of these traits within Chalcatzingo's chronological sequence because a good comparative sequence for the Gulf Coast Middle Formative has yet to be completely worked out. The sequence at La Venta is not well documented, that of San Lorenzo contains hiatuses, and the data from Tres Zapotes and Laguna de los Cerros are too scanty. For these same reasons, no specific Gulf Coast center can be designated as the source of the heartland traits found at Chalcatzingo.

#### *Chalcatzingo and Southern Mesoamerica*

While many artifacts at Chalcatzingo have counterparts in highland central Mexican Middle Formative assemblages and certain others in Gulf Coast assemblages, a few important traits which have not been specifically identified at heartland Olmec centers can only be designated as "southern Mesoamerican" (Guillén and Grove 1981). The most important example of this generalized southern trait group is Chalcatzingo's round altar and stela combination, Monuments 25 and 26. These Cantera phase monuments compose the earliest round altar-stela combination known in Mesoamerica. They have no specific antecedents. Such combinations occur at Izapa on the Pacific coast of Chiapas (Norman 1976:4), but they are currently dated as Late or possibly even Terminal Formative.

The earth-monster mask forming the basal section of the Monument 21 relief is a further example of a Late Formative Izapa-like motif which appears at Chalcatzingo during the late Middle Formative. Only one Gulf Coast monument (Mon. 1, Los Mangos, Veracruz; de la Fuente 1973: 159–160) carries this motif.

Within the Chalcatzingo ceramic assemblage were sherds from plate-like vessels with roughened bottoms (RD-2; Fig. D.3). Many of these sherds are strikingly similar to *comal* sherds of later culture periods. *Comal*-like plates have been recovered from Eo-Archaic levels at Yarumela, Honduras (Canby 1949: Plates 3–5). These were found below strata containing rocker-stamped *tecomate* sherds, suggesting that the Eo-Archaic is probably Early Formative in date. *Comal*-like sherds occur also in Middle Formative Kal phase deposits at Chalchuapa, El Salvador (Sharer 1978: 125).

In southern Mesoamerica these plate-like forms may have functioned as manioc griddles. The probable lack of manioc in central Mexico as an important food plant, together with the presence of a lime deposit on field S-39 at Chalcatzingo, raise the possibility that at Chalcatzingo the plates could have functioned as *comales* for tortilla preparation. Tortillas are not normally considered to have been a Formative period food item.

None of the southern or Gulf Coast traits remained in the highlands following the end of Chalcatzingo as a regional center. Instead they disappeared or withdrew. None of these traits left a lasting impact on highlands culture.

Some traits, such as orange wares and three-prong braziers, are found both on the Gulf Coast and in southern Mesoamerica in general. Others, e.g., polychrome ceramics, occur at Chalchuapa, El Salvador, and Chalcatzingo, but have not been identified in the Olmec heartland. The impression given is that certain southern traits bypassed the Gulf Coast but appeared along the Soconusco coast and at Chalcatzingo. The Soconusco-Chalcatzingo distribution seems likewise reflected in the distribution of frontier monumental art, and at least hints at the possibility of a Pacific coastal interaction route through which frontier sites were linked and along which some southern traits moved.

The presence of certain widespread southern traits such as orange ceramics and three-prong braziers on the Gulf Coast and at Chalcatzingo has some im-

plications for the interpretation of Gulf Coast culture history. Arthur Andrew Demarest (1976) and Gareth W. Lowe (1977) have presented reconstructions of the culture history of the Gulf Coast and Chiapas which are in disagreement as to the direction of influences. Lowe argues that Olmec influences penetrated into Chiapas and the Maya area. Demarest, on the other hand, feels that late in the Middle Formative period there was an expansion from the Maya area into the Gulf Coast. However, orange ceramics and three-prong braziers are far more abundant throughout southern Mesoamerica than on the Gulf Coast, suggesting that they were traits adopted by Middle Formative Olmec culture. This seems to support Demarest's reconstruction, although it is obvious that both may be correct, for diffusion is not necessarily a one-way street.

#### WHAT WAS CHALCATZINGO?

In the years which followed the first publication on Chalcatzingo (Guzmán 1934), scholars proposed a number of hypotheses and ideas in print and informally concerning Chalcatzingo as a site as well as its relationship to Gulf Coast culture. The trend in these hypotheses is reflective of the nature of archaeological explanations for their times. The earliest ones evoked migration and/or colonization and often had a religious orientation. The most recent ideas are usually based on specific economic models which link Chalcatzingo to the Gulf Coast via trade or exchange.

In reviewing some of these ideas and presenting my own, it must be made clear that no model yet provides a completely satisfactory explanation of the processes leading to Chalcatzingo's development or its *raison d'être*. The great quantity of data recovered by our project raises in my mind more questions than it answers. For this reason I am certain that some of us will continue to review and reanalyze the data for years to come. In any case, a better understanding of Chalcatzingo will ultimately rest upon an increased knowledge of many other areas of Formative period Mesoamerica.

#### *Direct versus Indirect Contact*

Ignacio Bernal (1968:12) has suggested that some Olmec "colonies" existed in the highlands of central Mexico, including Tlatilco and, by implication, Chalcatzingo. However, at Tlatilco, an Early

Formative period site, "Olmec influences" are limited to a few design motifs on ceramic vessels and roller stamps, and the presence of C9 "baby-face" figurines. As mentioned at the beginning of this chapter, such traits are not restricted to Tlatilco but are found at every village or hamlet within the Tlatilco culture sphere for which we have archaeological data. Unless it is hypothesized that every settlement in the highlands during the Early Formative was populated by some Gulf Coast colonists, then the use of certain decorative attributes as a sign of direct Gulf Coast presence is improper.

The two major decorative motifs usually identified as "Olmec" are the "fire serpent" (cayman) and the "were-jaguar." Kent Flannery (personal communication) has pointed out to me that while such motifs are found on Gulf Coast ceramics, they seem to occur in greater frequency on Early Formative Oaxacan ceramics. The same could be true for central Mexico. This suggests that they are important for their symbolic value and that they cannot be ascribed as motifs derivative from any specific archaeological culture, at least based upon frequency within the total assemblage.

Flannery's archaeological work in Oaxaca has greatly clarified the nature of these motifs. Expanding upon the analysis which Nanette M. Pyne (1976) carried out on the Oaxacan ceramic data, Flannery and Joyce Marcus (1976b:381–382) point out that these distinctive ceramic motifs are generally found separated in different areas or wards of the village site of San José Mogote. Smaller settlements elsewhere in the Valley of Oaxaca seem to be associated with either one motif or the other. Flannery and Marcus and Pyne interpret the "fire serpent" and "were-jaguar" motifs not as signifying Olmec contacts or influences, but as symbols related to local Oaxacan lineages or descent groups. This interpretation seems likewise valid wherever the motifs are found in Early Formative Mesoamerica, including sites on the Gulf Coast and in Mexico's central highlands.

Olmec culture did not remain static over seven hundred or so years. By 900 BC the use of the "fire serpent" and "were-jaguar" motifs on pottery had disappeared. Also disappearing were ceramic baby-face figurines. Jade apparently replaced ceramics as the important medium for symbolism. On the Gulf Coast and throughout much of Mesoamerica,

white-slipped ceramics decorated with the double-line-break motif became common. The change is not as abrupt as portrayed by some scholars at this time (see Grove 1981a:378). It does reflect a general change in cultural symbolism and values which has yet to be adequately explained.

It is after 900 BC that a few sites outside the Gulf Coast manifested Olmec-like monumental art. As previously discussed, this art appeared in areas with no previous stone-carving tradition and indicates a very different type of "influence" than that which occurred during the Early Formative period. The Early Formative data do not seem to indicate direct contacts between the Gulf Coast and other regions. However, the appearance of Olmec-style monumental art at a few sites far distant from the Olmec heartland implies that during the Middle Formative period some direct contact did take place. Chalcatzingo is one site which apparently received such contacts.

Whether the Gulf Coast contacts at certain distant sites represent an actual colonization by Gulf Coast peoples is perhaps a matter of semantics. How many individuals from the Olmec heartland must be present at a site at any one time for it to be considered a colony? The preponderance of central Mexican-style ceramics and artifacts at Chalcatzingo suggests that it was inhabited primarily by people who were culturally highlanders. The Cantera phase data suggest to me that a few Gulf Coast individuals might have resided, if only periodically, at Chalcatzingo, but it is difficult to ascertain how many. Colonization implies a large group of individuals, and it seems improbable that any such large group, originally adapted to a tropical habitat and riverine agricultural system, ever resided at the site.

#### **Religion and Militarism**

Religion was undeniably always an integral and important facet of Mesoamerican cultures, and visible in the archaeological record from the Formative period onward. However, models based upon the idea of Chalcatzingo as a purely religious center ignore the site's many other equally important aspects.

In 1972, Carlo Gay (1972a) hypothesized that Chalcatzingo was an Olmec religious sanctuary. At the time his book was published our project had just been initiated, and Gay and others were unaware of the site's public architecture.

Because he thought Chalcatzingo lacked architecture Gay suggested that it might predate the Olmec heartland centers with architecture. This hypothesis was also consistent with his belief in non-Gulf Coast origins for Olmec culture (e.g., Gay 1972b). Our project's recognition and discovery of public architecture and residences from a community which functioned and grew over more than half a millennium demonstrate that Chalcatzingo was more than a religious sanctuary. It is clear today that the site's Cantera phase zenith is relatively late in the course of Olmec cultural developments in the heartland. We uncovered no data which would suggest that anything at Chalcatzingo is antecedent to the indigenous development of complex culture on the Gulf Coast now documented in the San Lorenzo stratigraphic record (Coe 1970; Coe and Diehl 1980; Grove 1981a).

Based upon the scattered distribution of Olmec-style art, particularly monumental art, Michael Coe (1965b:771-772) proposed that this art was diffused by "missionaries" from the Olmec heartland. This again was based on the assumption that such art is purely religious, which, as has been pointed out for ceramics and monuments, is not completely correct. At the same time, Coe (1965a:18; 1965b:775-776) felt that there was a militaristic aspect to the monumental art found outside of the Gulf Coast, and he interpreted the two central figures of Chalcatzingo's Monument 2 as carrying "war clubs." Jorge Angulo (Chapter 10) likewise identifies these same figures as warriors. The three other carvings from the same group (IB), Monuments 3, 4, and 5, can be interpreted as showing the domination of supine humans by animals with supernatural aspects (e.g., Grove 1972a:159). However, in these instances I consider interpretations of militarism and conquest to be completely subjective evaluations. While Olmec contacts with the highlands could conceivably have been backed by military protection, this is not demonstrated in the excavation data. Such hypotheses do not serve to answer the greater question of what a Gulf Coast army, or missionaries, or colonists were doing at this particular site in this particular valley in the central highlands, or why their presence or dominance should be communicated here and not elsewhere.

#### **Trade and/or Exchange**

Economic models often seem the most satisfactory to archaeologists, since archaeologists normally deal with non-perishable artifacts, often manufactured of materials which can be analyzed in terms of their ultimate sources (e.g., mines). Even so, these source data seldom satisfy the complexities inherent in these models.

A just criticism of all economic models is that they are overly simplistic. The acquisition of goods was seldom the entire motivation for trade and exchange, particularly among chiefdom-level societies. Often the symbolic power and status which a chief acquired in trade or exchange alliances was of equal or greater importance than the actual objects exchanged, and in fact those items may have been relatively few in number. This should be kept in mind as several economic models are discussed below.

In dealing with the Olmec heartland, it is obvious that most of the sumptuary items in the artifact assemblage were manufactured from materials not native to the coastal plains of southern Veracruz and Tabasco. Raw materials ranging from huge blocks of stone for monuments, or jade for jewelry, to more mundane materials such as obsidian for tools, were imported. The best source analysis data for any of the imported raw materials on the Gulf Coast come from San Lorenzo's obsidian artifacts. R. H. Cobean et al. (1971) have shown this obsidian came from many sources. However, no source area has yet yielded evidence of Olmec occupation or "influence." Since obsidian was a ubiquitous commodity during the Formative period, its exploitation and distribution were probably generalized and not subject to the more controlled patterns of exploitation possibly given to more valued substances.

By the Middle Formative period, jade had become one such valued substance. One of the first economic models proposed to explain Olmec presence in the central highlands of Mexico was Coe's "Jade Route" hypothesis (1965a:123; 1968a:194), which suggested direct Olmec involvement in the exploitation of jade sources in Guerrero. This basic premise is strengthened by the actual distribution of Middle Formative sites with monumental Olmec-style art. The central Mexican sites (Chalcatzingo, Juxtlahuaca, Oxtotitlan, San Miguel Amuco, Techaya, and Teopantecuanitlan, Guerrero) stretch across a mineral-rich area of

west-central Mexico. The distribution of the second group of sites along the Pacific coast of southern Mesoamerica (Pijijiapan, Piedra Parada, Abaj Takalik, Chalchuapa, etc.) perhaps reflects what can be hypothetically termed the Cacao and Motagua Jade Route.

Coe (1965a:123) has also suggested that Chalcatzingo was possibly a *pochteca* center which served to collect and warehouse highland materials for transport to the Gulf Coast. This hypothesis further assumes that sites in various parts of Guerrero served as ports-of-trade visited by these *pochteca*, where raw and finished materials were obtained. The entire *pochteca* concept implies a formalized merchant organization with highly structured trade mechanisms. Thus, Coe's hypothesis has come under strong criticism (e.g., L. Parsons and Price 1971), for it is unlikely that such a formalized trade organization had developed among Gulf Coast Formative period chiefdoms.

Although one part of the *pochteca* hypothesis appears unacceptable, the suggestion that Chalcatzingo may have functioned as a collection center or intermediary for goods ultimately destined for the Olmec heartland may have some merit. Such a function for the site was first proposed by Philip Drucker, Robert Heizer, and Robert Squier (1959:270) and later in my initial work there (Grove 1968c). Strict archaeological proof of such a function for the site is lacking, but there is circumstantial evidence in its favor. For example, Chalcatzingo's house structures are far larger than those known from other areas of Mesoamerica and may have served not only as residences but also for the storage of trade goods (Chapter 6). The site's location itself may relate to an important route of trade and communication (Grove 1968c; also discussed below).

The port-of-trade concept has been the subject of two recent archaeological efforts, one at Cozumel, an island off the eastern coast of Yucatan (Sabloff and Rathje 1975), the other near Kaminaljuyu in the highlands of Guatemala (Brown 1977:304–352). Ports-of-trade have been defined as communities (or regions) which functioned as neutral meeting places for trade. Ports-of-trade developed at political or geographical transition zones, such as political "weak spots" between two large states or empires, or at the border of major ecological zones (Chapman 1957:116; Revere 1957:52).

William Rathje and Jeremy Sabloff (1975) refine the definition, mentioning that ports-of-trade are located at a distance from powerful resource centers and may also have served as shrine centers.

Strictly defined, ports-of-trade imply administered trade, meaning that the trade was between states rather than simply between individual traders. It is questionable whether during the Middle Formative period there were two powerful states or chiefdoms such that a neutral area with a formal port-of-trade was necessary. While Gulf Coast centers working together as a unit could have served as one trading group, it is presumptuous to imply that a second cohesive and powerful chiefdom or other sociopolitical unit existed in the Valley of Mexico, Morelos, or central Mexico in general, as the second trading partner. If with further archaeological research Cuicuilco turns out to have been a major regional center contemporaneous with Chalcatzingo, then the role of Chalcatzingo as a port-of-trade or other type of intermediary between a powerful highland center and the Gulf Coast centers will have to be reconsidered. Today such data do not exist. In fact, Chalcatzingo's monumental art implies a one-sided relationship with the Gulf Coast and not the neutrality expected of a port-of-trade.

A one-sided relationship is one attribute of a "gateway city," Kenneth Hirth's (1978a) model for Chalcatzingo. Like ports-of-trade, gateway cities are located at transitional points at one end of a center's tributary area. They serve as the "gateway" to the resources of an extended hinterland. Gateway cities are characterized by having an elongated, fan-shaped service area spreading outward in a direction away from the center which they supply (Burghardt 1971). The service area feeding in to Chalcatzingo could have encompassed almost all of central and western Mexico.

A gateway city implies an administered collection of resources, but it does not require *pochteca*-like traders penetrating into distant regions. The materials or goods received from the hinterland service area could have been collected through many networks of indirect exchange and funneled to Chalcatzingo. Some items moving westward into the hinterland from Chalcatzingo might have originated on the Gulf Coast, while others such as iron ore and kaolin may have come from local, Río Amatzinac Valley, resources. In either direction, the

overall administration of the exchange and the temporary warehousing of goods would have been an important function for Chalcatzingo as a gateway community. If it was a gateway community, it will be important in the future to determine how Chalcatzingo was functionally linked to the Gulf Coast (for transport purposes, etc.), nearly five hundred long and mountainous kilometers to the southeast.

## CONCLUSIONS

Concluding chapters in some archaeological reports turn out to be "just-so" stories, and, although this is seldom admitted, they are predicated as much upon the feelings of the author as upon the actual data. Thus, I want to make explicit that these final pages represent my interpretations and my feelings, which are in some disagreement with Hirth's more internal model in Chapter 21.

In terms of the processes leading to the development of Chalcatzingo and its distinctive features, I favor an economic model which includes the understanding that as trade and exchange took place, the symbolism of those acts may have been as important to the participants as the items themselves.

Since the time of my initial investigations at Chalcatzingo in 1966, I have felt that its location was very favorable in terms of routes of communication, not only for the passage of goods eastward but also for economic interactions with central Mexico and a large area to the south and west. Although Thomas Charlton, Angel García Cook, and others have discussed the possibility that the Valley of Mexico's Classic period eastward trade outlet passed through Tlaxcala (see García Cook and Carmen Trejo 1977), the data suggest that the Valley's Formative period link to the east was via a more southern route: the Amecameca pass into Morelos and then eastward. An important Aztec period trade route followed that same path (Jiménez Moréno 1966), which, after Amecameca, skirted the southern foothills of the volcano Popocatepetl, then moved southward in the Río Amatzinac Valley before turning eastward to Itzacoc (Izúcar de Matamoros). The Morelos area is also a logical junction point for goods or raw materials moving out of western Mexico toward the Valley of Mexico or eastward, for the rivers of Morelos all flow as tributaries to the Río Balsas.

The region is also accessible by land routes. Chalcatzingo, at the eastern end of the broad plains of Morelos, and a visible landmark from many locales in the region, does sit in a commanding "gateway" position for goods moving eastward. The mountain's sheer size, grandeur, and visibility—and because of these characteristics its strong symbolic importance—were undoubtedly factors as important in leading to the role it assumed as was its geographical location. In fact, because of the regional topography, more logical routes of travel across the valley bypass Chalcatzingo by several miles to the north or south (e.g., Gay 1972a:104). This is not a situation to which modern locational geography is applicable, such as the placement of stores and gasoline stations at the junctions of formalized highway systems. In this instance it is not the route which dictates the precise location of the site but the major centers served which dictate the general course of the route, even to the extent of detouring several miles off the most direct path. The "sacred mountain" aspect of Chalcatzingo cannot be divorced from the site's economic growth and development.

It has been mentioned several times in this book that during the Early Formative period a cultural cohesion existed across the Valley of Mexico and Morelos region which was manifested in ceramics. This I termed the Tlatilco culture sphere. The redistribution system within this sphere apparently also controlled the obsidian exploitation and distribution of central Mexico's two major Formative period obsidian sources, Otumba and Paredón. (The Pachuca source was not heavily exploited at this time.) Other regional commodities, including those from the Río Amatzinac Valley, likewise were redistributed throughout the sphere. Gulf Coast interaction with this sphere was only indirect.

The Río Amatzinac Valley lay within the Tlatilco culture sphere, and within the valley Chalcatzingo was the center of redistribution for local raw materials (kaolin, chert, iron ore for pigment) as well as for goods non-local to the valley, such as obsidian. It is probable that some of the valley's raw materials were in demand not only within the Tlatilco culture sphere but outside the sphere as well. Through Chalcatzingo's position on the sphere's border, Chalcatzingo's chiefs not only redistributed goods locally, but also had links with centers to the east (for ex-

ample, the Izúcar de Matamoros valley, and indirectly probably ultimately to the Gulf Coast as well). In fact the Chalcatzingo chiefs may have been the major eastward link for the communities (and chiefs) of the Tlatilco culture sphere.

By the end of the Early Formative period much of Mesoamerica had grown in cultural complexity and in population. Old interaction networks seem to have dissolved, and (at least in the archaeological record) regionalism seems to have increased. With the rise in population and many new regional centers came the increasing demand for both utilitarian materials and status exotics. While during the Early Formative period the demand in the Olmec heartland for highland raw materials was adequately served through a system of indirect exchange links, this seems to have changed during the Middle Formative. The increased demand for all commodities probably jeopardized the Gulf Coast Olmecs' previously secure supply. Their response to this supply-and-demand situation for exotic items such as greenstone and cacao seems to have been to establish more direct and formalized relationships with a few distant centers having the ability to provide the goods desired.

These relationships probably developed over time, and initially may have taken the form of alliances, including marriage alliances. I believe that the evidence of these reinforced exchange ties lies in the monumental art found at Chalcatzingo and a series of sites in Guerrero, as well as at a number of sites along Mesoamerica's southern Pacific Coast. Just exactly what is being commemorated in the introduced monumental art remains to be clearly defined. In some instances a regional chief may have symbolized his alliance by erecting one or more monuments, and through this display gained further regional prestige and power (e.g., Helms 1979:76). Even Gulf Coast rulers would have gained status and power by demonstrating to their communities their ability to secure scarce commodities.

The presence at Chalcatzingo of stelae and other monuments which deal with rulership can be interpreted in at least two ways. The carvings of specific individuals may represent the local chiefs who are symbolizing their ties to the Gulf Coast and thus their importance and power. Alternatively, those carvings may depict high-ranking Gulf Coast personages who at one time or another vis-

ited or even assumed administration of the community. Whichever interpretation one favors, it must be remembered that the entire concept of monumental art and its technology was imported into Chalcatzingo and must have included skilled rock carvers trained on the Gulf Coast. The monuments imply far more than a local chief copying a distant symbol system. Their presence emphasizes the importance of the individuals portrayed and their communication of power, and reiterates Chalcatzingo's ties, both real and symbolic, with the Gulf Coast. Those ties were not superficial, for ultimately communities throughout the Río Amatzinac Valley received certain attributes of Gulf Coast Olmec culture, and those attributes set the valley dwellers apart culturally from their neighbors in the central highlands.

Chalcatzingo's chiefs clearly had ties with other highland chiefdoms. Monument 21, if commemorating a marriage alliance (see Chapters 10, 27), may show that alliance to be with a center in Guerrero (Teopantecuanitlan?). In fact, several sites in Guerrero exhibit frontier monuments, and it will be instructive in time to see how they were allied to Chalcatzingo.

While a gateway function can be hypothesized for Chalcatzingo, actual demonstration of that function is difficult. Because of the importance of the symbolism of exchange, a center's role in such a system cannot be measured by simply estimating hypothetical quantities of goods in the system, for in these instances quantity can never match symbolic quality. We currently have no idea what quantity of goods a center like La Venta required, but it is safe to assume that the exotics they received were not only utilized locally but also went out in exchanges to establish new ties and alliances with other centers, near and far.

Exactly when and how the Middle Formative community at Chalcatzingo ceased to function is uncertain. The fact that the site's houses appear to have been cleaned of usable goods, rather than having been abandoned with objects still in place, indicates that the termination of the occupation was gradual and planned. That the abandonment was complete is documented by the lack of substantial evidence of a continuing Late Formative settlement. If any Late Formative occupation of the site did occur (Appendix H labels Late Formative Chalcatzingo as a "Small Village," an assessment I dis-

agree with), it followed a long period of abandonment.

By 500 BC in central Mexico we see new regional centers and increasing nucleation, at least partially supported by intensive agriculture in the highlands. Through the greater agricultural surpluses such intensification created, these highland centers soon eclipsed the Gulf Coast by gaining control of the procurement networks. Perhaps an analogy to Teotihuacan serves here. Developing centers on the periphery of Teotihuacan's control seem ultimately to have successfully competed with that major city for its once uncontested supply of imported food and raw materials and hastened its demise. Similarly, perhaps by 500 BC the Gulf Coast centers could no longer maintain long distance control of the symbolically reinforced exchange system which had facilitated their acquisition of a variety of commodities upon which their material and spiritual livelihood depended. If Chalcatzingo's major role had come to be that of a community which used its alliances throughout the highlands to acquire commodities desired on the Gulf Coast (and elsewhere in southern Mesoamerica), it may have become too specialized to survive when it could no longer fulfill that function.

In reality, a good terminal date for Chalcatzingo is lacking, as are any comparable dates for events in the Olmec heartland, and thus it is impossible at this time to actually determine whether Chalcatzingo's demise predated, postdated, or closely coincided with the end of Gulf Coast centers such as La Venta, Laguna de los Cerros, and Palangana phase San Lorenzo. Even if Chalcatzingo survived the Gulf Coast decline, its abandonment might still have been related to the developments which characterized the beginning of the Late Formative period in much of Mesoamerica—the rise of new, larger, and more nucleated regional centers, and a shift in regional populations to these centers. For Chalcatzingo the new center may have been Late Formative Campana de Oro (RAS-20), a few miles to the north.

## RESUMEN DEL CAPÍTULO 28

*El desarrollo del periodo Formativo en el sitio de Chalcatzingo no puede ser entendido si no se le estudia dentro del marco más amplio de acontecimientos contemporáneos en el Centro de México, en la Costa del Golfo, y en Mesoamérica en general. El primer asentamiento del sitio, durante la fase Amate, participó en lo que se ha llamado la esfera de interacción denominada "cultura de Tlatilco" en Morelos y el Valle de México.*

*La interacción económica en esta esfera puede ser inferida a partir de ciertos estilos cerámicos exóticos y a partir de análisis de obsidiana. Esta proviene, casi exclusivamente, de las fuentes de Otumba y de Paredón. Además, parece haber existido relaciones entre Chalcatzingo y la esfera de Izúcar (Las Bocas), al este.*

*Durante el Formativo Medio hubo mayor variación intra-regional en el Centro de México. Entre los atributos cerámicos que comparten las dos áreas se encuentran las vasijas de engobe blanco con motivos de doble línea interrumpida y los tipos comunes de figurillas, particularmente del C1 al C7. La alta frecuencia de figurillas C8 en Chalcatzingo indica algún tipo de ruptura con el Valle de México y evidencia, al mismo tiempo, la existencia de contactos con la zona de Izúcar de Matamoros. Por otra parte, la cerámica Pavón Fine Grey sugiere también posibles vínculos con el Oeste del estado de Puebla. El papel que pudo haber jugado Chalcatzingo en la integración del Centro de México durante esta época no está claro todavía, ya que el tamaño y la importancia de Cuicuilco en este tiempo no han sido valorados aún. Las hipótesis sobre el surgimiento de Chalcatzingo que aquí se presentan, se basan en el supuesto de que Cuicuilco no era, todavía, un centro mayor durante el Formativo Medio.*

*Por lo que se refiere a los contactos con la zona del Golfo, las similitudes estilísticas que existen entre los relieves de Chalcatzingo y los que fueron encontrados en el área Olmeca metropolitana han sido reconocidas desde hace tiempo. Pero el proyecto ha revelado, además, una serie de nuevos rasgos comunes, los cuales no aparecen en otros sitios contemporáneos del Centro de México. Entre ellos se encuentran: un componente cerámico formado por el Peralta Orange y el Pavón Fine Grey, braseros con tres*

*asas, y figurillas-retrato C8. Entre los artefactos no cerámicos se encuentran objetos de jade, como son los pendientes en forma de T y de pico de pato, y la figurilla de jade. Tanto Chalcatzingo como los sitios de la Costa del Golfo tienen en común los conjuntos arquitectónicos de montículos y plazas, pero todavía no se sabe con certeza si la arquitectura monumental de Chalcatzingo fué inspirada en un prototipo de la Costa del Golfo.*

*En cuanto a los monumentos, no hay duda de que los relieves de Chalcatzingo presentan muchas similitudes estilísticas con el arte monumental de la Costa del Golfo, pero existen también diferencias significativas. Estas son las que caracterizan el arte de Chalcatzingo y el de otros sitios con influencia Olmeca, como son Chalchuapa, Pijiapan, etc., y es posible definir un estilo artístico "Olmeca fronterizo." Este estilo pretende comunicar ideas un tanto diferentes, y frecuentemente, en una forma menos abstracta que la de los mensajes dirigidos al público Olmeca del área metropolitana, ya que los pueblos "fronterizos" estaban menos familiarizados con la iconografía y con el simbolismo de la Costa del Golfo.*

*Chalcatzingo posee dos conjuntos de artefactos diferentes: uno de ellos está relacionado con el Centro de México, y el otro con la Costa del Golfo. Este último complejo está vinculado con el liderazgo y el ritual, mientras que el complejo del Centro de México contiene elementos más utilitarios. Esto sugiere que los vínculos con la Costa del Golfo se daban a través del dirigente y que estaban ligados a sus funciones político-religiosas dentro de la comunidad. En Chalcatzingo, estos rasgos fueron combinados con el conjunto local de elementos, y, finalmente, difundidos por todo el Valle del Río Amatzinac. Los artefactos de la Costa del Golfo parecen haber sido introducidos a lo largo de varios siglos, lo cual permite pensar en contactos, poco frecuentes pero regulares, entre las dos áreas.*

*Chalcatzingo también tiene algunos rasgos importantes en común con el área llamada "sur de Mesoamérica": el altar circular combinado con la estela, que aparece por vez primera en Chalcatzingo; la máscara del monstruo de la Tierra, que se encuentra en la base del Monumento 21; posibles comales, cerámica policroma y naranja, y braseros con tres asas que están presentes tanto*



en la Costa del Golfo como en el sur de Mesoamérica. Estos datos parecen respaldar la teoría según la cual hubo una expansión del área Maya hacia la Costa del Golfo durante el Formativo Medio.

Ha sido elaborada una serie de modelos para explicar la transformación de Chalcatzingo en un gran centro regional. Estos modelos incluyen la hipótesis de que Chalcatzingo era una colonia Olmeca o bien un santuario religioso; pero este concepto ha sido rechazado gracias a la comprensión, cada vez mayor, de la presencia de la Costa del Golfo en Chalcatzingo y en otros sitios del Altiplano Central. Chalcatzingo es esencialmente un sitio del Centro de México. Los modelos económicos que consideran al comercio y/o al intercambio como el estímulo son más aceptables. El papel jugado por Chalcatzingo en cuanto a las actividades económicas intra-regionales aun no está totalmente claro y varias hipótesis han sido adelantadas, por ejemplo, las que consideran que Chalcatzingo era un centro de colección de tipo pochteca, un puerto de comercio o un asentamiento portuario. Tanto el modelo pochteca como el del puerto de comercio implican un nivel de complejidad cultural mucho mayor que el que alcanzara Chalcatzingo. En cuanto al concepto de asentamiento portuario, existen evidencias suficientes para apoyarlo. Los materiales recolectados en una de las áreas de servicio de la periferia, como son el hierro, la mena férrica, y el kaolín, pudieron haber sido canalizados hacia Chalcatzingo para su posterior transporte a otras regiones, por ejemplo a la Costa del Golfo. Paralelamente, Chalcatzingo habría administrado las materias primas importadas a la periferia. El área de servicio que abastecía a Chalcatzingo pudo haber abarcado casi todo el Centro y el Oeste de México. Chalcatzingo se encuentra situado cerca de rutas de comercio bien conocidas.

El desarrollo de Chalcatzingo como centro económico comenzó probablemente durante el Formativo Temprano, cuando funcionaba como un centro de redistribución para el Valle del Río Amatzinac. Hacia el final de este periodo, se habían disuelto las viejas redes de interacción, se había incrementado el regionalismo, y se habían desarrollado redes de intercambio más formalizadas. Chalcatzingo cobró nueva importancia como punto de contacto entre el Centro de México y otras re-

giones, principalmente la Costa del Golfo. La aparición de nuevos centros regionales en el Centro de México, así como la decadencia de los centros de la Costa del Golfo, a fines del Formativo Medio, contribuyeron a la abdicación progresiva de Chalcatzingo.