17. Chalcatzingo Jade and Fine Stone Objects

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Beginning in the thirteenth century BC, the Olmec of southern Veracruz and Tabasco created sculptural forms that were revolutionary in the New World. They not only carved multi-ton public monuments of basalt; they also made jade objects, the first well-documented occasion in the Americas of the working of this refractory stone. The art of the Olmec is profoundly serious, rational, "great" art, and it is in no way derivative.

To anyone who has seen and held Olmec jades, their strange artistic excellence is immediately apparent: in the grace, restraint, decorum of their lines, in their logarithmic curves and smooth, closed forms. Olmec jades are tactile as well as visual objects because of the extreme high polish with which they were finished. (The ancient Chinese had a term for this quality of jade: *pa wan*; literally, "hold and enjoy.")

The word *jade* derives from the Spanish *piedra de ijada* ("stone of the side"), for the stone was believed to have curative powers for liver ailments and side pains. Today the word *jade* is a general term and encompasses two varieties of the stone: nephrite and jadeite. This chapter uses *jade* and *jadeite* interchangeably.

While Olmec monumental art occurs in quantity outside of the Gulf Coast only at Chalcatzingo, Olmec style jade objects, being small, portable, and apparently of extremely high status value, occur over a wide area of Mesoamerica. Such jade objects range from Guerrero in the north to Yucatán and Costa Rica in the south. Unfortunately, most of these artifacts were not excavated by archaeologists, and therefore their contexts are undocumented. In all likelihood there were multiple centers of jade manufacture and, in some instances, attempts in other areas to copy the Olmec jade-working style.

The sites of La Venta, San Lorenzo, and Cerro de las Mesas are the only locations within the so-called Olmec heartland where Olmec jades have been excavated by archaeologists. Only one piece of jade was recovered at San Lorenzo, although a number of serpentine artifacts occur there (Coe 1970; Coe and Diehl 1980: 241–245). The one San Lorenzo jade is a blue jade axe, sawed in half lengthwise, reported by Matthew Stirling (1946) as found in the ravine between the southwest and south-central ridges at the site. At Cerro de las Mesas two Olmec jade figures of fine-quality stone and another twenty to fifty small objects of apparent Olmec manufacture were buried in a dedicatory cache of the Classic period (P. Drucker 1955).

At forty-one locations within Complex A at La Venta, buried offerings of jade and serpentine were encountered by the excavators. The C-14 dates for building activity in Complex A, 1000–600 BC, are the frame of reference for the burial dates of the jades (Berger, Graham, and Heizer 1967). The kinds of offerings made at La Venta include shaped blocks buried in quadrilateral pits intruded into court and platform construction, groups of celts, celts and mirrors, burials with jade regalia, and groups of stone figurines (P. Drucker 1952; P. Drucker, Heizer, and Squier 1959).

That La Venta artisans had ready access to supplies of stone is apparent in the sheer quantity brought into the site. In one feature in the southwest platform, 443 blocks of dressed serpentine were laid in twenty-eight courses with blue and olive clay. The excavators estimated that a thousand tons of stone were present in this one feature alone (P. Drucker, Heizer, and Squier 1959:95–97). The nearest known serpentine sources occur on the Pacific Coast side of the isthmus (Williams and Heizer 1965:12). Sources of the jade utilized are still unknown. Michael Coe (1968a:94) has suggested that sources might be present in Guerrero, and Grove (personal communication) has informed me of rumors that raw jade boulders have been found in Oaxaca along the upper course of the Río Papaloapan. The variety of jades at La Venta strongly suggests multiple sources for this stone.

The sculptured pieces from La Venta present a puzzling case: massive amounts of serpentine and jade were traded into the site or received as tribute, yet of twenty-eight stone figurines at the site, only eight were jade. This suggests that the trade of blocks and celts of precious stone was independent of their working into figurines and ornaments. The jade figurines at La Venta are in a number of different styles and, other than the consistent style of the group of sixteen in Offering 4, bear only a vague similarity to each other. This too suggests that stone working was independent of the stone trade, and that La Venta jades might have been made at a center or centers removed from La Venta.

THE FINDS AT CHALCATZINGO

In the excavations at Chalcatzingo, 365 artifacts and worked pieces of jade and greenstone were found. Of these, 145 objects, or 40 percent of the fine stone artifacts, were jadeite (Table 17.1). Approximately one-quarter were made of a distinctive jadeite dubbed "Chalcatzingo mottled." This material has a jadeitic matrix varying in color from nearly white to spruce green, and pebbly small inclusions of feldspar ranging in color from spinach green through spruce green to dark grey green (see Appendix F for a detailed discussion of color terms). Chalcatzingo mottled jadeite is the most characteristic stone in the inventory of fine stone materials. Fifty-five objects (15 percent), mostly earspools, were made of serpentine. Over half of the thin

earspools found were made from fuchsite, a chromium or green mica. Chrysoprase and chalcedony were also prominent among the fine stone artifacts.

Jadeite and lesser-quality stones are treated together in this chapter because, as can be seen in Table 17.1, jadeite and other greenstones were interchangeable materials. The lapidary worker fashioned tools and ornaments alike out of fine greenstone, whether the stone was jade or not. Nearly all of the ornaments excavated at Chalcatzingo were green or greenish stone.

The lapidary and the wearer of the stone undoubtedly had notions and terms for quality, like the descriptive terms for different gems that come down to us from the sixteenth-century Aztecs. For the lapidary, jadeite would have been much more difficult to work than the other greenstones, requiring different abrasives, greater pressure for drilling, and incrementally longer time for the work process. The final result of this effort was a fine, high, even, durable polish that could not be achieved using the lesser stones.

Table 17.1. **Chalcatzingo Fine Stone Artifacts by Material[a]**

	Material					
Type of Artifact	*Jadeite*	*Chalcatzingo Mottled Jadeite*	*Serpentine*	*Fuchsite*	*Other or n.d.*[b]	*Total*
Stone figures			2		1	3
Pendants	3	1	5		18	27
Earspools						
Standard	4	8	3		9	24
Thin			29	44		73
Beads						
Spherical and subspherical	88	1	1		9	99
Bag-shaped		10			5	15
Tubular	4	6	1		4	15
Other	4	3	1		8	16
Tools						
Adzes/celts	1		3		9	13
Awl points	1		2		2	5
Other					7	7
Drill cores			4		2	6
Pulidores					5	5
Discs	2	2	1		4	9
Miscellaneous			1		6	7
Worked stone		7	2		32	41
Total	107	38	55	44	121	365

[a]Tetla artifacts are not included in this table.
[b]Includes other types of stone as well as unanalyzed and unidentified materials.

Table 17.2. **Distribution of Greenstone Artifacts at Chalcatzingo[a]**

	Area																						
Type of Artifact	*PC*				*T-4*	*T-6*	*T-9A*	*T-9B*	*T-11*	*T-15*	*T-17*	*T-20*	*T-21*	*T-23*	*T-24*	*T-25 1*	*T-25 2*	*T-27 1*	*T-29*	*T-37*	*S-39*	*Other*	*Total*
	PC1	*PC2*	*PC4*	*Other*																			
Stone figures	1																				1	1	3
Pendants	3	4		4	1			1	3						3		1	1	1	1	2	2	27
Earspools																							
Standard	4	2	5	1	1	1			1				1	2			1		1	2		2	24
Thin	20	10		7	12	1	1	1	2	2		1		3	1	2	3		4		1	2	73
Beads																							
Spherical and subspherical	3	2	86							2		1					1					4	99
Bag-shaped						1						1			1							12	15
Tubular	1	1	3		1					1						5	1	1				1	15
Other	3	1		1	1	2				1		1				1	1	1				3	16
Tools																							
Adzes/celt			1	2					2							2				1		5	13
Awl points	2						1	1														1	5
Other	1	1		1								1										3	7
Drill cores		3		1		1	1																6
Pulidores	2		1											1								1	5
Discs	1		1	2						1					1					1		2	9
Miscellaneous		1		1					1	1				1	1			1					7
Worked stone	4	4	2	1	1	4	1			1				4	4	4	1				2	8	41
Total	45	29	99	21	17	10	4	3	9	9	0	5	1	11	11	14	9	4	6	5	6	47	365

[a]Tetla artifacts are not included.

Most greenstone artifacts came from nonburial contexts. Nevertheless, the finest-quality jade and the stone objects of greatest aesthetic interest were encountered, almost without exception, in graves of the Cantera phase. Fine emerald green jade beads with a cracked surface and red pigment adhering, a type of jade also excavated at La Venta, were found with burials. Blue-green tubular jade beads of "Costa Rican" jade were also found in graves, as were emerald green ear flares. Table 17.2 provides proveniences (by terrace) for all these artifacts (excluding those from Tetla).

The fine stone artifacts excavated at Chalcatzingo were classified into the following categories: stone figures, pendants, earspools, beads, tools, drill cores, *pulidores* (polishing stones), miscellaneous pieces (including discs), and worked stone.

***Stone Figures* (3 specimens)**

Olmec Standing Figure *(Fig. 17.1)*

An Olmec standing figure, made of grey serpentine, was encountered in a Cantera phase crypt (Burial 33) in PC Structure 1. This figure, 11 cm tall, is a frontal, immobile, jarringly direct composition, standing assertively with legs apart. The arms are foreshortened, held out in front of the body. The physiognomy of the face is typically Olmec, especially in the gaping, triangular, down-turned mouth. The figure is marked with arcs that indicate breasts, a scratched-away area indicating the navel, and saw cuts forming the pubic triangle. The figure's red pigment incrustations appear in some photographs of the piece to show a bearded face. Whether such a face was intended is conjectural; it is not a known feature of any other such Olmec figures.

Although clearly recognizable as Olmec in style, the figure diverges in several important respects from the canon for such figures established by the group of sixteen excavated in Offering 4 at La Venta (P. Drucker, Heizer, and Squier 1959:152, 158–162, Pls. 33–36). The head tilts backward on the body axis and is rectangular rather than pear-shaped. The shoulders are missing, as the line of the upper arm sweeps from the neck to the elbow. The holes drilled in the ears and nostrils are over large, and a raised, squared area is left around each eye.

The La Venta figurines, sixteen from Offering 4 and eleven from other parts of the site, themselves exhibit a wide range of stylistic variation. The group cached in Offering 4 is nearly homogeneous, while the others represent the works of different artisans, schools, or styles of Olmec stone carvings. Since the range of sculptural style is so wide at La Venta, which is the type site for Olmec jade and stone carvings, it is impossible to state with certainty the degree of artistic relationship of the Chalcatzingo figure to the ones from La Venta.

In a prior study (Thomson 1975) I pointed out that the subject matter of Olmec jade and stone carvings is not were-jaguars, as so often has been assumed. Rather, the range of figure carvings of the type excavated at La Venta encompasses developmental stages, perhaps in the life of a single individual, i.e., baby, adolescent, and adult. The Olmec jade figure with forward-reaching, foreshortened arms excavated in a Classic period cache at Cerro de las Mesas (P. Drucker 1955:Pl. 27) is a superb example of the infantile character. A good example of the progressive transformation from baby to adolescent is illustrated in three figures recovered in the 1943 excavations at La Venta (P. Drucker 1952:Pl. 50). The figures of La Venta Offering 4 are representative of the adult male stage, all having incised loin cloths or codpieces, and thus the ceremony or event depicted by this offering was one in which adult males participated.

The Chalcatzingo figure is similar to the Cerro de las Mesas figure and the 1943 La Venta figures in the forward projection of the arms and the absence of a codpiece. It differs in these same attributes from the Offering 4 figures. It is also at variance with all the Gulf Coast examples in its physical proportions. By comparison with the Olmec figures excavated at La Venta and the other Olmec figures discussed, it is apparent that the standing Olmec figure at Chalcatzingo represents an adolescent male.

Torso of a Seated Man *(Fig. 17.2)*

The second Olmec style sculpture excavated at Chalcatzingo is a superb but broken torso of a seated man. The figure is 5 cm high and is made of a soft, dark spruce green serpentine that takes a high polish. It was excavated in S-39 in a Cantera phase context.

The importance of this sculpture lies not just in its aesthetic superiority. It is one of only two known small-scale pieces from excavated sites that bear direct stylistic relationship to the monumental sculpture of the Olmec heartland. The other is a fragmentary serpen-

Figure 17.1. Anthropomorphic "were-jaguar" figurine, PC Structure 1, Burial 33.

Figure 17.2. Seated anthropomorphic figurine fragment, S-39.

tine torso, also with head, arms, and legs missing, which was excavated at La Venta (P. Drucker 1952:148, Fig. 45). It is reconstructed as a figure seated cross-legged, with the arms resting on the thighs.

From illustrations of the major Olmec monuments depicting seated persons (e.g., La Venta Mons. 10, 23; San Lorenzo Mons. 11, 12, and 47; de la Fuente 1973: 67–68, 81–83, 192–196, 226–227), it is apparent that the ceremonial representation of a seated figure is the same in the great monuments as in the small-scale torso from Chalcatzingo. In all cases, a stocky, rounded body is indicated, with a corpulent torso mounded above the crossed legs. The figures in the monumental sculpture have badges of rank such as capes, ceremonial bars, and bracelets, while the Chalcatzingo fragment appears to be devoid of such trappings.

The Chalcatzingo figure is made of a spruce-green serpentine that is worked into half a dozen different kinds of artifacts at the site. "Paper-thin" earspools of this type of stone abound, while beads, pendants, tools, and drill cores are also found in this material. For this reason it is possible that the torso could have been made at or near Chalcatzingo. Abrader saws and jade adzes found at the site could conceivably have been part of the kind of tool kit necessary to manufacture such a figure.

The most puzzling aspect of the torso is its similarity in design to the monumental figures of the Gulf Coast Olmec. Did sculptors move back and forth between sites, or did designs travel on paper or in the mind? Could the Chalcatzingo figure have been a sculptor's copy or model of a large-scale monument such as Chalcatzingo Monument 16 (Fig. 9.18)? Resolution of questions such as these would also shed light on the major problem of the artistic genesis of the Chalcatzingo relief sculpture.

Teotihuacan-like Figurine Head
(Fig. 17.3)

A characteristic Classic period Teotihuacan-like stone head, made of light brown material and 2.4 cm high, was found in Cave 10, high on the Cerro Delgado.

Figure 17.3. Teotihuacan-like figurine head, Cave 10.

***Pendants* (27 specimens)**

A variety of artifacts classified as pendants were found during the excavations. The majority come from Cantera phase contexts. It is important to note that some of these pendants are directly similar to minor materials excavated at La Venta, e.g., fang or tooth pendants (Fig. 17.4*a–c*), a duck-billed pendant (Fig. 17.4*d*), and two tiny T-shaped "spoon" pendants (Fig. 17.5). Similar materials have been found at La Venta (P. Drucker 1952:Pl. 58; P. Drucker, Heizer, and Squier 1959:Pl. 37). These Olmec pendants at Chalcatzingo are small in scale, as they are at La Venta. One of the fang or tooth pendants (Fig. 17.4*c*), of brown serpentine, has the earliest context of any of the jade and stone pieces at Chalcatzingo, coming from the Barranca phase. George C. Vaillant's Zacatenco excavations recovered a jade "jaguar tooth" pendant (1930:Pl. 60) similar to the three from Chalcatzingo.

A fine blue-green chalcedony pendant of a monkey with the suspension hole in its tail (Fig. 17.6) was excavated in the Plaza Central. It can be compared to a jade monkey from Guerrero in the American Museum of Natural History in New York (Easby and Scott 1970:No. 47). The Chalcatzingo monkey bears no stylistic relationship to other pieces excavated at the site, but blue-green chalcedony is not uncommon there. Fourteen other objects of chalcedony, including a few beads and a fragment of an earspool, were recovered. The fine straight bore of the holes in the monkey pendant is noteworthy, for they were probably made with a tubular drill.

Six "axe" pendants were found at Chalcatzingo (Fig. 17.7). One of these (Fig. 17.7*c*) was associated with a Classic period infant burial on T-25. These pendants are axe-shaped anthropomorphic figures pierced for suspension at the sides or at the top of the head. They are made of greenish stones, none of which are very hard. A tubular drill was held obliquely to the stone to cut arcs indicating facial features. This is a Classic period drilling technique not so far found among pieces of the Formative period.

The other pendants found at Chalcatzingo are a miscellaneous assortment of small circular jade pieces cut from a sphere, pendants shaped like miniature bowls, and other broken and irregular pieces pierced for suspension (Fig. 17.4*e–k*).

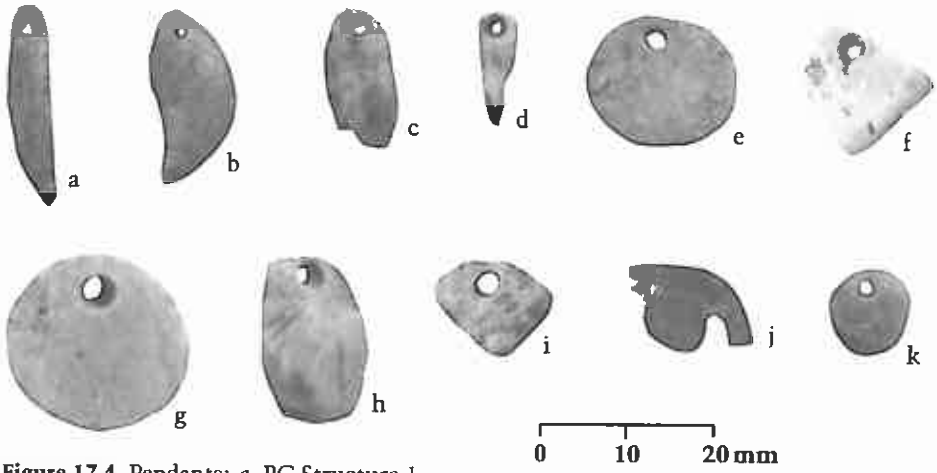

Figure 17.4. Pendants: *a*, PC Structure 1, Burial 32; *b*, T-27 Structure 1; *c*, T-9B; *d*, PC Structure 2; *e–f*, T-11; *g*, PC Structure 1, Burial 16; *h*, S-39; *i*, T-37; Burial 140; *j*, T-24; *k*, T-24, Burial 92.

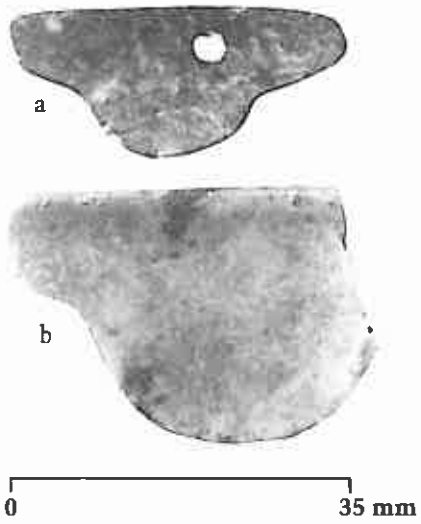

Figure 17.5. T-shaped pendants: *a*, T-24; *b*, PC Structure 1.

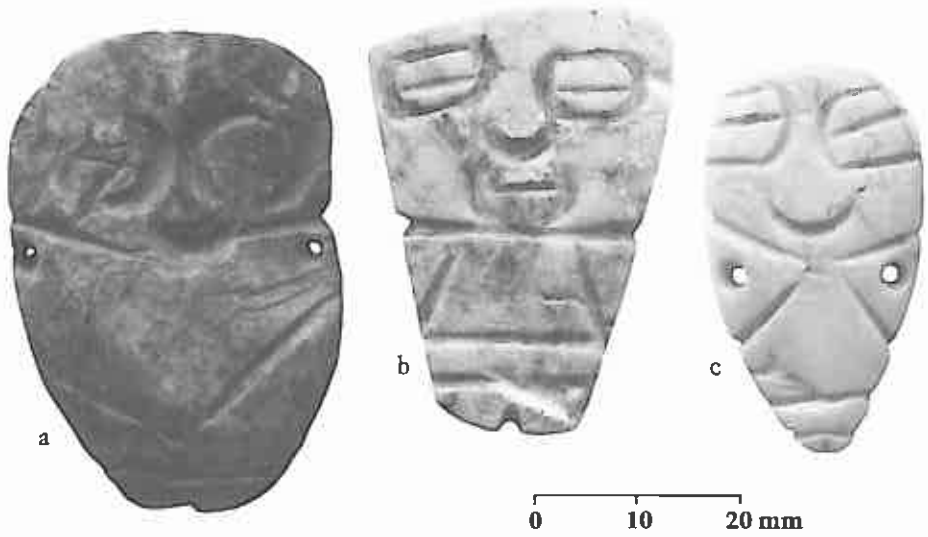

Figure 17.7. Axe pendants: *a*, T-4; *b*, PC Structure 1, plow zone; *c*, T-25, Burial 115.

Figure 17.6. Monkey pendant, PC excavations.

***Earspools* (97 specimens, mostly fragmentary)**

The earspools excavated at Chalcatzingo were classified into two groups—standard jade earspools with broad perpendicular flares (twenty-four specimens) and more cylindrical, "paper-thin" earspools made of highly polished chromium mica (fuchsite) and serpentine (seventy-three specimens). The former are found mostly in Cantera phase contexts and are believed to be a status-associated artifact. The latter are present in both Barranca and Cantera phase associations, and they are not as clearly an elite item.

The thin earspools (Fig. 17.8) are remarkable artifacts, ground down to a thickness of 0.5–1.3 mm. They are basically parallel-sided, exhibiting less flare than the other class of ear ornaments. The heights of the thin flares range from 11 to 21 mm. The outer diameter of the forward or flaring edge lies between 20 and 35 mm. The base diameter, the size of the hole in the earlobe, is similar to the base diameter of the standard flares, varying between 20 and 35 mm. From the point of view of manufacture, they represent a consistent series. The part of the thin earspools that was observed from the front (the inside of the flare) was always more highly polished than the rest of the piece. In addition, some of the earspools had minute double ridges at the base on the outside. These probably served to keep the spool in place in the earlobe (Fig. 17.8*e*).

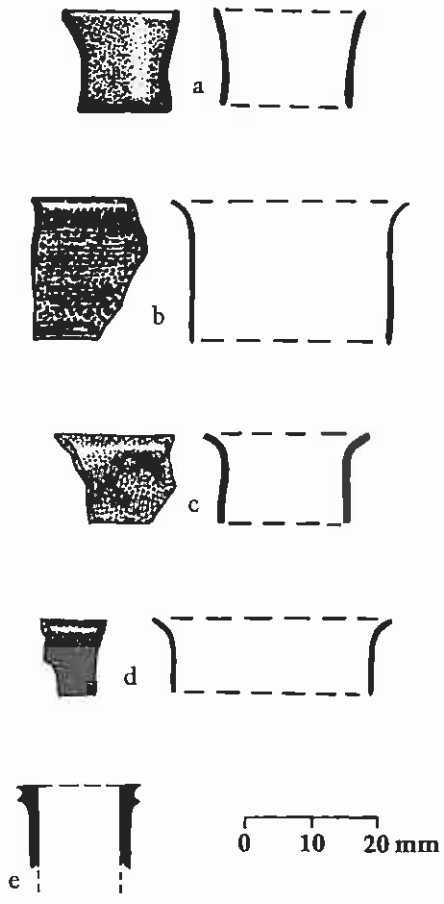

Figure 17.8. Thin earspools: *a*, PC Structure 2; *b*, T-20; *c*, T-11; *d*, T-25; *e*, T-4.

The materials used in the thin earspools were fuchsite and serpentine. Fuchsite, or green mica, was the material used in forty-four specimens. It is a dark spruce (blued) greenstone that is translucent to transparent spinach (yellowed) green when held to the light. Black seams and inclusions are found when the material is held to a strong light source. A few examples were translucent bottle green in ambient light. The serpentine employed in twenty-nine examples is an opaque light spruce green stone, often dull-surfaced. Rarely the thin serpentine earspools have a high, vitreous polish.

Thin earspools were found primarily in the excavations of PC Structures 1 and 2 and T-4 (see Table 17.2), although they were also recovered in minor numbers from most Middle Formative structures. They were found only as broken fragments. Thin-walled clay earspools (Chapter 16) also occur on the site but are rarer and have somewhat different distributional contexts (Table 16.1).

Standard earflares survived relatively intact, since they are thicker (thickness ranges from 1.9 to 3.5 mm) and were usually associated with burials. They are not a consistent series (e.g., Fig. 17.9). The variety of their forms, dimensions, and materials suggests that they may have derived from a number of different centers of manufacture. Their height from base to throat varies from 6 to 25 mm. They are 20–61 mm across, and the base penetrating the earlobe varies from 19 to 39 mm. They are made of imperial green jadeite, Chalcatzingo mottled jadeite, serpentine, and other materials now badly weathered. A weathered pair in Burial 40 was found with minute, finely-worked fragments of shell and turquoise mosaic.

Jade earspools are not restricted to Chalcatzingo during the Middle Formative. Vaillant's Zacatenco excavations found an earspool fragment (1930: Pl. 60, top row, no. 2), while his work at El Arbolillo uncovered an infant burial associated with a pair of earspools (1935: 244–245, Fig. 25). Turquoise mosaic pieces were also excavated at El Arbolillo in association with a burial (1935: Fig. 25, no. 10).

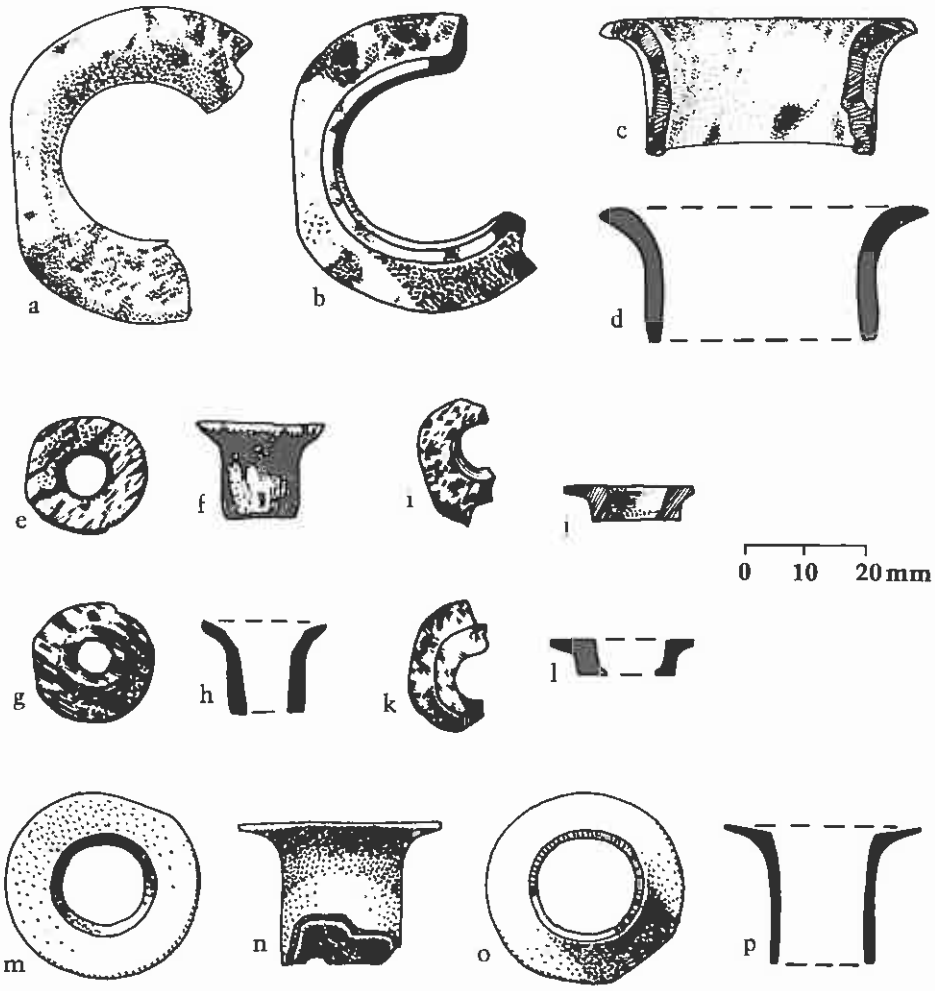

Figure 17.9. Standard earspools (four views each): *a–d*, PC Structure 1, Burial 28; *e–h*, from excavations in front of PC Structure 2; *i–l*, Cave 1; *m–p*, PC Structure 4, Burial 40.

***Beads* (145 specimens)**

The beads excavated at Chalcatzingo were of four main types—subspherical, bag-shaped, tubular, and discoidal—as well as some irregular forms. The subspherical beads were by far the most numerous, comprising 67 percent of all beads (Fig. 17.10*a–d*). Most of the subspherical beads were made of jadeite and were biconically drilled. Many of these are of fine imperial green jadeite. Beads account for the majority of jadeite artifacts found at Chalcatzingo, and almost all of them occurred in the two high-status burials on PC Structure 4 (Burials 39 and 40), where they were strung and presumably worn by the individuals. Beads were also found in the mouths of several Cantera phase burials (a practice also known for the Aztecs).

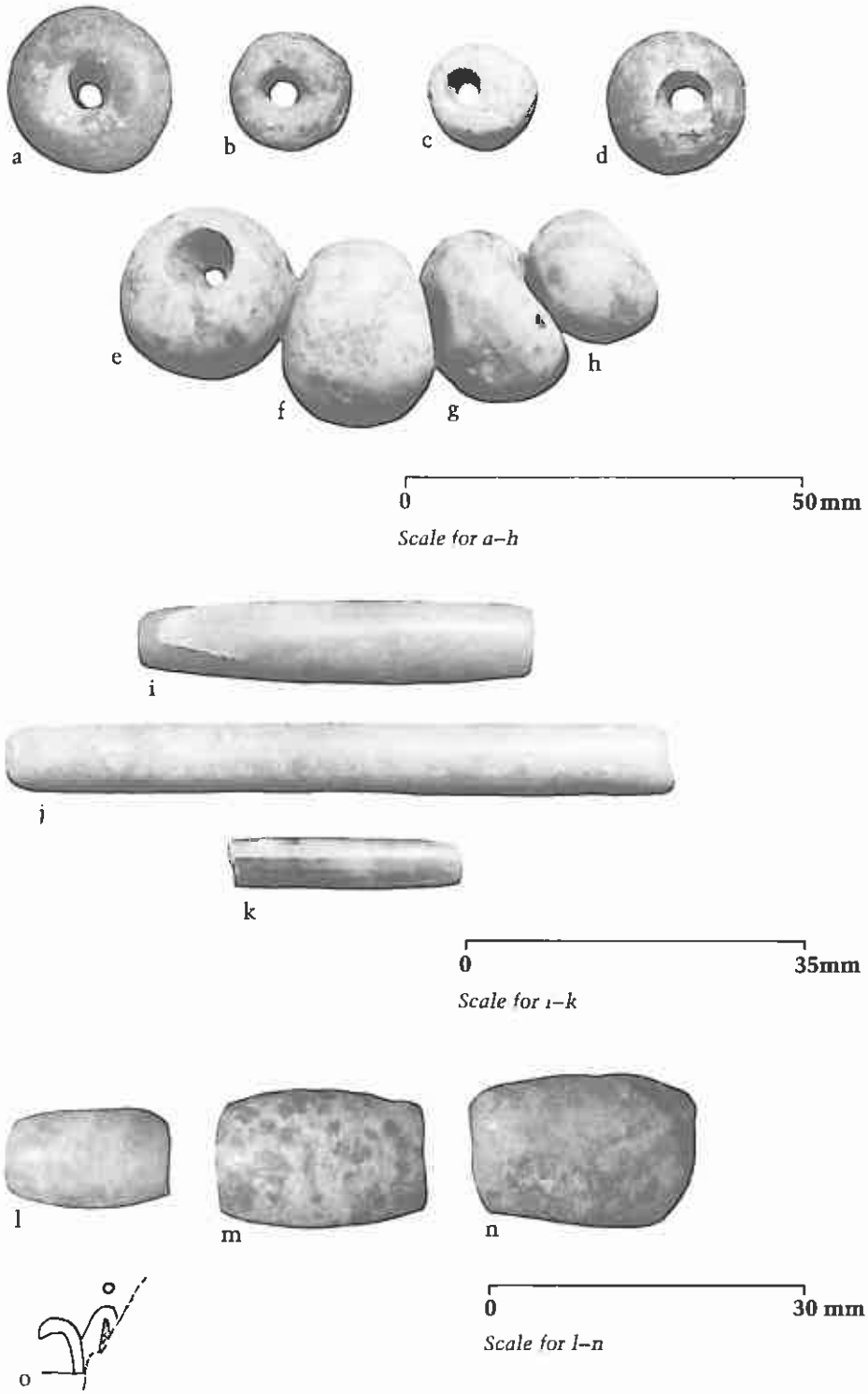

Figure 17.10. Beads: *a–d*, subspherical; *e–h*, bag-shaped; *i–k*, tubular (*i*, T-25, Burial 109; *j*, PC Structure 4, Burial 40; *k*, T-25, Structure 2); *l–n*, barrel-shaped; *o*, engraved.

Bag-shaped beads (Fig. 17.10*e–h*) are large, heavy beads pierced off-center by two drill holes intersecting at about a 120° angle. The sides of the bead converge toward the drill hole at the top. They tend to be made of Chalcatzingo mottled jadeite. The drill holes are conical and very large in proportion to the size of the bead. Two-thirds of the bag-shaped beads come from caves in the Cerro Delgado. They also occur in Classic contexts on T-20 and T-27 and at Postclassic Tetla. Only one has a certain Cantera phase date.

Tubular beads are of two kinds: elegant, long, thin, and highly polished with an extremely fine bore; and short, stubby, cylindrical beads. The longest tubular bead (Fig. 17.10*j*) is made of translucent sea-green jadeite and was found with Burial 40 on PC Structure 4.

Other beads were classified as discoid, barrel-shaped (Fig. 17.10*l–n*), and miscellaneous.

A hollow bell-shaped bead, unfortunately fragmentary, has an engraved design on it (Fig. 17.10*o*). A lobed bead of jadeite is similar to those found at La Venta (P. Drucker 1952: Pl. 52).

The fact that some greenstone types appear to correlate with specific bead forms (e.g., imperial green jadeite and subspherical beads) suggests the possibility that all of the Cantera phase beads at Chalcatzingo were not made at the same manufacturing source. Some may have been locally made, others imported.

***Tools* (25 specimens)**

None of the tools excavated at Chalcatzingo was found in what could be interpreted as a workshop context. Two adzes and two awl points were found in burials. I have included awl points in this category, although they may not have functioned as tools.

Twelve adzes were uncovered at Chalcatzingo (Fig. 17.11), from contexts ranging from the Barranca phase to Middle Postclassic. They are made of jadeite, serpentine, and other materials. The one jadeite adze (Fig. 17.11*d*) would have served as a good tool for shaving serpentine and other soft stones. The other adzes may have been woodworking tools. These tools were small in size, ranging mostly between 23 and 55 mm in length.

One celt was found in Cave 1, in a probable Middle Postclassic context; another celt was found at Tetla (not included in Chalcatzingo totals). The celt fragment excavated in the Tetla house

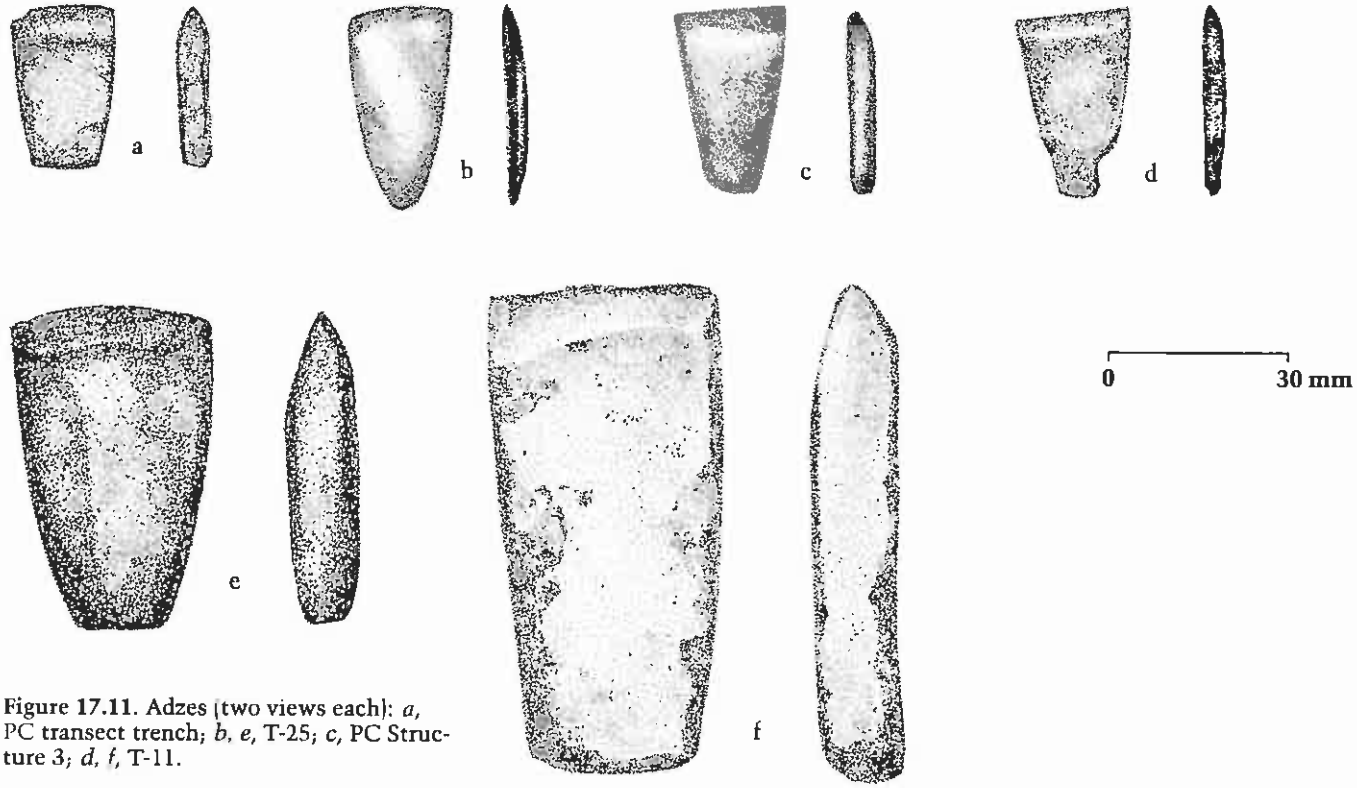

Figure 17.11. Adzes (two views each): *a*, PC transect trench; *b*, *e*, T-25; *c*, PC Structure 3; *d*, *f*, T-11.

excavations is a highly polished dark green. Lime plaster adhering to this artifact suggests that it was reused as a plaster smoother.

Five awl points were found (Fig. 17.12), the finest of these being transparent pale green jadeite shaped to a strong point (Fig. 17.12*d*). This awl occurred with the burial (no. 33) associated also with the serpentine Olmec figure (Fig. 17.1). Jadeite awls were found in tombs at La Venta (P. Drucker 1952: Pl. 53) and at a cache at Seibal dating to 800 BC (Willey 1970: 321). Awl points represent an artifact form which probably functioned for ceremonial mutilation and blood-letting.

Other tools include two abrader saws made of gritty sandstone, which could have functioned as either stone or woodworking tools. There were also five smoothed and rounded stones which may have been used for polishing pottery in the leather-hard state.

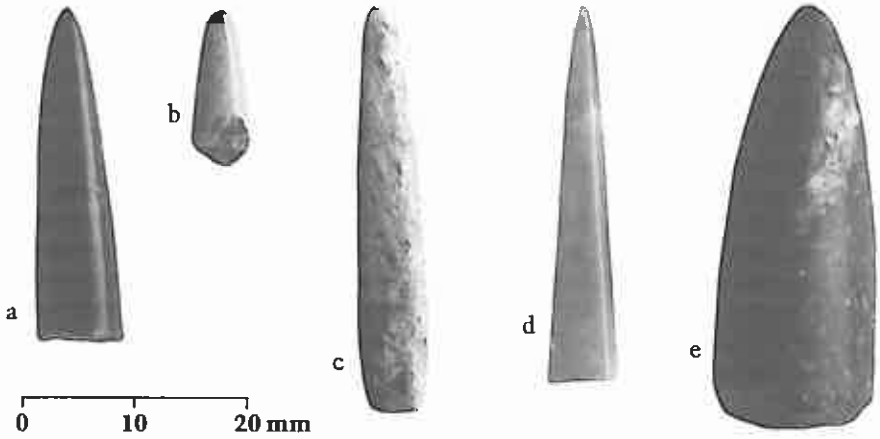

Figure 17.12. Awl points/bloodletters: *a*, T-9A; *b*, PC Structure 1, Burial 32; *c*, Cave 8; *d*, PC Structure 1, Burial 33; *e*, T-9B.

***Drill Cores* (6 specimens)**

Drill cores, the cylinders left when a tubular drill has perforated stone, are prima facie evidence of stone-working activity. Four of the Chalcatzingo specimens are from good Cantera phase contexts. Most of these artifacts are made of

serpentines common to other artifacts at the site. One drill core was of the same serpentine used to manufacture the "paper-thin" earflares. Its diameter (ca. 14 mm) would have been appropriate for the first stages of manufacturing a thin earflare.

Serpentine is a relatively soft stone and not difficult to work. There is no evidence, however, that the abrasives or technology necessary to work jade, an extremely hard and tough stone, were present at Chalcatzingo. The finding of serpentine drill cores is the strongest evidence for assuming that at Chalcatzingo serpentine and other soft stones were worked into artifacts. Serpentine was in broad use at the site, and artifacts of serpentine occur in every category of artifact except the *pulidor*.

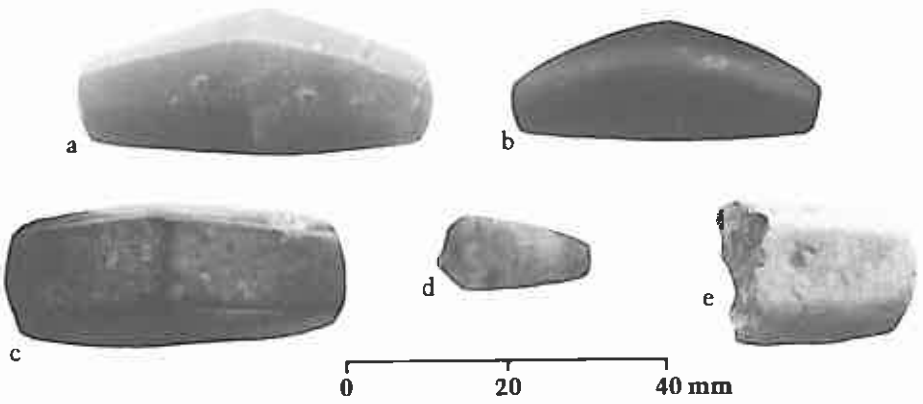

Figure 17.13. *Pulidores: a*, PC excavations; *b*, CT-1; *c*, T-23; *d–e*, PC Structure 1.

***Pulidores* (5 specimens)**

The *pulidores* at Chalcatzingo are the single exception to the generalization that the range of fine stones employed was green or greenish. The material of some *pulidores* is hard and translucent with a brown to orange hue.

The *pulidores* (Fig. 17.13) are so called because it was originally thought that they were tools and that their facets derived from abrasion in a number of different planes as the stones were worked against other materials. The faceting patterns on the five examples from Chalcatzingo are all different. The bodies of the four complete specimens are cut into twelve, six, five, and seven facets. It is my opinion that these were magical stones used by shamans for divination. One specimen was recovered by Vaillant at Zacatenco (1930:Pl. 61, bottom row, no. 2). They have also been found at Tlatilco (Tolstoy 1971b:291) and are said to occur at sites in Guerrero.

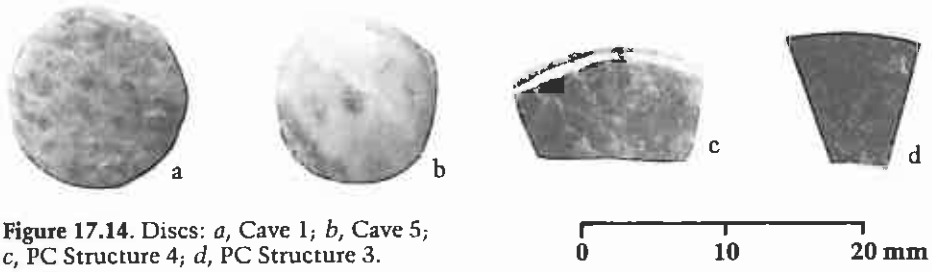

Figure 17.14. Discs: *a*, Cave 1; *b*, Cave 5; *c*, PC Structure 4; *d*, PC Structure 3.

***Discs* (9 specimens)**

Two types of thin greenstone discs occur at Chalcatzingo. The first type, mosaic discs, is only probable, for the evidence consists of two wedge-shaped jadeite pieces which were apparently part of such mosaic discs. One of the specimens (Fig. 17.14*c*) was found within the looted tomb on PC Structure 4 (Chapter 4); it is made of fine imperial green jadeite. The second example (Fig. 17.14*d*) was recovered from PC Structure 3 excavations.

The second disc type is a thin circular disc (e.g., Fig. 17.14*a–b*). Among these greenstone discs, the earliest occur in Late Barranca subphase contexts. The small circular discs are reminiscent of and possibly predecessors to Classic and Postclassic Maya jade discs.

However, most of the discs at Chalcatzingo differ from Maya discs in an essential regard: only two are pierced. Maya jade discs are invariably pierced for suspension or attachment, usually through the center and again at one edge (Proskouriakoff 1974:Pl. 35).

***Miscellaneous and Worked Stone* (48 specimens)**

Miscellaneous stone artifacts are not discussed here. Stone fragments showing signs of workmanship (forty-one specimens) include imperial green jadeite, Chalcatzingo mottled jadeite, chrysoprase, chalcedony, basalt, volcanic tuff, schist, pink quartz, serpentine, and other materials. These worked stones did not cluster in any part of the site that might have been interpreted as a workshop area.

CONCLUSIONS

Some of the lapidary work of Chalcatzingo, like the relief carvings on rock faces of the Cerro Chalcatzingo, shows relationships to the Olmec culture of the Gulf Coast. The nature and degree of relationship can be assessed along six lines of inquiry: the materials of the Chalcatzingo artifacts, their forms, their context, their workmanship, their abundance, and their time of deposition.

The forms of some of the Chalcatzingo jade and stone ornaments (lobed beads, duck-billed pendants, spoon pendants, the standing Olmec figure, and the torso of a seated figure) have direct counterparts in the burial artifacts at La Venta. The context for these objects is also a mortuary context. The workmanship of the Chalcatzingo stone artifacts might yield clues of relationship to Olmec artifacts if the La Venta and Chalcatzingo assemblages could be studied together.

The material of the Chalcatzingo fine

stone artifacts is the same as that of the La Venta grave goods. Specifically, the fine imperial green jade with cracked surface, the blue-green "Costa Rican" jade, and the use of lesser stones like fuchsite, chrysoprase, and chalcedony is the same at both sites. I believe that three Olmec figures from La Venta Offering 4, now in the Smithsonian Institution in Washington, D.C., are made of the stone I have called Chalcatzingo mottled jadeite. Thus, the inhabitants of Chalcatzingo during the Middle Formative were connected to the same supply mechanism for fine stones that served La Venta.

The time of burial of the jade and stone carvings at Chalcatzingo, mostly during the Cantera phase (700–500 BC), accords well with the time of deposition of similar artifacts at La Venta. The quantity of jade and fine stone encountered at Chalcatzingo, however, marks it as a minor provincial site, if La Venta is taken as the standard for the volume of stone in trade at this time. No jade celts, worked blocks of stone, or lavish offerings of jade were encountered at Chalcatzingo. The actual volume of excavated jade is very small.

Thus, if the jade and stone work excavated at Chalcatzingo is taken as an indicator of the site's importance in the Middle Formative, it would appear that the site was of minor religious and economic importance in the Olmec sphere of influence, though a consumer of Olmec forms and materials as evidenced by their appearance in the site's graves of that period.

RESUMEN DEL CAPÍTULO 17

Casi 400 piezas de jade y piedra preciosa fueron recobradas in Chalcatzingo. De éstas, 146 resultaron ser de jadeita, incluyendo una variedad llamada "jadeita moteada Chalcatzingo." Otras materias primas identificadas fueron la fusita, la crysoprasa, la calcedonia, y la serpentina. Se encontró poca evidencia en el patrón de uso de distintos materiales para artefactos específicos con excepción de la serpentina y la fusita, las cuales se emplearon principalmente en la manufactura de orejeras delgadas. La mayoría de los artefactos de piedra verde se recobraron de contextos ajenos a enterramientos, pero los objetos de mayor calidad provienen de las tumbas de la fase Cantera.

Los artefactos de piedra verde se clasificaron en las siguientes categorías: figuras, pendientes, orejeras, cuentas, herramientas, puntas de barreno, pulidores, miscelánea, y piedras parcialmente trabajadas. De las tres figuras de piedra, una es definitivamente de estilo olmeca (Cat. 73.1) aún cuando difiere levemente de las figuras olmecas de la costa del Golfo tales como las de la Ofrenda 4 en La Venta. Se recobró del Entierro 33 en cripta. Otras figuras de piedra fina son el torso de un hombre sentado, cuya posición es semejante a la del arte monumental olmeca, y una cabeza pequeña de piedra típica del Clásico teotihuacano.

Los pendientes presentan una variedad de formas, algunos muy semejantes a los artefactos de La Venta, p.e., pendientes de colmillo, un pendiente de pico de pato, y dos pendientes "cuchara" en forma T. También se encontraron un pendiente en forma de mono bien hecho, y seis "hachas" pendientes los cuales presentan incisiones de figuras antropomórficas crudas mediante el empleo de la técnica del período Clásico.

Fueron encontrados cerca de cien orejeras y fragmentos casi todos del Formativo Medio, la mayoría de los cuales son de la variedad "papel delgado," y la minoría con el ensanchamiento común. Las orejeras delgadas presentaron todas estado fragmentario, y casi todas fueron recobradas de contextos ajenos a entierro. Las orejeras comunes, por otra parte, se encontraron más frecuentemente asociadas a entierros y algunas estaban intactas.

Las 145 cuentas presentaron fundamentalmente forma subesférica aun cuando ocurrieron también en otras formas. Casi todas las cuentas, muchas de las cuales son de jadeita verde imperial fina, fueron encontradas en los dos entierros de alto rango en PC Str. 4, y las llevaban puestas los difuntos al momento de ser enterrados.

Las herramientas de piedra verde incluyen azuelas, hachas (Postclásico), puntas de lezna, sierras de desgastar, y posibles piedras para pulir. Algunas de estas herramientas pueden haber sido usadas para hacer otros objetos de piedra verde, y junto con los cilindros del hueco perferado constituyen buen testimonio de que algunos objetos de piedra finos se hacían en el sitio. Las puntas de lezna pudieron no haber servido como herramientas sino como artefactos para el sangrado ritual. Los llamados pulidores probablemente no fueron herramientas, sino que sirvieron también un propósito ritual.

Los discos de piedra verde ocurren como discos delgados completos y como secciones de disco, aparentemente parte de un mosaico. A diferencia de los discos mayas, no están agujereados y por ello su función es incierta (p.e., como adorno).

Casi todo el jade de Chalcatzingo se presenta en contextos del Formativo Medio, el mismo período cuando el jade se usó con mayor intensidad en La Venta. Las materias primas en Chalcatzingo parecen ser las mismas que se encontraron en la costa del Golfo, y las formas y los estilos con frecuencia son semejantes; sin embargo la cantidad de los objetos de piedra verde en Chalcatzingo es muy pequeña comparada con La Venta.