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Green Stones in Central Jalisco

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Early use of green stones in western Mesoamerica

Objects made out of a wide variety of green stones were greatly valued by Mesoamerican cultures since early times. The oldest dates for the use of these kinds of materials pertain to the Early Formative, in the Barra complex of the Pacific coast of Chiapas (Garber *et al.* 1993: 211). A little later their presence was more widespread, above all in funerary contexts of the San José phase of the Oaxaca Valley (1150-850 B.C.), as well as in Tlatilco, in the Basin of Mexico (ca. 900 B.C.) around the latter date their use seems to have been more generalized, including such sites as La Venta, on the coastal Gulf zone and Copán, Honduras (Ibid.: 212).

In spite of the importance of these materials, little is known about the existence and use patterns of green stones in western Mesoamerica. This is due in part to the few systematic excavations carried out in this region, as well as the little interest shown by archaeologists on the study of this kind of materials. Their attention has been focused primarily on ceramic sculptures. Because of this, the known sample of objects made with green stones was derived exclusively from looted collections, which hindered research because of the lack of known provenience. Another problem is that in western Mesoamerica this kind of object has been found primarily in funerary contexts, which do not necessarily represent the use for which they were produced in the first place.

The earliest known ritual use of green stones in western Mesoamerica pertains to the Opeño and Capacha complexes, primarily studied in Michoacán, Colima and Jalisco. El Opeño is a funerary site located in the Zamora-Jacona Valley, Michoacán ([Figure 1](#)). Around 1500 B.C. the El Opeño tombs had an elaborate system of construction, with ample underground chambers excavated in volcanic tuff and stepped access corridors. These tombs contained a wealth of objects deposited as offerings, such as conch shells from the Caribbean (*Turbinella angulatus*), and green stones such as jadeite, amazonite, and chrysoprase (Oliveros 2004: 144, 150) showing great diversification and a complex system of religious beliefs, as well as a well-defined social ranking.



Figure 1. Location of the sites mentioned in western Mesoamerica: 1) Opeño, 2) Plan del Guaje, 3) La Higuera, 4) Huitzilapa, 5) La Campana, 6) El Camichín, 7) El Centinela, 8) El Embocadero II. Modified from <http://www.earthobservatory.nasa.gov>.

The Capacha complex is distributed in the intermontane valleys of the Jalisco sierras, as well as around the Colima Volcano and Colima Valley. In several sites in Jalisco with close links with the Capacha complex – such as the burial area found in El Embocadero II (800 B.C.) in the Mascota Valley – we have found the immediate forerunners of the shaft-tomb tradition. In the small burial chambers is reported the use of artifacts made of green stone, such as cylindrical beads of jadeite and possibly of amazonite, as well as unmodified turquoise fragments (Mountjoy 2004).

In the site of El Camichín, in the Salado River basin, Colima, was found a burial zone on top of an elevated hill circumscribed by two rows of big stones separated

one from the other and surrounding the hill almost entirely, with an entrance toward the northeast – a feature that indicates a restricted access to the cemetery (Ramos *et al.* 2005). This feature, together with the various burial forms, indicate complex ritual practices. A recurring custom are the offerings associating elaborate ceramics, miniature *metates* (grindstones), *Spondylus* valves and greenstone pendants.

The offerings indicate an incipient specialization in the exploitation of resources, which allowed these settlements to take part in the regional exchange networks. The presence of these offerings shows that these trade networks functioned since very early times, linking coastal sites where shell objects were obtained, manufactured and distributed, with inland communities – at least in the area around the volcanoes in the bordering area between Jalisco and Colima. The shell objects found during investigations in this area only include *Spondylus* valves, which were polished so as to eliminate the spines from their surface.

This kind of funerary offering derives from an incipient social differentiation. An example of this are the offerings of *Spondylus* and green stone, which were used selectively since they were not associated with all burials. It is possible to interpret their use as an indicator of status within the community, which has also been reported for other sites pertaining to the Preclassic period throughout Mesoamerica, such as Chalcatzingo (Morelos), Tlatilco (central Mexico), and San Lorenzo (Veracruz) (Grove and Gillespie 1992a). There is evidence for long-distance exchange networks since very early times, which may have functioned as a dispersal mechanism for several abstract concepts from one region to another (Flannery 1968; Grove and Gillespie 1992b). Therefore, it is not surprising that items made with these materials had a connotation as status signifiers, which was shared throughout several regions where they were accessible to just one sector of society.

There is evidence for contact between the Capacha and Opeño complexes, primarily through the relationships seen between the Rojo Zonal and Rojo Guinda/Crema ceramic types, as well as the similarities between the figurines of both complexes (Oliveros 1974; Schöndube 1980: 151). This contact could have spread through the Tuxpan-Tamazula-Zapotlán zone, where Opeño-style figurines and Capacha ceramics have been found (Lameiras 1990: 27; Schöndube 1974: 84, ff.), as well as through central Jalisco, where looted tombs with a layout similar to the El Opeño tombs have been reported, as well as ceramic vessels resembling the Capacha complex (Weigand and Beekman 2000: 41). Between 1300 and 900 B.C. El Opeño and Capacha had some kind of contact with cultures in central Mexico, such as Tlatilco and the Cuautla River, which may have had a higher level of sociocultural development. Since a long time ago, Beatriz Braniff and other scholars pointed out the existence of a "*tertium quid*" in central Mexico, which was different from Olmec and central Mexican traditions, and had originated in West Mexico (Braniff 1998: 28).

The site of Huitzilapa during the Late Formative

The cultural traditions emanated from these first farming villages were characteristic of such important developments as the so-called Teuchitlán tradition of central Jalisco during the Late Formative and Early Classic. An outstanding site of this tradition was Huitzilapa, a ruling center located in a small valley near Magdalena Lake. This site had over 100 platforms distributed in architectural compounds of circular and cruciform layout, besides a ball-game court in the southern part ([Figure 2](#)); the site's heyday was during the middle of the Arenal phase (ca. A.D. 0-100).

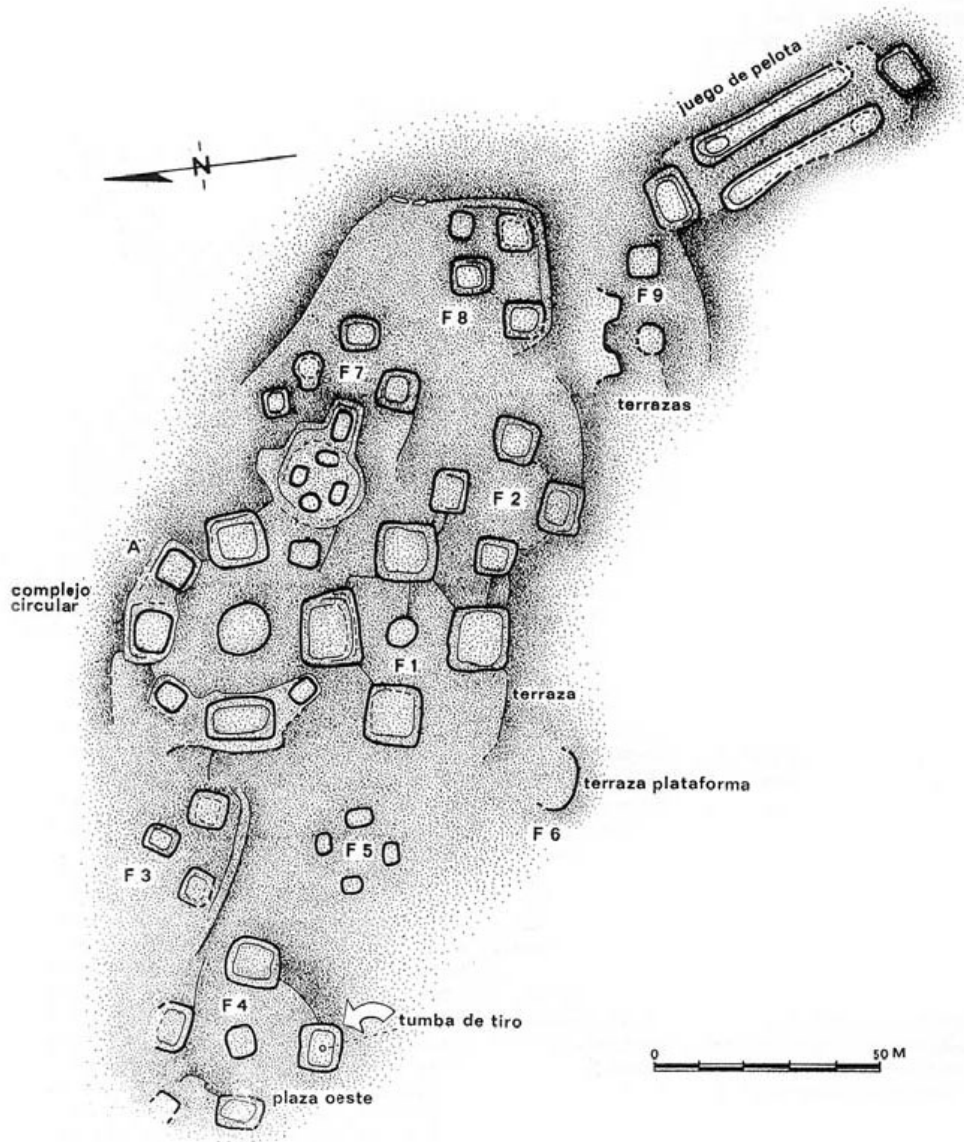


Figure 2. Map of the Huitzilapa site (surveyed by Phil Weigand, drawn by Gabriela Ulloa).

The F-4 compound was one of the greatest patio units, with four structures oriented toward the cardinal directions and a central altar. In the center of the southern structure was found the only shaft-tomb excavated in the volcanic tuff (Figure 3), which had a 7.6 m-long access shaft leading down to two funerary chambers (Figure 4) (López Mestas and Ramos 1998).

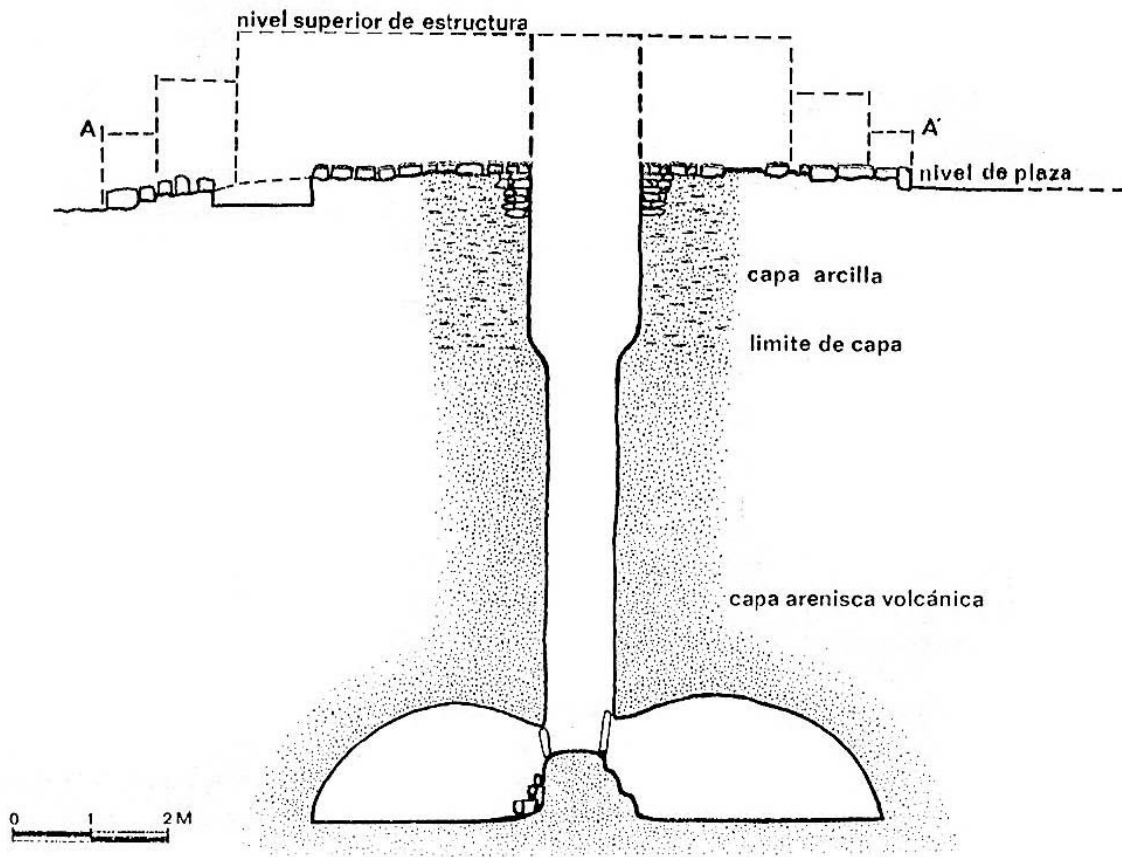


Figure 3. Cross section of the shaft tomb found in the southern platform of the F-4 Compound (drawn by Gabriela Ulloa).

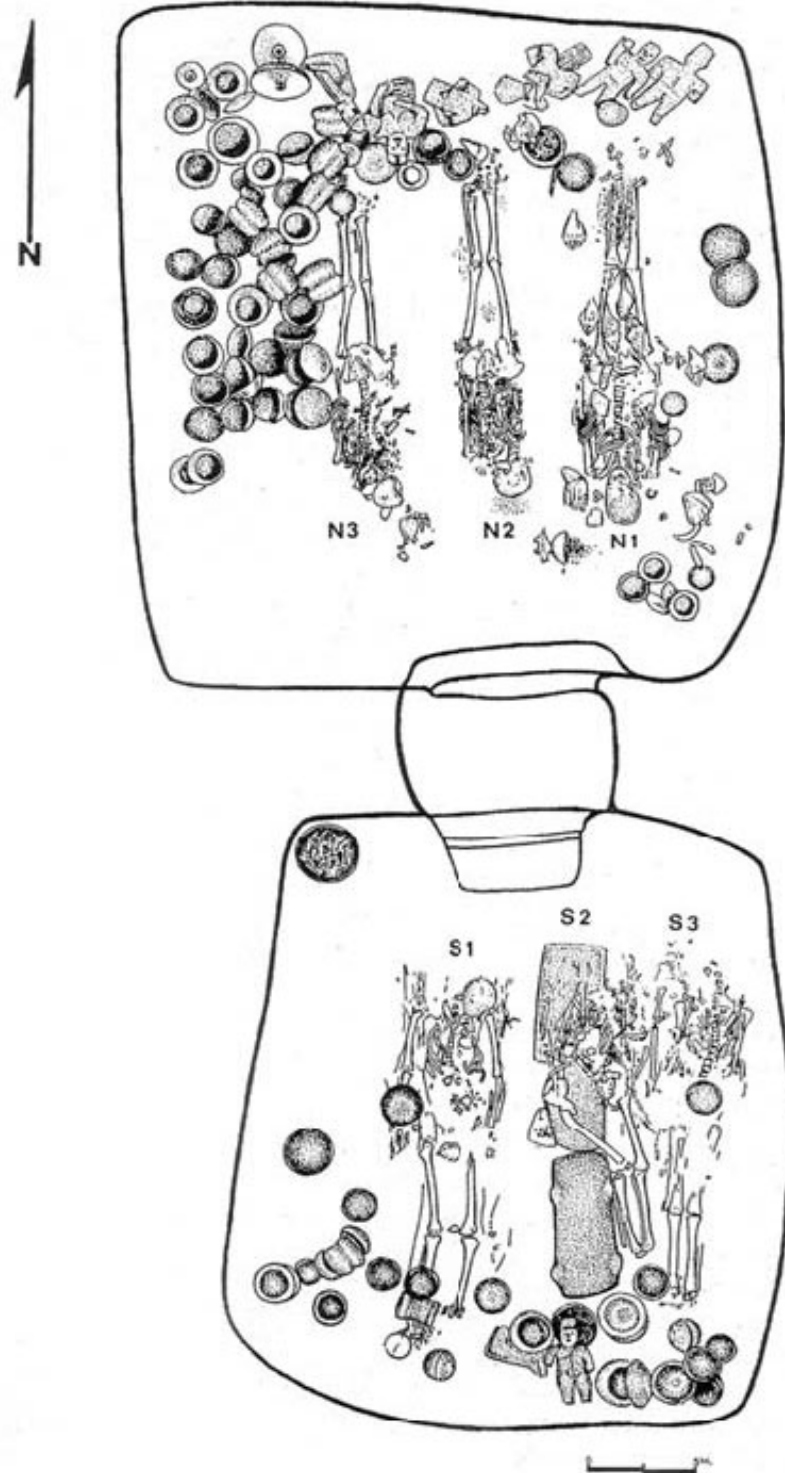


Figure 4. Plan of the two burial chambers (drawn by Gabriela Ulloa).

Three bodies were deposited in each one of the chambers, who appear to have been close relatives (López Mestas *et al.* 1998) and had rich offerings consisting of fine ceramics of the Oconahua and Ahualulco styles, shell and stone jewelry, several kinds of food, fine textiles, and obsidian awls, among other items. Among these burials a male individual of around 45-50 years of age (N1) stands out for having the most elaborate adornments and offerings ([Figure 5](#)).



Figure 5. View of the north chamber; the main individual (N1) is to the right of the photo.

The amount and quality of the offerings found in this tomb show a differential consumption of goods, which tells us of the social position and importance of the interred individuals. The sumptuary goods made out of exotic raw materials have been interpreted as having a symbolic role, in light of their restricted distribution within a specific social group, namely the ruling elite. Among the sumptuary objects the ones made of green stones stand out; in Huitzilapa all of them were found within this tomb, even showing a differential distribution among the several individuals laying there. Thus, they were found exclusively in elite funerary contexts, and this would lend support to the idea that the distribution of these objects was controlled by the high-status groups.

The process of social development of these groups caused the accumulation of luxury goods which circulated through long-distance trade networks that stimulated and facilitated the exchange of objects and ideas between widely separated areas. All this explains our interest in studying the green stone artifacts recovered from the Huitzilapa tomb.

Green stones in Huitzilapa

The total figure for green stone objects deposited as offerings in both chambers is 79 items. Mineralogical and compositional analyses were conducted on this collection to find out the materials employed in its manufacture. Mineralogical studies were performed by engineers Ricardo Sánchez and Jacinto Robles, of the Geology Lab of the National Archaeological Coordination of INAH. These studies were aimed at isolating the pieces which may have been made out of jadeite. Later Dr. Hector Neff of the Archaeometry Lab of California State University, Long Beach, conducted the compositional study of the selected samples, through mass spectrometry (LA-ICP-MS). The results were consistent with previous data obtained from jadeites from the Motagua River in Guatemala.

The majority of items in the collection (91.2%) consists of green stones of local origin, while just seven pieces (8.8%) were made of jadeite. Furthermore, 86.1% of the pieces consist of undecorated beads including tubular, cylindrical, spheroid and half-moon shapes. Tubular beads were widely distributed throughout West Mexico, and have been found in the coastal zone in burials of the Ortices phase (300 B.C.- A.D. 250) in the site of El Centinela in the Cihuatlán Valley.



Figure 6. Spheroid jadeite bead.



Figure 7. Spheroid jadeite bead.

All the jadeite pieces are included among the beads and are of small size. Among these are two spheroid beads ([Figure 6](#) and [Figure 7](#)) and three half-moon shaped beads. The latter are circular and flat, and were modified for use by making a perforation for suspension in an extreme ([Figures 8-10](#)). There is also a small, flat and stylized zoomorphic jadeite bead ([Figure 11](#)). Likewise, among the beads there is a small anthropomorphic female figure made of unidentified material, with a more realistic representation ([Figure 12](#)).



Figure 8. Half-moon bead (jadeite).



Figure 9. Half-moon bead (jadeite).



Figure 10. Half-moon bead (jadeite).



Figure 11. Flat zoomorphic bead (jadeite).



Figure 12. Anthropomorphic female pendant.

Pendants are pieces of larger size, both anthropomorphic and zoomorphic in shape, and were made out of local materials as yet unidentified. The pendants combined cutting, drilling, carving, and polishing techniques to create small three-dimensional sculptures, some of which are curvilinear and schematized ([Figure 13](#) and [Figure 14](#)), while others are more realistic, including elements such as dress and headdresses ([Figure 15](#) and [Figure 16](#)). Features like the eyes and mouth were made with small perforations incrustated with mother-of-pearl (*Pinctada*

mazatlanica). Perforations were also used to show the ears and wider circular borings for the arms, which are resting on the legs.



Figure 13. Anthropomorphic male pendant.

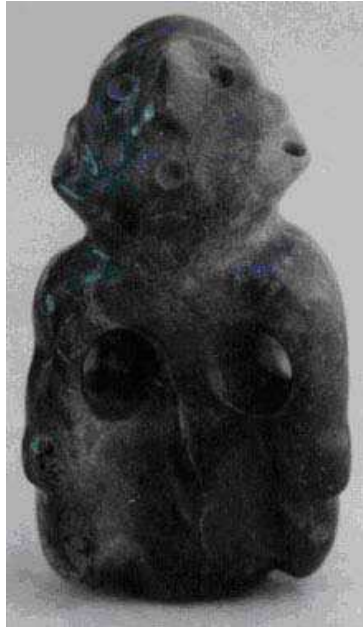


Figure 14. Anthropomorphic pendant.

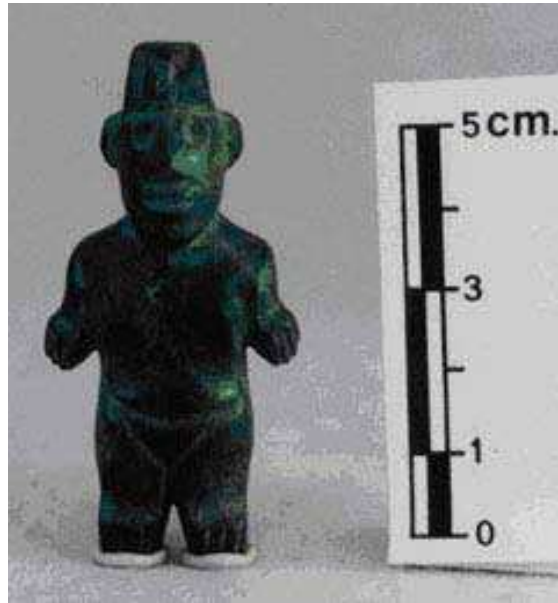


Figure 15. Anthropomorphic pendant.



Figure 16. Anthropomorphic pendant.

The distribution of these figurines within the tomb is interesting, since it is restricted to male individuals in the northern chamber, which may indicate their higher status. A certain similitude can be suggested with a pendant in the shape of a human head found in a shaft tomb in the site of La Campana, Colima (Jarquín 1995).

Another type of ornament is the pectoral, only one of which has been found in archaeological context: a great flat disk without decoration, which was also

associated with the principal individual in the tomb ([Figure 17](#)). Considering the weight and shape of this item, it is unlikely that pectorals such as this one were used as ornaments hanging from the neck. They may have been used as complement of the attire, somehow tied or sewn.

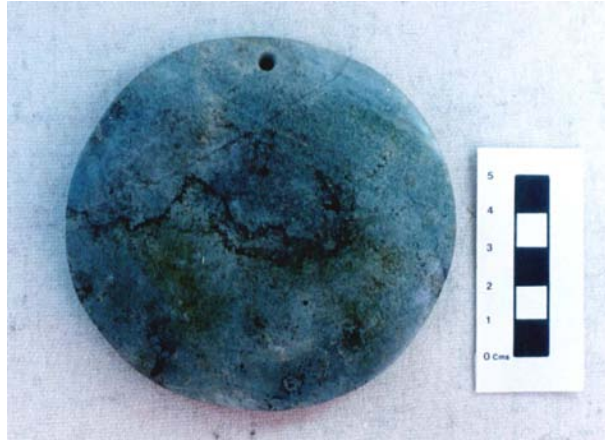


Figure 17. Pectoral.

Flat circular nose plugs made of shell were frequently found among the Huitzilapa offerings, although only one item was made of jadeite ([Figure 18](#)), which was found inside the main individual's mouth. It is possible that this item had been located on the person's upper lip and slid down inside the mouth, or it may have been intentionally placed there, an usual custom in Mesoamerica since the Formative.



Figure 18. Jadeite nose plug.

Lastly, we have an *atlatl* hook, which portrays a highly stylized two-headed snake. The image of the two-headed snake, which was linked with fertility, is frequently found in Huitzilapa, both in ceramics and in conch-shell trumpets (López Mestas 2005). Together with this hook were found two U-shaped grips which complete this instrument, although it should be pointed out that this is a ceremonial prototype, since it lacks use-wear marks. This item was also associated with the aforementioned main individual ([Figure 19](#) and [Figure 20](#)).



Figure 19. Atlatl hook.



Figure 20. Atlatl grips.

Upon closer examination, the patterns of distribution of the green-stone objects inside the tomb would seem to indicate that they functioned as an excellent indicator of hierarchy for the tomb's occupants. Of the total amount of stones found in the excavation (79), only 11 were deposited in the south chamber, consisting solely of beads. Furthermore, these beads were made with local materials. This pattern matches the rest of the objects found in the grave, since in the south chamber the ceramic vessels were likewise fewer and mostly monochromatic, like the shell jewelry.

In the north chamber, on the other hand, the green stone offerings were more plentiful and more elaborate, like the pottery and shell. Likewise, both the jadeite pieces and the small three-dimensional sculptures were mostly associated with the main individual (N1), except for one jadeite bead and two figurines that were among the offerings pertaining to the young man laid down to rest in the middle (N2).

Regarding the small sculptures or pendants, the fact that local raw matter was used for their manufacture, rather than other types of green stone like jadeite, indicates that this tradition of carving originated in West Mexico. No evidence was found in Huitzilapa to indicate that this kind of artifact had been made at the site; nevertheless, this style is frequently found in the looted collections in central Jalisco.

Regarding the pieces made of jadeite, these may have circulated through the same exchange routes by which the conch-shells (*Turbinella angulata*, *Strombus costatus*, *Strombus gigas*) arrived from the Caribbean. It is also possible that they arrived as finished ornaments, since the zoomorphic shell does not belong to any style known from West Mexico. Besides, it would be easier to transport small beads than the raw matter needed to make them to far-away places.

The site of La Higuera during the Late Classic

Around A.D. 400 strong changes begin to be seen, which point toward a reordering of human groups in central Jalisco (López Mestas and Montejano, in press). The settlement patterns and the exploitation of natural resources were transformed, the ceremonial centers were replaced by other sites with a different architecture with features such as the *talud-tablero*, as is the case in El Iztepe, El Grillo, La Higuera, Coyula, and Plan del Guaje. These new sites appear to be located in important access points to the central zone of the Jalisco highlands. La Higuera, for instance, is located on the transit route toward the valleys south of the Tequila Volcano. Little by little unusual elements began to appear in this tradition, like burials in box-shaped tombs, the El Grillo ceramic complex, and rectangular platforms and "U" shaped open spaces, which predominate from the Late Classic onward.

The site of La Higuera, pertaining to A.D. 400-650, was involved in this complex process of downfall and disappearance of the Teuchitlán tradition, hence its importance for knowing this key period in the archaeology of West Mexico. La Higuera was located on a hill to the northwest of the modern town of Tala. This was a most convenient spot, since it was close to several streams which almost totally surrounded it, apart from the ecological environment of pine-oak forest of La Primavera and the abundance of fertile soils. Alas, however, recent urban sprawl has meant that this Prehispanic settlement has been almost totally destroyed. At present the only remains are the traces of a great rectangular platform (Figure 21).

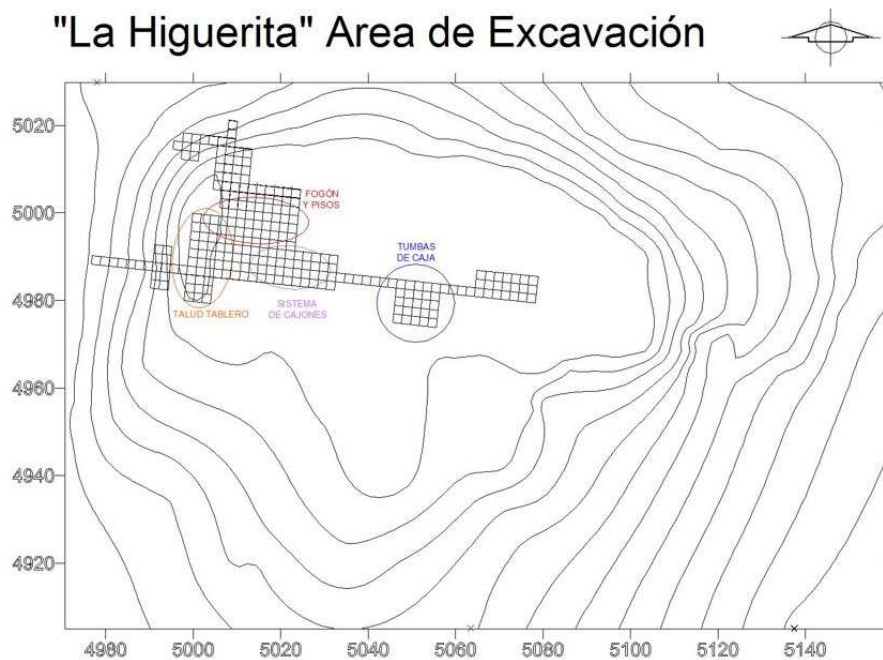


Figure 21. Main platform.

To the west of the platform was found a whitish floor of flattened earth, under which there were several tombs. Therefore, this platform functioned as a specialized sector for ritual activities of a funerary nature. A grouping of three box-shaped tombs was found built at different levels around an altar. Toward the west was found the tomb of greatest size, while on the south were two superimposed tombs (South I and South II).

In the West and South tombs several burials were deposited, some direct and some secondary. The tomb offerings were on a massive scale, particularly the ceramic pieces ([Figure 22](#)). Most of the vessels were put in groupings adjacent to the walls, including bowls decorated in red-on-buff and pseudo cloisonné, ring-base bowls, globular jars with *engargolado* or "inverted" rim, incised bowls filled with red pigment and dishes. Among these clusters of objects were also found *malacates* (spindle whorls), obsidian projectile points, knives and macro flakes, as well as green stone beads. The stones found on top of the offerings appear to have been thrown deliberately in order to ritually "kill" the vessels, since most of them were broken. Afterwards the tombs were filled up with layers of clay of different colors and they were sealed with a hard surface made of whitish earth.



Figure 22. General view of the South I box-shaped tomb.

Green stones in La Higuera

The total amount of green stone objects deposited as offerings in the West and South I tombs was of 336 items. The South II chamber had no stone artifacts, but it is worth noting that this tomb was not excavated in its entirety. This collection was subjected to mineralogical and compositional analyses, to determine the materials employed in their manufacture. The most common material was amazonite (88%), while turquoise was an important component (10.5%), and only three items were found made of caolinite, one of quartzite and one of jadeite (Sánchez and Robles 2005).

All the beads found here are plain, with no decoration of any kind. Regarding the amazonite beads, their shapes are somewhat irregular because of the friable condition of this mineral ([Figure 23](#)). Turquoise beads are better made, and all are of circular shape ([Figure 24](#)). The latter closely resemble the beads found in the box-shaped tombs in Plan del Guaje, located in the Tonalá Valley and contemporaneous with the site of La Higuera.



Figure 23. Amazonite beads.

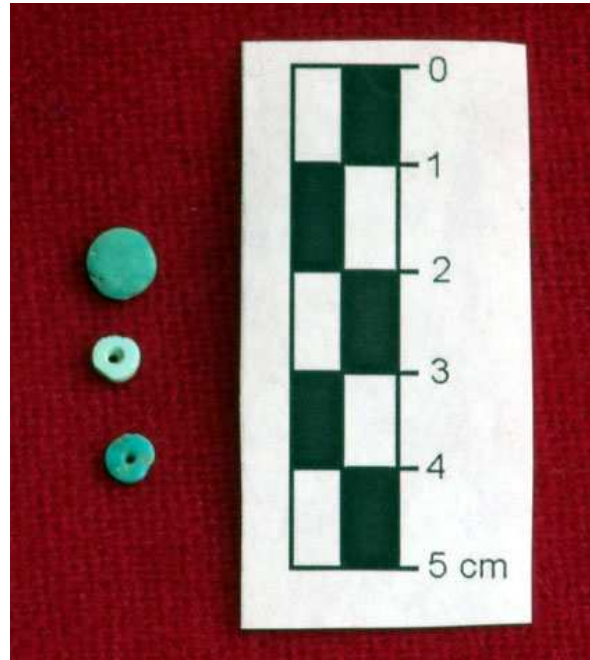


Figure 24. Turquoise beads.

The only jadeite bead has a half-moon shape, similar to the ones found in Huitzilapa. Like these, this is a flat circular bead which was reused by making a perforation for suspension in one end ([Figure 25](#)). Since this is the only item made of jadeite, it is possible that this bead belongs to an earlier period, although it might have been used by several generations before ending up in its final depositional context.



Figure 25. Jadeite bead.

All of the above suggests that in La Higuerita we have an elite funerary context. Green stones continued to be used as markers of status, but there appears to have been a change in the sort of materials employed in their elaboration, with a decrease in the use of raw matter such as jadeite.

Conclusions

Just like in the rest of Mesoamerica, in the shaft-tomb funerary tradition, and the box-shaped tombs, high-ranking individuals were buried in locations that were considered sacred because of their ceremonial architecture. The great tombs are associated exclusively with great structures of ritual use, as has been shown in the cases of Huitzilapa and La Higuerita, in central Jalisco. Likewise, both the mortuary treatment given to the individuals and remains that were deposited, and the amount and quality of the objects found as offerings, underscore the importance of these individuals and the relationship they had with the ruling elite.

The collections of green stone offerings found in these tombs gave us important contextual information about the use patterns for these objects during an extended period of time, encompassing from the Late Formative to the Late Classic (300 B.C. to A.D. 650/700).

Up to now in West Mexico we only have collections from funerary contexts, a situation that prevents us from knowing the whole spectrum of use for these materials before they reached their final place of deposition. It is a well-known fact that these objects symbolically and materially differentiated the human groups that made up these societies, and that they were important components of the interaction networks among elites. The importance of having access to collections with a systematic, controlled context is that for the first time we are beginning to know how the objects made with green stone were used, including their incorporation as essential components of the funerary offerings of high status individuals. The latter suggests that in these societies the link with the ancestors had great weight and helped to strengthen the hierarchy within the said societies.

Likewise, these collections allow us to observe marked changes through time, in relation to the work involved in carving and the use of the materials. In spite of the limited nature of the funerary contexts discussed herein, in our region there is a palpable trend toward the increased use of offerings made of amazonite and turquoise, while the jadeites seem to diminish toward the Late Classic.

The excellent proficiency reached by artisans in the manufacture of tiny figurines carved in green stone is a tradition that was lost with the arrival of new features around A.D. 400/450. However, in order to document and understand these changes in the exchange networks and the styles in fashion in central Jalisco, we must have more data to confirm or reject our incipient ideas.

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