

ATALLA: A CENTER ON THE PERIPHERY OF THE CHAVÍN HORIZON

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The emergence of public architecture in Peru's central highlands occurred during the mid-first millennium B.C. and is correlated with the expansion of the Chavín sphere of interaction. Atalla, a high-altitude site in Huancavelica, represents one of the first known centers with large-scale masonry constructions. Analysis of the ceramic assemblage reveals many similarities between the local ceramics and the Janabarriu phase pottery from Chavín de Huántar, located 450 km to the north. The inhabitants of Atalla emulated the ceramic style and cut-stone masonry of the much larger northern civic-ceremonial centers, like Chavín de Huántar, while maintaining local traits such as circular dwellings and burials in or adjacent to domestic architecture. Utilizing a core-periphery perspective, the unprecedented formation in the central highlands of a community like Atalla is hypothesized to be an independent response to demands for exotic goods from the more complex societies to the north. The largest mercury deposits in Latin America are located 15 km to the west of Atalla, and the center would have been in an excellent position to procure cinnabar and distribute this bright red vermilion pigment. Production of the pigment itself would have occurred at small villages like Chuncuimarca located in the zone of the mercury deposits.

La emergencia de arquitectura pública en la sierra central de Perú ocurrió durante el primer milenio a.C. y está correlacionada con la expansión de la esfera de interacción del horizonte Chavín. Atalla es un sitio que se ubica en el Departamento de Huancavelica a unos 3,850 msnm, y representa uno de los primeros centros conocidos con construcciones de piedra de gran monumentalidad. El análisis de la cerámica de Atalla revela varias semejanzas estilísticas con la cerámica de la fase Janabarriu del sitio arqueológico de Chavín de Huántar, ubicado 450 km de distancia. Los habitantes de Atalla imitaron el estilo de cerámica y la mampostería de los centros civic-ceremoniales, como Chavín de Huántar, pero a la vez mantuvieron rasgos locales como la construcción de estructuras domésticas circulares y un patron de enterramiento al interior o adyacente a las viviendas. La formación de una comunidad como Atalla no tiene antecedente en la zona, y se plantea la hipótesis que este asentamiento fue una respuesta independiente a la demanda para bienes exóticos de las sociedades complejas norteñas. El depósito geológico de cinabrio (HgS) de mayor envergadura en América Latina se encuentra a 15 km al oeste de Atalla y existe datos arqueológicos de su explotación temprana en tiempos prehispanicos. El cinabrio tiene un color distintivo de rojo vivo, el cual era utilizado como pigmento para la decoración del cuerpo humano y artefactos durante el Horizonte Temprano en sitios como Kuntur Wasi y Chavín de Huántar. Atalla tenía una excelente ubicación en el procuramiento y distribución del pigmento de cinabrio (bermellón). La producción del pigmento habría ocurrido en asentamientos pequeños como Chuncuimarca que se localiza en la zona de los depósitos de mercurio cerca del pueblo actual de Huancavelica. Como resultado del contacto y las exigencias de organizar la producción y distribución de materias primas tan escasas como bermellón y obsidiana, el desarrollo de sociedades complejas en la sierra norte del Perú estimuló transformaciones socio-económicas en zonas menos pobladas y desarrolladas en la sierra central hace aproximadamente 2,500 años.

Atalla, in the Department of Huancavelica, is the earliest example of a center with public architecture known from the central highlands of Peru and one of the southernmost archaeological sites linked to the Chavín horizon (Matos 1959, 1971, 1972, 1978). Located in Huancavelica, far from the major highland and coastal centers of the second millennium B.C. (Figure 1), the zone in which Atalla is situated was marginal to the pre-

cious developments of the Initial period. Atalla does not appear to have evolved gradually from earlier local cultural patterns, nor are there antecedents in the neighboring Mantaro Valley and the adjacent highland areas of Junín and Pasco. Occupations in the central highlands predating Atalla appear to have been small villages or seasonal camps, and even these are remarkably rare (Matos 1999). The sites contemporary with Atalla lack its size and public

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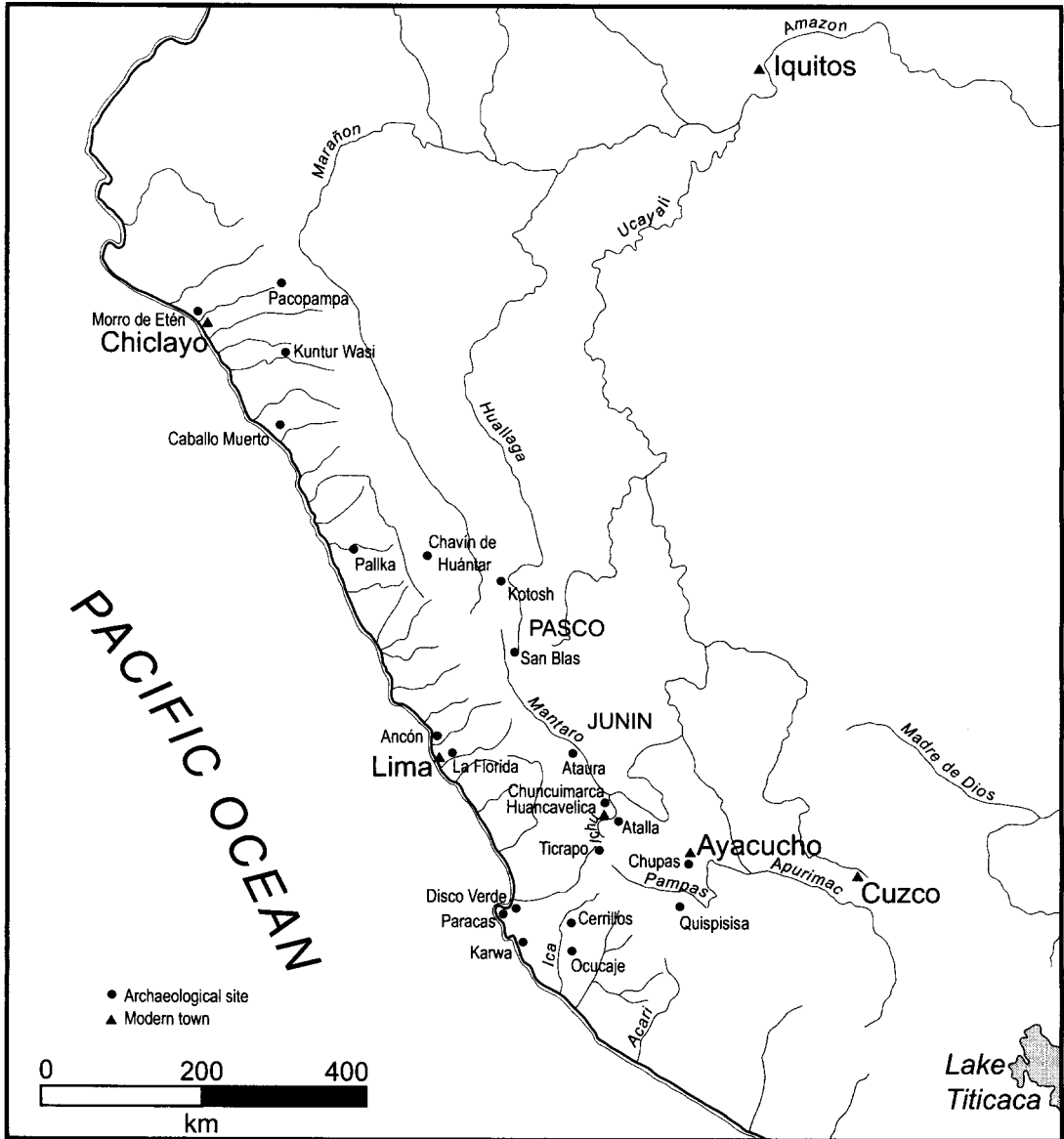


Figure 1. Map of Peru, showing location of Early Horizon archaeological sites. Drawing by George Lau.

architecture (Matos 1978; Ravines 1969–1970, 1971, 1998). The impressive features of Atalla and the contrast they present with coeval settlements suggest that the inhabitants of the site differed in status and power from those of the surrounding communities and that a new degree of social differentiation had emerged in this region.

Thus, the existence of Atalla raises one of the fundamental questions shared by anthropology and history: How and why do relatively egalitarian kin-based communities abandon an organizational

form that has proved successful for thousands of years in favor of more complex hierarchical social arrangements? In the case of Atalla, it also seems crucial to ask why these transformations occurred when and where they do. Why was a large center with public architecture built at Atalla rather than elsewhere in the central highlands of Peru, and what accounts for its appearance during the Early Horizon?

The purpose of this article is twofold. First, it provides a preliminary description of the archaeological site of Atalla and the ceramic assemblage

recovered during surface reconnaissance conducted there on two occasions. Such a presentation is long overdue considering the singular importance of Atalla and the frequent reference to it in the archaeological literature. Until now, the few detailed descriptions of it have remained in unpublished sources. Our second purpose is to explore the potential of using insights drawn from a core-periphery approach to interpret aspects of the Chavín horizon, in general, and Atalla, in particular. It will be suggested that elements drawn from this perspective and the proximity of Latin America's largest source of cinnabar pigment may help to explain the timing and nature of this seemingly anomalous site in the high puna environment of Huancavelica.

The Site of Atalla

Atalla became known to the archaeological community through the efforts of Julio Espejo Nuñez, an archaeologist trained by Julio C. Tello, director of the Museo Nacional de Antropología y Arqueología. In 1950, Espejo completed an archaeological map of the Mantaro drainage that included 112 sites, and, being a student of Tello, he was puzzled by the absence of any that could be identified as "Chavín." Espejo continued archaeological reconnaissance in the drainage through 1957, adding another 250 sites to his list. As part of this research, he surveyed the Ichu drainage, a tributary of the Mantaro in the Department of Huancavelica. On August 15, 1955, Espejo discovered a site that he referred to as Orconcancha on the Hacienda Atalla. On the surface of the site were ceramics and obsidian projectile points "of evident Chavín affiliation." Espejo linked these remains to other artifacts from the area in the Chavín style that had been incorporated into the private collection of Julio Ruiz Pimentel, a pioneering figure in the archaeology of Huancavelica. Espejo (1958) published a short report on the site in *La Voz de Huancayo*, and later that same year Ramiro Matos carried out the only scientific study of Atalla to date. Matos did not conduct excavations, but he engaged in systematic surface collecting as well as limited wall clearing. The results of his work at Atalla were incorporated into his bachelor's thesis at Universidad Nacional Mayor de San Marcos (UNMSM) and subsequent publications (1959, 1971, 1972, 1978).

In 1988, Burger decided to restudy the ceramics collected by Matos at Atalla and now stored at the Museo de Arqueología y Antropología UNMSM.

He also analyzed the collection from Atalla made by Espejo that is now housed in the Museo Nacional de Antropología, Arqueología e Historia.¹ Complementary pilot projects on ceramic composition and obsidian sourcing were initiated in collaboration with colleagues Isabelle Druc and Michael Glascock. In July 1997, Burger and Matos traveled together to Atalla for a brief visit despite the state of emergency that existed in Huancavelica at that time. Although the location of waterlogged areas surrounding Atalla had shifted because of the modification of the canal system, in most respects the site had changed little since the research by Matos four decades earlier.

Description of the Site

Atalla is the name applied by Matos and subsequent investigators to an archaeological site known locally as Ranra Cancha. The ruin is on a small mound called Orjon Cancha (or Orconcancha), which is located on what was formerly the Hacienda Atalla. The site is situated only one-quarter of a kilometer from the Ichu River, and it is directly across the river from the train station of the village of Yauli. At the present time, Atalla falls administratively within the District of Yauli, Province of Huancavelica, Department of Huancavelica; the site is approximately 15 km downstream from the departmental capital of Huancavelica.

At 3,850 m above sea level, Atalla is located in the vast puna grasslands where herds of llamas and alpacas once roamed along with deer, vicuña, viscacha, and other wild game. A natural spring located just above Atalla would have provided a convenient source of water, and at present the landscape is verdant throughout the year because of the pooling of water in the lands surrounding the site (Figure 2).

The archaeological zone of Atalla covers a minimum of 4.5 ha (Figure 3). The site appears as a low mound (200 m × 250 m) surrounded by a wall and crude terraces. These were built of quarried and roughly shaped stone blocks. A concentration of smaller stone constructions is visible covering the summit. The size and technique of the early stone constructions at Atalla do not resemble the later prehistoric architecture of Huancavelica, and Matos has tentatively identified them as "Chavín" or "Formative" in date.

A late occupation at Atalla is represented by small, poorly built, circular habitation structures lacking foundations. These were constructed by people using



Figure 2. Photograph of Atalla taken in July 1997 by Richard L. Burger.

the coarse “Mantaro style” pottery of the Late Intermediate Period (LIP). Apparently, the LIP inhabitants reoccupied the site following a lengthy period of abandonment, in some cases reutilizing older buildings or the building materials from these earlier constructions.

In the area of densest refuse near the center of the site, a complete surface collection by Matos of a 25 m² area yielded a large pottery sample, of which 64 percent date to the Early Horizon; only 34 percent correspond to the LIP occupation. This is surprising considering that the older occupations of multicomponent sites are usually underrepresented in surface surveys. The ceramic analysis of the surface sample lends weight to the conclusion that the reoccupation of Atalla was insubstantial compared with the original settlement.

The original occupation is dated to the Early Horizon and consists of semisubterranean circular buildings with foundations some .5–1.1 m below the current soil level. These constructions were made of rough uncoursed stones of different sizes, with somewhat larger stones used in the lower part of the buildings. Matos believes that the larger of the circular structures served as dwellings and that the smaller

ones may have been specialized storage or funerary constructions. In some cases, the dead were buried inside or adjacent to the outer walls of the circular buildings. Mortars and grinding stones, along with abundant household refuse, are associated with the circular buildings. Just prior to the research by Matos, three of the buildings were looted by *huaqueros*. During the investigation of this disturbance, a pair of buried individuals was documented in each of two buildings and a single body was found in a third (Matos 1959:5).

On the uppermost part of the mound is a large rectangular structure built of quarried and selected stones. The quality of the workmanship on this building surpasses that of any other features at the site. Its walls were straight and carefully constructed to present an even exterior face. In his original study, Matos concludes that this central construction was a public building, perhaps a temple. An opening into this structure’s interior was cleared. It measured only 75 cm in height and 55 cm in width and was built using large slab-shaped blocks unlike those of the dwellings or outer perimeter wall.

The surface collections made at Atalla by Matos consisted primarily of ceramics, but there were also

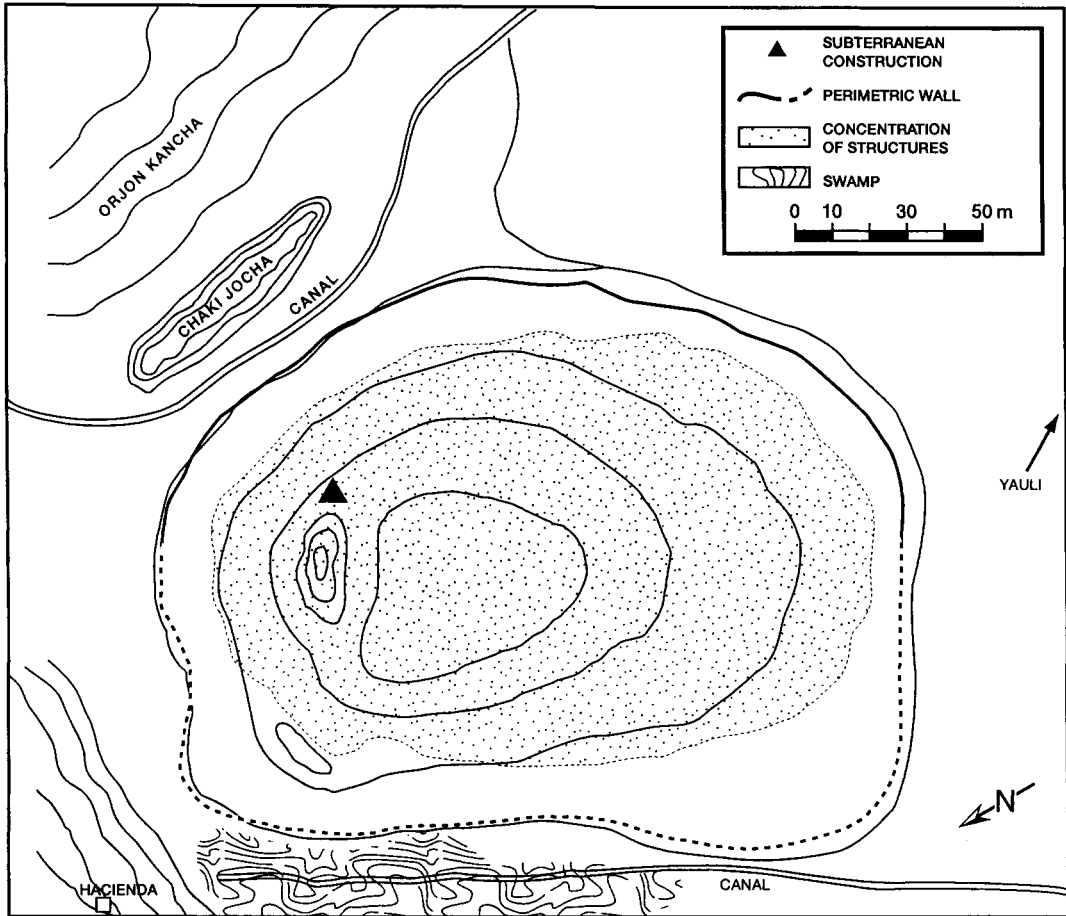


Figure 3. Sketch map of Atalla made by Matos in 1959.

lithic tools and flakes of obsidian and quartz. The stone tool assemblage includes bifacially flaked points, scrapers, and utilized flakes. In addition, Matos recovered three polished stone cup fragments reminiscent of exotic vessels subsequently found at Chavín de Huántar. Unfortunately, the stone vessels were not fully documented and could not be found during the restudy of the pottery collections at UNMSM. During the 1997 site visit by Burger and Matos, a fragment of a small, shallow stone bowl was encountered (Figure 4). It was made from a dark, coarse-grained mafic igneous rock by pecking and polishing; its circular form and convex-curved sides resemble some of Atalla's ceramic bowls.

The observations summarized above suggest that during the Early Horizon, Atalla was the locus of a sedentary community that was unusually large. Chuncuimarca, the closest coeval site, covers less than a hectare and has no large walls or buildings

(Ravines 1969–1970). Further to the north, investigations in the Mantaro Valley by Browman (1970) encountered only two small Early Horizon sites, neither of which are comparable to the size of Atalla. In the late 1970s, Jeffrey Parsons and Matos (1978) directed a complete coverage survey that included roughly 1,000 km². It focused on four representative sectors of the central highlands: the Jauja drainage (a major intermontane valley), the Junín puna (high grasslands), the Huasahusi region (uplands forest), and the Tarma region (a warm eastern valley). These extensive surface investigations and subsequent excavations found no occupations dating to the Initial period or Early Horizon in the Upper Mantaro or Tarma drainages (D'Altroy 1992:37; Hastorf 1993: appendix A; Parsons et al. 2000). Small occupations predating Atalla have been identified in caves and open sites in the central highlands, including Huancavelica, but their character led Ravines (1971)

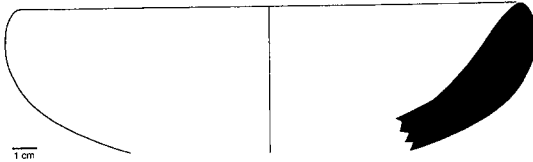


Figure 4. Polished stone bowl from Atalla.

to suggest a pattern of semisedentary hunters and gatherers living off the wild resources of the high grasslands, perhaps with some supplements from domesticated camelids and cultigens (see also Matos 1972).

The Early Horizon Ceramics from Atalla

Before attempting to interpret the significance of Atalla, it is essential to establish the age of its public constructions and consider their cultural affiliation. As noted, the evidence available suggests that the more substantial buildings and walls were associated with the early pottery originally identified by Espejo and Matos as “Chavín” in style. It should be borne in mind, however, that in 1958 the term *Chavín* was applied freely and was used to characterize a wide range of dark incised monochrome pottery. In the case of Atalla, however, the early component of ceramics constitutes a mid–Early Horizon assemblage with strong parallels to the Early Horizon ceramic styles at sites like San Blas in Junín, Kotosh in Huánuco, Chavín de Huántar in Ancash, and the upper levels of the Tank Site at Ancón near Lima (Burger 1993). A brief description of the pottery from Atalla accompanied by illustrative drawings and photographs is offered here as the most compelling evidence of the age of the site and of the cultural identity of Atalla’s builders.

A reanalysis of surface collections made at Atalla by Espejo and Matos demonstrates that the dominant stylistic component has strong similarities to the Janabarru Phase pottery at Chavín de Huántar. What is striking about these parallels is that they are not limited to a single shape or vessel class; nor can they be explained as occasional imports of “preciosities,” such as an exotic bottle or bowl (cf. Goldstein 2000). Instead, the Atalla assemblage includes a range of vessel shapes, such as neckless ollas, bowls, plates, necked jars, and oversized bowls, all of which have counterparts at Chavín de Huántar. Because of their close similarity, the typology developed for Chavín de Huántar by Burger (1984) will be applied directly

to the Atalla assemblage. The ceramic similarities to the findings at Chavín de Huántar are not limited to their shape, attributes, and size (Table 1) but also appear in their decoration and surface finishing. It should be emphasized that the Chavín-related ceramics at Atalla constitute the majority of the pottery utilized in the domestic and public spaces during the early occupation at the site. They appear to be locally produced and were not exotic prestige goods for mortuary offerings or other specialized purposes.

Pottery Forms

Bowls. Small bowls appropriate for single servings are a frequent vessel form in the assemblages from Atalla. The exteriors of these vessels were finished by polishing them to an even glossy surface, usually obliterating the smoothing lines in the process. The interiors of the vessels were also carefully finished, although they were usually less glossy than the exteriors (sometimes matte or low gloss) and finishing marks were sometimes partially visible. The surface of the bowls was usually a dark gray (2.5YR3/1), but some tended toward a weak red (2.5YR4/2).

Using the form classification developed for Chavín de Huántar (Burger 1984), the most common bowl form at Atalla is Bowl 10; Bowl 10A is the most common variant. It is a shallow bowl with a sharply beveled rim and a flat beveled angle. The sidewalls are oblique, and the base is flat (Figure 5a–b).

Table 1. Decoration on Atalla Ceramics^a

Circles with central dots	19
Concentric circles	15
Incision (only)	7
Post-fire incision	7
Punctations	6
Concentric circles with central dots	5
Circles	5
Rouletting	4
Small stamped circles	4
Brushing or combing	3
Post-fire red pigment	3
Incised crescents	2
Rocker-stamping	1
Dentate rocker-stamping	1
Appliqué band	1
Appliqué nubbin	1
Small stamped circle with central dot	1
Geometric motif made with seal	1

^aBased on ceramic collections housed in the MNAAH (n=60) and UNMSM (n=24). On those fragments where two decorations occur, both are registered in this table.

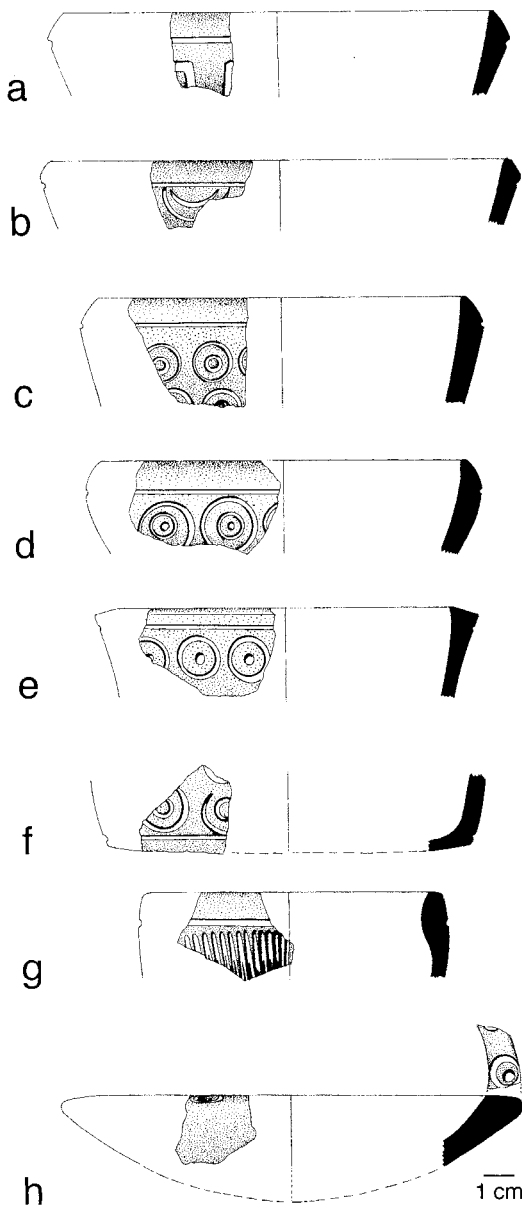


Figure 5. Atalla ceramics: a-f) Decorated Bowl 10 vessels; g) Bowl 8 vessel decorated with rocker-stamping; h) Shallow plate with decorated flattened lip.

Another popular variant of Bowl 10 is Bowl 10C, which is a beveled bowl similar to 10A but whose bevel is more rounded (Figure 5c-d). There is also one example of Bowl 10B where the bevel is flat but much less angled than 10A or 10C (Figure 5e). This example differs from the bowls at Chavín de Huántar in having a sharp corner point at the shoulder. The Bowl 10 vessels at Atalla resemble the Chavín de

Huántar bowls with similar forms in other ways as well, including the following: (1) the exterior is often decorated; (2) the surface is finely finished, often with a medium luster; (3) a broad incision runs around the mouth of the bowl just below the bevel; (4) decorations consist of repeating simple incised or stamped geometric motifs; and (5) the bases are nearly flat, and an (6) incision runs around the vessel above the basal angle and below the decoration (Figure 5f).

Two examples of bowls with pouring lips occur in the Atalla assemblages. The idea of pulling a section of the rim out from its normal circular shape in order to create a "pouring lip" that functions like a spout was introduced into the Chavín de Huántar ceramic assemblage during Janabarriu times, when it was used in the production of bowls (Burger 1984:109-110). It also has been documented in other Janabarriu-contemporary assemblages distant from Chavín de Huántar, such as Karwa, on the Paracas Peninsula; Ancón, in the Chillón drainage; and Moro de Eten, in the Lambayeque drainage. At Atalla, as at Chavín de Huántar, the pouring lip is used on Bowl 10 vessels and is highlighted by skirting it with a hemispherical incision that is an extension of the horizontal incision around the vessel's mouth.

In addition, an example of Bowl 8B appears in the Atalla sample. This popular Janabarriu form is concave curved and has a distinctive interior thickening of the rim, which produces a slight bulge and rounded lip (Figure 5g). This specimen has a circumferential incision, below which is rocker stamping. Similar bowls occur at Chavín de Huántar.

Plates. There is a single plate fragment (Figure 5h) in our sample from Atalla, and it resembles some plates from Chavín de Huántar in having a flat rim decorated with circle-dots. However, the simple convex-curved form of the Atalla plate, with its horizontally flattened rim, has no known equivalent. Its closest parallel is Plate 4, but the latter has a flattened rim jutting out as a flange (Burger 1984: figure 346). Other Janabarriu forms at Chavín have repeating circle-dots on horizontal broad, flat rims (see Bowl 13C and Cup 7 in Burger 1984: figures 241, 284).

Oversized Bowls. These vessels have a red slip like those from Chavín de Huántar, and their diameters are 28 cm and 29 cm, respectively, compared with the 30-45 cm range of the Chavín Janabarriu Phase counterparts. One Atalla piece is similar to Oversize Bowl 1. It is closest to Oversize Bowl 1A

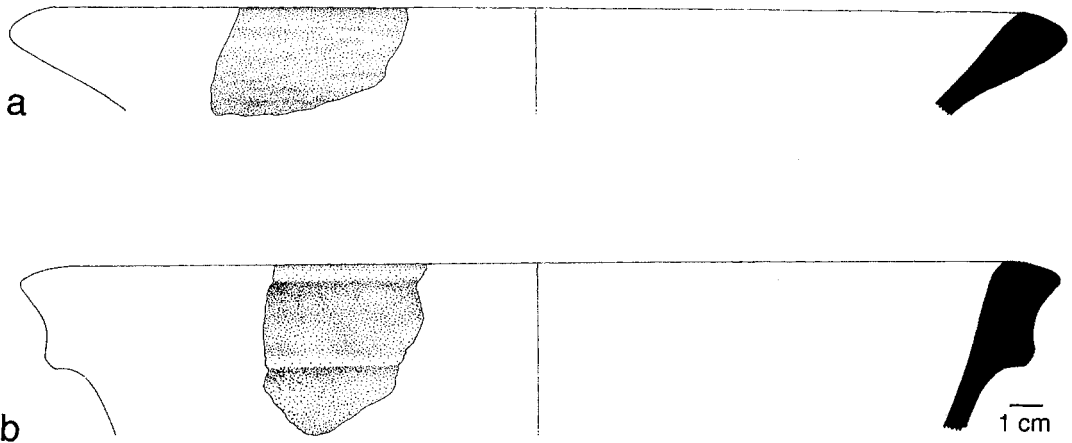


Figure 6. Atalla ceramics: a) Oversized Bowl 1; b) Oversized Bowl 3.

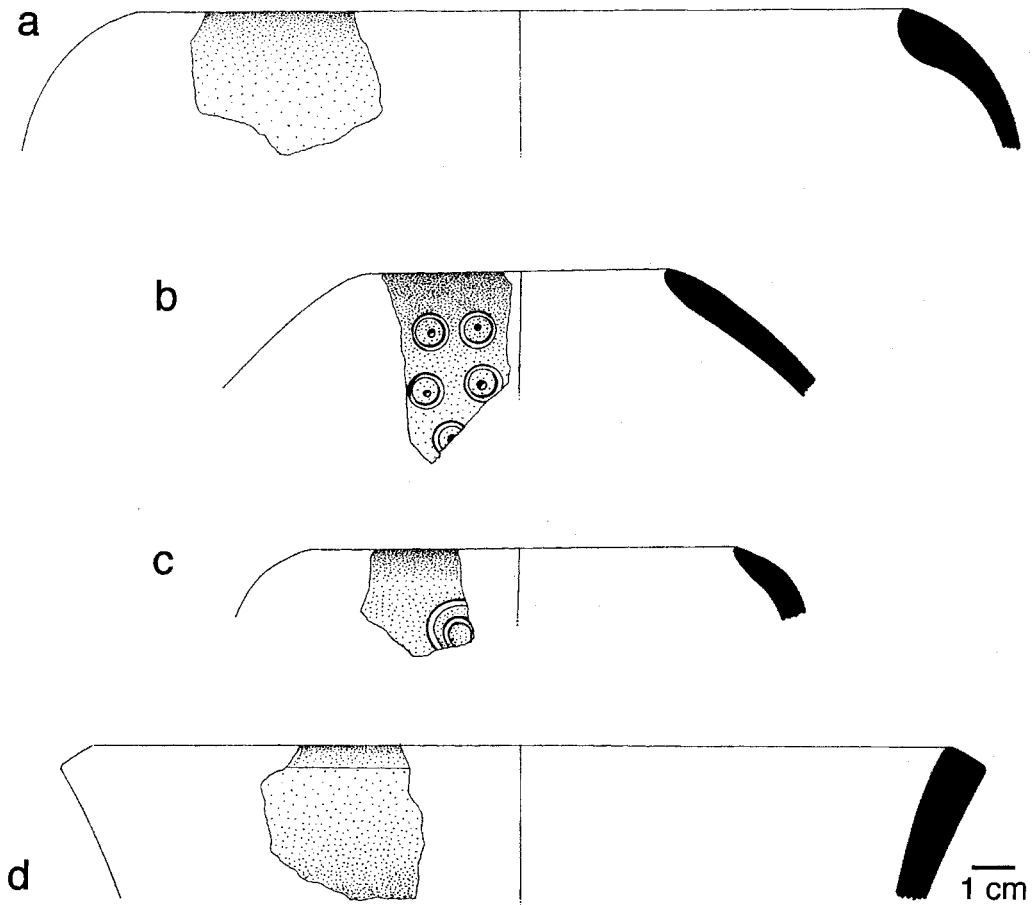


Figure 7. Atalla ceramics: a-c) Neckless ollas; d) Red-slipped jar neck.

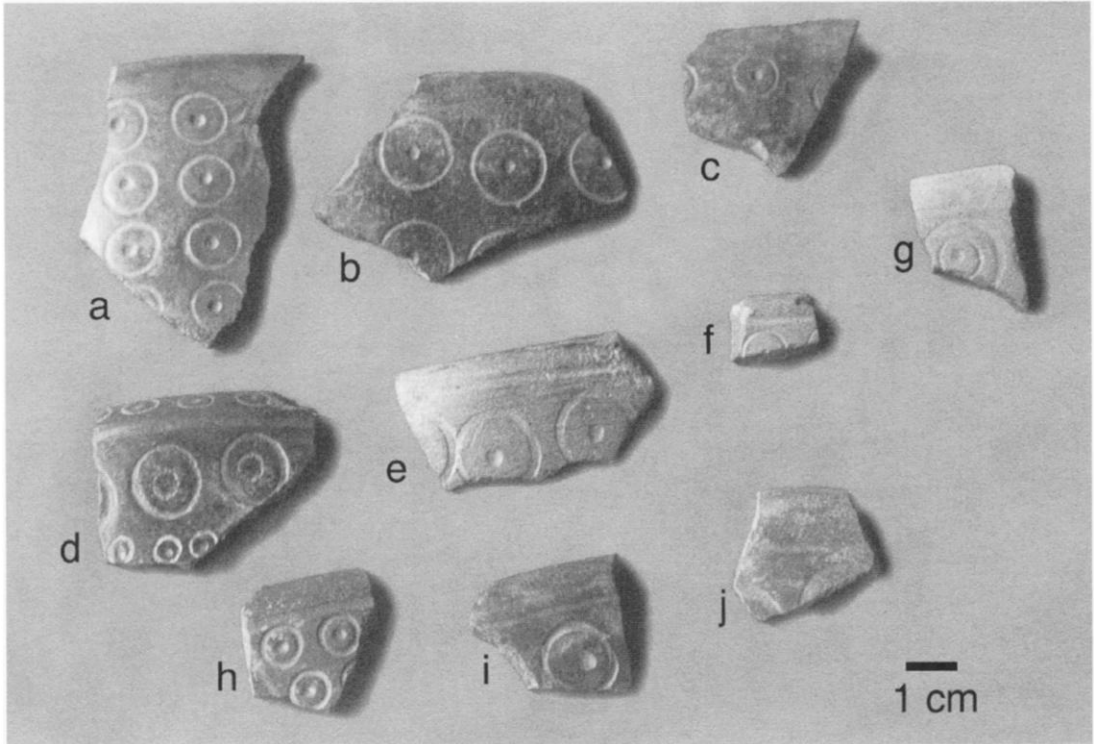


Figure 8. Photograph of Atalla bowls decorated with circle-dot and/or concentric circle designs.

but with less flattening of the rim. The finishing is slightly different, but its overall form is basically similar (Figure 6a). There is one example of oversized Bowl 3B. It has a similar rim, appliqué band, and overall shape (Figure 6b). The rapid thinning of the sidewalls below the appliqué band on the Atalla piece has parallels on Chavín de Huántar vessels (Burger 1984: figure 265).

Neckless Ollas. At Atalla, neckless ollas are variable in form, but several (Figure 7a) resemble Neckless Olla 16, while others (Figure 7b) resemble Neckless Olla 18. A third shape (Figure 7c) is not like the Janabarrui forms in any but the most general sense. It is closest in form (but not color) to some of the Chakinani vessels (e.g., Neckless Olla 11). At Atalla, the neckless ollas have two size ranges: small, with a mouth diameter of 7–10 cm, and large, with mouth diameters of approximately 18 cm. Many of the neckless ollas were decorated on their exteriors, often with circle-based designs similar to those on the bowls, but they often lack the incision around the mouth (Figure 7b–c). At Chavín de Huántar, many decorated neckless ollas also lack this incision (Burger 1984: figures 305, 309). Several of the Atalla body sherds with decoration from restricted vessels

are probably from neckless ollas.

Jars. One fragment (Figure 7d), with its concave shape and thickened flattened rim, resembles Chavín de Huántar's Jar 6 necks. Like the Chavín de Huántar cases, this jar is slipped red.

Pottery Decoration

Decoration at Atalla consisted primarily of surface modification through incision or texturing. However, the addition of appliqué elements and post-fire incision also occurred. Painting was rare except in the form of overall red slips, although some fragments do show traces of post-fire red pigment in the incisions.

Incision was a popular decorative technique at Atalla. Most incisions on the Atalla pottery are broad (2–3 mm wide) and were made while the clay was leather hard, so the edges of the incisions are even and a slight luster is sometimes visible in their bottoms. This technique was mainly used to create repetitive geometric designs, especially circles with central dots and concentric circles. There are also instances of concentric circles with central dots and simple circles, but these are less common than the other two designs. Simple geometric motifs are gen-

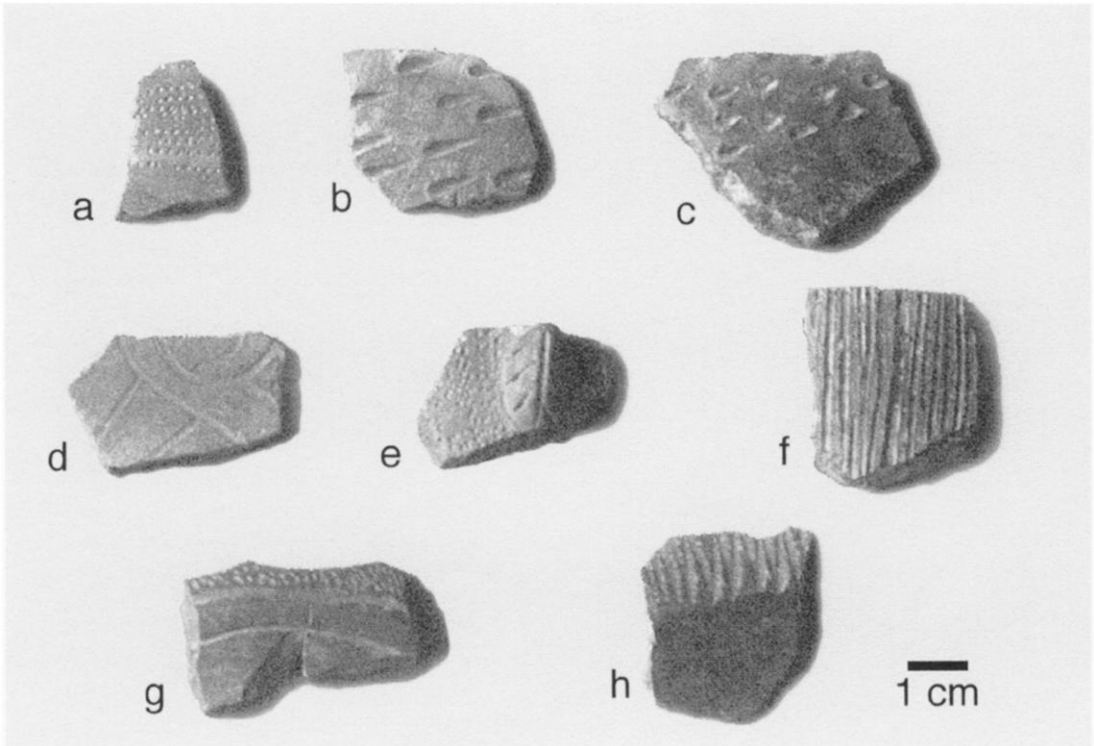


Figure 9. Photograph of Atalla ceramics decorated with different surface texturing techniques: a) Rouletting; b) Tear-shaped punctations; c) Triangular punctations; d) Complex curvilinear incision; e) Appliqué nubbing and rouletting; f) Brushing; g) Incision and rouletting; h) Dentate rocker-stamping.

erally arranged in horizontal rows and cover the entire exteriors of the vessels. On rare occasions, lines of them were also applied to the upper surface of broad flat lips. There are instances in which incision was used to produce pendant hemispherical motifs (Figure 5b) or unidentifiable geometric designs (Figure 5a).

When circle-based designs are utilized, they are rarely combined with other motifs or techniques. In most cases, a single design is used repeatedly with little variation in its form or size (Figure 8a–c). In our sample, there is a single exception to this generalization. The beveled bowl (Figure 8d) in question has rows of small circle-dot designs alternating with a row of medium-sized concentric circles; it also differs from the norm by the decoration on the beveled lip of the bowl.

Incision was also used to define zones of decoration. Many bowls have a single vertical line running horizontally around the perimeter of the vessel mouth, separating it from the decorated body of the vessel (Figure 8e–i). A similar incision was also sometimes applied above the basal angle of bowls,

delimiting the lower extreme of the decoration (Figure 5f). Incision also delimited bands of texturing and was used to create more complex curvilinear designs, although the examples of this are not sufficiently large to allow identification of the theme represented (Figure 9d).

Post-fire incision was applied to a distinctive group of small open bowls with rounded lips, convex sides, a slight basal angle, and relatively flat bases. Because of the difficulty of incising into already fired vessels, the decorative lines are usually irregular in line and width (Figure 10e). Of the seven examples of these bowls in our sample, all but one have decoration on both their exteriors and their interiors. Several have a series of roughly parallel vertical lines, sometimes along with one or more horizontal lines running perpendicular to them. On other bowls, there are parallel diagonal lines that, in one case, are crossed by other diagonal lines to form a crosshatch pattern. Perhaps the most distinctive pattern is a plant-like motif created by a single central vertical line with diagonal lines emerging from both of its sides. One of these bowls, decorated with

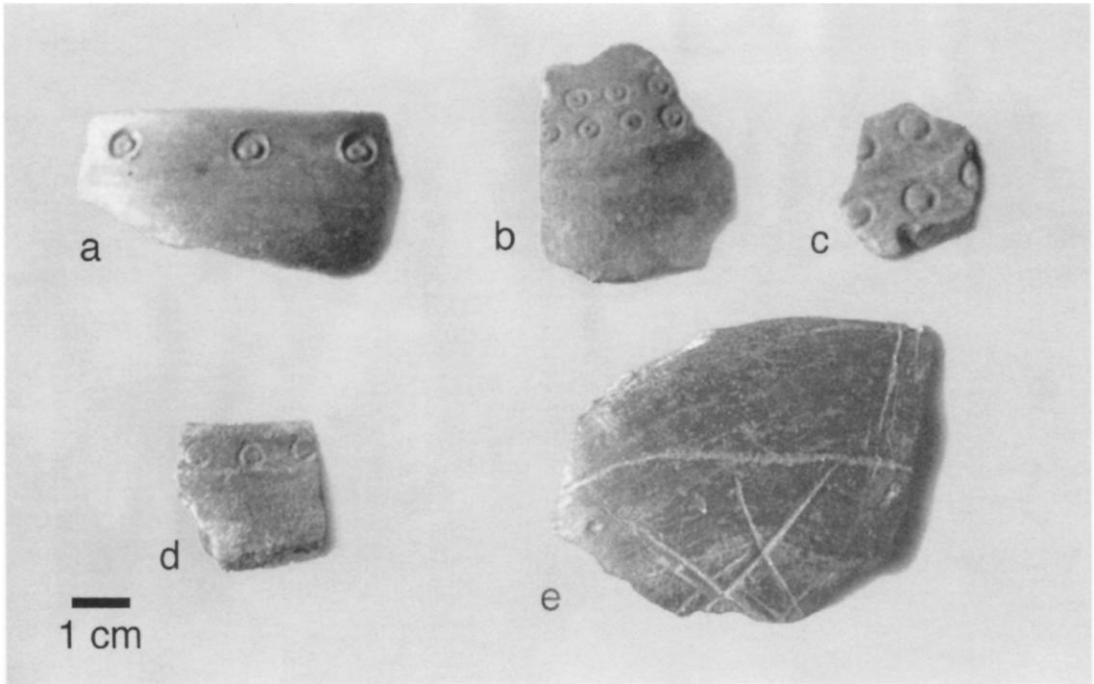


Figure 10. Photograph of Atalla ceramics of possible nonlocal origin.

inverted V designs, has traces of red post-fire pigment in the incisions.

Besides incisions, a range of other techniques was utilized. A portion of the repeating geometric motifs appears to have been made with seals or stamps rather than by incision (Figure 5c). This practice is also identified at Chavín de Huántar. In some cases, the circles appear to have been made with a stamp, whereas the central dot was made by hand.

A large range of surface-texturing techniques was employed. Punctations, both tear-shaped and triangular, were used on the surface of restricted vessels, perhaps bottles (Figure 9b–c). In one case, irregular punctations were combined with incisions to decorate a bowl exterior. Even more common is the texturing of exterior areas using a serrated device to create either fine rouletting or dentate rocker stamping (Figure 9a, e, g–h). There are also specimens that have shallow, roughly parallel lines crowded together; this decorative technique occurs in other Early Horizon assemblages, and it has been referred to as combing or brushing because of the presumed tools utilized (Figure 9f). Most of these texturing techniques are known from body sherds derived from restricted vessels. Another texturing technique, simple rocker stamping, is known at Atalla from a sin-

gle open bowl fragment (Figure 5g).

The technique of adding clay to form appliqué decoration was widespread during the Early Horizon, and two examples of it were found in the Atalla samples from restricted vessels, probably bottles. One fragment has a small, incised, appliqué nubbin projecting from a zone textured by rouletting (Figure 9e). A second sherd has a thin appliqué band modeled and incised to represent a serpent. The wall of the vessel chamber is 5–6 mm in thickness, but it reaches 10 mm where the appliqué band is thickest.

Identity and Ceramic Style at Atalla

As noted, the ceramic assemblage from Atalla has striking similarities to ceramic assemblages from the Chavín horizon in general and the Janabarriu phase ceramic assemblage from Chavín de Huántar in particular. The prominence of small decorated bowls with beveled rims is particularly noteworthy, as is the presence of the same decorative motifs arranged in the same manner as found at Chavín de Huántar. The shared use of distinctive features such as pouring lips has already been mentioned. Similarly, the popularity of undecorated medium-sized neckless ollas and small decorated neckless ollas has strong parallels in the Janabarriu phase assemblage from

Chavín de Huántar, even down to omitting the upper horizontal incision that appears on decorated bowls. The similarities in form, surface treatment, decorative techniques, and organization between Atalla and Chavín de Huántar pottery are much stronger than those with coeval sites located at less distance, such as nearby Chuncuimarca near Huancavelica (Ravines 1969–1970), Ticrapo near Castrovirreyña (Ravines 1998), San Blas in Junín (Morales 1998a; Nomland 1939), and Kotosh in Huanuco (Izumi and Terada 1972).

The resemblances with Chavín de Huántar are so striking that the possibility that exotic pottery was imported had to be considered. To begin exploring this question, a pilot study of the paste of two Chavín-style bowls was undertaken by Isabelle Druc in order to determine if the Atalla pottery was imported from Chavín de Huántar or some other more northern center. Although the small sample precludes broad conclusions, the distinctive mineralogical composition of the Atalla pottery rules out a Chavín de Huántar provenance and points toward local production. Moreover, the two Atalla fragments that were analyzed have compositions dissimilar to ceramics coming from all six coastal and highland Early Horizon sites that have been studied thus far (Druc 1998a, 1998b).

The main composition documented by the petrographic and EDXRF analysis of the Atalla sherds is volcanic sand. In an Atalla bowl decorated with a circle-dot motif, similar to that from Chavín de Huántar, there are volcanic nonplastic inclusions probably of andesite, within a microlithic paste; there are also ferromagnesian minerals and hornblende phenocrysts. In the other bowl fragment, which was decorated with punctation, there are many tuff fragments as well as abundant volcanic sand. Although tuff fragments are also found in some ceramics from Chavín de Huántar, these are rhyolitic tuff unlike those incorporated into the two Atalla sherds. Based on the above and other more detailed observations, Druc (personal communication 2002) has concluded that the mineralogical and chemical compositions of the two Atalla sherds do not match any of the large inhomogeneous sample studied from Chavín de Huántar ($n = 79$). In addition, neither of the Atalla sherds has components typical of the central coast sites such as Ancón and Garagay, which incorporate coastal sand of mixed intrusive, volcanic, and sedimentary compositions (Druc et al. 2001).

While some 85 percent of the early pottery in the

Atalla assemblage bears strong resemblance to the Janabarriu phase assemblage from Chavín de Huántar, there are two groups of early pottery that do not fit this pattern. One is the group of small bowls with post-fire incision described above. Bowls similar to these were found at Chavín de Huántar in Janabarriu phase contexts (Burger 1984: figure 374), but they are very rare in the large Janabarriu sample. These may have been imported into Chavín de Huántar, particularly in light of the recent finding that some 30 percent of the pottery from both settlement and temple contexts at Chavín de Huántar was not locally produced (Druc 1998a). The presence of such bowls is relatively common at Atalla, and it could be hypothesized that these constitute a distinctively local central highlands style that, on occasion, may have been brought to Chavín de Huántar.

Another group of four fragments (Figure 10a–d) differs from the rest of the Atalla material because it features rows of small stamped circles with diameters of 3–6 mm. Most of these come from concave-curved bowls with everted rims. These pieces are very similar to the early materials recovered at the nearby sites of Chuncuimarca and Ticrapo in Huancavelica (Ravines 1969–1970, 1998), although they also have general similarities to findings from sites on the south coast such as Disco Verde and Cerrillos.

The production at or near Atalla of a range of household cooking and serving vessels that intentionally emulate a cosmopolitan ceramic style popular within the Chavín sphere of interaction in both the coast and the highlands attests to a conscious identification of the site's inhabitants with more developed and prestigious groups to the north. It is significant that there is less similarity between the Atalla assemblage and the pottery styles of the coastal peoples living to the west, most notably the coeval early Paracas ceramics from the Ica Valley (Menzel et al. 1964) and the Tajo style of the Nazca drainage (Silverman 1994, 1996). This is especially noteworthy considering the long history of close relations between the central highlands and the south coast.

As noted above, the ceramic style utilized at Atalla sets its users apart from the rural residents of villages in its own heartland. The proximity of Atalla to Chuncuimarca and the presence of what may be exotic ceramics from the Chuncuimarca area at Atalla suggest that the ceramic differences between the sites is due to differing cultural identity rather than to pat-

terns of everyday socioeconomic interaction. It is unfortunate that no Initial Period assemblage is known from the Huancavelica area, but judging from Initial Period assemblages in neighboring highland (Junín, Andahuaylas) and coastal (Ica, Acarí) regions, it can be suggested that the Chuncuimarca pottery style evolved out of local Initial Period pottery traditions in Huancavelica, whereas the Atalla assemblage resulted from the conscious emulation of a package of alien features developed in the north and popularized by Chavín de Huántar.

What would lead members of a local population to identify with alien groups to the north and break with their own cultural tradition and the ceramic style with which they were comfortable? It is suggested here that the Atalla ceramic assemblage symbolizes the emergence of a social group in Huancavelica whose prestige and identity were linked to a role as exchange partner with the elites of more northern civic-ceremonial centers, particularly that of Chavín de Huántar. The ceramic style that the group at Atalla favored actively expressed this cosmopolitan identity.

Cinnabar, Long-Distance Exchange, and the Establishment of Atalla

On the strength of the ceramic style alone, it is possible to argue that Atalla was incorporated into the Chavín sphere of interaction. This was an important change for the Huancavelica region, and it is necessary to consider the reason for its incorporation. At the same time, Atalla is located far to the south of other major Early Horizon public centers in the highlands. The nearest such center with a Chavín-related artifactual assemblage is the site of Kotosh, over 300 km to the north. Thus, Atalla can be viewed as lying on the periphery of Chavín's core region. If a core-periphery perspective is adapted, as discussed more fully in the next section, it is reasonable to ask what resources in the Atalla region would have been of special interest to the elites of Chavín de Huántar and contemporary centers. The most likely factor was the presence in Huancavelica of cinnabar, a scarce raw material highly valued by the occupants of Chavín de Huántar and other large Early Horizon centers.

Cinnabar is mercuric sulfide (HgS), a heavy, bright red ore of mercury. It occurs in soft earthy masses that measure only 2.0–2.5 on the Mohs scale of hardness. Cinnabar is usually concentrated in the

fissures and cracks of mercury-rich geological deposits. The process required to extract cinnabar is straightforward. All that is necessary is to strip off the rock deposit that covers it, scrape the cinnabar deposits from the surrounding rock, and then grind it into powder, removing the impurities. Bright red mercuric sulfide, when used as a pigment, is sometimes referred to as vermilion. Because of the intensity of its color, it is easy to distinguish cinnabar from more common red colorants such as hematite, and, consequently, it was highly valued in pre-Hispanic Peru (Petersen 1970:6–7).

The largest cinnabar deposits in all of Latin America occur in the Huancavelica area. Historically, the Huancavelica district was the only area of Peru that furnished a large output of mercury ore. Throughout the colonial period, mercury played a critical role in silver production, and while some mercury occurs naturally, most had to be extracted by applying heat to the mercuric sulfide (cinnabar). The Huancavelica cinnabar deposits were so large and productive that, in the colonial period, the mercury from these deposits was exported to Bolivia and Chile; it was even transported as far north as Mexico (Berry and Singewald 1922:21; Lohman 1949). According to American geologists Berry and Singewald, "The Huancavelica district ranks among the world's greatest mercury producers" (1922:16).

Between 1571 and 1790, the tax records of the Spanish Crown document an output of over 104 million pounds of mercury from Huancavelica, most of which was extracted from cinnabar. Some 4,000 indigenous laborers worked at the cinnabar mine at its zenith. The silver mines in Potosí and elsewhere in the central Andes were dependent on the mercury from Huancavelica, and the first indications of its depletion set off a search for alternative mercury ore deposits. Although some small deposits were encountered, no other mercury mine in Peru ever achieved large-scale production (Berry and Singewald 1922).

The cinnabar deposits of Huancavelica are found in an extensive area of mineralization surrounding the city. The greatest concentration of cinnabar is in a zone running for 18 km through the mountains to the south of the city (Berry and Singewald 1922:18–20, plates II, V), but mercury ores also occur to the north and further to the south of Huancavelica. Deposits of cinnabar occur in an area exceeding 30 km², and, consequently, it would not have been

practical to control the mining of this ore at the source. Moreover, the high altitude and harsh conditions of Huancavelica would have created logistical difficulties for supporting the mining of this rare commodity. Thus, local groups accustomed to the puna environment and supported by high-altitude resources such as herds of llamas would have had an advantage in organizing the production and distribution of the cinnabar.

In the Huancavelica area, small pockets and veinlets of cinnabar are encountered in extensive beds of fine-grained sandstone and compact limestone; it is often mixed in a yellow ferruginous clay and sometimes with bitumen. The best known place of extraction in the colonial period was the Santa Barbara mine, located 2.5 km south of the city of Huancavelica (3,972 masl). Guaman Poma (1980:966) provides a memorable drawing of the colonial city of Huancavelica with the cinnabar mine (*socabón*) featured prominently on the mountain overlooking the city. In the illustration, the ore is being hauled down from the mine by human porters and llamas (Figure 11).

According to traditional historical accounts, the mercury deposits of Huancavelica were discovered by Enrique Garcés in 1559 (Lohman 1948). However, the cinnabar deposits in Huancavelica were exploited long before the Spanish conquest, and, apparently, the Spaniards learned of them from the local population. When the cinnabar deposits at Mt. Chaclatacana south of the city were first explored, the Spanish found evidence of prehispanic exploitation, dating to before the time of the Incas (Jiménez de la Espada 1965:118). According to the Spanish chronicler Cantos de Andrade, the Spaniards were particularly impressed by evidence that the indigenous people had penetrated the surface in search of cinnabar and had dug caves and deep tunnels using only wooden stakes and deer antlers (Ruiz 1977:30).

In early historical writings of the Spaniards, there is general agreement that the principal use of cinnabar during prehispanic times was as a pigment known by the Quechua term *limpi* (or *llimpi*) or *paria*. This pigment was used by indigenous peoples for facial and body painting (see also Garcilaso 1991:555–556; cf. Petersen 1970:60; Yacoleff and Muelle 1934:157) and the decoration of ceremonial objects (Acosta 1987:161). The most important colonial Quechua dictionary, by Diego Gonzales Holguín, includes the word *llimpicuni*, which he defines

as “to paint one’s face and daub oneself with vermilion” (1989:213).²

A detailed account of the use of the bright red pigment produced from cinnabar appears in the work of Father Martín de Morúa (1946:306). Morúa notes that in Inca times, cinnabar or *llimpi* was used as body paint or in religious rituals but not for the extraction of silver from ore. He notes that the vermilion paint was applied to the face, hands, arms, and legs for the ceremonies.

The utilization of cinnabar pigment can be traced back to the Early Horizon, and its use during this period has been confirmed on the coast and in the highlands. On the north coast, for example, the bright red pigment used in Cupisnique burials contains traces of cinnabar (Larco 1941:163). Similarly, a cemetery to the north of Ocucaje in Ica, along Peru’s south coast, has yielded the valves of two *Concholepus concholepus* shells filled with cinnabar (Petersen 1970:6, figure 7).

In the northern highlands, the 1989 investigations at the Early Horizon center of Kuntur Wasi encountered a series of rich tombs of men and a woman dating to the Early Horizon (Kuntur Wasi and Copa Phases). Significantly, in both phases, the faces of the buried individuals and some of the gold objects accompanying them were covered with cinnabar (Onuki 1997:80, 82, 89, 96, 110). In only one case, possibly that of an outsider (Tumba 5), was cinnabar absent. The regularity of use and the patterning within these tombs suggest that cinnabar played an important symbolic role in the mortuary ritual of the Kuntur Wasi elite and that face painting with vermilion, as described in the Spanish chronicles, had been going on for several millennia.

At Chavín de Huántar, a stone ear spool of polished chlorite was recovered from Janabarru phase refuse in the settlement surrounding the temple. It had traces of bright red pigment, and chemical analysis confirmed that it was cinnabar (Burger 1984:198). Clearly, cinnabar was known and valued by the large northern centers in the highlands. However, because the most common prehispanic use of cinnabar appears to have been as fugitive body paint, we would not expect it to be encountered in the archaeological record except in the case of burials or in those contexts related to its preparation. As a consequence of this, cinnabar use has probably been underestimated because of its low archaeological visibility.

As indicated, the major Huancavelica cinnabar

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Figure 11. Drawing of the cinnabar mines of Huancavelica by Felipe Guaman Poma de Ayala (1614).

deposits occur near the modern city of Huancavelica, some 15 km west of Atalla. Thus, it can be questioned whether the establishment of Atalla is related to the location of this rare resource. Although this

link can only be confirmed by systematic excavations at the site, we suggest that Atalla served as the center for procuring and distributing cinnabar. The processing of cinnabar probably occurred much closer

to the mercury deposits themselves. In 1966, Roger Ravines (1969–1970) investigated Chuncuimarca, a small site on the lower slopes of the Cerro Potocchi near the northern edge of the city of Huancavelica. Located within the mineralization zone where cinnabar deposits occur, Chuncuimarca yielded thick deposits of Early Horizon ceramics mixed with obsidian tools and other lithics as well as the bones of deer, viscachas, and camelids. Although the pottery was coarser and less elaborate, both Ravines (1969–1970:237) and Matos (1959) have concluded that the early materials from Chuncuimarca are coeval with those from Atalla. In fact, as already noted, the dominant style at Chuncuimarca resembles the small group of pottery at Atalla described above, which features small stamped circles (Figure 10a–d).

Ravines concludes that Chuncuimarca was a permanent agricultural village with a strong emphasis on hunting. In his excavations, however, he uncovered an abundance of granite- or basalt-grinding implements that were made by pecking and polishing. All of these ground-stone tools show evidence of having been utilized to prepare red colorants, probably cinnabar, rather than foodstuffs (Ravines 1969–1970:251–252). The high frequency of tools for grinding red pigment in the Chuncuimarca assemblage has no known analogue at other “Formative” Peruvian archaeological sites. Given the location of Chuncuimarca within the zone of naturally occurring mercury ore, we hypothesize that Chuncuimarca was a village specializing in the extraction and processing of the cinnabar for export.

The natural route for distributing the cinnabar pigment into the central and northern highlands would have been down the Ichu River into the Mantaro Valley. As we have noted, Atalla is located on a hill overlooking the Ichu River, less than one day’s walk downstream from Chuncuimarca. Journeys on foot of 15 km are considered insignificant by contemporary rural residents of Huancavelica, and it is unlikely that the distance between Chuncuimarca and Atalla would have been considered an obstacle during the Early Horizon. Atalla would have been in a good position to control the movement of goods being transported toward the Mantaro drainage. Moreover, Atalla is lower in elevation than Chuncuimarca and closer to productive agricultural lands. These factors would have made its location more propitious for a large, permanent center than the harsh

environment adjacent to the mercury ore deposits. At the same time, the inhabitants at Atalla had easy access to rich pasturelands and the llama herds that would have been essential in transporting the cinnabar to points north.

During our study of the collection of the Museo Nacional de Antropología, Arqueología e Historia (MNAAH), in Lima, we encountered a jar filled with ground cinnabar pigment (#O.C. 197) that had been collected at the archaeological site of Atalla on August 15, 1955; this is the same day that Espejo made his surface collections at Atalla. It seems reasonable to presume that the bright red pigment sample, like the separately accessioned ceramic collections at the MNAAH, was the product of his site reconnaissance. The context in which the ground cinnabar powder was encountered is unknown, but the quantity is considerable, and this find lends credibility to the suggestion that vermilion pigment may have been brought to Atalla for distribution to points north from the cinnabar deposits and production workshops at Chuncuimarca.

If Atalla played a special role in procuring and distributing cinnabar for the Chavín sphere of interaction, other goods might have also been involved. Obsidian, for example, does not occur naturally in the north-central or northern highlands, but it nevertheless was used for cutting tools during the Early Horizon in the Mantaro drainage and even at Chavín de Huántar (Browman 1975; Burger and Asaro 1979; Burger et al. 1984). There was a sharp increase in obsidian distribution at this time in the northern highlands, perhaps as a function of the incorporation of the south-central highlands into the Chavín sphere of interaction and the general augmentation of social contacts and exchange during the apogee of Chavín. Recently, the major geologic source of this obsidian, known as the Quispisisa source, was located near the modern villages of Huanca Sancos and Sacsamarca in central Ayacucho (Burger and Glascock 2000a), roughly 100 km south of Atalla. Obsidian from this source was being transported from the Caracha drainage into the Mantaro and, eventually, on to Chavín de Huántar; in small quantities, it reached even to Pacopampa. It is unclear whether Atalla played a role in this process, but its location would have been advantageous in this regard, particularly if related activities were already under way there in regard to the more local cinnabar deposits.

Obsidian is common at sites in Huancavelica, and

it was the most common raw material for the chipped lithics recovered from both Chuncuimarca and Atalla. Based on the popularity of Quispisisa obsidian north of Ayacucho, we have hypothesized that the volcanic glass found at Atalla was procured from the Quispisisa source rather than the closer Puzolana source near the city of Ayacucho (Burger and Glascock 2000b) or some other deposit. As an initial test of this assumption, we analyzed a small sample ($n = 2$) of flakes collected at Atalla by neutron activation at the Research Reactor Center, University of Missouri, Columbia (MURR). The results on the obsidian samples recovered by Matos at Atalla confirm that the material was obtained from Quispisisa (Michael D. Glascock, personal communication 1999). Was Atalla involved in the acquisition and transport of this volcanic glass from the Quispisisa source for more than local consumption? Once again, excavations at Atalla could help provide the answer to this question.

World Systems and the Modeling of the Chavín Horizon

For methodological as well as theoretical reasons, contemporary archaeology has been most comfortable analyzing sociocultural change within a narrowly defined universe, frequently that of a single valley. However, in dealing with more complex societies, archaeologists, like historians and sociologists, have been forced to recognize that such small analytical units are insufficient to the task. At the very least, the broader territory of a polity or state needs to be taken into account. But what of those phenomena that appear to transcend polities and ethnic groups just as they crosscut drainages and regions?

As research on the Chavín horizon advanced over the last half century, it became evident that the spread of this "horizon style" was associated with profound changes in religious ideology, social identity, economic interaction, and sociopolitical organization in many parts of what is now central and northern Peru. One of the authors, Burger (1988, 1992, 1993), following the lead of several colleagues (Cordy-Collins 1976; Patterson 1971), has hypothesized that some of these changes could be the result of the spread of a religious cult from its center at the Temple of Chavín de Huántar to branch shrines in distant portions of the highlands and coast. Drawing on ethnohistorical and ethnographic analogies, this model offers a partial explanation for some of the observed

cultural changes, but it does not fully account for many of the socioeconomic transformations associated with the Chavín horizon. While the spread of religious cults often creates an ideological environment compatible with expanded social and economic interaction, there are other factors that must be considered in order to achieve a more complete understanding of the processes involved.

Outside of the central Andes, many investigators when confronted by the problems of working on a pan-regional scale of analysis have promoted a "World Systems" approach as a productive model for dealing with macroregional phenomena in complex precapitalist societies. Although these scholars vary in their application of this framework, there is consensus that by focusing on the differences between the organization and interests of the core elite and those of peoples living in the periphery of a World System, we can begin to explain some of the patterns of change that occurred. The term *world* in this context is not synonymous with global but, rather, refers to interconnections or divisions of labor that are great in scale and consequently cross cultural and political boundaries. As defined by Hall and Chase-Dunn (1993), to constitute a "World System," the interactions between societies within the system must be important for the reproduction of the structures of the internal units and importantly affect changes that occur in these local structures; the interactions cannot be trivial or intermittent. According to this perspective, societies on the periphery will be modified in their structure by their incorporation into the World System and, ultimately, experience radical modifications with the decline of the macroregional system.

The relation between the core and the periphery is assumed to revolve around the acquisition of valued resources that can be used by the core's dominant groups for political advantage. Those living in the periphery may likewise find benefits from their relations with core societies, although the linkage is inherently asymmetric in character. Unlike the interaction sphere concept (Caldwell 1964; MacNeish et al. 1975; Streuver and Houart 1972) or the peer-polity model (Renfrew 1996), the World System or core-periphery approach recognizes that the presence of inequality both within and between societies is critical to analysis, as is geopolitical position within a World System.

The popularity among archaeologists of World

Systems models over the last two decades is attested to by an abundant literature (e.g., Blanton and Feinman 1984; Champion 1995; Chase-Dunn and Hall 1991; Hall and Chase-Dunn 1993; Patterson 1990; Peregrine and Feinman 1996; Sanderson 1995), despite objections by its principal advocate, the sociologist and historian Immanuel Wallerstein (1995) (see also McGuire 1996). While many anthropologists, archaeologists, and sociologists believe that it is possible to apply a World Systems framework to the precapitalist world, most also have recognized the need to modify the World Systems approach as set forward by Wallerstein so that it can be applied to a broader range of sociopolitical contexts and historical transformations. Such modifications acknowledge that a pattern of multiple cores, rather than a single core, characterizes most of the ancient world, including the prehispanic Andes. They also take into account that in precapitalist settings the long-distance exchange of prestige goods can be of considerable importance because of the special place these items had in the consolidation and maintenance of alliances and political power (Schneider 1977). Most anthropologists and archaeologists also recognize that within most, perhaps all, precapitalist World Systems there were multiple forms of sociopolitical and economic organization and that the articulation of these different patterns with each other was one of the dynamic forces for change of a World System (Patterson 1990). Given the large number of these modifications and their significant difference from the original World Systems framework proposed by Wallerstein, it might be more appropriate to refer to the resulting framework as a core-periphery perspective rather than an archaeological application of World Systems theory.

Archaeologists working in the central Andes, in contrast to those in North America, Mesoamerica, and the Near East (Peregrine and Feinman 1996), have been slow to explore the application of this perspective (for exceptions, see Burger and Matos 1989; Patterson 1990), and some explicitly reject it. For example, in a recent article, Goldstein (2000) has argued that this approach is not useful for understanding the presence of Pucara and Paracas-Nasca ceramic and textile traits in the Moquegua Valley. While Goldstein may be correct in regard to prehistoric Moquegua, the core-periphery perspective does seem to have potential in the case of the Chavín horizon, particularly for understanding cases such as Atalla.

Is a core-periphery approach applicable to the Andean Formative? The answer to this question will be determined by whether the insights provided by such an orientation are greater than its drawbacks. Clearly, much unwanted intellectual luggage was intimately tied to the specific Old World historical case for which World Systems was developed. As one departs from this particular instance in time, space, and culture, it becomes necessary, as we have done earlier in this section, to offer a litany of caveats disassociating the modified World Systems perspective from the specifics of Wallerstein's (1974) model. Although the creation of a more generic and anthropologically informed version of World Systems has seemed justified and attractive to many scholars, to others these efforts seem forced and misguided. Ultimately, whether it should be done is a question of intellectual taste and the willingness to treat the model as a flexible heuristic device rather than a doctrine set in stone. One could finesse the situation by using other terms, such as *centers* and *fringes*, and by avoiding explicit references to Wallerstein and other antecedents; to adopt such an option, however, would lack intellectual integrity, for the model presented here is an outgrowth of Wallerstein's proposal and the constructive debate that ensued.

Perhaps the other major concern about utilizing this approach in the case of Atalla is a concern about whether "Formative" central Andean societies, such as those of the "Chavín" centers of the Early Horizon, have the structural features that would result in the establishment of core-periphery relationships. Some scholars have attempted to "type" the Formative societies of the central Andes as "chiefdoms" or "complex chiefdoms" (Stanish 2001), and many assume that nothing less than state-level societies would be compatible with a World Systems framework. Many other scholars, including the senior author, Burger, are fundamentally skeptical of such concerns because of their reservations about the term *chiefdom* and their perception that it has become more of an obstacle than a tool. It is important to note that the so-called chiefdoms of first millennium B.C. Peru do not resemble, in any material sense, the ethnographic cases on which this "stage" has been constructed. Moreover, it has been argued that chiefdoms, as currently formulated by Wright and others, do not precede the emergence of states but, rather, are alternate trajectories to it (Yoffee 1997).

More importantly from the perspective of this arti-

cle, by the middle of the first millennium B.C., centers such as Chavín de Huántar appear to have been incipient small-scale states judging from their comparatively large resident populations, social stratification, economic specialization, active long-distance exchange programs, and other features (Burger 1992:165–227). It was the existence of real socioeconomic inequality and an elite that consciously worked to maintain its power and prestige that created the structural conditions during the Early Horizon that led to the search for rare raw materials outside the multiple cores in the northern highlands of Peru. The identification of such rare natural resources and the incorporation of these crucial resource areas into a World System resulted in a situation in which unequal development became a critical feature in the transformation of both the multiple cores and the periphery. In contrast, the “Formative” societies of the second millennium (also known as the Initial period) do not display evidence of such conspicuous inequality, and we would be wary about applying a core-periphery perspective to these societies.

One of the most frequent criticisms of a World Systems perspective is about its assumption of a fundamental asymmetry in power relations between the core and the periphery. In the case of Atalla, such asymmetry would seem justified given its small size and population compared with those of northern centers such as Chavín de Huántar, Pacopampa, and Kuntur Wasi. Despite this, it would be unjustified to assume that asymmetry necessarily translates into complete domination, particularly given the large distance that separates the two areas. The freedom that distance provides would have favored considerable agency on the part of the Atalla residents, and the city’s emulation of cultural features such as ceramic style and cut-stone masonry probably reflected internal volition rather than external coercion. Indeed, it might be accurate to describe the relationship between the two areas, in the words of Michael Dietler, as “a complex history of interaction and entanglement” (1998:298). Yet our rejection of a “mechanistically reductionist, structurally overdetermined” version of World Systems does not diminish the fundamentally asymmetric nature of the relationship or the critical role that the production and transport of a rare raw material probably had in the relationship between a site on the periphery, such as Atalla, and centers in the core area, such as Chavín de Huántar. Of course, the need for a rare commod-

ity such as cinnabar opened up new opportunities for the residents of the periphery to acquire ideas and goods that they wanted, and, in the case of Atalla, the end result may have been mutually beneficial rather than exploitative.

In a recent formulation, Gil Stein (1998:228) has suggested that, in many cases, a distance-parity model has greater explanatory value than a World Systems model because of the diminishing power of the core at a great distance under preindustrial conditions. He recognizes, however, that the World Systems model still has utility in those cases in which there is considerable difference in the technological and demographic levels of the two interacting zones. He also acknowledges that the presence of low transportation costs likewise favors a World Systems rather than a distance-parity model. Given the availability of llamas for long-distance trade caravans at a “low cost,” because the animals could graze on available puna grasses and can be herded with only a small investment of human labor (Flores Ochoa 1968), and the considerable demographic and technological differences between Atalla and sites such as Chavín de Huántar, there would seem to be justification in considering a World Systems model even from the critical perspective of Stein.

Although Stein (1998) may be correct in his claim that World Systems theory and its variants may be overused and, in some cases, inappropriately applied, a World Systems perspective does seem to have potential in explaining the nature and chronology of the early occupation at Atalla. This is not to say that it offers a comprehensive analytical framework for all the multiple modes of interaction subsumed within the Chavín horizon. In many cases, the character of Early Horizon centers and their relationship to Chavín de Huántar can be understood using models of religious networks (Burger 1988) and peer-polity interaction (Renfrew 1996) rather than a core-periphery perspective (Burger 1993). The fact that this may be the case, however, does not undermine the value of applying a World Systems perspective to specific instances such as Atalla, where it does seem to shed light on the processes at work.

Conclusions and Discussion

The evidence presented in this article confirms the conclusions of Matos and other early investigators that Atalla constitutes an unusually imposing center whose history is closely linked with that of Chavín de Huán-

tar and the sphere of interaction associated with that center during the Early Horizon. The research that has been carried out in the central highlands since Atalla's discovery in 1955 has only reinforced the impression that Atalla is larger than other coeval sites in the region and that there is no local antecedent for the public architecture at this site. Since Atalla's discovery, numerous full-coverage site surveys and excavations have been carried out, particularly in the Departments of Junín (Parsons et al. 2000) and Ayacucho (Lumbreras 1974, 1981; Ochatoma 1998). In a synthesis of the information available for the central highlands, Burger (1992) has characterized the entire region as a cultural backwater during the Initial period and Early Horizon and has contrasted it with the more densely populated and culturally advanced northern highland and coastal regions. A more recent review of published investigations of the Formative (i.e., Initial period and Early Horizon) in the central highlands led Jeffrey Parsons and his colleagues (2000:101) to conclude that the existing settlement pattern data support this position. In Junín and in northern highland Ayacucho, Formative sites are remarkably rare, and settlements that can be definitely dated to the Initial period are almost absent. Parsons and his colleagues (2000:102) argue that this pattern, which reoccurs in numerous studies, cannot be explained as a result of the survey methodology employed and that it suggests a light population. Moreover, Initial period and Early Horizon sites are rare or absent in the *ceja de selva* (eastern slope cloud forest) as well as in the puna and *kichwa* (lower valley) habitats of the central highlands.

The conclusion that Burger (1992) and Parsons et al. (2000) reach is that prior to and during the Early Horizon, the lifeways in the central highlands stood in marked contrast to those among the flourishing intermontane valley cultures of the northern highlands and adjacent coast. Evidence of the continuous use of puna caves and lakeside sites suggests a small population dependent on a mixed strategy that probably included herding, hunting, high-altitude farming, and the continued collection of wild resources. These autonomous high-altitude groups left little evidence of developing more complex socioeconomic organization as the result of internal processes.

The establishment of Atalla appears to be a local response to stimuli provided from the rapidly expanding centers in the northern highlands, such as

Chavín de Huántar, Kuntur Wasi, and Pacopampa (Morales 1998b; Rosas and Shady 1970). The process of increased socioeconomic stratification at these centers, as evidenced by the unequal distribution of highly valued goods (Burger 1992; Miller and Burger 1995) and the presence of elaborate elite tombs with rich grave goods (Onuki 1995, 1997), stimulated the search for and trade in raw materials that could be used to enhance and reinforce the status of the newly institutionalized elites and could serve as exotic symbols of the religious ideology underlying the status of these individuals. According to anthropologist Kenneth Hirth (1978:37), an increased demand for long-distance trade goods by the elites of stratified centers often led to the establishment of gateway communities located along natural corridors of communication. Such gateway communities often occur at the critical passages near areas of high mineral productivity and at the interface of different technologies or levels of socio-complexity. While Hirth uses the concept of gateway community to explain the emergence of Chalcatzingo within the Olmec sphere of interaction, he recognizes that this case is an example of a more general phenomenon.

The locally produced ceramics of Atalla, which appear to emulate the Janabarriu phase pottery from Chavín de Huántar, suggest that the local population living in the high grasslands of what is now Huancavelica consciously attempted to identify with the peoples living at the monumental center to the north. At the same time, construction at Atalla of circular dwellings and the association of burials with these dwellings demonstrate the local character of the settlement's inhabitants. Circular dwellings dating to the Early Horizon are known from the Huancavelica area (Ravines 1969–1970) and the neighboring Mantaro (Browman 1977:2) but not the highlands near Chavín de Huántar or the neighboring coast (Burger 1984; Pozorski and Pozorski 1987). Similarly, house burials have no known analogue at Chavín de Huántar or any of the other northern centers during the Early Horizon. Thus, it is evident that Atalla was not a "colony" or "enclave" of Chavín de Huántar or one of the other northern centers.

Atalla's emergence as a public center during the Early Horizon is hypothesized to have been a function of the role of its residents in the procurement and distribution of vermilion pigment produced at the massive cinnabar deposits 15 km to the west in

Atalla's hinterland. Atalla's involvement in channeling obsidian from the Quispisisa source area, a major deposit of volcanic glass located 100 km to the south in what is now central Ayacucho, into the Mantaro drainage and beyond, may have been an additional factor.

The insights provided by a core-periphery perspective may be relevant in modeling the asymmetric relationship between the stratified societies of the northern highlands at sites like Chavín de Huántar, which consumed the cinnabar and obsidian, and the less developed groups of the central highlands that were responsible for the building of Atalla. The social differentiation implied by the appearance of the center at Atalla can be interpreted as a response to stimuli created in the Chavín heartland as the priestly elites sought exotic products that could serve as emblems of their status and as distinctive symbols for their religious ideology. These exotics could also be employed strategically as gifts to consolidate or create alliances. Rare and easily recognizable items like cinnabar and obsidian, which, under normal circumstances, could not be obtained by populations outside the central highlands, would have been ideal in this regard, particularly given the general lack of contact between the northern and central highlands before this time. The formation of a gateway community like Atalla at the entry into the Mantaro drainage could have helped resolve the challenge of insuring a dependable flow of cinnabar, obsidian, and other exotic goods from the central highlands into the northern core area.

Although this hypothesis identifies a macroregional scale of analysis as essential in making sense of Atalla, the site is still understood as a local adaptation to a new social and economic setting. Not surprisingly, the form and architectural features of the site reflect the cultural history and aspirations of the local leaders. Thus, Atalla resembles neither northern centers like Chavín de Huántar nor nearby villages like Chuncuimarca. On the contrary, Atalla was a material expression of sociocultural and economic innovation by a local population. The coordination and regulation of the procurement and long-distance trade in cinnabar and other products would have required the emergence of a distinctive social group with a new set of relations to the more rural peoples involved in the actual mining of these materials. The creation of large perimeter walls and construction of public buildings of dressed stone blocks, such as the

"temple" on the site summit, are innovations from a local perspective and can be seen as symbolic expressions of the new and unprecedented status of Atalla's residents. It is not surprising that such a group chose to incorporate the alien technique of cut-stone architecture into its public constructions, much as the residents favored a ceramic style that emulated that of their more prestigious exchange partners to the north.

The abandonment of Atalla at the end of the Early Horizon is roughly coeval with the decline of the Chavín de Huántar center and the abandonment of its public architecture. This correlation does not appear to be coincidental, and it suggests the degree to which Atalla's prosperity was dependent on its special exchange relationship with the larger Chavín sphere of interaction. If this conclusion is correct, cinnabar pigment should be rare or absent in the remains of the post-Chavín occupations at Chavín de Huántar.

Given the lack of excavation at Atalla, the foregoing discussion should be considered as a source of hypotheses for future study. We hope that it will serve to stimulate interest in more intensive research at the site and help formulate questions that can be tested through such additional investigations. For example, how much social differentiation was engendered at Atalla as a result of its articulation with Chavín de Huántar? How long did this new, more hierarchical configuration last after the collapse of the centers in the core area and the exchange network associated with them? What products were being procured or produced by the people of Atalla for export, and how did these new demands affect the local subsistence strategy? What was being acquired by the peoples of Atalla in exchange for these goods?

Matos (1999) has observed that in the central highlands, the most significant developments during the Early Horizon occurred in the high grasslands of the puna and that the neighboring lower valleys appear to have been of secondary importance. The emergence of Atalla, the first major public center in this region, within the lower portion of the puna zone is eloquent testimony to the importance of these high grasslands, and future study of Atalla should consider the special role of those living in this environment in the production of high-altitude cultigens such as oca, *ulluco*, *mashua*, quinoa, potatoes, and *cañiwa*; processed foods, such as *ch'arki* and *chuñu*; and leather and woven products. In addition, high-alti-

tude herders from this zone may have played a critical role in the procurement, processing, concentration, and transport of rare raw materials to more developed northern centers.

Some of the issues raised here will require the application of new methods in order to test the hypotheses in question. Among the problems that must be addressed is how to determine whether the vermilion pigment found at Early Horizon sites in northern Peru was brought from the cinnabar deposit in Huancavelica described in this article or from one of the minor deposits documented but never intensively exploited during colonial times. Although there is no historical or archaeological evidence for the use of the latter in prehispanic times, in contrast to the Huancavelica case, it would be premature to assume a priori that all of the cinnabar utilized before the Spanish conquest necessarily came from Huancavelica. Recently, cinnabar was identified in chronologically later elite burials at Batán Grande in the Lambayeque-La Leche drainage, but the excavator believes that the source of the bright red pigment may be in the Azogues-Cuenca region in southern Ecuador (Shimada 2000:58) rather than in Huancavelica. Because cinnabar deposits were formed at different times in dissimilar geological settings, it should be possible to distinguish among sources of cinnabar (mercuric sulfide) through the study of rare metals and other impurities linked to the local geology; these should be present in trace amounts in vermilion pigment. Such sourcing studies, utilizing instrumental neutron activation, X-ray fluorescence, or some other analogous technique, have been successful in dealing with a range of materials, including obsidian, jade, turquoise, and ceramics, but they have yet to be applied to the study of cinnabar.

As noted, some scholars have attempted to partially explain the spread of "Chavín influence" as a result of the expansion of a religious cult. Such regional cults played important roles in creating new patterns of interaction and in providing an ideological basis for modifying the preexisting cultures (Burger 1988). In many historical cases, increased trade followed the spread of major religions ("trade follows the Hadj"), but in other cases increased social and economic interaction set the stage for the introduction of new religious systems (Burger 1993). At the present time, we do not know whether the people of Atalla ever adopted the Chavín cult. The concentric circles and other geometric motifs on the

Janabarriu phase pottery style of Chavín de Huántar refer to the pelage markings of the jaguar, a central figure in Chavín religious cosmology, but it cannot be assumed that the inhabitants of Atalla were aware of this symbolic meaning when they emulated these motifs in the production of their local pottery. Hopefully, excavations on Atalla's summit will someday provide us with the answer to this and some of the other questions raised in this article. Ultimately, future studies at Atalla and coeval Early Horizon villages will also make it possible for us to contextualize Atalla's interaction with the northern centers and understand it from the standpoint of the social and cultural logic of the puna societies of Huancavelica with their own cosmologies, institutions, and complex histories (Dietler 1998).

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match the materials in the collection donated to the Museo Nacional de Antropología y Arqueología on March 16, 1974, by an individual identified only with the initials “R.C.Z.”

2. The original reads: “Pintarse con bermellon la cara y embijarse.”

Notes

1. Sherds from the 1955 surface collection made by Julio Espejo are illustrated in Espejo 1958, and these drawings

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