A MITO-STYLE STRUCTURE AT CHAVÍN DE HUÁNTAR: DATING AND IMPLICATIONS

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Excavations west of the monumental core at Chavín de Huántar, Peru in 2005 revealed a well-preserved plastered structure with a central circular hearth, in the style of the Mito Architectural Tradition. This find challenges standard definitions of both the Mito Tradition and Chavín itself. I discuss the material remains and associated radiocarbon dates from this feature, and use these new data to re-assess Chavín's involvement in interregional networks and its relationship to earlier ceremonial centers in the Central Andean highlands.

Excavaciones al oeste del núcleo monumental de Chavín de Huántar, Perú en 2005 expusieron una estructura enlucida con un fogón circular central, en buen estado de preservación, del estilo arquitectónico Mito. Este hallazgo permite cuestionar los conceptos existentes sobre la Tradición Mito y Chavín en sí. En este artículo discuto los restos materiales y fechados radiocarbónicos asociados a este elemento arquitectónico, y utilizo estos nuevos datos para reevaluar la participación de Chavín en redes de interacción a nivel interregional y su relación a otros centros más tempranos de la sierra de los Andes Centrales.

The Late Preceramic Period in the Central Andes has been increasingly recognized as a time of notable cultural complexity. The majority of this work—dating to Moseley's proposal of maritime-based development of "Andean civilization" (Moseley 1975)—has been focused on the coastal valleys of Peru (recently, for example, Haas and Creamer 2006; Shady and Leyva 2003; Shady Solís et al. 2001). While the highlands have been less studied, recognition of their importance in the Late Preceramic (sometimes also called the Late Archaic) has a long history, dating to the excavations of the Japanese Mission to Nuclear America at Kotosh (Izumi and Sono 1963; Izumi and Terada 1972).

One of the principal tools used to examine interregional contact and interaction in the Late Preceramic—the concept of the Kotosh Religious Tradition (KRT)—was developed by Richard Burger and Lucy Salazar-Burger on the basis of excavations at Kotosh (Izumi and Sono 1963; Izumi and Terada 1972) and La Galgada (Bueno Mendoza and Grieder 1980; Grieder and Bueno Mendoza 1981) and their own work at the site of Huaricoto (Burger and Salazar-Burger 1980, 1985, 1986). The KRT, they suggested, was a ritual tradition widespread in the Andes, defined by the burning of offerings in enclosures with central hearths. Elisabeth Bonnier (Bonnier 1987, 1988; Bonnier and Rozenberg 1988) and Rosa Fung (Fung Pineda 1988) have also used a similar set of data—as well as, in Bonnier's case, the architectural sequence from the site of Piruru—to suggest the more restricted definition of what they term the Mito Tradition; I explore the distinction between the two below.

My 2005 excavations at the Initial Period/Early Horizon site of Chavín de Huántar revealed a structure very similar to the known KRT/Mito examples from Kotosh, La Galgada, and elsewhere. This find is remarkable for two reasons. First, its associated radiocarbon dates fall in the first half of the first millennium B.C., nearly 1,000 years later than the Late Preceramic examples mentioned above. Second, it has been thought that Chavín represented a cultural departure from this early and long-lived Andean tradition. This paper describes the recent find at Chavín and discusses its implications for our understanding of Chavín and interregional interaction in the Peruvian Initial Period and Early Horizon.

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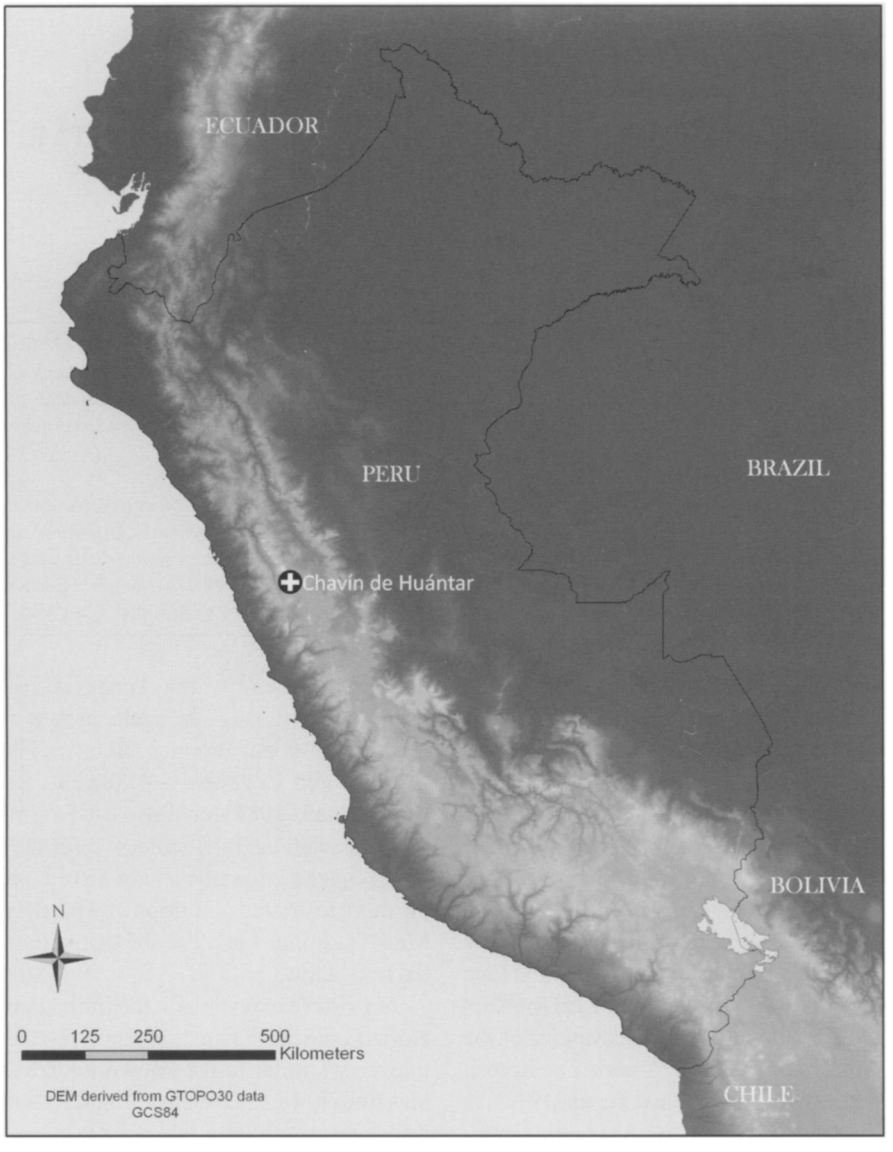


Figure 1. Location of Chavín de Huántar.

Background

Set in a high valley on the eastern slope of the Central Andes' Cordillera Blanca (see Figure 1), the site of Chavín de Huántar is a sprawling complex of monumental stone construction, unique in the region in its scale and sophistication. Archaeological investigation of the site began in earnest with Julio C. Tello's visit in 1919 (Tello 1943, 1960), continued when Wendell Bennett carried out the first scientific excavations at Chavín in 1939 (Bennett 1944), and has burgeoned in the near-century since. Two projects are particularly salient. Excavations directed by Luis Lumbreras and Hernán Amat (1966–1974) revealed previously unknown architectural elements, most spectacularly the Circular Plaza and the Ofrendas Gallery, and began the process of establishing a radiocarbon and ceramic chronology for the site (Lumbreras 1977, 1993, 2007). Burger's subsequent 1975–76 excavations focused on the buried domestic remains surrounding the monumental core of the site, and particularly on stratigraphically excavated ceramics (Burger 1984, 1998).

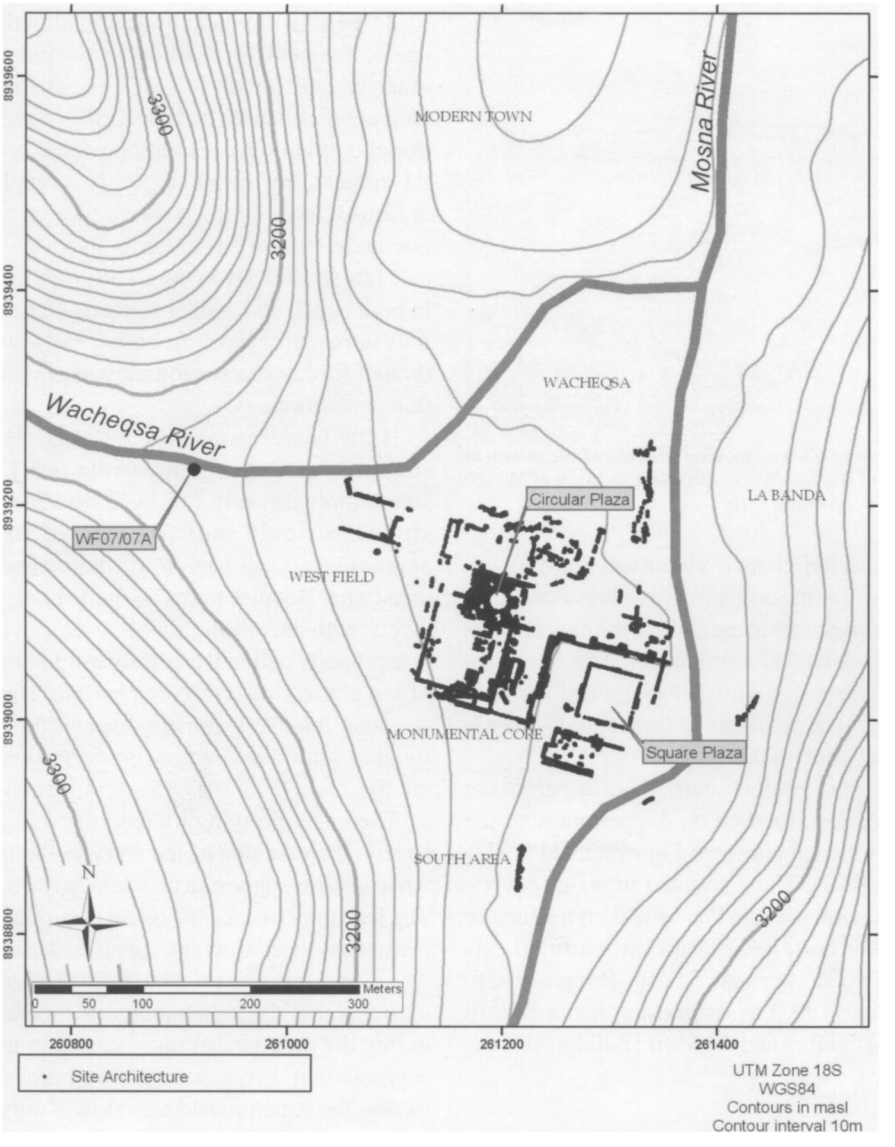


Figure 2. Areas of the site discussed in text.

While this work—and the ongoing Stanford University Chavín de Huántar Research and Conservation Project (Rick 2005; Rick et al. 1998)—has much improved our understanding of Chavín, the site is large and complex enough that many questions remain. Moreover, as new data have come to light researchers have consistently revisited the fundamental archaeological questions at Chavín: understanding the sociopolitical dynamics that made the site's construction possible and assessing its place—chronologically and in systemic terms—in the larger panorama of Central Andean prehistory. These various projects have led to significant disagreement about Chavín's chronology (Burger 1998, 2008; Kembel 2008; Kembel and Rick 2004; Lumbreras 2007; Rick 2005, 2008); I consider below the ways in which the data presented here articulate with this debate. These debates at Chavín are embedded within pan-Andean problems of chronological terminology (Kaulicke 1998; Silverman 2004). For the sake of ease of comparison with the published syntheses

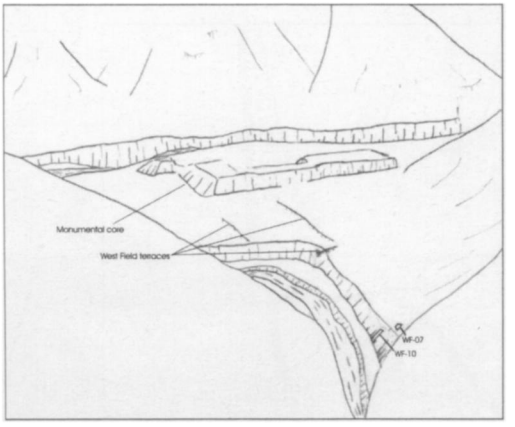


Figure 3. View of Chavín, looking ESE out of the mouth of the canyon of the Río Wacheqsa. Note location of WF-07 relative to monumental core.

on the Kotosh Religious Tradition and the Mito Tradition, as well as the original excavations at the most prominent sites considered, I here employ Rowe's (1967) chronological terminology. This is a practical measure only; addressing the problems of chronological terminology in the Central Andes is beyond the scope of this paper.

My 2005 excavations, carried out as part of the Stanford Project, focused on the periphery of the site's monumental core (see Figures 2 and 3; also Contreras 2007). These resulted in the discovery, in the area known as the West Field, of a structure that closely matches the architectural forms described by Burger and Salazar-Burger (1980) and Bonnier (1997) as diagnostic of the Kotosh Religious Tradition and the Mito Tradition, respectively.

Excavation of the Mito-style Structure

Excavated features of the structure include several salient elements (see Figure 4): entry and exterior step (Element 1), floor (pericaust) (2), lateral bench (epicaust) (3), central circular hearth (4), and partial façade (5). These elements combine to form a small rectilinear structure, accessed from the north by ascending at least one step to enter, whose focus was a small perfectly circular hearth 39 cm in diameter and 11 cm deep in the center.

While the circular hearth does not have any ventilation duct, as prominently featured in the well-known examples from Kotosh, the face of the bench, immediately east of the hearth, is penetrated by a 29 cm wide by 12 cm high duct (Figure 4, Element 6). Carbon recovered from the inner reaches of that duct suggests that it may feed another hearth, but the limits of the excavation did not allow exploration of that possibility. It is noteworthy that analogously located features at Kotosh (see Figure 5) were reported as niches, not ducts, but were as much as 50 cm deep (Izumi and Terada 1972:144–164). The prominent niches in both bench and wall at Kotosh and La Galgada thus apparently have no counterpart at Chavín, though further excavation may of course change that perception.

If the hearth is taken to be truly central, the sunken area containing the hearth would have measured approximately 2m by 2 m; such a reconstruction would indicate that we excavated approximately 50 percent of the central sunken area (what Bonnier terms the pericaust). Unfortunately, with only the northern extreme of the structure properly defined, precisely estimating the size of the entire structure is impossible. However, if we posit relative symmetry around the hearth, a roughly 4 m x 4 m chamber is reasonable (see Figure 5).

The upper portion of the northern façade, present on the east side of the entry, is damaged, but what remains suggests a façade at least 75 cm high. The wall may have been higher, or supported a less permanent superstructure, but no evidence of either was found. It is also possible that the structure was unroofed, but the vulnerability of exposed plaster during the pronounced rainy season in the region suggests that a roof would have been necessary (unless the structure had a use life of only one dry season before being sealed; given the scale of investment in the construction of the structure, this seems unlikely).

The only exception to the spare, undecorated appearance of the chamber was the remnant of a sculptural pillar affixed to the northern façade, flanking the entry to the east (Figure 4, Element 7). Although more than half of the pillar was destroyed prior to the sealing of the chamber, what remained was sufficient to indicate an irregular cylinder, embedded in the chamber floor and extending at least as high as the preserved portion of façade. The remnant portion was sufficient to suggest a form that bowed outward just above the base before

Figure 4. Elements of WF-07 Mito-style structure: entry and exterior step (1), floor/pericaust (2), lateral bench/epicaust (3), central circular hearth (4), partical façade (5), duct (6), remnant sculptural pillar (7), and construction detail (8).

tapering to a neck ~45 cm above the floor; above the neck the pillar flared out to form an irregular form too damaged to reconstruct.[1] The emphasis on entryways that Bonnier (1997) ascribes to the Mito architectural form is germane here; also of interest is the step entry, which argues that the structure was raised relative to its surroundings. Investigations of the exposure provided by the cut of the Río Wacheqsa, approximately 5 m to the north, suggest that contemporary ground surface was at most 1.5 m lower, and an associated floor probably sat only 70 cm below the level of the structure (see Figure 6).

The construction technique of the structure appears to be uniform; where damage to the plaster has exposed substructure, selected angular rock had been placed in a mud mortar, to which plaster had been applied and carefully smoothed (Figure 4, Element 8). The only exception, apparently, was the remnant of the sculptural pillar affixed to the façade, flanking the entry, which had no stone substructure and consisted entirely of a prepared mud covered with plaster. Overall, the plaster was remarkably well preserved, but no evidence of painted or molded decoration was found. The original color of the plaster was also difficult to discern, as it appears to have been affected by the grey-green soil of the sealing fill. White or yellow-white are the most likely candidates; the only color variation observed was in and around the hearth, where the plaster was heat-altered to a brick-red. The light color of the plaster distinguished it from the darker clay matrix of the substructure, but that light color seems to have been a characteristic of the plaster itself rather than of any applied slip (unlike La Galgada and Kotosh—see Bonnier 1997:137).

Cultural material was recovered from only two areas: the circular hearth and the inner reaches of the duct. In both contexts the materials appeared to be primary depositions, while the remainder of the excavated area gave every indication of having been carefully cleaned before its interment, or perhaps kept clean during its use life (see discussion of depositional context below).

The inner reaches of the duct (40–50 cm from its opening in the face of the lateral bench) contained abundant carbon, as well as a fragment of

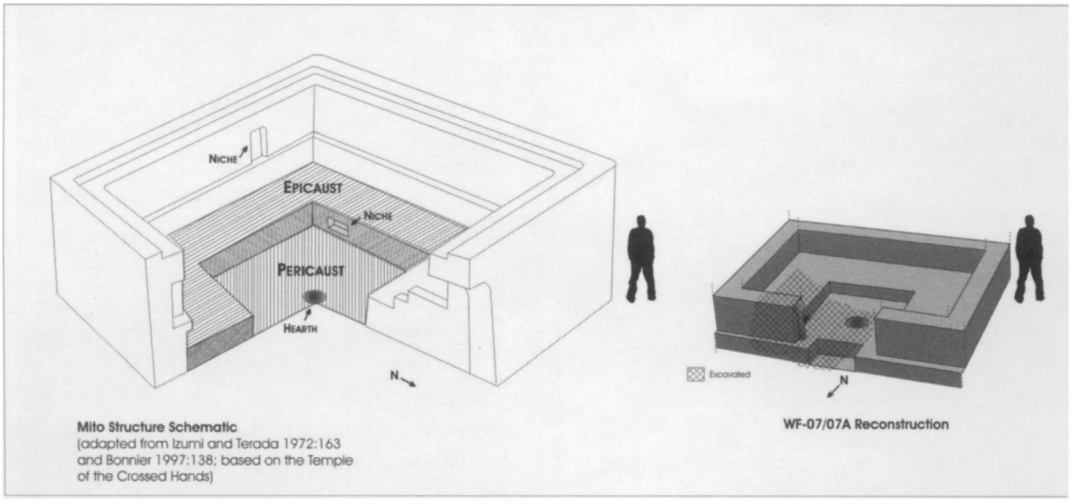


Figure 5. Schematic drawings of an idealized Mito Structure (left) and a hypothetically reconstructed WF-07 structure (right).

an anthracite mirror and a solitary ceramic sherd (unfortunately, like the two other sherds recovered from the hearth, a small—approximately 2 x 2 cm —nondiagnostic plainware body sherd).

The circular hearth was filled with *in situ* carbon and ash deposits without internal stratification. The deposit also included two small, nondiagnostic ceramic sherds, bone remnants too heat-damaged to be much more than powder, and a quantity of fragmentary obsidian (a mixture of small waste flakes and shatter; 129 fragments totaling 22 g). Analysis of macrobotanical and phytolith remains from the hearth deposit is ongoing. Two fragments of wood charcoal (samples AA 69446 and AA 69447) from this hearth deposit yielded radiocarbon dates that when calibrated fall roughly between ~850–750 B.C. (the 2-sigma ranges are 841–540 B.C. and 911–772 BC); see Figure 7).[2]

Four carbon samples have thus far been dated by the University of Arizona AMS Laboratory, after pretreatment by Dr. Herbert Haas at RC Consultants. All samples were charcoal, from well-documented and well-sealed contexts; two from the contents of the hearth and two from distinct strata in the overlying deposits. The results are both internally regular and consistent with the stratigraphic relationships observed during excavation (see Figure 7). While the dates from the upper strata encompass a broad range (800–400 cal B.C.) due to the flatness of the relevant portion of the calibration curve (Bronk Ramsey 2001, 2006; McCormac et al. 2004), the samples from the hearth itself combine for a tighter range, centered on 800 cal B.C. The hearth dates, moreover, seem from their context to mark the terminus of occupation, suggesting that the structure itself dates back somewhat further. Moreover, it bears repeating that the WF-07 Mito-style structure is not a basal deposit—architectural evidence from the cut of the Río Wacheqsa to the north demonstrates the presence of earlier construction stratigraphically prior to the structure (see Figure 6). Further, the Kotosh example of multiple superposed and juxtaposed Mito structures suggests that this chamber may be part of a larger complex rather than a stand-alone structure. Given the limited areal exposure thus far possible at Chavín, assessment of this prospect unfortunately must remain speculative.

Context and Process

The 2005 excavation that exposed the northeastern quadrant of the plastered chamber described above was located approximately 300 m west of the monumental core. As the investigators did not anticipate the exposure of such a structure, time and funding did not allow a broad areal excavation. Nevertheless, the portion excavated has important implications for the early development of the ceremonial center of Chavín de Huántar and its relationship to other early highland centers. I here

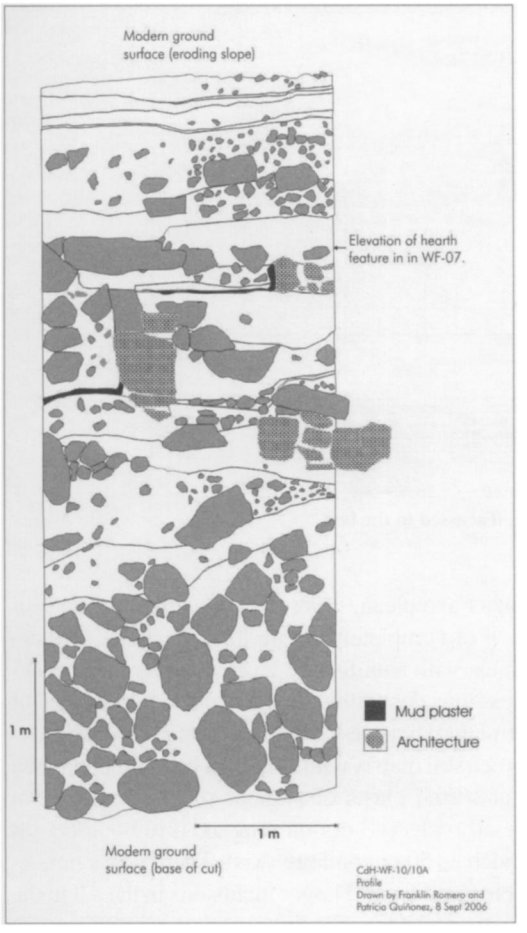


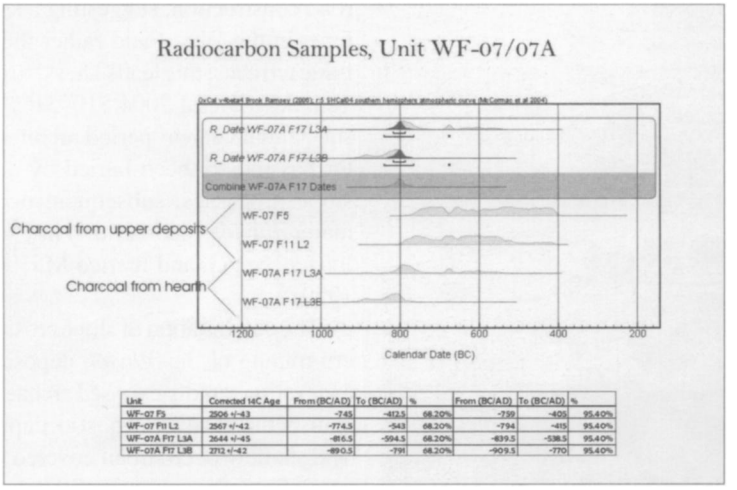
Figure 6. Profile drawing of WF-10/10A—note relative level of WF-07 hearth.

describe the location of this Mito-style structure within the site and its stratigraphic context and burial processes, before turning to those implications.

The area west of the monumental core of Chavín—here referred to as the West Field—has been recognized since at least Julio C. Tello's visits to the site (beginning 1919) as containing Chavín-era construction. Two megalithic walls (apparently terrace facades), constructed of quartzite blocks in a style similar to that of the structures in the monumental core, are visible on the surface, as is one canal draining northward into the Río Wacheqsa (see Figure 3). Until the construction of the road that currently separates the monumental core from the West Field in the 1970s, these east-west terraces were also associated with a north-south wall that was largely destroyed by the road construction, suggesting a structure or structures in the West Field rather than simple megalithic terraces; this leads Diessl to describe a "West Temple" (Diessl 2004:510–516). The apparently substantial Chavín-period architecture in this sector has mostly been buried by a combination of slope processes, subsequent occupation, and a major *aluvión* (debris flow) in 1945 (Diessl 2004; Indacochea G. and Iberico M. 1947; Turner et al. 1999).[3]

The combination of slope erosion and this modern mining of the *aluvión* deposit meant that our excavation rapidly exposed archaeological strata in spite of the substantial post-occupation deposition. The shallow overburden covered a series of loose fills of small angular rock, alternating with thin lenses of clayey soil indicating periods of rapid, apparently intentional deposition of fill alternating with brief periods of exposure and natural deposition from slope erosion. These strata, judging by the small amounts of cultural material included, appear to represent a post-Chavín attempt to level the area, perhaps also with consideration for adequate drainage. If there was a northern retaining wall, it was either dismantled over the years or did not survive the southward cutting of the river. To the east the later fills, at least, were contained by a roughly constructed wall of alternating small boulders and stacks of chinking cobbles. This wall (Element 1 in Figure 8) was both different in style than the Chavín-period walls excavated below (Elements 2 and 3 in Figure 8) and in a different architectural orientation.

Below the series of loose rock fills two terraces were excavated. Both were well-built, consisting of selected angular stones set in clay mortar to create walls with flat faces. Some suggestion of plastering remained on the upper terrace, in the form of a very fine, homogenous, and distinctly colored sediment associated with some parts of the wall base. The terraces are parallel, running roughly east-west (and architectural east-west, in the architectural alignment of the monument). Between the lower terrace and the upper—an area approximately 2 m wide—a fill of angular rock had been carefully laid, the large rocks making up the fill chinked with smaller stones at the surface to create a flat substrate for the packed-earth floor that spanned the area between the two terraces. Both terraces extended into the excavation's western pro-



Unit	Corrected 14C Age	From (BC/AD)	To (BC/AD)	%	From (BC/AD)	To (BC/AD)	%
WF-07 F5	2506 +/-43	-745	-412.5	68.20%	-759	-405	95.40%
WF-07 F11 L2	2567 +/-42	-774.5	-543	68.20%	-794	-415	95.40%
WF-07A F17 L3A	2644 +/-45	-816.5	-594.5	68.20%	-839.5	-538.5	95.40%
WF-07A F17 L3B	2712 +/-42	-890.5	-791	68.20%	-909.5	-770	95.40%

Figure 7. Radiocarbon dates discussed in the text.

file; to the east, as far as the presence of the large, late retaining wall above allowed excavation, the lower terrace continued into the eastern profile while the upper was destroyed (see Figure 8).

In association with the base of the lower terrace were a series of compact, material-culture-rich deposits, including some fragmentary packed-earth surfaces. The ceramics recovered from these deposits and from the two surfaces above (that between the two terraces and that atop the upper terrace) were consistently and exclusively Janabarriu-style (see Figure 9 for a sample of the associated decorated ceramics). Two charcoal samples recovered from these deposits yielded radiocarbon dates that when calibrated fall between ~800 and 400 B.C. (2-sigma ranges of 761–407 B.C. and 796–417 BC; see Figure 7).[4]

These lowermost, compact deposits were directly atop the sterile fill that sealed the plastered structure, with no natural deposits intervening to suggest any period of disuse or abandonment between the deposition of the fill that seals the Mito-style structure and the construction of the terraces (see Figure 10).[5] The temporal proximity of these deposits to the sealed structure below is confirmed by the radiocarbon dates.

The structure itself, described above, was only partially exposed. Even such a limited exposure, however, revealed a plastered chamber consisting of an entry, split-level floor, and circular central hearth, with an associated duct and remnant pillar.

At the end of its use-life, that structure, largely intact and clean, was sealed by a massive deposition of completely sterile fill. As much as 90 cm thick, with a uniformly level upper surface (thickness thus depending on the depth below surface of structural features), the fill consisted of a fine grey-green soil matrix with abundant but neither aligned nor sorted clasts of angular rock, ranging from small rocks (~3 cm on long axis) to boulders (as much as 50 cm on long axis). There was a noticeable trend toward larger inclusions in the fill to the north, perhaps reflecting some care in placement of fill within the chamber as opposed to outside it (the excavation straddled the apparent northern façade of the structure). No cultural material whatsoever was recovered from the approximately 3.6 m^3 of fill excavated, and no internal distinctions within the fill were detected, suggesting intentional and careful preparation as well as deposition in a single fill event.

The basal portion of the sealing fill was free of the large angular rocks found throughout the rest of the fill, ensuring that in deposition no damage was done to the plastered surfaces, and the surfaces themselves were swept clean. This suggests a concerted effort to preserve the structure intact when it was buried. The only cultural material and/or debris recovered in excavation was from the hearth and from deep in the duct. While the hearth was apparently left undisturbed, and simply covered, the duct was carefully packed with the sealing fill to a depth of ~ 50 cm—approximately an arm's reach. The cultural material recovered from the duct was

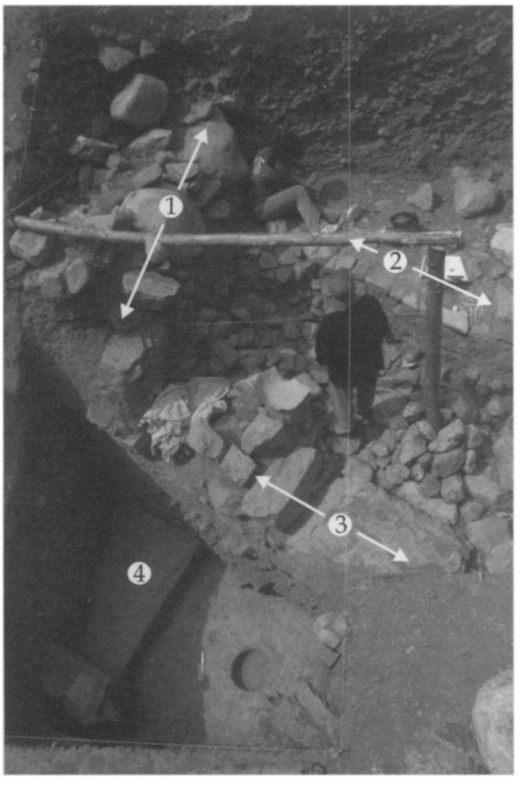


Figure 8. Unit WF-07/07A, with major architectural elements labeled. These include a late wall (1), two terrace facades (2 and 3), and the Mito-style structure (4).

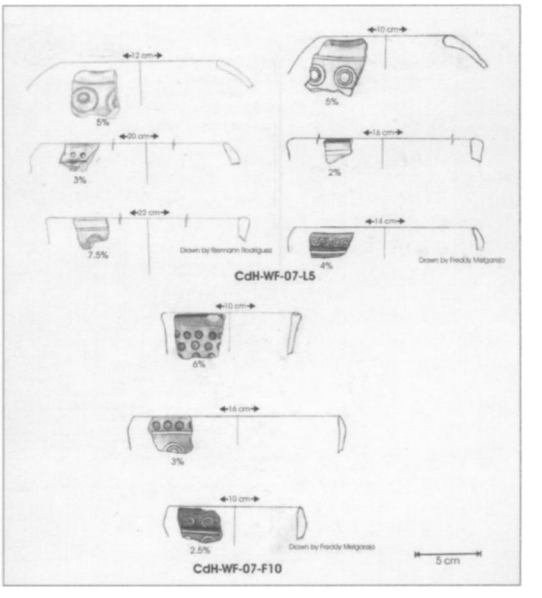


Figure 9. Sample of Janabarriu-style ceramics from upper deposits.

not mixed in that fill, but deposited deeper in the duct; it remains unclear whether that material had also been pushed into the duct or if instead it had entered through another, yet-unexcavated, opening at the duct's eastern terminus.

This intentional, prepared filling of the structure, although it was not followed by construction of a new temple atop the old, recalls the "temple entombment" described by Matsuzawa at Kotosh, where superposition of Mito structures was the norm (Izumi and Terada 1972:176; see also Onuki 1993, 1999). Burger and Salazar-Burger (Burger and Salazar-Burger 1985:116) also describe similar deposits at Huaricoto.

Spatial and Temporal Location of the Mito-style Structure within Chavín de Huántar

The structure is linked to the ceremonial core of Chavín—the well-known monumental architecture at the site—by several features. Contemporaneity is the most obvious: Kembel and Rick's dating of the construction of the monumental core of Chavín as occurring between approximately 1000–600 B.C. (Kembel and Rick 2004; Rick 2005) brackets the dates from the Mito-style structure. While Kembel and Rick remain cautious about the absolute dating of the specific architectural phases within their well-anchored relative sequence, the Mito-style structure apparently falls clearly within the Black and White Stage (see Kembel 2001:312). The clear stratigraphic precedence of the structure in relation to Janabarriu-style ceramics in the upper layers also indicates contemporaneity—or even temporal priority—for the Mito-style structure with regard to the latter ceramic phase at Chavín de Huántar. The upper layers—those containing such Janabarriu-style ceramics—yielded two floor-associated radiocarbon dates, both falling within 820–410 cal B.C. (with an overwhelming probability of pre–490 cal B.C.; see Figure 7). In terms of absolute dates, thus, these strata also fall within Kembel's Black and White Phase and Burger's Urabarriu Phase (Burger 1992:231; Kembel 2001:312), while the associated ceramics are distinctively Janabarriu-style (Janabarriu is the last of Burger's three ceramic phases, dating 390–200 B.C. [Burger 1984]).

The stratigraphic evidence also allows more subtle inferences. The careful cleaning (or mainte-

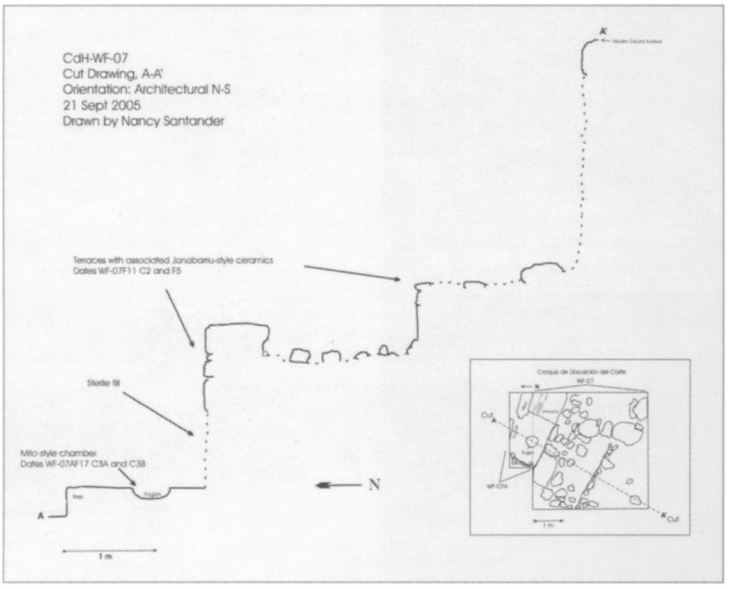


Figure 10. Cut drawing of Unit WF-07/07A.

nance) of the structure floor prior to the deposition of the sealing fill, coupled with the apparently relatively undisturbed ash and carbon deposits left in the hearth, suggests no interval of abandonment prior to the deliberate interment of the space. Furthermore, the occupation surfaces above that sealing fill sit directly atop it, without any deposits suggesting an interval of abandonment between the sealing of the structure and the subsequent occupation. The tight clustering of the radiocarbon dates from above and below the fill supports this interpretation.

A final piece of architectural evidence is also suggestive: the orientation of the structure, judging from the exposed lateral bench and northern façade, is close (~21.3° east of north) to the 13.65° east of north which serves as architectural north in the monumental phases (Rick et al. 1998:194). It is also noteworthy that the structure opens north, as did the oldest portion (now the northeast corner of Structure A) of the stone architecture in the site core (Rick et al. 1998:194); subsequent construction phases shifted the site orientation 90° to the east.

Also of interest is the structure's location relative to both the monumental core and the surrounding landscape. Situated approximately 270 m west of the Lanzón, the structure appears, given the modern layout of the site, to be somewhat marginal and isolated. If the Mito-style structure is taken to have significant ceremonial importance given the centrality of such architecture at other sites, the significant construction investment it represents, and its careful interment, this might imply a diffuse rather than concentric model of spatial significance within the site.[6] That is, archaeologists have tacitly assumed that the Lanzón, the Circular Plaza, or the Portada—all architectural elements within the monumental core—represent the site's conceptual focus. The discovery of such an apparently noteworthy element as a Mito structure well outside the monumental core implies, though, that there may be multiple foci within the site.

However, another possibility must also be considered: given the density and scale of construction features in the West Field, it may be necessary to reconceptualize the monumental core itself, including the largely buried West Field constructions as part of the site center. Such a model would leave the Mito-style structure still peripheral, but not necessarily marginal: its location at the westernmost extreme of the site, adjacent to the Río Wacheqsa, places it on the most direct route to the Cordillera Blanca, the Callejón de Huaylas, and the coast to the west. This places it astride the prime pathway into the monument, and also puts it in a position from which it directly addresses the not-too-distant *apus* (see Reinhard 1985) and faces both the allure

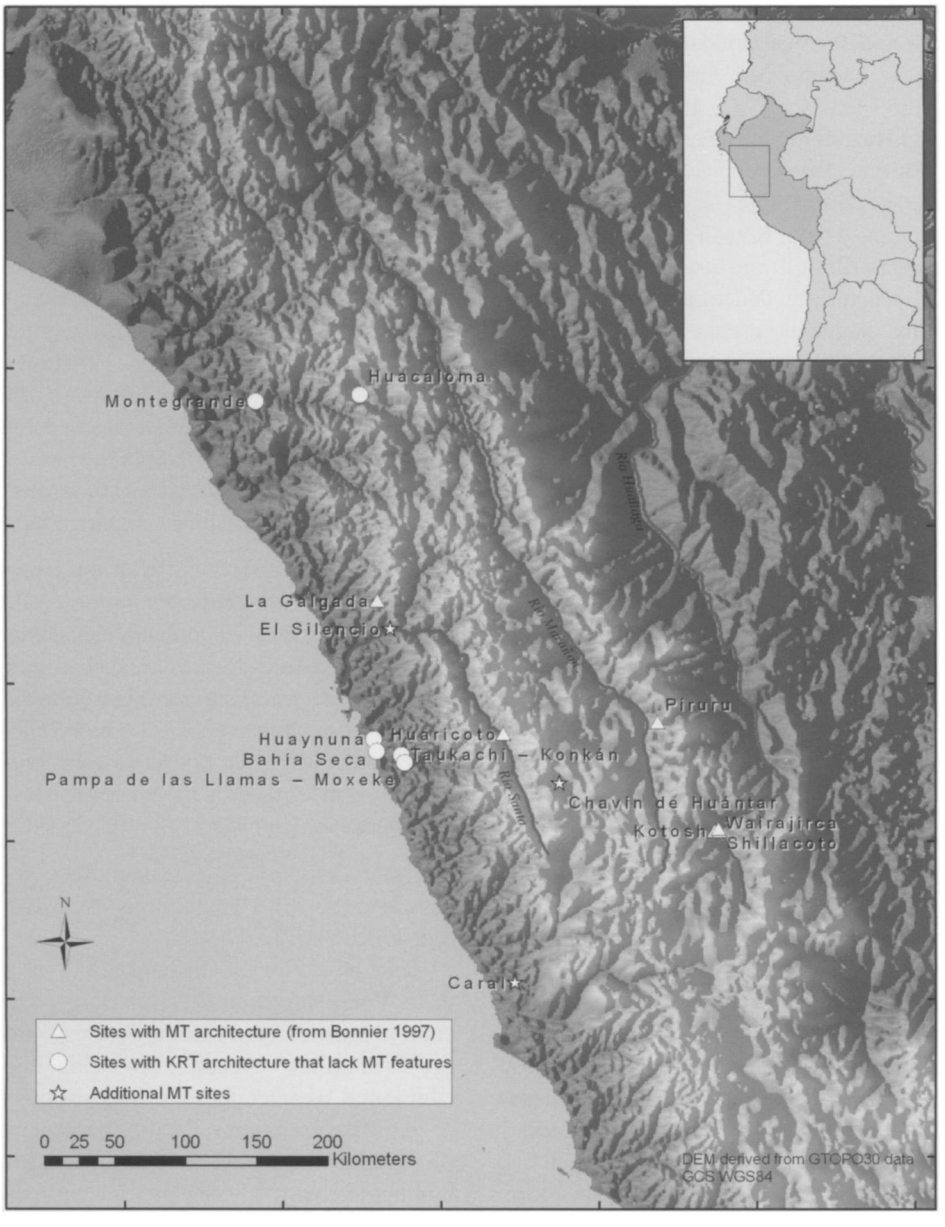


Figure 11. Sites with Mito-style architecture in the Central Andes.

and risk of the Quebrada Wacheqsa, which regularly provided lifegiving water but could erupt in catastrophic flood or debris flow. The water of the Wacheqsa River is today (and was perhaps in prehistory) used to irrigate the agricultural basin of the Mosna Valley, and was also apparently a key element of ritual practice in Chavín's ceremonial core (see Burger 1992:141–143; Contreras and Keefer 2009; Lumbreras et al. 1976).

Andean Context

The Japanese Mission's excavations at Kotosh found a series of quadrangular plastered structures with split-level floors, niches, and central hearths (Izumi and Terada 1972). The multiple structures were in some cases contemporary and in others superposed; in the latter case earlier structures had been carefully and deliberately interred. Subse-

quent excavations at La Galgada by Alberto Bueno Mendoza and Terence Grieder (Bueno Mendoza 2004; Bueno Mendoza and Grieder 1980; Grieder and Bueno Mendoza 1981, 1985; Grieder et al. 1988) and Huaricoto by Richard Burger and Lucy Salazar-Burger (Burger and Salazar-Burger 1980, 1985) revealed examples of similar structures widely removed from Kotosh (see Figure 11).

The construction and use at these sites of enclosed structures with central hearths and other potentially diagnostic architectural features has been the subject of definitional debate, as the Kotosh Religious Tradition proposed by Burger and Salazar-Burger (1980) has been the subject of both revision (Bonnier 1997) and rejection (Siveroni 2006). The excavation of the structure described above, as a result, necessitates engagement with two overlapping definitions of ritual practice(s) and associated architecture that date to the Late Preceramic, as early as 2500 B.C. These are the Kotosh Religious Tradition proposed by Burger and Salazar-Burger (Burger and Salazar-Burger 1980, 1985, 1986) and the Mito Tradition suggested by Bonnier (1987) and Fung (1988) and elaborated by Bonnier (Bonnier 1987, 1988, 1997, 2007; Bonnier and Rozenberg 1988).

The Kotosh Religious Tradition was defined as a ritual practice focused on the burning of offerings in a central hearth (Burger and Salazar-Burger 1980), observed from the Late Preceramic (most notably at Kotosh, Shillacoto, Huacaloma, La Galgada, and Huaricoto) through the Early Horizon (at Huaricoto). Such practice, Burger and Salazar-Burger argued, was the reflection of religious beliefs that were fundamental enough to prehistoric Andean peoples that they crosscut differences in political, economic, and social organization, finding expression in communities with distinct forms of sociopolitical organization. That very diversity of expression, Burger and Salazar-Burger later proposed, could be read as a reflection of the varying forms of sociopolitical organization of the communities in question (specifically Kotosh, Shillacoto, and Huaricoto, in their 1986 study).

With reference to some of the same sites, Bonnier, following her work at Piruru, distinguished between the Kotosh Religious Tradition and what she termed the Mito Tradition, defined as a ceremonial tradition involving a particular architectural form into which the sacred hearth is incorporated (Bonnier 1997). Similarly, Fung, noting commonalities in the ritual architecture of Kotosh (and the associated sites of Shillacoto and Wairajirca, also in the Huallaga drainage) and La Galgada, argued that these were representative of a highland tradition of the later Preceramic Period, which she termed the Mito Tradition (Fung Pineda 1988:73). While Fung's discussion remained general, Bonnier focused on the construction of a split-level floor with associated hearth, considering both elements, rather than just the hearth, to be critical, and arguing that the Kotosh Religious Tradition was too broadly defined to be useful (Bonnier 1987:358; 1997:122).[7] She identified several key definitional elements: quadrangular chamber, central hearth, split-level floor, niches, and use of plaster (Bonnier 1997:137; see Figure 4), arguing that,

> Los templos que se edifican durante esta segunda mitad del tercer milenio [B.C.] responden a cánones formales bien definidos que permiten identificar una tradición de arquitectura litúrgica... Esta corriente arquitectónica y religiosa, la llamamos 'Tradición Mito' en referencia al sitio de Kotosh, fase epónima de Mito, donde se descubrieron sus huellas por primera vez [Bonnier 1988:40].[8]

Using this definition, Bonnier then chronologically delimited the Mito Tradition as exclusive to the Late Preceramic.

The implications of the two definitions are distinct. Where Burger and Salazar-Burger envision a cultural substratum of ritual tradition whose material form varies depending on sociopolitical circumstance, Bonnier does not make explicit claims of the Mito Tradition reflecting particularities of sociopolitical structure.[9] Instead, focusing her definition more narrowly, she prefers to use the Mito Tradition as a tool for examining cultural interaction. The recurrence of the architectural forms of the Mito Tradition, in other words, evidences not the scattered florescence of local variations on a common, generalized Andean religious heritage but rather distinct instances of a specific and elaborate ritual practice whose presence is suggestive of cultural interaction between the sites in question. The limited chronological range defined by the relevant sites reinforced this coherence; Bonnier describes the Mito Tradition as encompassing the period 2500–1800 B.C. (1997:122). In contrast,

the Kotosh Religious Tradition, appropriately for its broader definition, spans the period from the Late Preceramic into the Early Horizon, approximately 2500–200 B.C. (Burger and Salazar-Burger 1980).

That the Mito Tradition might be a particular instance of the generalized ritual tradition of burning offerings in a central hearth—that is, the Kotosh Religious Tradition as defined by Burger and Salazar-Burger—is not specifically addressed but seems implicit in the definition. Moore has recently suggested as much, writing, "the concepts [of the Kotosh Religious Tradition and the Mito Tradition] cover distinct but overlapping observations" (Moore 2005:108). As the structure excavated at Chavín fits the definition of the Mito Tradition, I employ that term here. However, it should be understood that this Chavín example also falls within the more broadly defined Kotosh Religious Tradition.

Structures identified as belonging to the Mito Tradition have previously been described at six sites in the Central Andes (Bonnier 1997:122) (see Figure 11). Bonnier's criteria were based primarily on analysis of her own work at the site of Piruru, in the Upper Marañón, and the well-published examples from Kotosh; she makes reference also to the published examples from Shillacoto, Wairajirca, La Galgada and Huaricoto (Bonnier 1987, 1997). While Bonnier restricts her discussion to highland sites, coastal examples of related architecture have also been published, including most saliently those in the Casma Valley, at Caral in the Supe Valley, and at El Silencio in the Santa Valley. Pozorski and Pozorski describe a number of "ventilated hearth structures" in the Late Preceramic and Initial Period sites of the Casma Valley (at Huaynuná, Bahía Seca, Pampa de las Llamas - Moxeke, and Taukachi– Konkan (Pozorski and Pozorski 1996), and mention also a similar structure excavated by Tellenbach at Montegrande in the Jequetepeque Valley (Tellenbach 1986).[10] While these appear to be examples of the Kotosh Religious Tradition but not the Mito Tradition, the two structures described at Caral (Shady and Machacuay 2003; Shady et al. 2003) conform much more closely to the otherwise highland Mito Tradition model, as do the structures at El Silencio (Montoya Vera 2007). Certainly the small sample of excavated Late Preceramic/Initial Period ceremonial centers makes any *definitive* statement about the regional patterning of Mito Tradition structures impossible. However, if anything, sampling has been more thorough on the coast, where sites of the period are more accessible and less apt to be buried. The association of the Mito Tradition with the highlands, thus, should be seen as provisional but reasonably robust.

Implications

All of the elements that Bonnier defines as integral to the Mito Tradition—with, arguably, the exception of the niches—are present in the Chavín example. Moreover, the WF-07 structure seems to be related most closely to those from Kotosh. Though it lacks the niches so characteristic there and the hearth does not feature a ventilation duct (however, such a duct is not among the architectural features that Bonnier identifies as key to the Mito Tradition), it is rectilinear rather than subrectangular, formally constructed, and was ceremonially interred (Bonnier 1987:Fig.3). As such, it seems definitively to belong to the Mito Tradition, despite its anomalously late date. Its presence also reinforces Burger and Salazar-Burger's (1980) contention that the Kotosh Religious Tradition persisted later than the Initial Period. Although the structure at Chavín bears little direct resemblance to the late example they cite from Huaricoto, the two are generally comparable in date and both fit comfortably within the Kotosh Religious Tradition's broad definition.

Two sorts of implications follow from this identification of a Mito-style structure at Chavín: those for Chavín itself and those for the Mito Tradition in general. Beginning with the latter, the Mito-style structure at Chavín should be treated with some caution; while the relatively late dates are convincing, it is also the case that they need not imply direct continuity with the Mito Tradition. However, given the adherence of the WF-07 structure to the architectural canons of the Mito Tradition, and more specifically its resemblance to the Mito structures from the relatively nearby site of Kotosh, a tentative assertion of continuity is warranted. While archaism or revival are certainly possible, these are simply alternative models of the means of transmission of canons of ritual architecture, and do not obviate the need to explain the link.

The interment of the known Mito structures at Kotosh by 1500 B.C. if not earlier makes the inference of some other link—whether direct, allowing

continuity, or indirect, allowing later emulation—essential. The absence of explicit evidence of any such link—either at Kotosh, Chavín, or elsewhere—in the corpus of archaeological data is by no means evidence of its absence; as Kaulicke (among others) has noted, our picture of the Central Andean highlands during this period of developing sociopolitical complexity is underdetermined, reflecting a relatively sparse known record (Kaulicke 1998, 1999). Nevertheless, this is a substantial gap, to be either explained or filled with still-missing data. Given the inclusion of the WF-07 structure in the corpus of Mito structures from the Central Andes, one of the key dictums about the Mito Tradition needs reexamining. Bonnier's assertion, based on the data then available, was that, "It seems that the Mito tradition ends at the beginnings of the Initial Period" (Bonnier 1997:143). The new data from Chavín, however, demonstrate its persistence all the way through the beginnings of the Early Horizon and its coexistence with the new ritual forms then developing. This reinforces Burger and Salazar-Burger's observations that despite its primary association with the Late Preceramic, the Kotosh Religious Tradition—a broader set to which examples of the Mito Tradition must by definition also belong—persisted into the Early Horizon. They note, however, that, "outside of Huaricoto, traces of this tradition become more sketchy after the Late Preceramic period" (Burger and Salazar-Burger 1980:30).

While these later examples of Kotosh Religious Tradition structures—i.e., those at Huaricoto—are closer to Chavín spatially and temporally, they are similar to the structure described here only in the broadest terms (Burger and Salazar-Burger 1980:26). Many of the hearth structures at Huaricoto belong to the broader Kotosh Religious Tradition but lack the specific architectural features that would associate them with the Mito Tradition. Similarly, the potential Mito structure at Huacaloma (Terada and Onuki 1982:Color Plate 1) also apparently dates to the late Initial Period, but does not feature the specific structural features that Bonnier defines as integral to the Mito Tradition. Shillacoto, in the Huallaga Valley, is also dated to the second millennium B.C. (Izumi et al. 1972), if imprecisely.

The cumulative effect of this array of examples is to reinforce the concepts of the Mito Tradition and the Kotosh Religious Tradition as nested—overlapping but not coterminous—definitions. If the Mito Tradition exists within the broader spatial and temporal aegis of the Kotosh Religious Tradition, this begs the question of what is behind the empirical distinction based on diagnostic ritual architecture. I adopt the theoretical position that the specific architectural forms associated with the Mito Tradition reflect a specific suite of associated ritual practices. As the Kotosh Religious Tradition is defined as a very generalized architectural form (the central hearth) associated with a broad "religious ideology" (Burger and Salazar-Burger 1980:27), it is to be expected that it might be long-lasting and widespread. For the more narrowly defined practices of the Mito Tradition to be similarly persistent and widely distributed is more surprising. The link of the specifically defined ritual architecture associated with the Mito Tradition to a particular ritual practice thus ties their distribution not simply to a common cultural background but to specific interconnections. This is not to suggest that the Mito Tradition is coterminous spatially and temporally with some particular cultural entity, but rather that the evidence of the Mito Tradition at various sites throughout the Central Andes has specific implications for early interregional interaction in the region. The cultural mechanisms behind those apparent interactions certainly merit further investigation.

One of the specific implications is the link mentioned above between Chavín and Kotosh. It bears re-emphasizing that we do not yet have any evidence that might determine whether this link is direct or indirect. However, this is not the first piece of evidence to link Chavín to Kotosh. Previous examples have focused on both material culture (Izumi 1971; Kano 1979; Lumbreras 1989) and broad cultural patterns (e.g., Lumbreras 1989:22, 1993:353; Tello 1942:Lam.VII). More recently, Kembel has argued that the earliest ritual architecture in Chavín's ceremonial core was affiliated with the Kotosh Religious Tradition as manifest at Kotosh and La Galgada, concluding, "The architecture at Chavín does appear to incorporate this [rectangular stone chambers] and other features of Kotosh Religious Tradition, beginning in its earliest phases" (Kembel 2001:227). She goes on to describe the later elaboration of the ceremonial complex at Chavín, however, as a sequence "of transition as well as synthesis, beginning with local

forms based in the Kotosh-Mito traditions, and transitioning to the incorporation of coastal forms that reach their most formal in the final monumental stage, while still incorporating aspects of the local forms" (Kembel 2001:230; see also Kembel 2008). If the architecture of the ceremonial core began as something akin to the architecture of the Mito Tradition, in other words, by the time the complex was fully elaborated it had largely moved on—though not, the Mito structure described here suggests, abandoned those roots. This ties Chavín more tightly to highland antecedents,[11] rendering untenable Burger and Salazar-Burger's suggestion (reasonable though it was based on the data then available) that, "Chavín de Huántar had very little in common with the ceremonial centers of the Kotosh Religious Tradition" (Burger and Salazar-Burger 1980:32). Burger has also suggested that contrast between Kotosh and Chavín is an important feature of what marks the Early Horizon as distinct from earlier Peruvian prehistory, writing that, "The site of Chavin de Huantar...represents a rupture with the highland Kotosh Religious Tradition" (Burger 1989:52; see also, however, Burger's note that Huaricoto, linked by its ceramic style to Early Horizon Chavín, was participating in the KRT [Burger 1993:66]).

Instead, the evidence presented here suggests that Chavín, both in its origins and its florescence, seems to have maintained ties to Kotosh, or at least to the traditions for which that site serves as conceptual archetype. The presence of a Mito structure contemporary with the monumental core thus substantially reinforces Lumbreras's argument for locating Chavín's origins in Kotosh, encapsulated in his description of "una tradición [Kotosh-Mito] que no fue abandonada sino más bien continuada por los constructores de Chavín" (Lumbreras 1993:354; see also Lumbreras 1989:88–90).[12] Assessment of the role and number of such structures at Chavín, and evaluation of the degree to which the Chavín example follows the pattern of temple burial and reconstruction, await further excavation.

While it remains true that the monumental core of Chavín seems more linked to the coastal traditions of mound-and-plaza construction that date back as far as the Late Preceramic than to such highland centers as Kotosh (Burger 1989; Williams 1985, *inter alia*), these new data from the West Field suggest the possibility of a concurrent continuity between Late Preceramic Kotosh and Early Horizon Chavín, spanning approximately 1,000 years. Such long-term stability, interestingly enough, is precisely one of the characteristics Burger ascribes to the Initial Period on the coast (Burger 1992). The period is, however, sparsely documented in the Central Highlands, leaving the nature of the continuity between Kotosh and Chavín specifically, and between the Mito Tradition and ritual practice at Chavín generally, unclear.

The presence of a functioning Mito structure in the early part of the first millennium B.C. also has implications for our understanding of ritual practice and its sociopolitical underpinnings at Chavín. This find cannot be understood in isolation from the rest of the site—indeed, the coexistence of the Mito Tradition with the ceremonial practices of the site core is perhaps the most significant finding. This suggests not simply Mito Tradition roots for Chavín (as argued by Kembel (2001:226–227)), but also Chavín's adoption of the specific ritual architecture of the Mito Tradition. Such a syncretic approach is consistent with the models of Chavín's function proposed by Lumbreras (e.g., 1989), Burger (e.g., 1992), and Rick (2005; see also Kembel and Rick 2004), though these diverge substantially in other particulars.

Conclusions

The excavations described here demonstrate the presence of a Mito-style structure at Chavín, and the persistence of the Mito Tradition through approximately 800 cal. B.C. at the site. As such, they argue for an interaction—whose character remains to be defined—between Chavín and the highland centers of the Late Preceramic generally, and perhaps the Huallaga Valley specifically. Moreover, both the close association of this Mito-style structure with well-dated Janabarriu-style ceramics and the correlation of the radiocarbon dates from the structure itself with Kembel's architectural chronology suggest the close affiliation of this ritual space with the plazas and galleries of the monumental core.

The radiocarbon dates (Figure 7) from the hearth itself and from the overlying deposits associated with Janabarriu-style ceramics (Figure 9) reinforce the need to revisit Chavín's chronology, though

they are not sufficient in themselves to construct a new temporal framework. While these data do not constitute an argument for Kembel and Rick's proposed revision in particular (Kembel 2001:Table 7.2; Rick 2005:73), they are compatible with it. Most importantly they do emphasize the need for reexamination of the conflicting chronologies presented by Burger (1981, 1984), Lumbreras (1989), and Rick and Kembel (Kembel and Rick 2004), suggesting a significantly earlier appearance for Janabarriu-style ceramics than the 390 B.C. proposed by Burger.

The relatively late (with respect to the Mito Tradition) dates and the close association of the Mito structure with Chavín have broad implications for Central Andean prehistory. The longevity of the Mito Tradition, with the addition of this evidence, is extended by a millennium, to 2500–800 cal B.C.[13] This chronological revision has theoretical as well as typological consequences. The persistence into the Early Horizon of a tradition that dates back into the Late Preceramic reinforces the characterization of the Initial Period as ideologically (and, by extension, politically) stable. At the same time, its longevity also demonstrates that the Mito Tradition was not replaced by the mound-and-sunken-plaza ritual tradition, but that the two were able to coexist. Burger and Salazar-Burger suggest that this coexistence occurred at an inter-site level (see Burger and Salazar-Burger 1980:32), and these new data demonstrate such compatibility at an intra-site level. Similar juxtaposition is also in evidence at Caral, where the massive Templo Mayor houses a small Mito structure (among other constructions) on its summit (Shady and Machacuay 2003), perhaps suggesting that public, visible elite ritual activity took place within only a few meters of private and hidden activity. Pozorski and Pozorski also note the coexistence of divergent forms of ritual architecture at the coastal site of Huaynuná (1990), as does Montoya Vera (2007) at El Silencio.

This compatibility suggests the possibility of simultaneous coexistence of long-term stability (represented by the persistence of the Mito Tradition) and innovation and dynamism in ritual practice (represented by the development of the monumental core of Chavín). Such coexistence supports both Rick's recently articulated model of Chavín as an instance of created and manipulated tradition (see Rick 2005) and Burger's now traditional model of Chavín as a center of ideological synthesis (see Burger 1992:Ch.7), although Burger placed such activity several centuries later in time. It is also wholly compatible with Rick's suggestion (2005) that the canny (re-)use of extant, respected traditions was central to Chavín's innovative sociopolitical maneuvering. The contrasting models apparently owe more to divergent theoretical explanations for the motivations of prehistoric peoples than to disagreements about the specific historical trajectory at Chavín. The resolution of disagreements over the timing of that trajectory remains a necessary focus for future research, as the dates presented here highlight.

Theoretical disagreements over the underpinnings of prehistoric behavior notwithstanding, certainly such persistence of the Mito Tradition implies broad cultural continuity in the Central Andes. It is also testament to the potential for new data—even at a site with a long history of fruitful research—to provoke new questions and re-open old ones. Moreover, it also suggests a specific thread of continuity from the Late Preceramic through the Early Horizon. That architectural thread also explicitly links ritual practice in the Central Andean sierra to apparently similar practice on the coast, connecting the Central Andes spatially as well as temporally.

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Notes

1. Bonnier mentions that structures ER–28 and "probably" ER–20 at Kotosh were "framed with a clay molding" (Bonnier 1997:138), which may represent an analogous architectural element (see also Izumi and Terada 1972:160).

2. 2644 ± 45 (AA69446; wood charcoal; $\delta^{13}C = -23.2‰$) and 2712 ± 42 (AA69447; wood charcoal; $\delta^{13}C = -23.6‰$).

3. *Aluvión* is the Andean term for a catastrophic debris flow. In 1945 the site of Chavín de Huántar, and part of the adjacent town, was buried by such an event, the result of a landslide into a glacial lake high up in the Wacheqsa River drainage. The resulting debris flow—a slurry of rock, earth, ice, and water estimated at 900,000 m^3—descended the canyon of the Wacheqsa at an estimated 30+ km/hr, and buried Chavín under up to 4 m of sediment (estimates from Indacochea and Iberico 1947). The thickness of the deposit varies widely throughout the site, with the amount of deposited material and the size of entrained debris dependent on the energy of the flow in any given area.

4. 2506 ± 43 (AA69448; wood charcoal; $\delta^{13}C = -23.9‰$) and 2567 ± 42 (AA69449; wood charcoal; $\delta^{13}C = -22.1‰$).

5. Any discussion of the excavation context must also take into account the fact that our work did not reach sterile soil—as attested by the architecture visible in the cut of the Wacheqsa River (see Figure 6). Future work may be able to expand the stratigraphic exposure by working outside the boundaries of the chamber proper, thus avoiding the ethical imperative of not destroying the intact Mito chamber architecture. However, any future excavation will be tightly constrained by the steep slope to the south and the river cut to the north.

6. Ranging conceptually further afield, it also prompts questions (as yet unanswerable) about the possibility of heterarchical rather than strictly hierarchical organization.

7. In addition, Siveroni (2006) has recently criticized the very identification of structures with central hearths as ritual architecture.

8. "The temples that were built during this second half of the third millennium B.C. respond to formal, well-defined canons that permit the identification of a tradition of ritual architecture... We call this architectural and religious current the 'Mito Tradition' in reference to the site of Kotosh and the eponymous Mito phase, where its traces were discovered for the first time" [translation by author].

9. Lumbreras has argued, however, that this early ritual architecture in the Andean *sierra* itself was of a quality that reflects the existence of hierarchy and centralized control of labor (Lumbreras 1989:89); Onuki, with reference specifically to Kotosh, agrees (Onuki 1999:328).

10. Pozorski and Pozorski do not explicitly consider the Mito/Kotosh Religious Tradition distinction, but group the structures they describe in the Kotosh Religious Tradition. This choice is appropriate, as these examples of circular ventilated hearths in square or circular rooms seem to be more related to the Kotosh Religious Tradition generally than to the Mito Tradition specifically; their emphasis on the hearth is not accompanied by the elaboration of the construction housing the hearth that Bonnier clearly distinguishes as integral to the Mito Tradition.

11. Though the Mito-style structures at Caral suggest perhaps a more geographically widespread Mito Tradition.

12. "a tradition [Kotosh-Mito] that was not abandoned, but rather continued, by Chavín's builders" [translation by author].

13. As the Mito-style structure at Chavín may also be described as belonging to the broader category of the Kotosh Religious Tradition, its existence also reinforces Burger and Salazar-Burger's contention—based on the later hearths at Huaricoto (1985:118)—that the Kotosh Religious Tradition persisted into the Early Horizon.

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