

# The Significance of Chiripa in Lake Titicaca Basin Developments

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The site of Chiripa is located in Bolivia on the southern shore of Lake Titicaca. A series of structures revealed by excavation there have long been interpreted as ordinary houses of a residential village belonging to a relatively localized culture named Chiripa after the site. Using available published data as well as unpublished evidence, I have reinterpreted this unusual Late Chiripa architectural complex (ca. 600-100 B.C.), with its structures surrounding a sunken court, as a temple-storage complex. In this article I examine how it served as a direct model for the monumental temple complexes belonging to the later Pucara culture (ca. 100 B.C.) that are found in Peru at Pucara in the northern Titicaca Basin. The occupants of the high-prestige temple/storage complexes at Chiripa and Pucara may have been involved in the administration of ritual and worship, and even of production, distribution, and consumption, perhaps regulated by periodic ceremonies associated with the temples.

Chiripa was part of the widespread Yaya-Mama Religious Tradition, defined here for the first time, that appears to have unified populations in the Lake Titicaca Basin. This tradition directly contributed to Pucara, and in many ways persisted into later, more powerful Tiahuanaco, Huari, and perhaps even Inca societies (see map and chronology, pp. 2-3). Beginning at

least by Late Chiripa times, the Yaya-Mama Religious Tradition, named after the style of associated stone sculpture, was characterized by: (1) temple-storage centers such as at Chiripa, (2) Yaya-Mama style stone sculpture having supernatural images, associated with the temples, (3) ritual paraphernalia including ceramic trumpets and ceremonial burners, and (4) a supernatural iconography including heads having rayed appendages and a vertically divided eye.

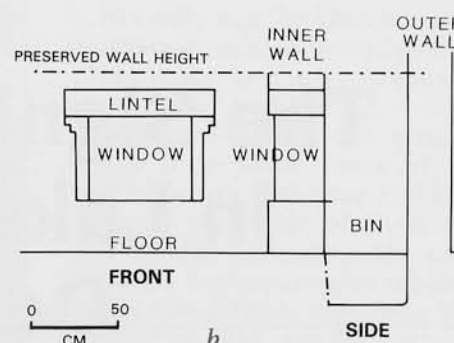
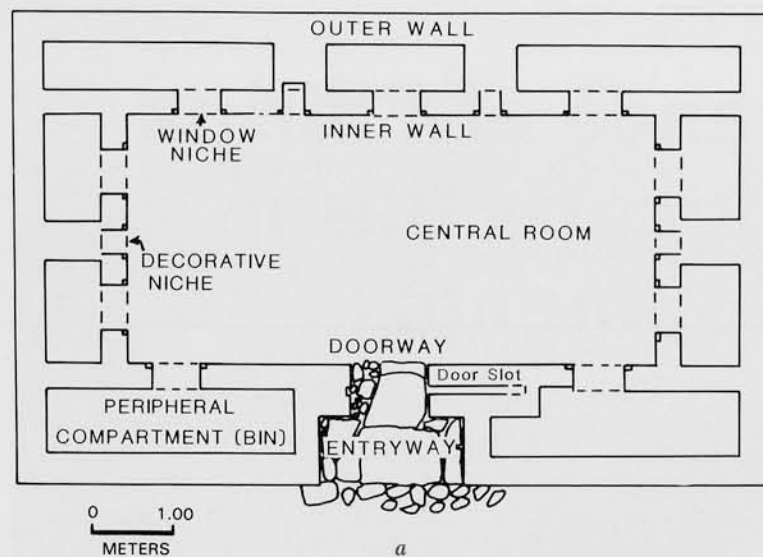
Tiahuanaco and the local societies that preceded it were set in the altiplano, a high, virtually treeless plateau that surrounds Lake Titicaca at over 3800 m. above sea level. This region provides both limitations and advantages in terms of subsistence (see Erickson, this

issue). The most salient limitation of the cold and altitude was on agriculture, so that crops included only native grains, like quinoa; and tubers, such as the potato. The open grasslands, however, were ideal for the hunting of wild guanaco, vicuña, and deer, and for the herding of domesticated llama and alpaca. In addition, the lake provided abundant resources like fish, fowl, and reeds used for such things as rafts for transport, roof thatching, and food.

The Tiahuanaco polity flourished between about A.D. 300 and 1200 and extended from southern Peru to parts of Chile and Argentina. It is named after the large urban and ceremonial site in the southern Lake Titicaca Basin that surely must have been its administrative and religious



1  
*Exposed north face of the Chiripa mound, Bolivia, in the area of Coe's excavation, 1955. The distance from the edge of the mound at right to the left (east) edge of the stone structure is 11 m. This stone structure belongs to the Middle Chiripa Level (900-600 B.C.).*



2a,b  
a) Plan of Bennett's House 2 (Structure 2) (from Bennett 1936:Fig.22). b) Partial elevation and cross-section of the northeast corner of Bennett's House 1 (Structure 1) showing the double jamb, double step fret on the window into the peripheral compartment or bin (from Bennett 1936:Fig. 20).

capital. Tiahuanaco religion, if not other aspects of the society, had a strong impact on the Huari state that expanded over much of highland and coastal Peru between ca. A.D. 550 and 750, all preceding by many hundreds of years the expansion of the well-known Inca empire between A.D. 1438 and 1532. Because the two cultures focused upon here, Chiripa and Pucara, preceded and were related to Tiahuanaco, they are crucial in understanding the origins of the Tiahuanaco state. My aim is to demonstrate a much more important role for Chiripa, and the system of which it was a part, in integrating Lake Titicaca Basin societies prior to both Pucara and Tiahuanaco.

## Chiripa

Located in the Department of La Paz on the Taraco Peninsula overlooking Lake Titicaca (Fig. 1), Chiripa is dominated by an artificial mound measuring 60 m north-south by 55 m east-west and about 6 m high, the top of which is some 25 m above the lake level (see Bibliographical Note). Excavation of this mound by Wendell C. Bennett in 1934 revealed two Chiripa levels: (1) "pre-mound" strata, below (2) the mound or "house" strata. Bennett felt the two were indistinguishable. He completely excavated two of the Chiripa structures of the upper "house" strata, and exposed part of a third (Fig. 2). These rectangular, once thatched build-

ings have double walls of adobe and rounded stones set in mud, and form a rough square or octagon around a central open area (Fig. 3). Bennett estimated there were 14 such structures, but more recent estimates include 15 (Kidder 1964) and 16 (Browman 1978); his interpretation of these structures as houses of a village has persisted in the literature. Finally, in the central depression of the mound, Bennett also defined a semi-subterranean stone-lined temple that he, and later Kidder, regarded as Decadent Tiahuanaco. The site yielded Inca and immediately pre-Inca remains as well.

The later excavations of Alfred Kidder II and William R. Coe in 1955 (Fig. 3) revealed structures below the upper "house" strata, confirmed that there were two superimposed Chiripa levels that were clearly distinguishable based on architectural features, and revealed evidence of a third, even earlier occupation (Kidder 1956, Mohr 1966). These excavations also yielded a series of radiocarbon dates indicating that the "Sub-Lower House Level" dated to ca. 1400-900 B.C., the "Lower House Level" 900-600 B.C., and the "Upper House Level" to 600-100 B.C. I will simply refer to these three phases as Early, Middle, and Late Chiripa, respectively.

Chiripa sites are distributed primarily around the southern part of the lake. They are found near Chucuito on the northwest, on the

Copacabana Peninsula, along the southern lake edge (including Chiripa and Pariti), on the east of the lake across from the Copacabana Peninsula, and northeast of Tiahuanaco somewhat farther inland.

There are several characteristics of the Late Chiripa rectangular structures and associated features that support the argument that they were part of a planned temple-storage complex. Browman discovered a rectangular subterranean temple or court under the Tiahuanaco one in the central area of the mound that he dated to his Mamani Phase (600-200/100 B.C.); it represents the earliest such structure known in the altiplano (1978:809; 1981:414). Other evidence links this central sunken court to the structures themselves. There were a series of red and yellow clay floors that started at the front exteriors of Houses 1, 2, and 3 (here referred to as Structures 1, 2, and 3) and dipped down toward what we now know must have been the sunken temple in the center (Coe notes). Chiripa layers that dipped toward the central area may also be observed in Bennett's profile of the mound, some of them terminating at a stone wall (1936:Fig. 24, 429). This wall might have been the retaining wall of a Chiripa sunken court, perhaps pre-Late Chiripa in date, and above it, other layers ended at a pit that may have once contained wall stones. The stone wall and the pit lie almost directly under the Tiahuanaco sunken tem-

ple wall. Furthermore, under the Tiahuanaco temple floor were a series of horizontal, superimposed yellow clay floors apparently associated with the wall and the pit that may have been the Chiripa temple floors. No colored floors appear to occur *behind* the Late Chiripa structures in either Coe's or Bennett's excavations, suggesting that the floors were an important characteristic of only the interior of the complex that linked the structures with the subterranean court.

The exteriors of the Late Chiripa structures show evidence of decorative painting. Bennett found clay bricks with different sides painted green, white, and red near Structure 2, although not in position. Four bricks came from the southernmost bin at about existing wall height and a fifth was in the doorway (Bennett notes). These locations place them at the front of the structure and strongly suggest they may have decorated the outside wall facing the sunken court. Bennett also observed that the front exterior of Structure 2 near the door possessed a reddish clay wash. Finally, Coe recovered painted clay bricks among debris outside Structure 3 on the sunken court side, and found a yellow clay slab (37 by 18 by 3 cm) with red paint on its exposed side, interspaced between cobbles on the exterior front face of Structure 3.

Structure interiors have yellow clay floors (Structures 1, 2, 3, and 5),

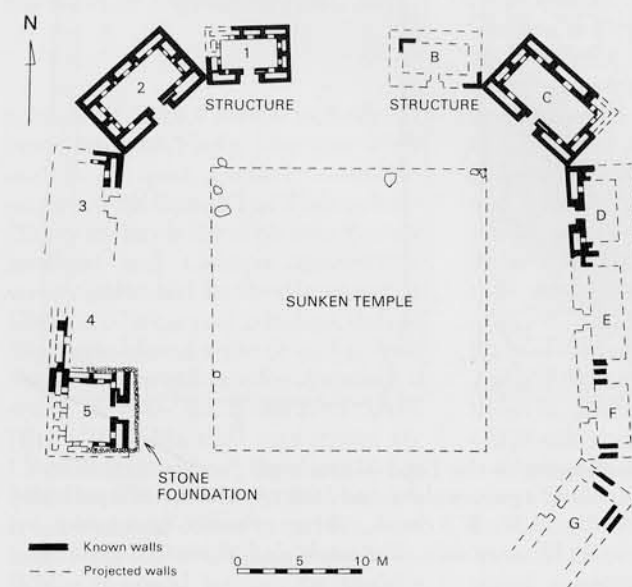
and walls have a thick yellow clay plaster or wash (at least Structure 1; Bennett 1936), or are in any case plastered (Kidder and Coe notes). The inner walls have nine window openings that provide access to individual bins. In Structure 2 there were also four decorative niches, two on the back inner wall placed in the dividing walls between the three bins, and one in each side wall also between bins (Fig. 2a). These niches are about 25 cm wide and 30 cm deep. On each side of every door (at least in Structure 1), window, and niche there is a decorative inset, perhaps 1.8 to 3 cm deep and 8 cm wide, forming a double jamb that has a double step fret at its top where preserved (Fig. 2b). These inset frets all face the central room interior, and also have a yellow wash (as in Structure 1) or are painted red-orange on yellow clay plaster (Structure C; Sawyer notes). A likely contemporary Epoch I whistle from Tiahuanaco also depicts a structure having a similar double jamb doorway with single step frets (Ponce 1972:Fig. 81).

This inset or double jamb with a double step fret continued in post-Chiripa times and is characteristic not only of special Pucara architecture, but also of the religious architecture and sculpture of Tiahuanaco, as well as high prestige Inca masonry (see Niles, this issue). For this reason the Chiripa insets do not appear to be casual decorations

for solely domestic houses.

The storage function of the peripheral compartments or bins within each structure was suggested by Bennett who found quinoa in one bin (Bennett and Bird 1964:106) and on the floor of Structure 1 (Bennett 1936:424). At the bottom of one of the compartments of Structure C there was a rounded impression of what looked like a basket (Sawyer notes). Both quinoa and ch'uñu (freeze-dried potato), as well as cordage and basketry, were found in fire debris dumped in front of and outside Structures 2 and 3, and quinoa and potato on the floor within Structure 5 (Kidder and Coe notes). Based on this direct evidence (grain and possible container within bins) and the form and size of the compartments, the storage function seems likely. It may be added that fish and camelid remains were found in refuse associated with the Late Chiripa Level as well.

If the compartments were storage facilities, then the high proportion of internal floor and wall space devoted to them—not only in each structure but in a repetitive plan for all structures that was costly in labor, materials, and living space—demonstrates the importance of storage at the site. Each structure has nine peripheral bins that start at floor level or below, with Structures 3 and C having stone covers at about 95 cm to 1 m above the floor (Coe and Sawyer notes). Furthermore, each structure has an elaborate inset entryway of greater width than the doorways (Fig. 2a). These entryways remove additional space that could have been used as internal living area, especially if domestic function were of primary concern.



3  
Site map of Chiripa (based on Sawyer map; Kidder and Coe notes; Bennett notes and 1936:Fig. 14; and author's additions). (Not shown: two Middle Chiripa structures excavated by Coe under Structures 2 and 3.)

### Late Chiripa Structures:

Structures 1 and 2 excavated by Bennett  
Portions of Structures 2 and 3 excavated by Coe  
Structure 5 and portion of 4 excavated by Kidder  
Remains of Structures B-G recorded by Sawyer

### Post-Late Chiripa Structures:

(Epoch III/Early Tiahuanaco, or earlier[?]):  
Sunken temple discovered by Bennett  
U-shaped stone foundation excavated by Kidder

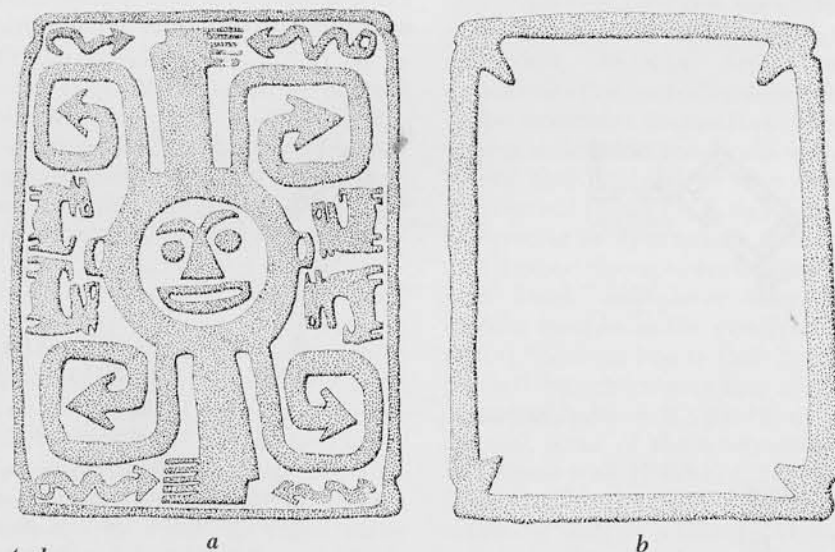
Specifically, 38 percent of the total internal open floor area of Bennett's Structure 1 is used in peripheral compartments, while the central room constitutes 62 percent. Expressed in a different way, of potential living area (using internal dimensions of the outer walls) the central room is only 43 percent of that area, while 57 percent is devoted to storage, inner walls to construct them, and to the inset entryway. Structures 2, 5, and C show this same proportion in the use of space. Storage space is not only abundant and costly, but it is also restricted by windows that are relatively small and certainly quite ornate. These characteristics argue against storage of items for use in ordinary domestic living.

One could not walk into any of the bins; rather, all bins were accessible only through small windows about 60 by 50 cm, and 30 cm above the floor. A person would have to bend over or kneel and reach across the approximately 30 cm wide window sill to get to the items stored. The bin capstones at 95 cm to 1 m indicate an adult could not stand upright within them. Bulky items, such as large full sacks, would be difficult to maneuver through these ornate windows, and frequent deposition and withdrawal of goods would likely lead to rapid window destruction. Photographs (Kidder's Structure 5) seem to indicate lack of wear around the windows. Items would most easily be stored if they were small and readily manipulated. The impression is, however, that access was restricted to specified persons and occasions—perhaps during periodic use such as seasonally or as determined by ceremonial cycles.

In addition, the structures have no windows to the outside, and the front door that faces the sunken court provides the only access into them. The doors, perhaps of wood or reed, were unique; when open they would slide into a slot in the inner wall, on the left side of the doorway viewed from inside. When closed the door would fit into a vertical groove on the opposite side of the doorway. Structures 1 and 5 show that the sliding door had two panels, each only about 50-56 cm in height, one above the other and separated by a level of stones across

the door slot; a stone in the vertical groove on the opposite side supported the upper panel when closed (Bennett notes and 1936:424; Kidder notes). In Structure 1 there was also a second row of stones above what would have been the upper door panel. If this upper row of stones marks total door height, then the door opening would be only ca. 1.10 m high by about 80 cm wide. Structure 1 also has an awkward sill 30 cm high to step over as a person bends to enter. The curious double panel suggests that the upper half could be open while the lower was closed. This arrangement would serve well for receiving or distributing stored materials, such as between persons inside (likely seated or kneeling because of low door height) and outside in the inset entryway. Both door and entryway elaboration suggest some important function.

In broader perspective, one could argue that access to stored materials, and hence their protection, within the entire complex was controlled on three levels. First, based on current evidence, passage into the complex was restricted—shared walls between the three eastern structures (D-F), adjoining walls in two western ones (4 and 5), and abutting interior corners of two to three diagonal structures (1 and C and apparently G) prohibited en-

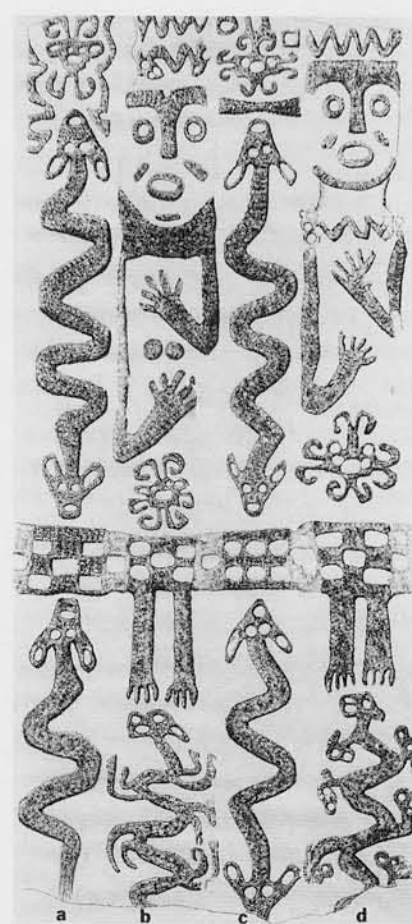


4a,b  
a) Slab from Chiripa belonging to the Yaya-Mama style (no context). The head with appendages, round eyes, snakes, and lack of incision compare to attributes of the stela in Fig. 5. W. 37.5 cm, L. 53 cm. (From Chávez and Chávez 1976:Fig. 10a,b) b) Reverse side. The unshaded depressed area has the form of a cross formée.

trance. Second, access to each structure was restricted by the low, specially constructed doorways. Third, access to the contents of each bin was limited by a single small, ornate window.

High-status individuals likely resided and carried out special activities in the structures. The considerable amount of refuse found in and around the Chiripa structures (especially behind them), including food remains and sooty cooking pots, suggests residence, but such refuse may also have accumulated during seasonal public gatherings for ceremonial and economic activities, for example. If these structures are not ordinary houses, then such houses may be located elsewhere off the mound, perhaps to the north where Bennett found Chiripa refuse.

Associated remains also support the inferred ceremonial function of the complex. Sergio Chávez and I (1976) isolated and defined the Yaya-Mama style of stone sculpture based on a group of slabs and stelae, including pieces from Chiripa (Fig. 4), found all around the lake but concentrated at its southern end. The style was named after a stela found at Taraco, Peru, at the northern end of the lake (Fig. 5). We argued that the style was pre-Pucara in date, and iconographically antecedent to Pucara, and was



5  
Rollout drawing shows the four carved faces of the Yaya-Mama stela from Taraco, Peru. A female (face b) and male (face d) personage are on opposite faces. Max. H. 221 cm (face b), upper W. 21-22 cm, basal W. 27-29 cm. (Scale at left is 1 m. Drawn from rubbing by S. Chávez. A drawing of this stela, before its complete disinterment, appeared on the cover of Expedition 12(4), 1970.)

related to Late Chiripa pottery. It best dates to Early Horizon 9-10, and is at least partially contemporary with Epoch I at Tiahuanaco (Early Horizon 10). This pre-Pucara position and Chiripa association were confirmed by the discovery at Chiripa of a carved grinding slab in the Yaya-Mama style (Fig. 6), with the same raised border forming a cross formée as decorated slabs (Fig. 4b). This slab was found by Coe 10 cm above the floor of a Middle Chiripa structure on ash from burning of the structure, and under the Late Chiripa structures. While it could belong to Middle

Chiripa times, it could also have been placed there by Late Chiripa builders. In any case, it is no later than the Late Chiripa occupation. Browman also found a stela and a wall plaque fragment evidently associated with the Late Chiripa temple (1978:809).

Some or all of these pieces of stone sculpture may have been sacred objects, some even bearing depictions of supernaturals that were part of the Yaya-Mama religion, such as on the Taraco stela (Fig. 5). Rowe (Chávez and Chávez 1976:66) has interpreted Stela 15, belonging to the Yaya-Mama style, as the principal cult object of the Semi-subterranean Temple at Tiahuanaco, a shrine likely built by people using Qalzasaya-style pottery corresponding to Early Horizon 10 or Epoch I. Although depictions of these supernaturals do not occur at Chiripa itself to my knowledge, other elements found on sculpture there directly relate to them (Fig. 4). The fact that stone sculpture with religious iconography was found in the Chiripa complex also supports the interpretation that the complex functioned as a temple.

All excavated Late Chiripa structures appear to have had associated ceramic tubes or trumpets which, I would argue, are ritual paraphernalia (Bennett notes and 1936:443, Fig. 28g; Mohr 1966:Figs. 43-45). Their careful manufacture around grass molds, well-smoothed exteriors, and special decoration make them stand out from the rest of the Chiripa pottery inventory (Fig. 7). They have a small vertical handle near the wider bell end for carrying or suspension. Decoration consists of modeled felines or ducks, as well as raised decorative bands. Grooves and punctation contain red and white paint applied after firing. Most are black or brown in color, but some are red. We have excavated similar trumpet fragments from pre-Pucara levels at the site of Taraco. Bennett also encountered them in the Chiripa levels at Pariti (1936:449 and Fig. 28h).

Elements of Yaya-Mama Religious Tradition iconography are found on both Chiripa pottery and Yaya-Mama style stone sculpture. A sherd excavated by Bennett from

the field north of the Chiripa mound in Chiripa levels has a modeled anthropomorphic face with at least two attributes that indicate supernatural status—a divided eye and a tear band or eye ornament (Fig. 10). This face, to my knowledge, displays the earliest known occurrence of the vertically divided eye in Andean iconography (the sherd also has grass temper, typical of Chiripa pottery). Moreover, there are indications of at least five grooves emanating from around the face that might represent rayed appendages, another indicator of supernatural status. Heads with such appendages are a prominent constituent of Yaya-Mama religious iconography and occur on slabs (Fig. 4) and on stelae (Fig. 5). Animals having a profile body and upturned tail, which Bennett called



6  
Grinding slab found above the floor of a Middle Chiripa structure and under the Late Chiripa structures. W. ca. 32.5 cm, L. 45 cm, Th. 4.5-6.5 cm. Compare to Fig. 4b.

pumas, also occur on Yaya-Mama style sculpture (Fig. 4) and as modeled appliqué on Chiripa ceramic trumpets (Fig. 7) and vessels. Front-faced, profile-bodied felines, although clearly spotted (unlike pumas), also occur on Epoch I (Qalzasaya style) pottery (Poñce 1971). Other religious elements that occur on Chiripa pottery and/or Yaya-Mama style stone sculpture include checkered crosses, relief rings, serpents, frogs/toads, and the cross formée formed by raised borders of slabs (Figs. 4 and 6).

## Pucara

Characteristics of the Yaya-Mama Religious Tradition, as especially exemplified at the site of Chiripa, continued into and contributed toward the Early Intermediate Period Pucara culture (see chronology, p. 2). The Pucara culture is named after the site located on the Pucara River some 60 km from the northern end of Lake Titicaca in the Department of Puno (see cover of this issue). Pucara includes both residential and ceremonial areas and is one of the largest early sites in the region. It is known for its elaborate stone sculpture, fancy incised polychrome pottery, and finely dressed stone masonry resembling Tiahuanaco materials in Bolivia.

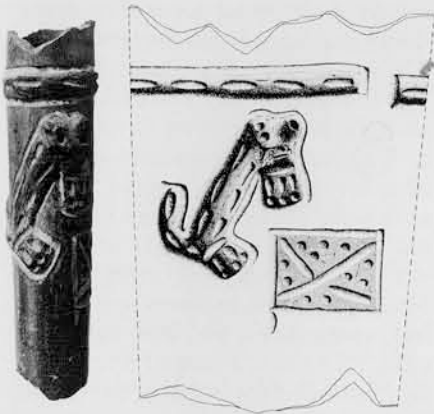
Alfred Kidder excavated six locations at the site in 1939 (Fig. 8; see Kidder biography in this issue): Excavations I, II, and III in river bank midden deposits; IV in a complex of structures on the plain west of the river and south of the modern village; V in the largest structure at Pucara (designated as Enclosure 4); and VI where he completely exposed Enclosure 2 (Chávez and Chávez n.d.). He mapped six such enclosures, each a building complex interpreted as a temple. These enclosures were built on a massive stone platform system he called Qalasaya, nestled at the foot of an impressive cliff.

The plan of Enclosure 2, where Excavation VI took place, is shown in Figure 9. There are striking similarities in overall plan and conception to the Late Chiripa temple complex (Fig. 3). On the top construction level (Kidder's Level 1) a series of structures or rooms enclose a central sunken court below (Level 3), with a level in between (Level 2). Except for passageways from the exterior that provide entry into the enclosure, the adjoining structures (Divisions A-I of Kidder) share walls as at Chiripa (Structures 4 and 5 and D, E, and F). Divisions A through I repeat in general plan, and form a U with three rooms on the west, two on both north and south, and a diagonally oriented division at each corner. The major difference is the U-shape of the Pucara complex, its open side over-

looking the terrace wall and facing the river. Based on surface indications, other Pucara enclosures may have had four sides, however. Also, unlike Chiripa corner structures that have open exterior spaces on each side, the corner divisions at Pucara have inner spaces accommodated within an angled outer wall. The prepared floors of Level 1 divisions are smoothly plastered, pebbly red adobe.

The overall plan of the enclosures at both Chiripa and Pucara is slightly trapezoidal, and outside dimensions are very similar: for Pucara a reconstructed maximum of 47.4 m (north-south) by 44.0 m (east-west, to terrace wall); for Chiripa, projected from existing or reconstructed structures, 48.4 m (east-west) by 44.8 m (north-south). The sunken court at Chiripa is projected to be ca. 22 by 23.5 m and 1.5 m deep (Browman 1978:809), while at Pucara it is smaller, ca. 15 m by 16 m and 2.2 m deep. Other enclosures at Pucara, however, vary in outside dimensions and in the size of their sunken courts. The Semi-subterranean Temple at Tiahuanaco is largest, its sunken court measuring 26.0/26.1 by 28.5/28.6 m and 1.7 m deep (Ponce 1969:56, 58).

Just as at Chiripa, each division at Pucara has inner walls that define compartments; in Enclosure 2 most appear to have had eight peripheral compartments, while the corner



7 Late Chiripa ceramic trumpet found inside Structure 5 (CH-A-30). White and red post-fire paint are present in grooves and punctations. Right: rollout drawing by W. Coe. Ext. diam.: Top, 4.8 cm; Bottom, 3.9 cm.

rooms have nine as at Chiripa. In the case of Divisions E and F, peripheral compartments between them were evidently shared. Furthermore, the entryways into each division, like those at Chiripa, were wide and set in from the exterior walls facing the sunken court; at Pucara entryways are trapezoidal in plan rather than rectangular.

A comparison of open floor areas between Chiripa and Pucara structures shows that the relative proportion of central room to peripheral compartments is very similar, averaging 65:35 percent in Chiripa and 64:36 percent at Pucara. While these internal areas at both sites overlap, there is a tendency for Pucara floor spaces to be larger. At both sites, floor areas of corner structures are larger than side structures. The peripheral compartments at Pucara were more accessible than those at Chiripa since entrance to them was through doorways, frequently having raised sills, rather than windows, but their function may also have been for storage. Furthermore, rear compartments were almost 1 m wide, providing greater maneuverability than the approximately 50 cm wide Chiripa bins.

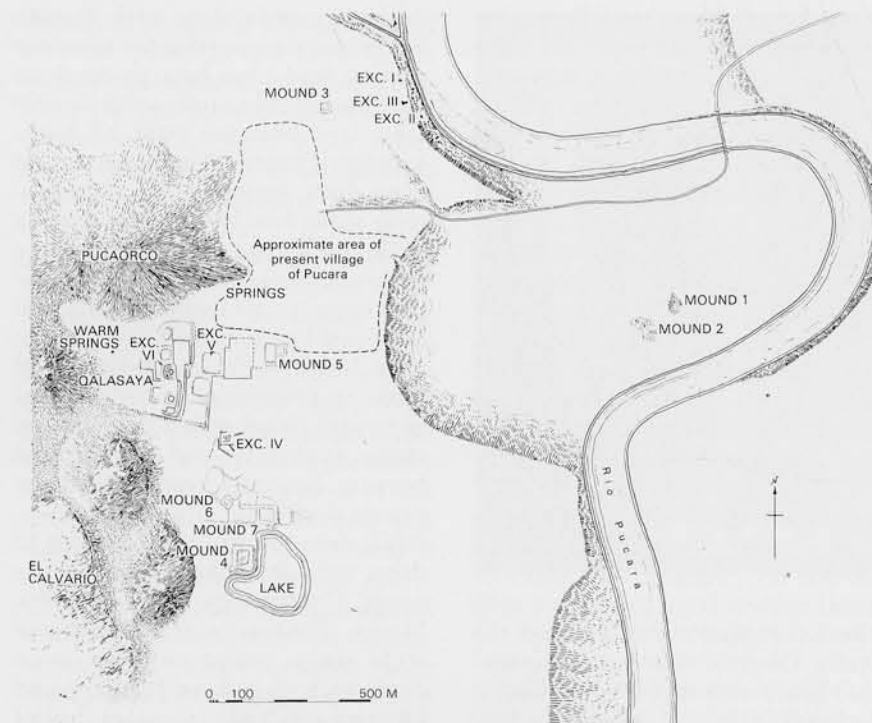
The same stepped fret and double jamb combination also occurs at Pucara in the entrances to four grave chambers, one in the center of each wall of the sunken court. These entrances consist of stone slabs, stepped ones in front and rectangular ones behind (Fig. 12). Furthermore, the stones on each side of many doorways into the back, side, or front peripheral compartments have been vertically notched, creating insets or double jambs. The doorway into Division E also has a vertically notched jamb on its exterior.

In the center of each short wall of each division are flat-topped blocks Kidder called altars, although they essentially form niches between two compartments. There is evidence they were boxed on three sides and open toward the central room; there is no direct evidence for a top cover preserved. Their placement resembles the niches between interior windows in Bennett's Structure 2 at Chiripa (Fig. 2a).

There is no evidence of sliding doors in Enclosure 2 at Pucara, and doorway plans are trapezoidal, both into the divisions and into the peripheral compartments. Pucara masonry is also different, being much more elaborate than that at Chiripa. Blocks are cut, well-dressed (reflecting greater labor expenditure), and laid in adobe; walls were likely higher than preserved, perhaps of adobe or stone set in mud.

As at Chiripa, stone sculpture was directly associated with the Pucara temple. Kidder recovered six broken statues and two carved slabs within the sunken court, as well as fragments of large carved stone bowls (Chávez and Chávez n.d.). These pieces clearly show a powerful religious ideology. Other Pucara ritual paraphernalia include ceramic trumpets that are very similar in form, size, and manufacturing technique to Chiripa ones (Fig. 11). Pucara trumpets have the same small handles and raised decorated bands, and blackened interiors also show the impressions of the wrapped grass mold used to make them. In addition, more elaborate ceramic pedestal-based bowls or ceremonial burners continue in Pucara from Qalasaya-style ones and pre-Pucara ones from Taraco.

Yaya-Mama Religious Tradition iconography found on Yaya-Mama style stone sculpture and Chiripa and Qalasaya-style pottery also continues into Pucara stone sculpture and pottery. Furthermore, although decorated Chiripa pottery is usually painted cream on red, some sherds (with the diagnostic grass temper) have polychrome geometric designs in red, black, and cream outlined by incision. This same tri-color incision characterizes Pucara-style pottery, and designs are geometric and/or representational. Commonly, elaborate incised polychrome supernatural felines, having profile bodies and modeled front-view heads, decorate Pucara trumpets (Fig. 11) and, in pairs, opposite sides of pedestal-based bowls. Although not very realistic, the relief felines on Chiripa pottery resemble Pucara-style ones in their general configuration, occasional occurrence of what appear to be spots, and in their



8 Map of the site of Pucara showing the locations of Kidder's 1939 excavations. (Based on Kidder's map, Chávez and Chávez n.d.)

placement on trumpets (Fig. 7) and bowls (although without pedestal bases) apparently in pairs. Qalasaya-style pottery (Ponce 1971) comes closer to Pucara in having profile-bodied, front-faced (but not in relief) spotted felines in colors outlined by incision; these vessels were associated with the pedestal-based bowls noted previously. Pucara-style pottery, however, is more complex than Chiripa or Qalasaya-style pottery and possesses new mythical themes.

### Antecedents and Continuities of the Yaya-Mama Religious Tradition

Excavating the Late Chiripa structures, Coe encountered remains of two structures belonging to the Middle Chiripa occupation (900-600 B.C.), with features antecedent to the Late Chiripa patterns. The two Middle Chiripa structures were single-walled, oriented north-south, and separated from one another. They were beneath but not coincident with Structures 2 and 3 of the Late Chiripa Level, and the one under the diagonally oriented Struc-

ture 2 was not so oriented. Similarities include an interior niche in the corner of the north wall of one structure, measuring 53 cm deep by 35 cm wide and at least 66 cm in height. As with Late Chiripa bins, its floor approximately coincided with the floor of the room itself. Other niches may have existed, but only one quarter of this structure was uncovered. The niche was plastered with yellow clay on its floor and walls, and the floor of the room was painted red on yellow clay. This kind of plastering and use of color continued in the Late Chiripa constructions, and suggests a special function that may have been at least in part ceremonial. Such deep and high niches enlarged in width would have the form of the Late Chiripa bins, but necessitate a double-wall construction since the niche structurally weakened the wall. The size increase suggests a greater storage capacity was required.

In a cross-section of the Chiripa mound in the same area he excavated, Coe recorded a red clay floor, probably representing the exterior of one of the Middle Chiripa structures. This floor extended eastward toward the center of the

mound and, like the yellow clay floors above it, suggests the existence of an earlier central (sunken?) temple. Browman noted that during his Llusco Phase a series of houses surrounded what evidently was an open plaza area (1978:808).

As for iconographic antecedents to the Yaya-Mama Religious Tradition, there are checkered crosses on pottery and bone from the site of Marcavalle near Cuzco dating to about 1000-650 B.C. Similar sherds come from the surface of early sites such as Qaluyu and Taraco in the northern Lake Titicaca Basin. Tear bands or eye markings on pottery figurines from the surface of Marcavalle also likely date to between 850-650 B.C. Finally, on a series of metal objects from the Cuzco area (the Echenique collection and the Disco Oberti), the anthropomorphic head with rayed appendages, the cross formée, quadrupeds, tear bands, and other motifs occur; if their date as Early Horizon 6 is correct (Rowe 1977), they may also date to about 900-600 B.C. Evidence of early contact between the Cuzco region and the southern end of the Lake Titicaca Basin is reinforced by the discovery at Marcavalle of what appears to be a Chiripa grass-tempered sherd in Phase D (ca. 650 B.C.).

Yaya-Mama Religious Tradition architectural, artifactual, and icono-

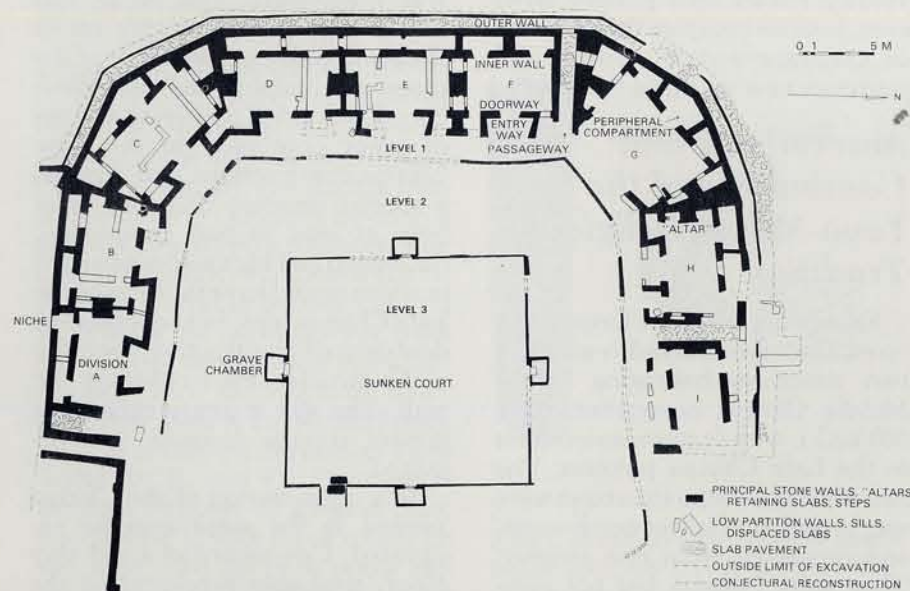
graphic continuities with Pucara have been discussed in the previous section, and it has been pointed out that the double jamb with double step fret became part of high-prestige Pucara, Tiahuanaco, and even Inca masonry. The Pucara-style stone bowls found by Kidder in the sunken court at Pucara have anthropomorphic heads with appendages, providing a stylistic and temporal link between Yaya-Mama style heads with appendages and those so prominent in the Tiahuanaco and Huari styles. Tiahuanaco stone sculpture and ceremonial burners become much more elaborate during the Middle Horizon, while ceramic trumpets appear to drop out altogether after Pucara times. Continuities between Yaya-Mama, Pucara-, and Tiahuanaco-style stone sculpture have been dealt with elsewhere (Chávez and Chávez 1976:67). Crosses, relief rings, quadrupeds, serpents, and anthropomorphic personages continue from Yaya-Mama to Pucara and Tiahuanaco, although with differences, and frogs/toads disappear after Pucara times. The divided eye and tear bands persist in Pucara, Tiahuanaco, and Huari pottery styles, as do felines.

At Chiripa, at least the architectural part of the Yaya-Mama Religious Tradition continued, as shown by a three-sided (all but

rear) cobblestone foundation superimposed above and virtually congruent with Structure 5 (Fig. 3); it was precisely aligned with the Tiahuanaco central sunken temple excavated earlier by Bennett. The alignment of the cobble wall with this sunken court argues for their contemporaneity. Both Ponce (1970:59) and Browman (1978:809-810) have recently dated this sunken temple, previously regarded as Decadent Tiahuanaco in age, to Early Tiahuanaco or Epoch III. The fact that the three-sided foundation was so precisely situated above the Late Chiripa structure suggests its builders knew the older overall plan and were intentionally repeating some of the traditional canons of the ceremonial complex; it further suggests that not much time had elapsed between the disuse and abandonment of the Late Chiripa temple complex and the later three-sided structure and new sunken temple. The correspondence between Structure 5 and the cobble foundation above, as well as the latter's alignment with the Epoch III (or older) sunken temple, also pointed to the possible existence of a Late Chiripa sunken court, which was indeed found.

The association of a surrounding series of structures with a subterranean court in Chiripa, Pucara, and post-Chiripa times suggests that there could be comparable, unexcavated structures around other such sunken courts, including the Semi-subterranean Temple at Tiahuanaco itself. This temple likely dates to Epoch I and belongs to the Yaya-Mama Religious Tradition. It and Stela 15, belonging to the Yaya-Mama style, were reused in Epoch IV when the Middle Horizon Bennett Monolith, or Stela 10, was erected next to Stela 15 in the temple (Ponce 1969:88). This prominent reuse shows the continued importance of the sunken temple and this Yaya-Mama style sculpture in the Middle Horizon.

Other complexes like Chiripa should be found, perhaps buried under later temples, most predictably where Yaya-Mama style sculpture has already been located. In fact, the 1970s excavations by a Peruvian-UNESCO project at Pucara revealed a platform dated to



9

Plan of Enclosure 2 (temple) at Pucara (Kidder's Excavation VI). (Based on Kidder's plan, Chávez and Chávez n.d.)



0 5 cm

10 Modeled appliquéd head on Chiripa pottery vessel. Note the divided eye and tear band or eye ornament elements that were omitted in Bennett's original publication (1936:Fig. 28b). Some grooves contain post-fire cream paint. Excavated by Bennett from pit CH 8 (1 to 1.5 m deep) at Chiripa. (American Museum of Natural History, specimen number 41.1/3907)

ca. 800-200 B.C. underlying the one upon which Kidder's Enclosure 2 was built (Lynch 1981). This earlier construction may provide evidence for another temple complex belonging to the Yaya-Mama Religious Tradition; it was also associated with sculpture and polychrome incised pottery (Mujica 1987). The use of ancient sunken temples has continued to the present in the altiplano, as documented by two such temples on Amantani Island in the northwestern part of the lake, one associated with a male and the other with a female deity (Niles 1987).

## Discussion

The evidence supports the interpretation that Chiripa was a temple-storage complex planned as a unit. The central sunken temple was linked by colored floors to the enclosing structures that were decorated on their front exteriors. Elaborate doorways, interior windows into bins, and wall niches, all having double jambs with step frets, as well as inset entryways, yellow plastered interior walls, and yellow clay floors, argue against ordinary domestic use of the structures. Similarly, storage space is abundant and yet made relatively inaccessible by

elaborate windows. The associated ceramic trumpets and Yaya-Mama style stone sculpture further reinforce the ceremonial nature of the complex and relate it to other altiplano sites that, in addition to trumpets and sculpture, also had ceremonial burners.

Chiripa was a significant part of a regional religious system, the Yaya-Mama Religious Tradition, that unified groups around and near Lake Titicaca who appear to have used different pottery styles (e.g., Chiripa and Qalacasaya styles). The site provides a unique opportunity to examine the development of this tradition from Late Chiripa, and earlier, to post-Chiripa times, a span of some 1000 years or more. Chiripa must have been a sacred center for hundreds of years, serving as a source for later, more centralized Pucara and Tiahuanaco developments. Detailed similarities between Chiripa/Yaya-Mama and Pucara temple complexes, ritual paraphernalia, and stone sculpture demonstrate that the tradition persisted in many ways. Storage of some significant kind, and high-status activities appear to have occurred at the temple complexes at both sites, and at Pucara at least six enclosures were involved.

Many questions emerge about what kinds of social, political, and economic organization were involved in the unification that the shared religious ideology reflects. What was being stored in the compartments at Chiripa and Pucara, who controlled these items, and how? Careful contextual data, bin by bin, are necessary to answer such questions, but the quinoa and basket impression at Chiripa are suggestive. The work of Erickson (this



11 Pucara-style trumpets from Pucara. Like Chiripa trumpets (Fig. 7), the incised and relief figures face the trumpeter when the instrument is being played and remain upright when suspended from the bell end. The specimen on the left has a mythological feline and the lower portion has been reconstructed; Diam. of bell 7.5 cm. The specimen on the right is the lower portion of a different trumpet. Compare to Fig. 7. (Museo Nacional de Antropología y Arqueología; left, specimen number P/8425(58), right, PU/23476S)

issue) shows that raised fields were being constructed at least in the northern end of the lake during Yaya-Mama and Pucara times, while they were used in the southern end at least by Tiahuanaco times (Kolata 1987). It is tempting to suggest that the storage at both Chiripa (although in the south) and Pucara is related to the increased agricultural production the raised fields would have allowed. Some of



12 East grave chamber in the sunken court of Enclosure 2 at Pucara; man is standing between the double jamb, stepped fret entrance. (Photo taken in 1970)

this food may have been used in ceremonies, offerings, public feasting, and maintenance of the high-status authorities and their families, as well as other activities. Special seeds for planting, sacred objects, wool, textiles, or other goods may

also have been stored. The predominantly lakeside localities for the Yaya-Mama Religious Tradition (riverine for Pucara) would have provided a setting with diverse and abundant resources for these developments. The Yaya-Mama reli-

gious ideology may have served to unify otherwise diverse groups by exacting participation in ceremonies, determined by a ritual cycle and coordinated by persons of high rank, that also involved economic and social activities. **Z**

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Wendell C. Bennett of the American Museum of Natural History in New York first excavated the site of Chiripa in 1934. Bennett (1936:413-456, 502; 1948) was the first to define the Chiripa culture based on his excavations here and at Pariti, a nearby island where Chiripa refuse also occurred. In 1955 Alfred Kidder II (1956), assisted by William R. Coe, conducted excavations at Chiripa as part of a University Museum expedition. Alan R. Sawyer also participated, as did Gregorio Cordero Miranda of Bolivia. This investigation provided data that clarified many of the issues raised by Bennett, but also posed new questions. In 1974-75, David L. Browman of Washington University conducted excavations at Chiripa that led him to propose three phases of Chiripa occupation that likely correspond to the three components discovered by Kidder and Coe: Condori Phase, 1300-850 B.C.; Llusco Phase, 850-600 B.C.; and Mamani Phase, 600-200/100 B.C. (Browman 1978, 1981:412-414). Other excavations have been carried out at Chiripa that also remain unpublished. The unpublished 1934 field notes of Bennett, in the American Museum of Natural History, and the 1955 materials of Kidder, Coe, and Sawyer have been consulted and are referenced in the text as "notes" to identify unpublished information. A full report on Kidder's Chiripa work is to be published as a monograph, *Tiahuanaco, Chiripa, and Qaluyu: The 1955 Expedition of Alfred Kidder II* by Karen and Sergio Chávez.

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Photo by Robert Barclay.

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