

**How Archaic is that Archipelago?  
The Huaracane Tradition and the Antiquity  
of Vertical Control in the South Andes**

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One of the constants of Andean life is the establishment of economic access to lowland resource zones by highland peoples. The nature and antiquity of this "vertical control" has been a critical issue in Andean archaeology.

One specific form of vertical control, dubbed the "vertical archipelago" by John Murra, has been of particular interest in the south central Andes. In this now-familiar model, based on Garci Diez de San Miguel's account of the Lupaqa Ay-mara kingdoms, highlanders established an "archipelago" of colonies in lowland valleys to cultivate lowland products such as maize, ají and coca.

At the risk of oversimplifying, we define an "archipelago" of direct colonization by two criteria: RESIDENCE in lowland zones, and IDENTITY with highland

polities. The archaeological correlates of direct colonization, are, therefore: a) evidence of domestic habitation, and b) material evidence of maintained identity, through cultural and social links to a highland center.

The failure to meet both of these conditions would signify a socio-political configuration other than a colonial "archipelago". Domestic habitation WITHOUT clear evidence of highland identity would indicate a resident population of a local tradition. Conversely, isolated objects of highland identity without evidence of residence would suggest non-colonial patterns such as long distance exchange.

**L SLIDE: SOUTHERN PERU MAP; R SLIDE: VALLEY VIEW**

The Moquegua Valley of southern Peru, one of the lowland valleys colonized by the Lupaqa, is an important area for the testing of the 'vertical archipelago' model in prehistory. This section of the Osmore river drainage, between elevations of 900 and 2000 masl, lies midway between the altiplano and the Pacific coast. Because of its temperate climate and access routes to coastal resources, Moquegua has long been considered one of the most likely areas for early "vertical archipelagos" of altiplano colonists.

**R SLIDE: PHOTO OF PAUL**

Previous research has demonstrated that colonies of Tiwanaku affiliation dominated the valley in the Middle Horizon. Colonial Tiwanaku residential, mortuary and ceremonial sites in Moquegua were found to have structure, contents, and activities indistinguishable from those of altiplano Tiwanaku prototypes. Fulfilling our criteria for residence and identity, Moquegua's Tiwanaku occupation may be considered a clear case of altiplano colonization, rather than the co-option of an indigenous local tradition.

Today we will use new survey and excavation data to address whether the antiquity of this sort of direct altiplano colonization can be extended to the Pre-Tiwanaku occupation of the Moquegua Valley. We will concentrate on the earliest phases of pottery-using agrarian society in Moquegua, known as the HUARACANE and TRAPICHE phases.

## **L SLIDE: CHRONOLOGY**

Others have suggested that these phases represent early manifestations of altiplano colonization. Early reports on the Huaracane phase, citing general similarities in pottery, speculated that the phase may represent colonists affiliated with the Chiripa culture. Similarly, the Trapiche phase, distinguished by zoned-incised painted pottery similar to the Pukara style, was thought to indicate the presence of Pukara colonists. These associations, although they were based on very preliminary information and intended as hypotheses, have nonetheless made their way into the secondary literature.

The Moquegua Archaeological Survey, an ongoing systematic settlement pattern survey in the Moquegua Valley, directed by Goldstein, with support from the Wenner-Gren foundation, the J.M.Kaplan fund, and Programa Contisuyu, has yielded a wealth of new evidence relevant to the definition and interpretation of these two phases. Our 1993 and 1994 seasons have provided new information on the distribution of material culture, settlement and mortuary patterns, religious practice, and ritual behavior. This new survey evidence, in concert with data from earlier excavations also directed by Goldstein, allows us to begin to revise our conceptions of the Huaracane and Trapiche phases. Because the altiplano affiliation of these phases was based on artifact similarities, we will begin with material culture.

## **MATERIAL CULTURE**

### **L SLIDE: HUAR VEGETAL, ARENA PHOTOS; R SLIDE: HUAR ARENA DRAWINGS**

Vegetable fiber-tempered Huaracane pottery provided the initial indication of a Chiripa affinity for the phase. However, our survey found that the fiber-tempered ware, Huaracane Vegetal, accounts for only 5-10% of the surface assemblage of Huaracane sites. The most common type, Huaracane Arena, is a sand-tempered

plainware. Thus, the frequency of fiber temper in Huaracane ceramics has been greatly overstated.

Huaracane vessel forms consist almost exclusively of neckless ollas, with occasional bowls and small-necked jars or bottles.

**R SLIDE: HUAR. ARENA BOTTLE**

Sand tempered neckless ollas are characteristic of the Early Chiripa, or Condori phase, but they also appear in a range of early south-coastal pottery. The Condori Phase was replaced at Chiripa around 800 BC by the Chiripa Llusco and, later, Mamani Phases. [L SLIDE: TYPICAL MAMANI PHASE POT] These phases were characterized by greater use of fiber temper in plain ollas, but also included the well-known Chiripa polychrome pottery style with its characteristic shapes, geometric decoration and zoomorphic modeling.

No Huaracane counterpart to these 'Classic Chiripa' vessels has been encountered.

**L SLIDE: HUAR. FINO PHOTO, EXTERIOR; R SLIDE: H. FINO PHOTOS, INTERIOR**

The third Huaracane ware, Huaracane Fino, a polished, well-fired serving ware consisting exclusively of open bowls, [R SLIDE: H. FINO DRAWING] has no altiplano equivalent, and seems to represent a local innovation. Clearly, the presence of very small amounts of fiber-tempered pottery is not sufficient to identify Huaracane sites as 'Chiripa'.

**L SLIDE: HUAR. PTS.; R SLIDE: BLANK**

Huaracane concave-base projectile points are more similar to Formative Chiripa points than is the pottery. However, concave-based points, like fiber-tempered pottery, are known throughout the south-central Andes over a long period of time, and can in no way be considered diagnostically Chiripa.

**L SLIDE: TRAPICHE SHERDS; R SLIDE: PUKARA SHERD**

The Trapiche, or Pukara-related finds from the Moquegua Archaeological survey consist of a handful of zoned-incised, painted sherds and a few fragments of tapestry textiles. Trapiche ceramics, pictured on the left, are quite similar to highland Pukara specimens.

#### **R SLIDE: TRAPICHE SITE LOCATIONS**

From the systematic perspective provided by the survey, we can now assert that these finds were scattered among Huaracane residential and cemetery sites. No site with a 'Trapiche' occupation has been encountered.

In light of this association of Trapiche ceramics with Huaracane sites, and particularly, with high-status cemetery contexts, these wares must be interpreted as valued trade objects. [L SLIDE: TRAPICHE TEXTILE] This situation is illustrated by a camelid wool tapestry fragment, found in association with a disturbed Huaracane infant burial. The piece, which we believe was of altiplano origin, had been repeatedly repaired with cotton thread, indicating that it may have been curated as a rarity among Huaracane people.

## **SETTLEMENT PATTERN AND DOMESTIC ARCHITECTURE**

#### **L SLIDE: HUARACANE SITE LOCATIONS; R SLIDE: M19 PHOTO**

The survey has also generated previously unavailable information regarding Huaracane settlement patterns. While comparable in total settlement area to the later Tiwanaku colonies, Huaracane habitation was distributed in a continuous string of small sites, evenly spaced immediately along the margins of the irrigable floodplain. Huaracane residential sites were relatively uniform in size, with a mean area of just under .5 hectares per component. Valley-wide, 161 Huaracane domestic occupations have been recorded, covering a total of 74 hectares. Although we probably are lumping an early ceramic occupation of well over 1000 years of duration into one phase, this represents a considerable resident population.

The Huaracane pattern of small dispersed sites along the valley edge contrasts

with the Tiwanaku pattern of a few, large colonial enclaves. These location choices indicate a direct relationship to simple valley edge canal cultivation. The presence of Huaracane habitation sites on virtually every hilltop or slope along the valley rim suggests long-term habitation by local inhabitants, rather than isolated islands of colonists.

Huaracane villages were built of perishable materials on tightly-packed residential terraces. Terraces generally lack stone facing, instead being semicircular or rectangular excavations in moderate to steep slopes. House construction was of organic materials, with heavily thatched roofs. No information is yet available on house plan, but in recently disturbed sites, it is possible to observe intact sub-surface features such as midden lenses, pits and floors.

Some domestic sites had one or two terraces located higher than the rest. These high terraces appear to have higher surface concentrations of Huaracane fineware pottery as well as exotic materials such as high-quality flaking stone. This suggests some internal social stratification at the village level.

**L SLIDE: SLIDE: M103 PHOTOS**

One site group at Calaluna / Montalvo, is unique for its structure and artifact assemblage. A member of this group, M103, is one hectare in size and is demarcated by a dry moat with a restricted entrance, enclosing the remains of numerous stone structures. The site displays an unusually high frequency of Huaracane finewares, about 40%. This may indicate elite habitation or ceremonial activities and perhaps integration at a scale larger than that of the village.

The "grass roots" nature of Huaracane occupation clearly satisfies the criterion of residence. Due to the poor state of our knowledge regarding Formative domestic sites of the Titicaca Basin, it is more difficult to evaluate the criterion of identity. That is, data are currently unavailable to compare Huaracane domestic sites with Chiripa ones.

Some information, however, is available on altiplano ceremonial and mortuary traditions.

## **RITUAL ACTIVITY AND THE USE OF THE LANDSCAPE**

If ritual may be considered one of the ways in which groups affirm social identity, we would expect Huaracane Phase colonists to reproduce ritual traditions of contemporary altiplano peoples. Elsewhere, Goldstein has demonstrated that Middle Horizon colonization of the Moquegua Valley by Tiwanaku was accompanied by the reproduction of altiplano religious practices. Evidence includes offering caches, sacrifices, and libation rituals in household contexts. Moquegua Tiwanaku burials likewise conform to altiplano rules. On the community level, a sunken court temple and stone sculpture at the Omo site replicate the architecture of Tiwanaku public worship.

### **L SLIDE: TEMPLE AERIAL PHOTO; R SLIDE: TEMPLE RECONSTRUCTION**

If the Huaracane occupation were the result of Formative colonization by altiplano groups, characteristic altiplano ritual activities should likewise be evident in the Huaracane phase.

Contemporary cultures of the Lake Titicaca Basin such as those at Chiripa or Pukara are known to have been part of complex religious communities. In the Middle Formative, these communities have been described as the Yaya-Mama Religious Tradition. It is characterized by monumental temple compounds like that of Chiripa [**L SLIDE: CHIRIPA RECONSTRUCTION; R SLIDE: YAYA-MAMA STELA**], the distinctive Yaya-Mama sculptural tradition, an iconography portrayed in pottery, and ritual paraphernalia which includes ceramic trumpets and incense burners. [**R SLIDE: PUKARA PLAN**] The later Pukara culture was largely derived from the Yaya-Mama tradition, and included many of the same elements. None of these elements of the Yaya-Mama and subsequent Titicaca Basin religious traditions is found in the Huaracane occupation of Moquegua. Rather, Huaracane's religious tradition appears largely local, reflecting a dedication to the landscape and an ancestor cult.

Huaracane household worship is represented by isolated offerings of ceramic vessels. These offerings, a few of which were exposed to the survey team by erosion,

were buried in hillsides or on low hilltops directly above domestic sites. Offering vessels contained foodstuffs but show no indication of interior burning, as would be expected in incense burners.

#### **L. IN SITU BOWL; R. RECONSTRUCTED BOWL**

A typical offering of a large olla buried on top of a woven mat of vegetal fibers was found above the domestic terraces at site M124B. Its carbonized exterior is consistent with previous use for cooking, but the vessel had been broken and mended by cotton stitching prior to its final use. It contained several small ears of maize. A similar offering of a double spouted vessel was found above Huaracane domestic terraces at M159B. [**L SLIDE: DOUBLE-SPOUT PHOTO-RAMADAS; R SLIDE: DBL SPT-HUARACANE**] This vessel also contained foodstuffs, tentatively identified as quinoa, and showed no signs of burning. On the right is the incomplete offering vessel which we believe would have been similar in form to the vessel shown on the left from Las Ramadas.

In both cases, the vessels' isolated location, well above a domestic site and the choice of vessels utilized for domestic purposes are consistent with a form of household ritual. The liminal location of these offerings could suggest a mediation between the human community and its natural surroundings.

#### **L SLIDE: PETROGLYPH R SLIDE: BLANK**

The Huaracane mediation of culture and landscape may also have been accomplished through the production of geoglyphs and petroglyphs. A nature scene, including one large llama and several smaller ones, and a plant that may represent maize is depicted on a petroglyph from site M19E. [**R SLIDE: MORTAR PETROGLYPH**] A petroglyph at site M82A, which was carved on a mortar, may depict the mating or corralling of llamas. [**L SLIDE: GEOGLYPH**] A llama with several young surrounding her was also depicted in a geoglyph at site M83D, adjacent to Huaracane tumulo and habitation sites.

While the images of camelids indicate early interaction with the highlands, the iconographic styles are not consistent with the Yaya-mama sculptural tradition or

other formative styles of the Titicaca Basin. Huaracane subject matter instead emphasizes the propagation of camelids. In the same manner that the hillside offerings indicate a desire for the success of crops, the images carved into the landscape represent a concern with fertility and worship of local landscape elements.

## **CEMETERIES**

### **L SLIDE: TUMULO FROM DISTANCE-M56; R SLIDE: M182B, FROM M182A**

Since burial and treatment of the dead is generally an important ritual preoccupation, funerary ritual should reflect any Huaracane identity with highland groups. If Huaracane settlement represents altiplano colonization, Huaracane funerary practice should conform to altiplano prototypes such as that of Chiripa.

Fortunately, Chiripa burial traditions are somewhat better-known than is Chiripa domestic architecture. Bennett's excavations at Chiripa uncovered a number of interments under the floors of the houses. These were flexed, displayed cranial deformation, and were individually placed in oval cists lined with alluvial cobbles. Often the cists were capped with stone slabs.

Huaracane cemeteries, on the other hand, are normally separate sectors immediately adjacent to residential sites. In contrast to Chiripa and other altiplano traditions, the individual cist tomb is rare in the Huaracane phase. Rather, most Huaracane cemeteries are of one of two types.

### **L SLIDE: TUMULOS-M56; R SLIDE: M17 TUMULO CUT**

The most common type is the "tumulo" or 'mound cemetery', of which 43 examples have been located. Tumulos consist, as can be seen in this exposed section, of alternating layers of earth and stone and vegetal material. Huaracane tumulos are similar in form and construction to those of the contemporary Alto Ramirez tradition of the Azapa valley of northern Chile. Tumulos have also been reported in Ilo and Tacna, Peru.

It is apparent that tumulos, the prevalent form of interment in the Huaracane Phase, cannot support the suggested direct link to Chiripa. Tumulos as a funerary form have no precedent in the Titicaca Basin Formative nor, indeed, in any period in the altiplano. Instead, their association with Alto Ramirez and other coastal valley traditions suggests a "horizontally" rather than "vertically" distributed tradition.

**R SLIDE: ROCK PILE**

The second variety of Huaracane interment is the "boot tomb". Boot tomb cemeteries, which appear on the surface as irregular "rockpiles", are far less common than tumulos, represented by only 7 examples.

**L SLIDE: PAUL'S PROFILE**

Previously-reported excavations by Goldstein of a boot tomb cemetery at the Omo site flesh out our view of this burial type. A typical boot tomb consisted of a shaft between two and three meters in depth, opening into a horizontal chamber containing multiple interments. Tombs were marked on the surface by substantial stone rings up to 4 m in diameter with wattle and daub superstructures. Virtually all of the boot tombs encountered were looted and their surface structures destroyed in antiquity. Radiocarbon dating of boot tomb building material at Omo produced a calibrated date of AD 50.

**R SLIDE: M7C PHOTO**

While most pottery in boot tomb cemeteries is of standard Huaracane types, isolated Pukara-Trapiche sherds have been found on the surface at two boot tomb sites. Indeed, the Trapiche Phase type site (M7C) is now understood as a looted Huaracane boot tomb cemetery, with only a minuscule proportion of Pukara wares.

Like tumulos, boot tombs have no altiplano precedent. Their construction and contents are more closely related to the near-South Coast tradition that included the Paracas Cavernas tombs. As reported elsewhere, textile fragments recovered from the Omo tombs also indicate trade links to the Paracas-Nazca area.[**L SLIDE: PARACAS-TYPE TEXTILE FRAG; R SLIDE: HUAR BOOT TOMB GRAVE GOODS**].

Surviving offerings also include quantities of shell, bone and semiprecious stone beads, other fine textiles and examples of metalworking.

These offerings and the boot tombs' labor-intensive construction suggest burials of a local elite, rather than highland colonists. Occasional Pukara or Paracas-Nazca style offerings simply indicate a wide range of trade access, not cultural identity with either group.

**L SLIDE: M182A PHOTO-CLOSEUP; R SLIDE: M182A PHOTO-DISTANCE**

Beyond tomb structure and content, certain Huaracane cemeteries suggest an unusual local mortuary practice that seems unique to Moquegua. A few boot-tomb and tumulo type cemeteries show evidence of the manipulation of water through aqueducts and reservoirs. One example is the Aguas Sagradas site (M182A/B), which consists of looted boot tombs which were watered by stone-lined aqueducts connecting the tombs to five reservoirs or tanks.

**L SLIDE: M182A PHOTO-CLOSEUP**

Without excavation, it is not possible to determine whether the watering of Huaracane cemeteries was related to contemporary irrigation, or an effect of later agricultural systems. Nonetheless, because this phenomenon of "watering the dead" has only appeared at Huaracane cemeteries, an interpretation of it as a part of community burial ritual is plausible.

It is possible that water was directed towards boot tombs and tumulos for ritual gardens or agricultural plots. This seemingly incongruous combination of water works and burial grounds could be explained through an interpretation of ancestral remains as a source of fecundity **WITHIN** the community. In any case, it bears little relation to known altiplano precedents.

## **CONCLUSION**

**L SLIDE: VALLEY VIEW; R SLIDE: OTHER CONCLUDING SLIDE**

Returning to our original criteria for a "vertical archipelago", Moquegua's Huaracane occupation seems to more than satisfy the "residency requirement" but comes up painfully short in the "identity" department. Just the opposite seems to be true of Trapiche, our other candidate for early colonialism. The Trapiche phase represents a convincing presence of Pukara tradewares, but includes no evidence of residential occupation.

To conclude, then, a brief reconsideration of Huaracane settlement patterns, ceramics, funeral architecture and ritual activity has demonstrated that the Huaracane phase must be considered as a local tradition interacting with altiplano, as well as coastal groups, yet maintaining a distinct local identity. It is possible that Huaracane interaction with the altiplano included an export of lowland agricultural products in exchange for highland wool, as well as prestige goods. Some religious beliefs may also have been transmitted. But the transmittal of wool, trade ceramics, tapestry or even ideas does not demonstrate the existence of colonial archipelagos. The record is clear. The vertical archipelago in Moquegua originated in the Middle Horizon.