

**TIWANAKU SETTLEMENT PATTERNS OF THE  
AZAPA VALLEY, CHILE  
NEW DATA, AND THE LEGACY OF PERCY  
DAUELSBERG.**

Por  
PAUL GOLDSTEIN



---

## RESUMEN

*En las tres décadas en que Percy Dauelsberg logró darle al Valle de Azapa un lugar prominente en la historia cultural de los Andes Centro Sur, el desarrollo urbano y agrícola ha cambiado la faz de este valle casi al punto de ser irreconocible. A pesar de la destrucción posterior de algunos de los sitios dados a conocer por Dauelsberg y sus colegas, los resultados de las primeras excavaciones entregan un registro de incalculable valor, especialmente para el componente mortuario de la arqueología de Azapa. Una reciente prospección sistemática del Valle de Azapa complementa con nueva información inventarios previos de sitios respecto de la distribución de establecimientos domésticos y de problemáticas como la interacción de establecimientos agrarios autóctonos, colonias Tiwanaku e intercambio de larga distancia con otras entidades como Wari.*

## ABSTRACT

*In the three decades since Percy Dauelsberg established the Azapa Valley's prominent place in the culture history of the South Central Andes, urban and agricultural development has changed the face of that valley almost beyond recognition. Despite the subsequent destruction of some of the sites reported by Dauelsberg and his colleagues, the results of early excavations provide an invaluable record, particularly for the mortuary component of Azapa archaeology. A recent systematic survey of the Azapa Valley is supplementing previous site inventories with new data on the distribution of domestic settlement and on issues of interaction of indigenous agrarian settlements, Tiwanaku colonies, and long distance exchange with other polities such as Wari.*

Settlement patterns discerned from systematic survey can offer a "big picture" of regional demographic and social process that is unavailable to the site-centered excavator. This big picture arguably provides a better insight into demographic issues and long-term diachronic process in settlement change. If diachronic process is critical to settlement pattern archaeology, however, it is ironic that settlement pattern archaeology itself tends to be treated as an event, rather than a process. Some settlement pattern archaeologists become convinced that the site distribution visible in any given season or two of fieldwork represents the reality of ancient settlement systems. In fact, however, the available survey record is constantly changing. Because of urban and agricultural development or natural processes, sites may change radically from year to year in their surface appearance, or even disappear or reappear altogether. For this reason, we must recognize that previous investigators had access to an archaeological record that since has been irrevocably altered.

Percy Dauelsberg and his contemporaries' early work contribute immeasurably towards ongoing studies of settlement patterns in the Azapa Valley. As urban and agricultural expansion exposed and endangered more and more sites, they found themselves struggling to record and preserve an ever-growing body of data. While some, like Luis Lumbreras, in a now famous three-way exchange of letters published in 1973, questioned the rate of interpretive advance in the face of this data collection<sup>1</sup>, Lautaro Nuñez touched on the core of energy and generosity typical of Dauelsberg and his colleagues: "I have never excavated in the Arica area, because there is an efficient group there who have made all of their work available to me, as they have to you, and encouraged me to maintain a permanent interest in the area..."<sup>2</sup> There can be no doubt that the devotion of Dauelsberg and others of his "efficient group"



to preserving the archaeological record provides the core of any analysis of settlement patterns in the Azapa Valley. In particular it provides a critical database for examining the problem of Tiwanaku-contemporary settlement in the valley.

### **Models For Tiwanaku Peripheral Integration**

Specific interpretations of Tiwanaku integration of peripheral regions have ranged considerably. Often, this range of interpretation is expressed in terms based on the geographical extent of interaction with the altiplano polity. Berenguer and Dauelsberg, for example, distinguished modes of interaction according to distance from the presumed core area, with a distinction of ultraperipheries (more distant regions), peripheries (including the Pacific coastal valleys), and semiperipheries (the Lake Titicaca basin) (Berenguer and Dauelsberg 1989). Others, concentrating on the political, social and economic intensity and specific mechanisms of control, have considered the same phenomenon along a spectrum ranging from indirect control through elite clientage, to direct exploitation via resident colonies (Mujica 1985, Mujica Rivera and Lynch 1983). Implicit to each approach is an inverse relationship of the distance of a peripheral region from Tiwanaku, and the intensity of control. However, it must be remembered that Tiwanaku did not expand into a political and social vacuum. It is important to examine the indigenous political formations in each region, as well as the criteria of central control and geographical distance from the Tiwanaku center. Obviously, Tiwanaku agents would have had to adapt very different strategies depending on whether they encountered a politically unified community or a collection of rival clans, and future research will have to focus more on the local perspective far more than has been customary.

Models of indirect control, usually applied to "ultraperipheral" regions, suggest a loose system of asymmetrical alliances between the Tiwanaku core polity and client elites. Some degree of asymmetry is assumed in these relationships, due to a higher level of sociopolitical complexity assumed on the Tiwanaku side of the equation, and a less complex political structure in pre-Tiwanaku peripheral polities. These alliances could have been cemented by a wide variety of means -- grants of titles or rights, rendering of mutual political support, shared ritual obligations, pilgrimages or periods of residence and indoctrination in Tiwanaku by elites and their children, marriage exchange or other real or fictive kinship ties -- but for archaeologists they are physically represented by the exchange of gifts in the form of exotic, labor-intensive, prestige goods.

Formulations of indirect models such as the "altiplano mode of production" coined by David Browman (1980), and the "ultraperipheral" model outlined by Berenguer and Dauelsberg (1989) tend to emphasize the circulation of iconographically or symbolically charged exotic items that reinforce the association of the central polity with implications of wealth and political or religious power. Tiwanaku indirect control is often invoked for the desert oasis of San Pedro de Atacama, a distant "ultraperiphery" where Tiwanaku intervention in the archaeological record is limited to isolated exotics such as elaborate tapestry tunics or hallucinatory drug kits that bear iconography of Tiwanaku religious themes. These appear rarely in elite mortuary contexts of the indigenous San Pedro tradition, suggesting the willing participation of community leaders in a Tiwanaku sphere of shared beliefs.

A better understanding of the socio-political organization of Tiwanaku-contemporary San Pedro society will be critical to understanding Tiwanaku's influence there. Orellana (1985:249) suggests: "a situation close to a centralized government, like a great lordship

on the threshold of a theocratic state".<sup>3</sup> In contrast, Thomas, et al, consider a more segmentary political organization more likely: "... a society whose social organization was strictly tied to the concept of lineage or clan and segmented according to territorial patterns (ayllus) with a strong connotation of dual management of territory, and perhaps, bound to the institution of leadership." (Thomas et al. 1985:268)<sup>4</sup>. From the Tiwanaku perspective, it is clear that Tiwanaku relied on cultivating patron-client relationships with San Pedro's indigenous elites, rather than direct colonization and settlement, for access to this region.

In the western sierra of the South Central Andes, it has long been evident that altiplano polities sought relationships of direct control to secure access to the temperate riverine oases of the desert Pacific watershed. One common form was a strategy of economic complementarity through colonial enclaves that Murra (1968, 1972, 1985) glossed as the "vertical archipelago". The 16th century Lupaqa Aymara polity established a system of dispersed colonial settlements of up to several hundred households in the Pacific watershed lowland valleys to cultivate maize, coca leaf, hot peppers and cotton. Despite their relocation from the Lupaqa homeland of Chucuito, colonists maintained all rights, privileges and identity as members of their homeland group. The Lupaqa settlements were spatially interdigitated with colonies of other polities and indigenous settlements (hence an "archipelago" of islands), yet free passage and use was not denied to any group. The most provocative implication of this model is that Andean state control could be non-contiguous, non-territorial and non-competitive.

Because the Lupaqa "vertical archipelago" geographically coincided with the presumed area of Tiwanaku influence, it has been suggested that this type of system may have originated under Tiwanaku stewardship (Mujica et al 1983; Mujica 1985). If they followed the model argued for the Lupaqa archipelago, Tiwanaku colonies would be expected to demonstrate three main elements: 1) residence of Tiwanaku populations, rather than isolated imported items in a local milieu. 2) Identity of the colonists with altiplano Tiwanaku, apparent in a site's entire domestic inventory, architecture, mortuary practices and skeletal biology. 3) Multiethnic coexistence -- Tiwanaku colonies would have been of relatively small size, without an administrative hierarchy and, most diagnostically, intermixed or co-resident with settlements of non-Tiwanaku groups or indigenous peoples, as represented by distinctive material cultures and distinct settlement patterns.

Recent research in Peru's Moquegua Valley (figure 1) suggests that Tiwanaku settlement began as a such a loosely knit archipelago of colonies late in Tiwanaku Phase IV. Excavations of domestic contexts at the Omo site in 1986 and 1987 found the activity patterns and contents of the Omo households to reflect such universal similarity with altiplano Tiwanaku prototypes that the site's inhabitants could only have been immigrants from the Tiwanaku homeland (Goldstein 1989a,b). Thus, Tiwanaku colonists were clearly resident in large numbers and maintained their identity with Tiwanaku, as we would expect under the "archipelago" pattern of direct control. More recent survey data support the element of multiethnic coexistence by suggesting that Tiwanaku's earliest settlements shared the valley with indigenous populations and other foreign settlements, notably the Ayacucho Wari enclaves resident at Cerro Baul and Cerro Trapiche. While survey data are as yet complete, it appears that with the advent of larger Tiwanaku settlements in Tiwanaku Phase V, there was a shift to a more territorial dominance of the valley, articulated through temple centers built on the pattern of Tiwanaku's "semisubterranean temples" (Goldstein 1993b). This territorial control clearly surpassed the scale of colonization of the "archipelago" model by incorporating Moquegua as a provincial



political unit, articulated in much the same way as administrative units of the altiplano's agricultural hinterland (Kolata 1985).

### **The Azapa Valley and Tiwanaku**

If San Pedro epitomizes indirect Tiwanaku control and Moquegua direct control through colonization, annexation, and provincial administration, where does that leave Azapa? The answer lies somewhere in between. Extensive investigations by Dauelsberg and his University of Tarapaca colleagues since the late 1950's have contributed greatly to our knowledge of the Tiwanaku presence in Azapa. The period of altiplano Tiwanaku interaction, also known in Chile as the "Loreto Viejo" Phase, is defined by the presence of textiles, decorated red slipped fine ware ceramics, and other artifacts of Tiwanaku Phase IV and V affiliation in mortuary contexts (Dauelsberg 1961, 1985; Focacci 1969, 1980, 1981, 1983; Rivera 1985)<sup>5</sup>.

The first point to emphasize is that Tiwanaku's role in Azapa differs significantly from the indirect control or "ultraperipheral" pattern that has been inferred from research in San Pedro. This has long been evident in the far greater quantity of Tiwanaku pottery and textiles in collections from Azapa Valley mortuary contexts. In addition to quantity, the contexts of these offerings, often found in largely or entirely Tiwanaku tombs, or even cemeteries, support a scenario of colonization, rather than the trade of sumptuary items with indigenous elites that has been suggested for San Pedro. On the other hand, despite extensive research, Azapa is not known for the large and entirely Tiwanaku domestic sites and monumental architecture that characterize Tiwanaku direct control in Moquegua. The question therefore is whether Azapa could represent long-term extensive Tiwanaku settlement, or a more multi-ethnic situation of enclaves who interacted with peoples of established local traditions.

Dauelsberg was among the first to suggest that the "Loreto Viejo" tradition coexisted for a time with the what he believed to be an earlier altiplano-derived ceramic style known as Cabuza (Dauelsberg 1961, 1985). Cabuza pottery is typified by a black on dark red slip serving ware that has similar shapes, but is distinguishable in paste and surface treatment from pottery of Tiwanaku V affiliation. The Cabuza tradition is also credited with the introduction of seated flexed cist burials, loom woven textiles with floating warp decoration, and a shift to settlements of rectangular structures in agricultural sectors of the fresh-water valleys.<sup>6</sup>

The persistence of Cabuza's distinctive local ceramic tradition suggests the coexistence of contemporary non-Tiwanaku peoples in Azapa with enclaves of Tiwanaku settlers. Interpretations of this coexistence have ranged from a "symbiosis" of ethnic groups (Rivera 1983:17) to a vision of marked social stratification, with the Loreto Viejo ceramic tradition representing a "cupula dirigente de las colonias costeras de Tiwanaku" (Berenguer and Dauelsberg 1989:151). This conception, of enclaves of a Tiwanaku ruling elite imposed on a Cabuza substrate, emerges from a qualitative assumption of higher status for Tiwanaku individuals based on the higher quality of pottery, textiles and the presence of snuff tablets, spoons and four pointed hats of the "Loreto Viejo" or altiplano Tiwanaku style (Berenguer and Dauelsberg 1989:151; Focacci 1981:70).

A more testable argument for this kind of ranked multiethnic coexistence has been suggested for the spatial segregation of these "Loreto Viejo" tombs from contemporary Cabuza sectors at sites AZ-71 and AZ-6. (Berenguer and Dauelsberg 1989:151).<sup>7</sup> However, one recent examination of skeletal remains from these and other Azapa sites

has not thus far isolated altiplano individuals from Azapa valley residents on biological grounds (Richard Sutter personal communication February 1996). Moreover, the absence of more systematic data on the valley-wide distribution of Tiwanaku and Cabuza settlement, as well as cemetery, sites has left these interpretations somewhat speculative. This lacuna reflects a long-standing emphasis on analysis of objects from cemetery contexts, a tendency to overlook domestic sites without preserved architecture, and above all, the lack of systematic survey.

### **Survey and Site Inventories in the Azapa Valley**

In 1960, Dauelsberg published the results of the first survey of the Azapa Valley, conducted by the Museo Regional de Arica. While the team conducted some exploration and prospection, they did not employ a systematically spaced survey line, concentrating instead on sites with visible structural remains or looted tombs. As a result, the original Azapa site inventory records only 60 sites with significant surface remains, such as geoglyphs, settlement sites with standing architecture, and tumulo or cist tomb cemeteries. No sherd scatters were noted. In the years that followed, Dauelsberg's inventory grew to include over 140 sites in Azapa, as it was augmented by his own additions and the work of contemporaries and of a younger generation of archaeologists<sup>8</sup>. This is particularly important because of the accelerating rate of site loss due to the expansion of the city of Arica and, particularly, the implementation of vastly expanded irrigation systems, and the leveling of cultivable land throughout the valley.

In 1991 and 1992, I directed a systematic re-survey of the Saucache - Paradero sector of the Azapa Valley in a cooperative project with Ivan Muñoz and the Museo San Miguel de Azapa<sup>9</sup>. Our survey built upon the seminal site catalog that was initiated by Dauelsberg with the goal of supplementing the previous site inventories. Of particular interest was obtaining new data on the distribution of domestic settlements by searching systematically for sites like residential sherd scatters that may have escaped notice under earlier methodologies. Another important goal was to document the shocking losses to the published archaeological record since Dauelsberg's pioneer survey.

Our focus was the principal agricultural basin of the middle Azapa valley between the outskirts of the City of Arica and the ex-hacienda at Cabuza (figure 2). This area, 28 km. long by roughly 2 kilometers in average width, coincides with Dauelsberg's Saucache -Paradero sector. The survey area was covered by teams of 6 archaeologists walking the valley sides at intervals of 50 meters<sup>10</sup>. All Pre-Columbian architecture, sherd scatters or other remains were located on aerial photographs and maps and recorded on standardized forms. Although recent agricultural development has destroyed numerous sites and obscured others, the Azapa survey was informative on issues of early altiplano-coastal interaction, Tiwanaku colonization, and Post-Tiwanaku political development. A total of 310 sherd scatter components were located, of which 54 included a component of Tiwanaku or Cabuza sherds<sup>11</sup>. Of these, 15 produced both Tiwanaku and Cabuza sherds, 27 produced only Cabuza and 12 produced only Tiwanaku fragments. Some preliminary inferences may be advanced about the few sites noted of altiplano Tiwanaku affiliation.

The distribution of Azapa's Tiwanaku cemetery and settlement sites closely parallels that of their Cabuza contemporaries, with a marked avoidance both of coastal settlement and the incised upper sectors of the valley. Our survey found virtually no Tiwanaku or Cabuza sites above km. 24 of the Azapa highway. Indeed, if there is a



concentration of Tiwanaku sites, it is at locations immediately overlooking the open and flat valley bottom, particularly, at spots that control known natural springs at Las Riberas, Alto Ramirez and Saucache. While this reiterates the Moquegua pattern of preference for agricultural zones adaptable for irrigated cultivation, the spatial and numerical relationship of Azapa's Tiwanaku sites to their Cabuza neighbors suggests a very different social pattern than in those seen in Moquegua. This pattern can be discerned in both cemetery and habitation sites.

### **Lessons from Three Tiwanaku Cemeteries in Azapa**

At least three site components re-examined or discovered in the 1991 survey may be confidently described as cemeteries of altiplano Tiwanaku affiliation. A regional perspective permits some reappraisal of Azapa's Tiwanaku's cemeteries in relation to valley-wide trends. Unlike the cemeteries of San Pedro de Atacama, in which Tiwanaku style grave goods appear as isolated offerings in tombs of local individuals, it appears that a few entire cemeteries in Azapa had tombs with predominantly or exclusively Tiwanaku grave goods and may have been reserved for altiplano individuals.

While it is certain that Tiwanaku artifacts have been found at other sites in Azapa over the years, for this reappraisal, I will describe only the three unambiguously Tiwanaku cemetery components we noted in 1991. A first point is the small size of the Tiwanaku mortuary component valley-wide. Even if we accept that the 1991 survey may have missed Tiwanaku components in other cemeteries, it is clear that, compared to the vast areas covered by Alto Ramirez tumulos, and Cabuza/Sobraya and Maitas/Chiribaya cist tomb cemeteries, the aggregate total area of Tiwanaku cemeteries was minuscule<sup>12</sup>. In addition, the individual cemeteries are quite a bit smaller as well.

Our first example is AZ-143, a Tiwanaku cemetery in the Quebrada del Diablo, first reported in the Azapa Site Inventory by Guillermo Focacci. The AZ-143 cemetery, which has been heavily looted and disturbed, is quite small, with approximately 30 tombs, most of them stone-lined cists, visible in 1991. Burial offerings excavated by Focacci at AZ-143 indicate that this cemetery contained burials with a majority of offerings of altiplano Tiwanaku style (Focacci personal communication, October 10, 1991). Collections include Tiwanaku serving ware pottery, warp face and possibly tapestry textiles, and arrows with characteristic Tiwanaku quartzite points (figure 3).

Adjacent to AZ-143 is AZ-144, a much larger non-Tiwanaku cemetery, measuring 95 x 40 m with as many as 200 looted tombs visible in 1991. A far smaller proportion of these tombs had stone linings. While the AZ-144 cemetery is located only 10 m to the east of the AZ-143, it is distinctly separated from it by an area without any tombs, suggesting a deliberate social segregation of the two burial grounds, which appear to be contemporary. Surface scatter indicates that AZ-144's looted tombs are predominantly of Cabuza affiliation. If we accept the contemporaneity of the sites, the juxtaposition of elite Tiwanaku AZ-143 and Cabuza AZ-143, at Quebrada del Diablo seems to support Berenguer and Dauelsberg's view of small Tiwanaku enclaves assuming privileged status as a segregated minority in Azapa societies.

A second small Tiwanaku cemetery suggests that the assumption of such privileged status may also have involved the conscious manipulation of the earlier symbolic landscape by locating Tiwanaku tombs in earlier burial grounds. In 1991, we discovered recently looted tombs at AZ-14, an extremely large Alto Ramirez Phase tumulo burial site first reported by Dauelsberg on the eastern border of the Pampa Alto Ramirez (1960:283).<sup>13</sup>

The Tiwanaku component of the site, which consists of about 30 cist tombs scattered along the southeast edge of the AZ-14 tumulo group (figure 4), only became apparent in 1991, after recent road disturbance and looting. Surface artifacts collected at the site included altiplano Tiwanaku V pottery and textiles, including two polychrome four pointed hats, considered to be emblematic of high status individuals in the Tiwanaku periphery (Berenguer and Dauelsberg 1989:171) (figure 5). A similar placement of Tiwanaku offerings at the edges of Alto Ramirez tumulo groups has previously been noted at sites AZ-122 and AZ-70 (Muñoz 1983a:37; 1987:111, 125) and disturbed Tiwanaku burials at AZ-75 also may be associated with an earlier Alto Ramirez cemetery (Focacci 1983:112). It appears that elite Tiwanaku tombs, or isolated elite offerings were deliberately placed adjacent to the more impressive mounds or tumulos of the preceding Alto Ramirez phase, as if to glean local prestige by reference to previously sanctified places<sup>14</sup>.

Small size and high status seems to typify Azapa's Tiwanaku cemeteries. In 1991, we reexamined what we consider the most impressive of Azapa's Tiwanaku cemeteries, known as Atoca I. The Atoca I cemetery is located on a bluff overlooking the western edge of the Pampa Alto Ramirez above the Atoca hacienda (Dauelsberg 1960:283)<sup>15</sup>. The site is associated with a series of geoglyphs of camelids and other figures that appear to be contemporary<sup>16</sup>. A sketch map of the site shows the excavated tombs and the colonial corrals located downslope from a separate "accumulation of rocks" (Muñoz 1986:314). The lower, corral area of Atoca-I was partially excavated by Muñoz, who reported excavating two decapitated camelid offerings and four cylindrical cist tombs, badly disturbed by Pre-Columbian destruction and/or construction of colonial corrals (1983b, 1986:311, 320). Muñoz reports Cabuza and Tiwanaku sherds and an engraved wooden kero fragment collected from the tombs (figure 6) and on the surface nearby<sup>17</sup>.

Our 1991 return to the Atoca-I cemetery suggests that the "acumulacion de piedras" noted by Muñoz may in fact have been an above-ground stone burial structures of a type previously not known for peripheral Tiwanaku. As in other sites, new disturbance since the previous excavations revealed new ceramic material on the surface, particularly near this disturbed stone structure. This pottery was collected by the 1991 survey team. Although Cabuza fragments are present, an assessment of the collections in light of ceramic typologies developed for Moquegua Tiwanaku pottery (Goldstein 1989) confirmed a strong altiplano Tiwanaku association for a large number of fragments. The pottery includes red slipped and polished blackware kero fragments of exceptionally high firing quality and a figurine fragment of a style associated with the Omo phase Tiwanaku sites in Moquegua (figure 7). The presence of blackware and the design motifs on some of the decorated fragments from Atoca-I also tend to place the site as contemporary with the Omo Phase enclaves of Moquegua<sup>18</sup>.

Perhaps the most provocative elite aspect of the Atoca-I collections is our determination that a small number of ceramic fragments are of Wari Chakipampa style. The Atoca-I Wari-style sherds are distinguishable from Cabuza and Tiwanaku pottery by their vessel shapes, paste, design elements, and pigments that include characteristically opaque white and cream colors<sup>19</sup>. The fragments appear to include fragments of a face neck vessel (Muñoz 1986:314). To my knowledge, this is the only known occurrence of Wari style pottery in Azapa, or, indeed, in Chile. As the decorated Wari pottery appears as a minuscule proportion of burial offerings in a site that is evidently of elite Tiwanaku affiliation<sup>20</sup>, it appears that the high quality Wari wares may have been a status marker that appeared as a rare trade good in the Tiwanaku peripheries. The Atoca-I site appears to mark the southernmost extent of this trade.



Our sample of Azapa Tiwanaku cemeteries points to a general characterization of the sites as few, small, and furnished with grave offerings of higher quality or symbolic value than the contemporary cemeteries of indigenous populations. Whether these cemeteries were for the residents of enclaves of altiplano individuals or an acculturated local elite can only be determined by further bioarchaeological studies of the skeletal remains. Another approach, however, would be to look for the enclaves themselves, in the form of identifiable Tiwanaku habitation sites.

### **Tiwanaku Settlement Sites in Azapa**

By my definition, Tiwanaku settlement sites are habitation sites with an identifiably altiplano Tiwanaku material culture predominant in the household setting<sup>21</sup>. By these criteria, the 1991 Azapa survey's results for Tiwanaku or Tiwanaku-contemporary habitation were resoundingly negative. Only three domestic sites believed to be of Tiwanaku affiliation were located, with an aggregate area of under 5 hectares. In contrast, ongoing survey evidence for the Moquegua Valley indicates an aggregate Tiwanaku habitation for all phases area that approaches 100 hectares, and includes three large site groups of 20 - 40 hectares of domestic scatter.

There are several possible or partial explanations for this difference in recorded settlement density. It should be noted that a comparison of Moquegua and Azapa may be biased by differential ground cover, natural transformations, or preservation -- for example, Azapa's extensive agriculture and heavier sand cover. Cabuza and Tiwanaku-contemporary dwellings were built of ephemeral materials. Even relatively well-preserved post-Tiwanaku settlements in Azapa were composed of cane-walled structures, and today show little or no surface-visible architecture other than structural platforms or stone terrace facings (e.g. Muñoz 1983b:73-74, 1986:315; Muñoz and Focacci 1985; Piazza 1981). Nonetheless, similar "quincha" architecture in Moquegua has left behind extensive sherd scatters, and extremely large areas of Desarrollo Regional sherd scatter were noted in the Azapa survey. Thus despite these caveats, the absence of Tiwanaku habitation sites in Azapa seems real.

The largest Tiwanaku habitation site encountered in the 1991 Azapa survey was site AZ-83, located in the center of the Pampa Alto Ramirez. Salvage excavations conducted by Rivera and Ampuero in 1974 tested a small portion of the site's stone architecture, which consisted of circular and rectangular foundations. Rivera (1987:9) considers the site to have an Alto Ramirez residential component, which seems plausible considering its proximity to the large Alto Ramirez phase tumulo sites. However, the site is also centrally located among two now-destroyed Tiwanaku cemeteries (AZ-9 and AZ-14) and the aforementioned AZ-19. It is therefore not surprising that the 1974 excavations produced Tiwanaku ceramics and textiles, and two C14 dates of 560+/-110 and 760 +/-70 that place it within the Cabuza / Tiwanaku chronological range (Rivera 1987:12).

Unfortunately, by 1991, the site's surface architecture, visible as collapsed and relatively formless piles of stone in earlier airphotos, had been entirely destroyed by the Alto Ramirez agricultural development., permitting only the site's mapping as a ceramic scatter. Pottery recovered, all of it utilitarian plainwares, includes vessel forms common to Tiwanaku sites elsewhere (figure 8)<sup>22</sup>. However, as the plainware (i.e. non-mortuary utilitarian) Cabuza vessel forms have not been documented, it is difficult to assess the degree to which AZ-83 may be considered an altiplano colony. The 1991

survey team found the total area of ceramic dispersion to measure only 3 hectares, with no evidence of public or monumental structures. The same characterization holds true for the two smaller ceramic dispersions of Tiwanaku-contemporary affiliation found elsewhere in the valley. While the presence of domestic plain wares of Tiwanaku style could indicate the actual residence of Tiwanaku colonists, these potential Tiwanaku settlements are few and far between.

## Conclusion

To generalize, our review of the Azapa survey data supports a small altiplano Tiwanaku colonial presence, among a far more numerous local substrate. While actual Tiwanaku residence was limited to extremely small enclaves, privileged Tiwanaku styles in material culture supplanted local preferences, as local styles like Cabuza emulated Tiwanaku objects, like the ceramic kero. The close association of the few cemeteries with Tiwanaku offerings with earlier cemeteries and other sacred places lends some credence to Berenguer and Dauelsberg's interpretation of a two-tiered society in which Tiwanaku colonists asserted an elite status. The Tiwanaku colonists may have dominated local symbolic and ceremonial systems by occupying and re-interpreting sacred space. Further studies of habitation sites and skeletal biology may eventually demonstrate a small, resident Tiwanaku community of high status.

Whether these colonial enclaves would have dedicated themselves to agricultural production, as did the more numerous Tiwanaku colonists in Moquegua, is unclear. However the absence of massive Tiwanaku settlements or monumental public architecture reminiscent of an imposed political structure suggests that whatever control enjoyed by Tiwanaku agents in Azapa depended on diplomacy and subtle attraction, more than on physical infrastructure. Small Tiwanaku settlements in Azapa may have served as ports of trade, or for the management of tribute by Cabuza agriculturists articulated through their ruling elites, who sought to amplify their own prestige through the cachet of Tiwanaku. By welcoming or even submitting to these honored foreigners, Cabuza elites may have enjoyed access not only to imported sumptuary and spiritually-valued goods, but to valued ideas and counsel from a cosmopolitan center.

Why were such different strategies employed by Tiwanaku in two relatively similar areas? The first consideration would be one of costs and benefits due to distance and resources. Both Moquegua and Azapa are similar temperate resource zones, within eight to ten days walk from the altiplano. One important distinction may hinge on the Tiwanaku state's evident aversion to coastal settlement. The close proximity of the agricultural sector of the Azapa Valley to the coast contrasts with the Moquegua mid-Valley sector, which is separated from the littoral by a natural buffer of 95 km of uninhabitable desert. If Tiwanaku avoided direct competition or conflict with the established maritime specialists on the coast, it would not be surprising if they employed the valley-dwelling Cabuza people of Azapa as a **cultural** buffer between highlanders and seafarers.

More significantly, there is the question of the indigenous sociopolitical climate in the Moquegua and Azapa valleys. There is evidence in Azapa for pre-Tiwanaku indigenous political units of relatively high complexity and sophistication. Azapa's Alto Ramirez Phase is well documented for the construction of innumerable burial mounds, some of considerable size. Moreover, Azapa's indigenous chiefdoms may have had considerable sophistication in foreign affairs, as evidenced by the presence of Pukara trade goods. Faced with a densely populated valley with an experienced leadership,



Tiwanaku interests may have been best served by establishing small, yet influential, colonial enclaves, rather than a large, obtrusive, and no-doubt costly presence. As mentioned, this also may have assured Tiwanaku both a buffer and an experienced intermediary for exchange with more unfamiliar maritime specialists of the littoral.

Perhaps the most important factor seems to be the catalytic presence of bellicose imperial rivals, in this case the Wari in Moquegua. If we compare the southern Andean tradition with its "archipelago" model of non-competitive coexistence, with the central Andean archaeological and iconographic record of dominance, long distance conquest and Wari militarism, we are left with considerable dissonance between Wari and Tiwanaku ideologies. Wari's known absolutist tendencies, coupled with Tiwanaku's demographic and political growth would have made even the largest valley "too big for the two of them".

At first, the record in both Moquegua and Azapa shows some minimal interaction between Wari and Tiwanaku in the form of extremely rare Wari ceramics appearing as trade items at Tiwanaku IV-contemporary sites (notably M-72 in Moquegua and Atoca 1 in Azapa). However in Moquegua, the marked segregation of later large sites of the two cultural traditions indicates that a competitive scenario developed. Wari displacement of Moquegua Tiwanaku settlement in the 8th century may have provoked a Tiwanaku military response, and it is almost certain that the Wari outpost of Cerro Baul was, in turn, forcibly expelled during the 9th century in Moquegua. The Tiwanaku V reincorporation of the region resorted to a far more massive re-colonization under far greater political centralization. In contrast, because Azapa was beyond the reach of Wari competitors, Tiwanaku's long term domination over indigenous polities there could rely on a less intrusive statecraft combining small scale colonization and diplomacy.

In summary, the Azapa survey data suggest a minority Tiwanaku presence among a majority population of ethnically distinct indigenous peoples, an interpretation that coincides with Berenguer and Dauelsberg's conception of a "cupula dirigente". This differs radically from the extensive altiplano Tiwanaku demographic presence and full political incorporation demonstrated for Peru's Moquegua Valley between A.D. 500 and 1000.

Together, these two case studies suggest that an expansive state's peripheral settlement patterns are formed by balancing the core's economic, ecological, or cultural imperatives with the political realities and indigenous social systems of the periphery itself. These can only be evaluated by moving beyond documenting the presence of imports in regions like Azapa and Moquegua, to examining how material patterns of daily life reflect origins, political organization and cultural orientation. Settlement pattern data obtained from systematic survey in both regions can provide one useful approach to contrasting the diversity of small dispersed enclaves from the homogeneity of more centralized territorial control. In both cases, however, we must be aware that regional survey must incorporate the contributions of earlier studies and involve constant vigilance of previously known sites.

## NOTAS:

<sup>1</sup> "De hecho compañero, eso hay que trabajar. Arica es demasiado importante para quedarnos así, en 1943; sobre todo cuando hay tanto material recogido ya..."

<sup>2</sup> "Nunca he excavado en la zona de Arica, por cuanto hay allí un grupo eficiente, que como a ti, me han mostrado todos sus trabajos, haciendo que mi interés por esta zona sea siempre permanente ..." (Nuñez 1973)

<sup>3</sup> "una realidad proxima a un gobierno centralizado . . . como un gran señorío, antesala de un Estado teocrático"

<sup>4</sup> "una sociedad cuya organización social esta estrechamente ligada al concepto de linaje (posiblemente clanico) y segmentada de acuerdo a patrones territoriales (Ayllus) con una fuerte connotacion dual del manejo territorial y posiblemente vinculada a la institucion del liderazgo."

<sup>5</sup> There is no evidence anywhere in the Western Sierra Valleys of imported artifacts of Tiwanaku's earliest phases (Phases 1-3). This suggests that the early Tiwanaku sphere of influence was limited by Pukara's wider, probably competing, network (Mujica 1985).

<sup>6</sup> The Cabuza tradition, considered to be of altiplano origin, was believed to appear in Azapa as early as a.d. 380, predating the arrival of the Loreto Viejo Tiwanaku ceramics (Berenguer and Dauelsberg 1989:147-148; Dauelsberg 1985). However, absolute dates for Cabuza are few, but may well cluster somewhat later (e.g. Focacci 1982; Muñoz 1983b; Schiappacase et al 1991:52). There is also some question about the earliest dates for Cabuza on stylistic grounds. As similar keros are not established as a universally common type in the altiplano until Tiwanaku IV and V, their very early prevalence in Cabuza seems unlikely. Stylistically similar kero-using ceramic styles in southern Peru, for example, are seldom dated before ad 900, and are considered to be heavily influenced by Tiwanaku precedents (Bermann et al 1986; Goldstein 1989; Owen 1994). However, the Cabuza style has not yet undergone a detailed seriation and it is possible that the kero form only appears in later Cabuza ceramics (Focacci, Espouyes, personal communication 1991).

<sup>7</sup> The spatial segregation of these ceramic styles at both cemeteries could also be due to chronological variation; indeed, an argument is often made for a horizontal stratigraphy of Cabuza, Maitas and San Miguel sectors in most of the larger Azapa cemeteries (Berenguer and Dauelsberg 1989:169; Focacci 1981:69-70).

<sup>8</sup> A recompilation and examination of many of the cataloged sites was conducted in a 1988 University of Tarapaca Seminar in the Dept. of History, presided over by Mario Rivera And Guillermo Focacci.

<sup>9</sup> Dauelsberg divided the Azapa, or Rio San Jose drainage into three sectors: 1. the Saucache-Paradero sector, in which sites were abundant, 2. the up valley "Ausipar-Livilcar" sector, in which he found 14 sites, and 3. the highland "Meseta Pre-cordillerana", in which he found 8 sites.

<sup>10</sup> Entrance to cultivated "parcelas" in the valley bottom was obtained where possible, however, few sites were found in the parcelas, due to the intensive nature of modern mechanized agriculture.

<sup>11</sup> Many of these sites also included Desarrollo Regional ceramics.

<sup>12</sup> The three cemeteries discussed here total under 0.5 hectares in area. In comparison, the 1993-95 Moquegua Archaeological Survey of the Moquegua valley to date reports over 50 Tiwanaku cemetery components, covering over 10.8 hectares.

<sup>13</sup> The sequence of archaeological work at AZ-14 is instructive as an example of the utility of a "diachronic approach" to survey. Where Dauelsberg recorded AZ-14's vast sprawl of early tumulos in 1960, we found little more than a scattering of bones and organic material in a plowed agricultural field. Conversely, the Tiwanaku cists were not visible before the recent disturbance.

<sup>14</sup> This tendency to venerate pre-sanctified locations may also apply to geologically distinct stone outcrop hills described by Focacci as "Wakas". Their locations seem to correspond with freshwater springs. 1988 excavations at AZ-145 or Waka Grande found human burials and isolated offerings of engraved bone tubes with "sacrificer" iconography, shell, feathers, wooden objects, metal bells and camelids that suggest Tiwanaku veneration of the site over a long period of time (Focacci personal communication 1991). The 1991 survey noted small stone constructions, non-diagnostic ceramics and human bone on the surface at two similar outcrops elsewhere in the valley.



<sup>15</sup> A cemetery at Atoca was first reported by Dauelsberg as AZ-19, though the site may also correspond with AZ-91. Munoz refers to the site only by the name Atoca-1 (1983b, 1986).

<sup>16</sup> While other geoglyphs in the Alto Ramirez area would appear to be of later date (Briones and Chacama 1987) there is some evidence for a Tiwanaku association for the llama figures. Similar llama geoglyphs are found adjacent to the Chen Chen Tiwanaku site in Moquegua.

<sup>17</sup> By the generosity of the excavators, we were also allowed to examine the original Atoca-1 ceramic collections excavated by Ivan Muñoz and analyzed by Mariela Santos V. (19\*\*)

<sup>18</sup> This assessment was borne out by the discovery in 1993 in Moquegua of an Omo Phase cemetery at Rio Muerto site (M70 B) (Goldstein 1994). The M70 cemetery consisted of above-ground stone constructions of similar size and structure. Ceramic offerings included keros and other pottery of altiplano Tiwanaku style contemporary with Moquegua's Omo Phase (dated to A.D. 600).

<sup>19</sup> The Atoca Wari fragments were examined by Mary Glowacki, who found them consistent with Wari style (personal communication 1992).

<sup>20</sup> Despite the normally dramatic segregation of Tiwanaku and Wari sites in Moquegua, a small number of Wari Chakipampa style sherds were also found in domestic sectors of the Rio Muerto (M70 A) site. This site is of Omo Phase affiliation and the rare Wari sherds are also considered evidence of trade, rather than Wari residence.

<sup>21</sup> This definition excludes sites such as San Lorenzo AZ-11, which has occasionally been referred to as a "Tiwanaku" settlement (Berenguer and Dauelsberg 1989:174). These Maitas and San Miguel sites have no Tiwanaku components and are explicitly termed "Post-Tiwanaku" by the excavators (Muñoz and Focacci 1985).

<sup>22</sup> Tiwanaku fragments have been reported for the site, however, in 1991, it was not possible to examine collections or more detailed reports from the AZ-83 site.

## BLIBLIOGRAFIA

- BERENGUER, J.R. and P. Dauelsberg H.  
1989 El Norte Grande en la órbita de Tiwanaku (400 a 1.200 d.C). In Culturas de Chile, Prehistoria Desde sus Orígenes Hasta los Albores de la Conquista, edited by J. Hidalgo L., V. Schiappacasse F., H Niemeyer F., C. Aldunate Del S. and I. Solimano R., pp. 129-180. Editorial Andrés Bello, Santiago.
- BERMANN, Marc, P. Goldstein, C. Stanish and L. Watanabe M.  
1989 The collapse of the Tiwanaku State: A view from the Osmore Drainage. In Settlement, History and Ecology in the Osmore Drainage, Southern Peru, edited by Don S. Rice and Charles Stanish. British Archaeological Reports, International Series. Oxford.
- BRIONES, M., Luis and Juan Chacama R.  
1987 Arte Rupestre de Arikilla: Análisis descriptivo de un sitio con geoglifos y su vinculación con la prehistoria regional. Chungará 18:67-90
- BROWMAN, David L.  
1980 Tiwanaku expansion and altiplano economic patterns. In Aspectos del Desarrollo Cultural Altiplánico y la incidencia de Tiwanaku en Chile y Areas Aledañas, Estudios Arqueológicos 5, edited by M. Rivera pp. 107-120 Universidad de Chile, Antofagasta, Chile.
- DAUELSBERG, Percy  
1960 Contribución al Estudio de la Arqueología del Valle de Azapa, pp 273-296. Antiguo Perú. Espacio y Tiempo, Lima.  
1961 Algunos problemas sobre la cerámica de Arica. In Boletín del Museo Regional de Arica 5:7-17.  
1972 La cerámica de Arica y su situación cronológica. Chungará 1:15-25. Arica (trabajo presentado al Encuentro Internacional en Arica del 25 al 30 de Septiembre de 1961).  
1985 Desarrollo regional en los valles costeros del norte de Chile. In La problemática Tiwanaku Huari en el contexto panandino del desarrollo cultural. Diálogo Andino 4, edited by M. Rivera, pp. 277-287. Universidad de Tarapacá, Arica, Chile.
- FOCACCI, Guillermo  
1969 Arqueología de Arica. Secuencia cultural del Periodo Agroalfarero. Horizonte Tiahuanacoide. Actas del V Congreso Nacional de Arqueología, pp. 21-25. La Serena.  
1980 Síntesis de la arqueología del extremo norte de Chile. Chungará 6:3-23. Arica.  
1981 Nuevos fechados para la época del Tiahuanaco en la arqueología del norte de Chile. Chungará 8:63-77. Arica.  
1983 El Tiwanaku Clásico en el valle de Azapa. In Asentamientos Aldeanos en los Valles Costeros de Arica, Documentos de Trabajo No. 3. Instituto de Antropología y Arqueología, Universidad de Tarapacá, Arica.
- GOLDSTEIN, Paul  
1989a Omo, a Tiwanaku Provincial Center in Moquegua, Peru. Unpublished Ph.D. dissertation, Department of Anthropology, The University of Chicago.



- 1989b The Tiwanaku Occupation of Moquegua. In Ecology, Settlement and History in the Osmore Drainage, Peru, edited by D.S. Rice, C. Stanish and P. Scarr, pp. 219-256. BAR International Series 545(i), British Archaeological Reports, Oxford.
- 1990a La Cultura Tiwanaku y la relación de sus fases cerámicas en Moquegua. In Trabajos arqueológicos en Moquegua, Peru, edited by L.K. Watanabe, M. Moseley and F. Cabieses, pp. 31-58. Editorial Escuela Nueva, Lima.
- 1990b La ocupación Tiwanaku en Moquegua Gaceta Arqueológica Andina Volume V, No. 18/19: 75-104.
- 1993a House, Community and State in the Earliest Tiwanaku Colony: Domestic Patterns and State Intergration at Omo M12, Moquegua. In Domestic Architecture, Ethnicity, and Complementarity in the South-Central Andes, edited by M. Aldenderfer, pp. 25-41. University of Iowa Press.
- 1993b Tiwanaku Temples and State Expansion: A Tiwanaku Sunken Court Temple in Moquegua, Peru. Latin American Antiquity, Vol 4, No. 3, March, 1993, pp. 22-47.
- 1994 Informe Preliminar, Proyecto Patrones de Asentamiento del Valle de Moquegua. Instituto Nacional de Cultura, Lima\*
- KOLATA, Alan  
1985 El papel de la agricultura intensiva en la economía política del estado Tiwanaku. In La problemática Tiwanaku Huari en el contexto panandino del desarrollo cultural, Diálogo Andino 4, edited by M. Rivera, pp. 11-38. Universidad de Tarapacá, Arica.
- MUJICA B., Elías  
1985 Altiplano-coast relationships in the South Central Andes: from indirect to direct complementarity. In Andean Ecology and Civilization, edited by S. Masuda, I. Shimada and C. Morris, pp. 103-140. University of Tokyo Press, Tokyo
- MUJICA, Elías; Mario A. Rivera and Thomas F. Lynch  
1983 Proyecto de estudio sobre la complementaridad económica Tiwanaku en los valles occidentales del Centro-Sur Andino. Chungará 11:85-109, Arica.
- MUÑOZ Ovalle, Iván  
1983a La fase Alto Ramírez en los valles del extremo Norte de Chile. In Asentamientos Aldeanos en los Valles Costeros de Arica, Documentos de Trabajo No. 3. Instituto de Antropología y Arqueología, Universidad de Tarapacá, Arica.
- 1983b El poblamiento aldeano en el valle de Azapa y su vinculación con Tiwanaku (Arica - Chile). In Asentamientos Aldeanos en los Valles Costeros de Arica, Documentos de Trabajo No. 3. Instituto de Antropología y Arqueología, Universidad de Tarapacá, Arica.
- 1987 Enterramientos en Túmulos en el Valle de Azapa: Nuevas Evidencias para definir la Fase Alto Ramírez en el Extremo Norte de Chile. Chungará 19:93-128, Arica.
- 1988, ms. Análisis de dos fases culturales de los valles costeros del extremo norte de Chile, en el período de influencia Tiwanaku (300 D.C. - 900 D.C.).
- MUÑOZ, Iván and Guillermo Focacci  
1985 San Lorenzo: Testimonio de una comunidad de agricultores y pescadores Postiwanaku en el valle de Azapa (Arica - Chile). Chungará 15:7-30, Arica.

- MURRA, John V.  
1968 An Aymara kingdom in 1567. Ethnohistory 15:115-51.
- 1972 El "control vertical" de un máximo de pisos ecológicos en la economía de las sociedades andinas. In Visita de la Provincia de León de Huánuco en 1562, edited by J. Murra, pp. 427-476. Documentos para la historia y etnología de Huánuco y la Selva Central 2. Universidad Nacional Hermilio Valdizán, Huánuco.
- 1985 El archipiélago vertical revisited, and Limits and limitations of the "vertical archipelago" in the Andes. In Andean Ecology and Civilization, edited by S. Masuda, I. Shimada, C. Morris, Tokyo University Press.
- ORELLANA R., Mario  
1985 Relaciones culturales entre Tiwanaku y San Pedro de Atacama. In La problemática Tiwanaku Huari en el contexto panandino del desarrollo cultural, edited by M. Rivera, pp. 247-258. Diálogo Andino 4. Universidad de Tarapacá.
- OWEN, Bruce, D.  
1993 A Model of Multiethnicity: State Collapse, Competition, and Social Complexity from Tiwanaku to Chiribaya in the Osmore Valley, Perú. Unpublished PhD. dissertation, Department of Anthropology, University of California, Los Angeles.
- RIVERA Díaz, Mario A.  
1985 Alto Ramírez y Tiwanaku, un caso de interpretación simbólica a través de datos arqueológicos en el área de los valles occidentales, Sur del Perú y Norte de Chile. In La problemática Tiwanaku Huari en el contexto panandino del desarrollo cultural. Diálogo Andino 4, edited by M. Rivera, pp. 39-58. Universidad de Tarapacá, Arica.
- 1987 Tres Fechados Radiométricos de Pampa Alto de Ramírez. Norte de Chile. Chungará 18:7-1
- SCHIAPPACASSE, V. A. Román, I Muñoz, A. Deza, G. Focacci  
1991 Cronología por Termoluminiscencia de la Cerámica del Extremo Norte de Chile: Primera Parte. pp 43-60 Actas del XI Congreso Nacional de Arqueología Chilena. Tomo II. Museo Nacional de Historia Natural, Santiago.
- THOMAS, Carlos, Antonia Benavente and Claudio Massone  
1985 Algunos Efectos de Tiwanaku en la Cultura de San Pedro de Atacama. In La problemática Tiwanaku Huari en el contexto panandino del desarrollo cultural. Diálogo Andino 4, edited by M. Rivera, pp. 259-276. Universidad de Tarapacá, Arica.