# MODES OF INTERACTION BY THE TIWANAKU POLITY AND THE INKA EMPIRE IN THE CHARAZANI REGION

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# MODES OF INTERACTION BY THE TIWANAKU POLITY AND THE INKA EMPIRE IN THE CHARAZANI REGION

by

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#### **THESIS**

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This thesis discusses the modes of interaction in Charazani, Bolivia to understand the forms of political control by the Tiwanaku and Inka polities in the region. To identify the modes of interaction (vertical archipelago, prestige goods economy, feasting, and emulation through materialization of ideology), I examine the variation of ceramic types across 35 sites in different ecological zones in Charazani. In addition, I explore ceramic variation across four time periods (Formative, Middle Horizon, Late Intermediate Period, and Inka) to denote changes related to the rise and fall of the Tiwanaku and Inka polities.

In order to study ceramic variation across time and space, it was necessary to first develop a ceramic classification and a ceramic chronology by comparing known classifications and chronologies form different Andean regions. Moreover, the portion of ceramics was utilized to create an inference of site function and intensity of ceramic use.

The analysis shows that the Tiwanaku and Inka polities employed varying strategies. It was concluded that the Tiwanaku polity formed colonies in strategic locations. Additionally, Tiwanaku established vertical trade and alliances through a prestige goods economy. At the same time, Charazani locals emulated the Tiwanaku style and ideology. In comparison, the Inka Empire created alliances through a prestige goods economy and invested, not in ceramics, but in

the construction of various architectural features, such as agrarian terraces, *ph'ullus*, and corrals.

I argue that the creation of architectural features and the privileged status granted to the local

Charazanis, the Kallawayas, the Inka did not need to colonize the region to gain political control.

## TABLE OF CONTENTS

Acknowledgments	ii
Abstract	iii
List of Tables	Vi
List of Figures	viii
Chapter I: Introduction	1
Chapter II: Tale of Two Polities	5
Chapter III: Modes of Interaction in the Andes	16
Chapter IV: Charazani, Domain of the Kallawaya	35
Chapter V: Methodology	40
Chapter VI: Site Size and Description in Charazani	51
Chapter VII: Ceramic Variation in Charazani	68
Chapter VIII: Political Control in the Charazani Region	82
Appendix	95
Bibliography	127
Vita	148

## LIST OF TABLES

Table 1	Chronology Table for Charazani	47
Table 2	Portion of ceramics through time	52
Table 3	Site size and function	53
Table 4	The portion of Formative ceramics across sites	69
Table 5	Formative ceramics in site function	70
Table 6	Formative ceramic paste in site function	70
Table 7	Portion of Core and Provincial Tiwanaku ceramics across sites	71
Table 8	Core and Provincial ceramics across function	72
Table 9	Late Intermediate Period ceramics across sites	73
Table 10	L.I.P ceramics across site functions.	74
Table 11	Chart shows Inka ceramics in sites	75
Table 12	Inka ceramics in site function	75
Table 13	Colonial ceramics in sites	77
Table 14	Colonial ceramics in functions	77
Table 15	Ceramic vessels through time	78
Table 16	Ceramic vessels in Middle Horizon	78
Table 17	Inka ceramic vessel forms	79
Table 18	Ceramics through time in Charazani	81
Table 19	Portion of ceramics across sites	102
Table 20	Core Tiwanaku ceramics distribution in sites	102
Table 21	Core Tiwanaku ceramics across site functions	103

Table 22	Local Tiwanaku ceramics Charazani	103
Table 23	Local Tiwanaku ceramics in site functions	104
Table 24	Rough Tiwanaku ceramics in Charazani	104
Table 25	Rough Tiwanaku ceramics in site functions	105
Table 26	Jaramillo ceramics through time	105
Table 27	Middle Horizon vessel types and shapes	105
Table 28	Ceramic type categories, time frame, and descriptions	106
Table 29	Chart showing raw numbers of ceramic types by site and time	107

## LIST OF FIGURES

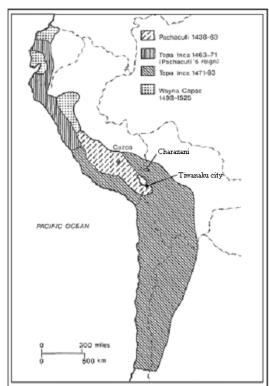
Figure 1	Map of Inka expansion	1
Figure 2	Map of Tiwanaku influence	2
Figure 3	Map of Charazani region.	35
Figure 4	Tiwanaku ceramic from Cha-150.	65
Figure 5	Rim and base types found in Charazani	100
Figure 6	Shapes of Tiwanaku ceramics	101
Figure 7	Map of Cementerio	109
Figure 8	Cementerio maps showing ceramic distribution by time and type	110
Figure 9	Map of Chuñuna	111
Figure 10	Chuñuna maps showing ceramic distribution by time and type	112
Figure 11	Map of Jaramillo	113
Figure 12	Jaramillo maps showing ceramic distribution by time and type	113
Figure 13	Map of Kaata Pata	114
Figure 14	Kaata Pata showing ceramic distribution by time and type	115
Figure 15	Map of Kalla Kallan	116
Figure 16	Kallan Kalla maps showing ceramic distribution by time and type	117
Figure 17	Map of Kollachaj	118
Figure 18	Kollachaj maps showing ceramic distribution by time and type	119
Figure 19	Map of Wata Wata	120
Figure 20	Wata Wata maps showing ceramic distribution by time and type	121
Figure 21	Map of Cruz Pata	122

Figure 22	Cruz Pata maps showing ceramic distribution by time and type	123
Figure 23	Wata Wata storage vessel rim	124
Figure 24	Kalla Kallan Core Tiwanaku kero rim	124
Figure 25	Kalla Kallan Core Tiwanaku kero rim	125
Figure 26	Kallan Kallan Rough Tiwanaku storage vessel possible incensario	125
Figure 27	Kalla Kallan Core Tiwanaku kero base	125
Figure 28	Wata Wata Core Tiwanaku kero base	126
Figure 29	Wata Wata Core Tiwanaku storage vessel base	126
Figure 30	Local Late Intermediate Period storage vessel jar	126
Figure 31	Incised Late Intermediate Period handle	126
Figure 32	Chuñuna Inka serving vessel	127
Figure 33	Kata Pata Platform Inka serving vessel	127

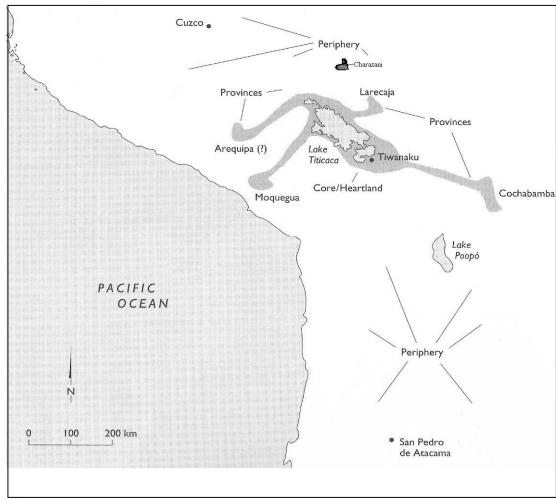
### **CHAPTER I: INTRODUCTION**

This thesis will examine the modes of interaction that the Tiwanaku and Inka polities employed in order to gain political control in the Charazani valley. More specifically, I will explore how variations in ceramic types and architectural features reveal the interactions external polities employed in in order to obtain political control over specific regions.

Located east of the Amazon, the Charazani region is a narrow valley on the eastern slope of the Andean Mountains. This places the region near the northern frontier of the former Tiwanaku polity and the eastern border of what was once the Inka Empire in present day Bolivia (Figures 1 and 2). Due its location, the rulers of the Charazani region could have controlled the movement of goods into and out of the highlands and the Amazon (Bastien 1987).



**Figure 1**. Map of Inka expansion with approximate location of the Charazani region (Charazani and Tiwanaku added by author) (Moseley 2001:9)



**Figure 2**. Map of Tiwanaku's influence at its height with approximate location of the Charazani region (Charazani added by author) (Stanish 2003:10).

Before the Spanish conquest, Charazani groups produced a vibrant culture which included ceramic production. Their ceramics provide the material means through which this thesis will examine the modes of interaction utilized by the Tiwanaku polity and Inka Empire. The ceramics were collected in 2005 when Dr. Sonia Alconini began *Proyecto Arqueológico Charazani-Camata*. The project started as a pilot research funded by the Heinz Foundation. The object was to create a survey methodology modified to a region of extreme topographic variability. In subsequent years, *Proyecto Arqueológico Charazani-Camata* has been funded by National Science Foundation and has continued with excavations. I joined *Proyecto* 

Arqueológico Charazani-Camata in the following year (2006) and analyzed the ceramics from the surface collection.

The modes of interaction of the Tiwanaku polity and Inka Empire have been examined through the dispersion and relationship of ceramics to the architecture and geography of the site. Ceramics were chosen because 1) they are widely used in archaeology as a material of cultural investigation, 2) they can help identify political and social groups, and 3) they can help establish a chronology for the region (Binford 1985; Bray 2003a, 2003b, 2003c; Cook 1972; Costin 1991, 1998a, 1998b, 2001; Costin and Earle 1989; Curet 1986; Goldstein 1995–1996, 2003; Hagstum 1988; Hayashida 1999; Hegmon 1992, 1998; Hodder 1989; Janusek 2002; Mills 1989, 2004; Mills and Crown 1989; Pauketat and Emerson 1991; Sinopoli 1998; Sackett 1977, 1986, 1989; Vaugh 2006; Wiessner 1989; Wobst 1977, 1999). I also argue that the distribution of different ceramic types in space and time can be employed to infer site function and intensity of ceramic use. Finally, with this knowledge, I will identify the modes of interaction occurring in Charazani, which in turn will inform me about the forms of Inka and Tiwanaku political control in the region.

The research has proceeded in six steps: 1) the gathering of information on the Tiwanaku and Inka polities and their modes of interaction, 2) the obtaining of information on the Charazani region, particularly ethnohistorical accounts, 3) the determination of ceramic types present at Charazani, 4) the development of a chronology for the region, 5) the presentation of data and analysis of ceramic types and architectural features in Charazani, and 6) the utilization of the previous to determine the modes of interaction employed by the in the Tiwanaku and Inka polities in order to gain political control in the Charazani region.

#### **Organization of Thesis**

Chapter II presents an overview of the Tiwanaku polity and Inka Empire. Chapter III, Modes of Interaction in the Andes, discusses the four modes of interaction that are the focus of this thesis, including the specific interactions associated with the Tiwanaku polity and Inka Empire. Chapter III ends with the research objectives of the thesis. Then, Chapter IV gives a detailed presentation of the region of Charazani from both ethnohistorical and archaeological perspectives. Following that is Chapter V. Chapter V discusses the methodological aspects of the research such as the classification of ceramics and the formation of a chronology for the area. In addition, Chapter V describes the various architectural features found in the field. Chapter VI, Site Descriptions in Charazani, explores the ceramic and architectural variation by site and ecological zone. Then in Chapter VII, I examine the ceramic variation across time and space, with a focus on the changes that occurred during the rise and decline the Tiwanaku and Inka polities. In conjunction with the work of the preceding chapters, Chapter VIII provides the establishment for an elucidation of the modes of interaction of the Tiwanaku and Inka utilized in the Charazani valley. And as the final chapter, Chapter VIII, summarizes the thesis and has suggestions for future work in the region.

#### **CHAPTER II: TALE OF TWO POLITIES**

The purpose of this thesis is to explore the modes of interaction the Tiwanaku and Inka polities in the region of Charazani. To accomplish this, the Tiwanaku and Inka polities have to be examined. The goal of this chapter is to familiarize the reader to the Tiwanaku polity and the Inka Empire, so that the information about the two states can be applied to their modes of interaction covered in Chapter III.

#### The Tiwanaku Polity

This section will cover the environment, architecture, and ideology of the Tiwanaku polity. The objective is to give an introduction to the Tiwanaku polity so later this knowledge can be applied to the Tiwanaku polity's modes of interaction in Charazani. The Tiwanaku polity occurred during the time know as the Middle Horizon from A.D. 500 through A.D. 1100.

The Tiwanaku region was described as a "...black, frigid land...," but in reality the altiplano was highly productive (vonHangen 1959:272). Puglar Vidal (n.d.) divided the Titicaca Basin altiplano into two regions: the suni and the puni. The suni lies at 3,800–4,000 meters above sea level (m.a.s.l.) and produces tubers, legumes, and chenopods (Stanish 2003). The puni is situated at 4,000–4,800 m.a.s.l. and is used to raise camelids and produce tubers.

Some of the earliest monuments in the Andean region can be found in Tiwanaku city. These include the common Tiwanaku architectural works, such as pyramids, platforms, sunken courts, and stelae (Conklin 1991; Isbell and Vranich 2004; Janusek 2004; Goldstein 1993; Protzen and Nair 2000, 2002; Stanish 2003). Tiwanaku architecture was built from cut stone blocks and adobe (Goldstein 1993). One of the most prominent features of the Tiwanaku architecture was pyramids or platforms with sunken courts at the top (Browman 1978; Goldstein

1993; Kolata 1986; Vaugh 2006). The most famous pyramid was Akapana in Tiwanaku city. Akapana is a step pyramid with a sunken court located on its summit. Akapana was created with cut andesite blocks that were covered with metal lamina (Janusek 2004; Kolata 1993). At the base of Akapana there were several offerings of broken serving vessels, ceremonial vessels, Ilamas, and 23 humans (Alconini 1995; Janusek 2004; Kolata 1993). Pyramids and sunken courts were found outside the Tiwanaku city as well. Another pyramid and sunken court complex, Wila Kollu, was found at Lukumata an urban center which expanded at the same time as Tiwanaku city. Sunken courts were found in the southern Titicaca Basin at Chiripa, a primary precursor of the Tiwanaku polity (Hastorf 1999; Vaugh 2006). Stone stelae were frequently found in the center of these sunken courts. One of the most famous stela, the Bennett Monument was found in the Sunken Temple in the center of Tiwanaku city (Goldstein 1993; Janusek 2004). The key architectural features discussed above were all found within Tiwanaku city and were also the most common architectural features in the periphery of Tiwanaku polity. These architectural features were also associated with ceremonial activities.

The ideology of Tiwanaku polity can also be found in the Tiwanaku city which was built to be visually impressive, to be personally experienced, and to express a specific worldview (Conklin 1991; Isbell and Vranich 2004; Janusek 2004; Kolata 1992; Protzen and Nair 2000, 2002). Indeed, it was a religious center for visitors and pilgrims. Guests would be led through a planned experience of constructed doorways and stairways that controlled access to pyramids, platforms, sunken courts, and other significant areas. These structural features ensured that everyone would receive the same choreographed religious experience (Goldstein 1993; Isbell and Vranich 2004; Janusek 2004). The Tiwanaku polity's ideological system recognized pan-

Andean labor divisions, status hierarchies, productive strategies, property conceptions, and ethnic affiliations (Kolata 1992:77). The major god was the "Gateway God." It is featured on the center of the Gateway to the Sun at Tiwanaku city (Demarset 1981; Kolata 1992). The "Gateway God," Kolata (1992) argues, was the personification of atmospheric conditions, like sun, wind, rain, and hail, which affect agricultural productivity. Atmospheric and celestial cycles were also marked in the layout of the city which was built with all architecture slightly aligned off the cardinal directions to show celestial cycles, such as the daily path of the sun (Janusek 2004).

Feasting was a major ceremonial activity of Tiwanaku culture and ideology. Feasting involves the consumption of food and drink in an event that is different from everyday activities (Bray 2003a, 2003b; Goldstein 2003). The Tiwanaku people would drink *chicha* out of *keros* or drinking cups. There were numerous *keros* discovered next to the Akapana pyramid, which demonstrated that feasting took place near and on the Akapana pyramid (Isbell and Vranich 2004). In areas of Tiwanaku's city and throughout other sites, there was an increase in the number of large jars to store and ferment alcoholic beverages at the height of the Tiwanaku polity (Couture 2003; Janusek 2004). There was a rise in the production and consumption of food and drink which was most likely sponsored by elite groups associated with the Tiwanaku polity (Janusek 2004).

By the mid 7<sup>th</sup> century, the influence of the Tiwanaku polity had expanded beyond the core of the Titicaca Basin to include several colonies. The Tiwanaku polity intensified the agriculture production of tubers and the pastoralism of camelids. At its height, the Titicaca city was a religious center for pilgrims in surrounding areas. The Tiwanaku polity began to decline in the 10<sup>th</sup> century. The cause of Tiwanaku polity collapse in A.D. 1100 is unknown, but the

most likely scenario was that a pervasive drought helped bring about the collapse of political, social, and economic organizations as people slowly dispersed from large centers to smaller villages (Janusek 2004; Stanish 2003).

### The Inka Empire

Later when the Inka entered the Titicaca Basin some 400 years later, several autonomous polities occupied the area. No one group had overreaching power. The Lupaqa established themselves with the Inka (D'Altroy 2002; Stanish 2003). Different ethnohistorical accounts state that the Lupaqa, to further align themselves with the Inka, defeated the Qolla who rebelled against the Inka. Other accounts argue that it was the Inka who defeated the Qolla (D'Altroy 2002). The Qolla continued to lead revolts, sometimes aided by the Aymarans. Later Thupa Inka led forces against the Qolla to finally subdue them and the Titicaca Basin (D'Altroy 2002).

Ethnohistorical accounts state that the Titicaca Basin and the Charazani region were controlled by the Inka Empire (Bastien 1987; D'Altroy 2002; Saignes 1984, 1985). This section discusses the environment of the Inka Empire and the institutions used to unite the empire. The institutions discussed are: the architecture, the road, the ideology, and the military. In addition, methods of the Inka control are addressed.

The Inka Empire, called Tawantinsuyu, was the largest empire of the pre-Columbian world, yet it lasted only a hundred years, from A.D. 1435–1535, due to Spanish contact. It extended along the Pacific coast from the tip of Colombia down through parts of Chile and Argentina. It also included parts of Ecuador, Peru, and Bolivia. The empire was divided into four quarters: Chinchaysuyu, Antisuyu, Collasuyu, and Cuntisuyu. Collasuyu was the quarter covering the Titicaca Basin and the Charazani region. The Inka Empire covered over 4,000 km

and several different environments (Bauer 1992; D'Altroy 2002; Moseley 2001). Javier Pulgar Vidal (1987) developed eight environmental zones that the Inka Empire crossed based on native terms and biotic classifications.

Environmental zones:	Description and human use:
Liivii Oiiii Ciitai Zoiics.	Description and number use.

Sere desert or the coast	irrigation farming of n	naize, curcurbits, gourds,
--------------------------	-------------------------	----------------------------

and cotton

Yunga (2000-3000 m) farming of coca, aji (pepper), and fruits

Quecha band (3,100–3,500 m) highly productive dry farming of maize, beans,

quinua, and tubers

Suni zone (3,500–4,000 m) hills, ridges, and deep valleys produced tubers,

quinua, and talwi

Puna (up to 5,000 m) alpine tundra used to herd and grow

camelids

Jaca zone permanent snowcaps and glacial lakes held a lot

of minerals

Ceja de selva "eyebrow of the jungle" upper edge of the Amazonian jungle had maize,

coca, and fruit

Selva (jungle) or montaña (Amazon) lower forest had fertile plains, gold, wood, and

beautiful feathers

The Inka's great achievements integrated the diverse and distant environments. One of their famous accomplishments was their architecture. Inka architecture is noticeable to archaeologists by several signs: fine stoneworking, trapezoidal openings, and double jam doors (D'Altroy 2002; Hyslop 1990; Lynch 1993; Moseley 2001; Niles 1993). The most famous evidence of Inka stoneworking is the 12 cornered stone in the wall of *saqsawmaman* at Cuzco still standing today. Shaped by continual rubbing and pounding, the stones fit perfectly together and did not require mortar (D'Altroy 2002; Hyslop 1990; Moseley 2001). Inka masonry created both rectangular and polygonal blocks. Polygonal stones were typically used for terrace walls, while rectangular stones were used for perimeter walls, corners, and wall apertures (Hyslop

1990; Moseley 2001). Wall openings (windows, doorways) and niches in Inka building were usually trapezoidal (Hyslop 1990; Moseley 2001). Another frequent feature of Inka architecture was triple or double jam doors, which was a sign of prestige (Hyslop 1990).

These typical signs of Inka masonry can be seen in common Inka buildings, the *kancha* and the *kallanka* (Hyslop 1990; Malpass 1993; Moseley 2001). A *kancha* was a complex of three or more rectangular buildings laid out symmetrically on one end of a rectangular plaza (Hyslop 1990; Malpass 1993; Moseley 2001). The *kancha* and plaza were enclosed in a high wall with only one entrance (Moseley 2001). The *kanchas* were mainly housing residences, but some were workshops (Hyslop 1990; Malpass 1993). The *kallankas* were long rectangular houses typically used as military garrisons (Hyslop 1990; Malpass 1993).

Other common Inka architectural buildings were the administrative facilities located near the center of Inka cities. Hyslop (1990) argued that they were not only governmental buildings, but also educational centers in which locals would learn the Inka worldview. When visiting the administrative facilities, locals would be offered *chicha* by an Inka representative as an act of hospitality which was an important aspect of the Inka worldview (D'Altroy 2002; Hyslop 1990) This is confirmed by the large *chicha* jars found within and next to the administrative centers (Hyslop 1990).

Other architectural features in the center of towns were the *ushnus* and plazas (Hyslop 1990; Malpass 1993; Moseley 2001). An *ushnu* was a raised platform, similar to a step pyramid, and usually situated on one side of plaza (Hyslop 1990; Malpass 1993; Moseley 2001). An *ushnu* may also have had a carved seat or thrown for an Inka ruler to sit on (Moseley 2001). There would also be a basin with the *ushnu* to hold libations of *chicha* during ceremonies

(Hyslop 1990; Moseley 2001). Plazas came in various shapes and archaeologists have noted rectangular, trapezoidal, trapezium (four sides, none parallel), and irregular shapes. Typically, the shape of a plaza repeated the architectural shapes and buildings that were situated next to them (Hyslop 1990; Malpass 1993). Plazas were used for public gatherings, military viewings, and deity worshipings—activities which heightened the political role of the Inka (Hyslop 1990; Malpass 1993; Moseley 2001). Inka rulers and administrators could speak to the people gathered in the plaza or review the army while standing or sitting on the *ushnu* (Hyslop 1990; Moseley 2001). Moreover, ceremonies, like feasting, took place in plazas and near *ushnus*.

Temples and shrines could be elaborate structures, mountain ranges, mountain tops, rock outcrops, or stones. Sacred rock outcrops and stones were called *huacas*. The founder of Cuzco, Manco Capac, was transformed into a *huaca*, located just outside Cuzco. There were several *huacas* worshiped by the Inkas and their followers. *Huacas* were not just unique to the Inka, but existed before their time in Andean communities. One of the most significant Inka religious spaces was the temple *Qorikancha* or Golden Enclosure known as the Temple of the Sun (D'Altroy 2002; Moseley 2001). The Temple of the Sun had a room plated in gold in honor of the sun and another room clad in sliver to worship the moon (Moseley 2001).

Qollqas or storehouses were used to store numerous items, such as military equipment, clothes, ceramics, and food. While there were regional differences, within each region they were fairly regularized with rectangular or circular construction. They were typically built along parallel rows following the natural contour of the land. They were also present at Cuzco along state roads and state farms (D'Altroy 2002; Moseley 2001; Topic and Topic 1993). *Qollqas* next to farm fields were designed to preserve food for long periods. So, they contained gravel

subfloors and drainage canals to keep the interior dry and cool (D'Altroy 2002; Morris 1981; Moseley 2001). *Qollqa* or storehouses were important because they demonstrated the Inka ownership over the stored product and the creation of a surplus that the Inka controlled (D'Altroy 2002; Hyslop 1990; Topic and Topic 1993).

Fortifications were also found in Cuzco and along state roads. They were also built in other major Inka cities throughout the Empire and along the border. Fortifications may have been used to control local rebellions, to launch future campaigns, to defend from outsiders, and to protect significant resources (Alconini 2002; Hyslop 1990; Malpass 1993). In areas where the people had resisted, fortifications were built to encompass the entire area and to hold a yearround standing army. If used as a base to launch campaigns, fortifications may have been placed in locations facing the future land the Inka wanted to conquer. When employed as protection from outsiders, fortifications would only be necessary along the border of the region shared with the outsiders. Finally, when fortifications were used to protect important resources, the Inka would place them in key locations to control the movement of goods, such as on major roads. Like many Inka structures, their fortifications were highly dependent on the environment. In Ecuador, the fortifications were built on rocky terrain (Hyslop 1990:189). At Inkawasi, there were small oblique windows that could have been used for observations or as 'shooting holes' (Hyslop 1990:188). In the south, they were typically built on rock outcrops (Hyslop 1990). Despite these variations, fortifications can be identified by their thick walls and lack of fine stoneworking.

The Inka road system extended throughout the empire. Because it connected all major Inka administrative centers and shrines, it enabled faster communication, trade, and resettlement.

The road system also allowed for efficient military action and ceremonial pilgrimages by the creation of outposts and way stations were carriers could wait to relay messages and travelers could rest. In fact, during military campaigns, messengers would be placed along the road allowing for quick communication (Hyslop 1990; Moseley 2001). The roads were constructed through the Andean Mountains by building on plateaus and valleys. When gorges needed to be passed, bridges were constructed. The roads could only be used with the permission of the Inka King (D'Altroy 2000; Hyslop 1990: Moseley 2001).

As the Inka expanded their empire they also spread their ideology and gods. Instead of removing local people's gods, the Inka incorporated local deities into a hierarchy of gods—with the Inka deities on top. This hierarchy of gods reinforced the hierarchy of ethnic groups and ayllus (kin group). If a local god was high in status, then the ethnic group and ayllu who worshiped the god was also high in status. The Inka also had the ceque system, a network of shrines that created lines of ideological importance and reinforced the hierarchy of the allyus. All shrines on the landscape were linked by lines, ceq'es, which radiated from Cuzco and oftentimes followed the Inka roads (D'Altroy 2002; Hyslop 1990; Moseley 2001). Each line was assigned to an ayllu. The specific ayllu had to care for the shrines along the line and perform specific ceremonies at certain times (D'Altroy 2002; Moseley 2001). The more important ceremonies were given to the more important ayllus, reinforcing the established hierarchy.

The Inkas used ideology to enhance and legitimize Inka rule (Costin and Earle 1989; Earle 1997). In the Northern Calchaquí Valley, the Inka asserted ownership of the sacred landscape by building shrines (D'Altroy et al 2000). Administrative centers symbolically linked

the provincial town centers with Cuzco (Hyslop 1990). Centers (administrative centers, *ushnu*, plazas) were used as places for feasting, drinking, and political-religious ceremony.

The Inka also established power through their military in two ways (D'Altroy 2000; Earle 1997; Moseley 2001). The military size encouraged people to be compliant and the Inka employed the military in actual combat. The military could be used as a form of intimidation in conjunction with diplomacy, alliances, ceremony, and gift-exchange. Also, at times of strong resistance the military would have applied violent physical force to any uprisings (D'Altroy 2000; Moseley 2001).

#### Forms of Political Control

Modes of interaction lead to understanding forms of political control. It has been suggested that the Inka employed a Hegemonic and Territorial model or an indirect and direct form of control (D'Altroy 1992; Hassig 1988; Stanish 2000). The model states the Inka employed varying strategies from an indirect hegemonic control to a direct territorial control in managing areas. This model can be applied all to polities, including the Tiwanaku polity.

In the indirect or direct model of political control, the type of strategy depended on the people and environment the polity encountered (Convey 2000; D'Altroy 2002; Grosboll 1993; Hassig 1988; Malpass 1993; Moseley 2001; Stanish 2003). In indirect political control, the polity's goal would have been to apply the most minimal amount of force and threat needed to subjugate the ruler and the capital city. The polity would have extracted limited amounts of tribute in the form of people, goods, and raw materials from the region. At the same time, the polity would have placed less investment in the area (less military, less political control) and employ fewer resources, energy, and time in the area (Convey 2000; D'Altroy 2002; Grosboll

1993; Hassig 1988; Malpass 1993; Moseley 2000; Wallerstein 1974, 1976). In direct political control, the polity's goal would have been to conquer the entire region, not just one component of it. This would allow the polity to extract excessive amounts of tribute. The polity would have placed a high amount of investment into the area by having a standing army that defended the territory year-round. The polity would have also replaced the local ruler with someone from the core so the polity would have had direct political power (D'Altroy 2002; Hassig 1988; Mosley 2001).

Hence, the model shows that polities have different forms of political control based on the specific environment and people in a region. A polity would have employed an indirect control or direct control to integrate the people and area into their polity.

Although this model only discusses two options, there are in fact several others. The model can be viewed as a scale from very little indirect control to very strong direct control. Also the model can be viewed as a model of investment and tribute. In this case, indirect political control would a form be one of low investment and low tribute. Direct political control would be a form of high investment and high tribute. The two other options include high investment with low tribute and low investment with high tribute.

This chapter, Tale of Two Polities, introduced the polities of the Tiwanaku and the Inka by addressing their respective environment, architecture, and ideology. In addition, forms of political control were examined. Now that a basic background to the Tiwanaku and Inka polities has been given, in the following chapter this thesis will move into discussion on the modes of interaction found in Andean polities.

#### CHAPTER III: MODES OF INTERACTION IN THE ANDES

I will discuss modes of interaction that lead to different forms of control. I will begin by discussing modes of interaction found through the Andean region. Then, I will explore the modes of interaction of the Tiwanaku and Inka polities with specific examples from particular regions. Finally, I will end this chapter with research objects that examine how these modes of interaction may be discerned in the Charazani region.

Numerous modes of interaction utilized in the Andean territory. In this thesis, I will emphasis particular modes of interactions. These include vertical archipelago colonies, prestige goods economy, and feasting ceremonies. I will also examine the interaction of emulation through materialization of ideology. These interactions will be examined through the collection of surface material.

The concept of vertical archipelago was originally articulated by Murra (Mujica 1985; Murra 1972, 1980, 1985, 1986; Salomon 1985,1989; Stanish 1989). Murra (1972, 1980, 1985, 1986) argues that ethnic groups in the Andean region attempted to control as many ecological zones on different levels of the Andean Mountains as possible. Murra (1972, 1980, 1985, 1986) assumes that villages were ethnically defined. A village would control ecological zones by establishing permanent colonies in other zones; these permanent colonies would resemble ethnic enclaves or 'islands' (Mujica 1985; Murra 1972, 1980, 1985, 1986; Salomon 1985, 1989; Stanish 1989). The colonies would then produce products for the core (i.e. original village). The colonies and the core would form complex economic networks of trade and exchange via the continual movement of goods and people, thus forming a chain of vertical islands (Mujica 1985; Murra 1972, 1980, 1985, 1986; Salomon 1985, 1989; Stanish 1989).

Murra (1972, 1980, 1985, 1986) also states that the colonized area would most likely be shared by several ethnic groups at once, so different ethnic groups would send their own people out to establish permanent colonies. As a result, colonists from different ethnic groups would live next to each other in the same ecological space. As an ethnohistorian, Murra (1972, 1980, 1985, 1986) has developed his model from documents indicating that people living in different areas were identifying themselves as part of other villages. To Murra (1972, 1980, 1985, 1986), this implies that individuals were sent from their home villages to live in different areas. Murra's study of vertical archipelago was influenced by cultural ecology, structural functionalism, and Marxist approaches (Mujica 1985; Salomon 1985; Van Buren 1996).

However, some researchers have been critical of vertical archipelago. Van Buren (1996) argues that verticality may have existed in pre-Inka times, but it was always a state-level adaptation. The colonies were used as production centers for the polity (Tiwanaku polity, the Inka state, or the Spanish Crown) and were not controlled by a kin group or village. The Inka or Tiwanaku polity would form permanent colonies in areas with valuable resources. Those permanent colonies would have settlement patterns, architecture, and goods related to either the Inka or Tiwanaku polity. Therefore,, verticality or zonal complexity, is a mode of interaction that allows a polity to obtain control of the production and movement of goods and resources in different environments.

Prestige goods economy is another mode of interaction. It explains how and why political elites would interfere with goods and economics to obtain high status items. Emerging elites would use prestige goods to establish and maintain their status. Prestige goods economy occurs when: 1) ruling elites would make subordinates produce a surplus of goods; 2) the elites

would form inter-regional alliances; 3) the elites from different societies would exchange surpluses, so the items circulated would be foreign and therefore of higher value; and 4) the elites would control the number and distribution of the good to insure its rarity and maintain its prestige status (Blanton et al. 1996; Brumfiel and Earl 1987; Flannery 1969; LeCount 1999; Renfrew 1986; Shortman and Urban 1992, 1996). For a good to be considered a prestige good, it must require a particular skill level of production, be governed by laws, and be necessary for all people regardless of status (Brumfiel and Earle 1987; DeMarrais et al 1996; LeCount 1999; Mauss 1967; Peregrine 1991; Smith 1976; Shortman and Urban 1992, 1996). By controlling the distribution of prestige goods the elites were able to choose who could obtain them. They could be given as gifts or awards. As such, those who had access to them could show their elite status and their relationship with the elites. Also, local commoners would perform tasks for elites to obtain the prestige goods (Mauss 1967). Finally, typical prestige goods would be decorated ceramics like those studied in this thesis (Costin and Earle 1985; Feimen et al 1981; LeCount 1999).

The study of prestige goods economy has been influenced by big men studies and Marxism studies (Shortman and Urban 1992, 1996). Like Marxism, studies of prestige goods economy view relationships as naturally exploitative and consider inequality of wealth the main cause of change (Shortman and Urban 1992, 1996). Flannery's (1969) explanation for Olmec goods in the Valley of Oaxaca has also influenced studies of prestige good economies. In his work, Flannery (1969) argues that the Olmec elites and the elites of the Valley of Oaxaca created an exchange because the Olmec elites were looking for a way to maintain their status while the Valley of Oaxaca elites were looking for a way to establish their new rank. Another influence is

Renfrew's (1985) discussion of peer polity. He states that societies of similar complexity would recognize each other by establishing trade and exchange networks; this would cause organizational changes, such as appearance of rank, in societies of similar complexity and in the surrounding polities.

Another significant mode of interaction is feasting, a form of communal consumption that is different from everyday meals (Bray 2003; Cook and Glowacki 2003; Goldstein 2003). Archaeological research has shown that feasting occurred during ceremonies sponsored by the state. Members of the community ranging from commoners to elites would come together to enjoy the food and drink that elites provided. Feasting simultaneously promoted both allegiance and class distinctions (Bray 2003; Deitler 2003). Allegiance would have been encouraged by feasting because all members of the society participated in the feast regardless of status. At the same time, class distinctions would have been reinforced because it was the elites who provided the food, drink, serving ware, and place for the feast. In addition, feasting mobilized people for labor because feasting gathered a large mass of people who then would be obligated to perform future work for the elites (Dietler 2003).

Bray (2003) discusses the significance of examining people's engagement with food and feasting to better understand the organization of states. Many polities, like the Inka and Tiwanaku, created an elite or 'haute' cuisine that had a distinctive ceramics—cooking, service, and storage vessels aimed at making visible differences between social classes. This would include aryballoids and *keros*. The importance and meaning of pottery was tied to its involvement in the political practices of the state. Looking at vessel forms, patterns of

distribution, and contexts of findings leads to a better understanding on how ceramics functioned as political tools for the state.

Emulation through the materialization of ideology is another mode of interaction that will be explored in this thesis. In the materialization of ideology, ideology takes shape or is materialized in ceremonial wares (*keros*, incense burners, arybollids) monuments, icons, and rituals. Thus, ideology can be owned, restricted, traded, and exchanged through the control of the production, exchange, movement, and consumption of the ideological materials (DeMarrais, Castillo, and Earle 1996; Earle 1997). Ideology legitimizes powers and inequalities; therefore, ideological materials also legitimize power and inequalities (Costin and Earle 1985; DeMarrais, Castillo, and Earle 1996; Earle 1997; LeCount 1999). Also, the materialization of ideology allows for ideology to be proliferated outside the local group more readily through trade and exchange of ideological materials. This also permits the ideology to influence new people and their way of life. So, people who emulated the materialized ideology of a polity such as the Tiwanaku or Inka were in fact legitimizing that polity. Polities would encourage local elites to emulate their materialized ideology so that they could gain influence in those areas.

Feasting is a form of materialized ideology because the ideology is formed and presented through the food and drink. It is also materialized through the act of consumption.

Materialization of ideology also allows elites to use prestige goods to influence the spread of ideology. Through a prestige goods economy, elites could control prestigious items that materialized their ideology. Therefore, they could influence the state's ideology by controlling the movement, consumption, and distribution of goods as a materialized ideology. Another form of materialized ideology is architecture. Examples of architecture that embody state

ideology are Inka centers with plazas and *ushnus*, and Tiwanaku pyramids and sunken courts. These places communicate a specific ideology and the power of those who are responsible for their creation. Public monumental architecture are sources of power for existing and emerging elite—they are the materialized demonstration of the power to mobilize the large amount of people and labor to create such architecture.

In conclusion, Andean states used distinct modes of interaction to gain political control over others. The goal of this research is to investigate how Tiwanaku and Inka politics utilized such modes of interaction to gain political control in the Charazani valley. In the next section, I will discuss the modes of interaction of the Tiwanaku polity and followed by the modes of interaction of the Inka state.

#### **Modes of Interaction for Tiwanaku**

The Tiwanaku polity employed all four of the modes on interaction discussed previously. One such mode of interaction was vertical archipelago. The Tiwanaku polity employed vertical archipelago strategies by colonizing several areas like, Larecaja/Muñecas, Cochabamba, Omasuyu, Arequipa, and Moquegua to obtain different kinds of goods (Stanish 2003). Although the Tiwanaku polity created these colonies or enclaves, such colonies were not always required to pay taxes to the state. Instead, the colonies would exchange goods with the core. The Larecaja/Muñecas colonies traded maize and pepper for cloth, wool, and *charqi* (Murra 1968, 1972, 1985; Stanish 2003).

The Tiwanaku polity also used prestige goods to form alliances with other groups. The prestige goods that the Tiwanaku polity had to offer included their ceremonial ceramics, obsidian tools, and metal items. The most common Tiwanaku goods found outside the core were

ceremonial ceramic wares such as *keros, tazones*, and incense burners (Janusek 1999, 2002; Stanish 2003). Obsidian tools and metal objects were substantially manufactured during the Middle Horizon (Albarracin-Jordian 1996; Stanish 2003). Metal tools were produced at the Tiwanaku core, perhaps with copper from the northern Chilean desert and foothills (Graddam et al. 1996). In exchange the Tiwanaku nation may have received beads, raw obsidian, seashells, gold, silver, copper ores, and basalt. These items were all found within the Titicaca Basin but they originated from outside the Basin (Browman 1981, 1998; Burger et al. 2000; Bandy 2005a; Vaugh 2006).

Another mode of interaction is feasting. Feasting allowed non-elites to consume goods and participate in rituals to which they would normally not have access to (Bray 2003; Goldstien 2003; LeCount 1999; Stanish 2003). At Tiwanaku the 'haute cuisines' consumed at feasts were *chicha* and meats (Goldstein 2003; LeCount 1999; Stanish 2003). A major function of ceremonies such as feasts was to make the population feel obligated to work. Because the state provided the feast, the population would feel compelled to reciprocate through labor (Bray 2003; D'Altroy and Earle 1985; Stanish 2003).

One of most significant economic foundations of the Tiwanaku polity was raised-field agriculture. Raised-field agriculture is the usage of large mounds of dirt piled above sea level. Raised-fields agriculture existed in pre-Tiwanaku times. Yet, under Tiwanaku influence raised-fields maximized and increased production (Kolata 1986, 1991 1992; Stanish 2003). The majority of Tiwanaku colonies were situated next to raised-fields because of their productivity. Their production was a form of a staple finance (Stanish 2003). Staple finances are a type of mandatory payments made to the state in the form of subsistence goods. The staple finance then

is used to pay attached personnel and part-time workers (Brumfiel and Earle 1989; D'Altroy and Earle 1985).

#### Tiwanaku colonies and alliances

There is evidence that Cochabamba was colonized by the Tiwanaku polity (Goldstein 2003; Stanish 2003). During the Middle Horizon, there were significant changes in the ceramic assemblage. There was an increase in the number of ceramics, an increase in the amount of painted wares, an appearance of Tiwanaku hallucinogenic artifacts, and a presence of Tiwanaku ceramics in burials (Goldstein 2003; Stanish 2003). In addition, there was a creation of a local Tiwanaku style.

There is very little argument against Larecaja/Muñecas not being a Tiwanaku colony, but that is because there are very few studies in the area. The Larecaja/Muñecas area is north of La Paz city, northeast of Lake Titicaca, and east of Charazani. There was a high quantity of Tiwanaku wares and almost a complete absence of non-Tiwanaku ceramics. The few that existed were Cochabamba artifacts. Cochabamba was a region under Tiwanaku influence; the presence of Cochabamba artifacts further supports the stance that Larecaja/Muñecas was a Tiwanaku colony. Also, during the time of Tiwanaku, there was an increase in population and in the number of domestic sites which may have been caused by the migration of people from the Tiwanaku core (Faldín 1990; Stanish 2003). These interactions suggest a direct control by the Tiwanaku polity.

Azapa was located in the coastal valleys of the South Andean Mountains in southern Peru and northern Chile. Although people from the Tiwanaku core were living among the locals, the Tiwanaku did not have a direct political control in Azapa. Yet, the Tiwanaku were allowed to

have access to agricultural production and ore (Goldstein 1995–1996; Stanish 2003). The relationship between Tiwanaku and Azapa was based on "diplomacy and subtle imitation" on the part of the Tiwanaku polity (Goldstein 1995–1996:67).

San Pedro de Atacama is an example where Tiwanaku used prestige goods to interact with society. San Pedro is located in present day Chile on the border of Bolivia. This region traded with Tiwanaku elites for Tiwanaku ritual artifacts like *keros* and snuff trades in exchange for water (Berenguer et al. 1980; Torres and Conkln 1995). San Pedro de Atacama could have been an oasis for Tiwanaku caravans. Another evidence of continued exchange between Tiwanaku and San Pedro de Atacama was their shared iconography. Also, in the San Pedro de Atacama burials there were large amount of foreign objects from Tiwanaku and other societies. This indicates that the Tiwanaku policy did not have full political control because it shows that San Pedro de Atacama was actively pursuing other foreign, prestigious objects. These examples of modes of interaction leading to forms of political control aid in developing a guideline of what Tiwanaku political control would look like in other regions.

In conclusion, Tiwanaku polity's modes of interaction that lead to forms of political control included a variant of the vertical archipelago colonies, prestige goods, trade and alliances, feasting, and raised-fields. The knowledge and examples presented here will be applied to the ceramic assemblage at Charazani.

#### **Modes of Interaction for Inka**

The Inka state also employed all of the four modes of interaction discussed above. For example, in the Collasuyu sector the Inka used vertical archipelago in the form of *mitimas* 

colonies to form new towns, relocate populations, and create production (Costin and Earle 1985; D'Altroy 2001; Mosley 2001; Stanish 2003).

Employing the vertical archipelago strategy, the Inka would relocate people to different ecological niches to take advantage of the resources (Covey 2000; D'Altroy 2002; Dillehay 1979; Moseley 2001; Murra 1965, 1980). Many times these colonies would take the shape of *mitimas* colonies. *Mitimas*, colonies of *mit'a* labors created by the Inka, would have been placed to produce specific crops or to utilize specific raw materials for different crafts. Furthermore, the Inka would establish colonies in different places to control the movement of goods from valleys to highlands.

To form *mitimas*, the Inka would resettle people for the sole purpose of producing a good for the empire (Convey 2000; D'Altroy 2000; Moseley 2001). This frequently happened when an area was difficult to conquer and/or the people were prone to rebellion and defiance. The Inka would separate the people and merge them with more compliant groups. A famous *mitima* was Milliraya, the city of cloth weavers located north of Lake Titicaca (D'Altroy 2000). They filled large storage areas that still contained cloth after the Spanish conquest (D'Altroy 2000). Like other *mitimas*, workers were provided with shelter, clothes, food, and other necessities from the Empire.

Mit'a service was a form of labor that the people performed for the state and was the tribute that the subject population owed the Inkas (D'Altroy 2002; Moseley 2001). This is because the Inkas claimed ownership of the land through ideology. The Inka origin myth states that the Inka gods (four brothers and four sisters) came from the land and then spread out in four directions-creating the four quarters of the empire—Chinchaysuyu, Antisuyu, Collasuyu, and

Cuntisuyu—establishing Inka ownership (D'Altroy 2002; Moseley 2001). In addition, the emperor was said to be the direct descendent of the Inka gods (D'Altroy 2002; Hyslop 1990; Moseley 2001). The Inkas would allow people to live on their land if the people paid them in tribute. *Mit'a* service was that tribute; part-time attached specialists worked as farmers, herders, weavers, miners, metallurgists, and potters. *Mit'a* service was a political strategy that the Inka used to make people behave in a specific way.

Unlike *mit'as*, *yanakunas* (*yana* in its shortened form) were full-time, lifetime laborers (D'Altroy 2002; Mosely 2001; Murra 1980). They were removed from their homes permanently; therefore, they had no ethnic or social affiliation. They were only obligated to the Inka ruler and elites, whom they worked for directly. A *yana* may have had the same work as a *mit'a* worker (farmer, herder, craftsman), but many *yanas* achieved high status because they were artisans or aristocrats. Some *yanas* were also permanent military members.

The Inka also employed a prestige goods economy; they created alliances with elite leaders in the region through exchange (Covey 2000; D'Altroy 2002; Moseley 2001; Salomon 1985). The Inka offered the elites of different regions new prestige goods including Cuzco goods and other exotic items, like coastal shells and *aqllakuna*. *Aqllakuna* were chosen women who were educated in religion, pottery, weaving, and cooking (D'Altroy 2002; Moseley 2001). They were given as wives to local ruling elites, either to convince them to join the Inka Empire or as awards to elites who worked in benefit for the empire (D'Altroy 2002). So, the *aqllakuna* were distributed as a prestige good, suggesting the commodification of elite females. It has been shown that the Inka were able to change what was perceived as prestige goods by introducing state items and new exotic goods in local areas (Costin and Earle 1989). A prestige goods

economy allowed both the locals and Inkas to obtain goods and resources they desired without either side using large amounts of resources. The presence of Inka goods found in provincial areas may be caused by elites seeking to establish and maintain their power in their region. This illustrates that a privileged segment of the population had access to Inka prestigious items. A prestige goods economy may have been used alone to influence people or in conjunction with other forms of political economy, such as colonies.

Feasting was also an important mode of interaction which may have been utilized to influence the economics and political control of a region. The Inka could have passed on the importance of their haute cuisine by exchanging *chicha* and the arybollids with other goods from local elites, thus introducing *chicha* and arybollids as prestige goods. Therefore, feasting ceremonies would have influenced production of goods (Bray 2003; Cook and Glowacki 2003; Goldstein 2003). Furthermore, feasting impacted the production of maize, which the Inka increased and created large storage areas for at a massive level. Feasting was also a way to assemble people and create a labor force (Dietler 2003). Feasting reinforced the social hierarchies established by the Inkas because it supported the Inkas' requirement that people tend state maize farms, that artisans create arybollids, and that *aqllakuna* produce *chicha*. In addition, feasting demonstrated differential access to food because the elite provide the food and drink that commoners did not have access to on a normal basis (Bray 2003; Moseley 2001).

#### **Inka Control in the Provinces**

Morris and Thompson (1985) argue that the archaeological record and ethnohistorical accounts indicate that the Inka had direct political control in Huánuco Pampa. Inka architecture is highly visible at Huánuco Pampa which imitates Cuzco in architecture and ceramics. The city

was filled with *mit'a* retainers. There were also indication that the city held *aqllakuna* by the dormitory type architecture containing *chicha* jars and spools. The city itself symbolized and actualized Inka political and economic control.

While Huánuco Pampa city represents a strong form of control by the Inka, the surrounding area outside had very little to no evidence of Inka presence. The local villages' architecture outside the area remained largely untouched, indicating that they remained self-sufficient under Inka rule. Thus, with the evident heavy influence of Inka in the city and lack thereof in the surrounding villages, Morris and Thompson (1985) argue that Huánuco Pampa symbolizes the Inka presence and power in the absence of any actual Inka ruler.

Topic and Topic (1993) examine the Huamachuco province and conclude that the Inka had a strong political control in the area based on archaeological and ethnohistorical evidence. The presence of storage areas demonstrate some Inka involvement. Also, the artifact assemblage included a limited amount of Inka and foreign goods that would have been obtained through Inka roads and influence. Also, there were two original *huarangas* (an Inka administrative unit of a thousand households) that were divided into four units. Ethnohistorical sources reveal that a direct political control was used. In fact, they state that *mitimas*, in the middle-altitude lowland areas, were added to the province by the Inka.

Direct political control can also be seen in the northern Calchaqui valley (D'Altroy et al 2000). The Inka altered the region's settlement organization, ethnic makeup, and local economy by five methods. The Inka polity increased craft, agricultural, and pastoral production. They also created state farms. The Inka influenced the area politically as seen in the development of state installations along the two main highways. They also established their power through ideology

by asserting ownership of the sacred landscape by building more than fifty shrines on high mountain peaks. Finally, they constructed several military forts along the eastern and western flanks of the mountains.

In the Oroncota region, the Inka invested heavily in the area to gain a strong direct control. This is visible in the Inka's high investment in elaborate architecture. Elaborate architecture was placed in key locations to control and administrate the area. In return, the Inka received low amount of revenue (indirect control). This is seen in the lack of Inka involvement in the ceramic economy. In Oroncota, this combination of direct and indirect control is referred to as "disembedded centers" because the elaborate Inka administrative centers were left nearly unpopulated most of the year (Alconini 2007).

In summary, *mit'a* service, vertical archipelago, prestige goods, feasting, and ceremonies were some of the most important strategies utilized by the Inka state to manipulate economies that legitimized, promoted, and maintained their political power. This section exemplified some of the ways in which the Inka exerted their influence over the Titicaca Basin, the Charazani region, and the rest of their empire.

## **Research Objectives and Possibilities**

After establishing the modes of interaction that the Tiwanaku and Inka politics utilized in different areas, it is possible to explore how these modes of interaction would look in the Charazani valley and what form of control the modes of interaction would cause. Forms of political control occur on a range from direct or strong political control to indirect or slight political control. There are two goals in this thesis: 1) to determine what modes of interaction found in the Charazani region communicate about the forms of Tiwanaku political control in the

area; and 2) to determine what modes of interaction found in the Charazani region communicate about the forms of Inka political control in the area.

As explained, the first research objective is to determine the modes of interaction found in the Charazani region and to explore the forms of Tiwanaku political control in the area. There are four modes of interaction that Tiwanaku polity has used in other areas. These strategies include using vertical archipelago colonies, establishing a prestige goods economy, developing feasting ceremonies, and encouraging emulation of ideological materials.

The first possibility is that the Tiwanaku polity used vertical archipelago colonies as a form interaction and control. In this case, one may expect that nearly all sites, large and small, would be Tiwanaku sites. Tiwanaku sites can be identified by the presence of Tiwanaku style spread throughout the site. All large sites with public architecture would have a dominant concentration of fine Tiwanaku ceramics and other Tiwanaku goods. Moreover, there would be a high intensity of Tiwanaku ceramics throughout the area and Tiwanaku ceramics from the political core would be the only prestigious ware. In addition, at a regional level, there would be a sudden increase in population due to the influx of immigrants. Also, Titicaca Basin migrants would likely continue to make and use their own ceramics, materials, and technology. Therefore, it is expected a local production of Tiwanaku ceramics, obsidian, metals, and/or camelids would have been established. In addition, if a vertical archipelago strategy was being utilized by the Tiwanaku polity there must have been a resource that state wanted to control, such as goods coming out of the Amazon. As seen in Larecaja/ Muñecas, Cochabamba, Omasuyu, Aequipa, and Moquegua an interaction of colonization leads to a more direct form of control (Faldín 1990; Goldstien 2003; Stanish 2003).

The second possibility is that the Tiwanaku polity employed a prestige goods economy to gain influence. With an interaction of prestige goods economy, one would expect that only large sites would have access to Tiwanaku prestigious goods, such as Tiwanaku ceremonial ceramics, obsidian tools, and metal items. At the same time, smaller sites would not have access to the prestigious Tiwanaku goods. There would also be an item that the locals in Charazani could offer in exchange for Tiwanaku ceramics, such as metal ore in Azapa and water in San Pedro de Atacama (Berenguer et al. 1980; Goldstein 1995-1996; Stanish 2003; Torres and Conkln 1995). Thus, there would be a very low intensity of Tiwanaku ceramics because of the prestige of this ware. Furthermore, there would be other prestigious wares along with Tiwanaku ceramics because people would be free to form other alliances and to obtain prestigious goods from other polities, as seen in San Pedro de Atacama. With a prestige goods economy we see more of an indirect form of political control.

Feasting is the third mode of interaction that the Tiwanaku polity has used to gain political control that may have been employed in the Charazani region. Feasting ceremonies comes in a various sizes. In the Tiwanaku polity, there were large public feasts and small private feasts. If serving ceramics, such as *keros*, are only found in large public architecture sites, it may indicate that the elites utilized feasting as a means of demonstrating their ability to provide food to large number of people and as a way of gathering labor for large construction projects, such as buildings and state farms. This would lead to more of an indirect political control that is similar to a prestige goods economy. Alternatively, serving wares may not only be found at large sites, but also the village and household sites. This would suggest that feasting was an important ceremony to all people and not only a major event that occurred in large sites or centers. This

could be a result of mass colonization that included all sites, large and small, which would have led to a direct form of control with heavy investment by the Tiwanaku polity.

The final mode of interaction which may have been employed in the Charazani valley is emulation through the materialization of ideology. With this mode of interaction, Charazani elites would have emulated the Tiwanaku style and feasting ceremony to gain status and power over the locals. Therefore, one would find the Tiwanaku style concentrated in larger sites where local elites resided. Emulation could have occurred with or without the use of prestige goods. Emulation by itself would indicate an indirect form of political control.

The second objective of this thesis is to determine what modes of interaction found in the Charazani region communicates about the forms of Inka political control in the area. The modes of interaction that the Inka may have used involve *mit'a* or vertical archipelago colonies. They may have also employed a prestige goods economy, had feasting ceremonies, and encouraged emulation.

A form of interaction utilized by the Inka state was *mit'a* or vertical archipelago. Vertical archipelago and *mit'a* was employed to colonize areas. In this situation, one would see Inka sites, small and large throughout the region. Because of the significant influence of colonies, all the large sites would be Inka centers. There would also be a high intensity of Inka ceramics. Moreover, Inka ceramics would be the only prestigious ceramics in the Charazani valley. There may be indications of an increase in population due to immigrants colonizing the area, perhaps as *mitimas*. In addition, there may be evidence of local production of Inka ceramics and Inka goods. If vertical archipelago had been utilized to control resources there must be a resource that

state wanted to control, such as goods coming out of the Amazon. As stated, the interaction of colonization leads to more of a direct political control.

Another mode of interaction that the Inka may have used was a prestige goods economy. In this incidence, only large public architecture sites would have access to Inka goods.

Additionally, throughout the region there would be a very low intensity of Inka ceramics because of their high value. Furthermore, there would be other status wares present in the region because the Inka state would not have prevented the Charazani people from forming additional alliances. For a trade or alliance to occur, the Charazani region would have also possessed items or resources that the Inka desired. Once again a prestige goods economy by itself would indicate a form of slight political control.

If feasting was utilized in the area by the Inka it may have occurred in one of two ways. The presence of serving ceramics, such as aryballoids, only in large public architecture sites because elites employed feasting as a means to demonstrate their ability to provide feasts and to gather labor for large constructions, such as buildings and state farms. Alternatively, serving wares may not only be found in large sites, but also the village and household sites. This would suggest that feasting was important ceremony to all people and not only a major event that occurred in large sites or centers. This could be a result of mass colonization that included all sites, large and small, which would have led to a direct form of control with heavy investment by the Inka polity.

Another mode of interaction would be emulation through the materialization of ideology.

Charazani elites would have emulated the Inka style and feasting ceremony to gain status and

power over the locals. Therefore, one would find Inka style in larger sites where local elites resided. As stated, emulation on its own would cause a form of indirect political control.

In conclusion, the two objectives of this thesis are to determine which modes of interaction were utilized by the Tiwanaku and Inka polities to gain a form of political control within the highland region of Charazani. In the following chapter, I will discuss the region of Charazani itself in order to analyze the architecture and ceramics present in the region, and to understand the modes of interaction employed by both polities.

# CHAPTER IV: CHARAZANI, DOMAIN OF THE KALLAWAYA

In this chapter, I will discuss the environment of the Charazani valley, the local population, and previous archaeological works. The Charazani region is situated in present day Bolivia near the Peruvian boarder and was influenced by both the Tiwanaku and Inka states (Figures 1 and 2). The narrow valley is located on the eastern slope Andes Mountains along the Apolobama and Carabaya range. The Amazon lies to the east, the Titicaca Basin is to the south, and Cuzco is to the northwest. The Rio Llanla runs through the northern part of the region. Today, the Charazani region is part of the Apolobamba National Park, a protected area under the authority of the Bolivian government (Figure 3).

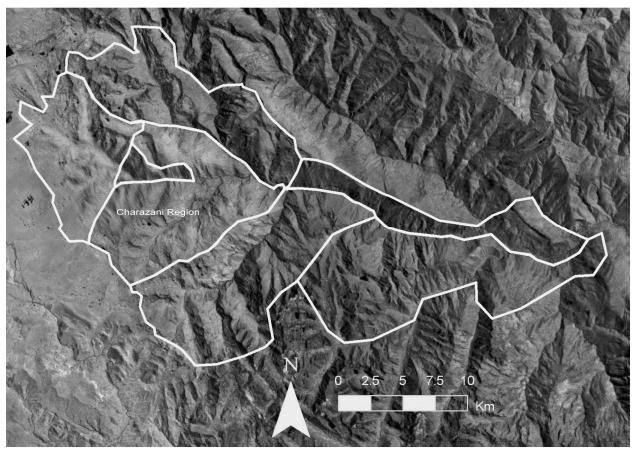


Figure 3. Map showing Charazani region on the Andes Mountains made by Alconini 2002.

The Charazani region is in a key location to influence the movement of goods in and out of the Amazon (Bastien 1987). However, beyond studies of the local Kallawaya and some archaeological research very little work has been accomplished in the area. In fact, *Proyecto Archqueológico Charazani-Camata* currently is one of the largest archaeological endeavors taken in region. The known information of the environment, ethnohistory, and archaeology will be presented here.

The Charazani region encompasses five environmental zones: the *puna* at 4100–4800 meters above sea level (m.a.s.l.), the *quecha* zone at 3900–4100 m.a.s.l., the valley at 2700–3900 m.a.s.l., the *cejas de montaña* or "eyebrow of the jungle" at 2000–2700 m.a.s.l., and the *yunga* at 2000–2700 m.a.s.l. The highest level, the *puna*, is used to raise camelids (alpacas and llamas). The valley head or *quecha* is utilized to grow root vegetables and is occupied by large-scale agricultural terraces where the majority of sites are located. The night frosts from May through August prevent the decomposition of the root vegetables (Meyers 2002). The valley (*quecha*) is fertile due to the alluvial sediments and produces root vegetables (at 3900 m.a.s.l.), *quinua*, and maize. *Quinua* is a cereal grain that is consumed by the locals today; in the past it was a dietary staple for people throughout the Andes, included the Kallawaya and the Inka. In the *cejas de montaña*, Kaata and Amarete groups produce wood for construction of buildings and crafts (Meyers 2002). The *yunga* is a semi-tropical area desired for its coca leaves, fruits, and plumes of birds.

## **Ethnohistory**

At the time of the Spanish conquests the ethnic groups occupying the Charazani region included the Chuncho, the Aymaran, and the Kallawaya (Bastien 1987). The Charazani region's

eastern front faces the tropical Amazon and was occupied by the group known as the Chuncho. The Chuncho encompassed a wide range of groups of Arawak origin (i.e. Lecos, Aguachiles, Moxos, and Tacanas) (Alconini and Kim 2007; Saignes 1984, 1985). Aymaran groups also occupied the Charazani's mesothermal valleys in the form of colonies brought in by the Inka (Bastien 1978, 1987; Casevits et al. 1988; Saignes 1985). They originated from the surrounding Titicaca highlands (Bastien 1978, 1987; Casevits et al. 1988; Saignes 1985). The Kallawaya were the native Yunga group of the region who still presently occupy Charazani. Linguistic and cultural similarities with lowland groups suggest that the Kallawaya descended from lowland groups in the eastern forest. They came to occupy the area through a series of ancient migrations by their ancestors. In fact, studies indicate that the Kallawaya medicine men's secret language is a combination of Puquina (a lowland Arawak-related language) and Quechua (a highland language) (Bastien 1987).

The Kallawaya are known for two major accomplishments: medical achievements and controlling important exchange networks (Bastien 1987; Meyers 2002). Kallawaya medical practices are still in used today, but the earliest archaeological record of their medical accomplishments date to around A.D. 400 (Bastien 1987). The Kallawaya medicine men have used enema syringes, developed herbal medicines, practiced trephinations, reshaped skulls, calmed mental illnesses, and set bones (Bastien 1987). Bastien (1987) also notes that the Kallawaya pharmacy included nature's equivalent of aspirin, penicillin, quinine, and other drugs possibly not yet known to modern medicine.

The second accomplishment the Kallawaya are known for were their ability to control the exchange networks across the Highlands and the Amazon because of their key location and

access to llama caravans. These caravans moved between the Highlands and the Amazon before the Spanish conquest which allowed for interaction among several groups and regions: the Kallawaya from Charazani, groups from Titicaca Lake, other Yunga groups, and Amazonian groups. Of course, this led to an exchange of goods and ideas (Meyers 2002). The goods that flowed along these routes were wool and meat of camelids, root vegetables, wood, coca leaves, fruits, and bird feathers

The Kallawaya were in contact with the Tiwanaku polity and Inka state. At the site Niño Korin, a burial cave identified in the 1950s north of Tiwanaku, Tiwanaku ritual paraphernalia, such as snuff trays, tubes, spoons, enema syringes, hallucinogens, medicinal herbs from the tropics, along with Tiwanaku textiles, were found (Bastien 1987; Mendoza 2004; Rydén 1957; Wassén 1972). Moreover, there was evidence that the Tiwanaku peoples utilized Kallawayan medical herbs of the such as coca leaves, tobacco, anesthetics, and the medical practice of trephination (Browman 1981; Mendoza 2004).

According to ethnohistorical accounts, the Charazani valley was incorporated into the Inka polity by Capacquiqui, son of Inka Canaqui (Bastien 1987; Saignes 1984). As a privilege, the Kallawaya worked as the Inka King's litter carriers (Bastien 1987). They were given an honored status because of their medical insights, their knowledge of exchange routes, and their influence in opening one such route from Alpolobamba Mountains to the tropical lowlands (Bastien 1987; Meyers 2002; Saignes 1984, 1985).

## Archaeology

The valley of Charazani has a long history of occupation resulting from its strategic location. There has been some archaeological research conducted in the area by Nordenskiöld,

Ponce, Rydén, and Wassén. As mentioned above, the Niño Korin was excavated by Rydén and described by Wassén. Rydén (1957) uncovered the grave of a medicine man near Niño Korin (Wassén 1972). Rydén (1957) and Wassén (1972) both argue that trephinations have been performed by the Kallawaya as early as A.D. 700.

Nordenskiöld (1953) and Rydén (1957) both excavated *chullpas*, funerary towers, in the Charazani region. The most common goods found in them were *tupos* or shawl pins (Nordenskiöld 1905; Rydén 1957). Nordenskiöld (1906) also excavated several *chullpas* built by Aymarans that were ascribed to their ancestors. The pottery found there was decorated with geometrical designs such as vertical and horizontal stripes with squares and parallelograms (Bastien 1978; Nordenskiöld 1906; 1953; Ponce 1957).

## **CHAPTER V: METHODOLOGY**

This chapter covers the ceramics and architectural data found in Charazani. In the process, I discuss how ceramics were classified and used in chronological determination.

Because the analysis of ceramics is key to understanding modes of interaction, ceramics will be the emphasized over architectural data.

## **Survey Collection**

The ceramics were collected in the 2005 archaeological survey in *Proyecto Arqueológico Charazani-Camata* directed by Sonia Alconini. The survey team performed an intensive collection of ceramic material on the surface. The survey was systematic and full coverage in order to identify all possible sites; all material was collected. In each site, the collection of cultural materials followed major archaeological areas, such as terraces and corrals, in order to distinguish distinct activity areas. The survey collected more than 5000 ceramic sherds. All sherds were considered in forming the Charazani classification, chronology, and analysis.

#### **Ceramics**

Ceramics were chosen as the principal material of study in order to explore how the Tiwanaku and Inka modes of interaction influenced the economics of the Charazani region. Ceramics are widely used in archaeology to identify political and social groups (Bray 2003a, 2003b; Costin and Earle 1989; Mills 1989; Rice 1987; Sinopoli 1991). Furthermore, they can help in establishing a chronology for the study region.

It is important to note that the simple presence of a non-local ceramic type does not imply the presence of the producers of the non-local ceramic. In other terms, the presence of Inka pottery is *not* evidence that the Inka were present in the region or controlled the region. Instead,

I argue that because the Inka had interacted with the locals, the presence of a ceramic type indicates a mode of interaction between the producers and the local population. Examining the variation of ceramics types across space and time has allowed me to understand the modes of interaction between the groups that produced ceramics and the groups that posses the ceramics. Moreover, because ceramic types uncover modes of interaction between groups, I can interpret the forms of political control the Tiwanaku and Inka polities had within the Charazani valley.

I am not arguing that ceramic types start or end at a specific time. Additionally, I am not stating that ceramics establish the beginning or end of a culture. Nonetheless, I argue that ceramic types are formed and produced within a specific time range. I also contend that ceramic types are most common in a specific time frame. For example, in the Middle Horizon the most commonly produced and utilized ceramics were Tiwanaku. Tiwanaku ceramics do not stop being produced or used in later periods, but continue to be made or used in much smaller numbers. Therefore, it is these time frames were particular ceramics are the most commonly produced and used that I compare with other chronologies to establish the Charazani chronology.

To understand the Tiwanaku and Inka modes of interaction I needed to: 1) determine which ceramics were actually present in the area through a classification system, 2) establish a ceramic chronology for the Charazani through comparisons with other areas, 3) discover the origin of the specific ceramics (i.e. local or imported), and 4) assess how ceramics were used in the area.

#### **The Ceramic Classification**

The Charazani classification system is based on comparisons with ceramics from other regions. These regions include the Circum Titicaca region in the Highlands; Cuzco, the core of

the Inka; and the Mollo cultural tradition from the nearby valleys (Faldín 1985; Janusek 1999, 2002; Rydén1957; Stanish 2003). The ceramics typed from these areas are organized on the basis of paste compositions, surface finishing, firing, decoration, vessel contours, and rim and base morphology. The Charazani ceramics are also organized by the same attributes.

The Charazani classification relies heavily on paste compositions because the majority of the ceramics are undecorated. Temper is the nonplastic inclusions found in the clay matrix.

Temper may occur naturally in clay deposits or be added by the potter to change the chemical properties of the clay. For example, temper helps prevent cracks and damages during firing (Rice 1987). Some of the tempers present at Charazani were slate, sand, straw, and mica.

Charazani pottery can be finished in many ways. These include slipping, burnishing, polishing, or stamping the vessel surface. Most typically, Charazani decorated ceramics have been finished with red, orange, or brown slips. In some instances surfaces are unslipped, but burnished.

One way form can be determined is by examining vessel contours (Birkhoff 1966, Shepard 1980). Birkhoff (1966) states that there are four points that determine the shape of a vessel: end points, tangent vertical points, inflection points, and corner points. These points give a vessel its outline. Vessel contours are most useful when large portion of the ceramics are available, but can be done with small sherds of rims and bases.

Rim and base sherds are very useful in determining form. The rim or base diameter can be measured if the sherd is large enough. The rim or base needs to be placed on a horizontal plane at the correct angle. Rim diameter establishes the size of the vessel opening and vessel openings are very informative. Vessel openings are proportional to the rate of change of

contents; thus, serving bowls have large openings (Smith 1985). In addition, orifice openings are inversely proportional to the height of the storage vessel—taller storage vessels have smaller openings. Also, serving vessels openings never curve inward, while vessels used for transporting liquids have narrow inward curving openings. The shapes of the base also need to be placed in the correct position before determining the body shape and base diameter. With a base sherd, the vessel contour can been seen if the body flares out, like in a bowl or drinking cup, or if the body curves in, as occurs with like storage vessels or water containers.

The ceramic classification for Charazani is organized by type and time period. To date, the types identified include: Formative ceramics (2000B.C.–A.D. 500); Core Tiwanaku, Local Tiwanaku, and Rough Tiwanaku ceramics (A.D. 500–1100); Late Intermediate Period Non-Incised and Incised ceramics (A.D. 1100–1450); Inka ceramics (A.D. 1450–1532); Colonial ceramics (A.D. 1532–1700); and Utilitarian ceramics. Below is a description of each type.

Formative ceramics are distinguished by their thick walls and straw temper and are covered in a reddish brown or white slip (Chávez 1988; Janusek 2004). They are decorated with camelids, ducks, and felines (Beck 2004; Chávez 1988; Hastorf 2003; Steadman 1999). Some of the more common forms of Formative ceramics are cooking vessels, incense burners, and flat bottomed bowls. Formative serving vessels and small jars have been shown to be associated with burials and the ritual consumption of feasting (Hastorf 2003; Janusek 2004; Steadman and Hastorf 2001). One of the more unique Formative ceramic forms were trumpets and may have been played during ceremonies (Beck 2004; Chávez 1988; Hastorf 2003; Steadman and Hastorf 2001; Steadman 1999).

At Charazani, Formative ceramics contain straw along with one or more of the following: sand, slate, or mica. The most frequent paste is a combination of sand, mica, and straw, while common surface finishings are fine, smoothed brown surface and rough, smoothed brown surface.

**Tiwanaku ceramics** are recognized by their red slip and mica inclusions (Faldín 1985; Janusek 1999; Rydén1957). Decorations typically are in black, white, orange, and brown (Stanish 2003). Tiwanaku ceramic are also known for their designs which include human faces, pumas, camelids, lines, steps, and other angular geometric shapes (Faldín 1985; Janusek 1999, 2002; Rydén 1957; Stanish 2003). Common Tiwanaku forms are cooking vessels, storage jars, *keros* (drinking cups), bowls (*tazones* and *cuencos*), incense burners (*incesories* and *sahumadores*), and basins.

Tiwanaku ceremonial wares are the most common Tiwanaku pottery found outside the Tiwanaku core (Goldstein 2003; Janusek 1991; Stanish 2003). Ceremonial wares include *keros*, *incesories*, and *sahumadores*. As mentioned previously, *keros* were used for drinking *chicha* and were used in feasting ceremonies (Bray 2003; Goldstien 2003; Isbell and Vranich 2004). They also typically have a design along the interior rim (Stanish 2003). *Incesories* and *sahumadores* were used to burn incense. They vary in shape and sizes from small cups sizes to large modeled pumas (Faldín 1985; Janusek 1999, 2002; Rydén1957; Stanish 2003). Modeled puma incense burners were found throughout Lukumata in burials and in offerings (Berman 1994; Janusek 1999, 2002).

In the Charazani ceramics assemblage, I have identified three Tiwanaku types: Core, Local, and Rough. Core ceramics are the fine Tiwanaku wares coming from the Tiwanaku

regional core, while Local and Rough are Provincial Tiwanaku ceramics that were made in Charazani in the Tiwanaku style. Core Tiwanaku pottery has a bright red slip, thin walls, and very fine paste with fine mica, typically golden in color. Local Tiwanaku is distinguished from the Core Tiwanaku by its paste, which contains both mica and slate, but has the same red slipped surface. Rough Tiwanaku, another local variant, is distinct from the other two categories due to its paste (mica and sand) and its finished brown surface that is either slipped or rubbed smoothed. Local manufacture of Local and Rough Tiwanaku pottery was determined by the paste, which is same paste used to create Charazani domestic ware.

Late Intermediate Period (L.I.P.) ceramics are found throughout the Titicaca Basin in the Colla region and Lupqa region (Stanish 2003). Both regions have L.I.P. ceramics that have a red or orange surface, but are sometimes brown slipped (Albarracín-Jordin 1992; Stanish 2003). Designs are typically in black, orange, or red and consist of wavy lines, dots, large triangles, and circles (Albarracín-Jordin 1992; Stanish 2003). The most common forms are disc based bowls, pitchers, jars, and ollas (Albarracín-Jordin 1992).

There are two types of L.I.P. ceramics in the Charazani region, Non-Incised and Incised. Both are local pottery (Rydén 1957). Like other local ceramics, the paste contains various colors of slate (black, red, and/or white). In addition, L.I.P. ceramics have a red slipped surface. They are distinguishable from Local Tiwanaku because the lack of mica in their paste.

There are two separate categories of L.I.P. ceramics (Rydén 1957). Incised L.I.P. ceramics are simply those L.I.P. ceramics that have an incised designed. Those that lack incised designs are Non-Incised L.I.P. ceramics. The incised designs come in the forms of crosses, Xs,

and vertical lines on the handle. The handles were large like those found on medium to large storage jars. In fact, half of the Incised L.I.P ceramics found at Charazani were storage jars.

Inka pottery displays distinct designs, such as birds, slanted lines, cross-hatches, zigzags, diamonds, and fern patterns (Hayashida 1999; Rowe 1944, 1982). Inka ceramics are usually burnished and painted in polychrome or slipped in red or white (Hayashida 1999; Rowe 1944, 1982). At Cuzco, Inka ceramics have been described as having a temper of fine black with white inclusions and sometimes containing mica (Rowe 1944).

As mentioned, one of the most famous Inka vessels is the aryballoid. The aryballoid is a storage jar with a small opening, long neck, a bulbous body, and a cone or curved shaped bottom (D'Altroy 2002; Moseley 2001; Rowe 1944). It is designed so that ropes could be attached to the handles and carried on a person's back (D'Altroy 2002; Rowe 1944).

Other Inka vessels include other jars, jugs, ollas, casseroles, glasses, cups, and plates (Bray 2003c; Rowe 1982). These forms are distinguished by culinary activity (Bray 2003c). Pots are used for stewing and boiling, casseroles are used for toasting, jars and jugs are used for *chicha* production, glasses and cups are used for *chicha* consumptions and plates are used for serving (Bray 2003c).

In Charazani, the Inka ceramics have a cream slip. Also, the pottery paste is fine with sand inclusions. The most common designs are slanted lines and other geometric shapes in brown or black. Most of the Inka ceramics at Charazani were aryballoids.

**Colonial ceramics** have fine paste with no obvious nonplastic inclusions. They are marked by bright shiny glazes, such as white, yellow, and green. The Colonial ceramics are not a focus of this thesis and will not be mentioned further.

Utilitarian wares are undecorated with large amounts of slate in their paste. They appear to have been locally produced for domestic use throughout the occupational history of the Charazani valley. Many of the Utilitarian ceramics have a brown surface and were fired in an oxidized atmosphere. No noticeable changes in the ceramics were seen through time; therefore, the Utilitarian could not be related to any time period.

Table 1. Chronology Table for Charazani

Table	1. Chronology	Table for Charaz	zam			
	Rowe 1967a	modified for Inka development	Stanish 2003	Janusek 2004	Thesis Chronology	,
_	Spanish invasion	Spanish invasion	Colonial AD 1532-1700		Colonial AD 1532-1700	
1500-	Late Horizon (Inka invade Ica)	Inka period	110 1932 1700	Inka AD 1475- 1600	Inka	1500
1400-		(Inka pottery production begins)			AD 1450-1532	-1400
1400-	Late Intermediate					1400
1300-	Period	Killke (Early Inka ) Period	Late Intermediate Period AD 1100-1450	Late Intermediate Period A.D. 1000-1450	Late Intermediate Period AD 1100-1450	1300
1200-			AD 1100-1450	H.D. 1000-1430		1200
1100-		(75)11		Tiwanaku		1100
1000-		(Killke pottery production begins)	Middle Horizon	Tiwanaku		1000
900-			AD 400- 1100	Middle Horizon A.D. 600-	Middle Horizon	900
800-				-1000	AD500 - 1100	- 800
		Huari Period				
700-	Middle Horizon	(First appearance of Huari pottery at Cuzco)				700
600-						600
500-				Formative	Formative	500
400-				1500 B.C. – A.D. 500	2000 BC - AD 500	  - 400
			Formative 2000 BC - AD 400			

## **Ceramic Chronology**

After the identification of the types present in the area, a chronology based on other areas was formed (Table 1). The ceramic types discussed, such as Inka, Tiwanaku, and Formative, found at Charazani have known time ranges outside the valley in regions occupied by the Inka and Tiwanaku polities (Bauer 1992; Janusek 2004; Rowe 1967a; Stanish 2002). In devising a chronology, the timelines of the Titicaca Basin were heavily favored (Tiwanaku polity) because of its closer proximity to the Charazani valley than to the Inka heartland. The last column in Table1 includes the dates picked for the Charazani region and this thesis. These data are estimates and represent a starting point. As archaeological work continues in Charazani, it will be updated to reflect any new and pertinent findings.

#### **Architectural Features**

Sites in the Charazani valley are composed of a varying range of architectural features.

These features differ in scale and complexity. For descriptive purposes, I will discuss technological and stylistic features first and then move to different types of buildings, both open air and enclosed. Finally, I will discuss constructed landforms.

Common technological and stylistic features in the Charazani region are double row walls and niches. In double row walls, one wall is a façade and the other wall acts as a support.

Double row walls are found both at Cuzco and Tiwanaku city and it is a style favored by the Inka state. Niches or *capillas* are another architectural feature used by Inka masonry and found throughout the Charazani region. Niches are body sized wall openings that are trapezoidal in shape.

Buildings in Charazani include both open air and enclosed spaces. The corrals are open air buildings that were constructed by the Inka, and were used to enclose camelids. The presence of corrals indicates an attempt to increase pastoralism in the upper, cold highland. *Chullpas* have also seen throughout the Charazani region. They were first reported by Nordesnkiöld 1906. Owned by cooperative groups or *allyus*, *chullpas* are above ground multiple burial sites for ancestors, leaders, and founders (Stanish 2003). They were made for continual use as indicated by doors and wall niches, unlike the earlier below ground cists and tombs (Stanish 2003). People were buried along with pottery and personal items (Hyslop 1977; Isbell 1997; Stanish 2003).

In the Charazani region, *chullpas* are usually round or square. At about two meters high and one meter wide, Charazani *chullpas* are similar in size to the most common *chullpas* which are made from small fieldstones referred to as igloo style (Hyslop 1977; Isbell 1997; Stanish 2003). Some *chullpas* are larger, around three meters in height and diameter and also made from fieldstone (Stanish 2003). Rarer *chullpas* are constructed from large, cut, shaped stones with base relief carvings similar to Inka cut stones (Stanish 2003). Other *chullpas* were made from adobe and have been found in the southern Titicaca Basin and they usually had an eastern doorway or niche (Pärssinen 1993; Ponce 1993; Rivera Casanovos 1989; Sagárnaga Meneses 1993; Stanish 2003).

Unique sites found in Charazani are *ph'ullus*. *Ph'ullus* are circular structures built along the terraces (Alconini and Kim 2007). *Ph'ullus* may have been used as temporary shelters, storage faculties, and/or corrals to increase pastoralism (Alconini et al. 2008; Alconini and Kim 2007).

The Charazani region has numerous terraces built along the side of the Andean Mountains. Terraces are man-made flat lands along the steep side of mountains. It is likely that the majority of these terraces were built by the Inka in their efforts to maximize the agricultural capabilities of these valleys. This is supported by ethnohistorical accounts, but I argue that the locals could have made and used some of the terraces before the Inka came. In fact, the ceramics demonstrate a long occupational sequence that dates long before the Inka; therefore, I contented that some terraces existed prior to Inka contact. Later, the Inka created more terraces and intensified agricultural production.

In this chapter, the ceramics and construction features present in the Charazani region were discussed. The goal was to describe the method used for determining the ceramic classification and chronology was explained. An additional task was to account for the different types of constructions present in the area. To do this the ceramics and architecture types present before, during, and after the Tiwanaku and the Inka states were explained. The following chapter will discuss the ceramic assemblage within the region of Charazani.

## CHAPTER VI: SITE DESCRIPTIONS IN CHARAZANI

In this chapter, I will describe the ceramic types and architectural features found in each of the 35 sites. I will also examine whether ceramic types vary according to site function. This data allows me to understand how the variation of ceramic types and architectural features assemblage altered due to the rise and fall of the Tiwanaku and Inka polities.

The portions of ceramics across sites during distinct time periods are given in Table 2 based on the ceramics collected in 2005. The raw numbers can be found Table 29 in the appendix. I argue that the proportion of ceramics gives an approximation of intensity of ceramic use and site function. This is because the distribution of cultural material provides an estimate of where people lived and the amount of space they used. For example, during the Formative period in Cementerio the portion of ceramics were quite low (1.31%). Then, in the Middle Horizon, the portion of ceramics increased to 25.40%. I argue that this suggests an increase in intensity of ceramic use.

Because there is often a correspondence of site size and site function (Parsons 1996), a site typology was developed. The sites in Charazani ranged from 2m<sup>2</sup> to 125,000m<sup>2</sup> in size. Sites less than 1,300m<sup>2</sup> were considered isolated households. Isolated households would be small and have limited amount of architectural constructions. This would include *ph'ullus* and sites with a few corrals, walls, and niches. Sites between 1,300m<sup>2</sup> and 20,000m<sup>2</sup> were defined as villages; villages were likely composed of several households. Sites ranging from 20,000m<sup>2</sup> to 125,000m<sup>2</sup> with architecture or ceremonial ceramics were considered public architecture sites (Alconini 2000). Public architecture sites would have large central areas where ceremonies may

have taken place (D'Altroy 2002; Hyslop 1990; Kolata 1992). Burial sites would have *chullpas* or cemeteries as the dominant or only features of the site.

**Table 2**. Proportion of ceramics through time.

Site Formative Middle Late Inka Colonial Utility						
Site	Tormative	Horizon	Intermediate	IIIKa	Coloniai	
1. Cementerio	1.31%	25.40%	4.64%	0.00%	0.00%	68.65%
2. Cha-22	0.00%	26.83%	4.88%	0.00%	0.00%	68.29%
3. Cha-238	0.00%	60.20%	2.04%	0.00%	1.02%	36.73%
4. Chuñuna	3.18%	12.47%	5.87%	0.73%	0.00%	77.75%
5. Jaramillo	0.77%	21.95%	11.64%	0.10%	0.00%	65.54%
6. Kaata Pata	4.06%	49.11%	5.08%	0.25%	0.63%	40.86%
7. Kalla Kallan	3.13%	32.03%	4.30%	0.00%	0.00%	60.55%
8. Kollachaj Pacha	0.77%	11.99%	3.61%	0.13%	0.00%	83.51%
9. Puccarapata	0.00%	9.09%	3.64%	0.00%	0.00%	87.27%
Saconagon						
10. Wata Wata	6.04%	22.92%	5.68%	0.52%	0.35%	64.48%
11. Cruz Pata	1.78%	15.99%	3.11%	0.00%	0.00%	79.11%
12. Cha-138	0.00%	52.29%	1.83%	0.00%	0.00%	45.87%
13. Cha-139	0.00%	7.20%	4.50%	0.00%	0.00%	88.29%
14. Cha-150	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
15. Ayasawayku	0.00%	0.00%	23.53%	0.00%	0.00%	76.47%
16. Cha-21	0.00%	16.6%	0.00%	0.00%	0.00%	83.33%
17. Cha-23	40.00%	30.00%	10.00%	0.00%	0.00%	20.00%
18. Cha-34	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
19. Cha-49	0.00%	38.09%	0.00%	0.00%	0.00%	61.90%
20. Cha-55	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
21. Cha-71	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
22. Cha-235	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
23. Cha-260	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
24. Cha-261	0.00%	13.34%	0.00%	0.00%	0.00%	86.67%
25. Cha-268	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
26. Cha-281	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
27. Cha-2	0.00%	20.00%	20.00%	0.00%	0.00%	60.00%
28. Cha-3	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
29. Cha-7	0.00%	41.67%	8.33%	0.00%	0.00%	50.00%
30. Cha-11	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
31. Hullata Pampa	0.00%	0.00%	20.00%	0.00%	0.00%	80.00%
32. Cha-251	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
33. Thala	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
34. Cha-101	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
35. Cha-201	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%

**Table 3**. Site size and function.

Site	Site size	Function		
Cementerio	15 m <sup>2</sup>	Isolated household		
Cha-22	$2,048m^2$	Villages		
Cha-238	$4m^2$	Burial		
Chuñuna	180,689m <sup>2</sup>	Public architecture		
Jaramillo	125,000m <sup>2</sup>	Public architecture		
Kaata Pata	50,000m <sup>2</sup>	Public architecture		
Kalla Kallan	61,516m <sup>2</sup>	Public architecture		
Kollachaj	125,000m <sup>2</sup>	Public architecture		
Pacha				
Puccarapata	60,000m <sup>2</sup>	Public architecture		
Saconagon				
Wata Wata	$65,000\text{m}^2$	Public architecture		
Cruz Pata	11,224m <sup>2</sup>	Public architecture		
Cha-138	$6,000\text{m}^2$	Villages		
Cha-139	$30,000\text{m}^2$	Public architecture		
Cha-150	60,000m <sup>2</sup>	Public architecture		
Ayasawayku	$60,000\text{m}^2$	Public architecture		
Cha-21	6m <sup>2</sup>	Isolated household		
Cha-23	1,088m <sup>2</sup> 360m <sup>2</sup>	Isolated household		
Cha-34	360m <sup>2</sup>	Burial		
Cha-49	1,248m <sup>2</sup>	Isolated household		
Cha-55	306m <sup>2</sup>	Isolated household		
Cha-71	63m <sup>2</sup>	Isolated household		
Cha-235	$4m^2$	Isolated household		
Cha-260	$25\text{m}^2$	Isolated household		
Cha-261	$1,050\text{m}^2$	Isolated household		
Cha-268	25m <sup>2</sup> 25m <sup>2</sup>	Isolated household		
Cha-281	$25\text{m}^2$	Isolated household		
Cha-2	$1,050\text{m}^2$	Isolated household		
Cha-3	266m <sup>2</sup>	Isolated household		
Cha-7	144m <sup>2</sup>	Isolated household		
Cha-11	$2m^2$	Isolated household		
Hullata Pampa	291m <sup>2</sup>	Isolated household		
Cha-251	1,600m <sup>2</sup>	Villages		
Thala	$4,000\text{m}^2$	Villages		
Cha-101	$400m^{2}$	Isolated household		
Cha-201	6m <sup>2</sup>	Isolated household		

In the Charazani region alone, there are a total of 412 sites. From this, only 35 sites had ceramics and thus form the basis of my research. They are listed in Table 2 and 3. The remaining sites held only architectural structures and were not the focus of my thesis. The sites

discussed here are grouped into three ecological zones. The first group includes sites located in the Quecha zone; the second group includes sites located in the Puna zone; and the third group includes sites located in the Valley floor. In, each ecological zone the sites are subcategorized by site function. The sites sizes and functions used here are discussed and listed in Table 3. I seek to evaluate the ceramic and architectural variation in each site in order to identify modes of interaction.

## The Quecha Zone

The quecha zone as is home to several large-scale agricultural terraces. The terraces are used today to cultivate root vegetables, *quinua*, and maize; they possible had similar uses in the past. The quecha zone was the most populated zone of the site. Most sites were small isolated domestic sites, but there were also a few burial sites, villages, and public architecture sites. Next, I will describe each one.

**Burial Sites** 

Cha-238: This site only has a site size of 4m<sup>2</sup>, but it was an important burial site. Cha-238 contained a significant number of ceramics. Cha-238 was considered a burial site because it had a *chullpa*, a funerary tower. It also had a *ph'ullu* with single row walls. The *chullpa* contained pottery dating to the Middle Horizon, Late Intermediate Period, and Colonial era. We know that *chullpas* were built in the L.I.P.; because the site had ceramics that pre-dated the L.I.P., the site may have held significance before the *chullpa* was built. It is likely that there may have been a cist in the same location during the Middle Horizon, and then later a *chullpa* was built on top of it in the L.I.P.

**Cha-34**: Cha-34 is a small 360m<sup>2</sup> burial site and lacks any architecture. Because the site produced only Utilitarian pottery, it had no defining culture and time affiliation *Isolated Households* 

**Cha-3 and 281:** These sites also had no defining culture and time affiliation. Cha-3 was an isolated household site located on a plain with no structures or building present. Cha-3 only had Utilitarian sherds. Cha-281 was a 25m<sup>2</sup> domestic site on a terrace in the quecha zone. There was only one structure at Cha-281. The analysis revealed two Utilitarian wares.

Cha-21, Cha-261, and Cha-268: Sites in the quecha zone that only showed Middle Horizon occupation were Cha-2, Cha-21, Cha-261, and Cha-268. Cha-2 was a 1,050m<sup>2</sup> domestic site situated on a flat plain in the quecha zone. There was no architecture present and the site possessed only Core Tiwanaku, Local Tiwanaku, and Utilitarian ware. Cha-21 was a small domestic site with an area of 6m<sup>2</sup> located on a plain in the quecha zone. There was one architectural feature and its style or type could not be defined. One ceramic sherd was Core Tiwanaku while the rest were Utilitarian pottery. Cha-261 was a 1,050m<sup>2</sup> domestic site on a terrace in the quecha zone with one rectangular structure. The majority of the ceramics were Utilitarian ware (86.67%), but analysis revealed one Core Tiwanaku and one Local Tiwanaku ceramic. Cha-268 was a domestic site with an area of 25m<sup>2</sup> situated on a terrace located in the Quecha zone. There was one rectangular structure. I identified only one Core Tiwanaku ceramic sherd from the site.

**Cha-260**: Cha-260 was a 25m<sup>2</sup> domestic site occupied in the L.I.P. and the Inka period. This is evident by the L.I.P ceramics and rectangular structure with double row walls.

**Cha-49**: Cha-49 was a 1248m<sup>2</sup> domestic site. There were five architectural features with several niches and eight corrals. In the Middle Horizon, the portion of ceramics was 38.09% and formed by Core and Local Tiwanaku wares. Most of the site was covered with Utilitarian ware. No other ceramic style was found, but the Inka presence was indicated by the niches and corrals.

**Cha-7**: Cha-7 was a 144m<sup>2</sup> domestic site positioned on a plain. Surveyors discovered two structures. The walls of these structures were not Tiwanaku or Inka style. The site possessed a low amount of ceramics. The presence of Core Tiwanaku, Rough Tiwanaku, and L.I.P. pottery indicate that the site was occupied in the Middle Horizon and Late Intermediate Period/

Cha-23: Cha-23 was a 1088m<sup>2</sup> site positioned on a plain. No architecture was present. Ceramics illustrate that the site was occupied in the Middle Horizon and Late Intermediate period. Local and Rough Tiwanaku ceramics were found in low quantity along with L.I.P and Utilitarian pottery.

Cha-11, Cha-55, Cha-235, and Cha-71: These sites had architectural evidence that they interacted with the Inka Empire; therefore, they were occupied in the Inka period. These four sites were all isolated household that only had Utilitarian pottery. Cha-11 was a small 2m<sup>2</sup> site situated on a plain in the quecha zone with double row walls. Another site with Inka walls was Cha-55. Additionally, Cha-55 had three corrals and a *ph'ullu*. Cha-235 had the double row walls along with a rectangular structure with three niches. Cha-71 also had Inka walls, but the walls here were an Inka mix style with single row walls.

**Cementerio** (**Cha-69**): Today, Cementerio is located on a modern-day cemetery. It has a site size of 15m<sup>2</sup> and is composed of four concentric terraced circles. Besides the modern

cemetery on the summit, the site contained a total of fourteen ancient walls, a niche, and two structures. The Phu Rvivl Aya River lies south of the site and across the river lays a modern soccer field. Cementerio was occupied from the Formative period through the Inka era.

During the Formative period, the intensity of ceramic use was minimal (1.31%). In addition, the distribution of ceramics indicates that a few terraces at the lower elevations were utilized at the time. In the Middle Horizon, the intensity of ceramic use increased (25.40%). Also, the presence of Core Tiwanaku ceramics on higher elevated terraces (Platform 1A, 1C-1, 1C-3) suggests an increase in site use. At the same time, the intensity of pottery use increased throughout the site as indicated by the high portion and dispersion of Local Tiwanaku pottery (23.51%). The use of the center suggests a strategic attempt by the Tiwanaku polity's to control the site, while the use of the terraces suggests an intensification of agriculture under the Tiwanaku. In the Late Intermediate Period, there was decline in pottery use as indicated by the lower portion of ceramics (4.64%). Cementerio had no Inka wares, but the stone niche demonstrates the site was still in use at the time.

Village Sites

Cha-22: Cha-22 was a village site formed by three platforms with a site size of 2,048m<sup>2</sup>. The architectural style is unknown. In terms of ceramics, Cha-22 only had evidence for Middle Horizon and Late Intermediate Period occupation. In the Middle Horizon, there was Local Tiwanaku pottery (24.39%) and Core Tiwanaku pottery (2.44%). During the Late Intermediate Period, the intensity of ceramic use dropped as evidenced by the limited amount of L.I.P pottery (4.88%). This may also indicate a decrease in the population and site use.

Public Architecture Sites

**Chuñuna** (**Cha-82-84**): Chuñuna was a public architecture site with a site size of 180,689m<sup>2</sup>. It was comprised of five clusters of structures and enclosed structures. The site was occupied from the Formative though the Inka periods.

In the Formative period, occupation focused on the southwestern part of the site as indicated by the presence of ceramics (3.18%). In the Middle Horizon, ceramic use increased with Tiwanaku ceramics found not only in the southwest, but also in the center of the site (Local 11.74%, Core 0.73%). In the Late Intermediate Period, the intensity of pottery use decreased (5.87%).

Inka and other stylized buildings made up Chuñuna as indicated by the single and double row walls. Ceramic evidence for Inka influence was only found in the southwest (0.73%). Yet, the widespread distribution of Inka architecture indicates that more of the site was actually occupied.

In the site, structure 39 had significance for the Tiwanaku and Inka polities. It was not the most central or the largest structure, but it was associated with a corral (44), which signifies that the states were attempting to control the economics of pastoralism.

**Jaramillo (Cha-1):** Jaramillo was a 125,000m<sup>2</sup> public architecture site. It was an elongated site with several terraces. Jaramillo was littered with cists or small mound burials. They were one to two meters long and found throughout the site.

Formative occupation was concentrated on the eastern half of the site. In the Middle Horizon, occupation expanded with the creation of several more terraces signifying an intensification of agriculture. Late Intermediate Period occupation was dispersed throughout the site and there was a drop in ceramic use. Although this occurred, Jaramillo held a large portion

of the L.I.P. ceramics in the region (11.84%). In fact, Jaramillo held more L.I.P. ceramics than both Kaata Pata and Wata Wata which in previous time periods held more pottery. In the time of the Inka, ceramic use was quite low (0.10%). The Inka presence was found on Platform J in the center of the site. From this vantage point, the Inka would have been able to monitor the site.

Kaata Pata (Cha-327): Kaata Pata was a 125,000m<sup>2</sup> public architecture site. A modern town is located south of the site and has a modern plaza that archaeologists have begun excavating. In the Formative period, ceramic evidence suggests that site was only occupied in the east section (4.06%). Yet, excavations uncovered a Formative domestic occupation in the northern part of the site. In recent construction activity, the local people recovered a broken Yaya-Mama style head in the southern section. It had the common features of high relief circular eyes, an oval mouth, and V-shaped eyebrows; however, contrast to other Yaya-Mama depictions, this statue had only one face. Yaya-Mama statues typically have dual faces in a symmetrical pattern called *pa-ajanu* (Alconini and Kim 2007; Chávez 1988; Janusek 2004). This single frontal face may represent a regional variation found in the mesothermal valleys (Alconini and Kim 2007). Furthermore, because only the head was salvaged, the statue representing the Yaya-Mama deity may have been ritually decapitated.

In the Middle Horizon, the site use increased with the creation of terraced platforms and canal systems (excavation still ongoing). The intensity of ceramic use increased as well (49.11%). *Kerus* were present on the platforms suggesting that these platforms may have been involved with ceremonial feasting activities led by the Tiwanaku polity. I argue based on the presence of *keros* and canals that Kaata Pata had a close relationship with the Tiwanaku state.

During the L.I.P., population and intensity of pottery use decreased (5.08%). In the following Inka period, Inka ceramics and architecture were dispersed throughout the site. Inka aryballoids were recovered from Cima 2 and Cima 3b. This suggests that these mounds may have been associated with food storage and ceremonial activities which would have legitimized the Inka polities' influence in the area (Bray 2003a, 2003b; Goldstein 2003). The Inka state's influence was also demonstrated by the *kallanaka* on Cima 3a. *Kallankas* were long rectangular buildings used to house large groups of people, such as a military troupe or *aqllakuna* group (Hyslop 1990; Malpass 1993). The portion of Inka ceramics was low (0.25%) suggesting a low intensity of ceramic use and limited Inka influence. Yet, the presence of Inka architecture indicates a larger Inka presence in the site.

**Kalla Kallan (Cha-186-190):** Kalla Kallan was situated on a hilltop and was a public architecture site with a site size of 61,516m<sup>2</sup>. The site was composed of four terraces divided into fifteen platforms by stone walls and slight elevation differences. Some of the stone walls had boulders and body-sized niches or *capillas*. There is also a modern building and cemetery northeast of the site.

In the Formative period the portion of ceramics was minimal (3.13%). Ceramic evidence of Formative occupation was found on the eastern half of the site. Kalla Kallan was an important site to the Tiwanaku state as demonstrated by the high proportion of Core Tiwanaku wares (14.45%) and Provincial Tiwanaku ceramics (17.58%). In addition, Niño Korin, a burial cave with Tiwanaku paraphernalia, was located near the site (Bastien 1987; Mendoza 2004; Rydén 1957; Wassén 1972).

In the L.I.P., the intensity of ceramic use decreased (4.30%). Ceramics suggest that at this time occupation was localized to the center of the site. Although there was no ceramic evidence of Inka interest in the site, *capillas*, a typical feature of Inka masonry, were found at Kalla Kallan. This indicates that although the Inka did have a presence in Kalla Kallan, it was not expressed in ceramics.

Pucara Pata Saconagon (Cha-206): Pucara Pata Saconagon was a public architecture site distributed between two hills with a site size of 60,000m<sup>2</sup>. There was no Formative occupation at Pucara Pata Saconagon, but the ceramic assemblage did demonstrate that the site was occupied in the Middle Horizon (9.09%). Occupation continued into the Late Intermediate Period with lower intensity of ceramic use (3.64%). In the following Inka and Colonial periods, there was no evidence of activity. Pucara Pata Saconagon had some of the smallest amount of ceramics in both the Middle Horizon and L.I.P.; therefore, I conjecture that the site was not as significant as other public architecture sites with more ceramics.

Wata Wata (Cha-18): Wata Wata had a site size of 65,000m <sup>2</sup> site. It is situated on a hill formed by concentric terraced platforms. On the summit there are enclosed spaces. Wata Wata potentially was very important to both the Tiwanaku and Inka polities. It was located on an ancient route connecting the Charazani and Amarete valleys to the eastern tropical piedmonts 10-15 km away (Alconini and Kim 2007). Controlling Wata Wata would have allowed a state to monitor the movement of items coming into and out of the tropical piedmonts. Fruits and coca leaves would have been important tropical items for the Tiwanaku and Inka polities' economies (Meyers 2002).

In the Formative period, evidence suggests that the site only consisted of the higher elevated platforms. On the summit, survey and excavations revealed a domestic residence with obsidian lithic production; this indicates Wata Wata's craft production significance at the time. In fact, the proportion of Formative ceramics was greater at Wata Wata than at many other Charazani sites.

In the Middle Horizon, the site use increased with the construction of the lower elevated platforms as indicated by the distribution of Provincial Tiwanaku ceramics. The presence of Core Tiwanaku ceramics on the summit and *kerus* in the southeast imply that the Tiwanaku state established strategic places to control the site and reinforced that control with ceremonial activities.

During the Late Intermediate and Inka periods, occupation was limited and focused on the lower terraces suggesting an emphasis in agrarian activities. Lower terraces have warmer temperatures allowing for the growing of tubers and legumes. Although the amount of Inka ceramics were low in comparison to other styles at the site, within the region Wata Wata held a large portion of the Inka ceramics. It was an important site both before and after the Tiwanaku polity.

#### The Puna Zone

The puna is an alpine tundra used to raise camelids (alpacas and llamas) for cloth and food at 4100–4800 m.a.s.l. Most of the sites in the puna are village sites. There was one isolated household, a few public architecture sites, and a defensive site. The sites are described below.

\*\*Isolated Homesteads\*\*

Hullata Pampa (Cha-24 and Cha-25): A site on the puna is Hullata Pampa. Hullata Pampa was originally thought to be two sites, Cha-24 and 25. Later, it was determined to actually be one site known as Hullata Pampa due to continuous cultural material between both sites. Hullata Pampa was a small isolated household site (291m²) with no architecture. My analysis demonstrated that the area was occupied in the Late Intermediate Period.

**Cha-251**: Cha-251 was a 1,600m<sup>2</sup> isolated household site and was occupied during the Inka period. The site had three structures, including a *ph'ullu* and three niches, indicating that the site was influenced by the Inka Empire. There were no Inka ceramics and only one Utilitarian ware.

Village Sites

Cruz Pata (Cha-262 and 263): Cruz Pata was a village site with a site size of 11,225m<sup>2</sup> situated in the puna. The site consisted of eighteen platforms with a modern cemetery northeast of the site. Cruz Pata also contained several structures including a single *ph'ullu* and scattered walls. Some of the walls were made with Inka stylized double rows.

During the Formative period, the intensity of ceramic use was small (1.78%). The small portion of Formative ceramics was found in only two structures. During the Middle Horizon, the the presence of Core and Provincial Tiwanaku pottery (2.22%, 13.77%) indicate an increase in the intensity of ceramic and site use. Middle Horizon occupation was at the center of the site and on the lower terraces.

In the following Late Intermediate Period, the intensity of ceramic use decreased (3.11%). Evidence of occupation was found on the eastern part of the site. There was no

ceramic evidence of Inka occupation, but the *ph'ullu* and double row walls were indicators of an Inka presence.

Cha-138: The site had a site size of 6,000m<sup>2</sup> and was a village site located on a hilltop in the Puna zone. There were four corrals and one structure with double row walls. Occupation of the site began in the Middle Horizon as indicated by the presence of Core, Local, and Rough Tiwanaku pottery. A small quantity of L.I.P ceramics was also found suggesting that occupation was minimal during the Late Intermediate Period. There were no Inka ceramics, but the corrals and double row walls indicate the presence of Inka activity.

Cha-139: Cha-139 was a site situated in the Puna zone with a site size of 30,000m<sup>2</sup>. There were five architectural features with single row walls. The site also contained three corrals. The low amounts of Core, Local, and Rough Tiwanaku wares demonstrate that occupation began in the Middle Horizon. Occupation continued in the Late Intermediate Period is apparent in the appearance of the low amount of L.I.P ceramics. Although there was no Inka pottery the corrals illustrate Inka influence.

Public Architecture sites

**Kollachaj Pacha (Cha-264):** Kollachaj Pacha was a public architecture site located in the Puna zone with a site size of 125,000m<sup>2</sup>. It was composed of over one hundred structures, including several platforms, buildings, and numerous corrals.

In the Formative period, Kollachaj Pacha was small (962.5m²) with Formative ceramics found only on four structures. During the Middle Horizon the site expanded (14,987.5m²). Tiwanaku's influence was evidenced by the numerous amounts of Core and Provincial Tiwanaku ceramics found at the site. In fact, Local Tiwanaku wares made a crescent shape starting

northwest and ending southeast of the site. In the northwest portion, analysis revealed Core Tiwanaku pottery on Platform 99. The larger proportion of Tiwanaku ceramics implied that population and intensity of pottery use increased in the Middle Horizon.

During the Late Intermediate Period, the population and intensity of pottery use decreased. At this time there was a slight favoritism of the southeast portion of the site. In the Inka period, ceramics were also focused in the far southeast, specifically in structure 43A. The portion of Inka ceramics was quite low, but the presence of Inka architecture, the numerous corrals, indicate the high population and the use of the site at the time.



Figure 4. Tiwanaku ceramic from Cha-150.

**Cha-150**: Cha-150 had a site size of 60,000m<sup>2</sup>. It was a public architecture site situated in the Puna. Cha-150 had 15 structures and 21 corals. One Core Tiwanaku pottery was found. The pottery was formed into a human face with a hand (Figure 4). In addition, the corrals indicated Inka occupation.

## Defensive Site

**Thala** (Cha-287): Thala (Cha-287) was a 4,000m<sup>2</sup> defensive site located on a hilltop. It was determined that this was a defensive site because surveyors recorded twelve structures that were likely used as military barracks on the hilltop. The site was associated with the Tiwanaku

state as evidenced by the six Local Tiwanaku ceramics. This demonstrates that the Tiwanaku state invested in the defense and protection of the area surrounding Thala.

### The Valley Zone

The narrow valley floor has fertile soil and warm temperatures. Few sites were found in this temperate zone because of its small area. The Charazani region is dominated by mountains which cause a narrow valley floor. The limited linear valley zone follows narrow paths between the mountains.

Isolated Homesteads

**Cha-201**: Cha-201 was a small isolated household site (6m<sup>2</sup>) situated on a plain and had one structure. The site only had one Utilitarian ceramic, so the cultural affiliation or time period of the site could not be determined.

**Cha-101**: Cha-101 was also an isolated household site, but it had six structures with four niches and five corrals, suggesting its association with the Inka.

Public Architecture Site

**Avasawayku (Cha-137)**: Avasawayku was a public architecture site located in the valley zone with a site size of 60,000m<sup>2</sup>. The architecture consisted of one niche with double row walls. Cha-137 had seventeen ceramic sherds, the majority of which were Utilitarian pottery. Analysis found only L.I.P ceramics, whereas the architecture suggests Inka activity.

#### Conclusions

In this chapter, I investigated the ceramic and architecture variation within the 35 sites.

The sites were examined by site location and site function. In addition, I described the intensity of ceramic use, the variation in ceramic types, and the variation in architectural features. The

objective was to see how the ceramic assemblage changed with the rise and decline of the Tiwanaku and Inka polities.

In terms of site variation, there were some clear differences across the ecological zones. The quecha zone by far had the most sites; these were most frequently affiliated with the Middle Horizon than any other time period. Moreover, the quecha zone also held the only two burial sites, while the puna had the only defensive site. In the puna, unlike the quecha zone, there was an almost even distribution of sites showing affiliation to the Middle Horizon, Late Intermediate Period, and Inka Period. Also, the puna by far, had the most corrals. The fertile, yet narrow valley floor had the least number of sites. The sites in the valley were only affiliated with L.I.P. and the Inka period.

In terms of time, there was an increase in the portion of ceramics from the Formative period to the Middle Horizon suggesting that there was an increase in the intensity of ceramic use. This pattern also includes a reduction of intensity of ceramic use in the subsequent Late Intermediate Period and Inka phase. The site descriptions also demonstrate that the majority of the architecture present is affiliated to the Inka period; therefore, although there was a limited number of Inka ceramics there was a clear Inka presence in the area.

## CHAPTER VII: CERAMIC VARIATION IN CHARAZANI

I will assess whether vessel forms and functions correlate with particular stylistic modes. The goal of this chapter is to understand how the Charazani ceramic assemblage altered in relation to the rise and decline of the Tiwanaku and Inka polities. Ultimately, the objective is to understand the modes of interaction in the valley in order to grasp the nature of Tiwanaku and Inka political control in the valley.

## **Ceramic Variation across Time and Space**

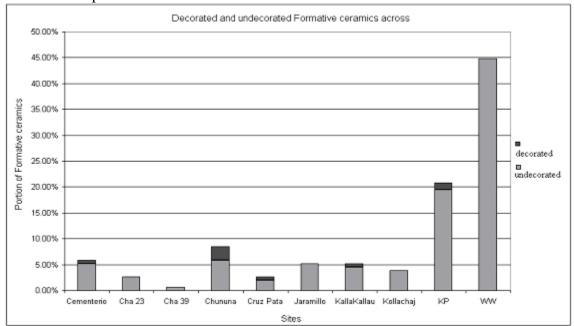
### Formative Period

The Formative ceramics were found at ten out of 35 sites. The Formative sites recorded are Cementerio, Cha-23, Chuñuna, Cruz Pata, Jaramillo, Kalla Kallan, Kollachaj Pacha, Kaata Pata, and Wata Wata (Table 2). Formative ceramics comprise a small portion of the total amount of Charazani ceramics (7.59%). The small proportion of ceramics and the low number of Formative sites suggest that there was a low intensity of ceramic use in the Charazani region during the Formative period.

Wata Wata and Kaata Pata held the most Formative ceramics in the Charazani region, while Chuñuna held the most decorative Formative ceramics (Table 4). Most of the Formative ceramics at Wata Wata were located on the summit, which held a lithic workshop. The producers of the lithics would have required ceramic wares to serve and store food. It is also likely there were more people here than in the other sites without workshops. In addition, it is also not surprising that Kaata Pata has a larger portion of Formative ceramics. As discussed, a broken Yaya-Mama head was uncovered by the locals at this site, which marks Kaata Pata as a place of ceremonial significance during the Formative period. Furthermore, because only the

head was salvaged, the statue representing the Yaya-Mama deity may have been ritually decapitated. Due to the ceremonial importance of Kaata Pata people who gathered would have needed ceramics for their use.

Chuñuna had the third largest amount of Formative ceramics and the most decorated Formative wares (Table 4). Chuñuna was a large site with a focus on pastoralism as evidenced by its location in the Puna and the numerous corrals located at the site. Chuñuna would have needed plenty of ceramics to store and serve food for the people. In addition, Chuñuna likely had ceremonies, such as feasting, where decorated Formative ceramics may have been on display as occurred at other public architecture sites. Feasts were used to gather people for labor, such as farming and pastoralism (Dietler 2003).

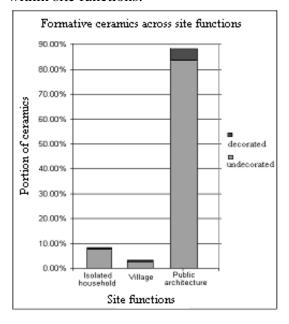


**Table 4**. The portion of Formative ceramics across sites.

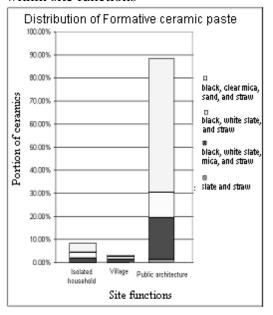
Wata Wata, Kaata Pata, and Chuñuna were all public architecture sites. The majority of decorated and undecorated Formative ceramics were found in public architecture sites (Table 5). Sites that were larger tended to have importance to people, so Formative ceramics may also have

had important significance as well. As indicated in the tables, villages have the smallest amount of Formative ceramics. The distribution of Formative paste among site functions was examined to see if specific pastes were selected for specific functions. For example, do the Formative ceramics in public architecture sites have different type of Formative pottery than those present in isolated households. No distinguishable pattern emerged (Table 6). In fact, each type of Formative paste was found in each site function.

**Table 5**. Portion of Formative ceramics within site functions.



**Table 6.** Portion of Formative ceramic paste within site functions

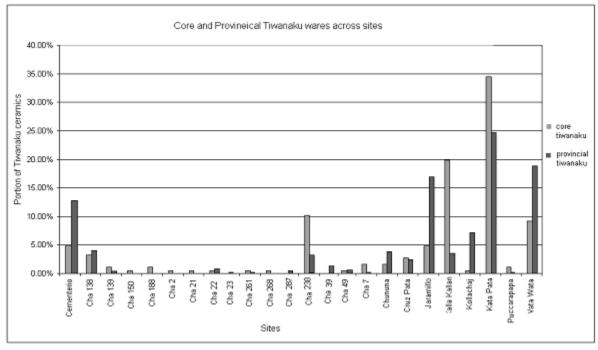


#### Middle Horizon

Following the Formative period, was the Middle Horizon, the time of the Tiwanaku polity. There was a large increase in the amount of ceramics from the Formative to the Middle Horizon. The increase in the portion of ceramics suggests an increase of the intensity of pottery use from the Formative.

In the Middle Horizon, there were three ceramic types: Core Tiwanaku, Local Tiwanaku, and Rough Tiwanaku. Core Tiwanaku were ceramics from the center of the Tiwanaku polity—the Titicaca Basin. Local and Rough Tiwanaku were Provincial Tiwanaku ceramics.

Table 7 compares Core Tiwanaku with Provincial Tiwanaku ware (Local and Rough). Overall, there were more Provincial Tiwanaku wares than Core Tiwanaku in the region. Yet, Core Tiwanaku surpassed the distribution of Provincial Tiwanaku ceramics in the Charazani region.



**Table 7**. Portion of Core and Provincial Tiwanaku ceramics across sites.

As noted, Kaata Pata had the most Core and Provincial Tiwanaku ceramics. I consider that the Tiwanaku polity imported Core Tiwanaku ceramics into Kaata Pata, Kalla Kallan, and Cha-238. The data further suggest that Kaata Pata had a close relationship with the Tiwanaku polity as evident in the built canals found during excavations. Canals were constructed by Tiwanaku inhabitants throughout the capital city in the Titicaca basin; therefore, Tiwanaku

people may have been imported the hydrotechnology into Kaata Pata (Janusek 2004; Stanish 2000). Kalla Kallan also had a close relationship with the Tiwanaku polity is visible in the high portion of Core Tiwanaku ceramics found at the site. Moreover, Kalla Kallan was associated with Niño Korin a burial with Tiwanaku goods of snuff trays, tubes, spoons, enema syringes, hallucinogens, and textiles (Bastien 1987; Mendoza 2004; Rydén 1957; Wassén 1972).

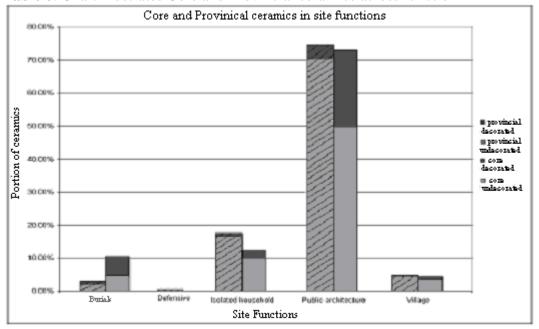


Table 8. Chart illustrates Core and Provincial ceramics across function

Because most Core Tiwanaku wares found outside the Titicaca Basin were ceremonial, it is expected that Core Tiwanaku ceramics would be located in public architecture sites, which I found in the Charazani valley. Public architecture sites were prime candidates for ceremonies (D'Altroy 2002; Hyslop 1990). Isolated households had the next highest amount of Core and Provincial Tiwanaku ware. I argue that the isolated households associated with Core Tiwanaku may have been elite households. Burials held the third largest portion of Core Tiwanaku wares, while villages have the fourth largest amount of Provincial Tiwanaku ceramics. The burial site that held Core Tiwanaku ware is Cha-238. Cha-238 had a *chullpa*, a burial tower to the

important ancestors. *Chullpas* date to the Later Intermediate Period, so the presence of early Middle Horizon ceramics here signifies that Cha-238 was likely an important site before the L.I.P. Then in the L.I.P. period, the *chullpa* was built on the existing site.

#### Late Intermediate Period

In the Late Intermediate Period, there were two ceramic styles Non-Incised L.I.P. and Incised L.I.P., that appeared in Charazani. The portion of ceramics in the L.I.P. was less than in the Middle Horizon, but more than in the Formative Period (17.59%). The smaller amount of ceramics in the L.I.P. suggests a decrease in the intensity of pottery use from the Middle Horizon.

The highest proportion of L.I.P. (incised and non-incised) wares was found at Jaramillo, Wata Wata, and Kaata Pata (Table 9). In the Formative period and Middle Horizon, Wata Wata and Kaata Pata had the largest amount of ceramics in the Charazani region. But, in the L.I.P. Jaramillo had a higher portion of ceramics than Wata Wata and Kaata Pata.

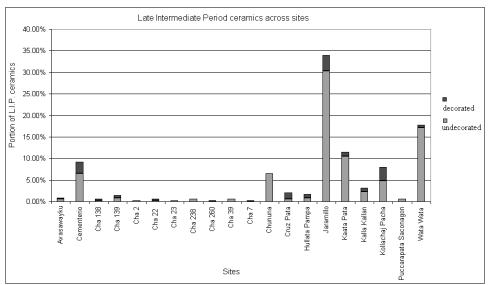
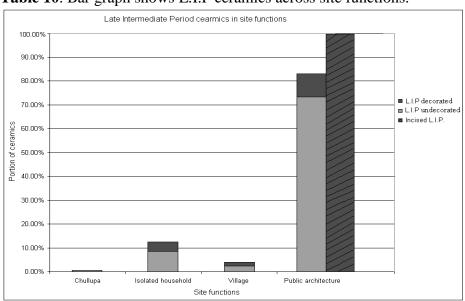


 Table 9. Late Intermediate Period ceramics across sites

Incised L.I.P. was only present at three sites, Avasawayku, Jaramillo, and Wata Wata. The low quantity of Incised L.I.P may be due to the fact that Incised L.I.P. can only be recognized by the incised line, X, and cross decorations. If these incisions were missing from the ceramic sherds then it would have been classified as Non-Incised L.I.P.

Non-Incised L.I.P. ceramics were mostly concentrated in public architecture sites, followed by isolated households, villages, and then burials. A small portion of Non-Incised L.I.P. ceramics was found in burials. The burial site again is Cha-238, which was an important site since at least the Middle Horizon. It maintained its importance in the L.I.P. when the *chullpa* was built. Incised L.I.P. pottery was found in all public architecture sites. This may be because Incised L.I.P was decorated; therefore, it may have had more status than Non-Incised L.I.P wares.



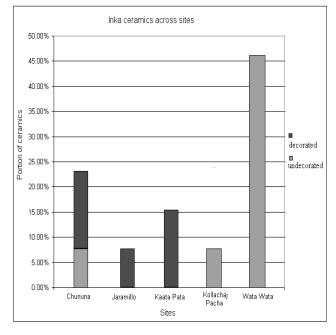
**Table 10**. Bar graph shows L.I.P ceramics across site functions.

### Inka Period

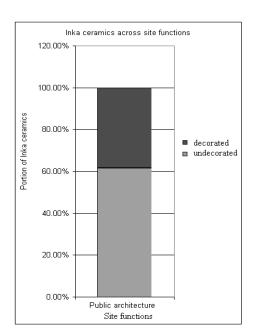
Inka wares were very restricted in their distribution and quantities in the Charazani ceramic assemblage. This was unexpected since ethnohistorical sources state that the Inka were invested in the Charazani region. Only five sites had access to Inka ware (Wata Wata, Jaramillo, and Kata Pata, Kollachaj and Chuñuna). Wata Wata, Jaramillo, Kata Pata, and Kollachaj were important centers throughout time and thus the Inka would have been interested in influencing these areas. The average site with Inka ceramics was 413.71m² (0.04ha), showing not only the small size of the settlements, but also the low density of imperial pottery.

Wata Wata held almost half of all the Inka ceramics in the region (46.15%) (Table 11). Wata Wata was on an ancient route connecting the Charazani to the eastern tropical piedmonts; consequently, controlling Wata Wata would have allowed the Inka to influence the movement of items coming in and out of the tropical piedmonts (Alconini and Kim 2007).

**Table 11.**Chart shows Inka ceramics in sites.



**Table 12**. Inka ceramics in site function.



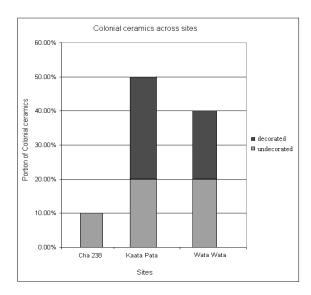
Chuñuna was specifically targeted by the Inka. The site was dominated by several structures, large enclosures, and corrals. The corrals demonstrate that the Inka had impacted the local economy of the region by increasing and encouraging pastoralism. The site possessed the second largest portion (23.08%) of Inka ware. In addition, fifteen percent of the Inka ceramics were decorated.

All the sites with Inka ware were public architecture sites. The Inka Empire was able to influence the area by placing a limited number of Inka prestige ceramics in large sites where they could be viewed by a large portion of the population. Therefore, the Inka state did not have to place Inka ceramics anywhere else because they were able to influence the region by strategically placing a limited amount of ceramics in key settlements and by constructing buildings, such as *ph'ullus*, corrals, agrarian terraces, and *capillas*.

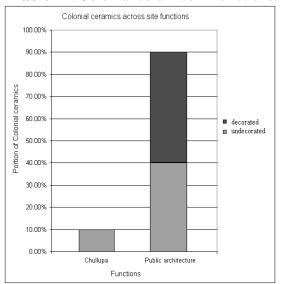
### Colonial Period

The Colonial Period is the last era examined. During this time, the Colonial ceramics were only found in three sites: Cha-238, Kaata Pata, and Wata Wata. Kaata Pata and Wata Wata were large public architecture sites that had been important since the Formative period. Spanish colonials would have wanted to enter these public architecture sites with large populations to influence the people. In addition, these sites, with their long history of significance, would have had the means to obtain fine colonial ware. Cha-238 had been an important site since the Middle Horizon and in the L.I.P. because a *chullpa* was built on the site. The significance Cha-238 held through time would have been important location for the Spanish; they would have been able to appropriate the site to demonstrate their influence in the area.

**Table 13**. Colonial ceramics in sites.



**Table 14**. Colonial ceramics in functions.

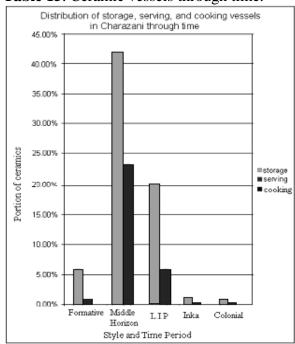


## **Feasting**

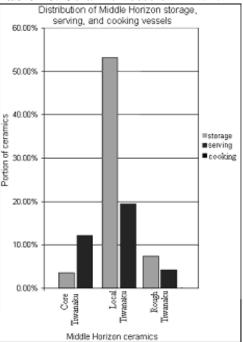
Feasting has been mentioned several times in this thesis as an important and common political economic strategy. Feasting strategies may be perceived by examining the distribution of storage, serving, and cooking vessels because they all pertain to food.

Tables 15 and 16 illustrate the distribution of storage, serving, and cooking vessels through time. As one can see there are no cooking vessels. Cooking vessels could not be separated by time period. The public ceramic assemblage altered with time, but the domestic ceramic assemblage did not. There was a strong domestic ceramic tradition that lasted throughout time.

**Table 15**. Ceramic vessels through time.



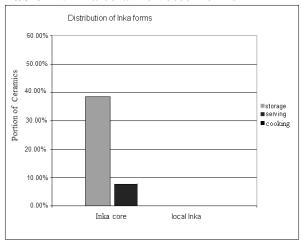
**Table 16**. Ceramic vessels in M.H.



Through time, there was a heavier emphasis on storage vessels than on serving vessels. Yet, during the Middle Horizon, imported Core Tiwanaku ceramics emphasized serving vessels, such as *keros*, over storage vessels. Either the Tiwanaku polity was more interested in providing serving vessels, or the locals were more interested in obtaining serving vessels. At the same time, in the Provincial Tiwanaku ceramics (Local and Rough) there was a dominance of storage ceramics. Whereas public Tiwanaku serving vessels were imported from the core, the locals produced Tiwanaku storage vessels at Charazani.

In comparison, during the Inka period there were only imperial Inka ceramics from the core. No local Inka wares could be identified. The Inka ceramics identified all had very fine paste and were thin walled. The Inka energy was definitely focused on storage pottery over serving vessels; therefore, the Inka focused on the accumulation of food and not on the redistribution of food.

**Table 17**. Inka ceramic vessel forms



#### **Conclusion**

In the Formative period, the ceramics were concentrated in public architecture sites with a concentration on storage wares. The sites that were important at this time were Wata Wata and Kaata Pata. Then, there was a major jump in the amount of ceramics in the Middle Horizon (Table 17). The site descriptions from the previous chapter also showed an increase in the intensity of ceramic use and number of sites with the rise of the Tiwanaku polity (from the Formative period to the Middle Horizon). There may have also been an increase in the intensity of ceramic production and/or an increase of site use due to economic prosperity. Moreover, the increase in the number of sites may suggest that there may have been an influx of people moving into the area. Either way, it demonstrates the strong impact that the Tiwanaku polity had in the Charazani region.

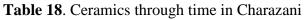
In the Middle Horizon, the Tiwanaku nation interjected itself into the local ceramic economy by introducing a new imported ware (Core Tiwanaku) and influencing the creation of two new local ceramics: Local Tiwanaku and Rough Tiwanaku. The majority of the ceramics were in public architecture sites. Overall, in the Middle Horizon most ceramics were storage

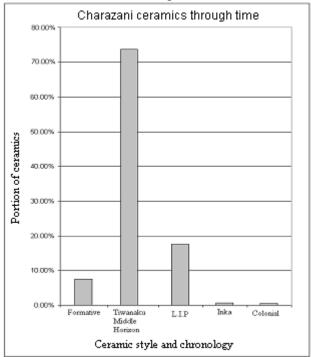
wares. However, fine Core Tiwanaku ceramics were dominated by serving vessels. Wata Wata and Kaata Pata were still important, while Kalla Kallan and Jaramillo grew significantly in size.

In the Late Intermediate Period, the population at Jaramillo increased its intensity of ceramic use over the people at Wata Wata and Kaata Pata. In this period, the majority of ceramics were still found in public architecture sites. That all Incised L.I.P. ceramics were located in public architecture sites indicates that it was most likely a prestige good. The ceramic variation also shows that there was a decrease in intensity of ceramic use and in the number of sites occupied with the decline of the Tiwanaku polity (from the Late Intermediate Period and Inka phase).

While ethnohistorical accounts state that there was a strong Inka influence in the region, the ceramic variation demonstrates very limited Inka involvement in the valley. The ceramic variation shows that the Inka state was able to influence the area by targeting a limited number of public architecture sites with prestigious Inka ware. The Inka focused on storage ware, like aryballoids, to store food for feasts. Moreover, the site descriptions from the last chapter demonstrate that the majority of the architecture present is affiliated with the Inka period. In summary, despite there being a limited number of Inka ceramics, there was a clear Inka presence in the area

Colonial ceramics were limited and were found in only three sites: Kaata Pata, Wata Wata, and Cha-238. Colonial powers focused their energies on influencing only large public architecture sites.





In this chapter, I have examined the ceramic variation across time and space to investigate how the Charazani ceramic assemblage altered with the rise and fall of the Tiwanaku and Inka polities. In the following chapter, I will evaluate modes of interaction to uncover the forms of political control the Tiwanaku and Inka states had in the Charazani region.

## CHAPTER VIII: POLITICAL CONTROL IN THE CHARAZANI REGION

The goal of this chapter is to tie all the information and data gathered from all previous chapters to determine the modes of interaction the Tiwanaku and Inka states utilized in the region of Charazani to gain political control. The previous chapter covered ceramic and architectural variation within and across sites using changes in the intensity of ceramic use, site location, and site function.

Ethnohistorical accounts show that the Charazani region was an important node of access that connected the highlands and tropical lowlands. The ceramic analysis and chronology demonstrate that different groups occupied this area in the Formative period through the Colonial era. In addition, the ceramics suggest that the Tiwanaku polity had a large impact in the region, while the Inka Empire had a smaller impact. During both periods there was an increased emphasis on pastoral activities as seen in the growth of agricultural terraces and the creation of corrals (Alconini and Kim 2007). To unveil the Tiwanaku and Inka political control in the Charazani region, the ceramic analysis was used to understand the modes of interaction discussed in Chapter III.

### **Research Objectives**

As discussed in previous chapters, this thesis has two research goals in order to understand the nature of the Tiwanaku and Inka political control in my study region: 1) to determine what modes of interaction found in the Charazani region tells us about the forms of Tiwanaku political control in the area; and 2) to determine what modes of interaction found in the Charazani region tells us about the forms of Inka political control in the area.

The first research objective was to determine the modes of interaction of the Tiwanaku polity in the Charazani region that lead to political control. To summarize, there were four modes of interaction that this thesis focuses on. The first is the use of vertical archipelago colonies. The second is the creation of a prestige goods economy. The third is feasting ceremonies and the fourth is the emulation of materialized ideology.

The first possibility was that Tiwanaku polity colonized the area through vertical archipelago. With vertical archipelago colonies, one may expect that nearly all sites, large and small, would be Tiwanaku sites identified by the Tiwanaku style throughout the site. All large public architecture centers would be Tiwanaku sites. There would be a high intensity of Tiwanaku ceramics throughout the area and Core Tiwanaku ceramics would be the only prestigious ware. All Tiwanaku sites would have serving vessels to participate in ritual feasting. In addition, there would be an increase in population due to the sudden influx of Tiwanaku immigrants. Also, Titicaca Basin migrants would likely continue to make and use their own ceramics, materials, and technology, so there may be a production of Tiwanaku ceramics, obsidian, metals, camelids, and raised-fields.

Another mode of interaction is utilizing a prestige goods economy. If the Tiwanaku polity interacted with region through prestige goods, then one would expect that only large sites would show relationships with the Tiwanaku polity. Only large sites would have access to Core Tiwanaku ceramics and there would be a very low intensity of Tiwanaku ceramics. There would also be other prestigious wares along with Tiwanaku ceramics because the people would be free to form other alliances and be free to obtain other prestigious goods. Also, Tiwanaku serving wares would only be present in the large public architecture sites.

Feasting is the third mode of interaction that the Tiwanaku polity has used to gain political control. There are two possibilities with feasting. One possibility is that there may be serving ceramics present only in large public architecture sites. The other possibility it that there may be serving wares not only in large sites, but also the village and household sites.

The final mode of interaction that we may see in the Charazani valley is emulation through the materialization of ideology. Charazani elites would have emulated the Tiwanaku style and feasting ceremony to gain status and power over the locals. So, Tiwanaku style would be concentrated in larger sites where local elites resided.

The second objective was to determine the modes of interaction in the Charazani region inform us about the forms of Inka Empire political control. Once again I will discuss the four modes of interaction mentioned previously which include the use of vertical archipelago colonies and the use of a prestige goods economy. Also included are the interactions of feasting ceremonies and emulation through the materialization of ideology.

In the case of *mitmas* and vertical archipelago colonies, one would see Inka sites, small and large throughout the region. In this case, all the large sites would be Inka centers, or local centers with substantial access to Inka wares. There would be a high intensity of Inka ceramics due to the significant influx of Inka colonies. Inka goods would also be the most prestigious in the colonies. Any other status items would be limited to items from other parts of the Inka Empire. In addition, there may be production of Inka items (ceramics, textiles, and *chicha*) and farms by *mit'a* laborers.

If the Inka state utilized a prestige goods economy they would have created vertical trade and alliances. Then, only large public architecture sites would have access to Inka ceramics.

This is because large public architecture sites were inhabited by the local elite, who had privileged access to Inka prestige materials. Furthermore, there would be a very low intensity of Inka ceramics across sites to heighten the rarity of Inka goods. Moreover, there would be other status wares present in the region because native elites would have established other interregional alliances. For a trade or alliance to occur, the Charazani region would have possessed items that the Inka desired, so that the items could be exchanged.

If the mode of interaction was feasting then there are two possibilities. First, Inka feasting wares may only be present in the large public architecture sites. Second, there may be serving wares in large and small sites. This would suggest that feasting was important ceremony to all people and not only a major event that occurred in large sites or centers.

If emulation through materialization of ideology occurred then one would see materialized ideology in the large centers where local elites dwelled. This is because Charazani elites would have used emulation to gain status and power over the locals.

### Tiwanaku

These alternative possibilities can now be compared to the actual data and evidence found in the region. In Charazani, during the Middle Horizon, new Tiwanaku sites were established. At the same time, previously existing Formative sites obtained Tiwanaku ceramics. There was also an increase in population and an increase in intensity of Tiwanaku ceramics. Core Tiwanaku wares were found throughout the region and there was a development of two Provincial Tiwanaku ceramic styles. For these reason, I argue that the modes of interaction the Tiwanaku utilized in the Charazani region included vertical archipelago colonies and emulation through materialization of ideology. Also, vertical trade and alliances were formed by a prestige

goods economy. Evidence for this is seen in the formation of fourteen new Tiwanaku sites, and the continuation of the Formative sites, along with the distribution of Core, Local, and Rough Tiwanaku ceramics. Additional evidence includes the presence of Tiwanaku serving wares and the beginnings of intensified agriculture.

As evident in a vertical archipelago mode of interaction, not only were large sites affiliated with the Tiwanaku, but so were isolated households and villages. The data shows the establishment of fourteen new sites in the Middle Horizon with large portions of Tiwanaku ceramics. These new sites may be evidence of a vertical archipelago strategy where the Tiwanaku polity was concentrating its presence in the Charazani region to gain access to resources in the valley. These new sites were established in key strategic locations to influence the ceramic economy in the Charazani region. In fact, all Formative sites, small or large, found in the survey had access to Tiwanaku ware in the Middle Horizon. This signifies that all existing sites were incorporated into the Tiwanaku economy and culture. Hence, the migration of people from the Tiwanaku heavily influenced the locals living existing settlements.

As mentioned, I argue that it is likely that a combination of processes took place simultaneously. As Tiwanaku established colonies, they influenced the local populations to actively copy and emulate the prestigious Tiwanaku ideology. The locals may have been establishing their own power by demonstrating their relationship with that of a larger more powerful entity, such as the Tiwanaku polity, as Flannery (1969) and Renfrew (1986) have established in other regions. In this case, an emerging elite class in the Charazani region may have actively produced Provincial Tiwanaku wares to establish their status, while also obtaining Core Tiwanaku pottery through exchange of prestige goods. Therefore, whether as colonies or

native settlements, there was a strong influence by the Tiwanaku polity and its religious ideology in the Charazani region.

Not only did the Tiwanaku polity introduce Core Tiwanaku wares, but also brought about the creation of two Provincial Tiwanaku styles. As mentioned, the Local and Rough Tiwanaku ware was most likely produced by emerging local rulers emulating the Core Tiwanaku ware associated with the powerful Tiwanaku polity. In all likelihood, the establishment of Tiwanaku colonies only encouraged locals to imitate the Tiwanaku style. Surely, immigrants from the Titicaca Basin also began producing their own ceramics in the local clays which also increased the production of Provincial Tiwanaku pottery.

Strategies of colonization, vertical trade, and elite alliances can also be seen in the presence of Tiwanaku severing wares. They were present in more than half of the Tiwanaku sites (58%). If the Tiwanaku polities only utilized strategies of colonization, then all sites would have serving vessels to participate in feasting. At the same time, if they only employed vertical trade and elite alliances then we would only fine Tiwanaku serving vessels in large public architecture site. Instead, we see that the majority of Tiwanaku serving vessels are found in public architecture sites, but they were also present in villages and isolated households. Therefore, we see again that the Tiwanaku polity employed a mix of strategies were migrants brought serving wares with them, alliances with local elites were established, and local production of the serving vessels was created. As a result, a large portion of the public was engaging in a Tiwanaku ceremony and religious ideology which was materialized in the Tiwanaku serving vessels.

Although there were no raised-fields, the Tiwanaku polity may have intensified agriculture in the area by increasing the number of terraces. In Chapters VI and VII, it was demonstrated that in the Middle Horizon, Tiwanaku ceramics were found in lower and outlying terraces that were previously unoccupied. This suggests that as the sites expanded more agrarian terraces were built under the discretion of the Tiwanaku polity. This is seen in sites: Cruz Pata, Jaramillo, Kata Paata, Kollachaj Pacha, and Wata Wata.

Finally, the increased amounts of Tiwanaku ceramics sustain that the Tiwanaku polity made use of colonization and created vertical trades and exchanges. The increases in ceramics during the Middle Horizon suggest higher intensity of pottery use from the Formative period. The increase of pottery use may have been from an increase in population; there could have been an influx of immigrants from the Titicaca Basin. Moreover, the increase of pottery use could have been the result of an active production of Provincial Tiwanaku ware to emulate the Core Tiwanaku ceramics.

### Inka

Charazani's strategic location and ethnohistory argues that the Inka would have had strongly controlled colonies in the area, but my analysis did not portray a massive colonization of the region by foreign groups. Instead, the analysis revealed that the Inka utilized prestige goods economy as a mode of interaction to influence the Charazani inhabitants. The Inka strategically placed their limited and prestigious ceramics in public architecture sites where they could be viewed by a large portion of the population. In addition to the limited number of ceramics, the Inka also invested substantially in architecture, such as the massive construction of agrarian terraces and architectural features of *ph'ullus*, corrals, and niches. As seen in the dominance of

storage vessels, I also found that the Inka used their energies on the accumulation of food, not the redistribution of food. This implies that the Inka was successful in receiving tribute for a low amount of state investment in portable materials, such as pottery.

I offer four reasons for the lack of massive Inka colonies and the use of a prestige goods economy: 1) the high status of the Kallawaya eliminated the necessity for direct Inka colonization; 2) the Inka focused their investment in building architectural features in strategic locations; 3) the Inka were unable to invest heavily in the area because of the sudden Spanish conquest; and 4) the Inka influence may have not been directly from Cuzco, but funneled through the Inka provinces.

The Inka may not have copiously colonized the area through vertical archipelago and *mit'a* services because it was unnecessary. The Kallawaya enjoyed a privileged status among the Inka as the King's litter barriers and medical doctors; therefore, they may have willingly entered into the Inka state and consented to Inka control (Bastien 1987). Instead of the massive colonization of the area, the Inka state focused their energies on a prestige goods economy to create vertical trade and alliances with the locals, who may have been in charge of controlling foreign colonies that simply did not use or have access to Inka imperial materials. So, in contrast to the Tiwanaku, the Inka made their highly decorated ceremonial wares very restricted, which heightened the honor of receiving them. As mentioned, only five sites had access to Inka wares in the Charazani region. These five sites were all large public centers as expected in a model of a prestige goods economy. In exchange for the Inka prestige goods, the Kallawaya provided medical knowledge and access to the Amazon. Both would have been highly valuable

to the Inka Empire. The Inka state would have gained access to precious medical knowledge, like medical herbs and trephinations, and to rare Amazon products, like coca and feathers.

Another reason the Inka state did not invest in the ceramic economy in the region of Charazani. This may be because the Inka employed their energies into constructing architectural features to facilitate agricultural production. The architectural features the Inka constructed were *ph'ullus*, corrals, niches, and double rowed walls. The Inka also built extensive agricultural terraces, which supports that Inka invested in agricultural production over the production and distribution of a portable ceramic materials. Many sites had no Inka ceramics, but had Inka architecture.

The third argument for the lack of Inka colonies and Inka ceramics is that the Inka had a limited time in the Charazani region before their collapse. The Inka state had less than hundred years to establish itself in South America, while the Tiwanaku polity had six hundred years to assert itself in Charazani. This may be one reason why Tiwanaku wares were so numerous in the region and why Inka ceramics were so limited.

The fourth possibility is that Inka power may not have come from Cuzco, but instead via the Titicaca Basin or another region. This is possibly because ethnohistory and archaeology demonstrates that the Inka had a strong presence in several areas, such as the Titicaca Basin. If Inka influence came from provinces, this would explain the lack of imperial Inka ceramics. In fact, there may have been a local Inka or a Provincial Inka ceramic style present in Charazani, but it was not identified due to the small pieces of ceramics available in the Charazani ceramic surface assemblage. Alconini in excavations had identified Inka provincial variants from the Titicaca basin in the Charazani valley (Alconini et al. 2008).

Because of these reasons, the Inka state did not colonize the area, but instead utilized a prestige goods economy to form vertical trade and alliances. In return, the Inka received tribute. One tribute was food, as seen in the high portion of Inka storage ceramics and minute portion of Inka serving vessels (Table 17). Other tributes would have included the Kallawaya's medical expertise and imported goods from trade routes into the Amazon.

In summary, the Tiwanaku and Inka polities both invested in the Charazani region in different ways. Yet, both invested in an agrarian economy. This is seen in the Middle Horizon were some terraces were attached to the Tiwanaku sites suggesting an increase in horticulture activities. In the Inka period, the agrarian capabilities were expanded to a maximum as seen in the construction of *ph'ullus* and corral. In addition, the creation of agrarian terraces increased the agrarian abilities of the region. The Tiwanaku polity invested in the ceramic economy as seen in the number of Tiwanaku ceramics, while the Inka state focused in the architecture instead of ceramics. The Tiwanaku polity invested a lot of resources in the area using modes of interaction of colonies and alliances. While the Inka invested minimally in administrative infrastructure and relied more in vertical alliances with local elites. The local chiefs may have been in charge of the *mit'a* laborers as testified in ethnohistorical records.

#### Conclusion

The goal of this thesis was to see what the modes of interaction in the Charazani valley inform us about the form of Tiwanaku and Inka political control through the examination of ceramics. The Tiwanaku polity had strong political control in the area by creating colonies and developing a prestige goods economy. At the same time, locals emulated Tiwanaku ideology through materialization of ideology. Later, the Inka Empire created alliances through a prestige

goods economy and granting privileged status to the Kallawaya. They also constructing several architectural features included agrarian terraces.

The Tiwanaku polity was an archaic polity in the Titicaca Basin. It began around A.D. 500 and lasted till A.D. 1100. Later, an extensive drought propelled the collapse of the political, social, and economic organization of the polity. In comparison, the Inka Empire, the largest empire of the pre-Columbian world, only lasted from A.D. 1435–1535. It extended along the Pacific coast from the tip of Colombia down through parts of Chile and Argentina. Its collapse was brought on by Spanish conquistadors.

This research examined how the Tiwanaku and Inka polities interacted in different ways to form political control in the Charazani valley. The Tiwanaku and Inka polities utilized several modes of interactions. The ones examined in this thesis are vertical archipelago colonies and a prestige goods economy. In addition, feasting and emulation through materialization of ideology was examined.

The Charazani region is part of the Apolobamba National Park, a protected area under the authority of the Bolivian government. The main ethnic group occupying the Charazani region in the past and the present is the Kallawaya (Bastien 1987). The Kallawaya are famous for their trade caravans and medical practices (Bastien 1987; Meyers 2002).

Analysis included the examination of ceramics with a look at the architecture. Ceramics were chosen as the unit of analysis because they are widely used in archaeology as a material of cultural investigation. Also, the variation in ceramics types can informs us on different modes of interaction.

The modes of interaction found in the Charazani region inform us about the forms of political control each polity had. It was concluded that the Tiwanaku polity influenced the Charazani region employing a variant modes of interaction which led to variant forms of political control. The modes of interaction found were vertical archipelago and prestige goods. In addition, there was emulation through materialization of ideology. Vertical archipelago colonies were located in strategic settlements. Also, the Tiwanaku polity created vertical trade and elite alliances with Charazani locals through the exchange of prestige goods. The Tiwanaku polity offered their prestigious Core Tiwanaku ware and the locals most likely traded the goods coming from the tropical piedmonts, such as coca leaves and fruits. At the same time, the locals emulated the prestigious Tiwanaku ceramics and ideology by creating Provincial Tiwanaku pottery. So, the Tiwanaku polity was also able to import their ideology to legitimize their influence in the area through materialization of ideology. It was also concluded that the Tiwanaku intensified agriculture and the increased the population.

While, the ceramic analysis demonstrated that the Tiwanaku polity had a strong influence in the region, it also showed the lack of direct political control by the Inka. Ethnohistorical accounts state the Inka heavily colonized the Charazani region and had a strong direct political control. I argued that the lack of massive Inka colonies may have been due the Kallawayas' high status or an inadequate amount of time. Another possibility is that Inka influence was funneled from an Inka province. In addition, the Inka state focused their energies on building architecture and to intensify agriculture at key sites instead of colonization. The Inka state oversaw the construction of significant amounts of agrarian terraces and the creation of *ph'ullus* used as storage units and temporary shelter. The Inka also constructed corrals to increase pastoralism. At

the same time, they introduced a new prestigious ware, Inka ceramics, which they exchanged for tribute. The Inka received tribute in form of food as evident by the dominance of storage vessels and near absence of serving vessels across sites. Also, tribute came in the form of the Kallawaya medical knowledge and imported goods from the Amazon.

The work presented in this thesis will be continued in my doctoral research. The doctoral research would continue with the examination of the excavated materials of the region. In particular, it will develop and expand upon the master's research by exploring new avenues of ceramic classification and the study the agricultural terraces, including the investigation of the political control of the Inka and Tiwanaku polities in different regions.

The data gathered from excavations will further inform the classification and chronology of the Charazani region. In addition, chemical compositions of the ceramics may be explored.

New data will be considered, and if needed, the classification and chronology will be adjusted.

The ceramic data has shown a long occupational sequence on several of the terraces. People have argued that the presence of terraces at Charazani is a visual testament of the subsequent Inka presence. Ethnohistorical accounts argue that the terraces were created by the Inka and not by the locals. By finding seeds and pollen of crop material in the ceramics, we could date them to see when the different terraces associated with them were used.

This research is significant because prior to this research only a preliminary ceramic study has been accomplished in the Charazani region by Dr. Sonia Alconini. The conclusions drawn from this research will be added to the growing knowledge of the Tiwanaku polity and the Inka Empire, more specifically how the states intervened in local economies.

## **APPENDIX**

# **Charazani Ceramics – Code for Analysis**

# Style

- 28. Utilitarian pottery
- 29. Inka Cuzqueño
- 31. Regional Inka
- 32. Not defined
- 33. Imported unknown origins
- 50. Mollo
- 51. Local L.I.P.and L.H. (Intermedio Tardio e Inka) (red slip and slate)
- 52. Incised Late Intermediate Period (jarras incisas y caritas incisas en mangos jarra)
- 53. Core Tiwanaku, Middle Horizon (fine paste and bright red slip)
- 54. Local Tiwanaku, Middle Horizon (slate and mica)
- 55. Rough Tiwanaku, Middle Horizon (mica and sand with brown slip)
- 56. Formative
- 57. Colonial

## Sherds body part

- 1. Rim
- 2. Body
- 3. Base
- 4. Handle
- 5. Neck
- 6. Nub (mango)
- 7. Tripod base (base trípode)
- 8. Not defined

### Decoration

- 0. Absent
- 1. Present

## Surface Finishing

- 0. Not analyzed
- 1. Fine smoothed, orange surface.
- 2. Fine smoothed, gray surface.
- 3. Fine smoothed, brown surface.
- 4. Rough smoothed, orange surface.
- 5. Rough smoothed, gray surface
- 6. Rough smoothed, brown surface.
- 7. Rough polished, orange surface.
- 8. Rough polished, gray surface.

- 9. Rough polished, brown surface.
- 10. Fine polished, orange surface.
- 11. Fine polished, gray surface.
- 12. Fine polished, brown surface.
- 13. Red slip (engobe rojo).
- 14. Black slip.
- 15. Brown slip.
- 16. Deep brushed, gray surface.
- 17. Deep brushed, orange surface.
- 18. Deep brushed, brown surface.
- 19. Smoothed and brown-coated surface (bañado)
- 20. Paddled orange surface (bruñido)
- 21. Paddled gray surface
- 22. Paddled brown surface.
- 23. White coated surface.
- 24. Gray coated surface.
- 25. Fine smoothed, and white coated surface.
- 27. Highly polished, and red slip surface (Inka)
- 29. Brown-orange coat on the surface.
- 30. Not defined (eroded fragment)
- 31. Rough polished red surface (Inka regional style)
- 32. Burn and/or black sooth on the surface.
- 33. Rough polished, blackish surface.
- 99. Green smelted surface (Colonial period).

### (Charazani – start with 100)

- 100. Cracked surface
- 101. Cream slip
- 102. Paddled cream surface
- 103. Yellow glaze

## Paste/Temper

### (Charazani, start with 40)

- 40. Medium angular slate (gray)
- 41. Rough angular slate (gray)
- 42. Black and white fine angular slate
- 43. Black and white medium angular slate
- 44. Black and white rough angular slate
- 45. Medium multicolor slate (black, white, red)
- 46. Rough multicolor slate (black, white, red)
- 47. White fine angular slate
- 48. White medium angular slate
- 49. Red medium angular slate
- 50. White and red fine angular slate

- 51. White and red medium angular slate
- 52. Slate and sand
- 53. Slate and sand with clear/ white mica
- 54. Sand with clear mica

Sand with dominance of black mica

- 56. Brown mica
- 57. Medium grained sand
- 58. Sand w/ black and clear mica
- 59. Black and white slate, mica, and straw
- 60. Black and white slate and straw
- 61. Black and clear mica, sand, and straw

#### Extra codes:

- 0. Not analyzed.
- 1. Fine grained sand (round grains).
- 2. Rough grained sand (round grains).
- 3. Fine grained angular sand.
- 4. Rough grained angular sand.
- 5. Paste with mica and slate.
- 6. Golden mica in fine paste.
- 7. White mica in fine paste.
- 8. Mica in colonial paste (abundant mica, selected paste. Colonial period).
- 9. Crystal quartz-like rounded grains.
- 10. Crystal quartz-like angular grains.
- 11. Rounded white mineral in paste.
- 12. Angular white mineral in paste.
- 13. Angular slate-dominant in paste.
- 14. Fine angular slate.
- 15. Fine multicolor slate.
- 16. Fine, selected paste with no inclusions.
- 17. Gray compact, concrete-like paste.
- 18. Multicolor grained paste (slate and sand).
- 19. Angular white slate in paste (like white seeds).
- 20. Fine paste, and bright black mica
- 21. Paste with brown sandstone chunks.
- 22. Angular slates with pieces of straw.
- 23. Black & angular pieces of stone in paste.
- 24. Fine crushed sherds in paste (orange, soft grains).

(categories 25-39 used for Cuzcotuyo, Chuquisaca)

### **Firing**

- 0. Not analyzed
- 1. Orange paste (oxidized atmosphere)

- 2. Gray paste (reduced atmosphere)
- 3. Gray core, orange in both sides
- 4. Orange core, gray in both sides
- 5. Half orange (external surface), half gray (internal surface).
- 6. Half gray (external surface), half orange (inner surface).

# Evidence of Soothing

- 0. Absent.
- 1 Exterior wall.
- 2. Internal wall.
- 3. Both walls.

## Wall Thickness

- 0. Not analyzed.
- 1. Thin walls (0.5 cm).
- 2. Medium walls (0.5-1cm).
- 3. Thick walls (more than 1 cm).

(Charazani, start with 100)

Figure 5. Rim and base styles at Charazani

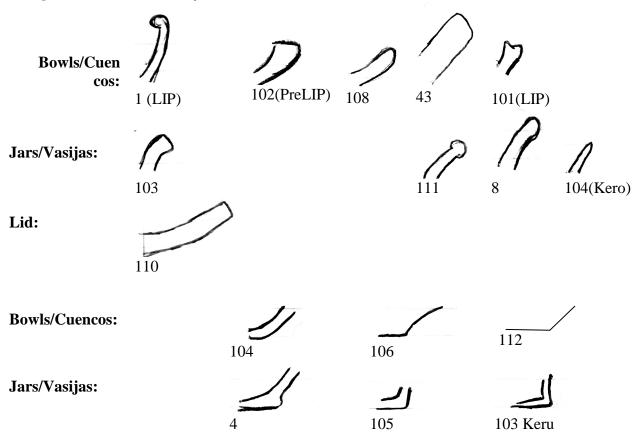
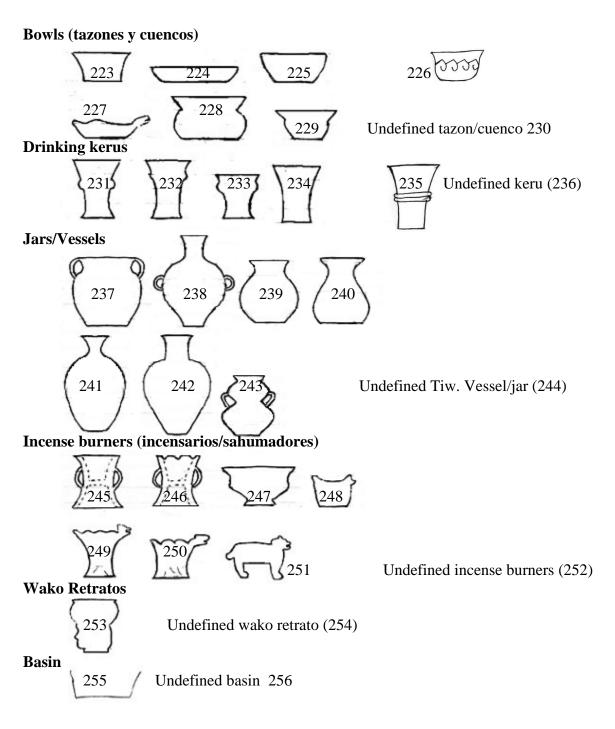


Figure 6. Vessel shapes of Tiwanaku ceramics (53).



257 Undefined Tiwanaku shape (shape cannot be defined)

# Shapes of Other styles

# (51) Local L.I.P.and L.H. (Intermedio Tardio e Inka) (red slip and slate)

- 354. Not defined
- 355. Not defined storage jar
- 356. Not defined serving

# (54) Local Tiwanaku, Middle Horizon (slate and mica)

- 357. Not defined
- 358. Not defined storage jar
- 359. Not defined serving
- 371. Not defined kero

## (52) Incised Late Intermediate Period

- 361. Not defined
- 362. Not defined storage jar
- 363. Not defined serving

# (55) Rough Tiwanaku, Middle Horizon (mica and sand with brown slip)

- 366. Not defined
- 367. Not defined storage jar
- 261. Not defined kero

## (56) Formative

- 368. Not defined
- 369. Not defined storage jar
- 370. Not defined serving

# (57) Colonial

- 258. Not defined
- 259. Not defined serving
- 260. Not defined storage jar

Table 19. Histogram showing portion of ceramics across sites.

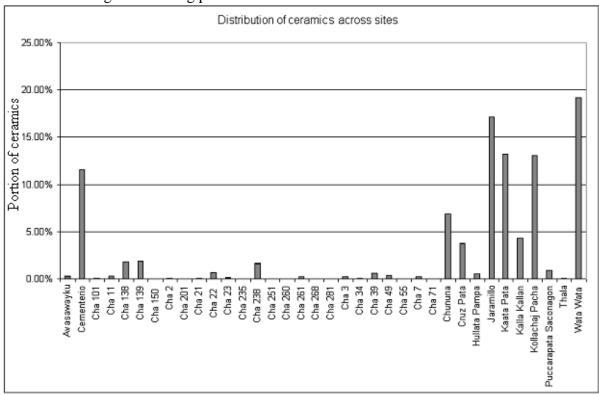


Table 20. Core Tiwanaku ceramics distribution in sites.

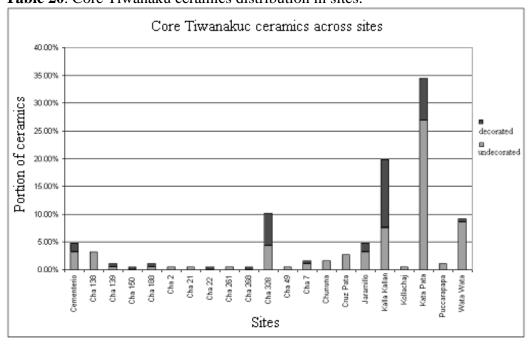


Table 21. Core Tiwanaku ceramics across site functions.

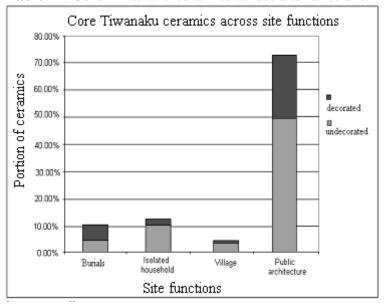


Table 22. Histogram of Local Tiwanaku ceramics.

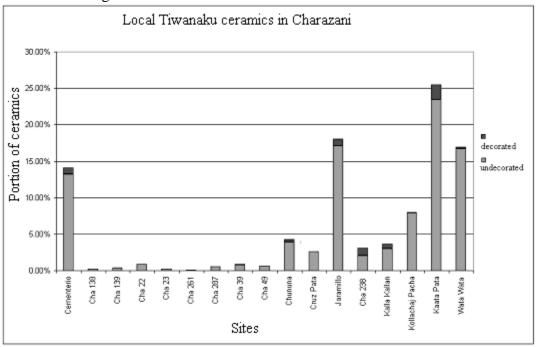


Table 23. Histogram of Local Tiwanaku ceramics in site functions.

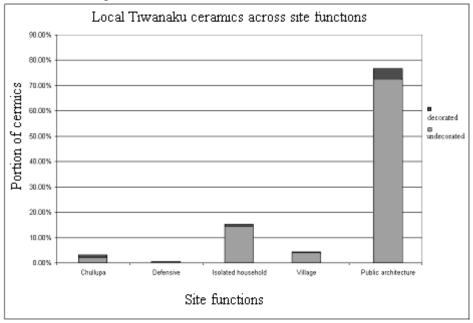
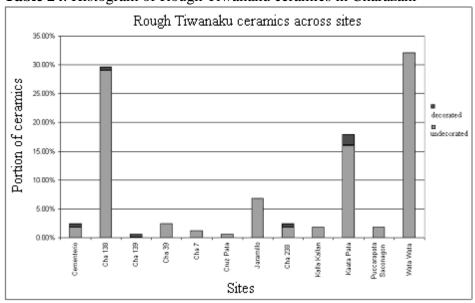
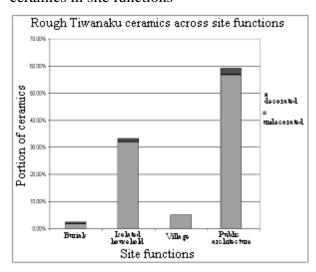


Table 24. Histogram of Rough Tiwanaku ceramics in Charazani



**Table 25**. Histogram of Rough Tiwanaku ceramics in site functions



**Table 26**. Table showing Jaramillo ceramics

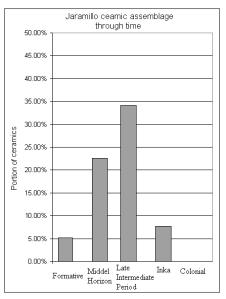
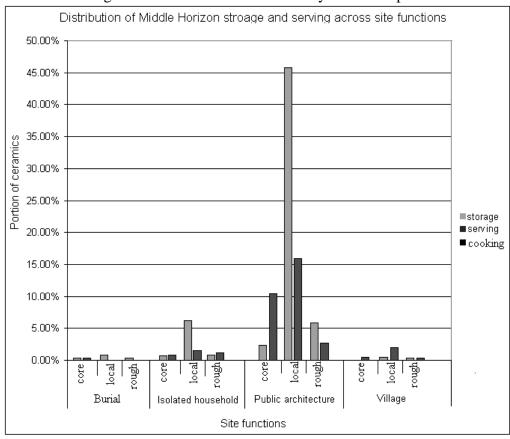


Table 27. Histogram of Middle Horizon vessel styles and shapes.



**Table 28**. Chart showing style categories, time frame, and descriptions.

Style	Time Frame	Paste	<b>Surface Finishing</b>	Characteristics	
Domestic	All	Red, white,	Rough brown	None	
		and/or black slate			
Formative	Formative	Sand, slate, straw,	Fine and rough	Thick walls	
	Period	and/or mica	brown		
Core Tiwanaku	Middle	Fine golden mica	Red slip	Three dimensional faces	
	Horizon			and pumas	
	(M.H.)			Painted geometric shapes	
Local	M.H.	Mica and slate	Red slip	Painted geometric shapes	
Tiwanaku					
Rough	M.H.	Red, white,	Brown	Painted geometric shapes	
Tiwanaku		and/or black slate			
Late	L.I.P.	Red, white,	Red slip	None	
Intermediate		and/or black slate			
Period (L.I.P.)					
Incised L.I.P	L.I.P.	Red, white,	Fine orange	Incised lines, crosses,	
		and/or black slate		and Xs	
Inka	Inka Period	Fine sand	Cream slip	Painted geometric shapes	
Colonial	Colonial	Fine no	Shiny glazes:	None	
	Period	inclusions	yellow and green		

Table 29. Chart showing raw numbers of ceramic types by site and time.

Site	<b>Formative</b>	Middle Horizon			Late Intermediate		Inka	Domestic	Grand Total
		1							
		Core	Lo.	Rg.	Plain	Incised	Core		17
Cementerio	9	9	162	4	32			473	689
Cha-22		1	10		2			28	41
Cha-238		19	36	4	2			36	98
Chuñuna	13	3	48		24		3	318	409
Jaramillo	8	9	208	11	119	2	1	681	1039
Kaata Pata	32	64	294	29	40		2	322	788
Kollachaj									
Pacha	6	1	92		28		1	648	776
Puccarapata									
Saconagon		2		3	2			48	55
Wata Wata	69	17	195	50	62	3	6	13	1143
Cruz Pata	4	5	30	1	7			178	225
Cha-138		6	3	48	2			50	109
Cha-139		2	5	1	5			98	111
Cha-150		1							1
Ayasawayku					3	1		13	17
Cha-21		1						5	6
Cha-23	4		3		1			2	10
Cha-34								5	5
Cha-49		1	7					13	21
Cha-55								2	2
Cha-71								2	2
Cha-235								1	1
Cha-260					1				1
Cha-261		1	1					13	15
Cha-268		1							1
Cha-281								2	2
Cha-2		1			1			3	5
Cha-3								13	13
Cha-7		3		2	1			6	12
Cha-11								17	17
Hullata									•
Pampa					6			24	30
Cha-251								1	1
Thala			6					28	6
Cha-101								3	3
Cha-201								1	1
Grand Total	153	184	1142	156	349	6	13	452	5908

# Additional Figures

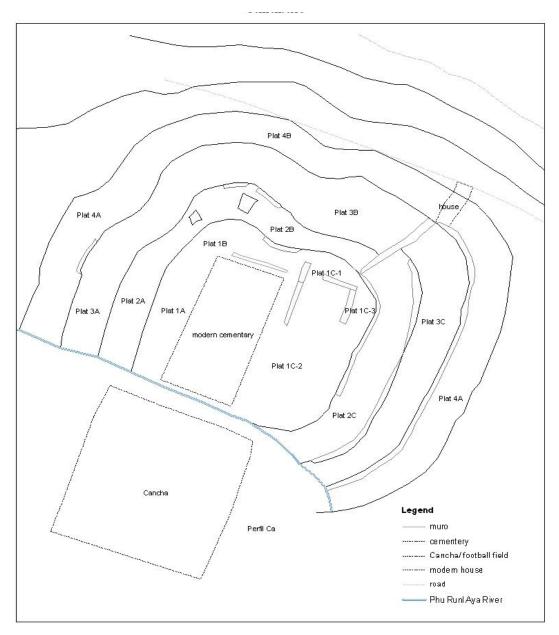


Figure 7. Map of Cemeterio

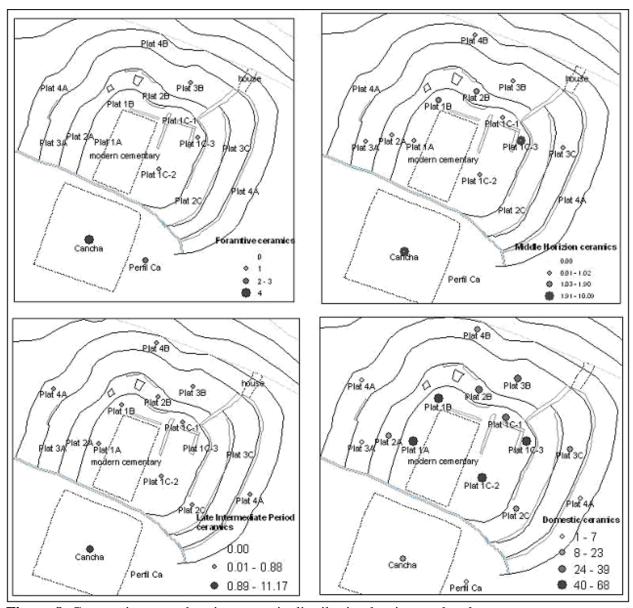


Figure 8. Cemeterio maps showing ceramic distribution by time and style.

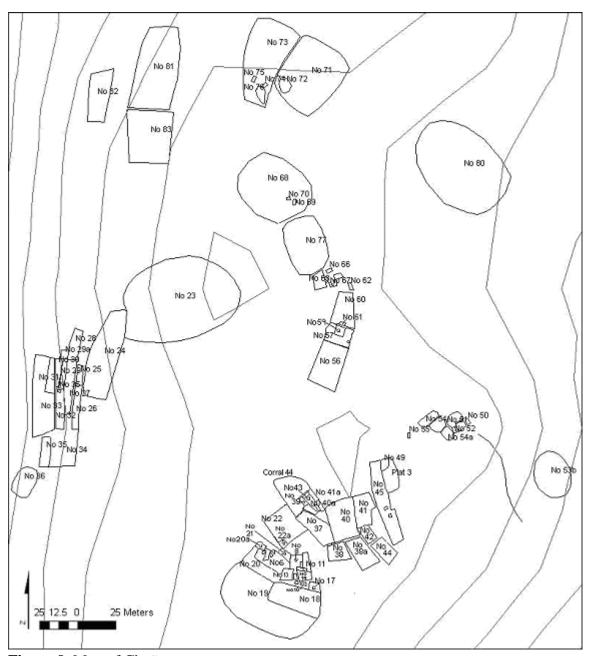


Figure 9. Map of Chuñuna

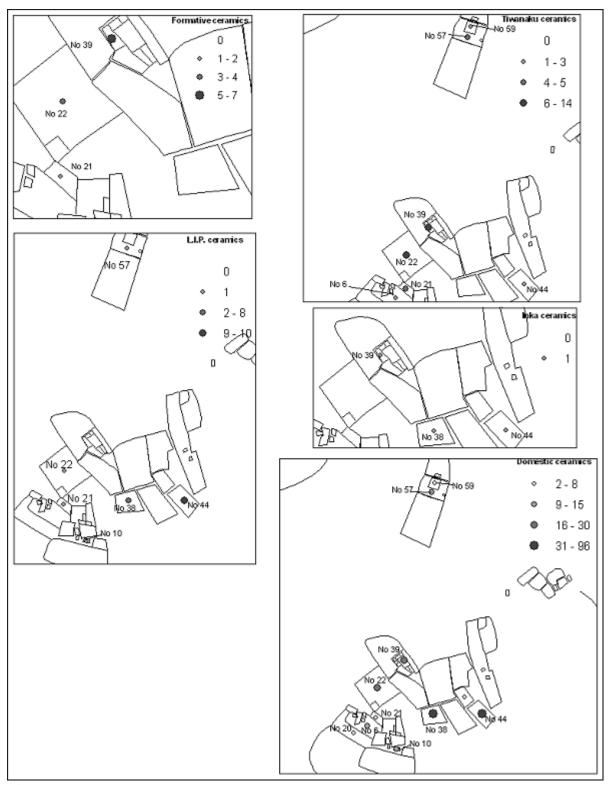


Figure 10. Chuñuna maps showing ceramic distribution by time and style.

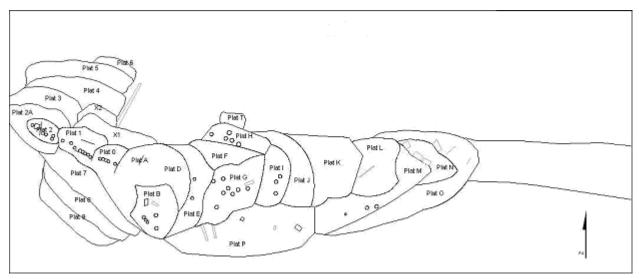


Figure 11. Map of Jaramillo

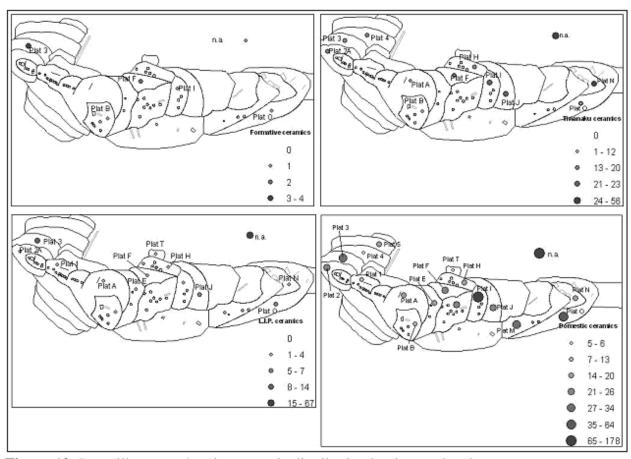


Figure 12. Jaramillo maps showing ceramic distribution by time and style.

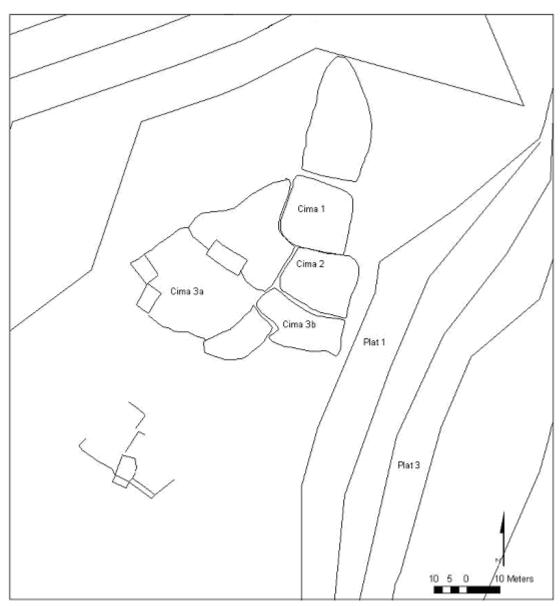


Figure 13. Map of Kaata Pata

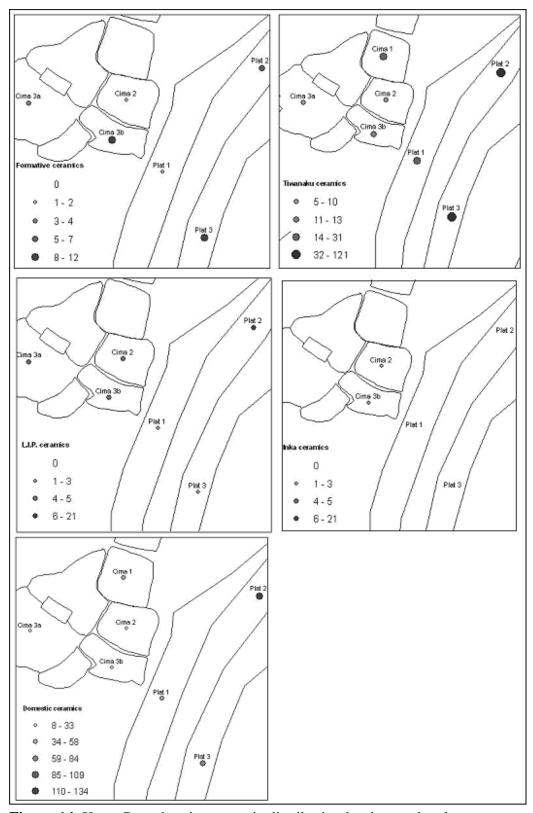


Figure 14. Kaata Pata showing ceramic distribution by time and style.

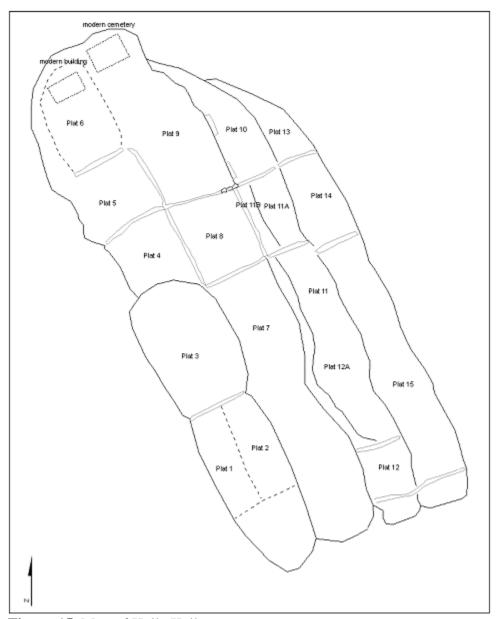


Figure 15. Map of Kalla Kallan

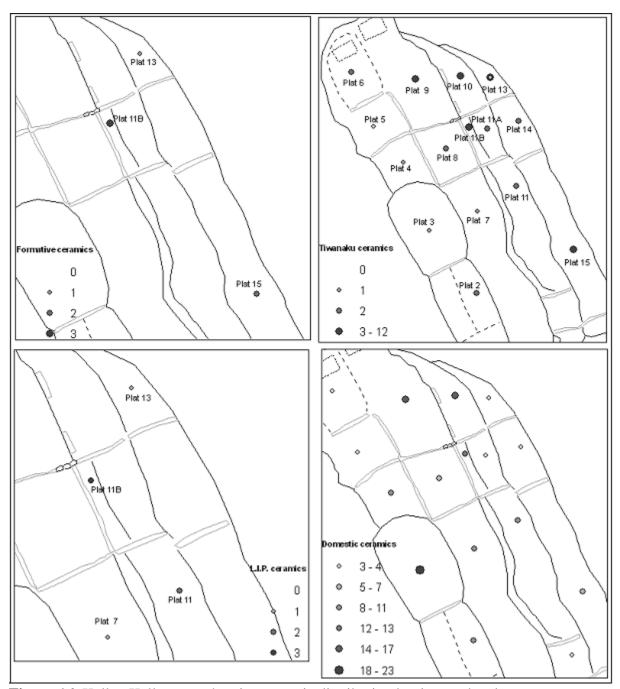


Figure 16. Kallan Kalla maps showing ceramic distribution by time and style.



Figure 17. Map of Kollachaj

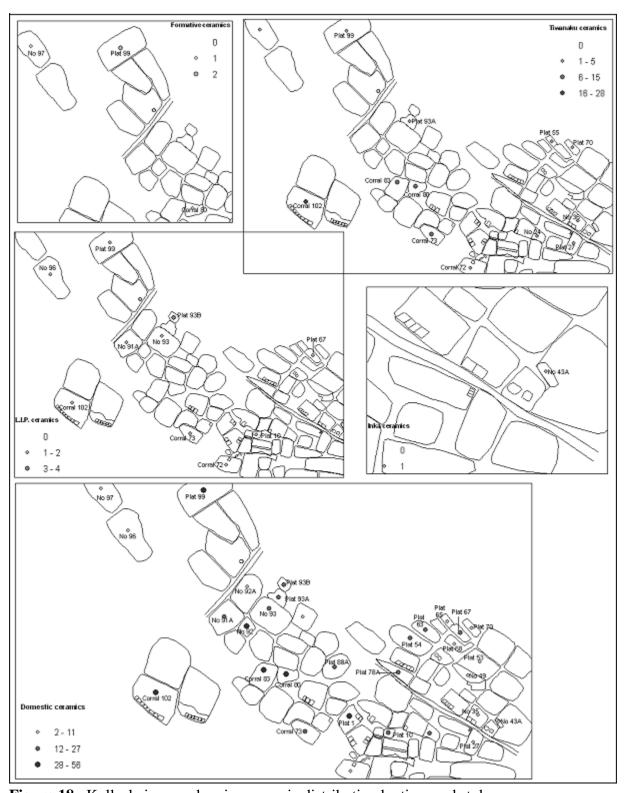


Figure 18. Kollachaj maps showing ceramic distribution by time and style.

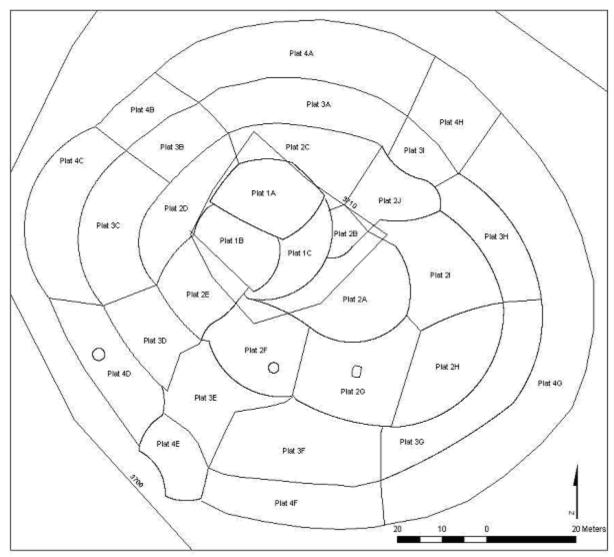


Figure 19. Map of Wata Wata.

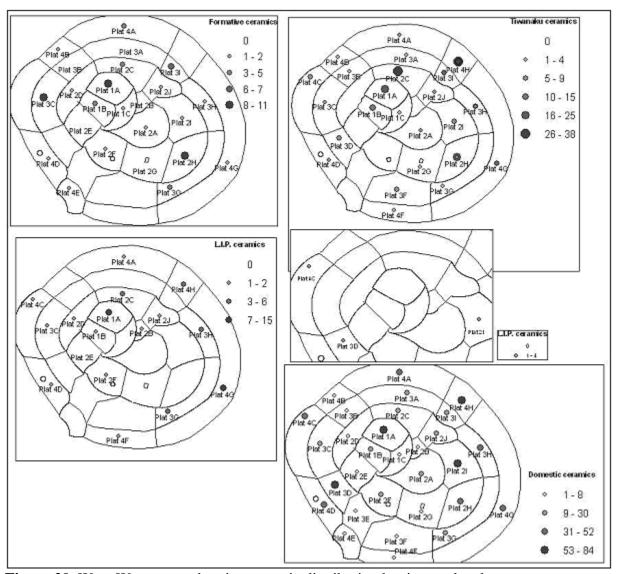


Figure 20. Wata Wata maps showing ceramic distribution by time and style.

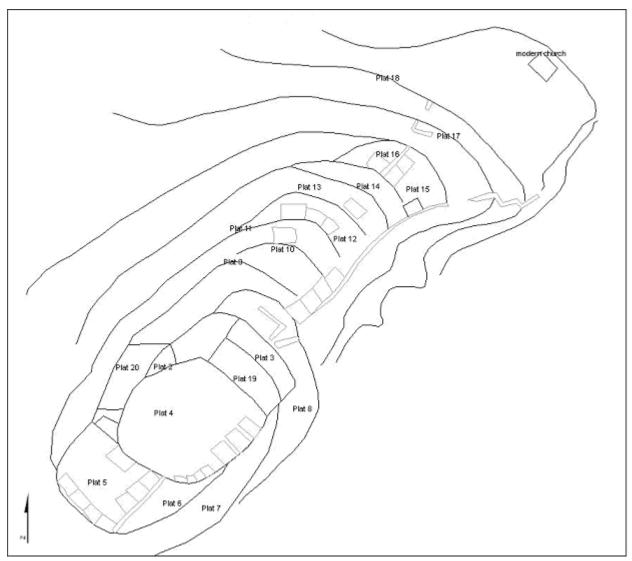


Figure 21. Map of Cruz Pata.

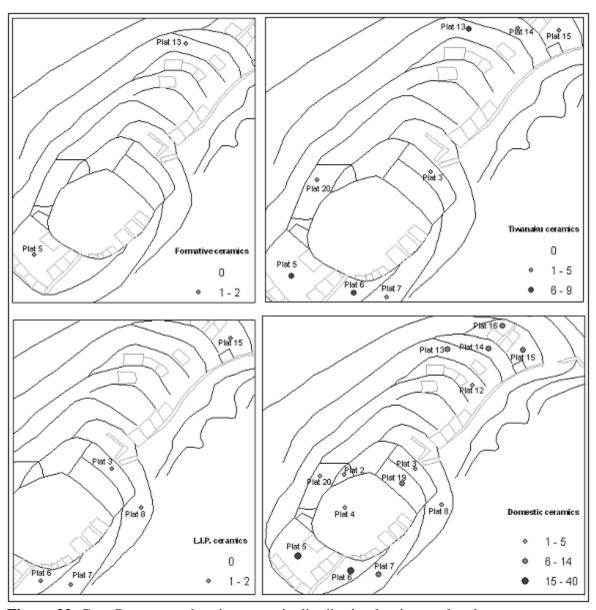


Figure 22. Cruz Pata maps showing ceramic distribution by time and style.

# Ceramics

# **Formative ceramics:**

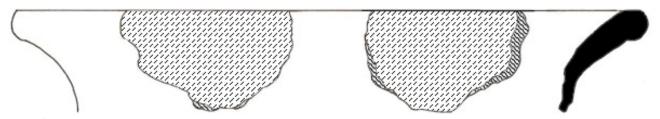
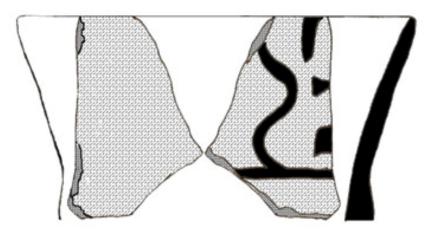


Figure 23. Wata Wata Platform 3H storage vessel rim

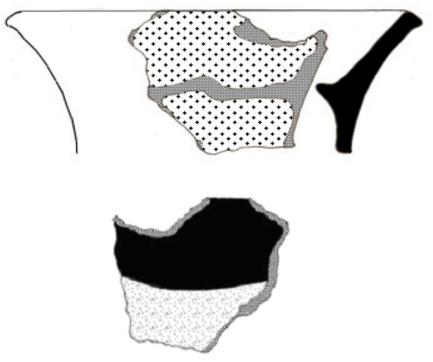
# Tiwanaku ceramics:



**Figure 24**. Kalla Kallan Platform 10 #20 Core Tiwanaku kero rim with orange polish surface



**Figure 25**. Kalla Kallan Platform 11 #7 Core Tiwanaku *kero* rim



**Figure 26**. Kallan Kallan Platform 11B Rough Tiwanaku storage vessel possible incensario

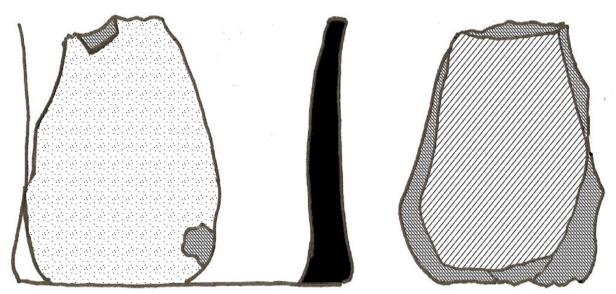


Figure 27. Kalla Kallan Platform 11B kero base



Figure 28. Wata Wata Platform 2B #6 Core Tiwanaku kero base



Figure 29. Wata Wata Platform 2D #8 Core Tiwanaku storage vessel base

# **Late Intermediate Period ceramics:**

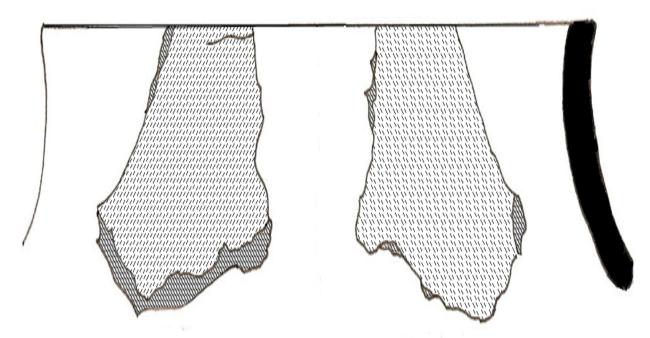
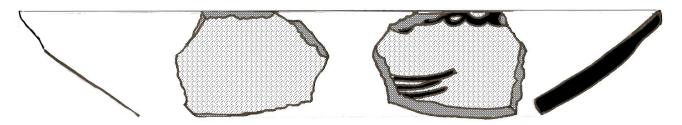


Figure 30. Local Late Intermediate Period storage vessel jar

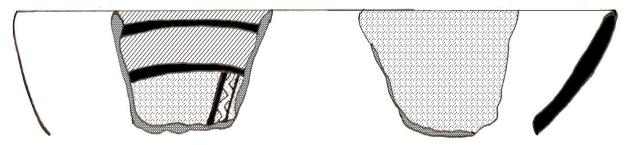


Figure 31. Incised Late Intermediate Period handle

# **Inka ceramics**:



**Figure 32**. Chuñuna No 39 #1 Inka serving vessel



**Figure 33**. Kata Pata Platform 1B #37 Inka serving vessel

# **BIBLIOGRAPHY**

### Albarracín-Jordin, Juan

- 1992 Prehispanic and Early Colonial Settlement Patterns in the Lower Tiwanaku Valley, Bolivia. Ph.D. dissertation, Southern Methodist University, Dallas.
- 1996 Tiwanaku Settlement Systems: The Integration of Nested Hierarchies in the Lower Tiwanaku Valley. Latín *American Antiquity* 7(3):183-210.

# Alconini Mujica, Sonia

- 1995 Rito, símbolo e historia en la pirámide de Akapana, Tiwanaku: un análisis de cerámica ceremonial prehispánica, Editorial Acción, La Paz, Bolivia.
- 1996 Inka Frontier in the Chaco: an Approximation to the Inka Interaction with the Guaraní-Chiriguano Groups.
- 1999 The Inka Architecture of Power in Oroncota, Southeastern Eastern Bolivia. Paper presented at the 18th Annual Northeast Conference on Andean Archaeology and Ethnohistory, University of Massachusetts Amherst, MA.
- 2002 *Prehistoric Inka Frontier Structure and Dynamics in the Bolivian Chaco.* Ph.D. dissertation, Department of Anthropology, University of Pittsburgh.
- Arginalidad imperial y frontier: Kallawaya y Chunchos en la frontera Inka estate: informe sobre la primera fase de prospeccion: valles de Chajaya, Charazani y Kaata.
- 2008 Dis-embedded Centers and Architecture of Power in the Fringes of the Inka Empire: New Perspectives on Territorial and Hegemonic Strategies of Domination. *Journal of Anthropological Archaeology* 27:63-81.
- 2009 Los Inkas en los Valles de Charazani, Amarete y Curva: Evolución y Desarillo de Sociedades Yunga-Kallawaya en los Valles Occidentales. Report for the Unidad Nacional de Arqueología (Viceminsterio de Cultura).

## Alconini, Sonia and Lynn Kim

2007 Sacred Spaces and Public Architecture of Power in Charazani: the Inkas in the Eastern Peripheries of the Empire. Paper presented at the 72<sup>nd</sup> Annual Meeting of Society for American Archaeology, Austin.

### Alconini, Sonia editor

2008 El Inkario en los Valles del Sur Andino Boliviano: Los Yamparas entre la arqueología y ethnohistoria. BAR International Series, 5. Andrés D. Izeta, series. Oxford: British Archaeological Reports.

### Algaze, Guillermo

1993 Expansionary Dynamics of Some Early Pristine States. *American Anthropologist* 95(2):304-333.

### Arthur, John W.

2009 Understanding Household Population Through Ceramic Assemblage Formation: Ceramic Ethnoarchaeology Among the Gamo of Southwestern Ethiopia (Report). *American Antiquity* 74 (1):31-48

### Barton, C. Michael

1990 Beyond style and function: a view from the Middle Paleolithic. *American Anthropologist* 92(1):57-72.

### Bastien, Joseph William

1987 Healers of the Andes: Kallawaya Herbalists and their Medicinal Plants. Salt Lake City: University of Utah Press.

### Bauer, Brian

1992 *The Development of Inca State*. Austin: University of Texas Press.

1996 Legitimization of the State in Inca Myth and Ritual. *American Anthropologist* 98(2):327-337.

## Baumhoff, Martin A., and Robert F. Heizer

1959 Some Unexploited Possibilities in Ceramic Analysis. *Southwestern Journal of Anthropology* 15:308-316.

## Beck, Robin A. Jr.

2004 Architecture and Polity in the Formative Lake Titicaca Basin, Bolivia. *Latin American Antiquity* 15(3): 323-343.

### Bennett, Wendell, C.

1936 Excavations in Bolivia. *Anthropological Papers of the American Museum of Natural History* 35: 329–507.

# Bennett, Wendell. C. and Junius. B. Bird

1949 *Andean Culture History*. Handbook Series 15. New York: Museum of National History.

# Bentley, R. Alexander and Herbert D. G. Maschner

2001 Stylistic Change as a Self-organized Critical Phenomenon: An Archaeological Study in Complexity. *Journal of Archaeological Method and Theory* 8(1):35-66.

### Berenguer R., Jose, with Victoria Castro R., and Osvaldo Silva

1980 Reflexiones acerca de la présense ade Tiwanaku en el norte de Chile. In *Culturas de Chile: Prehistoria desde sus orígenes hasta los albores de la conquista*. Jorge Hidalgo L., Virgilio Schiappacasse F., Hans Niemeyer F., Carlos Aldunate del Solar, and Ivan Solimano R., eds. Pp. 221–26. Santiago: Editorial Andrés Bello.

### Bermann, Marc P.

1994 *Lukurmata: Household Archaeology in Prehispanic Bolivia*. Princeton: Princeton University Press.

### Bermann, Marc and José Estévez Castillo

1995 Domestic Artifact Assemblages and Ritual Activities in the Bolivian Formative. *Journal of Field Archaeology* 22(4): 389-398.

### Berrin, Kathleen

1997 *The Spirit of Ancient Peru*. New York: Thames and Hudson.

### Betanzos, Juan D.

1996 [1551-7] *Narrative of the Incas*. Roland Hamilton, trans. Austin: University of Texas Press.

### Binford, Lewis R.

1989 Styles of Style. *Journal of Anthropological Archaeology* 8:51-67.

Blanton, Richard, with Gary M. Feinman, Stephen A. Kowalewski, and Peter N. Peregrine. 1996 A Dual-Processual Theory for the Evolution of Mesoamerican Civilization. *Current Anthropology* 37(1):1-14.

### Boast, Robin

1997 Small Company of Actors: A Critique of Style. *Journal of Material Culture* 2(2):173-198.

# Bray, Tamara L.

2003a Introduction. In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, Tamera L. Bray, ed. Pp. 1-16. New York: Kluwer Academic Plenum.

2003b To Dine Splendidly Imperial Pottery, Commensal Politics, and the Inca State. In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, Tamara L. Bray, ed. Pp. 93-142. New York: Kluwer Academic Plenum.

2003c Inka Pottery as Culinary Equipment: Food, Feasting, and Gender in Imperial State Design. *Latin American Antiquity* 14(1): 3-28.

# Bray, Tamra. L., with Leah Minc, Maria C. Ceruti, José A. Chávez, Ruddy Perea and Johan Reinhard

2005 A compositional Analysis of Pottery Vessels Associated with the Inca Ritual of Capacocha. *Journal of Anthropological Archaeology* 24(1):82-100.

### Bronson, Bennet

1988 The Role of Barbarians in the Fall of States. In *The Collapse of Ancient States and Civilizations*, Norman. Yoffee and George. L. Cowgill, eds. Pp.192-218. Tucson: University of Arizona Press.

### Browman, David L.

1981 Prehistoric Nutrition and Medicine in the Lake Titicaca Basin. In *Health in the Andes*, Jospeh. W. Bastien and John M. Donahue, eds. Pp. 103–118. Washington, DC: American Anthropological Association.

### Brumfiel, Elizabeth M.

1998 The Multiple Identities of Aztec Craft Specialists. *Archeological Papers of the American Anthropological Association* 8(1):145-152.

## Brumfiel, Elizabeth M. and Timothy K. Earle

1987 Specialization, Exchange, and Complex Societies: An Introduction. In *Specialization, Exchange, and Complex Societies*, Elizabeth M. Brumfiel and Timothy K. Earle, eds. Pp. 1-9. Cambridge: Cambridge University Press.

### Burger, Richard L.

1989 An Overview of Peruvian Archaeology (1976-1986). *Annual Review of Anthropology* 18: 37-69.

# Burger, Richard, with Karen Mohr Chávez and Serigo J. Chávez

2000 Through the Glass Darkly: Preshispanic Obsidian Procurement and Exchange in Southern Peru and Northern Bolivia. *Journal of World Prehistory* 14 (3):267-362.

### Carr, Christopher and Jill E. Neitzal

1995 *Style, Society, and Person: Archaeological and Ethnographic Perspectives.* New York: Plenum Publishing.

### Chavez, Karen M.

1988 The Significance of Chiripa in Lake Titicaca Basin Developments. *Expedition* 30(3): 17-26.

# Clark, John E. and Stephen D. Houston

1998 Craft Specialization, Gender, and Personhood among the Postconquest Maya of Yucatan, Mexico. In *Craft and Social Identity*. Cathy Lynn Costin and Rita P. Wright, eds. Pp 31-46. Archeological Papers of the American Anthropological Association, 8. Arlington, VA: American Anthropological Association.

### Conkey, Maragart

1989 Style and History in Art History In *The Uses of Style in Archaeology*, Margret Conkey and Christine Hastorf, eds. Pp. 5-17. Cambridge: Cambridge University Press.

# Conkey, Maragart and Christine Hastorf

1989 Introduction. In *The Uses of Style in Archaeology*, Margret Conkey and Christine Hastorf, eds. Pp. 1-4. Cambridge: Cambridge University Press.

### Conklin, William J.

1991 Tiahuanaco and Huari: Architectural Comparisons and Interpretations. In *Huari Administrative Structure: Prehistoric Monumental Architecture and State Government,* In William H. Isbell, and Gorden F. McEwan, eds. Pp. 281–291. Washington, DC: Dumbarton Oaks.

### Cobo, Father Bernabe

1979 [1653] *History of the Inca Empire*. Translated by R. Hamilton. Austin: University of Texas Press.

### Conrad, Geoffrey W.

1992 Inca Imperialism: The Great Simplification and the Ancient of Empire. In *Ideology and Pre-Columbian Civilizations*, Andrew A. Demarest and Geoffrey W. Conrad, eds. Pp.159-174. Santa Fe: School of American Research Press.

### Conrad, Geoffrey W. and Arthur A. Demarest

1984 *Religion and Empire: The Dynamics of Aztec and Inca Expansionism.* Cambridge: Cambridge University Press.

## Conrad, Geoffrey W. and Don Rice

1989 Proyecto Osmore: Introduction to the Study of Late Prehistoric Vertical Connections. In *Ecology, Settlement and History in the Osmore Drainage, Peru*, Don Rice, Charles Stanish and Phillip Scarr, eds. Pp. 321-327. BAR International Series, 545. Oxford: British Archaeological Reports.

### Cook, Anita G. and Aary Glowacki

2003 Pots, Politics, and Power: Huari Ceramics Assemblages and Imperial Administration. In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, Tamara L. Bray, ed. Pp. 173-202. New York: Kluwer Academic Plenum.

### Cook, Sherburne F.

1972 Can Pottery Residues by Used as an Index to Population? *Contributions of the University of California Archaeological Research Facility* 14:17-39

### Costin, Cathy Lynne

1991 Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production. *Journal of Archaeological Method and Theory* 3:1-56.

1998a Housewives, Chosen Women, Skilled Men: Cloth Production and Social Identity in the Late Prehispanic Andes. In *Craft and Social Identity*. Cathy Lynn Costin and Rita P. Wright, eds. Pp 123-141. Archeological Papers of the American Anthropological Association, 8. Arlington, VA: American Anthropological Association.

1998b Introduction: Craft and Social Identity. In *Craft and Social Identity*. Cathy Lynn Costin and Rita P. Wright, eds. Pp 3-16. Archeological Papers of the American Anthropological Association, 8. Arlington, VA: American Anthropological Association.

2001 Production and Exchange of Ceramics. In *Empire and Domestic Economy*, by Terence D'Altroy and Christine A. Hastorf, eds. Pp. 203-242. New York: Kluwer Academic Plenum.

# Costin, Cathy L. and Melissa B. Hagstrum

1995 Standardization, Labor Investment, Skill, and the Organization of Ceramic Production in Late Prehispanic Highland Peru. *American Antiquity* 60(4):619-639.

### Costin, Cathy L. and Timothy K. Earle

1989 Status Distinction and Legitimation of Power as Reflected in Changing Patterns of Consumption in Late Prehispanic Peru. *American Antiquity* 54(4):691-714.

## Couture, Nicole C.

2003 Ritual, Monumentalism, and Residence at Mollo Kontu, Tiwanaku. In *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, Vol. 2*, Alan L. Kolata, ed. Pp. 202–225. Washington, DC: Smithsonian Institution Press.

# Couture, N. C. and Sampeck, K.

2003 Putuni: A History of Palace Architecture in Tiwanaku. In *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, Vol. 2*, Alan L. Kolata, ed. Pp. 226–263. Washington, DC: Smithsonian Institution Press.

### Covey, Alan

2000 Inka Administration of the Far South Coast of Peru. *Latin American Antiquity* 11(2): 119-138.

2006 How the Incas Built Their Heartland: State Formation and the Innovation of Imperial Strategies in the Sacred Valley, Peru. Ann Arbor: University of Michigan Press.

### Curet, Antonio L.

1996 Ideology, Chiefly Power, and Material Culture: An Example from the Greater Antilles. *Latin American Antiquity*. 7(2): 114-131.

# D'Altroy, Terence N.

1992 Provincial Power in the Inka Empire. Washington, D.C: Smithsonian Inst. Press.

2002 *The Inca*. Malden: Blackwell Publishers.

# D'Altroy, Terence N. and Ronald L. Bishop

1990 The Provincial Organization of Inka Ceramic Production. *American Antiquity* 55(1):120-138.

# D'Altroy, Terence N. and Timothy K. Earle

1985 Staple Finance, Wealth Finance, and Storage in the Inka Political Economy. *Current Anthropology* 26(2):187-526.

## D'Altroy, Terrace and Christine A. Hastorf

2001 The Domestic Economy, Households, and Imperial Transformation In *Empire and Domestic* Economy, T. D'Altroy and Christine A. Hastorf, eds. Pp. 3-25. New York: Kluwer Academic Plenum.

D'Altroy, Terence N., with Ana Marie Lorandi, Verónica Williams, Mielena Calderani, Christine Hastorf, Elizabeth DeMarrais and Melissa B. Hagstrum

2000 Inka Rule in the Northern Calchaquí Valley, Argentina. *Journal of Field Archaeology* 27(1):1-26.

### DeBoer, Warren R.

1974 Ceramic Longevity and Archaeological Interpretation: An Example from the Upper Ucayali, Peru. *American Antiquity* 39:335-343.

1990 Interaction, Imitation, and Communication as Expressed in Style: The Ueayaili Experience. In *The Uses of Style in Archaeology*, Margaret Conkey and Christine Hastorf, eds. Pp. 82-104. New Direction in Archaeology. Cambridge: Cambridge University Press.

### DeMarrais, Elizabeth, Luis Jaime Castillo, and Timothy Earle

1996 Ideology, Materialization, and Power Strategies. *Current Anthropology* 37(1): 15-31.

# Dermarest, Arthur A.

1981 *Viracocha, the Nature and Antiquity of the Andean High God.* Monographs of the Peabody Museum 6. Cambridge: Peabody Museum Press.

### Dietler, Micheal

2003 Clearing the Table: Some Concluding Reflections on Commensal Politics and Imperial States. In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, Tamara L. Bray, ed. Pp. 271-282. New York: Kluwer Academic Plenum.

# Dillehay, Tom

1979 Prehispanic Resource Sharing in the Central Andes. *Science* 204:24-31.

# Earle, Timothy K.

1994 Wealth Finance in the Inka Empire: Evidence from the Calchaqui Valley, Argentina. *American Anthropologist* 59(3):443-460.

1997 How Chiefs Come to Power: The Political Economy in Prehistory. Stanford: Stanford University Press.

#### Escalante M., J. F.

2003 Residential Architecture in La K'arana, Tiwanaku. In *Tiwanaku and Its Hinterland: Archaeological and Paleoecological Investigations of an Andean Civilization*, vol. 2, Alan Kolata, ed. Pp 316-326. Washington, DC: Smithsonian Institution Press.

### Faldín A., Juan D.

1985 Proyecto de Catalogación de Sitios Arqueológicos Departmento de La Paz. Organización de los Estados Americans- OEA Instituto Nacional de Arqueológia de Bolivia. Instituto Nacional de Arqueológica, La Paz Bolivia.

1990 La provincia Larecaja y el sistema precolombino del Norte de la Paz. In *Larecaja*, *Ayer, Hoy y Mañana*, pp. 73-99. Comité de Cultura, La Paz Bolivia.

# Feinman, Gary M.

2004 Archaeology and Political Economy: Setting the Stage. In *Archaeological Perspectives on Political Economies* Gary M. Feinman and Linda M. Nicholas, eds. Pp. 1-6. Salt Lake City: The University of Utah Press.

#### Feinman, Gary M., with Stephen A. Kowaleski and Richard E. Blanton

1984 Modeling Archaeological Ceramic Production and Organizational Change in the Prehispanic Valley of Oaxaca, Mexico. In *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*, Sander Ernst van der Leeuw and Alison C. Pritchard, eds. Pp. 297-337. Amsterdam: University of Amsterdam.

# Feinman, Gary M., with Steadman Upham, and Kent G. Lightfoot,

1981 The Production Step Measure: An Ordinal Index of Labor Input in Ceramic Manufacture. *American Antiquity* 46(4): 871-884.

#### Flannery, Kent V.

1968 The Olmec and the Valley of Oaxaca: A Model for Inter-regional Interaction in Formative Times. In *Dumbarton Oaks Conference on the Olmec*, E. P. Benson, ed. Pp. 79-117. Washington, D.C.: Dumbarton Oaks.

#### Foster, George M.

1960 Life Expectancy of Utilitarian Pottery in Tzinizuntzan, Michoacan, Mexico. *American Antiquity* 25: 606-609

#### Goldstein, Paul S.

1995-1996 Tiwanaku Settlement Patterns of the Azapa Valley, Chile: New Data, and the Legacy of Percy Daulesberg. In *Diálogo Andion* 14/15:57-73.

2003 From Stew-Eaters to Maize-Drinkers: The Chicha Economy and the Tiwanaku Expansion. In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, Tamara L. Bray, ed. Pp. 143-172. New York: Kluwer Academic Plenum.

# Graffam, Gary, with Mario Rivera, and Alvaro Carevič

1996 Ancient Metallurgy in the Atacama: Evidence for Copper Smelting during Chile's Early Ceramic Period. *Latin American Antiquity* 7(2): 101-103

### Graham, Elizabeth

2002 Perspectives on Economy and Theory. In *Ancient Maya Political Economies*, Marilyn A. Masson and David A. Freidel, eds. Pp. 398-418. Walnut Creek: Altamira.

### Grosboll, Sue

1993 . . And He Said in the Time of the Ynga, They Paid Tribute and Served the Ynga. In *Provincial Inca: Archaeology and Ethnohistorical Assessments of the Impact of the Inca State*, Michael Andrew Malpass, ed. Pp 44-66. Iowa City: University of Iowa Press.

# Hagstrum, Melissa B.

1988 Ceramic production in the Central Andes, Peru: an archaeological and ethnographic comparison. In *Pot for all Reasons: Ceramic Ecology Revisited*, Charles C. Kolb, Frederick Rognald Matson, Louana Mae Lackey, and Muriel Kirkpatrick, eds. Pp. 127-145. Philadelphia: Laboratory of Anthropology, Temple University.

#### Hassig, Ross

1992 War and Society in Ancient Mesoamerica. Berkeley: University of California Press.

# Hastings, Charles M.

1987 Implications of Andean Verticality in the Evolution of Political Complexity: A View from the Margins. In *The Origins and the Development of the Andean State*, Jonathon Haas, ed. pp. 145-157. Cambridge: Cambridge University Press.

### Hastorf, Christine A.

2001 Agricultural Production and Consumption. In *Empire and Domestic Economy*, D'Altroy, Terence N. and Christine A. Hastorf, eds. Pp. 155-179. New York: Kluwer Academic Plenum.

# Hayashida, Frances M.

1999 Style, technology, and state production: Inka pottery manufacture in the Leche Valley, Peru. *Latin American Antiquity* 10(4):337-352.

# Hegmon, Michelle

1992 Archaeological Research on Style *Annual Review of Anthropology* 21:517-536.

1998 Technology, Style, and Social Practices: Archaeological Approaches In *Archaeology of Social Boundaries*, M. T. Stark, pp. ed. Pp. 264-280. Washington, DC: Smithsonian Institution Press.

# Hegmon, Michelle. and Stephanie Kulow

2005 Painting as Agency, Style as Structure: Innovations in Mimbres Pottery Designs from Southwest New Mexico. *Journal of Archaeological Method and Theory* 12(4):313-334.

#### Helms, Mary W.

1992 Long Distance Contacts, Elite Aspirations, and the Age of Discovery in Cosmological Contexts. In *Resources, Power, and Interregional Interaction*. Edward M. Schortman and Patricia A. Urban, eds. Pp 157-174. New York: Plenum Press.

# Hildebrand, John A., and Melissa B. Hagstrum

1999 New Approaches to Ceramic Use and Discard: Cooking Pottery from the Peruvian Andes in Ethnoarchaeological Perspective. *Latin American Antiquity* 10:25-46.

#### Hodder, Ian

1989 Investigating Style: an Exploratory Analysis of some Plains Burials. In *The Uses of Style in Archaeology*, Margret Conkey and Christine Hastorf, eds. Pp. 44-51. Cambridge: Cambridge University Press.

#### Howard, H. and Elaine L. Morris

1981 *Production and Distribution: A Ceramic Viewpoint.* BAR International Series, 120. Oxford: British Archaeological Reports.

# Hyslop, John

1977 Chulpas of the Lupaca Zone of the Peruvian High Plateau. *Journal of Field Archaeology* 4:149-170.

1990 Inka Settlement Planning. Austin: University of Texas.

### Isbell, William

1992 Review of *The Tiwanaku: Portrait of Andean Civilization* by Alan Kolata. *American Anthropologist* 96 (4): 1030-1031.

1997 Mummies and Mortuary Monuments. Austin: University of Texas Press.

#### Isbell, William and Alexei Vranich

2004 Expanding Cities of Wari and Tiwanaku In *Andean Archaeology*, William Isbell and Helaine Silverman, eds. Pp. 167-182. Blackwell Publishing Malden.

#### Janusek, John W.

2001 Diversidad residencial y el surgimiento de la complejidad en Tiwanaku. *Huari y Tiwanaku: Modelos vs. evidencias (Segunda parte)* 5:251-294.

2002 Out of Many, One: Style and Social Boundaries in Tiwanaku. *Latin American Antiquity* 13(1):35-61.

2004 Tiwanaku and Its Precursors: Recent Research and Emerging Perspectives. *Journal of Archaeological Research* 12(2):121-183.

#### Janusek, John W. and Alan L. Kolata

2004 Top-down or bottom-up: rural settlement and raised field agriculture in the Lake Titicaca Basin, Bolivia. *Journal of Anthropological Archaeology* 23:404-430.

# Jones, A.

2004 Archaeometry and Materiality: Materials-Based Analysis in Theory and Practice. *Archaeometry* 46(3):327-338.

# Kenoyer, Jonathan Mark, with Kuldeep Kumar Bhan and Massimo Vidale

1991 Contemporary Stone Beadmaking in Khambhat, India: Patterns of Craft Specialization and Organization of Production as Reflected in the Archaeological Record. *World Archaeology* 23(1):44-63.

# Kidder, Alfred

1958 Review of Andean Excavations I. The Tiahuanaco Era East of Lake Titicaca by Stig Ryden. American Antiquity 24(1): 90-99.

1965 Review of Descripción sumaria del templete semisubterráneo de Tiwanaku by

Carlos Ponce Sanginés. American Anthropologist (67)3: 837-839.

1973 Review of *Acerca de la procedencia del material lítico de los monumentos de Tiwanaku* by Carlos Ponce Sanginés. *American Anthropologist* 75(2): 528-529.

#### Kolata, Alan L.

1986 The Agricultural Foundations of the Tiwanaku State: A View from the Heartland. *American Antiquity* 51(4):748-762.

1991 The Technology and Organization of Agricultural Production in the Tiwanaku State. *Latin American Antiquity* 2(2): 99-125.

1992 Economy, Ideology, and Imperialism in the South-Central Andes In *Ideology and Precolumbain Civilizations* Andrew A. Demarest and Geoffrey W. Conrad, eds. Pp. 65-85. Santa Fe: School of American Research Press.

1993 The Tiwanaku: Portrait of an Andean Civilization. Cambridge: Blackwell.

1996 Proyecto Wila Jawira: An Introduction to the History, Problems, and Strategies of Research. In *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, Vol. 1*, Alan Kolata, ed. Pp. 1-22. Washington, DC: Smithsonian Institution Press.

2003 *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, Vol.* 2, Washington, DC: Smithsonian Institution Press.

# Kolata, Alan L., and Ortloff, Charles R.

1996 Agro-ecological perspectives on the decline of the Tiwanaku state. In *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization, Vol. 1,* Alan Kolata, ed. Pp. 181–202. Washington, DC: Smithsonian Institution Press.

# Kolata, Alan L. and Carlos Ponce Sangines

1992 Tiwanaku: the City at the Center. In *Ancient Americas: Art from Sacred Landscapes*. Richard Townsend, ed. Pp. 316-333. Chicago: Art Institute of Chicago.

#### Kurtz, Donald Y.

1984 Strategies of Legitimation and the Aztec State. *Ethnology* 23: 301-14.

# LeCount, Lisa

1999 Polychrome and Pottery and Political Strategies in Late and Terminal Classic Lowland Maya Society. *Latin American Antiquity* 10(3): 239-258.

Lemonnier, Pierre

1990 Topsy Turvy Techniques: Remarks on the Social Representation of Techniques. *Archaeological Review from Cambridge* 9(1):27-37.

## Lynch, Thomas F.

1993 The Identification of Inca Posts and Roads from Catarpe to Rio Frio, Chile. In *Provincial Inca: Archaeology and Ethnohistory Assessments of the Impact of the Inca State*, Michael Andrew Malpass, ed. Pp 117-144. Iowa City: University of Iowa Press.

1983 Camelid Pastoralism and the Emergence of Tiwanaku Civilization in the South-Central Andes. *World Archaeology* 15(1):1- 14

## McAndrews, Timothy L., with Juan Albarracin-Jordan, and Marc Bermann

1997 Regional Settlement Patterns in the Tiwanaku Valley of Bolivia. *Journal of Field Archaeology* 24(1): 67-83.

## Malpass, Michael

1993 Provincial Inca: Archaeology and Ethnohistory Assessments of the Impact of the Inca State. Iowa City: University of Iowa Press.

#### Mathien, Frances Joan

2001 The Organization of Turquoise Production and Consumption by the Prehistoric Chacoans. *American Antiquity* 66(1):103-118.

### Mayer, Enrique

1985 Production Zones. In *Andean Ecology and Civilization: An Interdisciplinary Perspective on Andean Ecological Complementarity*, Shozo Masuda, Izumi Shimada and Craig Morris, eds. Pp. 45-84. Tokyo: University of Tokyo Press.

#### Mauss, Marcel

1967 The Gift: Forms and Functions of Exchange in Archaic Societies. New York: W. Norton.

#### Mendoza, Ruben G.

2003 Lords of the Medicine Bag: Medical Science and Traditional Practice in Ancient Peru and South America. In *Medicine Across Cultures: History and Practice of Medicine in Non-Western Cultures*, Helaine Selin, ed. Pp. 225-257. Science Across Cultures: The History of Non-Western Science, 3. New York: Kluwer Academic Plenum.

### Meyers, Rodica

2002 Cuando el sol caminaba por la tierra: orígenes de la intermediación Kallawaya. Plural Editores, La Paz.

### Meyers, Allan D. and David L. Carlson

2002 Peonage, Power Relations, and the Built Environment at Hacienda Tabi, Yucatan, Mexico. *International Journal of Historical Archaeology* 6(4):225-252.

#### Mills. Barbara Joan

1989 Ceramics and Settlement in the Cedar Mesa Area, Southeaster Utah: A Methodical Approach. Ph.D. dissertation, University of Michigan, Ann Arbor.

1999 Ceramics and Social Contexts of Food Consumption in the Northern Southwest. In *Pottery and People: A Dynamic Interaction*, James M. Skibo and Gary M. Feinman, eds. Pp. 99-114. Salt Lake City: University of Utah Press.

2004 The Establishment and Defeat of Hierarchy: Inalienable Possessions and the History of Collective Prestige Structures in the Pueblo Southwest. *American Anthropologist* 106(2):238-251.

### Mills, Barbara J. and Patricia L. Crown

1995 Ceramic Production in the American Southwest. Tucson: University of Arizona Press.

### Mohr Chávez, Karen L.

1992 Organization of production and distribution of traditional pottery in south highland Peru. In *Ceramic Production and Distribution: An Integrated Approach*, George J. Bey, Christopher A. Pool, eds. Pp. 49-92. Boulder: Westview Press.

### Morris, Craig

1981 Technología y Organizacíon inca del alamacenamiento de víveres en la sierra. In *Runakunap Kawsayninkupaq Rurasqankuna: La tecnología en el mundo andino*, Heather Lechtman and Ana M. Soldi, eds. Pp. 327-375. Mexico City: UNAM.

1983 The Infrastructure of Inka Control in the Peruvian Central Highlands. In *The Inca and the Aztec States 1400-1800: Anthropology and History*, George A. Collier, Renato I. Rosaldo, John D. Wirth, eds. Pp. 153-171. New York: Academic Press.

1993 The Inka Empire and its Andean origins. New York: Abbeville Press.

# Morris, Craig and D. E. Thompson

1985 Huanuco Pampa: An Inca City and its Hinterland. London: Thames and Hudson.

# Moseley, Michael

1972 Review of *Tiwanaku: Descripción sumaria del templete semisubterráneo* by Carlos Ponce Sanginés. *American Anthropologist* 74(4): 963-964.

2001 The Incas and their Ancestors: The Archaeology of Peru. Revised Edition. London: Thames and Hudson.

# Mujica, Elías

1985 Altiplano-coast Relationships in the South Central Andes: From Indirect to Direct Complementarity. In *Andean Ecology and Civilization: An Interdisciplinary Perspective on Andean Ecological Complementarity*, Shozo Masuda, Izumi Shimada and Craig Morris, eds. Pp. 103-140. Tokyo: University of Tokyo Press.

### Murra, John V.

1968 An Aymara Kingdom in 1567. *Ethnohistory* 15: 115-151.

1972 El "control vertical" de un máximo de pisos ecológicos en la economía de las sociedades andinas. In *Documentos para la historia y etnología de Huánco y la selva central*, John V. Murra, ed. Pp. 427-476. Huánco, Universidad Nacional Hermilio Valdizan, v. 2, 1972.

1980 *The Economic Organization of the Inca State*. Research In Economic Anthropology Supplement, 1. Greenwich: Jai Press Inc.

1985 The Limits and Limitations of the "Vertical Archipelago" in the Andes. In *Andean Ecology and Civilization: An Interdisciplinary Perspective on Andean Ecological Complementarity*, Shozo Masuda, Izumi Shimada and Craig Morris, eds. Pp. 15-20. Tokyo: University of Tokyo Press.

1986 The Expansion of the Inka State: Armies, War, and Rebellions. In *Anthropological History of Andean Polities*, John V. Murra, Nathan Wachtel, Jacques Revel, eds. Pp. 49-58. Cambridge: Cambridge University Press.

#### Murra, John V., with Nathan Wachtel, and Jacques Revel

1986 Anthropological History of Andean Polities. Cambridge: Cambridge University Press

### Niles, Susan A.

1987 Callachaca: Style and Status in an Inca Community 1st Edition. Iowa City: University of Iowa Press.

1993 The Provinces in the Heartland: Stylistic Variation and Architectural Innovation Near Inca Cuzco. In *Provincial Inca: Archaeology and Ethnohistorical Assessments of the Impact of the Inca State*. Michael Malpass, ed. Pp. 145-176. Iowa City: University of Iowa Press.

### Nordenskiöld, Erland

1906 Travels of the Boundaries of Bolivia and Peru. *The Geographical Journal* 26(2): 105-127.

Nuñez A., Lautaro and Tom Dillehay

1979 Movilidad giratoria, armonía social y desarrollo en los andes meridionales: patrones de tráfico e interacción económica. Antofagasta: Universidad de Chile.

#### Ortloff, Charles R. and Alan L. Kolata

1993 Climate and Collapse: Agro-Ecological Perspectives on the Decline of the Tiwanaku State. *Journal of Archaeological Sciences* 20:195-221.

### Parsons, Jeffery R.

1996 Developmental Implications of Earlier Dates for Early Aztec in the Basin of Mexico *Ancient Mesoamerica* 7(2): 217-230.

### Pärssinen, Martti

1993 Torres funerarias decorades in Caquiaviri. *Pumapunku* (n.s.) 5-6: 9-32.

# Pauketat, Timothy R.

1997 Specialization, Political Symbols, and the Crafty Elite of Cahokia. *Southeastern Archaeology* 16(1):1-15.

## Pauketat, Timothy R. and Thomas Emerson

1991 Ideology and the Power of the Pot. American Anthropologist 93:919-941.

# Paynter, R.

1981 Social Complexity in Peripheries: Problems and Models. In *Archaeological Approaches to the Study of Complexity*, Sander Ernst van der Leeuw, eds. Pp. 117-141. Amsterdam: University of Amsterdam.

#### Peregrine, Peter

1991 Some Political Aspects of Craft Specialization. World Archaeology 23(1):1-11.

2001 Matrilocality, Corporate Strategy, and the Organization of Production in the Chacoan World. *American Antiquity* 66(1):36-46.

# Pfaffenberger, Bryan

1992 Social Anthropology of Technology. *Annual Review of Anthropology* 21:491-516.

# Plog, Stephen

1990 Sociopolitical Implications of Stylistic Variation in the American Southwest. In *Uses of Style in Archaeology*, Margaret Conkey and Christine Hastorf, eds. Pp. 61-72. Cambridge: Cambridge University Press.

#### Ponce Sanginés, Carlos

1961 *Informe de labores*, Centro de Investigaciones Arqueológicas en Tiwanaku, La Paz, Bolivia.

1978a El Instituto Nacional de Arqueología de Bolivia: su organización y proyecciones, Instituto Nacional de Arqueología, La Paz, Bolivia.

1978b *Apuntes sobre el desarrollo nacional y arqueología*, Instituto Nacional de Arqueología, La Paz, Bolivia.

1993 Investigaciónes arqueológicas en Salla y Tortora. *Pumapunku* 7 (n.s.): 9-64.

# Price, Barbara J.

1977 Shifts in Production and Organization: A Cluster Interaction Model. *Current Anthropology* 18(2):209-233.

# Pulgar Vidal, Javier

1987 Geografía del Perú 9ed. Editorial Inca Lim.

### Protzen, J.-P, and Nair, S. E.

2000 On Reconstructing Tiwanaku Architecture. *Journal of the Society of Architectural Historians* 59: 358–371.

# Protzen, J.-P., and Nair, S. E.

2002 The Gateways of Tiwanaku: Symbols or Passages? In *Andean Archaeology II: Art, Landscape, and Society.* Helaine Silverman and William Isbell. eds. Pp. 189–223. New York: Kluwer Academic Plenum.

#### Renfrew, Colin

1986 Introduction: Peer Polity Interaction and Sociopolitical Change. In *Peer Polity Interaction and Sociopolitical Change*, Colin. Renfrew and John F. Cherry, eds. Pp. 1-18. Cambridge: University of Cambridge.

# Rivera Casanovas, Claudia

1989 Las torres funerarias de Viscahani. *Textos Anthropológicos* 1(1):79-92. Unversidad Mayor de San Andrés, La Paz, Bolivia.

# Robb, John E.

1998 The Archaeology of Symbols. *Annual Review of Anthropology* 27:329-346.

#### Rostworowski de Diez Canseco, Maria

1999 *History of the Inca Realm*, Harry B. Iceland, trans. Cambridge: Cambridge University Press.

### Rowe, John H.

1946 Inca Civilization at the Time of Spanish Conquest. In *Handbook of South American Indians*, vol. 2, Julian Steward, ed. Pp 183-330. Bureau of American Ethnology Bulletin 143. Washington DC: Smithsonian Institution.

1994 An Introduction to the Archaeology of Cuzco. Menasha: George Banta Publishing Company.

1982 Inca Policies and Institutions Relating to the Cultural Unification of the Empire. In *The Inca and Aztec States 1400-1800: Anthropology and History*, George A. Collier Renato Rosaldo, and John D. Wirth, eds. Pp. 93-118. New York: Academic Press.

## Ryden, Stig

1954 Drinking Tubes on Archaeological Vessels from Western South America. *American Antiquity* 20(2): 149-153.

1957 Andean Excavations I. The Tiahuanaco Era East of Lake Titicaca. Monograph Series, Publication No. 4. Stockholm: Statens Etnografiska Museum.

#### Salomon, Frank

1985 The Dynamic Potential of the Complementarity Concept. In *Andean Ecology and Civilization: An Interdisciplinary Perspective on Andean Ecological Complementarity*, Shozo Masuda, Izumi Shimada and Craig Morris, eds. Pp. 511-531. Tokyo: University of Tokyo Press.

1986 Vertical Politics on the Inka Frontier. In *Anthropological History of Andean Polities*, John. V. Murra, Nathan Wachtel and Jacques Revel, eds. Pp. 89-117. Cambridge: Cambridge University Press.

### Sagárnaga Meneses, Jédu Antonio

1993 La chullpa de Viacha. *Pumapunku* (n.s.) 5-6: 33-56.

### Schreiber, Katharina J. and Keith W. Kintigh

1996 A Test of the Relationship between Site Size and Population. *American Antiquity* 61(3): 573-579.

### Shapiro, Gary

1984 Ceramic Vessels, Site Permanence, and Group Size: A Mississippian Example. *American Antiquity* 49(4):696-712.

# Sinopoli, Carla M.

1988 Organization of Craft Production at Vijayanagara, South India. *American Anthropologist* 90(3):580-597.

1998 Identity and Social Action among South Indian Craft Producers of the Vijayanagara Period. *Archeological Papers of the American Anthropological Association* 8(1):161-172.

# Smith, Carol Ann Gulley

1976 Exchange Systems and the Spatial Distribution of Elites: the Organization of Stratification in Agrarian Societies. In *Regional Analysis: Volume II, Social System.* Carol Ann Smith, ed. Pp. 309-374. New York: Academic Press.

## Smith, Michael E. and Katharina J. Schreiber

2005 New World States and Empires: Economic and Social Organization. *Journal of Archaeological Research* 13:189-229.

### Shortmann, Edward M. and Patricia Urban

1992 Part 111: The Political Value of Import. In *Resources, Power, and Interregional Interaction*. Edward M. Schortman and Patricia A. Urban, eds. Pp 153-156. New York: Plenum Pres.

1996 Actions at a Distance, Impacts at Home: Prestige Good Theory and a Pre-Columbian Polity in Southeastern Mesoamerica. In *Pre-Columbian World System*, Peter N. Peregrine and Gary M. Feinman, eds. Pp. 97-114. Madison: Prehistory Press.

#### Sackett, James R.

1977 The Meaning of Style in Archaeology: A General Model. *American Antiquity* 42(3):369-380.

1986 Isochrestism and Style: A Clarification. *Journal of Anthropological Archaeology* 5:266-277.

1989 Style as Historical Quality In *The Uses of Style in Archaeology*, Margaret Conkey and Christine Hastorf, eds, Pp. 32-43. Cambridge: Cambridge University Press.

## Stanish, Charles

1989 Household Archaeology: Testing Models of Zonal Complementarity in the South Central Andes. *American Anthropologist* 91:7-24.

1992 Ancient Andean Political Economy. Austin: University of Texas Press.

1997 Nonmarket Imperialism in the Prehispanic Americas: The Inka Occupation of the Titicaca Basin. *Latin American Antiquity* 8(3):195-216.

2000 Regional Research on the Inca. Journal of Archaeological Research 9:213-241.

2003 Ancient Titicaca. Berkley: University of California Press.

# Steadman, Lee Hyde

1995 Excavation at Camata: An Early Ceramic Chronology for the Western Titicaca Basin, Peru. Ph.D. dissertation. University of California, Berkley.

#### Tani, Masakazu

1994 Why Should More Pots Break in Larger Households? Mechanisms Underlying Population Estimates from Ceramics. In *Kalinga Ethnoarchaeology: Expanding Archaeological Method and Theory*, William A. Longacre and James M. Skibo, eds. Pp. 51-70. Washington, D. C.: Smithsonian Institution Press

# Topic, John R. and Theresa Lange Topic

1993 A Summary of the INCA Occupation of Huamachuco. In *Provincial Inca:* Archaeology and Ethnohistorical Assessments of the Impact of the Inca State, Michael Andrew Malpass, ed. Pp 17-43. Iowa City: University of Iowa Press.

# Torres, Constantion M. and William J. Conklin

1995 Exploring the San Pedro de Atacama/ Tiwanaku Relationship. In *Andean Art: Visual Expression and its Relation to Andean Beliefs and Values*. Penny Dransart, ed. Pp. 78-108. Avebury: Aldershot.

#### Underhill, Anne P.

2003 Investigating Variation in Organization of Ceramic Production: An Ethnoarchaeological Study in Guizhou, China. *Journal of Archaeological Method and Theory* 10(3):203-275.

# Van Buren, Mary

1996 Rethinking the Vertical Archipelago: Ethnicity, Exchange, and History in the South Central Andes. *American Anthropologist* 98(2):338-351.

## Vaugh, Kevin J.

2006 Craft Production, Exchange, and Political Power in the Pre-Incaic Andes. *Journal of Archaeological Research*. 14:313-344.

# Varien, Mark D., and Barbara J. Mills

1997 Accumulations Research: Problems and Prospects for Estimating Site Occupation Span. *Journal of Archaeological Method and Theory* 4:141-191.

# von Hagen, Victor F. (editor)

1959 The Incas of Pedro de Cieza de León. Norman: University of Oklahoma.

# Walker, William H. and Michael B. Schiffer

2006 The Materiality of Social Power: The Artifact- Acquisition Perspective. *Journal of Archaeological Method and Theory* 13(2): 67-88.

## Wallerstein, Immanuel Maurice

1974 The Modern World-System. New York: Academic Press.

1976 The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century. New York: Academic Press.

1989 *The Politics of the World-Economy: the States, the Movements, and the Civilizations.* Cambridge: Cambridge University Press.

### Wassén, Henry

1972 A Medicine-Man's Implements and Plants in a Tiahuanacoid Tomb in Highland Bolivia. Goteborg: Goteborgs Etnografiska Museum.

## Wells, Peter S.

1992 Tradition, Identity, and Change beyond the Roman Frontier. In *Resources*, *Power, and Interregional Interaction*, Edward M. Schortman and Patricia A. Urban, eds. Pp 175-188. New York: Plenum Press.

## Willey, Gordon

1963 Ceramics. In *Handbook of South American Indians*, vol. 5. Julian H. Steward, ed. Pp. 139-204. Bureau of American Ethnology, 143. New York: Cooper Square Publishers, Inc.

## Wiessner, Polly

1989 Is There a Unity in Style? In *The Uses of Style in Archaeology*, Margaret Conkey and Christine Hastorf, eds. Cambridge: Cambridge University Press.

#### Wilk, Richard R.

1996 Economies and Cultures: Foundations of Economic Anthropology. Boulder: Westview Press.

## Wobst, H. Martin

1977 Stylistic Behavior and Information Exchange. In *Papers for the Director: Research Essays in Honor of James B. Griffin,* Charles E. Cheland, ed. Pp. 317-342. Anthropology Papers, 61 Ann Arbor: Museum of Anthropology, University of Michigan.

1999 Style in Archaeology or Archaeologists in Style. In *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, Elizabeth S. Chilton, ed. Pp. 118-132. Salt Lake City: University of Utah Press.

# Wu, Xiaolong

2004 How Inscriptions and Style Reflect Politics: The Bronzes of King Cuo. *Antiquity* 78(301):594-601.

### **VITA**

I, Lynn Kim, have earned my Bachelors of Science from Loyola University of Chicago in Anthropology. After graduation I worked as an Archaeological Technician for Midwest Archaeological Research and Survey where I became a lab supervisor. Then, as a master's student of University of Texas at San Antonio (UTSA), I became president of the Anthropological Society (Fall 2005-Spring 2006) and Lambda Alpha (Spring 2008-current). In addition, I presented a joint paper, *Sacred Spaces and Public Architecture of Power in Charazani* with Dr. Sonia Alconini, as lead author, in the Inka Architecture Symposium for the 72<sup>nd</sup> Annual Meeting of the Society for American Archaeology in April 2007 in Austin, Texas. I have also published the paper "El Poder Inca y los objetos de cerámica en la región de Oroncota" in 2008 in the edited volume *El Inkario en los Valles del Sur Andino Boliviano: Los Yamparas entre la arqueología y ethnohistoria*. In Spring 2009, I began teaching Introduction to Anthropology at UTSA. In the future, I will be pursing in Doctorate degree at UTSA, where I will be continuing my research on Tiwanaku expansion and their ceramics.