

Craft Production, Exchange, and Political Power in the Pre-Incaic Andes

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Abstract This article explores the relationship between craft production, exchange, and power in the pre-Incaic Andes, with a focus on recent archaeological evidence from Chavín, Nasca, Tiwanaku, Wari, and Moche. I argue that craft production and exchange in concert with materialized ideologies played vital roles in the development of political power in the Andes. In later state societies, craft production, exchange, and materialization were critical in maintaining and legitimizing established political power.

Keywords Craft production · Exchange · Power · Materialization · Andes

Introduction

This article explores the role of craft production and exchange in the development of political power in the prehispanic Andes. In particular, I focus on the ways in which both craft production and exchange contributed to emerging power and to the maintenance of that power in this region of the world before the imperial hegemony of the Inca empire. Generally, I situate this discussion within a “political economy” approach (e.g., Earle, 1997), as I am interested primarily in the “analysis of social relations based on unequal access to wealth and power” (Roseberry, 1989, p. 44). I suggest that understanding these relations is fundamental to explaining the development of Andean societies from the small, relatively autonomous societies that characterized first settlement in the region to the extensive Inca empire.

In exploring the role of craft production and exchange in the development of power, I focus primarily on two questions: How did production and exchange finance the endeavors of aspiring leaders and entrenched elites in the Andes? How were these positions of power established in the first place, and what role did production and exchange play in this foundation? While production and exchange are “two sides of the same political coin” (Hirth, 1996),

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can archaeologists disarticulate the two and determine when exchange was important, when production was important, and whether their importance changed through time as societies became more complex and stratification became more rigid?

To evaluate these questions, I first discuss the nature of production and exchange in the political economies of preimperial societies, paying particular attention to how they were used to establish and maintain power in those societies. I argue that both are avenues through which incipient leaders in middle-range societies can build and maintain power, both have their advantages and limitations, and, importantly, both commonly require legitimizing ideologies to normalize and justify the positions of emerging leaders. Once leaders have institutionalized access to coercive force or to scarce economic resources (as is the case in preindustrial states), I suggest that both craft production and exchange are used to legitimize and reinforce existing power relations.

Instead of presenting a complete history of all Andean societies, I have chosen several pre-Inca societies where we have a growing corpus of evidence of the relationship between craft production, exchange, and the nature of political power: Chavín, Nasca, Tiwanaku, and Moche. To a lesser extent, I also discuss the Wari empire and the Tiza polity in the context of the development of indigenous complex societies on the south coast. These societies illustrate the varied manners in which craft production and exchange can be used to build political power. For more general reviews of craft production in the Andes, I refer the reader to recent summaries by Costin (2001, 2004). For more comprehensive and general formulations of the development of political power in the Andes I refer the reader to Smith and Schreiber (2005) and the volume edited by Vaughn *et al.* (2005). References pertaining to craft production and exchange in other parts of the Andes not included in the discussion are listed in the “Bibliography of Recent Literature.”

Exchange and craft production in the political economy

How do exchange and production contribute to emerging political economies? A well-known tenet is that there is a fundamental tension between leaders in preindustrial societies, who wish to accumulate wealth, and their followers, who may resist those aspirations (Cobb, 1996, p. 254; Earle, 1997; Hayden, 2001). Commoners are in an advantageous position in societies where inequalities have yet to be institutionalized (i.e., in middle-range societies) since they tend to own the means of production. In the absence of hierarchy where producers own the means of production, individuals (aspiring elites) or interest groups (corporate groups, factions) can build economic and political ties in one of two ways that are not mutually exclusive: (1) they can accumulate goods through exchange and alliance networks, and (2) they can intensify production through their kinship ties or through their charisma when it comes to nonkin (Cobb, 1996). I argue that exchange and intensification of production, in particular craft production, are both ways to build emerging political economies.

The ties founded on networks and exchange form one of the most common bases for unequal power relations and are especially important in small-scale and middle-range societies (Bayman, 1999, 2002; Brumfiel and Earle, 1987; Cobb, 1993, 1996, p. 256; Hoopes, 2005; Junker, 1993; Quesada, 1998; Saitta, 1999; Spielmann, 1998, 2002; Wells, 1999). Important to the understanding of exchange and unequal power relations in small-scale and middle-range societies are what have variously been termed “prestige,” “wealth,” “sumptuary,” or “exotic” goods (see Goldstein, 2000), goods that are highly valued for their rarity, are non-local, and are usually “costly” because of the skills and knowledge required to create and obtain them. Because of these inherent qualities, prestige goods are directly convertible to

power that exceeds their use value (Goldstein, 2000, p. 335). Smaller-scale and middle-range societies tend to be much more involved in the movement of prestige goods than staple goods as a means of building status (Cobb, 1996, p. 258), precisely because they tend to be portable and have a high value-to-weight ratio (Brumfiel and Earle, 1987). Paradoxically, leaders who crave these goods have no control over their production since their procurement takes place outside of their region. This distance and “exoticness,” however, adds to the power and allure of prestige goods (Helms, 1993).

Control over the production of crafted goods is another key ingredient that fosters the accumulation of wealth (Hirth, 1996, p. 214; Schortman and Urban, 2004, p. 189). The reasons proposed for why craft production developed in middle-range societies include a broad range of perspectives, from creating interpersonal ties (Cross, 1996), to establishing ethnic identity and alliance building (Sassaman, 1998), to establishing and maintaining inequality (Brumfiel and Earle, 1987; Clark and Parry, 1990; Earle, 1997; Helms, 1993, 1999; Pauketat, 1997; Sebastian, 1992; Trubitt, 2000). Ethnographic and archaeological evidence suggests that very commonly craft production develops because it is part of an emerging elite’s political agenda to acquire prestige and wealth and to maintain inequality (Bayman, 1999; Brumfiel and Earle, 1987, p. 3; Costin, 2001, p. 307; Hayden, 2001; Mills, 2000; Pauketat, 1997; Pauketat and Emerson, 1991), and it is this perspective upon which I focus here. Following this line of reasoning, Costin (1996, p. 211) specifically outlines three principal reasons why elites sponsor craft production and why control over craft production is desirable: (1) craft production generates income to finance other projects and activities; (2) through the monopolization of key resources, craft production promotes political and economic control; and (3) craft production facilitates the creation of the symbols used to legitimize power (see Inomata, 2001).

The key question for the emergence of this political economy, however, is how does craft production develop, since there are significant obstacles to increasing production in middle-range societies? Intensified production is one way for leaders to accumulate wealth; yet, because leaders in middle-range societies are tied by kinship obligations (Wolf, 1982, 1990), the ways by which production can be intensified are limited. Production has the potential to be intensified through the labor of a leader’s own kin or through the labor of nonkin members through persuasion (Cobb, 1993, p. 48); however, household modes of production pose major impediments to this because people within this mode of production are resistant to intensifying production. Stanish (2003, 2004, p. 15) argues that to overcome the hurdle of household production, emerging elites rely on people working under different conditions rather than getting people to work harder or getting more people to work (because there are significant hurdles that one must overcome to achieve these latter goals). Specifically, people can be convinced to work as specialized producers in an organizational context where minor increases in labor produces disproportionate increases in output (i.e., an “economy of scale”). Ultimately, this increased output results in an intensification of production (often craft production) and directly benefits emerging leaders.

A particular social setting that provides a venue for exchange and can provide the impetus to intensify production is the feast. In short, feasts are “public ritual events of communal food and drink consumption” (Dietler, 2001, p. 69). Much has been written about feasts in the last decade of archaeological discourse (see, e.g., Arnold, 1999; Dietler and Hayden, 2001; Jennings, 2005; Jennings *et al.*, 2005; Potter, 2000; Spielmann, 2002). The bulk of this literature points to the importance of feasts as an impetus for sociopolitical change because they afford opportunities for feast sponsors to display their generosity by distributing food and wealth, thereby enhancing their social prestige and gaining political capital (see, e.g., Dietler and Hayden, 2001; LeCount, 1999, 2001). This is accomplished through the creation

of reciprocal obligations between sponsors and guests through the gifting of food, drink, and material goods.

The importance of feasts is not just that they provide the settings for these public rituals and give feast sponsors the opportunity to display their generosity; they also provide the very impetus to articulate regional exchange systems and they provide the mechanism for labor intensification (Dietler, 2001, p. 69; see also Lucero, 2003; Junker, 2001; Spielmann, 2002). A good example of this is the “work party feast” described for the contemporary Samia of Kenya (Dietler and Herbich, 2001; see also Bandy, 2005a). Feasts there were organized by aspiring and wealthy leaders to extract iron ore used in the production of iron hoe blades. One measure of wealth was based on the number of wives an individual had because women would cultivate millet and brew it into beer that could be distributed at these social events (Dietler and Herbich, 2001, p. 250). Feast hosts were responsible for providing food and drink for participants while they worked to extract iron ore. The iron hoe blades produced from these raw materials were in turn used as a prestige good to purchase livestock or to be used as bridewealth to acquire additional wives. Thus, this kind of feast provided the impetus for both intensified production and exchange leading to “growth spirals” (Dietler and Herbich, 2001, p. 253). This is just one example that demonstrates that feasts provide one venue for the intensification of production (working “differently,” as Stanish [2003, p. 15] puts it) and for the exchange of valuables and other kinds of goods that could potentially circulate regionally. The key point here is that the ultimate benefactor of these kinds of feasts is the feast sponsor; these events may be one of the critical social avenues through which aspiring leaders can actually intensify exchange and production.

Even if feasts can provide the impetus for these kinds of changes, the key question for the development of complex social organization is—given the resistance to these kinds of changes, even if aspiring leaders can develop exchange networks and transform existing labor organizations and get people to work more efficiently—how do they convince other people *that it is in their best interest to ultimately support these endeavors*? While “growth spirals” can occur and are documented in certain ethnographic cases such as the Samia, other cases suggest that incipient leaders often turn to ideology (Aldenderfer, 1993, 2005). Ideology creates a desire for goods and, more importantly, a means to justify the emerging inequalities that develop because of unequal exchange and production relationships. I follow Bawden (2004, p. 119) in defining ideology as “that special formulation of social discourse that promotes the interests of its advocates in the wider community.” Because ideology can be materialized (e.g., DeMarrais *et al.*, 1996), that is, given physical form through “a codified visual symbolism” (Bawden, 2004, p. 119) and ceremonies, it can be a critical source of social power (e.g., Mann, 1986). Indeed, in societies where coercive force and access to scarce resources are limited, such as they tend to be in middle-range societies, it can be one of the only sources of power that individuals and groups can control and to which they have access.

In contrast, once power and inequalities have been established such as they are in highly complex, stratified societies, long-distance exchange, craft production, and ideology tend to act to reinforce and to legitimize unequal power relations (see Earle, 2001). The major difference between states and middle-range societies is the access to coercive force that is seen in state societies and the absence of this force in middle-range societies (Stanish, 2003, p. 28). Exchange in these sociopolitical contexts take the form of state systems of finance and the movement of goods for political purposes, whether this takes place as staple or wealth finance (Earle, 2001, p. 298). Similarly, craft production in state societies is often used to reinforce and to legitimize the unequal social relations characteristic of states through materialization (Costin, 2004, p. 190).

Exchange, craft production, and political power in the andes

We have new data on the relationship between craft production, exchange, and political power for several pre-Inca cultures. This line of inquiry is potentially fruitful for two reasons. First, some have recently argued that exchange, and in particular prestige-goods exchange, was instrumental in the development of middle-range societies in the Andes (Goldstein, 2000). Second, contrary to traditional expectations, many new “crafts” in the Andes were not innovations made to improve technological “efficiency” or to facilitate functional requirements (D’Altroy, 2002, p. 289; Lechtman, 1984, p. 286). For example, the first metal objects produced in the Andes were not “utilitarian” in nature as they were elsewhere in the world. Instead, they were used principally as prestige objects whose production was sponsored by aspiring leaders (Lechtman, 1984). From the beginning, metallurgy was used to produce status-validating objects intricately related to complex ritual ideologies rather than to produce utilitarian goods. Indeed, many of the crafts that were developed in the Andes, while having utilitarian “functions,” appear to have been used primarily as prestige goods and to depict elaborate motifs that served to validate emerging status differences.

In presenting these data, I am particularly interested in evidence of either craft production or exchange being used by early leaders and groups to create and facilitate unequal power relationships in middle-range societies, and consequently how elites in state societies use craft production and exchange to reinforce existing power. Thus, in the discussion that follows, I am concerned specifically with four sets of questions: (1) What evidence is there for exchange, in particular prestige-goods exchange, in these societies? Do we see efforts to monopolize exchange networks, and are these efforts directly tied to political power? (2) Is there evidence of craft production directly tied to an emerging elite? In particular, what kinds of crafts are being produced? Is there increased production of the material symbols of ideology that are directly tied to an emerging elite? (3) Given the importance of feasting in initiating exchange networks and intensifying production, do we see evidence of feasting in the archaeological record associated with emerging elites? (4) Finally, when focus turns to states, what evidence is there for the elite control of craft production, exchange, and materialized ideology?

The pre-Inca cultures I focus on include Chavín, Nasca, Tiwanaku, and Moche (Fig. 1). When discussing Nasca I also refer to the Wari empire and the recently defined Tiza culture, and, as a prelude to Tiwanaku, I discuss the Formative Titicaca Basin. I make no pretense that I will cover all incidents of craft production and exchange in the pre-Incaic Andes. My goal is to elucidate the relationship between craft production, exchange, and emerging political power insofar as we can see it in the archaeological record of the Andes.

Chavín

The pilgrimage/ceremonial center of Chavín de Huántar holds special importance in the minds of Andeanists. Long thought to represent the “first” civilization of the Andes (Tello, 1943), it is now known to be the most important of several centers that gained prominence in the Late Initial period and Early Horizon (Burger, 1992; Kembel and Rick, 2004; see Table 1 and Fig. 2). The site itself was a pilgrimage center with offerings of ceramics from distant regions and the probable source of an associated religious iconography that is found throughout the central Andes from the south coast of Peru to the northern coast and highlands (Lumbreras, 1974).



Fig. 1 Map of the Andean region with approximate location of major sites mentioned in text. For a detailed map of the north central highlands and north coast, see Fig. 2; for a detailed map of the Nasca region, see Fig. 3

Before the emergence of Chavín, there is abundant evidence of the acquisition or exchange of goods in the north-central highlands during the Initial period. At La Galgada, for example, excavators have found a high frequency of exotic goods in burials and in dedicatory offerings including *Spondylus* shell inlaid with red pigment, greenstone, turquoise, and tropical feathers (Griender *et al.*, 1988). All in all, major highland centers such as Kotosh, Huaricoto, and La

Table 1 Andean chronology as discussed in text

Horizons and Intermediate periods	Approximate dates	Titicaca Basin chronology	Approximate dates
Late Horizon	A.D. 1476–1532	Inca	A.D. 1400>
Late Intermediate period	A.D. 1000–1476	Pacajes	A.D. 1100–1400
Middle Horizon	A.D. 600–1000	Tiwanaku	A.D. 500–1100
Early Intermediate period	200 B.C.–A.D. 600	Late Formative	200 B.C.–A.D. 500
Early Horizon	800–200 B.C	Middle Formative	800–200 B.C
Initial period	1800–800 B.C	Early Formative	1500–800 B.C
Late Archaic	3000–1800 B.C	Terminal Archaic	3000–1500 B.C
Middle Archaic	6000–3000 B.C	Archaic	10,000–3000 B.C
Early Archaic	10,000–6000 B.C	Archaic	10,000–3000 B.C

Galgada in this region seem to be more “cosmopolitan” with regard to their exchange networks than their coastal counterparts (Burger, 1992, p. 121). This may be due to their location near important routes of transportation, indicating that exchange was crucial early in the development of Andean civilization.

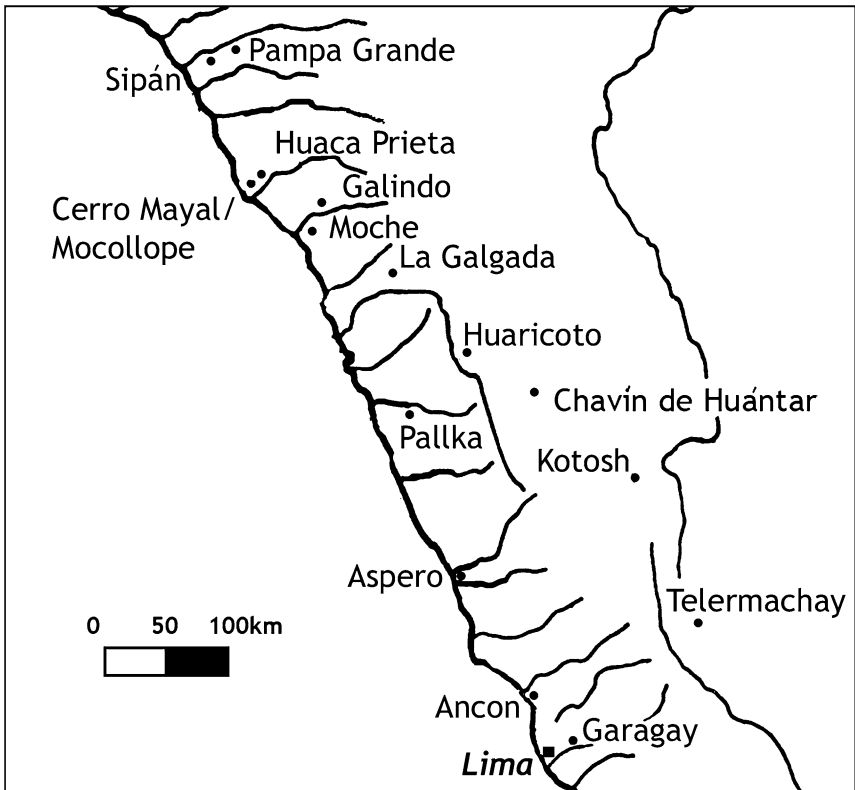


Fig. 2 Map of the north central highlands and the north coast noting sites mentioned in the text

Similar items are found at other coastal and highland sites. For example, *Strombus* shell has been recovered at Telarmachay, a highland cave, and pyroengraved gourds from Huaca Prieta on the coast suggest contact and exchange from disparate regions (Bird *et al.*, 1985; Lavallée *et al.*, 1995). Some speculate that “increased energy flow” may have been turned into trade in craft products, especially those of cotton, which was grown in abundance at La Galgada (Griender *et al.*, 1988, p. 133), suggesting that the very emergence of La Galgada may have been related to its strategic location.

These examples of long-distance exchange demonstrate that the exchange of exotic crafted goods was important very early in the history of the region. Indeed, early in Chavín research it was argued that exchange was paramount in the development of the site’s importance. In particular, many argued that Chavín de Huántar lay at a crossroads between the highlands, *selva* (jungle), and coast, and that this strategic position was responsible for the early florescence of the site (Bennett, 1946; Lathrap, 1971).

The presence of nonlocal goods in both ceremonial and residential contexts at Chavín de Huántar indicates the importance of exchange in its development. Anthracite mirrors, *Spondylus*, and *Strombus* shells are all examples of goods of nonlocal origin found in the ceremonial contexts of the site (Burger, 1992; Lumbreras, 1993; Rick, 2005). Within the ceremonial precinct of Chavín, exotic obsidian from the Quispisisa source located almost 600 km to the south (Burger and Glascock, 2000, p. 267) made up over 95% of the assemblage. Furthermore, excavations revealed fragments from the Alca and Chivay sources, both located at even greater distances to the south (Burger *et al.*, 1984, 2000, p. 350). Additional evidence of long-distance exchange include greenstone earspools and cinnabar from the southern highlands (Burger and Matos Mendieta, 2002; Druc, 1998, p. 15).

The surrounding settlement of Chavín de Huántar paints a different picture of exchange and craft production; instead it offers a glimpse into the lives of the people who supported the building and maintenance of the pilgrimage center. The site does not appear to be a major ceramic manufacturing center nor a center of textile or lithic production. During the early occupation of Chavín de Huántar associated with the construction and maintenance of the Old Temple (ca. 1000–500 B.C.), there is some evidence of craft production. Textile production in particular was important as demonstrated by the presence of bone weaving implements and needles (Burger, 1992, p. 162). Most lithics were made of local raw materials, suggesting a self-sufficient community. Rare, but not absent, within the associated residences are items of long-distance exchange. These include the fragments of a Cupisnique bottle from the north coast, bottles from the central coast, and Quispisisa obsidian.

While there is clearly abundant evidence of exchange at the ceremonial center, more recently the importance of Chavín has not been attributed to its strategic location and as a facilitator of exchange; instead its florescence is attributed more directly to the spread of a religious cult (Burger, 1992, 1993; Rick, 2005). Burger suggests that resources supporting the Old Temple were surpluses of a mixed agricultural and hunting economy and/or tribute from the trade route through the Mosna River (Burger, 1992, p. 163). These surpluses and the existence of the trade route were established before the construction of the Old Temple, so the question becomes: How does this surplus get channeled to finance the construction of the Temple? According to Burger, the answer is in ideology “and its power to unify a weakly linked interregional social system without physical coercion” (Burger, 1992, p. 163).

Indeed, Rick (2005) has argued that the characteristics of the type site Chavín are correlated with an emerging ideology that convinced populations to accept the dominance of an emerging priestly leadership (see also Kembel and Rick, 2004). This “tradition-based convincing system” was based on elaborate engineering projects, highly sophisticated sculpture designed to impress pilgrims, and the display of exotic goods such as *Strombus*. This

ideology was manifested in early leaders' ability to evoke and promote alien symbols from the tropics such as the cayman and jaguar, perhaps further justifying their position (see also Burger, 1992, p. 155).

The important aspect of this argument is that this emerging ideology would have necessitated the long-distance exchange of these exotic goods, as well as portable craft goods and nonportable monumental architecture crafted by artisan specialists. Indeed, it is difficult to imagine that the sculptors, architects, and engineers who were the crafters of the magnificent art and architecture at the site were not specialized artisans. Unfortunately, little is known about these people as few household excavations have been undertaken. It would appear, however, that the ceremonial sculpture and architecture at Chavín de Huántar required specialists who were financed by an emerging agricultural surplus.

In recent work, Rick and his students have undertaken excavations just outside the ceremonial precinct at La Banda. Excavations reveal a substantial community with evidence of differentiated elite and commoner architecture and evidence of abundant craft production (Rick, 2005, p. 72). Furthermore, they have found differentiation between elite and commoner architecture at the site. While we await more published data with regard to these excavations, it will be interesting to find out if the craft production is directly associated with the elite remains at the site.

What is important is the nature of power at Chavín in its early stages. While exchange facilitated interactions between disparate groups and provided the impetus to favor important exotic symbols such as the cayman and the jaguar, the tradition-based convincing system that developed at Chavín was materialized through the production of important crafted goods such as sculpture, ceramics, and textiles and through the exchange of various exotic goods. Thus, from the very beginning, production, exchange, power, and ideology were inextricably linked at Chavín.

Chavín de Huántar, of course, had enormous influence throughout much of the central Andes. In an innovative approach to understanding craft production and exchange related to Chavín, Druc (1998) conducted a study in which 284 ceramic sherds from five contemporaneous sites (Chavín de Huántar, Huaricoto, Pallka, Nepeña, and Ancon) and 69 samples of comparative materials (modern ceramics and raw materials) were analyzed using petrographic analysis and X-ray fluorescence (XRF). The results of the analysis demonstrate that ceramics collected at Chavín de Huántar are very heterogeneous. Indeed, one third of the samples analyzed were found to be of nonlocal origin. These exotic wares tend to be bowls and fine bottles (Druc, 1998). At the other sites analyzed, Chavín-style ceramics tend to be imitations rather than actual specimens from Chavín itself. To further evaluate exchange on the coast, Druc *et al.* (2001) conducted a followup study of ceramics from the Early Horizon coastal sites of Ancon in the Chillón Valley and Garagay in the Rimac Valley. They found no evidence of exchange of ceramics between the sites, but Ancón has evidence of local imitations of Chavín ceramics (Druc, 1998, p. 81).

The results of these two innovative studies support previously proposed models with a pattern of pilgrims flocking to the site of Chavín de Huántar and making offerings when there. Upon return, it appears that local elites attempted to co-opt some of the allure that Chavín held by crafting imitations in an effort to make their own exotica and to align themselves with the powerful icons of the pilgrimage center. More fieldwork at these sites to determine where the production took place and whether it was directed by emerging leaders would illuminate the relationship between craft production and political power in these early middle-range societies.

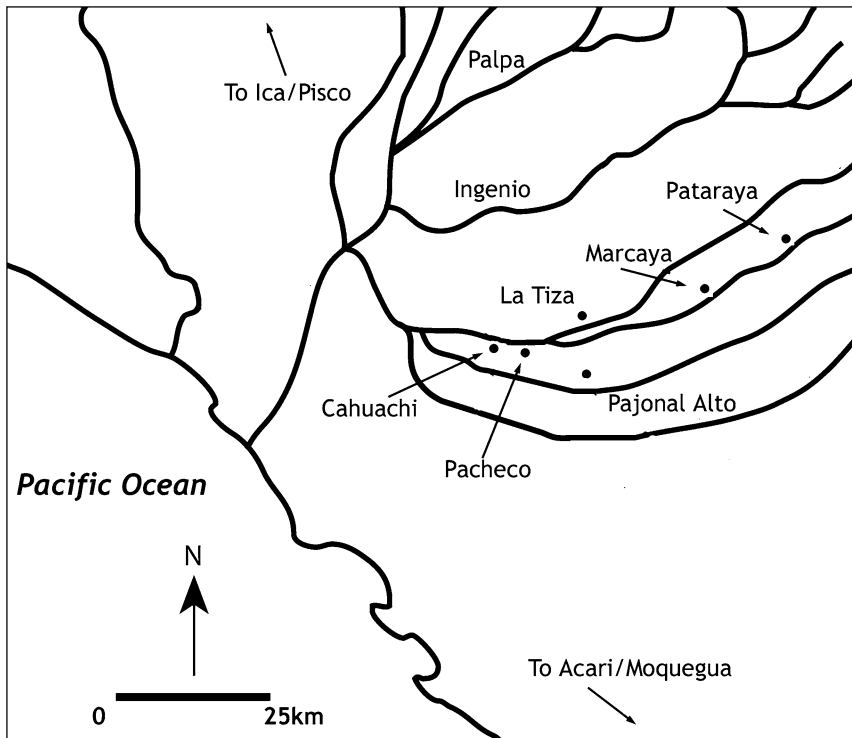


Fig. 3 The southern Nasca region (SNR) with sites mentioned in the text

The South Coast: Nasca, Wari, and Tiza

The south coast of Peru saw the development of indigenous complex societies (Silverman, 1995), famous in particular for the “mastercraftsmen” (Sawyer, 1968) of the Nasca culture who made elaborate ceramics and textiles. Here I focus on the transformations in craft production and exchange that occurred between the Early Intermediate period, the Middle Horizon, and the Late Intermediate period. These periods span the development of Nasca, famous for a sophisticated ceramic style; Wari, the first empire of the Andes; and Tiza, a postcollapse complex society indigenous to the Nasca region. Recent research in the southern Nasca region (SNR, see Fig. 3) has demonstrated a direct relationship between craft production, exchange, and power.

Nasca: Craft production and the materialization of chiefly power

While the south coast is recognized as a major culture area, the degree of complexity of indigenous societies in the region never reached that of others in the Andes, such as the north coast or the Titicaca Basin (both discussed below). Nasca, the most well known of these indigenous cultures to have flourished in this region, was a loosely allied “confederacy” of chiefdoms (Silverman and Proulx, 2002) with a mixed agropastoral economic base (Vaughn, 2000). The majority of people in Early Nasca lived in small, rural villages (Schreiber, 1999; Schreiber and Lancho Rojas, 1995), while Cahuachi, a ceremonial center, was the focus of

regional pilgrimages (Silverman, 1993). The small villages appear to have been autonomous in terms of their subsistence economy; however, the entire region was integrated into a wider social realm with an economy involving the production, circulation, and consumption of polychrome ceramics (Vaughn, 2004), and through group rituals and feasting undertaken at Cahuachi (Silverman and Proulx, 2002).

No longer considered an “empty” ceremonial center, reconstruction of activities undertaken at Cahuachi suggest a “hyperceremonialism” focused on rituals and feasts orchestrated by Nasca elites (Silverman and Proulx, 2002, p. 247). These elites were limited by a lack of coercive force and little access to scarce resources such as surplus agricultural produce or water (for a full discussion, see Vaughn, 2005). Without these critical sources of power, Nasca elites appear to have been ritual specialists who gained their status through their access to esoteric and ritual knowledge that was intimately related to agricultural fertility, propagation, and water (Silverman, 1993, p. 338). Polychrome pottery was the principal vehicle for Nasca ideology (Carmichael, 1992, 1994, 1998; Sawyer, 1961, 1966; Silverman, 1993, p. 323), as iconographic analysis of pottery demonstrates that motifs of birds, chile peppers, beans, and supernatural creatures are all related to the themes of water, propagation, and fertility (Carmichael, 1998).

Concepts of human and plant fertility were enacted in large feasts, key events in Nasca ceremonial life according to iconographic and archaeological evidence (Vaughn, 2005). While polychrome pottery provided the vehicle for materialized ideology, its role went beyond just the depiction of important religious themes; it was actually integral to feasts and ceremonies, because pottery were the very vessels in which food and drink were served at these events (Vaughn, 2004). To use the terminology of DeMarrais *et al.* (1996), they were the most important *ritual paraphernalia* for Nasca elites as sponsors of major feasts, and they played the critical role in the materialization of ideology for Nasca elites.

In principle then, given our expectations for middle-range societies, one way in which an incipient elite consolidates power in a society such as Nasca is by attempting to control these symbols that are directly tied to ideology. Indeed, those who associated themselves directly with the agricultural fertility-laden themes of Nasca iconography could have gained substantial status in the Nasca world. To test this proposition I, along with colleagues, used geochemical sourcing combined with an analysis of clay and pigment variability in the region to trace the source of Nasca polychrome pottery production. In multiple analyses we found that Cahuachi was the source of the majority of polychrome ceramics used at residential sites in the SNR (Vaughn and Neff, 2000, 2004; Vaughn *et al.*, 2005a, b, 2006). These studies demonstrate that one particular artifact that materialized ideology was directly associated with the elite activities taking place at Cahuachi, confirming that the production of this important material good was critical to the development of the power of elites at the site. While polychromes were produced in centralized contexts associated with emerging elites, the distribution of most vessel types remained unrestricted, as excavations reveal substantial polychrome consumption at residential villages located away from the center of production (Vaughn 2000, 2004, 2005; Vaughn and Linares Grados, in press).

Based on these recent results, I have reconstructed the mechanisms for this emerging Nasca “craft economy”: the production of polychromes was centralized and controlled by elites; ritual feasting was the most important mechanism by which the elites of Nasca distributed this pottery; and the consumption of the pottery was widespread in Nasca society. The corpus of recent evidence suggests that Early Nasca elites were responsible for *materializing* the icons of power in this society. They were responsible for the production of the vehicles for this ideology and for their distribution in feasts—themselves events that were laden

with social and political meaning. I also suggest that they were apparently successful in the materialization of this ideology because the vessels for this ideology were used in day-to-day Nasca domestic life, reminding those who used them on a daily basis about the direct association that elites had with Nasca ideology.

The importance of the icons of Nasca and the mechanisms for power-building extended beyond the Nasca region. For example, in the Moquegua Valley, Goldstein (2000) reports that local elites engaged in long-distance exchange with contemporaneous Nasca elites. These “intermediate elites” associated themselves with distant powers to enhance their own precarious positions within their own societies. Ultimately, Goldstein argues that elite interaction and the consumption of exotic goods was an important element in the rise of chiefly power in the region. Closer to the SNR, Valdez Cardenas (1998) makes a similar argument for local chiefs in the Acari Valley, as does Silverman (1997) for the development of Carmen society in the Pisco Valley.

While the production of polychrome pottery was critical to power building in Early Intermediate period Nasca, long-distance exchange appears to have been less important. Exchange for goods from outside the region was limited to obsidian and, far less frequently, *Spondylus*. Llama caravans brought Quispisisa obsidian to Nasca, where it has been found at small residential villages such as Marcaya (Vaughn and Glascock, 2005; Vaughn and Linares, in press). Obsidian has been recovered widely in the region through excavation (Isla Cuadrado, 1990) and survey (Silverman, 2002). *Spondylus* is found much more rarely in the region. None was found in excavations at the village site of Marcaya, while survey revealed fragments in the Ingenio Valley (Silverman, 2002). Long-distance exchange, then, appears to have been less of a concern in Early Intermediate period Nasca than the production of material symbols of power. Outside the region, however, it is exchange and imitation of these very material symbols of power that were important for emerging elites in far-reaching regions.

Wari imperialism in Nasca

Correlated with the expansion of the Wari empire into the region by A.D. 750 (Schreiber, 1999, 2001), Nasca society underwent a great cultural upheaval resulting in a major shift in the political structure of the region (Conlee, 2005; Schreiber, 2001, p. 79; Schreiber and Lancho Rojas, 2003). Perhaps because of its already sacred nature and its efficacy as a materialized ideology, Wari borrowed many elements of Nasca iconography and even ceramic technology (Cook, 1987; Menzel, 1964; Ochatoma and Cabrera, 2002, p. 243). Early Intermediate period Huarpa styles indigenous to the central highlands show direct and clear influence from Nasca (Knobloch, 1976). Whether this influence was a result of increased interregional interaction or simply copying on the part of Huarpa artisans, we currently do not know (Schreiber, 2005a). Compositional studies of Huarpa versus Early Intermediate period Nasca pottery may provide archaeologists with at least some clues into the nature of this influence.

Because of Nasca's influence, Wari may have adopted aspects of the earlier society's ritual practices and religious ideology as well (Conlee, 2005, p. 214; Conlee and Schreiber, 2006). Wari religious ideology was materialized in an imperial architecture that changed over time from open and inclusive space to restricted, exclusive space (Nash and Williams, 2005; Schreiber, 2005b, p. 135). Wari ideology also was materialized in iconography displayed on polychrome ceramics and textiles (Cook, 1994), goods that could be transported around the empire (Schreiber, 2005b, p. 135). The contexts of the production of at least polychrome pottery suggests elite supervision outside of the SNR at Maymi (Anders et al., 1998), a

Wari ceramic workshop located in the Pisco Valley, and at Conchopata (Cook and Benco, 2000; Isbell and Cook, 2002, p. 280; Ochatoma and Cabrera, 2002; Pozzi-Escot et al., 1998, p. 272), located in the central highlands in modern day Ayacucho (see Fig. 1). Additional evidence of the elite control of Wari ceramic production comes indirectly from a compositional study of Wari elite ceramics from Cerro Baúl (Williams, personal communication, 2005). One compositional group of ceramics appears to have been produced locally by specialists and was reserved for elite consumption at the site. Coupled with evidence from elsewhere in the area, these results may indicate that there were multiple spheres of elite-sponsored production of polychrome ceramics throughout the empire. Although the sources of Wari power may have been economic in nature (see Schreiber, 1992, 2005a), the elite-controlled production of elaborate crafts bearing the imperial iconography was essential in maintaining this power.

Regardless of where the ceramics and textiles bearing this “iconography of power” were produced, along the south coast after the waning of Nasca power Wari established two colonies in the SNR, one at Pacheco and one at Pataraya (Schreiber, 2005a). The former was an apparent political and ritual “capital” of sorts (Schreiber, 2005a, p. 248), while the latter was a colony that was established for economic intensification (Schreiber, 2005a, p. 249). Local populations resisted this colonial encounter (Conlee and Schreiber, 2006; Schreiber, 2005a; see also Isla Cuadrado, 2001), and, ultimately, when Wari collapsed the colonies were deserted. Schreiber interprets remains of thousands of smashed Wari ritual vessels at Pacheco to be evidence of local resistance, i.e., local Nasca people symbolically “killed” the old icons of Wari power (Schreiber, 2005a, p. 250), a testament to the power of this materialized ideology.

Post-Wari Nasca

The collapse of the Wari empire spawned yet another reorganization of economic activities and sociopolitical organization in the Nasca region (Conlee, 2003). In contrast to the Early Intermediate period and Middle Horizon, during the Late Intermediate period focus shifted away from elaborate ceramics and textiles with complex iconography that materialized ideology. This was at least in part due to a complete rejection of Wari ideology in the SNR after its collapse (Conlee, 2005).

In place of this materialized ideology, elites turned to long-distance exchange and the intensified production of utilitarian goods such as utilitarian pottery (Conlee, 2003, 2005). “Tiza,” the local polity that developed in the SNR, was characterized by the large urban center La Tiza, with smaller villages such as Pajonal Alto composed of local elites (Conlee, 2003, 2005). Elite power seems to have been maintained by the centralized production of utilitarian ceramics (either through their own production or through attached specialists) and exchange (Conlee, 2003, p. 59). This long-distance exchange was brisk and included many goods such as ceramics, obsidian from the highlands, *Spondylus*, and cotton thread, which was produced at small sites. These goods were exchanged for imported fineware ceramics (mostly from Ica to the north), marine resources, and dyed camelid fiber.

From this brief summary of Nasca it should be clear that craft production and exchange were crucial in the indigenous development of societies in the region. In the Early Intermediate period Nasca society, power was somewhat limited because of a tenuous environmental context and a lack of access to the use of coercive force. Because of these limitations, Early Nasca elites turned to ideology to secure their status in Nasca society. This ideology was materialized in the form of polychrome ceramics, and therefore the crafting of this particular

artifact became critical in their power base. This continued into the Middle Horizon when the Wari Empire borrowed many elements of Nasca ideology and used them as part of its imperial program. After the empire collapsed in the Late Intermediate period, elites turned to exchange networks and the production of different kinds of goods (such as utilitarian ceramics) to establish their position.

Craft production, exchange, and political power in the Formative to Tiwanaku Titicaca Basin

A flood of recent research in the last two decades has clarified our understanding of what was, at one time, the poorly understood prehistory of the Titicaca Basin (see recent summaries in Goldstein, 2005; Janusek, 2004a; Stanish, 2003). In particular, we can now more completely address the rise of Tiwanaku, one of two expansive Middle Horizon states in the Andes. Here I discuss the evidence of exchange and craft production from the Formative through the Tiwanaku periods (see Table 1). Because of this recent research, we are now in a position to evaluate the role that exchange and production played in the development of state societies in this region of the Andes.

Early and Middle Formative (1500–200 B.C.)

Archaeologists usually define the Formative (divided into Early, Middle, and Late, see Table 1) in the Titicaca Basin by the first appearance of ceramics in settled agricultural villages through the emergence of the Tiwanaku state by A.D. 500 (Bandy, 2005a; Janusek, 2004a; Stanish, 2003). Evidence of exchange in the Early Formative includes sodalite beads (Browman, 1981, 1998), obsidian from the Chivay source (Burger *et al.*, 2000, p. 348), sea shell (Bandy, 2005a, p. 95), and, very rarely, small fragments of gold, silver, and copper (Bandy, 2005a). In addition, throughout the Titicaca Basin during the Early Formative, small villages exchanged for raw stone materials. Thus, although long-distance exchange occurred during this time, it appears to have been of low intensity and restricted to a few preciousities and raw materials. Evidence of craft production in the Early Formative is elusive, and the production of pottery appears to have been limited to domestic production but not for “exchange or political use” (Stanish, 2003, p. 2).

By the Middle Formative, the first middle-range societies developed in the region with evidence of corporate architecture in the form of sunken courts and possibly uncarved stone stelae called *huanacas*—symbols of a shared elite ideology (Stanish, 2003, p. 2). This is seen primarily at Chiripa located on the Taraco Peninsula in the southern Titicaca Basin, considered one of Tiwanaku’s principal predecessors (Hastorf, 1999). At Chiripa, evidence of long-distance exchange includes copper ores from the Pacific coast, obsidian from the punas of Puno and Arequipa, sodalite from Cochabamba, and basalt from Lake Poopó located to the southeast in Bolivia (Blom and Bandy, 1999, p. 118; Browman, 1998). The high frequency of llama bones at Chiripa suggests that these items may have been traded to the region via llama caravans (Browman, 1998, p. 312).

Bandy (2005a) explicitly argues that exchange hastened the development of political power in the Titicaca Basin during the Middle Formative. In particular, he argues that all trade via llama caravan from the warm *yungas* to the east must have passed through either the northern or the southern margin of the lake itself. In the southern margin, this route passes through the Taraco Peninsula. Using ethnographic evidence, Bandy argues that informal leaders took advantage of trade routes by extracting tolls from passing caravans. Indeed,

the emergence of “multi-community polities” in the region is correlated with increasing exchange of the aforementioned prestige goods. The hypothesis is intriguing and supportable with current evidence.

Associated with this early exchange sphere developing in the Middle Formative was the production of specialized craft objects directly correlated with the emergence of elite groups (Stanish, 2003, p. 4). This occurred in the later Middle Formative and is expressed in the Yayamama religious/iconographic tradition (Chávez, 1988, 2002, p. 37; Chávez and Chávez, 1970, 1975). The tradition includes a corpus of craft objects such as stone stelae, ceramic trumpets, and flat-bottomed bowls. All of these required at least some local specialization and most likely production at regional centers under the direction and supervision of emerging elites (Stanish, 2003, p. 4). Thus, similar to the situation in Early Nasca and Chavín, we again have a scenario where elites were controlling (perhaps directing) craft production directly responsible for materializing a religious tradition in the interest of building political power.

The Late Formative (200 B.C.–A.D. 500)

Historically, Tiwanaku and Pukara, two large regional centers in the southern and northern Titicaca spheres, respectively, were thought to dominate the Titicaca Basin during the Late Formative (200 B.C.–A.D. 500). Recent work, however, demonstrates that other centers such as Khonkho Wankane and Lukurmata were at least as important until the final centuries of the period (see Bandy, 2005a; Beck, 2003; Janusek, 2004a). These centers apparently developed as a result of elite efforts to attract the labor of commoners and specialists through religious ideology and ceremonialism because they successfully drew large nonagricultural populations into aggregated settlements (Stanish, 2003, p. 141).

At Pukara, for example, sunken courts were used for large-scale competitive feasts and human sacrifice (Chávez, 1992). Chávez argues that an emerging elite in residence at the site manipulated symbols of power for personal gain by controlling the production of these materialized symbols. In particular, this was done through the production of pottery, one important medium on which these symbols of power were depicted. In recent excavations at the site, Klarich (2005) has found evidence of ceramic production and exotic goods consumption. This craft production, however, does not appear to be controlled by resident elites; instead, they appear to have focused on feasting as a political resource (Klarich, 2005, p. 266), revealing that elite strategies shifted through time.

Overall during the Late Formative, exchange networks between elites widened considerably (Stanish, 2003, p. 162), as seen in status-validating objects such as obsidian, sodalite, marine shell, and turquoise found throughout the northern and southern spheres of the Titicaca Basin. Similarity in monumental architecture, stela iconography, and artifacts found in residential contexts related to ritual such as hallucinogenic paraphernalia suggests widespread interregional interaction and shared religious ideology and ritual practices (Janusek, 2004a, p. 147). A primary reason that high-status groups and leaders emerged during the Late Formative appears to have been their involvement in exchange networks and the production of crafted goods such as pottery and stone sculpture that materialized this religious ideology (Janusek, 2004a; Stanish, 2003). Stark differences between “urban” and rural settlements suggest that raised-field farming and other subsistence-related activities such as pastoralism were reserved for smaller, rural settlements to support the emerging ceremonial centers.

This widening exchange sphere also is seen in a pre-Tiwanaku phase of the Moquegua Valley, which was closely tied to the Altiplano for millennia (Goldstein, 1993b, 2005; Nash and Williams, 2005; Williams, 2001; Williams and Nash, 2002). Here, Goldstein (2000) reports that local elites engaged in long-distance exchange with contemporaneous Pukara

and Nasca elites. Goldstein argues that elite interaction and the consumption of exotic goods were important elements in the rise of chiefly power in Moquegua, which is geographically situated between Pukara and Nasca.

Thus, by the end of the Late Formative, long-distance exchange of prestige goods became increasingly important as did a materialized ideology crafted in pottery and stone stelae. It is within this context that Tiwanaku emerged as the dominant center in the region. By the end of the Late Formative, Tiwanaku had developed into the only expansionist state in the south-central Andes (Kolata, 1993a; Stanish, 2002, 2003, 2004).

Tiwanaku (A.D. 500–1000)

Browman (1978, 1981) at one time argued forcefully that Tiwanaku emerged as an economic hub housing guilds of craftspeople and acted as a center for llama-caravan trade networks across the Altiplano; Tiwanaku's very emergence depended on its dominance over this trade network and a religious cult centered there. Others (Ponce Sanginés, 1991) suggest that Tiwanaku housed a middle class of artisans that manufactured elaborate goods and monuments in support of a powerful elite. Kolata (1993a, p. 173), however, has flatly rejected the notion that Tiwanaku's rise had anything to do with "commercial or mercantile activities" and instead believes that Tiwanaku was a multiethnic, hierarchical state with a political economy based primarily on raised-field agriculture, herding, and lacustrine resources (Kolata, 1993a, p. 241, 1993b, p. 206).

The scenarios proposed by Browman and Ponce Sanginés presuppose large guilds of attached craft specialists. Recent work, however, casts doubt that crafts in Tiwanaku were produced by full-time specialists in nondomestic workshops directly tied to elites (Janusek, 1999, p. 108). For example, excavations at Ch'iji Jawira, a small mound 1.5 km east of the ceremonial core of Tiwanaku, revealed evidence of ceramic production in the form of wasters, plaster molds for modeled heads attached to *keros* and *incensarios*, polishing implements, and clumps of pigment (Franke, 1995; Janusek, 1999, p. 113; Rivera, 2003). Accompanying the discovery of ceramic manufacture was evidence that the community that resided at Ch'iji Jawira was an ethnically distinct population, perhaps tied to Cochabamba (Janusek, 1999, p. 115, 2002, p. 46), suggesting that the artisans themselves were semiautonomous "embedded" specialists and not directly attached to elites.

This embedded specialization was one of many aspects of a Tiwanaku society whose core was formed by a "nested hierarchy of semi-autonomous sociopolitical groupings" (Janusek, 2004a, p. 162), essentially locally autonomous corporate groups. What integrated these groups was a religious ideology expressed in urban landscapes (Isbell and Vranich, 2004) and materialized in everyday objects such as ceramics (Janusek, 2004a, p. 164). In contrast then to earlier models of Tiwanaku as a highly centralized state (e.g., Kolata, 1993a), a growing number of archaeologists suggest that the nature of Tiwanaku sociopolitical organization was in fact incorporative rather than transformative (Goldstein, 2005; Janusek, 2002, 2004a, p. 162, 2005, p. 186), similar to the corporate states described by Blanton *et al.* (1996). In other words, Tiwanaku incorporated diverse groups from disparate regions into its regime rather than absorbed them into a hierarchical monolithic state entity (Goldstein, 2005; Janusek, 2005, p. 186).

Understanding Tiwanaku as a segmentary rather than a hierarchical and highly centralized coercive state has implications for how we understand craft production and exchange within the polity. Kolata (1993b, p. 214), for example, envisions a clientage relationship in which distant elites maintained relationships with Tiwanaku lords through the production and exchange of commodities. He also believes (Kolata, 1993b, p. 215) that the Tiwanaku

state formalized critical caravan routes that facilitated intercommunication between the core and major colonies in Atacama (Rodman, 1992; Torres-Rouff, 2002; Torres and Conklin, 1995), Moquegua (Goldstein, 1993a, 1993b), and Cochabamba (Anderson and Céspedes Paz, 1998). Prestige-goods exchange included obsidian, copper, sodalite, hallucinogens, and possibly maize (Bermann, 1994, 1997, p. 106; Stanish, 2003, p. 196; Torres, 1985; Torres and Conklin, 1995), perhaps with Tiwanaku providing highly valued textiles, pottery, and wooden objects such as snuff tablets, all decorated with elaborate religious iconography, in return.

With this view of Tiwanaku as segmentary and integrative in nature, some archaeologists view distant regions not as Tiwanaku colonies but instead as ethnically diverse “diaspora” (Goldstein, 2005). In this system, craft production was embedded and locally controlled as were other aspects of the economy such as raised-field farming (Bandy, 2005b; Erickson, 1993; Janusek, 2005, p. 186); furthermore, local groups maintained their own social identities (Janusek, 2002, 2004b). What tied the region together was a state ideology that was materialized in ceremonial centers and urban landscapes (see Isbell and Vranich, 2004) as well as objects such as ceramics depicting state iconography.

In sum, the Titicaca Basin provides another case study for understanding the relationship between craft production, exchange, and the development of political power. In the pre-Tiwanaku Formative the development of power was closely tied to craft production and interregional exchange that integrated disparate regions with a religious ideology materialized in a variety of media such as stone sculpture and portable ceramics. Building on this Formative model, Tiwanaku was able to establish itself as the primate center in the Titicaca Basin some time after A.D. 400. Because of its political structure as a corporate state, it promoted an integrating suite of ideologies that were readily adopted by local groups (Janusek, 2004b, 2005).

The Moche

Moche is often recognized to be the first indigenous state to have arisen in the Andes (Billman, 2002). Although there is little agreement, at least the southern sphere of the Moche state appears to have developed from the political and economic opportunities afforded by early leaders in the form of controlling land and water to finance hierarchical political organizations (Billman, 2002, p. 394). This hierarchical organization was backed by strong sanctions of coercive force as seen in archaeological and iconographic evidence of ritual sacrifice (Bourget, 2001; Hill, 2003; Sutter and Cortez, 2005; Verano, 2001a,b). Rather than focusing on the development of this power, I present Moche as an example of a state that used elite control of craft production and long-distance exchange in efforts to maintain and to legitimize power.

Moche craft production

Moche occupational specialization was highly complex and included fishermen, farmers, and full-time artisans who specialized in the production of a variety of crafts (Bawden, 1996, p. 86). Fisherfolk and farmers are thought to have been relatively autonomous, while artisans tended to be attached to elites with their skills directly serving the interests of the ruling elite (Bawden, 1996, p. 92). In contrast to the prehispanic societies discussed previously, what characterized Moche craft production was extensive elite control in workshops that were dedicated to the production of multiple crafts (Shimada, 1998). For example, at the urban center of Moche, Chapdelaine (2002, p. 69) finds evidence of various craft activities together

such as smelting, weaving, making chicha, and ceramic production (Chapdelaine, 2002, p. 72).

The work of Shimada at Pampa Grande, located in the Lambayeque Valley, illuminates our understanding of late Moche craft production (Shimada, 2001). Based on analogy with Chan Chan (Topic, 1990), at Pampa Grande most crafts were manufactured and processed in “barrios” and finished in retainer areas, while specialists processed *Spondylus* entirely within elite compounds. Some workshops at Pampa Grande were engaged in the production of multiple crafts, organized according to a “modular, additive approach,” by which each workshop was responsible for stages of more complex production of certain crafts (Shimada, 2001, p. 200). Furthermore, kitchens located near the compounds provisioned workshops with food and drink. Specialists included those who worked with ceramics, metal, and textiles, and other more poorly understood crafts such as lapidary work, feather working, basketry, mural painting, and wood carving.

Ample archaeological and iconographic evidence suggests that elites supervised artisans in Moche society. For example, in the case of textile production, a weaving scene depicted on a *florero* (flaring bowl) shows Moche weavers supervised by clear Moche administrators (Shimada, 2001, Fig. 1). Based solely on this scene, most Moche weavers were women, they spun thread, perhaps provided by the Moche administration, and they used backstrap looms to produce textiles. Excavations at Pampa Grande revealed a cotton processing and weaving workshop that was supervised by an individual or individuals seated in raised areas composed of a low platform and ramp (Shimada, 2001, p. 186), confirming that the scene depicted on the *florero* was at least a partial reflection of reality. The restricted distribution of decorated textiles in burials at Sipán (Prümers, 1995) suggests that only elites had access to these crafted objects, so the supervision in their production would not be surprising.

The production of metal objects also was supervised by elite administrators (Quilter, 2002, p. 157). Sumptuary metal objects were produced through an elaborate process that began with extracting ores from the foothills, smelting, and then taking the smelted metal to production shops. Two metal production workshops have been recorded, one at Galindo and one at Pampa Grande (Bawden, 1996, p. 96; Shimada, 1994, 2001). In both contexts, workshops were found in exclusive parts of the towns near administrative architecture. At Pampa Grande and Shimada (2001, p. 188) documented a copper workshop composed of four linked areas that were functionally differentiated by various stages of copper production. Furthermore, administrative elites who controlled production and the accounting of raw materials supervised artisans.

Analysis of ceramic production provides perhaps the best example of archaeological evidence of elite-sponsored craft production. Moche ceramic production included quotidian pottery and very finely manufactured specimens. Fine pottery used to define high status was manufactured in workshops separate from those that produced utilitarian vessels. For example, Bawden (1996, p. 98) reports a small workshop that produced domestic wares at the periphery of Galindo, where the manufactured wares would have been used. On the other hand, Moche artisans manufactured fineware ceramics such as stirrup spout bottles, *floreros*, faceneck jars, trumpets, and figurines in large workshops supervised by administrative elites. The iconography of fineware ceramics often depicted scenes of state ceremony and elites engaged in various activities that reified their status as rulers with supreme power and as semi-deities (Alva, 2001; Bourget, 2001; Lau, 2004; Pillsbury, 2001; Quilter, 2001; Zigelboim, 1995). The production of these items was important in the materialization of the ideology and power that elites had in Moche society (DeMarrais *et al.*, 1996; Russell and Jackson, 2001). Excavations in tombs, especially those at Sipán in the Lambayeque Valley (Alva, 2001),

have demonstrated a direct correlation between ruling elites and the iconography depicted on these vessels.

Several ceramic workshops devoted to the production of finely made specimens have been recorded, most notably at Cerro Mayal (Russell *et al.*, 1998; Russell and Jackson, 2001) and at Moche itself (Chapdelaine *et al.*, 1997; Uceda and Armas, 1998). Cerro Mayal was a ceramic workshop located near Mocollope, the Moche civic center of the Chicama valley (Russell *et al.*, 1998). Artisans at the workshop were responsible for producing a wide variety of forms including the *florero*, medium vertical neck jars, and figurines. Many of these forms were handcrafted, while some used molds. Excavators found a single pit-type kiln at the site, and a compositional analysis of a sample of the ceramics from the lower Chicama Valley demonstrated that most specimens fell into a single compositional group, suggesting that the Cerro Mayal workshop was producing ceramics for “broad demand” (Russell *et al.*, 1998, p. 84). Uceda and Armas (1998) report a ceramic workshop at the Huaca de la Luna at the Moche site. There, production and storage of pottery were found in three major occupational phases. The workshops themselves were part of craftworkers’ quarters, and archaeologists found all stages of ceramic production, including the preparation of clay mixture and temper, manufacture of mold matrices and molds, vessel formation, painting, drying, firing, discarding, and storing. A compositional analysis of a sample of those ceramics suggest that Moche artisans produced ceramics using local ingredients, though kaolin (for the characteristic white slip on finer specimens) may have been imported from the highlands (Uceda and Armas, 1998, p. 103). The authors suggest that most of the fineware vessels made for funerary use, elite consumption, and ritual usage were probably made within the Moche urban center itself. This is not at all surprising given the importance of fineware in materializing the important symbols of Moche ideology.

An additional neutron activation analysis of sherds from the Moche capital demonstrates that ceramics and figurines were local but were produced differently according to types of ware (Chapdelaine *et al.*, 1995). Specifically, molded fineware ceramics are homogeneous and fall into the same compositional group, while domestic wares are heterogeneous and fall into a variety of compositional groups. Thus, production was controlled for fineware and figurines, while production of utilitarian wares was far more diversified. These three studies provide good examples of elites who sponsored the production of vessels where ideology could be materialized to legitimize their power. Overall, the pattern of craft production in Moche suggests an elite preoccupation in controlling production to legitimize their positions.

Moche long-distance exchange

Based on ethnohistoric evidence of the Chimú, Bawden (1996, p. 101) suggests that the Moche had a seafaring group of merchants who circulated finished prestige goods as well as raw materials used for their production throughout the north coast and beyond. These goods included *guano* on offshore islands and *Spondylus* from Ecuador. While there is little direct archaeological evidence, there must have been llama caravans that were responsible for the movement of goods throughout the Moche domain. These caravans would have required the services of a large number of drivers, and, according to Bawden (1996, p. 102), they constituted a seminomadic group of specialists who were devoted to movement of goods such as alpaca wool, obsidian, raw resources (such as metal ores and clays), as well as exotic items such as feathers.

Further evidence of long-distance exchange comes from elaborate, elite burials at San Jose de Moro, a site in the Jequetepeque Valley dating to the period of Moche decline. Restricted

access to elaborate objects such as ceramics from distant Cajamarca and the Rimac Valley (Donnan and Castillo, 1994, p. 417) indicates that elites attempted to control long-distance exchange as another means of reinforcing their declining power, just as their control over the production of objects materializing ideology was fading. This example of the Moche reveals that elites have several avenues to power building at their disposal and they use them when necessary.

Discussion

I see several major trends in the role that craft production and exchange played in emerging and institutionalized political power in the pre-Incaic Andes. Overall, emerging political power in the Andes appears to have been intimately tied to exchange, craft production, and religious ideology. Craft production facilitated the materialization of emerging religious ideologies, and exchange facilitated the interregional interaction necessary to disseminate this ideology.

For example, by the time of the Late Initial period and the Early Horizon (the Formative in the Titicaca Basin), exchange in the Andes was pervasive as was the production of highly elaborate crafts. In the case of Chavín, it has long been known that their power was “theocratic” in nature (Lumbreras, 1974; Tello, 1942), recent research at the pilgrimage center and related sites, however, demonstrates just how closely related status and political power were to this “tradition-based convincing system” that formed the basis of Chavín ideology (Rick, 2005). Religious ideology was critical in the development of the power that early elites at Chavín held, and it was materialized through ceremonies and craft production. Indeed, status was directly connected to materialized symbols of power, and associated monuments were arenas where status was negotiated (Kembel and Rick, 2004, p. 55). As soon as Chavín became an important ceremonial/pilgrimage center, other emerging elites claimed access to the center and attempted to emulate the center’s ideology. This is seen at disparate sites from the highlands and the coast, where emerging elites attempted to associate themselves with the distant pilgrimage center by crafting their own exotica emulating the symbols of power associated with Chavín.

A similar pattern is apparent in the Formative Titicaca Basin, where exchange and the production of material symbols of power—nonportable stelae, monuments that facilitated ceremonies, and ceramic iconography—were responsible for the emergence of elite power in this region of the Andes. While at both Chavín de Huántar and the Formative Titicaca Basin there is currently little direct evidence of elite supervision of specialized production of these artifacts (although it is assumed), it would not be surprising if future work revealed evidence of this as part of elite strategies to control the production of goods important in legitimizing their status.

In contrast to these two nodes of emerging complexity, in Nasca there is direct evidence of elites who were responsible for materializing ideology and attempting to incorporate disparate residents of the region into this system. Elites there focused attention on feasting and the control over the production of one of the most important crafts in the reproduction of elite ideology: ceramics. The wide distribution of polychrome pottery—the symbols of elite power—in large feasts at the civic-ceremonial center of Nasca served to underscore elite power and remind Nasca commoners on a daily basis of the elite’s ritual knowledge and power. While this may have accompanied the controlled production of other crafts such as elaborate textiles, adobe monuments, and even the famous geoglyphs, whose principal function was for ritual processions (Aveni, 1990, 2000; Reinhard, 1988, 1992), polychrome

pottery was certainly the most important of the ritual paraphernalia accessible by the Nasca elites. In contrast to other material goods, ceramics are portable and could have provided a relatively efficient way of disseminating the emerging ideology tied directly to elites (Vaughn, 2005). In addition, polychrome pottery played critical roles in ritual feasts and ceremonies where they were the actual vessels in which food and drink were served.

Prestige-goods exchange was relatively unimportant in the development of Nasca itself; however, emerging elites *outside* the Nasca region in Moquegua, Pisco, and Acarí attempted to associate themselves with the elites of Nasca through the exchange of prestige goods. Situated between the Nasca region and the Titicaca Basin, local elites in Moquegua attempted to associate with distant powers in Nasca and Pukara by displaying their access to them (and their esoteric knowledge) through the display of prestige goods—in this case Nasca and Pukara ceramics. In the case of Pisco and Acarí, while there is evidence of exchange, association with Nasca often took the form of craft production designed to emulate Nasca symbols of power.

Once power was institutionalized in hierarchical states, craft production, long-distance exchange, and materialized ideology appear to have been used to *reinforce and legitimize power* based on other sources (e.g., physical coercion, subsistence goods, and water). The emergence of Moche in the north coast and Tiwanaku in the Titicaca Basin was the result of different processes (Stanish, 2001); however, once the state had emerged in these regions, elites rapidly turned to materializing an ideology that served to reinforce and legitimize elite classes' newly found power, resulting in highly elaborate state styles on a variety of media including ceramics and textiles. For the Moche this ideology was materialized through craft production that was rigidly controlled by elites. On the other hand, Tiwanaku enclaves of “embedded” specialists were responsible for the production of state ceramics.

For comparison, we can look to the Inca empire, the largest indigenous state of the pre-hispanic Americas. The Inca tightly controlled production not just to produce goods necessary for the maintenance of the empire; it produced an imperial image to “stamp” crafted goods with its own identity (Morris, 1991, p. 522). By controlling the distribution of these goods, the Inca were very successful in engendering an imperial image that provided subjects and loyal followers with generous hospitality and valuable goods (Morris, 1991, p. 522), similar to the efforts of Wari, Tiwanaku, and Moche elites.

In the Wari empire, perhaps because of the efficacy of Nasca's materialized ideology during the Early Intermediate period as a principal means to legitimize elite power, the pattern of employing craft production to produce the material symbols of power continued. Imperial ceramics bearing the iconography of Wari elite ideology were produced and distributed throughout the empire. The strong rejection of these material symbols in Nasca when the empire collapsed suggests how powerful these material symbols may have been. Indeed, by the Late Intermediate period in the Nasca region, because of the power vacuum left by the collapse of the Wari empire, significant restructuring of exchange and specialization in Nasca occurred. Local elites focused on long-distance exchange far more than they had been previously. Furthermore, specialization was directed not toward highly refined craft goods materializing ideology as in previous periods but to other goods such as utilitarian pottery and textiles.

This is not to say that large complex states in the Andes used craft production, exchange, and materialized ideology in exactly the same way, nor were they equally successful. Tiwanaku provides one example of a state society where coercive force may have been relatively limited when compared to Wari and the Moche. As a corporate polity that relied on integrating distinct ethnic groups into its realm, Tiwanaku may have been a more fragile entity when compared to either the Moche or Wari. Indeed, previously thought to have

provided the economic foundation of Tiwanaku political economy, raised-field agriculture may have been much less productive than more traditional rainfed agriculture, providing a relatively weak basis for Tiwanaku's political economy (Bandy, 2005b, p. 293).

With regard to craft production and exchange in the Andes, there are several promising trends. First, the fact that both craft production and exchange were critical to the development and maintenance of prehispanic political economies has implications, in particular, for the study of small-scale and middle-range societies, where inequalities have yet to be institutionalized. The key to understanding the emergence of ancient Andean political economies is how do leaders go from attempting to establish power to securing it, and then exploiting that position as they did in the highly complex states of the Wari and Moche, for example? Middle-range societies such as Pukara, Chiripa, Chavín, and Nasca are key to better understanding this transition.

The second major trend concerns the methods that archaeologists are using to address exchange and craft production in the archaeological record. Geochemical sourcing has historically proven to be an effective means for understanding the movement of goods over long distances and determining production zones of artifacts within regions. In the last decade of archaeological research in the Andes, many archaeologists have undertaken sourcing analyses to gain an understanding of the relationship between the movement of goods, their production, and political economy. Our understanding of Chavín, Moche, Nasca, Wari, and Tiwanaku has been illuminated through many recent geochemical studies.

In sum, craft production and exchange were critical in the development of political economies in the indigenous Andes. Exchange, craft production, and materialized ideology were inextricably linked in the development and maintenance of political power. The progress that has been made over the last two decades in Andean research is remarkable. In particular, the increase in fieldwork over this time period has contributed greatly to our knowledge of the Andean past, and Andean archaeology has reached a juncture whereby reviews such as this one are possible. Ultimately, the prospects of research on production and exchange in the Andes are just as remarkable, especially as new areas open up to fieldwork, as archaeologists publish the results of long-term projects, and as they apply innovative methods to their research.

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