Andean Archaeology III

North and South

Edited by

William H. Isbell and Helaine Silverman

Springer

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Preface

Andean Archaeology III represents a continuation in our effort to highlight the finest of current archaeological scholarship conducted in the Central Andean culture area. Each paper contributes in a significant way to understanding prehistoric processes in the Central Andean culture tradition, adding importantly to the rich base provided by *Andean Archaeology I* and *II*. As in those former volumes we do not seek a balanced presentation of the entirety of the Andean past, but instead showcase what is new, what is innovative, and what is controversial in thinking about and investigating the great sweep of Andean cultural development.

We wholeheartedly agree with Pauketat (2001:xiii) that it is "more satisfying to compare how cultural phenomena happened," than for researchers to hasten to answer "why questions" that tend more to "reify their initial assumptions" than to inform us about prehistoric people and their embodied, cultural practices. We support the revitalized study of sociocultural evolution, especially that championed by Bruce Trigger (e.g., 1998, 2003), which has benefited by several decades of valuable critique.

On the other hand, explanations of the past not based on comparisons of historical processes carefully argued from well-studied archaeological records sacrifice the rigor that was such an important part of the first processual archaeology advocated by Lewis Binford (1962, 1964, 1972; Sabloff 1998; see also Yoffee 2005 inter alia). In some recent and current Andean archaeology we find explanatory conclusions, especially processual evolutionary transformations, and climate change-based rise or collapse accounts, to have been reached too hastily, constituting more of a reading of material remains in terms of theoretical expectations than a rigorous interrogation of the archaeological record.

Elucidation of historical process in Central Andean archaeology has been the primary criterion for selecting contributions for this volume. But we also have found that as we move toward a 21st-century approach and paradigm for the Andean past, there is significant need to re-examine the spatial and temporal range of the "Central Andean" cultural tradition. To be clear, this book is not a collection of papers commissioned to resolve that question. Rather, as we sought out the most exciting contributions for our volume we were struck by the fact that current authors are not questioning the "Central Andes" as the cultural unit they are investigating.

At the same time, much research appears to have surprising implications for the way we define, organize, and investigate that cultural unit. Consequently, we highlight this issue, providing something of the history of how the "Central Andes" has been defined. In our Introduction and Conclusion we also tease out some of our authors' assumptions about, and implications for, the cultural tradition. An idea that emerges from our work is the suspicion that a northern Central Andean tradition can be defined as reasonably distinct from a southern Central Andean tradition. While we are not ready to redefine the Central Andes, or propose an alternative cultural/temporal unit, let us suggest from the beginning of the volume that it is time to confer a symposium to discuss these issues. We must at least make explicit the implications of contradictory trends in current thinking and practice, from alternative chronologies to independent evolutionary trajectories.

Our selection of papers draws from investigators of diverse nationalities and approaches. In deference to these authors, we are permitting certain inconsistencies in the volume. For instance, Peter Kaulicke, who lives and works in Peru, follows Peruvian canon by writing Mochica whereas Edward Swenson, a North American Peruvianist, writes Moche. In an attempt to standardize usages, we do not italicize Spanish and Quechua words as these are ubiquitous in the archaeological literature. We also do not italicize Spondylus.

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Part I

Introduction

Chapter 1

Regional Patterns

William H. Isbell and Helaine Silverman

A CONTINENTAL VIEW

When early anthropologists faced the bewildering diversity of peoples reported by Europeans during their age of discovery, scholars explained the behavioral differences in terms of evolutionary schemes that grouped cultures with similar principles of kinship, economic production, or political authority together into broad evolutionary stages. Subsequently, when anthropologists in the United States responded to demands to organize descriptions of hundreds of Native American cultures in some meaningful way, they formulated the "culture area," a concept that sprang from ethnographic field experience (Kroeber 1939; Wissler 1917). It posited that peoples living in proximity to one another and inhabiting more or less similar environments tended to share many aspects of culture in common. The culture area concept benefited from the best of the ideas about cultural diffusion so popular in European geography, and at the continental level the culture area approach reapplied much earlier thinking about cultural evolution.

The American continents, and other parts of the world, were divided into cultural areas, each one characterized by a particular variety of spatially and historically related cultures that were considered to represent a "culture type." Culture types could, in turn, be compared and arranged in terms of their complexity, expressing an implicit theory of cultural evolution that organized sub-continental cultural regions. In the 1960s Elman Service (1962) and Morton Fried (1967) presented explicit evolutionary schemes, classifying pre-modern human societies into four successive stages. Service proposed a sequence of stages starting with "band" organization, followed by "tribes," then "chiefdoms," and finally "state" government. Fried proposed a sequence from "egalitarian" society, to "rank" society, to "stratified" society, and then "state" organization. However, two decades earlier, very similar classifications already were shaping the origins of an anthropology of South America.

Working for the Bureau of American Ethnology of the Smithsonian Institution, prominent U.S. anthropologist Julian Steward (1949) divided the South American continent into "aboriginal culture types" based on a moment-of-contact stasis often referred to as the ethnographic present (Figure 1.1): Marginal and Semi-Marginal,

MAP 18.—Distribution of aboriginal culture types. (Solid black, Central Andes; horizontal hachure, Circum-Caribbean; cross-hachure, Tropical Forest and Southern Andes; diagonal hachure, Semi-Marginal; stipple, Marginal.)

Figure 1.1. Julian H. Steward's "Distribution of Aboriginal Culture Types" in his essay, "South American Cultures: An Interpretative Summary" (Steward 1949: 670).

Tropical Forest and South Andes (combined), Circum-Caribbean, and the Central Andes. This typology was a modest revision of Steward's earlier scheme, which he had employed to organize the previous volumes of the *Handbook of South American Indians* (Steward 1946a, b, 1948a, b, c).

The nature as well as the distribution of South America's culture areas were poorly known before the numerous descriptive papers contained in the *Handbook* were written and assembled. So, theory and practice shaped one another in the foundation of South American anthropology, and thinking about culture areas was determined by what the authors of the constituent papers were writing. For example, Steward's 1949 regional organization, mentioned above, incorporated new information about sociopolitical and religious patterns of the Incas, that had been prepared for the volume on Andean civilizations (see Steward 1946b).

Volume I of the *HSAI* was devoted to "Marginal Tribes," hunters and gatherers living in mobile bands, but including fisher people as well as hunter-gatherers who practiced some cultivation and were, consequently, sedentary for at least part of the year (Steward 1946a). The "Tropical Forest Tribes" (Steward 1948a) were brought together in Volume III. These peoples were generally characterized as root crop farmers who resided in small, autonomous villages and were organized by kinship (Lowie 1948). Volume IV embraced all the cultures assigned to the "Circum-Caribbean Tribes," who were characterized as intensive farmers residing in large villages, sometimes organized into federations by chiefs and paramount chiefs (Steward 1948b). Volume II described the "Andean Civilizations," (Steward 1946b), whose title alone characterized an evolutionary stage of cultural development. Wendell Bennett (1946:1) was clear in his introductory paper in Volume II: "At the time of the Spanish Conquest, the three outstanding Highland cultures were those of the Chibcha, the Inca, and the Araucanians. Of these three, that of the Inca is best known and was the most advanced in cultural achievement." "Highland" was synonymous with Andean, so in South America, only Andean cultures were "civilized," and the most privileged were the "Central" Andeans, or the Incas and their ancestors, implicitly conceptualized as donors to simpler South American culture areas or culture types. Still today South American anthropologists follow Bennett in dividing the Andean cultures into three great regions or types: North Andes, Central Andes, and South Andes (e.g., Lumbreras 1981).

The evolutionary privilege of Central Andean cultures has translated into greater archaeological investment in the prehistory of that area, and to a dominance of South American prehistory by its practitioners. Indeed, archaeologists working in the Central Andes apparently feel so "central," and so assured that their privileged subject cultures stood as donors to the other Andean societies, that we define ourselves without spatial qualifier: we are Andeanists. The title of this volume, and its antecedents, testify to our hubris.

The confidence with which we Central Andeanists call ourselves Andeanists surely contributes to the marginalization of scholarship devoted to the North Andes (Ecuador, Colombia) and South Andes (southern Bolivia, Chile, NW Argentina), while also tending to reify an image of a precocious culture nucleus (or several closely related nuclei) with discrete spatial distribution. But, is it really clear that there was an Andean cultural core complementing a less developed periphery, or, as the saying goes, is "one man's center another's periphery"? The vast majority of (Central) Andeanists have worked within "rise of civilization/pristine state" culture historical or processual paradigms, so other regions of South America appear secondary because their political evolution never culminated in autochthonous

complex social formations classified as states and empires. However, would we need to reverse our field of vision if we were investigating, for instance, long-distance trade, in which North Andean cultures seem to have excelled? Similarly, what if we did not focus on the Central Andean states and empires (Mochica, Chimu, Wari, Tiwanaku, Inca), but emphasized instead cultures such as Paracas, Nasca, and Recuay, or one of the less known cultures such as Chanapata, Qotacalle, or Huarpa? If these were our interest, wouldn't we recognize strong parallels with Bahía, Jama-Coaque, and Tolita? In fact, if we consider ethnohistoric and archaeological descriptions of Chupachu and Wamali villages (Matos 1972; Murra 1967; Oritz de Zuñiga 1967, 1972; Thompson 1967), are they significantly different from the agricultural hamlets and villages excavated in northern Chile (see, e.g., Rivera 2002)?

If we open the Central Andean culture area to question, is there more unity within, and more difference between the component cultures and those beyond the recognized boundaries? Challenging internal continuity, Silverman (2004: 3) has called attention to Stanish's (2001) assertion that archaeologists should cease to envision a single trajectory of pristine state development in the Central Andes, and recognize three discrete regions of state-level political evolution: Mochica (north coast), Wari (south central highlands), and Tiwanaku (Titicaca Basin). This would imply significant evolutionary difference among the member cultures. Clearly, we must be aware of how the Central Andes have been conceptualized, and how much internal difference characterizes this culture area.

A REGIONAL VIEW

A Central Andean culture area was defined early in the history of South American anthropology, but from the beginning it was recognized as having important divisions and nuanced variations within. In his famous 1927 article, "Coast and highland in prehistoric Peru" Alfred Kroeber described the ceramic styles that were being identified as more or less representing the key cultures of Central Andean prehistory. Kroeber went to pains to classify them as coastal or highland, as representing mixtures, and in some cases as being extremely eclectic. Part of his presentation reported interpretations of the renowned Peruvian scholar, Julio C. Tello, whose perceptive understandings of the Andean past were little known at the time. Having just spent a good deal of time with his Peruvian colleague, Kroeber was anxious to share and explain some of their discussions, since he had become convinced of the merits of many of Tello's insights.

Tello argued that the origins of Central Andean culture were in the highlands, from which it spread to the coast in a series of emanations, the first in the form of Chavín. Tello also believed that Chavín pottery emulated earlier vessels of wood from the tropical forest, and that tropical forest animals—especially the jaguar—played key roles in Chavín myth and religious iconography, demonstrating that highland Andean culture must have borrowed heavily from tropical forest cultures. (Unfortunately, tropical forest relations apparently were not part of the

Tello-Kroeber discussions reported in 1927, so we will have to return to this topic below, and in our Conclusion.)

Obviously, Tello's archaeological interpretations were inspired in no small part by his Peruvian nationalism. Consciously or unconsciously, he located the most important centers of cultural influence within Peru, and treated areas beyond Peru more as receptors of Peruvian highland cultural influences. Today we can hardly help but wonder how much the boundaries of modern Peru—especially its northern and southern frontiers—really correspond with a long term Central Andean culture region (see below). Be this as it may, Kroeber (1927: 642) was certainly promoting such thinking when he wrote, "It is clear that ancient Peruvian culture was enough of a unit to make necessary its treatment broadly and as a whole."

Kroeber, like Tello, was interested in expanding the synchronic culture area concept into something with greater time depth that would be useful to archaeologists as well as ethnologists. For the Central Andes, this goal was realized in an important symposium that brought together some of the foremost anthropological thinkers of the time, to hear and discuss a set of presentations. This conference, and its subsequent publication, bore the revealing title, "A Reappraisal of Peruvian Archaeology." Kroeber set the agenda, but it was a young archaeologist, Wendell Bennett (1948a), who contributed the key article and edited the symposium papers.

Following Kreober's lead, Bennett sought to reshape the culture area into a diachronic concept that would serve not only to classify cultures of the ethnographic present, but as a tool for archaeologists to trace culture history. With ethnographic, linguistic and archaeological descriptions prepared for the new *Handbook of South American Indians* swelling academic resources in the late 1940s, Bennett (1948b) could reexamine the culture area as it applied to the Central Andes, crafting a concept more sensitive to historical process, cultural origins, dispersals, and perhaps most important, long-term interrelationships. His proposal was the "area co-tradition," and specifically the "Peruvian co-tradition" for Central Andean prehistory. The conviction underwriting Bennett's Peruvian area co-tradition was "the over-all unit of culture history of an area within which the component cultures have been interrelated over a period of time" (1948b: 1).

The major cultural characteristics associated with the Peruvian co-tradition were intensive agriculture and herding, employing irrigation, terracing, fertilizer and crop rotation (Bennett 1948b: 2). Villages were large and generally integrated into political units marked by class distinctions. Labor was organized into large groups and included corvée that contributed to the production of a large surplus supporting leisure for administrative elites. Crafts, including metallurgy, were highly developed. However, weaving was especially prized, with clothing generally consisting of breach clout and slit-neck shirt or wrap-around skirt with belt, a shawl, a woven bag, a headdress, and ear ornaments. Buildings were made of permanent materials such as stone and adobe, and included monumental public structures. Great temples and religious shrines were erected, and these became the objectives of long-distance pilgrimages. Pilgrimages, in turn, disseminated ideas and promoted contact between diverse cultural groups.

Negative cultural traits also defined the Peruvian co-tradition (Bennett 1948b: 3). For example, no urn burial, no bow and arrow, and only weak water transportation were also considered diagnostics.

The unity of ancient Central Andean cultures was also established by a series of prehistoric horizon styles expressed particularly in ceramics, as well as long and complex sub-regional traditions. The Central Andes shared Chavín, Tiwanaku and Inca horizons, as well as less impressive ceramic dispersals, such as a negative decoration horizon, a White-on-Red horizon, and a Black-White-Red horizon. In terms of sub-regional traditions Bennett (1948b: 2–3) asserted that "Chiripa has relationships with Pucara, Early Tiahuanaco, and Chanapata; Pucara in turn is linked with Classic Tiahuanaco, Wari, the Epigonal, and the Black-White-Red horizon; these finally merge into Ica and Chimu. Another such branching relationship is Chavín, Cavernas, Necropolis, and Nazca on one side; Chavín, Salinar, Mochica and Chimu on the other." Furthermore, Bennett argued that cultural changes were more or less universal and uniform throughout the Peruvian co-tradition area.

On his map, Bennett (1948b: fig. 2; see Figure 1.2) subdivided the region of the Peruvian co-tradition into smaller sub-areas. Following Kroeber, and confirming a pattern that would shape Central Andean archaeology through the rest of the century, he first separated coast from highlands. Next, he divided Peru into North, Central, and South, as well as more distant areas—the Far North and the Far South (that included a small part of Bolivia). On the desert coast, numerous valley oases fostered a more or less continuous distribution of peoples and cultural variations, but Bennett recognized subsets of valleys and assigned them to his respective divisions. Note that Bennett's Rimac grouping falls partly into the Central, and partly into the North Coast, which is especially interesting in terms of the current recognition of a "norte chico" or "near north coast" valley grouping that includes Supe, a valley discussed in this volume by Ruth Shady and which may hold particular importance for the origin of the Central Andean co-tradition.

The highlands were also divided into north-south regions, for which Bennett identified the Cajamarca Valley as the Far North Highlands, the Callejón de Huaylas and Huanuco Valley as North Highlands, the Mantaro (and its Ayacucho tributary) Valley as Central Highlands, Cuzco as South Highlands, and the Titicaca Basin as Far South. The southern altiplano was omitted except for Tiwanaku and the south shore of Lake Titicaca, lying only a few kilometers from the Peru-Bolivia border. However, Bennett excluded the most southern of the Peruvian coastal valleys, beyond Arequipa, apparently considering them more similar to the cultures of coastal Chile and the South Andes. His Peruvian co-tradition, however, did include Moquegua, where recent archaeological research has revealed the fascinating face-to-face confrontation of Wari and Tiwanaku (see, e.g., Goldstein 1993; Williams and Nash 2002). Bennett also excluded the tropical lowlands east of Peru's great mountain chains, as well as Piura and farther north, from his Peruvian co-tradition.

Bennett pointed out how spatial and environmental factors contributed to the boundaries of the Peruvian co-tradition. Within the co-tradition area, major valleys and basins are never more than 200 km apart, with the exception of Cuzco, which

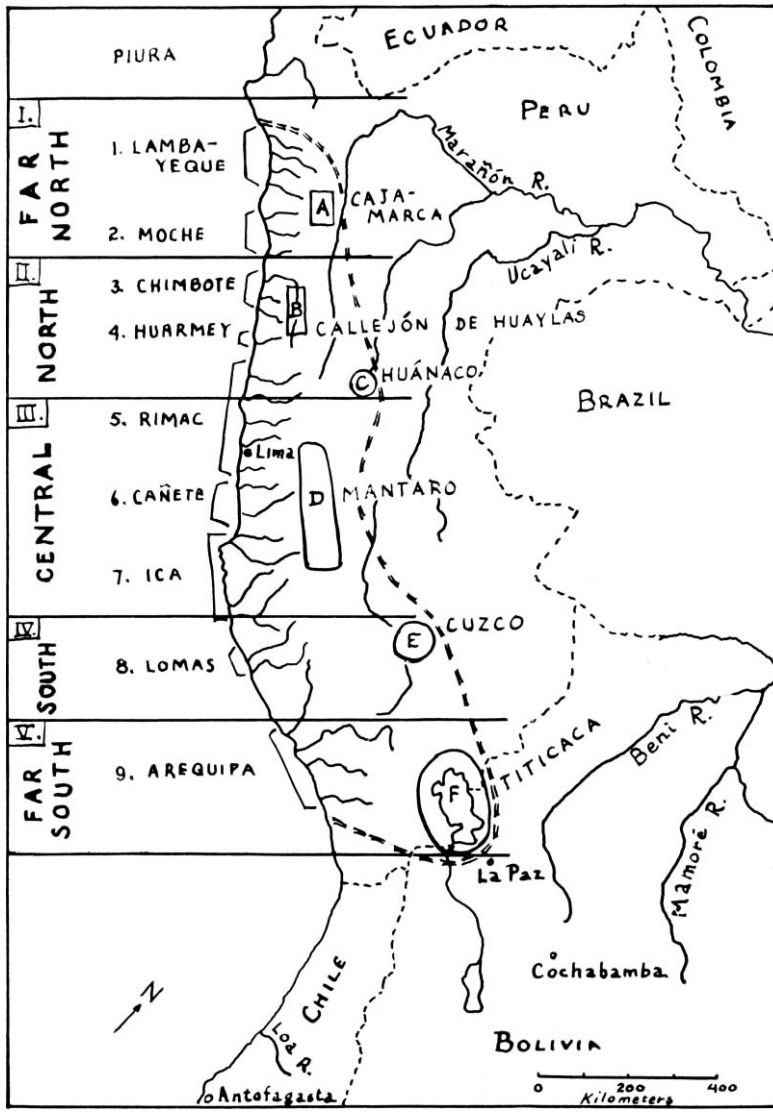


Figure 1.2. Wendell C. Bennett's map of the Central Andean culture area with its subdivisions in his essay, "The Peruvian Co-Tradition" (Bennett 1948: 5).

was prominent only in late times. On the other hand, there are some 400 kms of rugged and forested mountains between Cajamarca in Peru's Far North, to Loja, the southern-most Ecuadorian basin of substantial size. There, climate change from a single to a double rainy season significantly alters vegetation and transforms puna grasslands suitable for llamas and alpacas into wet páramo that is poor grazing.

Perhaps even more revealing is Bennett's (1948b: 4) explanation of the southern boundary of the Peruvian co-tradition.

> A desert strip cuts eastward across the Andes south of 17 degrees. The western cordillera of Bolivia is dry, without basins, and, today, virtually without population. South of Lake Titicaca, the Desaguadero River disappears in Lake Poopó, where the water evaporates into extensive salt flats. Actually, apart from the Titicaca basin, the most inhabitable regions of Bolivia are in the eastern cordillera. The closest to Peru is the Cochabamba basin, and this is separated from Titicaca by over 300 kilometers of rugged mountainous country. In spite of this, good Tiahuanaco ceramics are found in the Cochabamba region although permanent buildings, ceremonial centers, and stone carving are not. In general, the Peruvian influences in the eastern cordillera are no greater than those from the Amazon, Chaco, and Pampas. It thus seems sound on geographical and cultural grounds to fix the southern boundary of the Peruvian co-tradition on the Mollendo-Arequipa-Tiahuanaco line.

Since Bennett's writing, archaeological research has shown that several of the largest pre-Tiwanaku settlements in the Cochabamba Valley are actually huge mounds, almost tells, of adobe architecture, where large communities must have been practicing intensive agriculture based on irrigation. Do these constitute permanent buildings, ceremonial centers, presenting sufficient criteria for reevaluating the Peruvian co-tradition? We return to this issue in our Conclusion.

The long-term influence of the Peruvian co-tradition cannot be underestimated, and it underlies John Rowe's (1960, Rowe and Menzel 1967: ii–iii) later formulation of a unified archaeological chronology for the prehistoric Central Andes. Rowe employed the major horizon styles that underlay Bennett's premise of cultural unity as chronological tools. Three sequential pan-regional stylistic diffusions—Chavin, Tiwanaku and Inca styles—were interspersed by periods of local or sub-regional differentiation, and these time units were associated with absolute ages (radiocarbon dating, a new technique at that time, was revolutionizing prehistoric archaeology all around the world). Rowe's chronological chart included only three coastal areas, North, Central and South, but a full complement of five highland zones, although with slightly different terminology: North (Ancash), North Central (Ayacucho), South Central (Cuzco), South (Puno), and Bolivia (southern Titicaca Basin), so it is unlikely that Rowe meant to exclude Bennett's Far North Coast or Far South Coast from the Central Andean region. More likely, there simply was not enough information to fill in chronological columns for those sub-areas in the 1960s, and Rowe was loath to speculate.

Rowe's relative chronology has been a vital contribution to the advancement of Central Andean archaeology. Rowe (1960) emphasized scientific rigor, the collection of data, and its strict interpretation. He was convinced that the prehistory of any culture area must be precisely synchronized, employing short time units, before more interpretative questions should be asked, otherwise archaeology would quickly descend into speculation governed by currently popular theories. Since pottery seriation could achieve a division of the past into shorter periods than radiocarbon or other absolute dating, ceramic seriations should be developed for each cultural sub-area. A master sequence should be located somewhere sufficiently

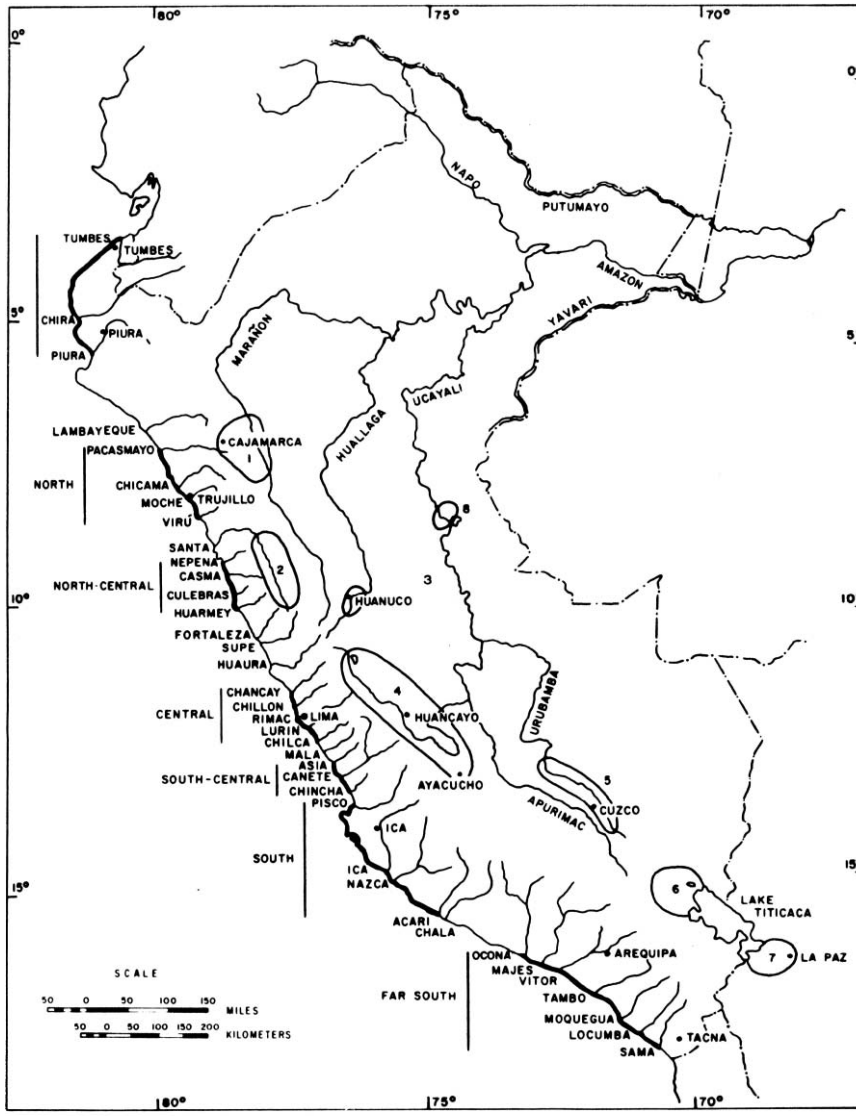
central to serve the entire area of the co-tradition, and it should be carefully attached to calendar time through radiocarbon and other absolute dates. Only this approach would provide temporal control precise enough to determine how events in neighboring sub-areas, within the region of the co-tradition—where interactions were surely multiple and complex—were related in time, and consequently, how they could have influenced one another in space. Without precise control of time across sub-area boundaries, inferences of diffusion as opposed to independent evolution were simply expressions of opinion.

Rowe and his students selected the Ica Valley on the South Coast for the Central Andean master sequence. Over the following decades major efforts determined relevant temporal units, the periods of regional diversification punctuated by periods of pan-regional interaction. Ceramic seriations were worked out for many of the periods as well as sub-areas adjacent to the Ica Valley. Radiocarbon dates were correlated with relatively short phases and epochs. As the system grew, accurate cross dating became increasingly precise with progressively more distant and earlier cultures. However, as we will see among the papers included in this volume, Rowe's chronological approach is being discarded by some Andeanists, as alternative and regionally unique chronologies are gaining popularity in several sub-areas. This is an issue to which we will return in our Conclusion.

REGIONAL ARCHAEOLOGY

The definition and location of the Peruvian co-tradition, as well as more or less agreed-upon divisions into cultural sub-areas were well established by Bennett, and subsequently by Rowe. Throughout the second half of the 20th century there have been few disagreements among archaeologists investigating the region, except for some differences regarding the margins.

Edward Lanning's (1967; Figure 1.3) archaeological Peru ran the length of the contemporary Peruvian coast, thereby extending farther north than Bennett's (1948) delimitation, and from Cajamarca to the Titicaca Basin in the south, like Bennett. In his review of *Peru Before the Incas*, Donald W. Lathrap (1969) criticized Lanning, among other things, for excluding the "tropical lowlands to the east of the Andes," which Lathrap saw as fundamentally implicated in the Andean cultural trajectory, and for minimizing the role of trade and interareal contact as far back as the Initial Period. As we pointed out above, Tello (1923) was the first proponent of this argument, which Lathrap championed and expanded throughout his career. Indeed, it was Lathrap (1969, 1970, 1971, 1985) and his students who carried out the first archaeological excavations in the eastern tropical forest, providing evidence that supported Tello's position. Their discovery of dense middens full of different pottery styles documented a succession of sedentary farmer groups, whose villages lay on the fertile banks of the great Amazonian tributaries as early as the first half of the second millennium BC. (The distinguished Peruvian historian, Pablo Macera, and the Seminario de Historia Rural Andina that he directed, inspired and assisted archaeologists such as Daniel Morales, Ruth



Map 1. Archaeological Regions of Peru: (1) Middle Marañon; (2) Callejón de Huaylas; (3) Upper Huallaga; (4) Mantaro; (5) Upper Urubamba; (6) Northern Titicaca Basin; (7) Southern Titicaca Basin; (8) Middle Ucayali

Figure 1.3. Edward P. Lanning's map of the Central Andean culture area with its subdivisions in his book, *Peru Before the Incas* (Lanning 1967: 31).

Shady, and Peter Kaulicke to carry out excavations in the northern and eastern margins of the Central Andean area as well, and they also contributed important new understandings about cultural relations between the Central Andes, Tropical Forest, and North Andean peoples.)

The delimitation of the northern end of the highlands by Lanning, and earlier by Bennett, reflected the lack of archaeological exploration beyond Cajamarca at the time they wrote. Of course, lack of information has plagued South American anthropology from its beginning. All formulations have been shaped by the information available at a particular moment, making it essential for periodic re-evaluations of traditional systems of organization.

Gordon Willey's (1971: 76–90) "Peruvian Culture Area" (characterized by a "Peruvian Cultural Tradition") built on Bennett's (1948) proposal, but recognized some of Lathrap's criticisms. Note the exclusion of Tumbes but inclusion of the eastern Andean slopes, and the use of the actual political border between Peru and Chile on his map (Figure 1.4).

Lumbreras' (1974: fig. 11a–e) "Chronological correlation between regional sequences in the Central Andes" has columns (the spatial dimension) that begin in the north with Lambayeque-Jequetepeque and end in the south with Chuquibamba, Arequipa, Tacna-Arica, Puno, Tiahuanaco, and Oruro. These latter columns do not have a comprehensive geographic title; "S. Highlands" is reserved for the Cuzco column. The eastern slopes are excluded, as is Piura north to Tumbes.

Richardson's (1994: 11) map in *Peoples of the Andes* includes Tumbes and, interestingly, labels it on the Ecuadorian side of the border. Although likely a mere technical decision of his illustrator, for us the lettering raises the transcendentally important theoretical issue of what "Andean" was in the prehistoric period. Did such a concept even exist? Richardson's map also excludes the eastern slopes and delimits the southern end of the archaeological Andes at the Ring Site and Chinchorro (northern extreme of Chile) for the early preceramic period and at Chiripa and Tiwanaku (northern extreme of Bolivia) for the three thousand years of prehispanic complex society.

Hocquenghem (1991) has presented a more nuanced and dynamic reading of regional patterns by recognizing the temporally shifting cultural boundary between the Central and North Andean cultural spheres. The theoretical premise of her important empirical documentation is that Andean productive and ideological organization were culturally produced to facilitate social reproduction.

Wilson (1999) revives the Stewardian perspective, but with an explicit, neo-evolutionary typology derived from from Johnson and Earle (1987), to generate a systems-hierarchical evolutionary description. In his scheme the Central Andes are strictly limited to that core area within which civilization (sensu lato) developed.

In addition to the perimetral definition of the Central Andes discussed above, the very geography of what today is the country of Peru creates an obvious dichotomy between coast and highland. But perhaps a trichotomy is more realistic, in view of the vast tract of riverine Amazonia that lies within the national territory (see Pulgar Vidal 1996).

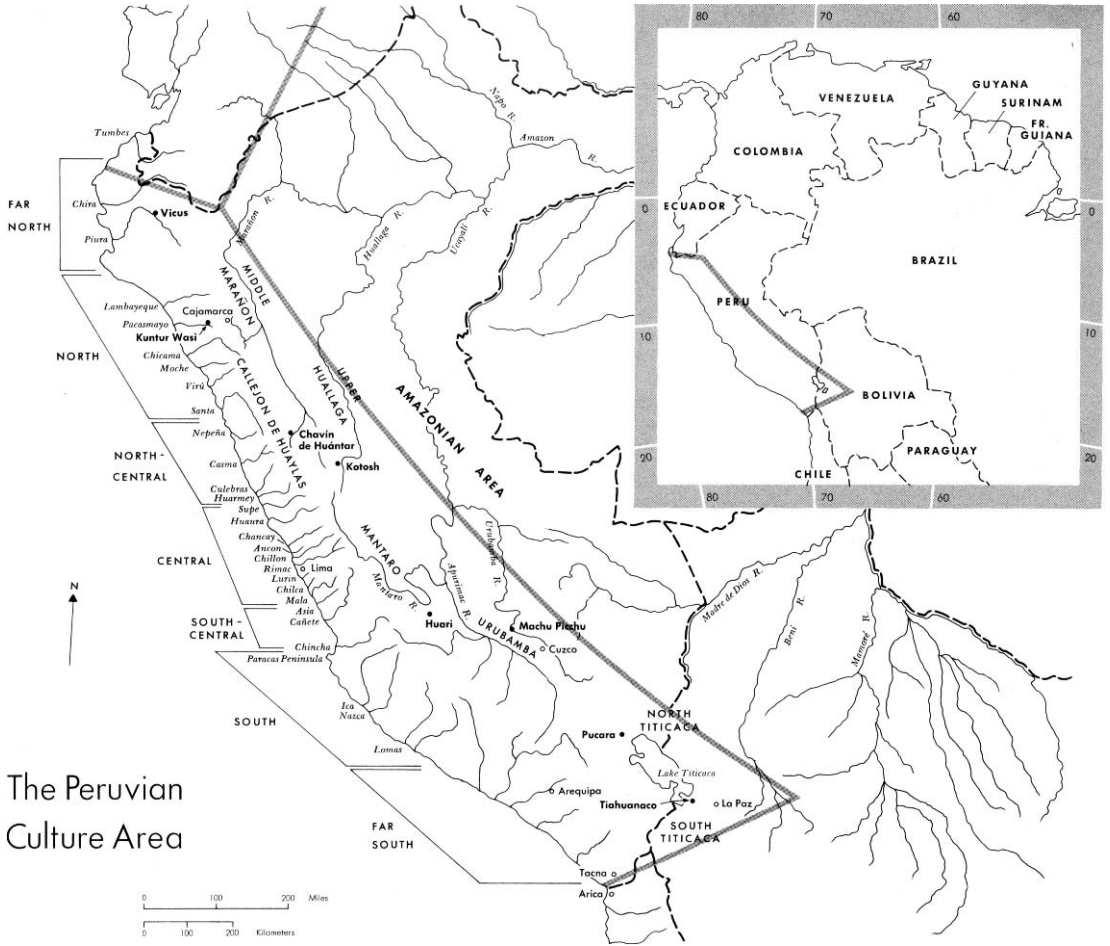


Figure 1.4. Gordon R. Willey's map of the Central Andean culture area with its subdivisions in his book, *Introduction to American Archaeology. Volume 2. South America* (Willey 1971: 78).

A strong concept of the Peruvian triumvirate of coast-highland-jungle came to dominate the Central Andean archaeological agenda following Murra's (1972) classic definition of the "vertical archipelago," or zonal complementarity. This integrated economic strategy involved exploiting discontinuous and contrastive lands through east-west, or up-and-down the mountains, movement of labor, from one resource to another in accord with a carefully programmed calendar. For the last thirty years many archaeologists have championed this ethnohistoric model as an explanation for important developments in the precolumbian past (Lumbreras 1974; Stanish 1992 inter alia). Of course, episodes of conquest or cultural preeminence originated in highly localized parts of the highlands and affected large swaths of the Andean montane as well as its adjacent low-lying coast (i.e., Chavín, Wari/Tiwanaku, Inca). Then, too, Lathrap was most persuasive about the need to extend our Andeanist geo-ecological gaze to the eastern jungles, in view of evidence for significant influence on and/or contact between tropical forest cultures and Central Andean (highland and coastal) societies. As pointed out above, Tello was the pioneer who first argued in favor of strong tropical forest roots for Andean culture. The point, however, is that the basic sightline of our academic endeavor has been latitudinal, so to speak, i.e., east-west, rather than longitudinal, i.e., north-south. Perhaps something of an exception is Izumi Shimada's (1982) appealing formulation about suites of coastal valleys, arrayed north to south (or vice versa), whose redundant resources constituted "horizontal archipelagos" with significant resource potential and environmental heterogeneity. However, the scale was always small.

No doubt, the regional patterns of concern to most archaeologists of the recent past have been "patterns of culture"—that normative notion guiding so much of early and mid-20th century anthropology by which culture was conceived as a bounded systems of beliefs and behaviors shared by all members of society. For decades without problematization and interrogation, we have delineated archaeological cultures based on the geographic distribution of an idealized range of pottery styles (style itself being a very complex issue) and other material traits. We have bounded these named constructs as if invisible walls prevented slippage between one side and the other, and variation within was hardly imaginable. Too often archaeologists have taken style to be isomorphic with society in the most uncomplicated manner (see below).

A MICRO VIEW

Influenced by the revolution in cultural anthropology that began in the 1970s, gained strength in the 1980s, and became a tidal wave in the 1990s (see discussion in Bonnell and Hunt 1999; Ortner 1984), a growing number of archaeologists embrace what we will generalize as postmodern theory expressed in postproccesual archaeology. Characterized by a great variety of approaches, these new contributions to regional patterns imply ever greater complexity. Culture and culture area are treated less as normative and more as the practice of historically situated agents,

deploying material culture (ranging in scale from pots to palaces) in accord with contingent awareness, and at the same time, unconsciousness of its influences. In alliance with or opposition to networks of other individuals prehistoric actors made daily decisions that had enormous consequences over the long run, or longue durée.

Deconstructing the above statement into its constituent elements we highlight the approach we have previously referred to as PAM (practice-agency-materiality) (Isbell and Silverman 2002: 377), which is complementary to Pauketat's (2001) history-focused emphasis on the constraints and practice implicated in the process of tradition-making—those patterns we can see in the archaeological record that have, in Pauketat's sense, a high social significance: the construction of culture/building of traditions through practice as daily action in social settings, with these actions being contingent on historical context (Pauketat 2001: 4–5).

Thus, as we look at the classic subdivisions of the Central Andes (in whatever iteration) we should be conscious that our intellectual classifications are not the same as the multiple overlapping and oppositional boundaries that members of prehistoric ancient societies (and smaller groups thereof) reproduced through their tangible and intangible daily and extraordinary embodied decisions.

REGIONAL PATTERNS

Archaeologists have different models of what the Central Andes are—from a quasi-monolithic entity of pristine civilization to intra-societally oscillating patterns of engagement. And this returns us to the topic of this volume. We have chosen "North and South" as our focus to begin to unpack the "thick culture" (referring to Geertz's sense of culture as internally consistent webs of significance, the texts of society enacted by cosmology, symbols, rituals, material culture, social arrangements: see Geertz 2000: 5; internal consistency has subsequently been challenged) of the ancient societies that flourished in the Central Andes, understood geographically as the coast and highlands of contemporary Peru. We are interested both in the historic specificities of each case study, as well as the comparative dimensions in temporal and spatial (local, regional, and supra-regional) terms. In our concluding chapter we build upon the discussion presented in this introduction and suggest that the cultural constellations that distinguish northern and southern Andean cultures were as important and significant as coast-highland differences in Central Andean prehistory, and likely so from quite early in prehistory. Indeed, the concept of "Central Andean culture" requires a thorough and new examination.

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Part II

The North

Introduction

William H. Isbell and Helaine Silverman

The dramatic increase in archaeological research on the north coast (here, the coast north of Lima) is well represented in the six chapters comprising this section of the volume. Included are revolutionary new data pertaining to the rise of civilization in the norte chico region (Shady; see also Haas and Creamer 2004; Haas et al. 2004); a fascinating new interpretation of Chankillo, a formerly enigmatic site now firmly dated to the late Early Horizon and interpreted as a fortified seat of religious power (Ghezzi); a critical analysis of the complex ethnic mosaic of competing and interacting coastal societies of the Early Intermediate Period (Kaulicke); new theoretical perspectives on the role of particular spatialities of Late Moche ritual activity in localized strategies of political empowerment in the northern zone of Mochica society and culture (Swenson); long overdue attention to the brilliant north highland societies of the Early Intermediate Period (Lau); and fresh insight into the Chimu political economy in terms of provincial utilitarian craft specialization (Tschauner).

Several themes or research directions can be extrapolated from this diverse set of papers. First is the growing attention of archaeologists to particular north coast areas, archaeological social formations, sites, and/or problems that have traditionally received less attention. Thus, the norte chico (Shady) now is clearly recognized as the extraordinary hearth within which major patterns of Andean culture were first elaborated, not the least of which was monumental architecture including sunken circular plazas, specifically in the "late Archaic" (or Preceramic VI as it is more commonly known among North American Peruvianists) and Initial Period. Indeed, Shady sees the origin of the state in Supe in the late Archaic Period. The Casma Valley, whose early (i.e., Initial Period and Early Horizon) sites were already well known and recognized as exceptionally diverse and complex in architectural form and societal context (e.g., S. Pozorski and T. Pozorski 1991, 1994a, b; T. Pozorski and S. Pozorski 1993; Tello 1956), continues to generate data of immense significance for interpreting larger nexi of engagements among multiple territorial units. Within this universe the oft-mentioned site of Chankillo is at last systematically studied (Ghezzi). The Vicús-Mochica relationship in the upper Piura Valley is a key venue for understanding both the empirical and theoretical significance of areal delimitation of the Central Andes (Kaulicke), as well as long-term intercultural

and intersocietal interactions antedating and following the Early Intermediate Period (see, e.g., Hocquenghem 1991). Since the discoveries at Sipán (Alva 1988, 1990) Mochica has emerged as the principal focus of north coast research with "los Mochica del norte" (Castillo and Donnan 1994) now receiving intensive investigation (e.g., Castillo 2001; Dillehay 2001; Swenson 2003, this volume), along with continued fieldwork in the southern core's capital at Huaca del Sol/Huaca de la Luna (see, e.g., Chapdelaine 2001, 2002). The Chimu are well known in their Moche Valley heartland. Here Tschauner extends the geopolitical lens away from our usual Chan Chan reference point to Lambayeque, a provincial area of Chimor. In so doing he discovers a far less centralized and politicized Chimu economy than the Chan Chan-centric view suggests. With the end of terrorism in Peru archaeologists are returning to the highlands, an area that has always been deficient in intensity of investigation in comparison to the preference for coastal research. George Lau is opening up new scholarly terrain with his study of Recuay and renewed attention to Cajamarca (this volume; Lau 2002).

Another theme running through several of these chapters is the role of religion and ritual in sociopolitical evolution and cohesion (Shady, Ghezzi, Swenson). This theme is not new. Twenty-five years ago, for instance, Coe (1981), Freidel (1981) and Keatinge (1981) reacted simultaneously against the materialist orientation of processual archaeology to argue, in a single volume, that religious ideology played a central role in the rise and maintenance of political complexity. Many other early postprocessualist examples could be cited, in addition to the earlier literature. Beyond the obvious monumental ceremonial architecture at Caral, Shady observes that numerous architectural features at Caral and other settlements in Supe appear in the Kotosh Religious Tradition (Burger and Salazar-Burger 1980, 1985), such as rooms with benches and hearths with subterranean ventilation ducts, wall niches, biconvex beads, and musical flutes. She concludes that "religion functioned as the instrument of cohesion and coercion, and it was very effective." In Casma during the late Early Horizon religion was so important that the Temple of the Pillars at Chankillo was by far the most significant product of public labor at the time, and its fortification contrasts with the rest of the site which was completely unprotected. This suggests that enemy capture of the ceremonial focus of a site effectively signified conquest of the power underwriting it, perhaps anticipating the "huaca capture" known from Inca (Rowe 1982: 109) and earlier times (e.g., Kolata 1993: 142). Swenson argues that "widespread feasting rites and the localized celebration of elite religious traditions by hinterland groups reinforced parochial political identities while simultaneously contributing to the popularization of Moche ideology in the region as a whole." Religion also figures in Kaulicke's unraveling of the multistylistic intricacies of the Upper Piura Valley. He argues that the prominence and attraction of the Vicús-Loma Negra center was not only "due to its economic prosperity and superior technology but also to its recognized importance as a major ceremonial center."

Household archaeology, practice theory and agency perspectives in archaeological interpretation have introduced a special sensitivity to kinship-based social and political relations in ancient complex societies. Swenson, for instance, speaks

about lower level kin groups that subverted elite authority and urban-based social control in the Jequetepeque region. He also argues that ritual production in the Late Moche period was the prerogative of local groups that were likely defined by kinship or lineage affiliation: "individual ceremonial sites that proliferated throughout the Jequetepeque countryside may have served as the temples of lineage divinities, who were elevated in status through identification with Moche supernaturals. . . separate kin groups or related sociopolitical associations. . . constructed ceremonial monuments to commemorate community-specific supernaturals and their worldly representatives." Tschauner interprets high numbers of serving vessels at Chimu centers as evidence of "frequent entertainment of guests in the elite households." In contrast, low-status households consumed exclusively domestic products. He concludes that "elite households that resided in the insular compounds at the centers engaged in essentially 'private' exchange relations with specialized craftspeople for these households' own consumption, in much the same way and from a similar variety of sources as non-elite households, albeit with somewhat different preferences."

Ethnicity is another theme running through several of these chapters. Lau is explicitly concerned with ethnicity in terms of boundary maintenance as expressed through Recuay and Cajamarca material culture, especially pottery. Kaulicke brilliantly analyzes the many pottery styles and influences present in the Upper Piura Valley and concludes that the Vicús pottery style is more related to Central Andean north coast Gallinazo than to a different "northern culture." Similarly, Mochica I (Moche I) is identified as a Central Andean north coast style, the "product of blending of Salinar, Gallinazo and earlier Formative elements," rather than being a foreign style. Kaulicke concludes that the different styles of the Upper Piura region might "reflect the existence of different types of elite or power groups within a single society, powerful enough to attract other distant elites anxious to share or imitate this power in otherwise distinct societies. Probably all of these polities were restricted to reduced territories."

All of these contributions are characterized by their authors' healthy reluctance to generalize for entire sociopolitical formations over vast distances. Rather than speaking monolithically of "Mochica culture" or "Chimu culture," for example, the scholars in this section of *Andean Archaeology III* offer highly nuanced, local readings of the archaeological record. Their research is revealing a range of varying dynamic strategies for the generation of political power and the social and economic interactions that accompany it.

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Chapter **2**

America's First City? The Case of Late Archaic Caral

Ruth Shady Solis
(translated by Catherine M. Bencic)

THE ORIGIN OF CIVILIZATION IN PERU

Civilization was achieved in north-central Peru during the 3rd millennium BC, between the Santa and Chillón valleys, including the interconnecting valleys toward the east and extending up to the Marañón and Huallaga Rivers (i.e., the region where civilization first emerged in the Central Andes consisted of coast, highlands and Andean forest). Here settlements with both public and domestic architecture have been identified.

Prior to my own project, published archaeological research about the north-central area of the Central Andes strongly suggested its precocious development. These previous investigations included coastal settlements such as Río Seco (Wendt 1964), Bandurria (Fung 1988), and Aspero (Feldman 1980) as well as investigations in highlands sites such as La Galgada (Grieder et al. 1988) and Huaricoto (Burger and Salazar-Burger 1980) and in Andean forest communities such as Kotosh in the Huallaga Basin (Izumi and Sono 1963; Izumi and Terada 1972) and Piruro in the Marañón Basin (Bonnier and Rozenberg 1988). These studies supported inferences that inhabitants lived in organized settlements with public buildings sharing architectural features as well as specific religious rites and ceremonies resulting from periodic interaction. The recurring presence of a group of cultural features in these societies has already been suggested to have been an integrated cultural complex, the Kotosh Religious Tradition (Burger and Salazar-Burger 1980, 1985).

The Supe Valley stands out among the valleys in this region for the quantity, size and complexity of monumental architecture within its settlements. The urban centers of Aspero, Piedra Parada, Era de Pando, Caral, Miraya, Lurihuasi, Pueblo Nuevo, Allpacoto, Peñico and Huacache, among others in the Supe Valley, were inhabited nearly contemporaneously with the Sumerian cities of Mesopotamia and the construction of the Pyramid of Sakara or the later pyramids of Giza in Egypt. But unlike Old World societies such as Mesopotamia, Egypt and India that had exchange networks of goods and knowledge allowing them to benefit from each other's experiences, the Peruvian process took place in total isolation from other societies on the continent. Indeed, the rise of civilization in Peru preceded

Mesoamerica, the other center of pristine civilization in America, by at least 1500 years.

Caral, in the Supe Valley, was the center of the greatest economic, social, political and religious dynamism of the epoch. Its geographic centricity within the area and its capacity for accumulating surplus from a complementary agricultural-fishing economy were strategic for interregional connections with societies situated in ecological zones with different resources and diverse adaptive experiences as well as distinctive goods. In this paper I review information on the geographic and social conditions of north-central Peru, as well as the settlements in the Supe Valley dating to the Late Archaic Period, as a framework for interpreting the natural and cultural characteristics of the settlement of Caral, its architecture and its excavated cultural contexts. Based on these interpretations and evidence, inferences are made about the economic, social, political and religious organization of Caral's inhabitants and the population of the Supe Valley and north-central Peru.

ARCHAEOLOGICAL RESEARCH IN SUPE AND THE IDENTIFICATION OF CARAL

The Supe Valley is short in length and cultivated lands along its margins are narrow. For this reason it is surprising that it contains so many settlements with monumental architecture. Despite this, and the proximity to Peru's capital of Lima, Supe's archaeological monuments have not been adequately investigated, perhaps because it has been assumed on very sketchy evidence that the spectacular monumental constructions were culturally affiliated with the Formative Period. Various studies, however, had already been published in the archaeological literature about the site of Aspero in Puerto Supe, demonstrating a pre-Formative date. Aspero was first registered by Uhle in 1905 (Uhle 1925), later identified by Willey and Corbett in 1941 (Willey and Corbett 1954), revisited in 1970 by Willey and Moseley (Moseley and Willey 1973) who recognized the existence of mounds with stepped platforms and the site's correct dating to the Late Preceramic rather than Formative period, and excavated by Feldman in the same year (Feldman 1980). Only through these last excavations, which yielded corrected dates of 2500 to 3055 BC and characterized the cultural remains, was Aspero assigned to the Late Archaic Period (commonly called Preceramic VI or Late Preceramic by North American archaeologists) of Peruvian cultural development.

Scholarly research, however, did not associate Aspero with other settlements in the valley, despite their greater size and architectural complexity. Since the results from Aspero were published by Moseley and Willey and by Feldman, a controversy has raged regarding the role that marine resources and fishing played relative to agriculture in the development of Andean civilization (Moseley 1975; Raymond 1981; Wilson 1981). Other work in the valley informs us about diverse archaeological aspects, including Kososk's (1965) visit and photography of Caral, that prompted suggestions about the importance of social developments on the Peruvian coast, Engel's (1987) surveys and excavated trenches at Caral, and the identification

and registration of more than one hundred archaeological sites in the Supe Valley by Williams and Merino (1979). Zechenter's (1988) interesting investigations at various archaeological sites in Supe identified marked differences in natural resources and seasonality among the ecozones of the valley and suggested a complex subsistence pattern based on the exploitation of a diverse group of resources.

Our archaeological survey along the lower and central Supe Valley in 1994–1995 (Shady et al. 2000: 13–48; Figure 2.1) revealed that among the societies in the north-central area, Supe was able to combine the gains of different adaptive experiences, and profit from production surpluses of diverse area populations. As a result of the 1994–1995 fieldwork we identified a recurrent architectural pattern in at least 18 settlements located along the valley edges (Shady et al. 2000: 13–48; see also Shady 1997a, 2000a, 2000b; Shady and Leyva 2003), but did not yet have evidence for their temporal and cultural affiliation. The real importance and significance of early Supe society and the Late Archaic Period for the origins of civilization were not fully demonstrated until we began excavations at Caral in 1996 (Shady 1997a, b). Caral [Endnote 1] was selected based on four criteria: the *size* of the site, its *architectural diversity*, the *layout* of its structures suggesting that an existing concept of spatial organization had been followed, and the *monumentality* of at least seven elevated structures of the 32 located on the site. After two months of excavations in six different sectors of the settlement we had revealed the first material and contextual evidence that allowed us to affiliate this site with the Late Archaic Period (Shady 1997a, b). Our work at the site has continued since 1994 to the present. Other work in neighboring valleys includes that done by Rafael Vega Centeno in 1998 in Fortaleza, and the survey of Jonathan Haas and Winifred Creamer in Fortaleza and Pativilca between 2002 and 2004.

SUPE VALLEY SITES DURING THE LATE ARCHAIC

Despite the Supe Valley's geographic conditions consisting of little tillable land and a river that is dry for most of the year, a minimum of 18 urban centers were erected within 45 kms of the coast (Shady et al. 2000: 13–48). All have groups of housing units and their respective public buildings, but the majority also exhibit monumental architecture (Figure 2.1b). Compared among themselves, the following observations may be made.

Distribution. The recorded sites are found in four zones: a) Aspero on the coast (1859.75 ha); b) Molino on the right border and Piedra Parada on the left border of the lower valley (9214.5 ha); c) Limán, Era de Pando, Pando, Pueblo Nuevo, Cerro Colorado and Allpacoto on the right border and Lurihuasi, Miraya, Chupacigarro and Caral on the left border of the lower central valley (8472 ha); and d) Huacache on the right border and Peñico, Cerro Blanco, Capilla and Jaiva on the left border of the upper central valley (7334.5 ha). It is worth noting that, although it is not the largest area, the majority of sites are concentrated in the lower central valley zone (10 of 18 sites in total). Furthermore, there appears to be an order in site locations, with a total of 9 settlements on each side of the river.

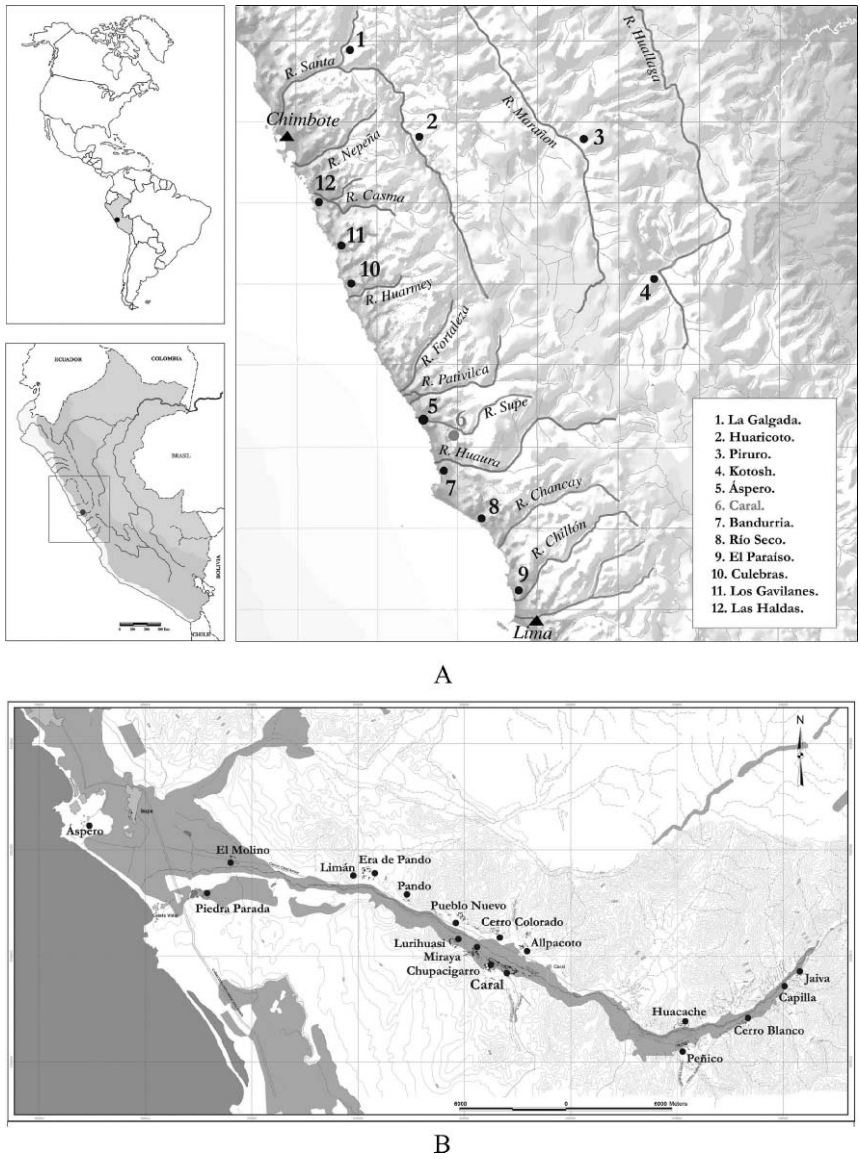

Figure 2.1. a. Caral in the Supe Valley, as well as other Late Archaic centers of northcentral Peru, the region where Central Andean civilization originated; b. The 18 Late Archaic sites identified in the Supe Valley.

Size. The sites vary in size (Table 2.1). The 55–80 ha range includes Era de Pando (79.74 ha), Caral (66 ha) and Pueblo Nuevo (55.01 ha). The 30–45 ha range includes Miraya (36 ha), Lurihuasi (37.8 ha), Piedra Parada (33.5 ha), and Chupacigarro (31.3 ha). The 15–25 ha range includes Allpacoto (23.10 ha), Peñico

Table 2.1. List of Late Archaic Period archaeological sites in the Supe Valley, by size in hectares.

Archaeological Sites	Hectares
Era de Pando	79.74
Caral	66.00
Pueblo Nuevo	55.01
Lurihuasi	37.80
Miraya	36.00
Piedra Parada	33.50
Chupacigarro	31.30
Allpacoto	23.10
Peñico	22.05
Áspero	18.80
Huacache	7.59
El Molino	6.96
Jaiva	4.20
Pando	1.95
Cerro Colorado	0.98
Cerro Blanco	0.80
Limán	0.48
Capilla	0.16

(22.05 ha) and Aspero (18.80 ha). The 5–10 ha range includes Huacache (7.59 ha), El Molino (6.96 ha) and Jaiva (4.20 ha). There are several sites smaller than 5 ha in size: Pando (1.95 ha), Cerro Colorado (0.98 ha), Cerro Blanco (0.80 ha), Limán (0.48 ha) and Capilla (0.16 ha). Of all, Era de Pando, Caral and Pueblo Nuevo are noteworthy for their large size, containing 47.08 % of the construction area in the valley. These sites are followed by a second group of four settlements: Miraya, Lurihuasi, Piedra Parada, and Chupacigarro, constituting 32.50 % of the total valley construction. These two groups together represent 79.58% of the valley's constructed surface area. The other three groups of sites occupy 15%, 4.39% and 1.01% of the surface area, respectively. Thus, eight of the 18 settlements represent only 5.42% of the constructed area. These results reveal a marked distinction that must reflect significant socioeconomic and functional differences among the urban centers' five size classes.

Investment of labor force in public construction. Calculations based on quantity and bulk of the structures from each site (Table 2.2) allow us to group them in the following manner: a) Pueblo Nuevo (28.99%) and Caral (27.31%); b) Miraya (12.85%), Era de Pando (8.54%) and Lurihuasi (7.04%); c) Allpacoto (3.76%), Peñico (3.12%) and El Molino (2.99%); d) Piedra Parada (1.67%) and Aspero (1.64%); e) Chupacigarro (0.87%) and Huacache (0.57%); f) Cerro Blanco (0.30%), Cerro Colorado (0.12%), Jaiva (0.10%), Pando (0.07%), Limán (0.05%) and Capilla (0.001%). This information indicates that 56.3% of the total labor investment was concentrated at Caral and Pueblo Nuevo. The group represented by Miraya, Era de Pando and Lurihuasi follows, with a total investment of 28.43%,

Table 2.2. Labor investment in the constructions at each site, in terms of percent of total.

Archaeological Sites	Percentage
Pueblo Nuevo	28.99
Caral	27.306
Miraya	12.853
Era de Pando	8.538
Lurihuasi	7.038
Allpacoto	3.761
Peñico	3.123
El Molino	2.987
Piedra Parada	1.67
Áspero	1.654
Chupacigarro	0.873
Huacache	0.565
Cerro Blanco	0.303
Cerro Colorado	0.123
Jaiva	0.103
Pando	0.066
Limán	0.046
Capilla	0.001

which represents only half that of the previous group. The third and fourth groups, comprised of five settlements, contain 13.18% of the total. In other words, one-fourth of the labor investment is represented by the first group of sites. Finally, the difference is notable between these and the fifth and sixth groups which, despite being comprised of eight settlements, barely exhibit 2.08% of the total labor force investment. It is important to emphasize that more than half of the labor investment is concentrated at only two sites: Pueblo Nuevo and Caral. The second group of settlements represents slightly more than another quarter of the labor, and together these five sites, Caral, Pueblo Nuevo, Miraya, Lurihuasi and Era de Pando constitute the principal centers of the Supe Valley, with Caral and Pueblo Nuevo standing out for their size and complexity as well as for the labor invested in their construction. They are both located in the lower central valley, on the left and right border, respectively.

Location. The largest and most complex urban centers are found in the lower central valley. Seven settlements with monumental architecture are distributed across an area of seven kilometers, three on the right border (Pueblo Nuevo, Cerro Colorado and Allpacoto) and another four on the left border (Lurihuasi, Miraya, Chupacigarro and Caral). At its height this would have been the "capital zone," strategically located for communication with neighboring lateral valleys and with the Andean altiplano from which contact with the inhabitants of other valleys was facilitated over a vast area. Of the seven settlements in this capital zone, four belong to size groups A and B, the first and second largest, one to C, one to D y one to E. The two other urban centers of size class A and B, Era de Pando and

Piedra Parada, are displaced toward the lower valley, but perhaps they attained their prestige during a later period.

Communication routes. The largest urban centers are located near access routes to the neighboring valleys, along ravines that run perpendicular to the valley. The centers of the capital zone, located on the right border, are connected across the Allpacoto ravine to the Pativilca and Fortaleza valleys; those on the left border are connected by various ravines which run to the valleys of Huaura, Chancay and upper Supe. Likewise, in the upper central valley, the urban centers of Peñico and Huacache have strategic locations, the first for access to the highlands of Supe and the adjacent expanse drained by the rivers of Huaura and Chancay; the second located between the central and upper Supe Valley approaches the heights of Pativilca and Fortaleza. Toward the coastal region, Era de Pando connects with the coast and the lower valleys of Supe, Pativilca and Fortaleza while Piedra Parada connects with the coast and the lower parts of the valleys of Supe and Huaura. Furthermore, a group of vegetable and marine products circulated throughout the interconnected routes of the area, along with ideology, knowledge, and technological advances.

Architectural features in the valleys of Pativilca and Fortaleza, similar to those found in Supe, indicate that the populations of the three valleys were closely connected, as much in the highlands as in the coastal area. While the Supe Valley contains the largest and most complex urban centers and was surely the principal seat of power and prestige, these three valleys may have participated in the direct development of Supe's social and political system. In turn, this civilization's influence extended to all of the north-central region discussed above.

CULTURAL SPACE IN THE SACRED CITY OF CARAL

Caral, located 182 kms north of Lima and 23 kms from the coast, is situated on an alluvial desert terrace at the beginning of Supe's central valley, 350 m above sea level. Its inhabitants resided in an arid environment encircled by hills and covered by dunes with red Bromeliads, (achupallas) isolated from the commotion of animals and people in the valley below. From the city, only the sky was visible, and the movement of heavenly bodies, in concert with the hills that framed the horizon. Twenty-five meters lower, the daily life of agriculturalists went on, also separated from the city by dense huarango forests (wild huisache). A leafy, diverse and almost impenetrable forest covered the river banks, channeling swelling, torrential river floods that from January to May resulted from heavy rains in the highlands. Communities on the two sides of the river were suddenly cut off from one another, as marshes expanded and the land filled with gnats and mosquitoes. During the summer months in the highlands, river water was replaced by irrigation canals distributing abundant spring water into cultivated fields. Deer, viscachas, doves and birds with colorful plumage populated this verdant land (see Shady 2001).

Caral extends over some 66 ha. The nuclear zone contains 32 public structures as well as various residential architectural groups, and a peripheral zone borders the valley where several groups of houses predominate (Figures 2.2, 2.3). The

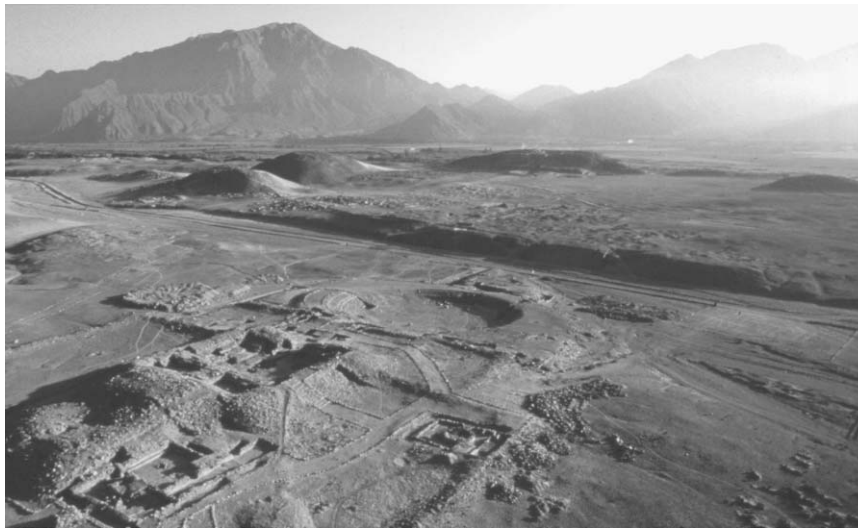

Figure 2.2. Panoramic view of the Sacred City of Caral. The Temple of the Amphitheater is in the foreground and the division between halves follows the dark, shadowed embankment. The large plaza of the Upper Half is located beyond the bank, and bordered (from left to right) by the Quarry Pyramid, the Central Pyramid, the Great Pyramid and the Lesser Pyramid. The cultivated Supe Valley bottom, and hills of the opposite side constitute the background (Photo: George Steinmetz).

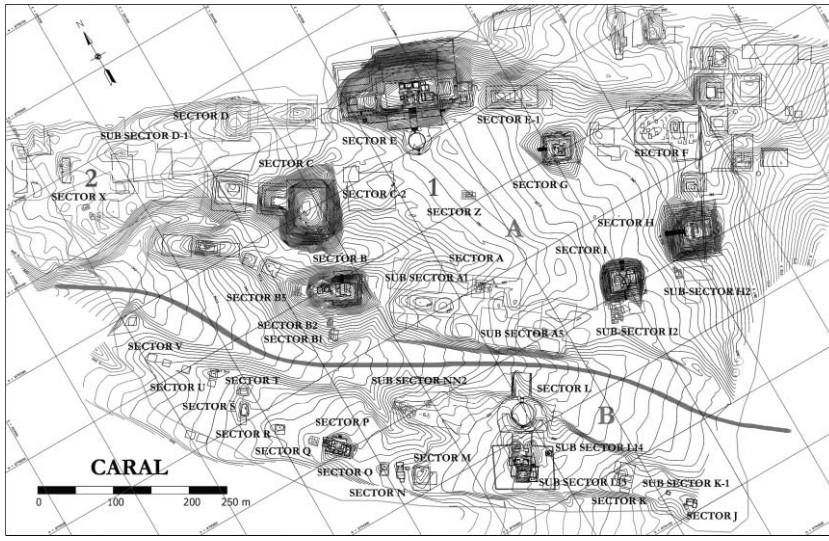

Figure 2.3. General map of the Sacred City of Caral showing the upper half (A) and lower half (B) of the nuclear area (1), sectors designated by letters, and the residential periphery (2).

arrangement of the architectural structures implies a spatial ordering that preceded construction and the elaboration of a planned design of the city, that recognized important social organizational criteria, such as hierarchical social strata and symbolic divisions into halves—upper and lower, right and left. These were combined with astronomical criteria related to specific religious deities.

In the nuclear space, structures are grouped into two great halves: an upper half, where the most impressive pyramidal structures (one of these with a circular sunken court) are located, and a lower half with smaller public structures, except for one large complex that also has an circular sunken court attached (see Figure 2.3). This spatial organization likely expresses the later known traditional Andean dual division into *hanan* and *hurin* (upper and lower, respectively). The pyramidal structures vary in size and exhibit distinct components but all share a model for the facade that is similar in style and design. All exhibit a similar construction pattern with superimposed terraces placed at intervals, contained by stone walls; each facade has a fixed stellar orientation and an axis that internally divides the space. This axis is usually marked by a staircase traversing the center of the terraces from the base to the summit, also dividing the building into a central body with two extensions, one to the right and to the other to the left, each with rooms and passageways. The central body of each structure consists of segments differentiated by their sequential location at distinct elevations.

Public buildings were constructed of different materials, preferably stone for the most notable ones; in the late period cut stone blocks became popular, interspersed with small stones and held together with mortar of clay that contained little rocks as well. Many structures have rooms of sticks and reeds distributed about terraces constructed and walled with stone. These walls are plastered with clay and colored white, yellow or red, colors that changed during specific reconstruction periods. Due to the architectural pattern and the context of the components, it is likely that these public buildings had religious as well as economic and administrative functions.

Below I present a brief description of the buildings excavated, with an emphasis on the most representative structures of the two halves, those associated with circular courts.

The Upper Half of Caral

In the upper half of the city six large pyramidal structures, one circular court, an extensive residential group and various groupings of residences, each located in relation to a specific pyramid (see Figure 2.3), are noteworthy. All the structures encircle a large multifunctional open space or plaza. In this area we may differentiate two subgroups, one to the west, comprised of the Great Pyramid, the Central Pyramid, the Quarry Pyramid and the Lesser Pyramid. The subgroup to the east included the Pyramid of the Gallery and the Pyramid of the Huanca (*huanca*: a tall, upright stone, usually not carved), for a monolith was set in the space between the two.

The Great Pyramid (Sector E)

This is the largest and most extensive architectural complex of the city (Figures 2.3, 2.4). It measures 170.8 m from east to west and 149.7 m north to south; the facade which faces south is 19.3 m in height while on the north side, toward the valley,

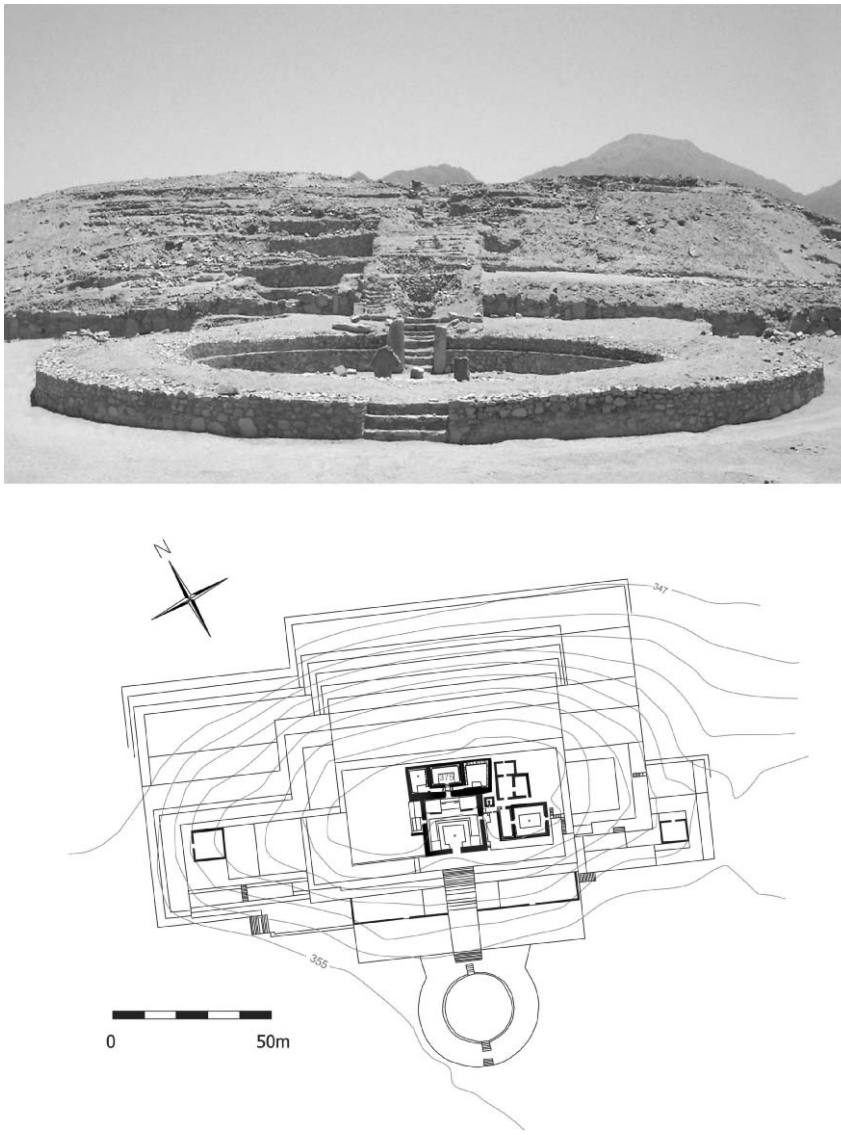

Figure 2.4. Photograph of the facade and plan drawing of the Great Temple and its circular plaza (Sector E) in the upper half of Caral.

the mound reaches 29.9 m. It is comprised of a dominant circular sunken court and an imposing stepped pyramidal structure constituted by a central body, containing the bulk of the construction, and two side components (one to the east and the other to the west) of smaller size (Figure 2.4, plan).

The circular court consists of a sunken space, delimited by two parallel circular walls. The court's interior wall reaches 3.0 m in height and the other on the exterior is between 1.0 and 1.6 m high. The space between the two forms a elevated circular platform 7 m wide. The court's external diameter measures 35.5 m and the sunken interior is 21.5 m across. An entrance stairway leads up from the exterior, up the south side, in line with axial staircase of the pyramid. On the north-south axis, two other staircases descend the depression, each framed by two large upright monoliths. Another monolith, now fallen must have been located at the center of the court, although its precise position has now been lost. The internal wall of stone blocks is displaced back 40 cms at an elevation of 1.4 m, giving it a stepped appearance. The walls, stairs and floors of the plaza were plastered and painted.

The plaza is attached to a pyramidal structure by means of a trapezoidal platform. The northern staircase of the plaza continues until joining with a central staircase 9 m wide which leads to the pyramid's peak (Shady, Machacuay and Aramburú 2000: 2–25).

Due to its size, location and its association with the circular court, this was probably the city's principal public building. At the front, on both sides of the central staircase, a series of superimposed platforms give the facade a stepped effect. The peak of the pyramid affords a panoramic view of the entire city and valley. Experiencing this view usually impresses observers, underscoring the pyramid's imposing height of almost 30 m, as well as its area and architectural volume.

The pyramidal structure contains evidence of a prolonged occupation with successive periods of construction and remodeling. Three main periods of change may be distinguished: the construction of the Late period rooms suggests the covering or burying of others from the Middle period by means of a voluminous rock fill contained in bags or shicras, over which new floors and walls were created. Likewise, Middle period dwellings were erected over the previous burial of the Early period structure. Furthermore, between each of these periods successive phases of architectural remodeling or other minor changes took place.

In the central body of the pyramid, which is the highest, various components may be identified arranged at different levels yet following the central axis and connected by means of stairs and doorways. On the platforms of the facade is a series of rooms. The main doorway at the summit leads to three spaces that continue one beyond the other: 1) the ceremonial atrium or enclosure, which is entered through a doorway of stepped shape and composed of a series of walls from successive periods that abut one another. It has a hearth in the center and a series of tiered platforms placed at intervals like steps; 2) an elevated platform through which the atrium is accessed, with two rooms, one on each side; 3) the halls of the highest section are presided over by elevated platforms. One space is noteworthy for the large platform that nearly fills it, with decorated walls consisting of rows of

faces modeled with the small niches and reliefs. The atrium is also connected with other side components by means of openings and corridors, which lead to rooms located on the east and west sides.

The Small Quadrangular Altar is found to the east of the atrium and contains a central hearth, a fireplace and a subterranean ventilation duct, similar in function to the various altars that we have identified in association with other buildings of the city. The altar is associated with a group of halls decorated with friezes and niches which are accessed by means of stairs, passageways and openings.

This architectural complex functioned for nearly a millenium; it contains well-preserved evidence for various construction periods and the successive phases of remodeling. The wall of the oldest circular plaza has recently been found, located underneath the terraces of the facade, to the north of where the plaza previously described is located.

The Quarry Pyramid (Sector B)

This structure is located to the southwest of the Great Pyramid, toward which its front faces, in the middle of the central space. It measures 44 m from north to south, 65.6 m from east to west and is 13.8 m in height. A rocky outcropping of coarse-grained diorite was partially utilized in its construction. On the east side of the natural promontory a series of terraces was constructed to achieve the desired mass with various enclosures constructed over the terraces; the base of the west side was utilized as a quarry in earlier periods.

The front of the building contains a central staircase 4.2 m wide, flanked by nine terraces of various dimensions, which lead to the peak of the pyramidal structure. Notable here is a large enclosure with niches in the walls and a circular altar, 8 m in external diameter, with a circular platform 30 cms high encircling a lower space 3.7 m in diameter, in the center of which a large hearth 82 cms in diameter with a subterranean ventilation duct is located. The walls are built of cut stones, held together with mortar and painted white.

Like the other pyramidal structures of the city, this one contains evidence for successive periods of occupation. In the earliest occupations the rooms were constructed of organic material but later stone blocks were used. In both cases the walls were plastered with fine clay and painted white, yellow or red.

Various figurines of fine unfired clay were recovered, deposited in the ritual interments of some rooms.

On the south and west sides of the Quarry Pyramid are residential units that were inhabited by households associated with its functions.

Residential Unit B1

This unit is one of the dwellings located on the south side of the Quarry Pyramid. It has an area of 16.0 × 12.9 m in area and contains nine rooms with small platforms, benches and hearths. It exhibits evidence for various remodelings during its occupation. The building is constructed with cut stones of coarse-grained diorite,

held together with mud mortar. The faces of the walls are plastered and painted red, white and yellow.

Domestic waste was found in the rear exterior of the dwelling. The refuse yielded mollusk shells, fish vertebrae, plant remains, burnt rocks and distinct foods which suggested elite consumption: sea lion and deer bones. In order to reduce the volume of trash and keep the area around the residence clean, refuse was periodically burned and the resulting ash was utilized in construction fill for platforms, benches or new floors.

Based on location and size, as well as its contents and the construction material utilized, this dwelling has been interpreted as belonging to a high status social group within Caral's social hierarchy, that was attached to the Quarry Pyramid.

Residential Unit B2

This unit consists of a dwelling measuring 10.6 × 7.9 m in area. It contains seven enclosures among which one, dominated by a platform and small areas used as storage chambers, is noteworthy. In the earliest times the dwelling had a greater area than during the final occupation. Although more excavations are necessary we may point out that, as occurred with the other buildings of Caral, this unit exhibits numerous constructions through time with variations in the architectural design. The area contains a large quantity of domestic waste which was burned and the ash utilized in the fill of some rooms when floors were built. Construction materials consist of cut stones of coarse-grained diorite held together with mud mortar. The wall faces were plastered with clay and painted red, white or yellow, according to the corresponding period. As in Residential Unit B1, this residence was inhabited by high status individuals, related to the functions of the Quarry Pyramid.

Residential Unit B5

This large dwelling is located on the west side of the Quary Pyramid, on an outcrop of coarse-grained diorite. It measures 12.6 × 11 m and exhibits successive occupations through time. In the older periods the walls had wooden supports interwoven with fine reeds (*Gynerium sagitattum*), covered with mud and clay mortar and painted. In the domestic refuse, deposited in the exterior of the dwelling, mollusk shells, fish vertebrae, plant remains and burnt rocks were found. The location of this residence adjacent to the Quarry Pyramid, the painstaking construction finish and the leveling of the ground suggest that this residential unit belonged to individuals of high social status, associated with functions in the public building.

The Lesser Pyramid (Sector G)

This structure is located on the northeast side of the open central space of the upper half of the city and to the east of the Great Pyramid, toward which its facade is oriented. It measures 49.9 m on the east-west axis, 43.3 m from north to south and reaches a height of 10 m. It is formed by stepped terraces contained by walls of large stone blocks held together by gray-colored mortar, plastered and painted

yellow. To the west the facade exhibits a central stairway 4.65 m wide that leads to the peak. Behind the pyramid, on the east side, a low mound may be observed that contains structures of residential character associated with this public building. In the area surrounding the pyramid evidence of domestic activities, organic material, ash and fragments of lithic artifacts were recovered.

The Pyramid of the Gallery (Sector H)

This pyramidal structure is located to the east of the central space of the upper half of the city. It measures 71.9 m on the north-south axis, 68.5 m from east to west and is 18.6 m high. It is formed by superimposed terraces, contained by walls of large cut stone blocks held together by mud mortar and painted white. On the west facade there is a central stairway 6.8 m wide. As in other structures, this one also shows the combination of stone-wall sustaining platforms that support enclosures constructed with organic wood and reed poles, plastered and painted white. Also, like the other structures it was elevated by means of rock fill contained in bags or shicras. Worth noting is a subterranean gallery that is accessed by a long passageway. This gallery is 4.5 m long, 2.5 m wide and has seven niches on the internal walls, three on each side and one on the wall facing the entrance. The wall faces and the niches were plastered and painted white. It is associated with a monolith resembling a lance.

This pyramidal structure contains evidence of successive reconstructions during its occupation. Two mats, a well-preserved fragment of cotton clothing and 25 whale vertebrae, polished and in good condition, were recovered. Based on the particular architectural characteristics, the size and bulk, and its third rank status among all of Caral's building complexes, it may be suggested that the managers of this complex exercised a very important role in the city.

The remains of a group of dwellings associated with this public building are located in the lower part of its southwest side.

The Pyramid of the Huanca (Sector I)

This building has a quadrangular plan and is located in the extreme southeast in the upper half of the city, in the east subgroup. The facade is oriented toward the urban space shared with the Pyramid of the Gallery, dominated by a large monolith or huanca, 2.15 m high, that seems to have been the axis joining the two buildings. This pyramidal structure has the typical stepped profile, consisting of five superimposed terraces and four sides. It measures 54 m on the east-west axis, 52 m from north to south and reaches 12.8 m in height. A central stairway 5.5 m wide leads to the peak. Notable among the finds is a headdress of vegetable fiber.

Residential Group I2

In the rear and to the southwest of the Pyramid of the Huanca are two large and contiguous residences, one measuring 286 sq m and the other 158.2 sq m (Figure 2.6). Both exhibit plans of complex design. Their entrances are oriented

toward the west and the two have a principal room in the style of an atrium, as well as annex rooms, storage chambers and a patio where domestic as well as social and ritual activities took place. Like all of the buildings at Caral, these dwellings reveal distinct construction periods with each having its own characteristics. The residential group is attached to the pyramid and was inhabited by high status families that held important social positions in the city.

The Large Residential Group (Sector A)

This residential group is located on the south side of the central space of the upper half of the city, on the edge and along the terrace that borders the other half of the city. It is comprised of a series of residential subgroups, arranged spatially in a particular order, and measures 20,235.8 sq m. The facades of the dwellings are oriented toward the public buildings of the upper half. One of the subgroups contains dwellings constructed with rush wattle surrounded by stone walls. It was possible to identify successive phases of remodeling and interments of rooms associated with offerings of willow bundles, burnt textiles, fragments of figurines, plant remains, etc. The location of this group of residences, its architectural pattern, the size of the structures, the construction material, and the context of the finds suggest that the occupants of these dwellings had a third rank status among the inhabitants of Caral.

Lower Half of Caral

In this section of the city, the distribution of the buildings differs from the other half as they are found to be aligned in an east-west axis, on a low terrace, although the facade faces in the direction of the upper half (see Figure 2.3). In general, the buildings are smaller than those of the upper half and there are no large to medium-sized pyramidal structures, only small ones. This section, however, contains a unique structure with a sequence of platforms called the Temple of the Amphitheater for its position attached to the largest circular subterranean court of the city. Individual complexes are discussed below.

Temple of the Amphitheater (Sector L)

This structure consists of a walled complex integrated by various architectural components: a platform with a series of aligned cubicles; a circular sunken plaza and a building with platforms that ascend sequentially (Figure 2.5). Likewise, inside its perimeter on the east side it has a circular altar and an elite dwelling; and on the west side a group of rooms. It measures 157.4 m $\times$ 81.6 m and is 7.9 m high.

Projecting north from the complex is a rectangular platform 26 m wide and 3.2 m high that has been cut on the north side by erosion. The east and west sides of this platform contain a series of aligned cubicles alternating with solid spaces. This component was added during a period of significant reconstruction, which changed the original design of the complex's facade.

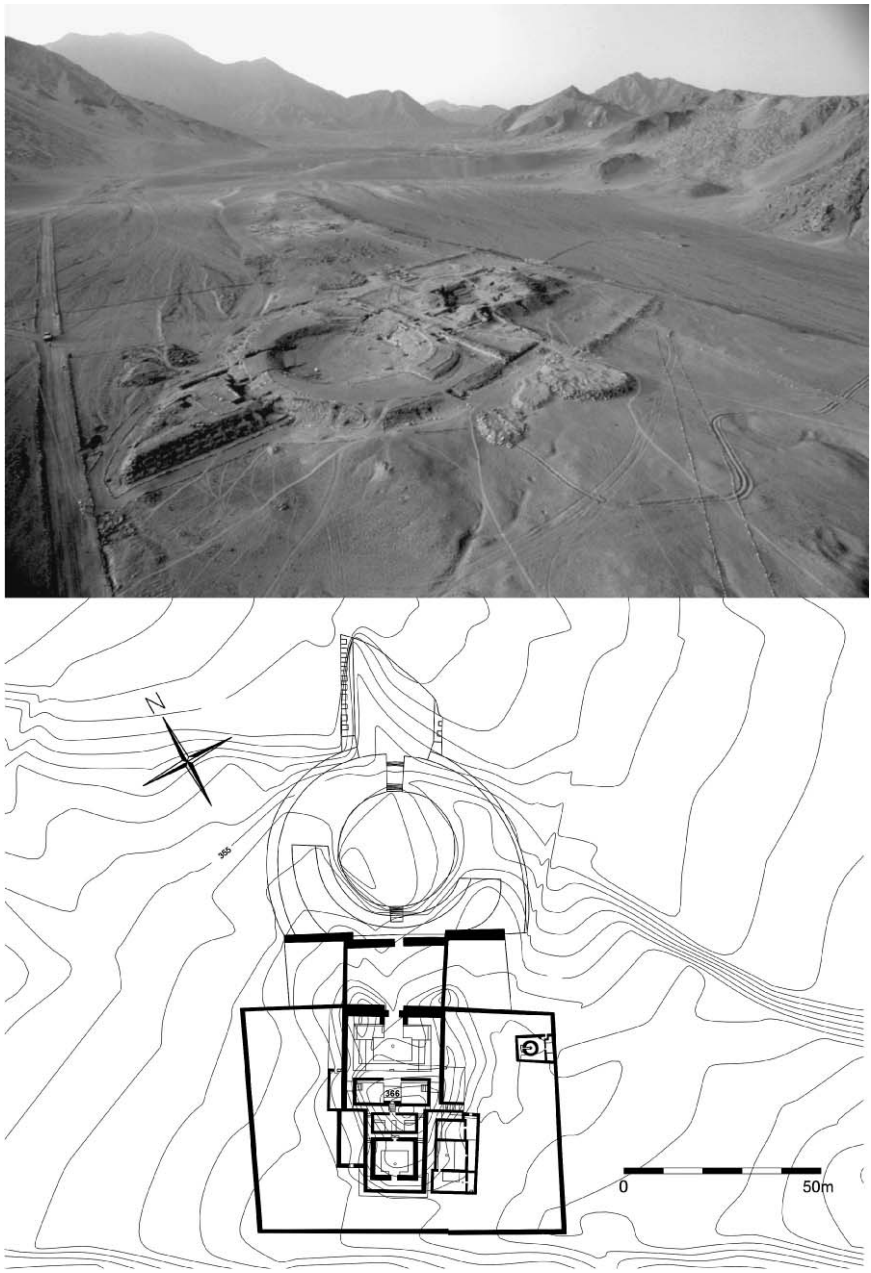

Figure 2.5. Oblique aerial view and plan drawing of the Temple of the Amphitheater (Sector L) in the lower half of Caral (Photo: Walter Wust).

Figure 2.6. Photograph and plan drawing of residential group, Sector I, Subsector I2.

The circular subterranean court resembles an amphitheater with tiered seats in the upper half and two main access stairways, located on the central axis, to which an entrance opening to the pyramidal building was also aligned. The internal wall of the court was decorated with small niches before the construction of the tiered seats. The exterior of the court is surrounded by two walls which form a concentric platform. The oldest version of this platform and court exhibits an impressive stairway in the front, by which one ascended, crossed the raised surface, and then descended into the court, that was in use before the north projecting platform was constructed. On the upper southwest side of the court a group of 32 flutes, manufactured from condor and pelican bones, was recovered (Figure 2.9, lower half). Nearby, on the east side of the architectural complex, a group of 38 bugles, manufactured from camelid and deer bones, was found.

In the building with platforms four large components may be differentiated, organized along the same axis: the antechamber, the atrium, the large rooms to the rear of the hall and the upper rooms. The south front steps of the circular plaza provide access to the antechamber of the temple, which consists of three large rooms. From the antechamber the hall may be reached by means of an entrance passage that has a plan design like a cross or *chacana*. This room has three stepped platforms in the style of tiered seats surrounding a quadrangular space, around whose center a large ceremonial hearth is located. In this setting, the most prominent and exclusive rituals of the city were probably carried out. The floor of the atrium is painted black.

From the atrium one ascends to the rear component by means of a central stairway, which was constructed over a raised terrace. It consists of two rectangular rooms separated by a central platform; each of these rooms has its own lateral staircase. The wall is decorated in relief. The staircase rises through the center of the platform up to the peak where a group of rooms is found.

To the east of the temple within its walled perimeter a small architectural complex is located, dominated by a circular altar, likewise walled, which indicates a private space. It is evident that due to its location, formal characteristics, size and controlled access, the use of this complex was highly restricted and the functionary official in charge had a special status within the complex and the city. The plan has a trapezoidal form integrated by three components: 1) a small space surrounding the central structure with a silo in the southwest corner, connected to the exterior by means of a small opening through the wall. The floor shows sections of a reddish coloration due to fire; 2) two small rooms separated by a central platform, located on the east side, near the entrance, of probable administrative function, and 3) the central room, of circular shape with a hearth located in its center, as well as subterranean ventilation ducts, of strictly ritual function. The access opening is at the extreme east of the north wall. The walls are of stone, plastered and painted; the roof was constructed of reeds tied with cordage. The walls and floors were periodically painted (Shady, Machacuay and López 2000: 2–19).

The hearth built in the center of this circular room is oval in shape and has two levels. Its diameter was reduced in the successive remodelings. Two subterranean ventilation ducts enter near the floor of the hearth. As a result of incineration a

large quantity of ash was recovered from the hearth. In addition, the openings of the ducts contained carbon remains, shell, bone, seeds, gourds, and fragments of artifacts. Only the individual in charge of burning the offerings would have had access to the hearth.

The Elite Building (Subsector L13)

This building was constructed on the southeast side of the Temple of the Amphitheater, within the perimeter of this complex and is directly connected to the building of the temple (Figure 2.5). It occupies an area of 200 sq m divided into three large rooms and a passageway. The walls were constructed with large stone blocks and plastered with yellow clay. The rooms are connected by means of openings and alleys; the interior contains platforms and benches. A corridor, running from north to south, separates this dwelling from the temple. On the north side, exterior of the dwelling, a stairway is present which connected to the temple in the Late period. On the east side of the temple and within the walled perimeter there are, likewise, two large spaces arranged at different levels; on one of these a group of 38 bugles was recovered (see above). On the west side of the temple (subsector L17) and within the perimeter there is a series of small rooms, with walls of organic material, platforms, hearths and remains of lithic tools and domestic activities.

The Small Temple with Bench (Sector N)

This is a smaller building, located approximately 140 m to the west of the Temple of the Amphitheater. It measures 25.9 × 10.91 m and is 3.5 m high. It presents the following components: an antechamber, the atrium, and rooms to the rear of the atrium and a patio.

The Small Residential Group (Sector NN2)

This group of dwellings is located in the lower half of the city, north of the row of public buildings. The hill on which it was placed was leveled and raised by constructing several low terraces. The complex occupies 4,987.0 sq m of area, which is small by comparison with the residential complexes of the upper half of the city. Furthermore, each house within is smaller than most counterparts from the city's upper half.

The dwellings are quadrangular in shape and vary in dimensions; some are scarcely 49 sq m while others are 80 sq m. Each is subdivided into smaller rooms with floors at different levels. In some cases the rooms include platforms and benches. The main entrances are oriented toward the north, and just inside are hearths that replicate the ceremonial space of the temples. Each habitation unit has a rear doorway that connects to patios and annex rooms in which domestic and production activities were carried out.

The walls of each residential unit are constructed of a framework of wooden posts that united panels composed of canes fastened together with braided ropes of cattail (*Typha domingensis*) and bulrushes (*Schoenoplectus sp.*). This structural

framework was coated with clay and ultimately plastered and painted. During excavation of the residences, a large quantity of bone, stone and wood work, textile fragments and abundant organic plant and animal materials were recovered.

Pyramid of the Circular Altar (Sector P)

This structure is located in the central part of the lower half and is the second-largest in size in this area of the city. It measures 44 m from east to west by 27 m from north to south and is 5.9 m high.

The pyramidal structure consists of three components: the principal component or nucleus, which is the largest, located in the center, where it houses the atrium, as well as the rear and two side rooms or annexes to the east and to the west, which are smaller. Three access openings may be distinguished: the most notable one is located in the facade and two additional ones are located on the west side.

The facade exhibits walls constructed of large stone blocks, with a central stairway 4 m wide which, by way of an opening, leads to a room or atrium at the top that is dominated by a hearth and encircled by platforms. Behind the atrium a platform and seven rooms are found, two of which repeat the design of the atrium in smaller scale.

The east component contains six quadrangular rooms which likely had a function complementary to the atrium. Notable in this component is a doorway with a lintel, 1.7 m high, providing access to a setting utilized during the oldest occupation periods.

The west component contains two entrance stairways: one, located to the southwest which connects with the exterior of the rooms in the rear of the atrium; and the northwest stairway which, before being closed off, led to a circular altar 2.7 m in diameter that has an access opening on the south side. In the interior, a circular platform encloses a lower space whose center contains a hearth with a ventilation duct.

Specialized Craft Workshop (Sector J)

This workshop is located in the extreme east of the lower half of the city. It is formed by three quadrangular rooms. It measures 10.20×14.97 m and 2 m high. On the floors small cavities sealed with a layer of clay are present, which contained beads of crisacola, milky quartz, rock crystal, Spondylus and opercles. Together with these, debitage as well as stone and bone tools were found. The archaeological evidence suggests that these rooms were utilized as craft production workshops, supplying sumptuary goods.

Residential Sector of the City Periphery (Sector X)

This sector consists of an extensive group of dwellings constructed on the terrace adjacent to the valley, between the nuclear zone of the city and the cultivation fields. The dwellings are arranged into various subgroups or hamlets along the terrace.

One subgroup of 300 sq m was excavated that contains various domestic units with a series of small interior rooms with benches, platforms and hearths arranged in an ordered manner, accommodated to the topographic configuration of the area. Organic materials as well as wood and reed posts were used in construction; techniques varied through time. The shape and contents of the habitations that form this subgroup suggest domestic, social and ritual activities. Food refuse was found outside the dwellings.

As in other parts of the city it was possible to determine architectural changes throughout the occupation, consisting of the enlargement and division of rooms, renovation of floors and hearths, addition of fills, interment of previous buildings and the use of many classes of materials and construction techniques. The inhabitants of this sector, together with residents of similar status from other settlements of the area constituted the most important labor force of the city.

ECONOMIC ACTIVITIES OF THE PEOPLE OF SUPE

Although Caral is located 25 kms from the ocean, its occupants consumed huge quantities of fish and mollusks including Peruvian anchovies (*Engraulis ringens*), sardines (*Sardinops sagax*), sea mollusks (*Mesodesma donacium*) and mussels (*Choromytilus chorus*), products that were selected among others, by the consumers or distributors (see Table 2.3; Figure 2.9 top and first row). The absence of nets or other fishing implements at Caral suggests the acquisition of these products

Table 2.3. Principal fish species identified at Caral.

Species	Common Name	NISP	Percentage (%)
Engraulis ringens	Peruvian anchoveta	137.45	86.854
Sardinops sagax	Sardine	19.809	12.517
Sciaena deliciosa	*Lorna*	469	0.296
Ethmidum maculatum	*Machete*	360	0.227
Cilus gilberti	*Corvina*	38	0.024
Cynoscion analis	*Cachema*	33	0.021
Isacia conceptionis	*Cabinza*	8	0.005
Seriolella violacea	*Cojinova*	2	0.001
Mugil cephalus	*Lisa*	2	0.001
Trachurus murphyi	*Jurel*	24	0.015
Paralonchurus peruanus	Coconut	34	0.021
Sarda chiliensis	*Bonito*	3	0.002
Odontesthes regia	*Pejerrey*	2	0.001
Anisotremus scapularis	*Chita*	2	0.001
Galeichthys peruvianus	Catfish	10	0.006
Anchoa nasus	Anchovy	1	0.001
Mustelus sp.	*Tollo*	3	0.002
Sciaena starsy	*Róbalo* (Sea Bass)	4	0.003
Total	**—**	**158.254**	**99.99**

Table 2.4. Food plants identified at Caral.

Family	Species	Common Name	No. of Remains	Percentage (%)
Cucurbitaceae	*Cucurbita moschata*	*Lacayote*	29	0.008
Fabaceae	*Inga feuillei*	*Pacay*	1.946	0.558
Fabaceae	*Phaseolus lunatus*	Lima bean	37	0.01
Fabaceae	*Phaseolus vulgaris*	Bean	22	0.006
Malpighiaceae	*Bunchosia armeniaca*	Plum	1	0.001
Poaceae	*Zea mays*	Maize	3	0.001
Cucurbitaceae	*Cucurbita moschata*	*Chayote*	1	0.001
Cucurbitaceae	*Cucurbita sp.*	Squash	115	0.032
Convolvulaceae	*Ipomoea batatas*	Sweet potato	24	0.007
Cannaceae	*Canna edulis*	*Achira*	76	0.022
Myrtaceae	*Psidium guajava*	Guava	346.387	99.327
Myrtaceae	*Campomanesia lineatifolia*	*Palillo*	41	0.012
Bixaceae	*Bixa orellana*	*Achiote*	16	0.004
Solanaceae	*Capsicum frutescens*	Chili pepper	12	0.003
Lauraceae	*Persea americana*	Avocado	2	0.001
Sapotaceae	*Pouteria lucuma*	*Lúcuma*	21	0.006
Annonaceae	*Annona muricata*	*Guanabana*	1	0.001
Total	**—**	**—**	**348.734**	**100**

was through exchange with coastal populations, such as their contemporaries at Bandurria and Aspero (Figure 2.1 a, b), where fishhooks and nets have been recovered, and with whom they share cultural traits. Consistent with this, the abundant presence of cotton seeds (*Gossypium barbadense*) at Caral may be due to a special emphasis that the inhabitants of the valley placed on this cultigen, whose fibers would have been required by the coastal settlers for the manufacture of fishing nets and clothing. In the valley gourds (*Lagenaria siceraria*) were also cultivated, with which floats for fishing nets, bowls and cups were manufactured and, fundamentally, plants destined for food, such as squashes (*Cucurbita sp.*), beans (*Phaseolus vulgaris*), achira (*Canna edulis*), sweet potato (*Ipomoea batatas*), avocado (*Persea americana*), guava (*Psidium guajava*), pacay (*Inga feuillei*), lúcuma (*Pouteria lucuma*) and chili peppers (*Capsicum frutescens*). Likewise, in Caral plants were recovered that probably came from other zones, such as *palillo* (*Campomanesia lineatifolia*), achiote (*Bixa orellana*), huairuro (*Ormosia sp.*) (a type of red bean used as an ornament), tutumo (*Crescentia cujete*) and lloque (*Kageneckia lanceolata*). Bulrushes (*Schoenoplectus sp.*) and other species were gathered from marshy zones within the valley (Shady 1999b: 2–4; 2000b: 49–66). Maize (*Zea maiz*) appears only at the end of the occupation, and in small quantities (see Tables 2.4, 2.5, 2.6; Figure 2.7).

The farmers did not need a developed hydraulic technology or a complex social organization to construct irrigation canals. Rather, cultivated fields could have been irrigated by means of a simple system of canals conducting water from the river or the abundant springs, which are still in use today. In areas where the high water table caused flooding, drainage canals or ditches had to be excavated.

Table 2.5. Industrial-use plants identified at Caral.

Family	Species	Common Name	No. of Remains	Percentage (%)
Cucurbitaceae	*Lagenaria siceraria*	Gourd	1.23	5.631
Fabaceae	*Inga feuillei*	*Pacay*	383	1.753
Malvaceae	*Gossypium barbadense*	Cotton	18.519	84.774
Salicaceae	*Salix humboldtiana*	Willow	695	3.182
Typhaceae	*Typha domingensis*	Cattail	67	0.307
Poaceae	*Gynerium sagittatum*	Cane	255	1.167
Poaceae	*Phragmites australis*	*Carricillo*	252	1.153
Agavaceae	*Furcraea sp.*	Century plant	6	0.027
Rosaceae	*Kageneckia lanceolata*	*Lloque*	3	0.014
Bignonaceae	*Crescentia cujete*	*Túmo*	8	0.037
Juncaceae	*Schoenoplectus americanus*	Bulrush	324	1.483
Juncaceae	*Schoenoplectus sp.*	Bulrush	100	0.458
Bignonaceae	*Tecoma sp.*	*Huarumo* or *macahuito*	2	0.009
Fabaceae	Inga feuillei	*Pacay*	383	1.753
Sapindaceae	Sapindus saponaria	*Choloque* tree	1	0.005
Total	**—**	**—**	**21.845**	**100**

The evidence indicates that the population of Supe resided in nuclear settlements, located on the coast as well as in the valley. This lifeway was favored by easy access to the resources of one of the world's most productive oceans, to lomas or fog vegetation that continues to be extensive today, to the plants and animals indigenous to the valley and its riverine biota, and to lands easily irrigated by river and spring waters. In these conditions a productive, internally complementary, agricultural-fishing economy developed. The agriculturalists of the valley produced subsistence crops and industrial plants such as cotton, gourds and timber; in turn, coastal fishing settlements harvested Peruvian anchovies and sardines which were dried in large quantities, mollusks, seaweed, and other resources (Béarez and Miranda 2000: 67–77). The productivity of both economic sectors, the allocation of surpluses, and economic interdependence between the two occupational groups (the fishing settlements received cotton, gourds and timber for the manufacture of their fishing nets, floats and paddles while farmers acquired protein from marine resources)

Table 2.6. Plants that are evidence of exchange that have been identified at Caral.

Family	Species	Common Name	No. of Remains	Percentage (%)
Malpighiaceae	*Bunchosia armeniaca*	Plum	1	1.639
Bixaceae	*Bixa orellana*	*Achiote*	16	26.23
Myrtaceae	*Campomanesia lineatifolia*	*Palillo*	41	66.563
Rosaceae	*Kageneckia lanceolata*	*Lloque*	2	3.279
Fabaceae	*Ormosia sp.*	*Huairuro*	1	0.65
Bignonaceae	*Crescentia cujete.*	*Túmo*	1	1.639
Total		**—**	**61**	**100**

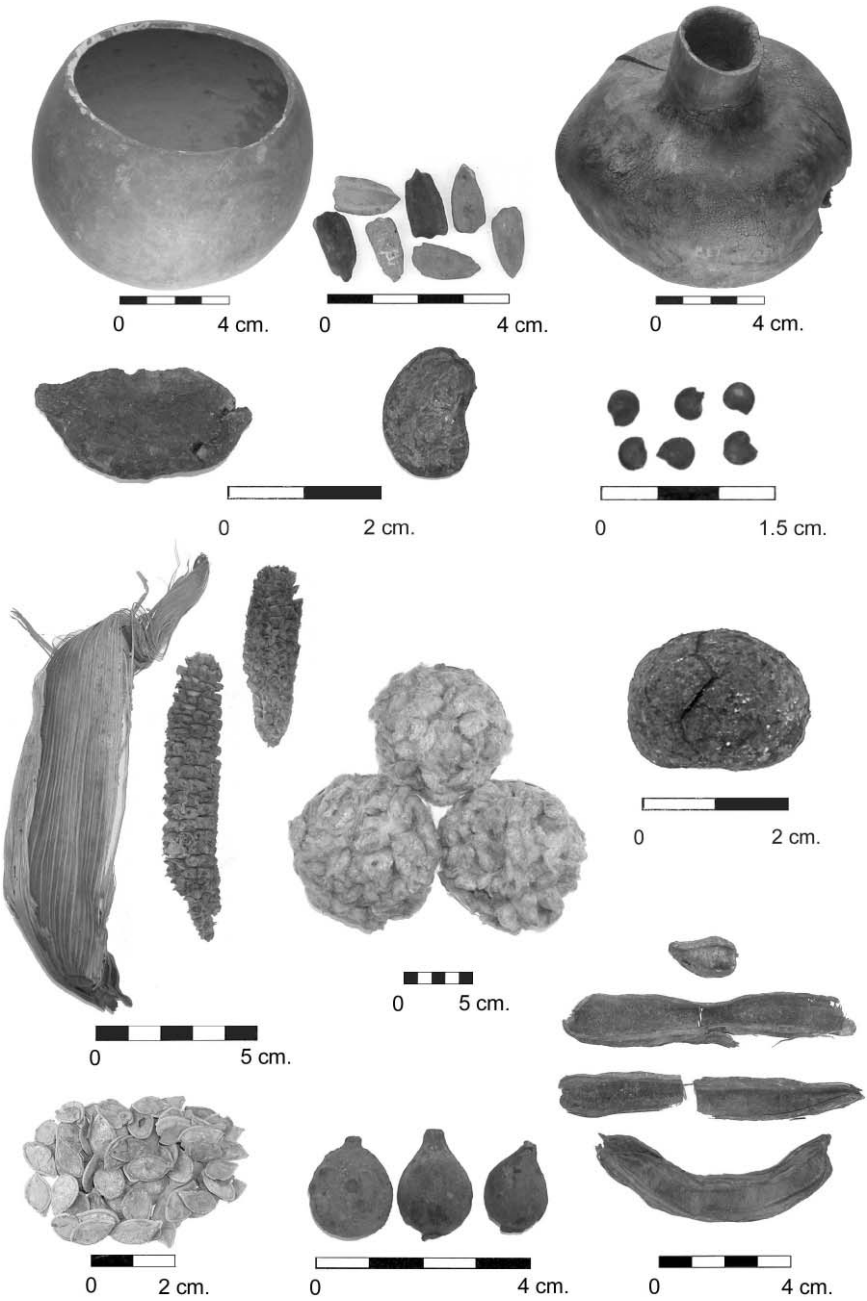

Figure 2.7. Agricultural remains from Caral. Top row; gourd containers and seeds (*Lagenaria siceraria)*. Second row; sweet potato (*Ipomoea batatas)*; lima bean *(Phaseolus lunatus)*; and chili pepper seeds *(Capsicum sp*. Third row; maize (*Zea mays*); cotton *(Gossypium barbadense);* and avocado *(Persea americana*). Fourth row, squash seeds *(Cucurbita sp);* guava fruit (*Psidium guajava*); pacay fruit (*Inga feuillei)*.

fostered intense internal exchange while generating an inter-communal economic sphere. Managed by authorities of the settlements, these activities were of great economic benefit. Internal exchange was supplemented by an external exchange, which extended to other coastal areas as well as highlands and tropical forests of the north-central region, from which the inhabitants of Caral acquired goods such as Spondylus, wood, snails, medicinal plants, semiprecious stones, pigments, etc. The connections extended to groups in distant locations, such as the extreme north coast of Peru, and even Ecuador, for the acquisition of highly valued Spondylus, from which objects of symbolic value were manufactured.

All these activities favored the accumulation of wealth, promoting differences in prestige and the formation of social classes. They allowed Caral-Supe society to channel the benefits of surpluses production throughout the area into strengthening the power of local authorities who had initiated a process of political integration under a centralized government.

Utilitarian Tools

The occupants of Caral manufactured tools from diverse materials. For agricultural activities they utilized digging sticks fashioned mainly from the wood of the lloque, a tree that grows in the highlands above an altitude of 2,000 m (Figure 2.8, second row). They also manufactured stone artifacts perforated in the center for breaking up clods of dirt, large axes for the felling of trees, projectile points and bolas for hunting (Figure 2.8, top row), etc. Likewise, many cores and retouched flakes, cobbles and river rocks shaped by use wear from crushing and grinding, as well as metates, manos, hammerstones, perforators, etc. were recovered. Fine-grained stones with polished or smooth longitudinal grooves next to quartz blocks and debitage, etc. were also found. Baskets and bags were manufactured from plant fiber and used mainly for the transport and storage of construction and room fill stones or for the burial of the dead.

Personal Ornaments

The residents of Caral worked beads of bone, wood, shell, quartz and semiprecious stones as indicators of status for the living and the dead. A workshop with objects, debitage and tools has been excavated. Raw material such as Spondylus was imported from tropical Ecuadorian waters; other materials came from the adjacent coast, highlands and the Andean forests. Objects which indicated differences in access to manufactured goods were found in burials, many of which were items obtained by means of trade (Figure 2.8e–h).

The Importance of Cotton and Textiles

In some rooms of the city abundant tufts of fiber as well as seeds of cotton were found (Figure 2.7, third row center). Employing twining and looping techniques structural designs were created in natural colors of the cotton. These textiles were manufactured for domestic use, for display of social difference, and for rituals

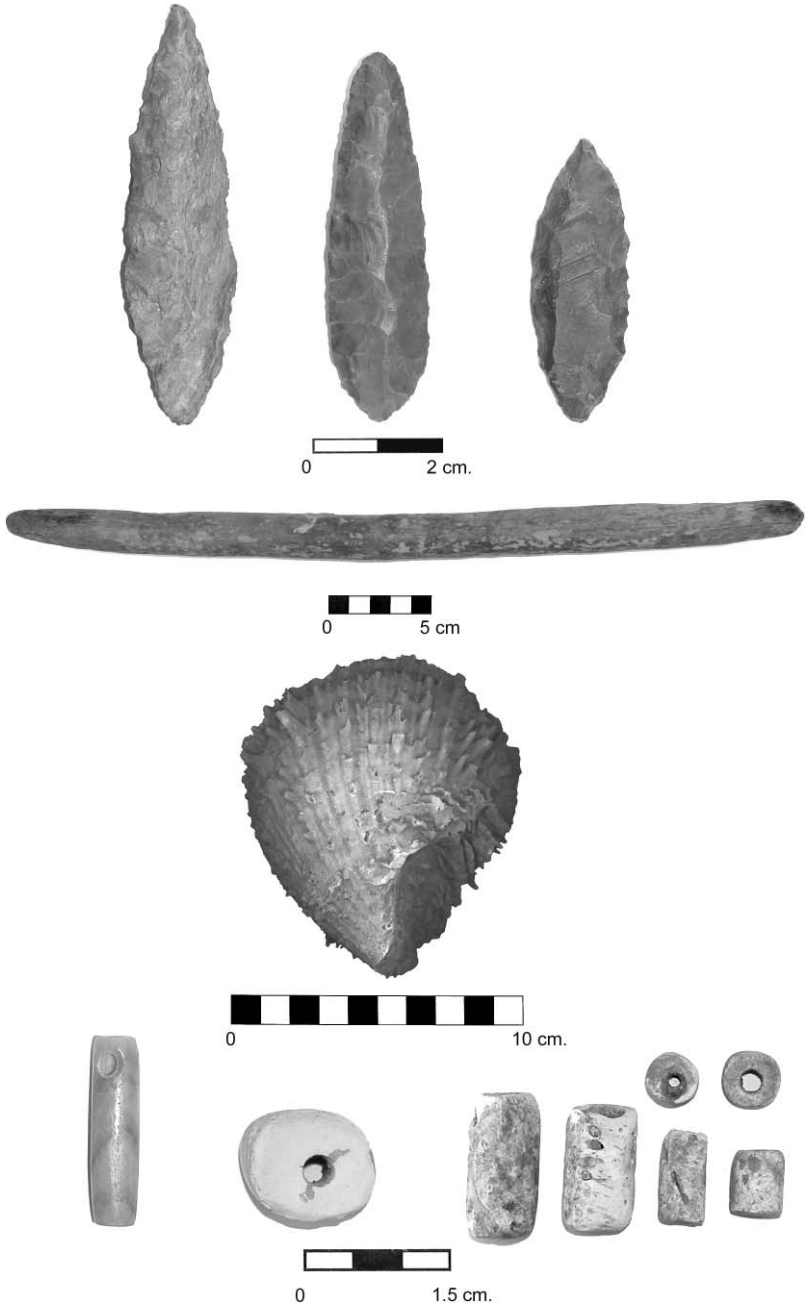

Figure 2.8. Top row; lithic projectile point manufactured from silicified sedimentary rock (*Chert*); projectile point of silicified volcanic rock (*Andesita*); projectile point of metamorphic rock (*Hornfels*); Second row; digging stick of *lloque* (*Kageneckia lanceolata*). Third row; *Spondylus* shell (*Spondylus princeps*). Fourth row; shell beads (*Spondylus spp* and *Spondylus princeps*).

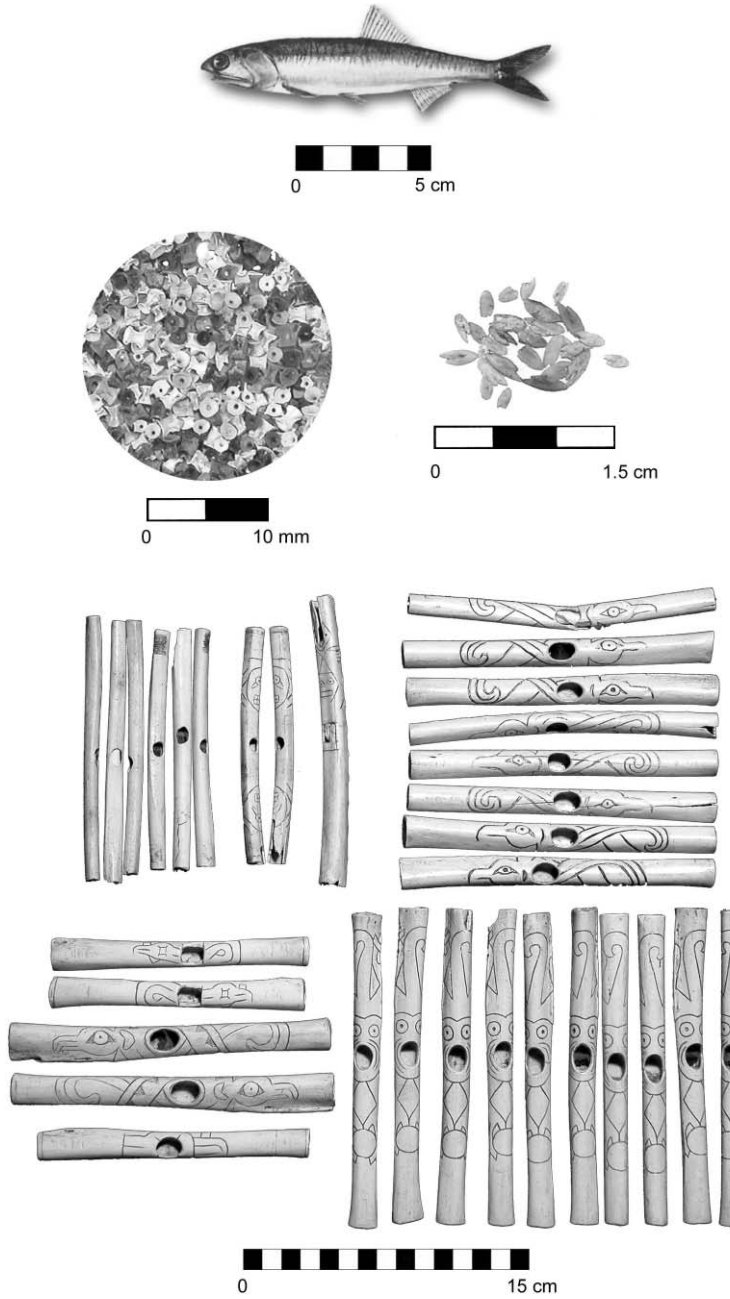

Figure 2.9. Top, example of Peruvian anchoveta (*Engraulis ringens*) for comparison. Second row; vertebrae and otolites from Peruvian anchoveta (*Engraulis ringens*); Lower half; flutes manufactured from pelican (*Pelecanus thagus*) and condor (*Vultur griphus*) bones.

and commerce. Some burials contained textiles with carefully structured designs as indicators of hierarchy. Finds of offerings with burnt textiles are frequent, a custom which would persist throughout Peru's prehispanic history. Also recovered were bone and wood needles that may have been used in textile manufacture, and a well-preserved woman's dress (Figure 2.10, below).

The Kotosh Religious Tradition

Numerous architectural features found among the settlements of Supe, including subterranean circular courts, stepped pyramids and sequential platforms, as well as material remains and their cultural implications, excavated at Aspero and the valley sites we are digging (Caral, Chupacigarro, Lurihuasi, Miraya), are shared with other settlements of the area that participated in what is known as the Kotosh Religious Tradition (Burger and Salazar-Burger 1980, 1985). Most specific among these features are rooms with benches and hearths with subterranean ventilation ducts, wall niches, biconvex beads, musical flutes, etc.

POLITICAL ORGANIZATION

The 18 settlements or urban centers identified in the Supe Valley contain public buildings of various types next to groups of domestic units and, as occurs in Caral, associated with contexts containing evidence of diverse functions and activities. If we contrast the information on settlement pattern from colonial documents about the area with the archaeological data (Shady 2000a), it may be proposed that the people of Supe were organized into urban centers or pachacas of diverse size and complexity, maintained by a self-sufficient economy, run by their own authorities, each with its chief and its gods and religious practices through which they sustained their identity.

The large bulk of the constructed works imply considerable diversity of activities on the part of laborers such as the cutting and transport of stones; selection and relocation of clay; grinding of pigments; management of water; the cultivation, harvesting and drying of fibers for the manufacture of bags or shicras, food tribute and preparation; and furthermore, the participation of specialists. These individuals possessed astronomical knowledge for the proper orientation of religious buildings, knowledge of mathematics, geometry and art for the elaboration of architectural and artistic design, and technological knowledge concerning the strength of materials for construction stability. All of this indicates an organized society with authorities to control and manage labor forces involved in construction, an ideology capable of justifying activities of elites, as well as the requisite distribution of goods.

The accumulation of wealth resulting from high productivity and exchange, unequally distributed, and the formation of hierarchical social strata in a context of permanent socioeconomic articulation, would have fostered the formation and centralization of an extensive state government. This would explain the formation

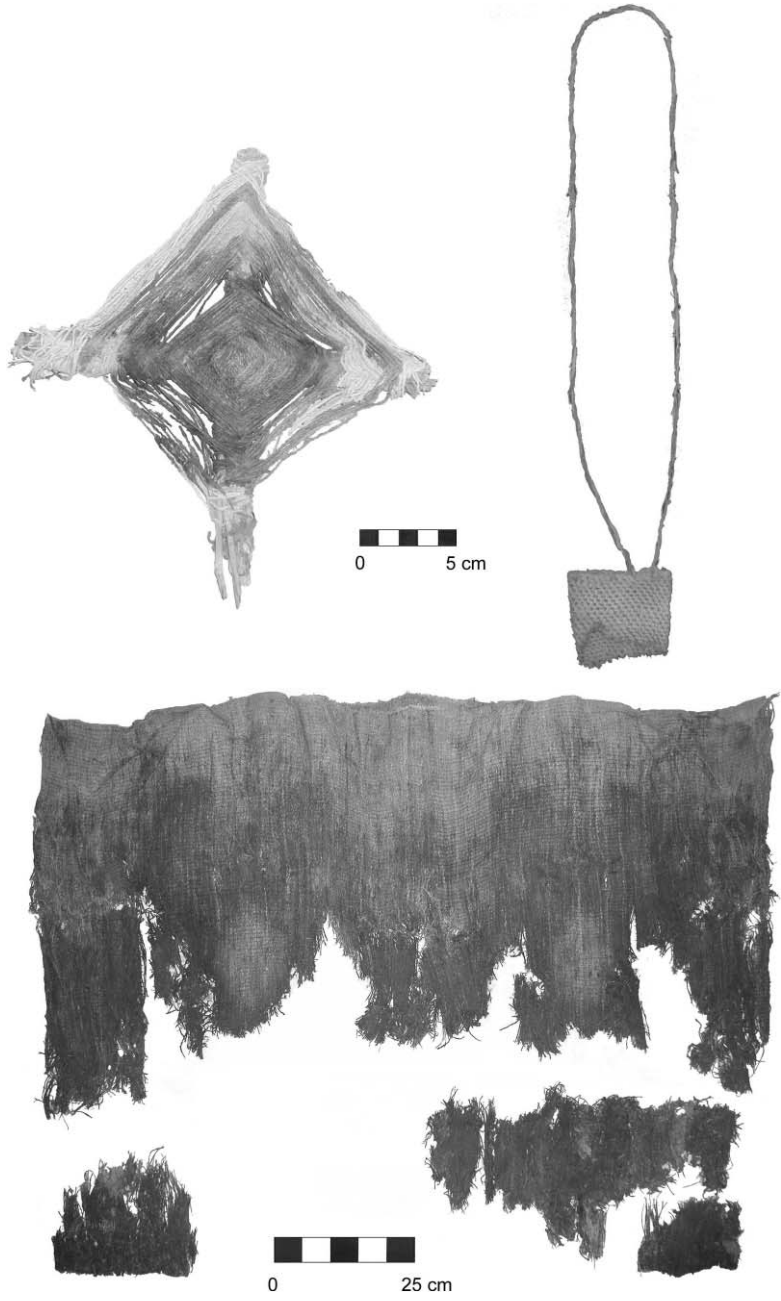

Figure 2.10. Top row; "Eye of God" textile; small bag of cotton fiber manufactured by simple looping. Below; beige female dress of twined cotton fiber.

of a system of differentiated urban centers, including the most prominent that were located in Caral's capital zone. Circular courts with public functions were constructed in nearly all urban centers, and a huge amount of labor was invested in monumental construction.

The authority of leaders acting as priests, managers of agrarian activities, chiefs of trade, astronomers, master builders, etc. would have been possible only because of the services they provided to society—in exchange for which they received a portion of the goods produced, and above all, a gift of labor from the population. Authority and exercise of power by this elite sector of the population increased over time, as evidenced by the monumental public architecture found in the various Supe Valley settlements. Architectural and stylistic relations with settlements of neighboring valleys reveal strong influence and perhaps control over communities in Pativilca and Fortaleza. Farther from home, La Galgada in the Tablachaca Valley of the Santa Basin might have been an important stronghold of this pristine Supe state, for exchange with populations of the northern highlands. This can be inferred from a series of shared components and architectural features. Furthermore, La Galgada is located in a natural environment ill-suited for human habitation, with limited arable land; its construction and maintenance are best understood if provided by another society.

In Supe, a centralized government exercised power over the communities resident in its urban centers. With prestige and influence felt throughout Peru's north-central region during the Late Archaic, this was the first state government to be achieved in the Central Andes, and as a model for social organization and ideology it transcended its space and time (Shady et al. 2000: 13–48).

THE ROLE OF RELIGION

Some researchers consider an army or military force a prerequisite for the identification of a state level of political organization. However, in the initial stage of state formation such control of the population was unnecessary. Religion functioned as the instrument of cohesion and coercion, and it was very effective (Shady 1999a, e). The ideology promoted by the Supe state would have acted as the nexus of cohesion for the social groups under the domination of its centralized government. As some colonial documents concerning the area indicate, gods such as Huari had instructed the inhabitants how to prepare their farms, lay out their canals, sow plants and establish community boundaries. The sun, the moon, water and earth, that were identified with particular stars and symbolized by certain idols, must be worshipped, conducting propitiatory rites. The ceremonial had to be observed, while labor on public buildings and tribute was also required. The city is full of buildings with atriums and hearths containing offerings, possibly related to these gods and to a calendar of celebrations. In this way religion was converted into the principal force of domination exercised by the state. All the activities carried out in Caral were, in one form or another, related to ceremonies, rituals and sacrifices.

The population lived working in the service of the gods and the authorities who represented them.

Human Sacrifice

Deviation from social norms could be punished by death. In various buildings of the city human burials, mainly of children, were found in different contexts but all associated with specific rituals. Discovery of the body of a young man, deposited among stones that were used to inter an atrium in preparation for the construction of a new one, demonstrates this concept. The body was deposited above a layer of soil and stones, covered with other stones and the floor of the new atrium. The body was nude and had no offerings with it except for the careful arrangement of the hair. Studies indicate that it was a male approximately twenty years of age, who was subjected to hard labor for most of his life. He had received two forceful blows, one to the face and the other to the head (which was the cause of death); some fingers were placed in one of the niches of the buried temple [Endnote 2].

Other human burials, particularly of children, were found underneath walls or the floor of a dwelling, related to the belief that this class of offering would contribute to the long life of the building. This custom is still rooted in the cultural tradition of Andean communities, although human beings have been replaced by animals or special objects.

It is worth mentioning that the objects associated with these burials indicate differences in status, obviously ascribed in the case of children less than one year of age. Differential access to consumer goods and prestige objects confirms the unequal distribution of wealth in Caral-Supe society.

Human Figurines

Approximately one hundred human figurines, manufactured of unfired clay, have been recovered from various structures and in ceremonial contexts. The majority are broken with some fragments missing. They must have symbolized humans in rituals of building renovation, propitiation or fertility. Through their study, information is being obtained concerning the clothing and headdresses of the personages represented (Figure 2.11).

MUSIC AND ITS IMPORTANCE IN CARAL-SUPE SOCIETY

A group of 32 flutes was recovered from a corner of the Temple of the Amphitheater (see above). The flutes are decorated with incised designs and painted with figures of monkeys, serpents, condors, eagles and human images (Shady 1999b, d). Another group of 38 instruments, probable bugles (see above), was recently recovered from another sector of the Temple of the Amphitheater. These instruments provide evidence for elaborate musical performance and the role of this musical

Figure 2.11. Figurines of unfired clay.

expression in the public aspects of Caral-Supe society. The instruments help confirm the emphasis on collective musical performance in Caral-Supe society, and the early role of participatory artistic performance in Andean cultural heritage (Figure 2.9, lower half).

CHRONOLOGY

In addition to cultural remains diagnostic of the Late Archaic period, since 2001 we have acquired a set of dates that confirmed the dating of Caral (Table 2.7;

Table 2.7. Radiocarbon dates.

Laboratory Number	12C/13C Corrected Age (yr B.P.)	Weighted Average Midpoints (Cal B.C.)	Provenience
Beta-132593	3640 ± 50	2020	Construction fill of atrium on top of Great Pyramid, Caral
ISGS-4724	3730 ± 70	2187	Construction fill of atrium on top of Great Pyramidr, Caral
Beta-134427	3740 ± 90	2170	Offering inside room on top of Great Pyramid, Caral
ISGS-4738	3740 ± 80	2170	Floor construction center of stratified trash, rear of Sector N, Caral
ISGS-4740	3810 ± 70	2215	Upper level stratified trash, rear of Sector N, Caral
Beta-132589	3820 ± 60	2280	Upper level stratified trash, Sector A, Caral
Beta-132590	3830 ± 60	2395	Structure 1, Unit VII-2-I, Level 7, Chupacigarro
ISGS-4710	3840 ± 70	2237	Wall construction around sunken circular plaza in front of Great Pyramid, Caral
ISGS-4726	3900 ± 70	2407	Platform construction in front of Sector C, Caral
ISGS-4727	3960 ± 110	2470	Stratum under the platform in front of Sector C, Caral
ISGS-4733	3960 ± 80	2470	Lower level stratified trash, Sector A, Caral
ISGS-4734	3970 ± 90	2450	Lower floor on top of wall around sunken circular platform, Sector L, Caral
Beta-134429	3970 ± 40	2450	Lowest level (7) stratified trash, in rear of Sector N, Caral
ISGS-4729	3990 ± 70	2490	Floor contact residential architecture, Sector A, Caral
ISGS-4732	3990 ± 70	2490	Upper level stratified trash, Sector A, Caral
Beta-134428	4020 ± 40	2560	Upper level (3) stratified trash, rear of Sector N, Caral
ISGS-4736	4060 ± 70	2580	Lowest level stratified trash, in rear of Sector N, Caral
ISGS-4711	4090 ± 90	2627	Stratum under sunken circular plaza in front of Great Pyramid, Caral
Beta-184980	3630 ± 70	1970	Platform fill, Pyramid of the Gallery, Sector H, Caral
Beta-184987	3630 ± 70	1970	Platform fill, Late period, Lurihuasi

(*cont.*)

Table 2.7. (*Continued*)

Laboratory Number	12C/13C Corrected Age (yr B.P.)	Weighted Average Midpoints (Cal B.C.)	Provenience
Beta-184982	3690 ± 110	2120	Platform fill, Pyramid of the Amphitheater, Sector L, Caral
Beta-184984	3700 ± 60	2120	Platform fill, Sector E, Caral
Beta-184979	3800 ± 70	2210	Platform fill, Pyramid of the Circular Altar, Sector P, Caral
Beta-184981	3830 ± 70	2290	Domestic unit of Sector NN2, Caral
Beta-184986	3910 ± 70	2450	Platform fill, Middle period, Lurihuasi
Beta-184977	3990 ± 70	2480	Wall of the Quary Pyramid, Sector B, Caral
Beta-184983	4040 ± 80	2570	Room of the Central Plaza, Sector Z, Caral
Beta-184985	4060 ± 70	2580	Domestic unit of Sector I, Caral
Beta-184973	4160 ± 70	2860	Domestic unit of Sector I, Caral

Endnote 3). Some investigators have argued that the architectural monumentality of Caral could only belong to a ceremonial center of the Formative period, that perhaps remained aceramic in spite of the presence of pottery technology at contemporary centers. However, from the beginning, the evidence supported Caral's relationship with sites of the Kotosh Religious Tradition, of the Late Archaic times, as well as the early origin and prolonged occupation of this urban center, throughout most of the millenium between 3000–2000 BC. This has been corroborated by the chronometric dating (Shady et al. 2001: 723–726). Eight dates provided by Dr. Bernd Kromer of the Institut für Umweltphysik of the University of Heidelberg were not included due to the lack of comparable calibration. However, these confirm the chronology since presented: 3927 ± 79; 3883 ± 47; 3950 ± 47; 3977 ± 39; 4197 ± 77; 3824 ± 51; 3986 ± 37; 4014 ± 33.

CONCLUSION

In the face of diverse geography and natural resources within the Andes, distinct cultural adaptations developed within relatively close distances (Shady 1995: 49–61). Groups that inhabited various geographic regions followed their own trajectories and, hence, forged unique cultures and ways of life. Likewise, they demonstrated different rhythms and degrees of development in their social and political organization. The influential tradition of vertical complementarity, however, manifested itself, promoting interaction between social groups sharing water from the same river, beginning in the high mountain ranges and descending through five ecological zones with contrasting natural resources. Furthermore, this internal vertical interaction regime articulated with another regional system, that utilized the Andean altiplano, an extensive plain where the rivers begin that flow to the Pacific Ocean to the west and the Amazon Basin to the east. Ocean and tropical

river routes, likewise, were used for contact between societies in some epochs. Isolation encouraged by rough, uneven terrain throughout the Andean mountain range was surmounted by human groups that implemented networks of interaction. Significantly, among the various regions and ecological zones present, the Andean plateau was an area traversed not only by residents from valleys whose rivers flow to the Pacific Basin, but also by inhabitants of river valleys that flow to the Amazon Basin. The vastness of the altiplano facilitated the integrated convergence of societies that occupied diverse territories and had distinct cultures and ways of life; goods, beliefs and ideas circulated through social interaction that spanned a millennium. The inhabitants of the north-central area exhibited great dynamism in their economic, social and cultural activities; they achieved sufficient economic surplus and social organization to permit a degree of specialization of labor and political organization, constructing huge public buildings and participating in the vast networks of interaction stretching across the regions.

The results of the Caral Archaeological Project indicate that between 3000–2000 BC the people of Supe lived in nuclear settlements sustained by agriculture and fishing with occupational specialization, articulated in a complementary economic system that fostered a dynamic sphere of interaction and interregional contacts over a large distance. Supe society produced advanced scientific and technological knowledge; it constructed the first planned cities in the New World and laid down the foundation of what would become the Central Andean social system.

It would have been difficult to construct the18 settlements with public architecture identified in Supe (Shady et al. 2000: 13–48), a small valley with limited tillable land and a river with an irregular course that is dry most of the year, employing only the labor of their inhabitants. The immense investment of labor in monumental buildings, and their permanent remodeling, was underwritten by production in other valleys from the area that Supe's political authorities somehow learned to appropriate. The size of Supe's principal settlements, between 40 and 80 ha in contrast with 11 to 13 ha for sites in other valleys, demonstrates marked difference in economic management and investment among the occupants.

The 18 settlements of the valley, as well as others with similar features in the neighboring valleys of Pativilca and Fortaleza, share architectural characteristics in one or more pyramidal constructions, particularly the mound structure combined with a sunken circular court. Sites in the neighboring valleys, are, however, differentiated from those of Supe by their smaller size, complexity and mass. Based on the contents of the sites, it is evident that each urban center had its own government and authority, a pattern that would continue throughout prehispanic history. Nevertheless, all participated in an organized and possibly hierarchical system of which Caral would have been the center of the most remarkable social and cultural radiation of the epoch, its prestige enduring through the entire third millennium BC.

Supe's growing social complexity in the Late Archaic Period may be understood in terms of the framework of the environment of the north-central area and the situation of the societies that lived in its various regions at this time. These regions include the coast between the Chillón and Santa valleys (Chillón, Chancay, Huaura, Supe, Pativilca, Fortaleza, Huarmey and Casma), the Callejón de Huaylas and the

Callejón de Conchucos in the adjacent highlands, and the Marañón and Huallaga Basins on the eastern slopes (Figure 2.1a).

The evidence from Caral indicates that Caral-Supe society was organized into socially stratified ranks with local authorities connected to a state government, sustained by a productive agro-fishing economy with dynamic internal and external exchange that had acquired significant and complex scientific, technological and artistic knowledge. Its sphere of domination and direct control included the populations of the Supe, Pativilca and Fortaleza valleys but its connections and prestige extended across the entire northcentral Peruvian region. Twenty-nine radiocarbon dates [Endnote 3] have confirmed its antiquity as the oldest civilization of Peru and America. Furthermore, the evidence shows that Caral was the model of sociopolitical organization that other societies achieved only in later times throughout the Peruvian territory.

Considering that archaeological patrimony is among the most important resources that the present population of Supe has, and that a condition of extreme poverty exists despite Supe's proximity to the capital, the Caral Archaeological Project has assembled a group of professionals from various disciplines to propose a Master Plan promoting broad ranging social development in the region. Archeological research must be accompanied by conservation and evaluation of the non-renewable cultural resources. In turn, these activities should be coordinated with others directed at agriculture, animal breeding, craft manufacture and tourist services. In this manner the archaeological sites will be presented in appropriate natural and social surroundings, and in concordance with their significance. The inhabitants of Supe, therefore, will identify with their cultural patrimony and contribute to its preservation and conservation. Today, the local population of the Supe Valley regards Caral with pride and is appropriating the site as a key tool for constructing identity and promoting self esteem.

ENDNOTES

1. The name Caral was chosen on the basis of local toponomy. At the beginning of the project we also assigned the names of Chupacigarro Grande, Chupacigarro Chico, Chupacigarro Central and Chupacigarro Oeste to each of the four different sites located on the land of the old hacienda named Chupacigarro, but to avoid confusion later opted to distinguish them with names derived from the local toponomy.
2. Biological anthropological studies on this body were carried out by Dr. Guido Lombardi.
3. Betty Meggers and Henning Bischof collaborated in obtaining radiocarbon dates for Caral. Jonathan Haas and Winifred Creamer arranged for the payment of other samples provided by my team.

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Chapter **3**

Religious Warfare at Chankillo

Ivan Ghezzi

INTRODUCTION

The late Early Horizon was a time of great changes following the collapse of Chavín civilization around the 3rd century BC (Burger 1995). The profound disruption of traditional cultural patterns suggests a radical restructuring of the sociopolitical landscape. For instance, many centers were abandoned and in some centers village residents occupied ritual spaces. The Chavín horizon style was replaced by distinctive local styles, and the Chavín interaction sphere disintegrated. There was a great degree of conflict underlying the development of a regional orientation following the collapse of Chavín, with forts and fortified settlements being widely erected (Topic and Topic 1978, 1987; Wilson 1987, 1995). In the Casma Valley, for example, substantial numbers of forts were constructed for the first time. Warriors were commemorated in art; they wore elaborate dress and ornamentation and had specialized combat weapons and body protection. These changes suggest that warfare as a concept, and warriors in particular, had high status, and that the threat of warfare was, for the first time, a significant consideration in the organization of societies, their patterns of settlement, and the allocation of their public labor.

One of the great fortifications of this time is the massive hilltop building at Chankillo, a site in the coastal desert just outside the floodplain of the southern branch of the Casma-Sechín river basin (Figure 3.1). AMS dates from the site range 320–200 CalBC, placing its occupation in the late Early Horizon. This hilltop building has been interpreted in the literature as a fort, a redoubt, a ceremonial center, and a cloistered temple (Burger 1995; Cisneros 1980; Fung and Pimentel 1973; Lumbreras 1980; Makowski 1997; Middendorf 1973; Moseley 2001; Pozorski and Pozorski 1987; Squier 1877; Tello 1956; Thompson 1962; Topic and Topic 1987, 1997; Wilson 1995). Most observers offer a strictly functional interpretation of its location and architectural attributes, considering it a fort or refuge. A few scholars, while accepting this interpretation, consider symbolic and ritual functions as well. Finally, in an influential interpretation, Topic and Topic (1987, 1997) question whether some Early Horizon forts could really have served a strategic purpose in the defense of territory or populations. At Chankillo, they note, no parapets, water storage facilities or weapons are found. There is an apparently excessive

Figure 3.1. Map of Chankillo Archaeological Complex, Casma Valley.

number of gates. Furthermore, with barholds found outside, rather than inside, these gates are seen as counter to any strategic logic. Finally, its isolated hilltop location, though defensive, leaves fields and drinking water sources unprotected. Consequently, they urge us to consider structures like Chankillo as ceremonial settings for ritual battles.

Such conflicting views on site function at Chankillo and other sites reflect an important issue in the general study of warfare: a tendency to distinguish between ritual and true warfare (Belovich 1998; Chaliand 1994; Ferguson 1997; Makowski 1997; Maschner 1997; Otterbein 1999; Thorpe 2003; Vencl 1999). The idea that warfare can be real and unlimited in its violence, or ritual and limited is deeply rooted in anthropological thinking; it can be traced back to the work of Turney-High (1949), who distinguished between primitive or ritual war and true war. Ritual war is defined as a low technology, limited war that traditional societies fight. It is a form of social interaction in which the conservation of the enemy is more important than the enemy's destruction. True warfare, often described as total war, has a high cost in lives and is strongly determined by objectives. It is seen as civilized warfare fought by states, and characterized by the rise of armies. An evolutionary divide, named by Turney-High the "military horizon," would separate the two types of warfare.

Cerro Sechín in the Casma Valley is an example of this trend in Andean archaeological thought. It features a megalithic wall carved with armed warriors marching amidst the dismembered remains of their victims (Maldonado 1992).Though some over-enthusiastic claims exist about diffusion from Mesoamerica and China, or its use as an early center of anatomical science, serious interpretations of the Cerro Sechín scene fall largely within two opposing camps (for a review, see Bischof 1995). Most scholars read it as a direct indication of warfare, and some offer profane interpretations of its function as a war memorial with political ends (Samaniego 1973). Other scholars give much greater weight to its ceremonial and mythological aspects; it has been argued, for instance, that it represents an example of the ritual battles still practiced today in the Andes (Urton 1994). Recently, Peter Kaulicke has proposed that there is a "theme" of death and regeneration, in which the main figures would be neither warriors nor human, but supernatural actors whose interactions guarantee the permanence of the cosmic order. According to Kaulicke (1995, 1998), the whole scene, far from the commemoration of a battle and subsequent butchery, would be a "dance," with explicit movements, within a mythical logic.

The symbolic or mythical connotations of such monumental representations are evident, but the reluctance to accept that the graphic depiction of dismembered body parts being tread on by weapon-bearing figures at Cerro Sechín was grounded in the reality of war reflects the tendency to see the ritual and secular aspects of warfare as mutually exclusive. Such an "either-or" approach to warfare ignores that, as a cultural institution, warfare is multidimensional and cannot be so reduced. The ethnographic and ethnohistorical literature strongly implies that warfare in traditional societies has both ritual and secular components and that there is a complex interweaving of both. It shows great variation between the extremes

of mock battles and wars of annihilation. Though differences in scale certainly apply, ritual war can be as bloody as non-ritual war; conversely, the highly symbolic and ritualized aspects of the latter, even in Western warfare, are undeniable (Carman 1999). There is great variability in the motivations, participants, weapons and tactics employed, and outcomes of a confrontation (Redmond 1994). All this evidence advises us against a reductionist approach to warfare.

In the Andean world before the Spanish conquest, the concept of war was closely tied to religious beliefs, and combat was highly ritualized. Before a battle, oracle consultations, astronomical observations, and animal sacrifices were some of the rituals used to predict or influence the result. Underlying these ritual practices was a religious ideology by which the ancestor-gods, or huacas, directly intervened in human affairs, including, of course, the outcome of battle. Warfare was perceived as a ritualized rivalry between huacas, which tested their power against each other in a struggle for hegemony over congregations. It was believed that the huacas would initiate holy wars by speaking or appearing in dreams to the leaders of the communities. Thus, their statues and even mummies would be brought out to the battlefield. Often, the goal of battle was to capture or destroy the huaca of a leader or ethnic group, to signal a greater strength and thus the favor of the more powerful god (Pease 1978, 1992; Ramírez 2005; Rostworowski 1999; Rowe 1946; Spalding 1984; Ziólkowski 1996). However, this ideology and its role in the ritualization of warfare did not estrange sacred warfare from material and political goals: due to the kinship relationship between a huaca and his congregation, his defeat implied the defeat and submission of the entire community, plus access to its labor and resources. Thus, secular and ritual aspects of combat and warfare were intrinsic components of Andean holy wars in late prehistoric times. Ziólkowski (1996) has proposed that these features of Andean warfare have ancient roots and this perspective is adopted here to cast light on the debated nature of late Early Horizon warfare.

ARCHAEOLOGICAL EVIDENCE

The oval-shaped hilltop building at Chankillo is composed of three structures, two circular and one rectangular, surrounded by massive concentric walls, 180 m above the valley floor (Figure 3.2). The inner wall is actually the retaining wall of a platform that supports the three structures. The rectangular building has a frontal atrium and rooms in the back; the circular structures are composed of two concentric walls with restricted entrances. The outer walls are massive and tall, in places still standing 8 m high and 6.5 m thick; they are composed of parallel sections with fill in-between, with their exteriors painted tan, yellow and white, or textured with finger impressions. The walls have large gateways baffled by blocking walls that prevent direct access and view. Across the outer walls, the gateways tend to be paired, and slightly offset from each other. Their placement responds to the topography, as the eastern gateways face gullies that facilitate access to the hilltop, while the western ones confront an area of higher ground outside the building.

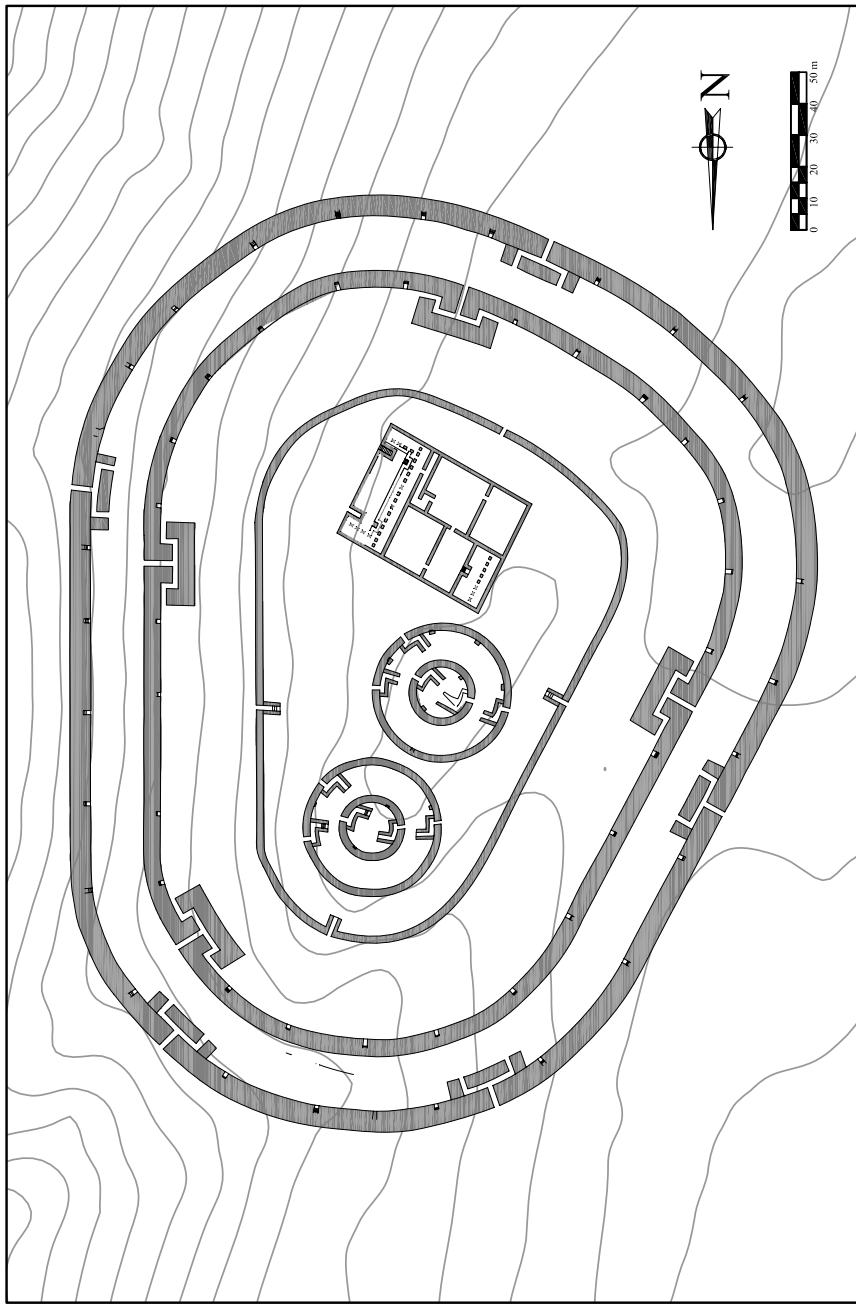

Figure 3.2. Ground plan of the hilltop building at Chankillo.

On the outside, as suggested by the pairs of sockets found on the walls, there were doors that controlled access through the gateways. The narrow passageways led into corridors restricted by blocking walls to prevent direct access and view, creating a maze-like effect.

In spite of its obvious defensive attributes, the traditional interpretation of the fort at Chankillo has been ably questioned (see above; Makowski 1997; Topic and Topic 1997). In a programmatic paper, Topic and Topic (1987) argued that a clarification of the function of buildings believed to be fortifications is necessary before any theoretical debates on warfare and its role in social development in the Andes. Likewise, the possible military functions at Chankillo must be evaluated empirically to understand its role in late Early Horizon warfare.

Topic and Topic (1978) defined fortifications as structures built specifically for defensive or offensive purposes. Based on a comprehensive survey, they were able to define the typical attributes of such structures: parapeted walls, slingstones, moats outside walls, and defensible location with restricted access. They considered parapets the unequivocal indicator of a defensive function; slingstones were also a common indicator of fortifications. Defensive dry moats, usually found protecting access across the least inclined slopes in the area of the fortification, were considered good, but not conclusive, indicators of warfare. Finally, the location of structures on naturally defensive positions, such as steep ridges, or isolated hilltops was an indicator of militarism: being on top gives clear advantages in terms of visibility and the use of projectiles. However, it was the least diagnostic indicator and by itself an insufficient indicator of warfare.

My recent research at Chankillo has identified the attributes of fortifications (Ghezzi 2002, 2003). First, a parapet still stands over the entire inner wall. This retaining wall consists of two contiguous walls holding a fill. The outer wall is several courses higher, forming the breastwork of the parapet. It is preserved to only 50 cms high, but originally it was much taller, judging from the amount of associated collapse (Figure 3.3). The poorly preserved remains of similar parapets can be found in the two outer walls. It is likely that parapets protected large sections of the perimeter, though additional excavations will be necessary.

The excavations at Chankillo uncovered a unique collection of ceramic warrior figurines holding weapons and in combat position (Figure 3.4 a). The weapon types are: spear (Figure 3.4 b), spear-thrower (Figure 3.4 f), darts (Figure 3.4 g), sling (Figure 3.4 h), and shield (Figure 3.4 i). Dozens of fragments were found. To the extent that we can reconstruct it, the figurines were displayed atop ceramic representations of buildings carved all around with the step motif. They were paired in combat. They wore signs of distinction, such as nose ornaments, a great variety of headdresses and shirts, and neck and chest ornaments.

Additionally, thousands of river-rolled spherical cobbles litter the hillside and desert plain near the fort. Their source is 2 km away in the riverbed; as they cannot have reached the site naturally, they must have been brought by people. Korfmann (1973) has suggested that when such river-rolled stones are found close together, and do not show evidence of use as a different tool (for example, as a hammer), they can be classified as missiles. Topic (1989) has added that in the Andes slingstones

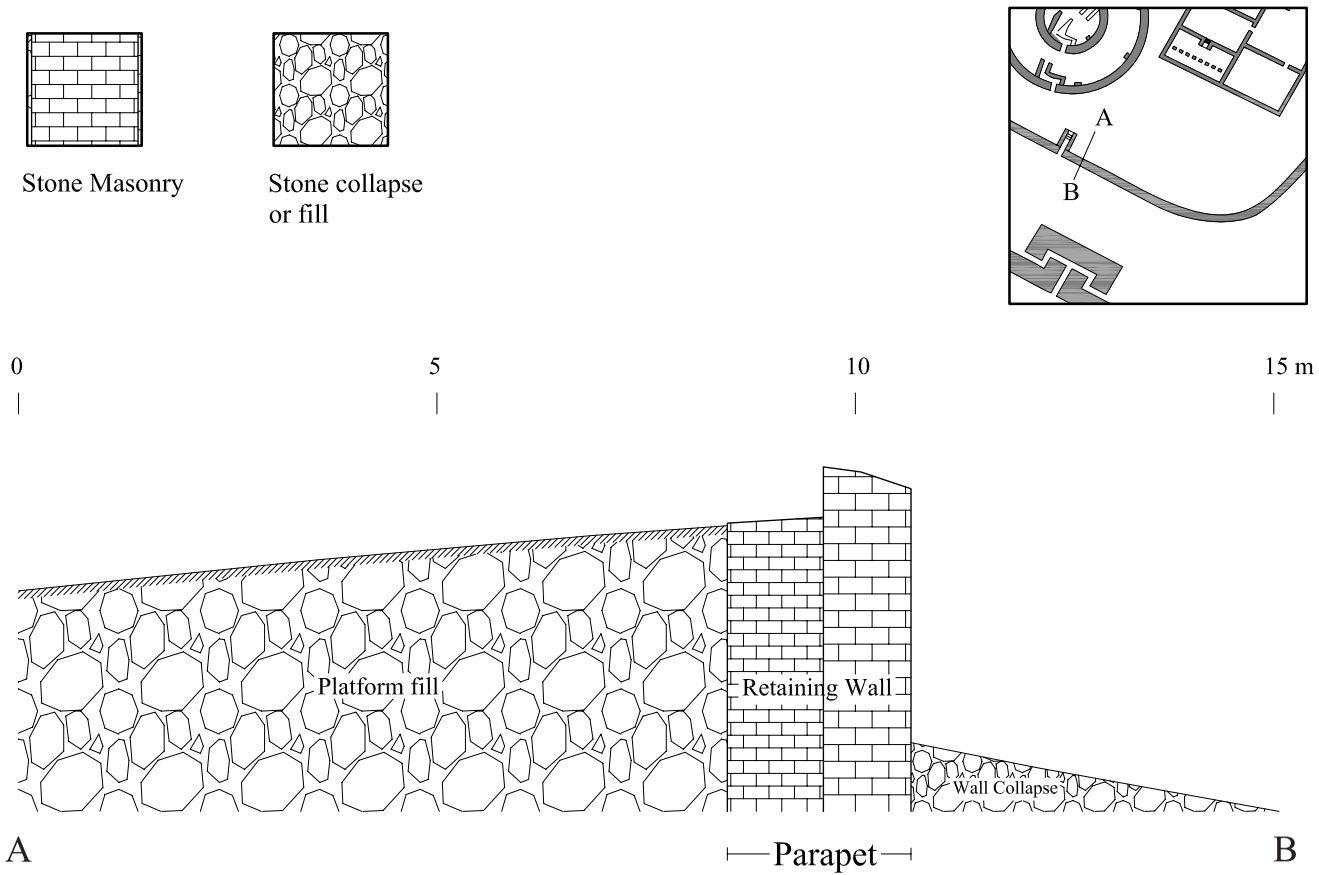

Figure 3.3. Section drawing of wall with parapet at Chankillo.

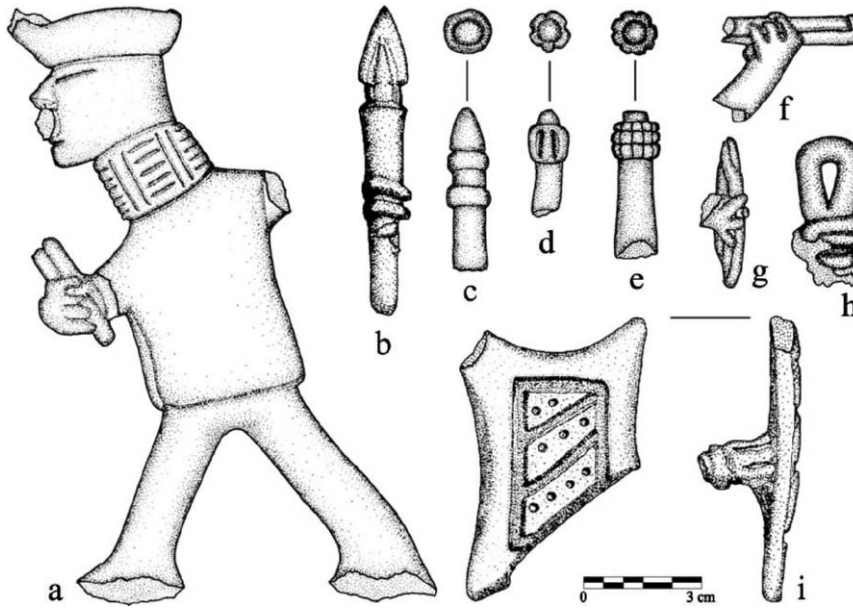

Figure 3.4. a) Warrior ceramic figurine; weapon types found at Chankillo: b) spear; c, d, e) maces; f) spear-thrower; g) darts; h) sling; i) shield.

collected from riverbeds are selected for a specific size and shape and generally found piled on the benches of parapeted walls.

The slingstones at Chankillo are found in the hillside and desert plain near the hilltop building. Our survey of the area identified also a few mace-heads (see below), and small temporary structures and windbreaks made of stone. It is possible that further research could identify this area below the hilltop building as a prehistoric battlefield. In the meantime, to verify that the cobbles at Chankillo are in fact slingstones, we studied their attributes and distribution. The geomorphologic history of the region is known, and a great degree of sediment transport has occurred over time (Dávila 1994; ONERN 1972; Sánchez F. et al. 1995; Wells 1988; Wells and Noller 1999). Our survey indicates that geomorphologic processes had an impact on the original distribution of river-rolled cobbles, which is now disturbed. However, two high concentrations of river-rolled cobbles were found, one just below the outer wall of the fort, and another where the hillside meets flat terrain. The former was probably derived from cobbles piled on top, or just outside, the fort's outer wall. The latter is the place where many cobbles would end up if thrown from the fort or if moved by gravity and erosion.

None of the cobbles have evidence of being used as hand tools. A random sample was measured for mass, volume, length, and width, and compared, using these dimensions and some derived indices (density, sphericity), to a control group of cobbles from the Casma River. Although the Chankillo stones fall within the

Location		Mass (g)	Volume (ml)	Length (mm)	Width (mm)	Density	Index of Sphericity
Chankillo	Mean	223.22	83.15	73.13	38.65	2.8206	.7154
	Std. Deviation	127.49	50.87	17.22	9.33	.7403	.0777
	Range	491	203	57	43	4.72	.44
Control Group	Mean	86.93	33.81	50.97	24.15	2.6423	.4620
	Std. Deviation	134.38	50.37	23.94	11.42	.8236	.1258
	Range	1271	507	276	87	8.95	.86

Figure 3.5. Cobble dimensions for Chankillo and control samples.

range of variation of the control group, the two samples are significantly different in their means and standard deviations (Figure 3.5). The stones found at the site are, on average, large and quite spherical, and have a narrow frequency distribution. This is consistent with Topic's (1989) interpretation of slingstones as river-rolled cobbles that have been selected for a specific size and shape. Further confirmation comes by comparing the Chankillo slingstones with those from Ostra, Galindo, and a control group (Arroyo) from a stream near Ostra. The slingstones from Ostra and Galindo are found in evenly-spaced, tight piles near defensive walls or moats and have a relatively narrow range of variation in size and shape. On average, the length and width of Chankillo slingstones correspond with those reported by Topic (Figure 3.6).

A few doughnut-shaped stones were found associated with concentrations of slingstones near the fort. This artifact type is usually interpreted as either a mace head or a weight for an agricultural tool. Maces are among the most common weapons carried by the warrior figurines (Figure 3.4 c, d, e). Invariably, they have a doughnut-shaped head, like those found at Chankillo, or a star-shaped head. Therefore, the context of doughnut-shaped stones at Chankillo suggests their use as a weapon.

In synthesis, evidence introduced here strongly suggests that Chankillo has the features of a true fortification. What was the purpose of such an investment in security? To answer this question, I excavated at the rectangular structure found inside the fort, with the goal of revealing its function, range of activities, and history of occupation (Ghezzi 2003).

Location	Mean Length	Std. Deviation	Mean Width	Std. Deviation
Control Group (N=936)	50.97	23.94	24.15	11.42
Chankillo (N=55)	73.13	17.22	38.65	9.33
Ostra Pile 1 (N=94)	69.00	12.81	40.67	7.28
Ostra Pile 2 (N=135)	56.43	10.50	27.50	7.66
Galindo Wall A (N=98)	60.51	11.96	31.32	6.81
Galindo Wall C (N=104)	74.52	17.37	35.81	9.04
Arroyo (N=57)	69.16	19.33	30.93	9.94

Figure 3.6. Comparison of Chankillo slingstones with a local control group, and with stones from Ostra, Galindo and a control group from a stream (Arroyo) near Ostra (after Topic 1989).

EXCAVATIONS AT THE TEMPLE OF THE PILLARS

The buildings inside the fort are protected and/or segregated from the outside by its massive defensive walls. Reconstructing the activities that took place in them is the key to understanding the reasons for such defense. Among these buildings, the rectangular structure, renamed the Temple of the Pillars, was paramount (the name assigned to the structure comes from the pillars uncovered by the excavations, which have very important functions that go beyond their structural role of roof support). Our research indicates that the building's primary function was ceremonial.

The building is composed of an atrium in front and four interconnected rooms in the back (Figure 3.7). The atrium's lower level is a high rectangular platform with

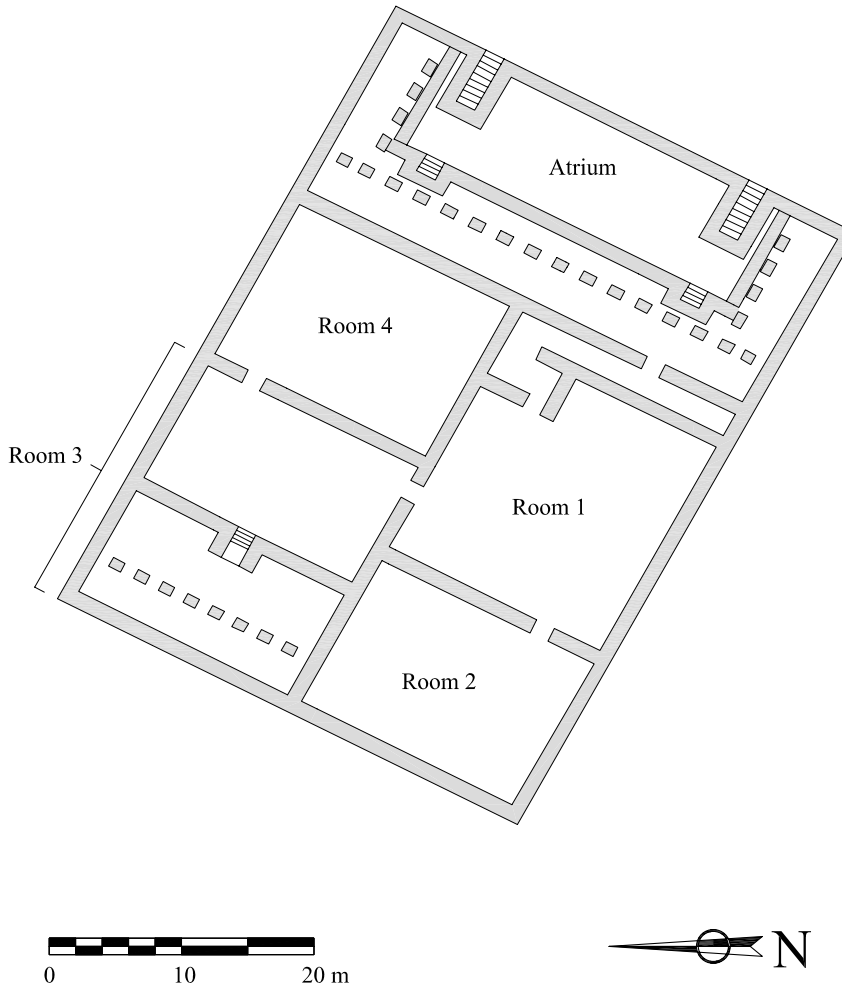

Figure 3.7. Ground plan of the Temple of the Pillars.

two inset lateral staircases. The upper level is a U-shaped platform built on top of the lower level; it has two lateral staircases that line up with those below. The platform has a gallery of pillars that, as the excavations have shown, originally supported a shade made from perishable materials. A small doorway lined-up with the southern stairway leads to a corridor; the narrow corridor connects the atrium to the back rooms through another doorway, which is restricted by blocking walls.

Direct entrances interconnect the back rooms. Room 3 stands out because it is the largest and, like the atrium, it has a platform with a shaded gallery of pillars on top. The patio in Room 3 is rectangular and small; two direct entrances link the patio to other rooms, and a small staircase connects it to the platform. The platform is small and elevated 1.46 m above the floor level of the patio. It is formed by a retaining wall holding a fill. A staircase inset at the center of the retaining wall leads from the patio to the platform summit. Atop the platform, eight pillars define a gallery space near the back wall. A superstructure of lightweight, perishable materials and mud supported by the pillars shaded the gallery; these pillars were set on a sturdy foundation, which runs from side to side of the gallery.

The location and orientation of the Temple of the Pillars were carefully chosen to define the main axis of the entire site, which is aligned with the December solstice. Found at the highest point, it is visible from the buildings and plazas[1] on the eastern end of the site: public ceremonies carried out in it would have reached an ample audience. Indeed, the walls on the eastern side of the fort, although massive and tall, do not block the sightline between the buildings in the central platform and those located to the east. This is in contrast to the western side of the fort, where high walls block the view from the outside. This compromise in the defensibility of the fort indicates that security was important but not a primary consideration.

On the eastern wall of the patio, excavation revealed poorly preserved remains of a low-relief mural (Figure 3.8). Though only a fragment is preserved, it extended

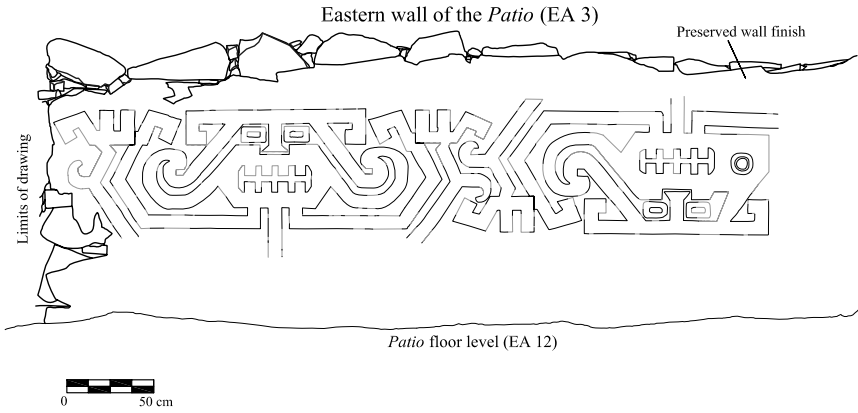

Figure 3.8. Low-relief mural decoration in the eastern wall of the patio.

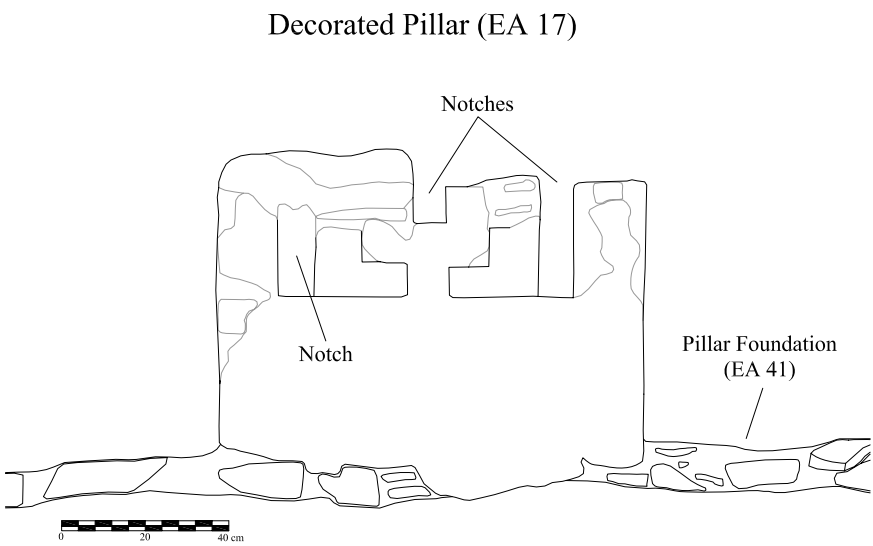

Figure 3.9. Elevation drawing of decorated pillar with dual step motif.

presumably along the wall; similar decoration may have existed around the room. It represents two front-facing, alternated anthropomorphic heads, with possible bird and spider attributes. The face of this supernatural being dominates the design, whereas there is an extreme oversimplification of its body. Overall, the design gives the distinct impression of being a synthesis of well-known icons, and technical details of its creation suggest it may have been copied from a textile model (Ghezzi 2003).

The southernmost pillar (EA 17) was preserved enough to show a relief representing a double step (3 steps) motif with the step sides facing each other (Figure 3.9). This design has had a strong association with supernatural beings, religious beliefs, and power throughout Andean prehistory (Makowski 2000). Careful examination of the other pillars indicates they had a similar configuration. Through the excavations, many fragments were hollow, curved, modeled, with white and yellow paint, etc., indicating that the pillars were decorated by modeling and painting to represent figures that are now lost.

In synthesis, a great deal of time and energy was spent on erecting the Temple of the Pillars. It was carefully made, and decorated with supernatural representations. To the extent that we can reconstruct it, its floors were kept clean. No activities carried out there could be connected to the subsistence economy. The building incorporated an important architectural element that is a clue to its overall function: the platform with gallery, which we interpret as a stage for ceremonies. Whereas the Atrium faced the large plazas of Chankillo and probably addressed a large audience, the platform and gallery in Room 3 were much more restricted in access, and probably served as a setting for the ritual activities of a more select audience.

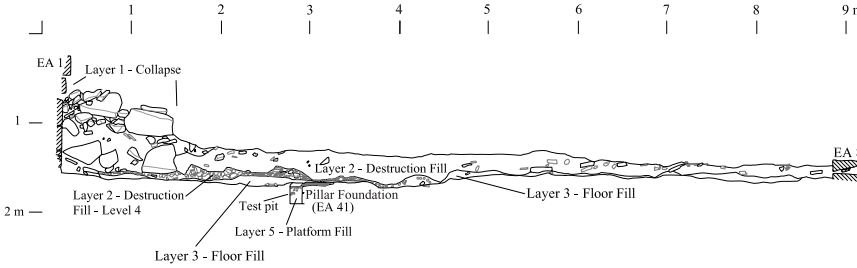

Figure 3.10. North profile of the platform in Room 3 showing a thick layer of fill deposited with the destruction of the architecture.

Within the temple, the excavations concentrated in Room 3. The stratigraphy indicates that the structure was built on sterile ground, and that a fill of gravel and stone blocks, held by a retaining wall, was placed to raise the platform. This fill was capped by a thick white plaster floor that was the occupation surface of the platform. A thin fill of gravel and rubble was placed afterwards as the foundation for a second gray floor. In turn, this floor was buried under a very thick fill, a blend of schist, dirt, and white clay, mixed with construction debris collapsed from the nearby walls and pillars (Figure 3.10). Schist fragments make up 60% of the volume of this layer. Because schist is hardly found anywhere in Chankillo as a construction material, it is clear that this was brought in.

This thick fill is interpreted as an intentional destruction and partial burial of the building, related to the abrupt end of occupation at the Temple, and possibly of the whole site. Immediately after it was placed, the remaining visible parts of the decorated pillars were systematically destroyed, and some walls, possible those adorned with murals, were partially dismantled. Most cases of building burial, which was common in the prehistoric Andes, share the use of clean fills carefully deposited to preserve an earlier structure and to raise the level for a new construction (Bonnier 1997; Burger and Salazar-Burger 1980; Grieder et al. 1988; Izumi and Sono 1963; Izumi and Terada 1972; Shimada 1986). At the end of the occupation of the Temple of the Pillars, there is no intention to preserve or renew the building, but, on the contrary, to destroy it. I argue that this was a desecration probably resulting from conflict, and imposed by the force of an outside power.

CONCLUSION

New evidence from survey, excavations, and artifact analysis strongly suggests that the hilltop building at Chankillo was a fortified temple. Its defensive walls may additionally have had symbolic value, as forts represent power and leadership to both outsiders and insiders. The function of these walls may have included social

restriction of access as well. However, in light of multiple lines of evidence, such as defensive architectural features, associated weapons, combat representations in art, and the ultimate fate of the Temple of the Pillars, it is clear that a great concern with security existed.

Some arguments used to question the security role of Early Horizon hilltop buildings are based on their apparent strategic inability to defend populations or their territory, given the buildings' distance from settlements, fields, and water sources. There are many minor forts of this period in Casma (Wilson 1995); these constructions involve a significant investment of time, labor, and materials. Late Early Horizon settlements may have been a target of warfare, and minor forts may well have been a refuge for a dispersed population under attack. However, evidence introduced here reveals a disproportionately large energy investment to fortify the Temple of the Pillars at Chankillo. It represents by far the most significant product of public labor at the time, matched by no other construction in the valley. This effort was undertaken out of concern for security in the main ceremonial area, while leaving the rest of the site completely unprotected. It is clear from the evidence that the primary purpose of the building was ceremonial, and not to be used as a refuge. The requirement of water and other supplies for ceremonial activities may have been minimal compared to a settlement. Traffic of people, on the other hand, must have been high. Therefore, arguments against a defensive function that include relative isolation, lack of water storage facilities, apparently excessive number of gates, and the location of barholds on the outside rather than inside of gated walls can now all be dismissed with confidence.

Chankillo had significant defenses, reflecting the great threats that must have existed at the time. Nevertheless, it was above all a paramount ceremonial space, designed accordingly to balance multiple purposes. It highlights the inadequacy of an either-or approach to site function, and by extension, to prehistoric warfare. What kind of warfare environment may have characterized the late Early Horizon period of the north-central coast area to warrant the fortification of temples? The extent of efforts expended in building such fortifications in defensible locations, complete with high, massive walls, all-around parapet, baffled gates, and stocked with slingstones and possibly other weapons, is indicative of the significant scale and intensity of the threat. Constructing fortifications is a way to allocate resources to the problem of security in advance of the task of actually defending from an attack, and reveals a high level of preparedness for warfare. At least for the construction of the Chankillo fort, settlements and their populations had lesser priority than ceremonial spaces in the assignment of public labor for defensive works; it suggests that a major goal of warfare may have been to attack the seats of religious power. The artistic representation of warriors, holding specialized weapons and wearing the symbols of high status, indicates the possible rise of a class of warriors, and thus, the transformation of society by war. The threat of total destruction may have been key to justifying leadership, and the mobilization of public labor to erect massive fortifications to protect gods and their temples from the dangers of a world in which holy wars were fought to destroy them.

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ENDNOTE

1. The plazas at Chankillo are not bound on all sides, but can be readily recognized by the landscaping (flattening, filling and clearing of debris) of the ground. Some are partially defined by walls or buildings.

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Chapter **4**

The Vicús-Mochica Relationship

Peter Kaulicke

INTRODUCTION

The Vicús-Mochica relationship seems to be dominated by a number of important contradictions. Vicús, a "non-Peruvian" style of undefined (presumably northern) origin is confronted by Mochica, a "classic" style from the distant "core" area on the northern coast of Peru, in the Upper Piura Valley, a frontier region between the Central and the North Andean culture areas. This "classic" Mochica style, most appealing to modern observers because of its superb "realism" with explicit references to violence and sex, differs notably from the Vicús style characterized by a charming "primitivism." In popular scenarios, hypothesized cultural superiority and political power from the south lead to the conquest of the less evolved north (elite vs. non-elite populations), and so begins the Vicús induction into the Central Andean world, reinforced with later conquests by the Chimú and Inca states. Such processes of political aggression result in oppression, assimilation and the eventual absorption of local populations.

These interpretations and their implications are essentially based on art historical approaches and have been applied mostly to objects of unknown looted contexts. Consequently, they are almost certainly simplifications that deserve severe criticisms and should be avoided until improved by more explicit archaeological research.

Before examining the Upper Piura situation (the main objective of this paper) a general discussion of the north coast time-space frame and its implications is needed. By north coast I mean the area between the Piura and Nepeña rivers (roughly the distribution area of the Mochica style). My time frame is the first six centuries AD. This discussion provides the background for the interpretation of the Piura region data, focused on the results obtained during the Upper Piura Archaeological Project (1987–1990). Finally, I present alternative perspectives of the Upper Piura region's relevance to a highly dynamic and far reaching political, economic and cultural network during the centuries in question.

TIME AND SPACE

The acknowledged presence of "southern" pottery styles from unspecified looted burial contexts in the Upper Piura region is not limited to Mochica, but also includes Cupisnique, Salinar, and, presumably to a minor extent, Gallinazo. Together, these constitute practically the whole array of styles which define the Early Intermediate Period and its antecedents on the north coast. Thus the problem seems to be more related with definitions of space and distribution mechanisms of these styles as reflections of the social and political systems which produced them. On the other hand, the frontier situation implies the necessity to focus on the relations with different northern contacts, their nature and their relevance.

Much of the present state of knowledge regarding north coast chronology is based on two major contributions dating back some sixty years. One is the Virú Valley Project; the second is a series of publications written by Rafael Larco Hoyle. The two are interrelated and complementary.

Gordon R. Willey, one of the researchers of the Virú Valley Project, published a series of papers on "horizon styles" (Willey 1945, 1948, 1951). He proposed a chronological sequence subdivided into three stages and five horizons. Two of them, the White-on-Red and the Negative horizons, pertain to the end of the Formative and the beginnings of the Regional Classic, corresponding to Salinar and Gallinazo on the north coast (Willey 1948; Table 5.1). Both "represent dissiminations of technical ideas . . . motivated by peaceful considerations in an area highly receptive to new ideas and characterized by simple socio-political structures."

Shortly afterwards, Willey came to rather different conclusions concerning Salinar (called Puerto Moorin in the Virú Valley), and Gallinazo (subdivided into Gallinazo I, II, and III), supported by an extraordinary wealth of archaeological data, assembled and published by the members of the Virú Valley Project (see Bennett 1950; Collier 1953; Ford 1949; Strong and Evans 1952). In his major contribution, the famous *Prehistoric Settlement Patterns in the Viru Valley* (Willey 1953), the periods are given time spans of 400 (Puerto Moorin) and 800 (Gallinazo) years (Willey 1953: 37). While Puerto Moorin probably was not a single state, Willey indicates that "[b]y the latter part of the following Gallinazo Period, there is little doubt on this score. The complex irrigation system . . . could have functioned only under closely coordinated management. The mammoth building projects . . . also demanded a strong, centralized government or a tightly knit and amazingly smooth-running confederacy" (Willey 1953: 396). There are Gallinazo "urban centers" with "several thousand people [living] within two or three square kilometers" (Willey 1953: 396). During this time the maximum prehistoric population for the Virú Valley was reached and remained so during the following Huancaco (Mochica) period (Willey 1953: 393). Thus settlement patterns, settlement types and construction techniques do not favor a major break between the Gallinazo and the Mochica periods, but rather a smooth transition.

Rafael Larco Hoyle, whose pioneer work is widely acknowledged by the Virú Valley Project archaeologists, published a series of important papers on the chronology of the north coast (Larco 1938, 1944, 1945, 1948). While he is the

first who elaborated a still widely accepted regional chronology for ancient Peru and is also the first archaeologist who proposed a fine-grained subdivision for one style (Mochica I–V)—still widely used—his approach has some disadvantages. His observations and excavations are largely restricted to the Chicama-Moche-Virú valleys, focusing on burial contexts, their stratigraphic superpositions and stylistic treatment of the decorated pottery. His published results are highly summarized so that it is often difficult to follow his arguments, as the complete contexts discussed by him are seldom presented. These often rather complex arguments, however, are essential for an evaluation of these generalizations, as they include chronological and stylistic subdivisions of styles, their relationships and genesis, coexistence of different styles, differentiated valley sequences, comparative approach, evaluation of other associated materials, and summarized characterizations of the "cultures" defined by him.

Parallel to this basically archaeological research, iconographic studies, initiated at the end of the 19th century, were gaining prominence in the 1960s and still are essential to the hypotheses aimed at the reconstruction of Mochica society (Donnan 1976, 1977; Hocquenghem 1987; Jimenez Borja 1938; Kaulicke 2000: 248–260; Kutscher 1950, 1954, 1983; for more complete references see general bibliographies in Uceda and Mujica 1994, 2003). Thus, Larco's subdivisions (Mochica I–V) are considered confirmed by seriation and are still largely used for the classification of archaeological sequences. They are envisaged as evidence for successive territorial conquests leading to the existence of a state with its capital Huaca del Sol/Huaca de la Luna near Trujillo. This state corresponds basically to the limits of what Larco called the "Mochica territory" in 1939, a proposal similar to what Uhle had in mind almost one hundred years ago (Kaulicke 1994: 328), as well as a basically different, less clear picture of an apparently late Mochica presence (Mochica V), to the north of this "Southern State" (see Billman 2002).

The year 1987 is a crucial date for a renewal of Mochica research. Walter Alva's (1988, 1994, 1998, 2001) excavations at Sipán in the Lambayeque Valley showed, totally unexpectedly, not only the presence of early Mochica well to the north of its "homeland," but also the existence of a well established, apparently powerful elite, until then only recognizable in "southern" iconographic representations. These spectacular findings resulted in two new propensities. One is the multiplication of research programs in Mochica sites between the Jequetepeque and Santa valleys (see Uceda and Mujica 1994, 2003; Pillsbury 2001), often in the form of long-term projects, concentrating on elite burials and monumental architecture. The other is the intensification of iconographic studies to the point that these still govern the construction of hypotheses.

This brief and simplified overview shows the longevity of ideas regarding north coast social complexity with a tendency to an increasingly strong Mochica-centric and elite class perspective at the expense of other related social phenomena. While it is premature to evaluate these new data because of the still very preliminary character of the pertinent publications (and, as we saw, of many older data, too), a more balanced overview of time and space according to present knowledge, as well as its inherent problems is required before passing to the Piura evidence.

In order to get this more balanced general vision we have to undertake a comparative approach by analyzing sequences in complex sites in each of the valleys which constitute the Mochica sphere of influence, define its internal changes, its duration and the relationship between architecture and associated artifactual evidence (pottery, metal, shell, etc.), and finally try to correlate the results with other monumental and non-monumental sites in the same valley, as well as with those of other valleys. Unfortunately, corresponding C14 dates are still extremely scarce and thus difficult to evaluate (Kaulicke n.d.). Settlement pattern evidence also is incomplete and excavations in non-monumental sites are rare. In spite of these inconveniences I presented such a study in 2000 (Kaulicke 2000), the principal results of which are summarized here.

If we exclude the late Mochica, which chronologically corresponds to the Middle Horizon (Castillo 2001), the different pottery "substyles" defined by Larco apparently are present in each valley from Piura to Nepeña, often associated with or sometimes replaced by other variants or styles with a less pure Mochica "flair" and still others which are essentially non-Mochica. The most representative and persistent of the latter is the Gallinazo style (Shimada and Maguiña 1994). The distribution pattern of the Salinar style is less clear; it seems to cover about the same area, but disappears earlier than the other two. Their contemporaneity with the Mochica style is suggested by hybrid forms and decoration patterns (Kaulicke 1992). All in all, this distribution pattern calls for explications far beyond simple conquest scenarios and even the now widely accepted separation into a northern and a southern sphere (Shimada 1994a), but seems to correspond to what Bawden (1996) calls north coast continuum. This continuum, however, should be differentiated into regionally more operable intra- and inter-valley units, and more meaningful division of the Mochica styles and variants should be complemented by correspondingly more nuanced Gallinazo and Salinar stylistic or typological subdivisions, a task that is almost impossible because of the lack of a necessary data base.

Generally, this kind of pottery is associated with monumental architecture in the form of platform mounds, often with ramps as the main access, built up with massive use of mold-made rectangular adobe bricks. These mounds are of differing, often impressive sizes and form compounds with similar buildings, usually surrounded by other devices like plazas and non-monumental architecture. The latter is less visible or invisible on the modern surface, so that the site limits often are difficult to determine without excavation or the use of GPR (ground penetrating radar). Each valley boasts a varying number of these sites, few of which have been excavated in order to provide a clearer picture of the structures on the mound tops and smaller buildings around them, as well as their decoration patterns in the form of mural paintings or reliefs (Sipán, Huaca Cao, Huaca de la Luna, etc.), sometimes sharing the same motifs used on pottery. Thus, their social (or political) functions remain mostly a matter of speculation. While these functions are largely unknown, there is no doubt that they form the centers of settlements of varying dimensions and different spatial organization. In the case of the Huaca del Sol/Huaca de la Luna complex, the site seems to develop into an urban settlement between dual

"huacas" (Chapdelaine 2003); huge sites like Galindo in the same valley (Bawden 2001) and Pampa Grande in the Lambayeque Valley (Shimada 1994b) are other, slightly later examples. But Sipán, located near to Pampa Grande, is also a large complex, although the remains are less evident as the site is situated in cultivated terrain and remains undocumented.

The excavated platforms (Sipán, Cao, Huaca de la Luna, etc.) share a common characteristic in being constructed in the form of superimposed buildings, which obviously differ in size, but also in shape, and possibly function. Thus, they provide information about chronologically significant changes through a definable time that corresponds to the duration of the entire occupation of the monument and probably also to the surrounding settlement. Often these different buildings contain burial contexts, which define the rhythm of specific pottery use and their associations with other material, as well as changes in the treatment of the individual and the burial structure.

These burials, also present in separate funerary areas, show a remarkable continuity in shared characteristics in the discussed area. Cupisnique, Salinar, Gallinazo, and Mochica contexts usually contain bodies disposed in an extended position within rectangular structures, delineated with slabs which, in Mochica and Gallinazo times, adopt the form of coffins; other variants show parallel developments (for further discussion see Kaulicke 1994). Some of these structures are much more complex, as in the Sipán case, containing large quantities of pottery, metal, and other prestige goods, and thus might be called elite burials. At Sipán, and probably other sites, too, burials of slightly lesser complexity, funerary offering pits, and functionally related structures turn these buildings and burial places into foci of intense and complex rituals, probably linked to cycles of complex funeral ceremonies and ancestor worship. These burial complexes, characterized by large quantities of metal objects, are known from several sites, particularly in the area between the Piura and Jequetepeque valleys, where they are associated to different pottery styles which seem to span the entire Larco sequence. Comparably elaborate burials attributed to Salinar and Gallinazo have not been documented (which is not proof that they did not exist), but it seems significant that the same region produced evidence of elite burials corresponding to chronologically earlier phases, especially the Late Formative, that were also rich in metal objects related to status enhancement and ancestor worship.

This last point might be important to the question of the origins of the Mochica style. A vigorous, plastic modeled and high-quality pottery, usually known as Mochica I, and, as such, representing the beginnings of Mochica art, is found in substantial quantities in the same area (Lumbreras 1979, 1987; Lapiner 1976 for the Piura Valley; Shimada 1994a for the Lambayeque Valley; Narváez 1994 and Donnan 1992, 2003 for the Jequetepeque Valley). Most of the objects derive from looted burial contexts, but the excavated contexts from La Mina and Dos Cabezas in the Jequetepeque Valley reveal that this pottery style is associated with high-quality metal objects, apparently all products from specialized workshops. Some of them, like the "crowns" and the nose ornaments reflect paraphernalia present in Formative Period burials as at Kuntur Wasi in the same valley (Onuki 1995),

but also Chongoyape in the Lambayeque Valley (Lothrop 1941). In the case of Dos Cabezas, the pottery seems to be contemporaneous with Gallinazo (Donnan 2003: lam.2.3b; Castillo 2001: 313); the C14 dates, however, are rather late but consistent with parallels with other supposedly later burials (Kaulicke 2000, n.d.). Thus, this pottery might not be a good candidate for an initial Mochica. On the other hand, the origin of the Mochica style should be related at least partially to a revitalization of Formative concepts and forms.

The mentioned building sequences seem to correspond to occupation phases of different, but often short time lengths, including possible interruptions, so that the overall use from the beginning of construction to abandonment, in the cases of Sipán, Huaca Cao and others, should not exceed four to five generations and thus probably less than two hundred years. The uppermost or latest buildings show a tendency to repetition of construction patterns, mural paintings sharing motifs and techniques, and pottery that corresponds to Mochica IV in the cases of Huaca Cao Viejo and Huaca de la Luna, and a largely contemporaneous more Mochica III-looking pottery at Sipán. The overlain earlier buildings are less well known but it seems to be clear that they do not reflect a neat sequence in Larco's sense (from Mochica I to III) but a coexistence of different styles, apparently with a greater presence of Gallinazo than in later contexts.

Therefore it seems that analyses should be directed more towards definitions of identity, ethnicity and memory in a more inclusive perspective by taking into account the lower echelons of society in urban and non-urban contexts. Another important aspect is the production of relevant items in their social settings (extraction of raw material, processing in workshops, identities of artisans and workers involved in these processes, distribution mechanisms, relationship with elite and non-elite consumers, nature of consumption).

Thus monumental architecture, associated settlements, and burial contexts should provide us with clues to Mochica (and Gallinazo, Salinar or others) social and political organization(s). General interpretations, however, almost exclusively based on divergent definitions of style, vary in range from a single Mochica mega-state, two states (a northern and a southern one), to independent polities, federations, alliances, etc. (see Shimada 1994; Quilter 2001) or "varying degrees of political centralization, hierarchy, and heterarchy " (Dillehay 2001: 259). It seems rather improbable that centralization should be seen as the result of steady growth of nested and stable hierarchies allowing organized pressure in order to increase or defend fixed territories. The conflicts (institutionalized or sporadic warfare) could also be envisaged as responses to a large variety of different "inner" and "outer" social and environmental crises as well as political interests (Dillehay 2001: 272). The north coast is a fragmented mosaic of patches of spatially reduced and separated terrain suitable for the development and permanence of social groupings. These offer rather fragile and reduced natural resources, which demand the application of techniques of different complexities to assure and intensify their exploitation. Severe impacts like intense and sometimes prolonged droughts and precipitation (ENSO/El Niño) call for rapid and diversified adjustments and adaptations. These conditions do not favor the development of uniform political control and centralization of the totality of these restricted areas, let alone the simultaneous

control of different valleys. Therefore centralizations usually are relatively short-lived and shifting, and they are not necessarily confined to late phenomena in the Mochica world. This Mochica world should be envisaged as a complex and dynamic history in a changing interaction sphere wherein the actors constantly mold and transform their identities and ethnicities as well as their ideology and power relations. These interactions involve other non-Mochica political systems, usually highland polities concentrated in the critical bottle-necks of the upper river valleys which affected the valley polities in differing but still poorly understood ways.

THE UPPER PIURA VALLEY

The foregoing discussion has shown that the Upper Piura Valley constitutes part of the north coast continuum and as such part of the Mochica interaction sphere. This view is not undisputed as the Sechura Desert between the Lambayeque River valley complex and the Piura River is often perceived as a geographical and cultural frontier area which could only be crossed effectively in late epochs due to the Chimu and the Inca conquests. Important geographical and environmental facts, however, provide us with more informed arguments. Due to the unusual course of the Piura Valley the Sechura Desert ends to the west in a broad corridor at the foothills of the cordillera. A series of smaller, nowadays often dry valleys, like the Salas, Motupe, Olmos and Cascajal rivers, connect in the south with the large Lambayeque Valley complex, and some of them penetrate the desert area (Delavaud 1984; Guffroy 1994: fig. 1; Kaulicke 1992: fig. 5). This evidence has to be seen in combination with the highly oscillating climatic regimen of the area with episodes of intensive rainfall (ENSO/El Niño) and droughts the effects of which are more intense and frequent than in the more southern valleys. These past and present events can turn the desert into large areas of lagoons, changing and enlarging usually dry river courses, and producing water resources for seasonal agriculture, pastures for grazing animals, and material for combustion and construction (Kaulicke 1993: 288–290). A third related aspect is the high degree of deforestation with the effect of increasing desertification or a shrinking of economic space by human agency.

This northwest-southeast corridor formed by the series of river basins is connected with tributaries which serve as communication routes, entering the northern and eastern highlands, both of relatively low altitude. They are characterized by Amazonian flora and fauna, and basins which probably served as trade routes in the past, connecting with tributaries of the Marañon River. Therefore the Upper Piura Valley should be seen as an important node in a complex network rather than a "dead end street" of southern cultural expansion.

While the history of archaeological investigation in the area begins with Humboldt in 1802 (see Astuhuaman 1999; Yudelevich 2004), the first pottery seriation was presented by Lanning (1963) and concentrated on coastal sites in the Lower Piura and Chira river valleys. Lanning presumed that this material showed strong regional characteristics with minor ingredients or contacts with the north (Ecuador) and the south so that his conclusion that the area represented a sort of transition area between two major cultural areas seemed justified (see Hocquenghem and

Kaulicke 1995); his chronology was slightly modified by Richardson (Richardson et al. 1990). Ten years before the publication of Lanning's monograph, looting at Callingará, near Frias, at the headwaters of the Yapatera, a tributary of the Piura River, led to the discovery of metal objects, stylistically closely related to the Tolita-Tumaco style on both sides of the Ecuador-Colombia frontier, about 650 kms to the north of Vicús (Jones 2001; Kaulicke 1991: 362; Matos 1965–1966; Mujica Gallo 1967). These surprising findings, however, did not lead to archaeological research in the area, but inspired the grave looters hired by local hacendados to search in nearby regions, apparently following previous experience gained in massive lootings at Batan Grande in the Leche River basin (northern Lambayeque River complex). In the Vicús region they probably sacked thousands of burials containing a "new" pottery style, named Vicús by Matos, and an astonishing quantity of often high-quality metal objects, mostly copper or gilded copper, but also gold and silver. In spite of the spectacular and unexpected wealth of evidence the response from archaeologists was weak. Matos (1965–1966) made an inspection of the area; Guzman and Casafranca (1964) excavated some architecture nearby and burials at the Yécala site; and Disselhoff (1971) excavated others at the same site. In 1969 another spectacular site was looted, Loma Negra, also in the Vicús region (Disselhoff 1971, 1972; Jones 2001; Lapiner 1976; Schaffer 1985). Some seven hundred metal pieces, mostly of Mochica style, were documented from an unknown original total (Schaffer 1983), and the site is still unexcavated. Looting has been going on in the Upper Piura Valley, as demonstrated by another spectacular case near Batanes, Loma Macanche, where rich intact Formative burials were destroyed in 1993 (Kaulicke 1998: 32, fig. 16). The few metal pieces, as well as the results of a later salvage excavation by Walter Alva remain unpublished. The not too enthusiastic reaction of field archaeologists (for reasons that will not be discussed here) has involved a huge amount of work concentrated on the extant material and its interpretations, in the way I indicated at the beginning of this paper. One of the most authoritative voices was Larco's (Larco 1965, 1966), who hailed the findings as representing the entire early part of the Mochica sequence, in which Vicús pottery was considered similar to Virú or Gallinazo. Cultural inference referred to an "arrow thrown from the Sta.Catalina [Moche Valley], Chicama, and Virú valleys" (Larco 1966: 49) and Vicús "which in the beginning was a colony followed later the same paths as the coastal cultures of Trujillo and Ancash" (Larco 1965: 69, 71). It is not my intention here to present or to discuss the complex game of interpretations, speculations and fantasies which have been asserted about this topic over the last forty years, but it is evident that much more fieldwork is necessary to tackle these problems adequately. It is also evident that the Upper Piura area was not a marginal frontier, but an important center in its own right. Although significant quantities of high-quality pottery and metal artifacts have come to light in the far north only recently, while comparable materials have been known farther south for centuries, this reflects the recent development of organized looting in the Piura and Lambayeque Valleys, as opposed to hundreds of years of such same activity in the supposed "core" area, especially around Trujillo, where looters were already active in the early 16th century (see Zevallos 1994).

THE UPPER PIURA ARCHAEOLOGICAL PROJECT

Monumental architecture has been a defining feature of the Mochica interaction sphere and Central Andean culture generally. In turn, "northern" or Ecuadorian cultures of the borderlands have not emphasized ceremonial centers composed of platform mounds. To document the nature of Vicús cultural centers, excavation remains are discussed in the following pages.

During five field campaigns between 1987 and 1990, the Archaeology Program at the Pontificia Universidad Católica del Perú (PUCP) and ORSTOM (France) undertook extensive surface surveys and excavation in the Vicús and the Chulucanas areas, both forming part of a single pocket of the Piura River. The program was headed by the author and Jean Guffroy (ORSTOM). The aims of this project concentrated on building a chronology for this part of the Upper Piura, as well as on acquiring information about monumental and non-monumental sites, metallurgy and pottery production, subsistence, and changes in the social structures associated with the aforementioned different pottery styles. One major excavation site (headed by Jean Guffroy; see Guffroy 1994; Kaulicke 1998), a relatively large ceremonial center of Formative times, was Ñañañique in the northern part of the town of Chulucanas. The other one was the Loma Valverde/Nima sector, near the huge cemetery site of Yecala (Figure 4.1), a center from Vicús and Mochica times (investigations headed by the author; see Kaulicke 1991, 1993, 1994, 2000). Surveys in the lower Yapatera Valley were undertaken by Bats (1990, 1991) while the

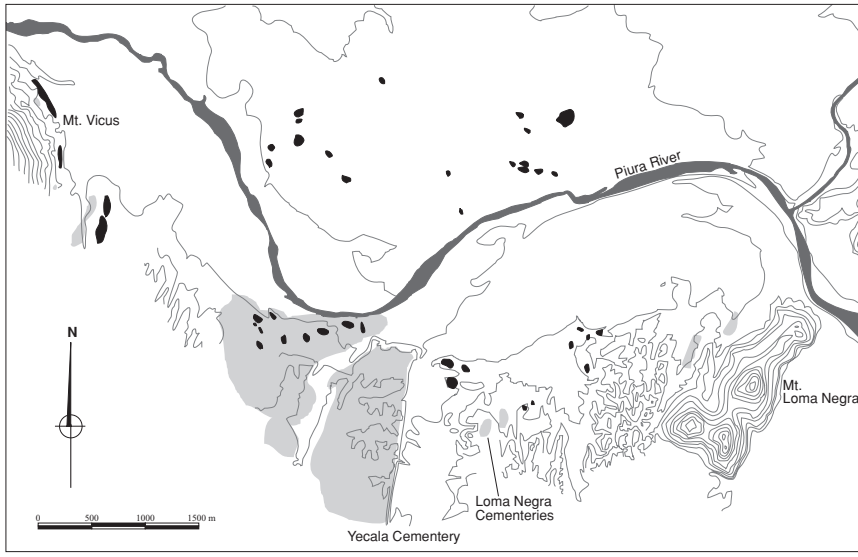

Figure 4.1. The Vicús "pocket" between Mt.Vicús and Mt. Loma Negra. Black shading: mounds; light shading: concentration of surface material (east of Yécala cemetery under modern cultivation); dark shading: cemeteries (adapted from Kaulicke 1991, fig. 1).

PUCP team surveyed the area between Mounts Vicús and Loma Negra. Krzysztof Makowski (1994: 108–10) dug at Pampa Juarez (Vi-14), an area of workshops near the Yecala cemetery, and Ismael Pérez and Ivan Amaru excavated some test pits at Loma Macanche, near Batanes (Kaulicke 1998: 32, fig. 15).

The sequence begins with the Ñañañique phase, followed by Panecillo, divided into two subphases each, both of them recognized at Ñañañique. Guffroy (1994: 129–136) calculates a rather long duration for both phases (2950–2400 bp) but the C14 dates also allow another reading with a total of no more than 300 radiocarbon years, corresponding to a late Middle to Late Formative (Hocquenghem and Kaulicke 1995). Excavations and surveys did not reveal the existence of earlier occupations from the Archaic or Early Formative periods. Architecture and pottery reveal some parallels with southern monumental sites (Lambayeque and Zaña valleys), as well as with little known others in the upper Amazonian Bagua region (Olivera 1998), but both are expressed in a rather "provincial" way. While not technically incompetent, the use of kincha (wattle and daub) walls for monumental buildings and the irregular spatial organization of the architecture, as well as the impressive and varied pottery are best understood as reinterpretations of southern models (Kaulicke 1998). Strengthened by the presence of marine resources, numerous ceramic pieces which correspond to the distinctive red-on-white Paita C and D style defined by Lanning hint at regular contacts with the Lower Piura.

The subsequent, probably short phase, La Encantada (Guffroy 1994: 429, fig. 34; Bats 1991: fig. 5b), possibly situated between the 4th and 2nd centuries BC, seems to be a slight, post-occupation presence at Ñañañique, but occurs in a number of other sites in the Yapatera Valley and in the Vicús area, but like Loma Macanche (Kaulicke 1998, fig. 15 i-m, x-bb), unfortunately not associated with excavated contexts or C14 dates. The pottery is very similar to Sechura A in the Lower Piura Valley (Hocquenghem and Kaulicke 1995: figs. 6.3–8, 8.1–3) and might indicate a shared interaction sphere.

The next phase, Chapica (ca. 2nd–1st centuries BC), is only known by surface surveys in the Yapatera Valley (Bats 1991) and seems to share many elements as well as basically the same space as Panecillo and/or La Encantada, but expands to new, previously unoccupied areas (Bats 1991: figs. 1, 8). The pottery seems to include Salinar elements (Bats 1991: fig. 5c–g).

The following phases were defined in another area to the southwest of Yapatera, where more than forty mounds were identified. On the left side of the Piura River, between Mounts Vicús and Loma Negra, and particularly in the center between both mountains, occupation evidence is notably denser than in any other areas (Figure 4.1). This central space or pocket between the mountains is occupied by the huge Yécala cemetery flanked by a series of mounds on both sides of its northern extreme. Three mounds to the northwest of this cemetery form a complex, which seems to be part of a much larger center, and a high concentration of surface sherds probably connected with the mounds to the northeast where the Loma Negra cemetery is situated. Thus, this center should have an extension of some 3 or to 5 kms in east-west direction, in the form of a band some 1.5 kms wide. If the cemetery areas are included, it becomes a rough half circle with a maximum

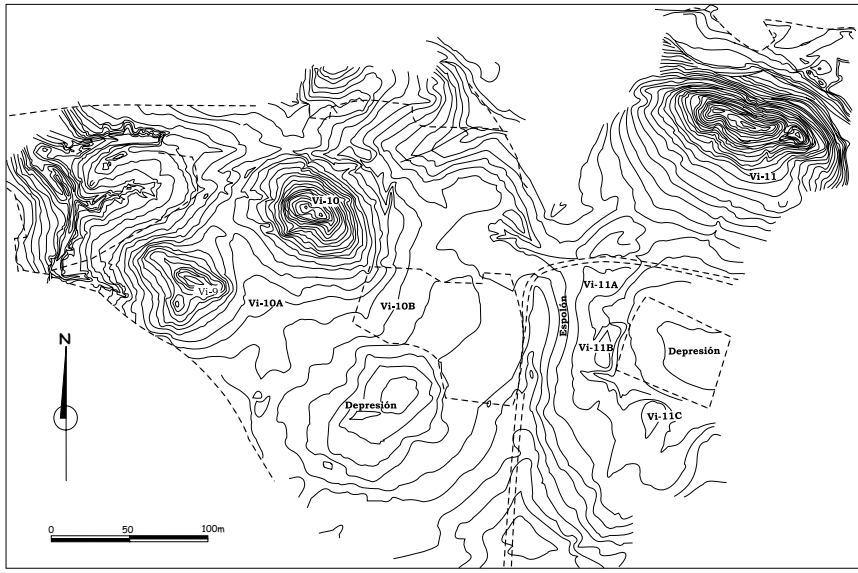

Figure 4.2. The Vicús-Tamarindo Complex with excavated sectors and major constructions. Vi-11: Loma Valverde; Vi-10: Nima I; Vi-9: Nima II (see text for descriptions) (from Kaulicke 2000: fig. III.2).

extension of about 2 kms north-south. This center probably was even larger, as an important part of the river terrace was erased due to changes in the course of the Piura River, caused by ENSO/El Niño effects, which resulted in considerable damage of Vi-11 (see below) on its north side; the river terrace profiles show cultural layers belonging to the same sequence detected in the excavations of this site.

In order to understand the occupation history of this center, one area was chosen that had been examined by C. Ladrón de Guevara and J. Casafranca in 1963, who published a brief report on their excavations (Guzman and Casafranca 1964). This area, which is about 1 km long × 0.5 km wide, was called the Tamarindo Complex (Figure 4.2). It was carefully mapped and subdivided in two principal sectors. The East Sector is dominated by a major mound, Loma Valverde or Vi-11 (100 × 40 m, 8 m high), a low mound (Vi-11A) and adobe platforms to the south (Vi-11B, C), which seem to delineate a rectangular depression (sunken plaza or reservoir). Another mound (Vi-12) is situated to the east of Loma Valverde, and an area of kilns is located some 400 m to the south of Vi-10 (Vi-12 and the kiln sites are not indicated in the map). A long spur ("Espolón") runs in a north-south direction marking the separation from the West Sector. This sector boasts two large mounds with shared directions: Vi-10 or Nima I (95 × 75 m, 9 m high) and Vi-9 or Nima II (60 × 58 m, 4 m high). Both are connected by a plaza (Vi-10A); an Inca-Chimu cemetery (Vi-10B) was located to the southwest of Vi-10, as well as

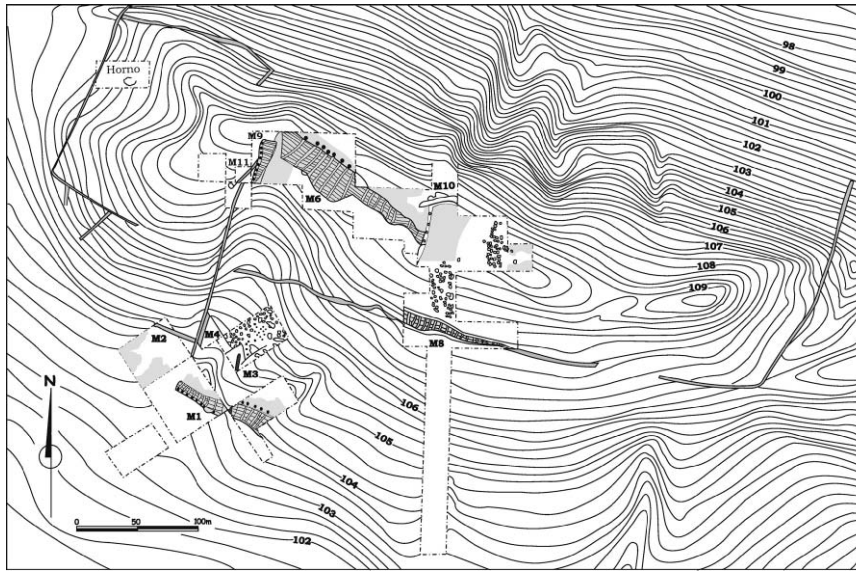

Figure 4.3. Loma Valverde (Vi-11), with excavation sectors and architectural features. M: wall, horno: pottery kiln (from Kaulicke 2000: fig. III.4).

another depression in line with the mounds to the south. Eleven excavation units, with a total of 1330 sq m, were dug in monumental architecture (Nima I, Nima II, and Loma Valverde), platforms and domestic architecture (Vi-11A-C, Vi-12, Vi-10 A), activity areas with fireplaces, kilns, pits, other features (Vi-10A, Vi-11A, Vi-12, and kiln sites), and the Chimu-Inca cemetery (Vi-10B).

The excavations at Loma Valverde (Vi-11) showed that the mound is totally artificial with its original surface significantly below the actual one, so that the whole structure reached a height of about 12 m but originally should have measured ca. 14 m high. This structure has a rectangular shape, built up in three levels, the uppermost measuring 57 × 17 m, with a constructed space of 969 sq m (Figure 4.3). The original width should have been greater but collapsed because of the destruction of the terrace by ENSO/El Niño effects. The main entrance should have been located in this destroyed part, looking toward the river. The construction consists of a rather complicated system of longitudinal and transverse walls, which attained heights of more than 3.50 m. Their construction technique involved various steps: 1) leveling the terrain with an ill-defined and incomplete clay floor, 2) inserting algarrobo (*Prosopis pallida*) trunks (diameters 0.12 to 0.16 m and total length of more than 5 m) with pointed ends (probably cut by fire as shown in the profiles) to a depth of more than 1 m to form rows of posts separated by 0.40 to 0.60 m whose upper extremes they were probably gabled. 3) Thinner trunks (probably *Tessaria integrifolia,* locally known as "pájaro bobo") were attached to two horizontal frames of reed (*Gynericum sagittatum*) by vegetal twisted and knotted

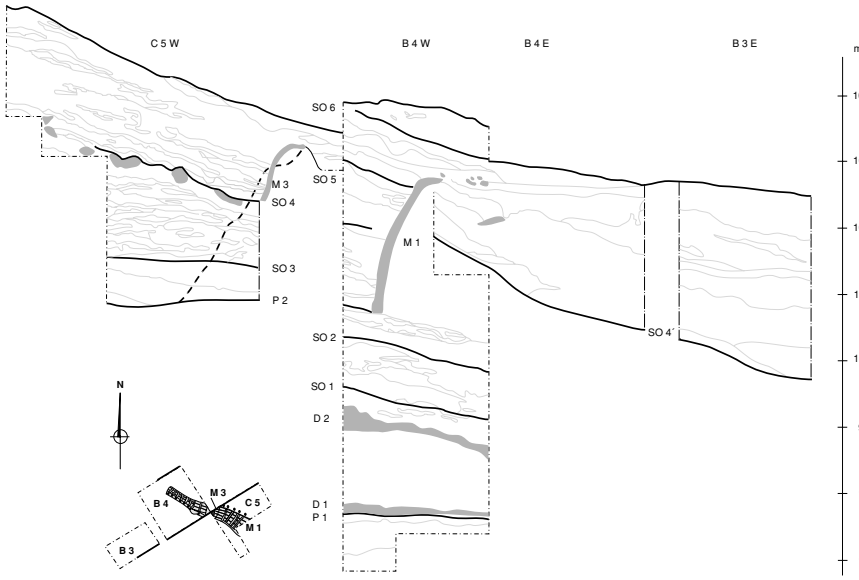

Figure 4.4. Profile at the base of Loma Valverde (see Figure 4.3). D: collapsed architectural remains, M: wall, P: floor, SO: organic surface (adapted from Kaulicke 1994: fig. 4).

fiber (probably leaves of the same reed). These were knotted on both sides of the algarrobo trunks. 4) Wet river clay filled the inner space and formed both surfaces where finger prints and traces of textile bags are still preserved. 5) A final coating is not well preserved in most cases (Kaulicke 1994: fig. 10.4). This technique is very similar to the one employed in the constructions at Ñañañique (Guffroy 1994: 100–102, figs. 22, 45, 46) so that it forms part of a tradition dating back to Formative times. Many of these walls were filled with soil layers containing much cultural material. Figure 4.4 illustrates the sequence of these events at the base of the mound. These are not only important as for their construction history but also as a register of climatic changes involving cycles of dry (erosion) and humid (pluvial effects) conditions. Floor 1 (P1) at the base apparently had the function of a base level overlain by crumbled wall fragments in two events (D1 and D2). This section is capped by an organic surface, which consists of a powdery white to pale red substance produced by plant decay. Thus these surfaces are indicators of humid environmental conditions, the plant decay apparently produced by tamping the surface with humid earth. The main wall (M1) connected to floor 2 (P2) was related to a series of other organic surfaces (SO3 to SO5). The surfaces also relate to different bending angles of the wall, produced by the decay of the algarrobo trunks, as well as to another transversal wall (M3) with a SO (SO4) at its base, that covers pieces of crumbled fragments from other walls of a higher level (compare Figure 4.3). This event had an important impact on M1, which was pushed to the south, exposing the bases of the algarrobo trunks. SO5, apparently towards the

end of the construction activities at Loma Valverde coincided with an important final bending of both walls (M1 and M3). A final SO 6 is of post-construction date. Corresponding events were detected on top of the mound (Kaulicke 1993: 298, figs. 3, 5) where a now heavily worn tapia platform was built. A kiln and traces of Chimu-Inca burials correspond to later non-related and sporadic occupations.

The recovered pottery belongs to the Vicús-Tamarindo A and B (VTA and VTB) phases. VTA shows up in the lower levels of Vi-11 and the lower levels of a test pit below the spur (see above). The high density of fragments in the fills of Vi-11, however, imply a relatively dense occupation nearby, evidence of which must still be found unless all was destroyed by later activities, erosion, etc. VTB is found in the upper levels, distributed over the whole complex (see below). VTA wares are red, dark and light brown, and sienna. More than half of the analyzed fragments show dense line burnishing which produces a low gloss. Most are necked vessels with diverging and converging rims, plates with convex walls and rounded lips, as well as bowls with rounded bases. Large-size vessels are rare. Decoration is typically white paint in bands or simple or double half circles. Modeling is rare, and negative decoration seems to be absent, but most of the analyzed pieces do not show any decoration whatsoever (Kaulicke 1991: fig. 15). This pottery seems to be related to the Chapica phase with Salinar elements.

VTB pottery is often coated with light pink or pale red pigments, or in minor quantities with yellowish orange or dark sienna. A cream slip applied with broad brush on vessel necks is also frequent. Diagonal instead of the previous horizontal burnishing characterizes this phase. Necked vessels are more varied in form with higher variation in diameters. Converging necks disappear and biconvex forms appear. The bodies have marked shoulders and a tendency to pointed bases. There are also simple globular forms and finer bowls with converging walls (Kaulicke 1991: fig. 14). Modeled decoration is far commoner than in A; necks are often adorned with faces, and figurines appear. White-on-red designs are more complicated and the white pigment is more dilute than in A. Negative decorations occur but are not common (Kaulicke 2000: figs. III.10.11).

VTB pottery is widely distributed through the area, including a tapia platform in Vi-12 associated with rectangular rooms with tapia basement and kincha walls, as well as evidence of metal processing (small kiln) (Kaulicke 1991, figs. 4, 10). At Vi-11A-C, the whole area is occupied by simple architecture, pits of varying forms, chicha kitchens and pottery kilns. At Vi-10 a tapia wall or perhaps platform at its base is related to a sequence of surfaces with pits and simple architecture, which begin earlier and cover the tapia structure (Figures 4.5, 4.6). In the plaza area (Vi-10A), another dense occupation area is located at layer E2 (Kaulicke 1991, fig. 11). This area is interesting for it reveals a sequence of dried and consolidated sediments that were originally waterlogged, apparently of colluvial origin, probably indicating heavy rainfalls (see below, Kaulicke 1991: fig. 3, 1993: fig. 7). In another excavation unit in the same area cylindrical pits with pottery and other cultural materials were found, in one case containing two large whole vessels.

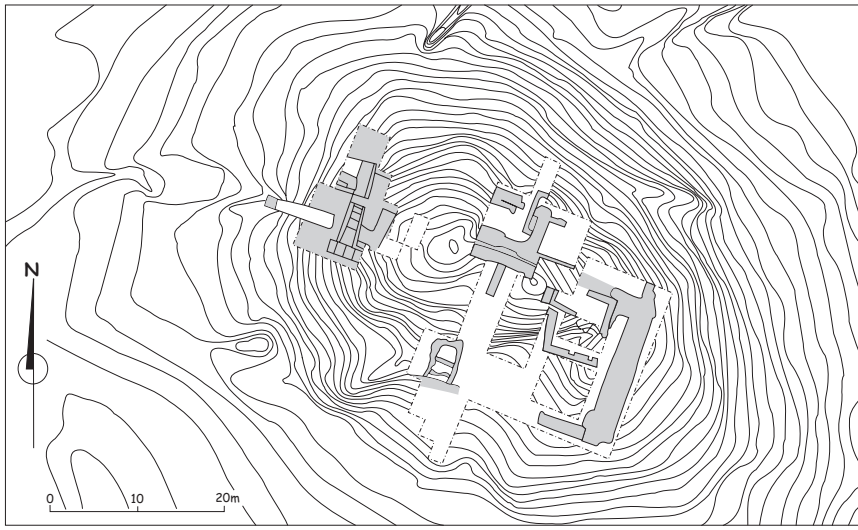

Figure 4.5. Nima I with excavation sectors and architectural features (dark shading) (from Kaulicke 2000: fig. III.6).

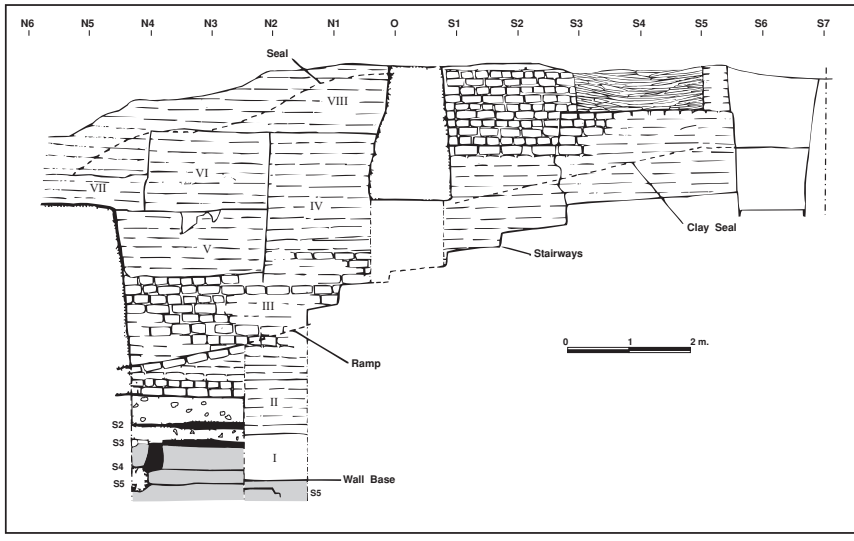

Figure 4.6. E-W Profile from the northern part of the West sector of Nima I (see Figure 4.5) with tapia structure (I), segmented adobe blocks (II-VIII), and associated surfaces (S1-5). Light shading: transverse walls. In the upper right part is a chamber filled with alluvial sediments (from Kaulicke 1991: fig. 5).

The VTC phase is characterized by a drastic reorganization of the whole area. As mentioned, Vi-11 was abandoned, while Vi-10 (Nima I) was converted into a complex platform mound and Vi-9 was a similar minor construction of the same time, with three levels and walls with adobes and floors coated with fine plaster (Kaulicke 1991: 393). Nima I shares its orientation with Nima II, but is larger, higher, and more complicated. It consists of two major structures combined with large transverse walls (Figure 4.5). The west façade is the most complete section. There an adobe wall is constructed upon the tapia structure with an attached ramp in north-south direction. This ramp turns into a stairway to the south (length 9.90 m, width 1.50 m). Then it turns towards the mound and continues in another stairway not totally excavated. These stairways were covered and sealed. Several layers of fill are related to segments of walls of the main façade, and the ramp was interrupted by a transverse wall which forms part of another long double ramp in west-east direction that ends in another platform, apparently connecting Vi-10 with Vi-9. Other platforms filled with soil and cultural material covered with an adobe layer are found to the north and the south. Rectangular spaces are located to the north and the east, one with niches in the walls. All the walls are constructed with layers of rectangular adobes, some conserved to heights of as much as 3.50 m, while the façade reaches a total height of more than 6 m. Adobes bricks vary in dimensions (0.30–0.45 $\times$ 0.18 to 0.26 $\times$ 0.11 to 0.18 m), with the larger ones used in the earlier phases.

Just as Vi-11, Nima 1 shows evidence of climatic impacts at several stages of the construction. On top of the tapia construction a layer of medium pieces of broken clay was detected, as well as sand sediments at the base of the first ramp. Other events characterized by large fragments of adobe with clay sediments seem to be related to several construction phases. A significant event marks the end of the second major construction, also ending the occupation of Vi-10. Rooms were filled in with sediments and east-west flows of clay dragged adobe bricks.

Another documentation of climatic events is revealed in the plaza area (Vi-10A). Three layers of waterlogged and later dried up soils are culturally comparable to Nima I (Figure 4.7). The first and more important one separates the VTB layers (E) from the D complex; on its top the first of four surfaces (D3) with VTC material is found. The others are situated before and after the second event, and the last is covered by the final one. These surfaces are characterized by a series of square pits filled with smashed pottery, ash, bones, camelid coprolites, and plant remains (Kaulicke 1991: fig. 12).

A series of platforms capped with adobe layers was detected at Vi-10A-C, separated from the VTB layers by thick alluvial sediments; another one is situated on top of the tapia platform at Vi-12. These are characterized by jar burials of infants as founding offerings.

The VTC pottery is subdivided into VTC1 and VTC2. In contrast to VTB there is a clear distinction between fine, medium, and coarse wares. The fine ware is made of fine paste, thin walls, and polished or fine burnished surfaces of open, convex or globular bowls with diameters between 14 and 20 cms. Sometimes the bowls have handles ("cancheros"). Others are bottles with a single spout and auricular handle

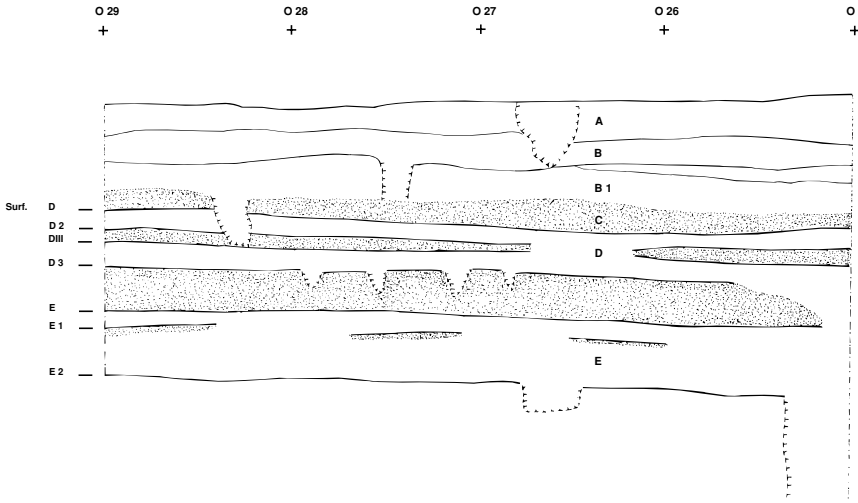

Figure 4.7. Sector Vi-10 A (see Figure 4.2), East profile, with Layers A to E, surfaces D to E2, and intrusions (pits, postholes). Stippled areas: colluvial sedimentation (adapted from Kaulicke 1993: fig. 7).

at the base, attached to a collar; stirrup spout bottles are rare. The medium ware is characterized by jars with diverging necks and globular bodies, up to 60 cms height. Another new form is represented by "ralladores," open bowls with broad incisions and diameters of up to 60 cms. Finally, large vessels, with diameters of more than 60 cms, with thickened rims and small flat bases are present, in one case related to a chicha (maize beer) kitchen (Vi-10A). Decoration techniques and motifs are also more varied than in the previous phases. Some fine black bowls show post-fired painting and negative decoration on a yellowish surface. This negative technique is not only more common, but shows a bewildering variety (Kaulicke 1991: fig. 17). Red paint on white slip or white–on- red designs are relatively frequent as well as modeling with appliqués, common in face-neck jars (Kaulicke 1991: figs. 18–22, 1994: figs. 10.9, 14–16, 2000: figs. III.12.13.14). The subdivision into C1 and C2 involves changes in type frequencies and decoration techniques. It is important to emphasize the distribution of fine pottery that is confined mostly to monumental architecture, particularly in the cases of Nima I and II, the adjacent plaza and Vi-12. At least the coarser pottery was probably manufactured on the spot, as revealed by an important number of kilns present in the complex.

While most of the excavation units reveal evidence of later occupations, these are difficult to discern, probably because of erosion unrelated to major construction events.

Five C14 dates for Loma Valverde show two clusters between 1870 and 1970 bp and between 1670 and 1750 bp; in calibrated form (calibration after Ziólkowski et al. 1994) they range from 167 BC to AD 268, as well as from AD 77 to AD 455 (1930 ± 60 bp [Gd-6066], 1890 ± 80 bp [Gd-6067], 1760 ± 90 [Gd-6064],

1950 ± 90 bp [Gd-4529], and 1700 ± 30 bp [Gd-5549]). This would probably mean that the construction was initiated shortly before in the late decades BC while the site was abandoned about AD 300, although this time span seems to be slightly too long. The time range should also be valid for the whole duration of phases VTA and VTB. It also corresponds to two major climatic events, the first one correlated with SO 4 and with the event shortly before surface E1 at Vi-10 A. The second more important climatic episode left its traces in all the excavation units and marks the separation between VTB and VTC1. Another C14 date (1430 ± 40 bp [Gd -5685]]), calibrated between AD 591 and 668, is situated shortly before another major climatic event which leads to the abandonment of the whole complex. Stratigraphically, it corresponds to event C at Vi-10 A. Another less important episode, situated between D2 and D3, seems to be contemporaneous with later major construction activities at Nima I. These correlations reveal a close connection between climatic impacts of various intensities and cultural or social responses, and presume the existence of a certain fluctuation of populations, as well as breaks in the occupation rhythm. This rather long discussion, already published in various quoted papers, is repeated here in summarized version in order to facilitate the understanding of the following hypotheses.

With these data in mind, we can try to sketch an occupation history and its social implications. Probably during the late Chapica phase, groups of this cultural background began to occupy the left bank of the Piura River, at this time covered with dense algarrobo forests and important riverine vegetation. These were intensively cut and employed for construction purposes. It is also probable that these activities were not confined to the Vicús-Tamarindo area. A small center was built at Loma Valverde, which grew extensively during the VTB phase, when other tapia platforms (Vi-10 and Vi-12) were built all over the region. This important settlement already boasted a certain specialization in metal, pottery and probably textile production, and thus formed a center with indications of social inequality, also implied by differentiated architecture and activity areas. This growth seems to be related to greater humidity than at present, permitting intensive cultivation of maize, bean, cotton, and other domesticated plants, as well as herding of camelids. Presence of marine resources like shell and fish reveal a close connection with the coast. As burial contexts were not found, a separate cemetery area should have been employed, probably the nearby Yécala cemetery. All this seems to reflect the presence of a rather complex political system, at the level of a complex chiefdom, not dissimilar to others farther south, particularly during the Gallinazo period in the Viru Valley.

After a major ENSO/El Niño impact, the whole complex was expanded and rebuilt by introducing a number of innovations. A new center with at least two platform mounds (a third one seems to have been destroyed by the river) was characterized by more complex architecture made possible by the extensive use of adobes and slightly differing orientations, organized around large plazas. Domestic architecture became rare, so the site seems to have had different functions. One important function seems to be related to feasting and sacrifices on and around the platform mounds. This feasting involved the consumption of large quantities of

beverage—probably maize beer—and camelid meat, also used for burned offerings. Less evident, but probable, was the sacrifice of humans. After these events, the containers (decorated jars) and the fine drinking vessels were smashed deliberately and buried in pits mentioned above. The fine drinking vessels and even the jars are often made in the Mochica style, but also in a more traditional Gallinazo way, as well as others, which seem to be imported from the north, including eggshell pottery of Guangala, and perhaps even Tolita style ceramics. These foreign prestige objects could represent no more than local elites using exotic objects to boast of their status but it is not impossible that strangers from far away participated in the ceremonies (see below). Most of the pottery, however, represents a continuation of previous forms and decorations. Even similar, but perhaps simpler ceremonies took place nearby during VTB times. Another change is the relocation of specialized activities from near the monumental buildings in VTB times to separate areas beyond mound margins during VTC.

In order to get a better understanding of the crucial cultural relations in which we are interested, additional elements must be introduced. To the east of the Yécala cemetery the famous Loma Negra cemetery is located. As this site was never carefully studied, details are necessarily guesswork, but some information is available. The elite burials formed part of a low adobe platform (or a sequence of platforms) made of the same type of bricks as those at Nima I and II. The associated pottery is poorly known and does not form part of the looted collections. However, pottery still extant at the site—it was looted in the eighties—is the same as at Nima I and II. Thus, Loma Negra should be at least partially contemporaneous with these other sites, making it possible that elites with their center at Nima (and probably other mound sites), were buried at Loma Negra. It is interesting that Vicús type burials also existed in the same place, possibly contemporaneous with the Mochica style tombs (Kaulicke 2000: 129–135).

When we look at the whole zone (Figure 4.1), we perceive a structured landscape between Mounts Vicús and Loma Negra. Both have double peaks, and the Nima structures are in line with the lower parts between the peaks. The huge Yécala cemetery clearly is at the center of this landscape dividing the mounds in two sectors (west and east), with the settlements to the north and the cemeteries to the south. While it is not clear how the Yécala cemetery was structured, it seems probable that it contained more Vicús style burials than burials of other styles. Many of them contained so many pottery and metal objects that they must have belonged to elites, separated formally from, but also sharing Mochica elements, as there are Mochica pieces with Vicús elements. Some of these Vicús burials were excavated by Disselhoff and Wurster (1971) and C14 dated. All of them seem to be coeval with VTC (Ziólkowski et al. 1994: 313–314); some of them with Mochica-influenced pottery. The whole area, and especially the center, probably had a most important role as a sacred landscape. This would mean that not only people living in that area were buried at Yécala, but also others from other parts or even outside of the Vicús pocket.

In the nearby highlands, evidence of Mochica or Vicús presence is rare. A special case is the Callingará site, near Frias, at ca. 30 kms from Chulucanas, within easy

reach from Vicús via the Yapatera Valley. Only some of the looted metal objects are known, among them the famous "Frias Venus" (Alva 1992, figs. 60–61). Some of the purportedly associated vessels, however, are also in the Tolita style, as are most of the gold objects (Jones 2001: 217–218). This unusual situation does not exclude the presence of Tolita people, established there as in a port-of-trade.

Further to the north, near Aypate and Ayabaca, Polia (1995) excavated two cemeteries sharing the same tradition. Two contexts are separated from the rest by relatively large amounts of metal objects, which reveal strong similarities in formal categories and decoration with the Vicús and the Mochica styles. The individuals are buried in extended positions indicative of Mochica influence, and different from the other burials and their contents of the region (Kaulicke 2000: 141–144).

Finally, the Chusís site, in the Lower Piura Valley, must be considered. The area with evidence of domestic and monumental architecture, about 400 sq m, is delimitated by a square wall. Cemeteries are situated in east and the west of the settlement. These burials show some existence of social hierarchy, with at least one burial context with several individuals, the important ones probably in coffins, associated with metal and Mochica-style pottery as well as other pieces belonging to the Sechura and Vicús styles. C14 dates and the associated material imply relations with the Tamarindo Complex during VTC times (Kaulicke 2000: 139–141; Hocquenghem and Kaulicke 1995: figs. 15a, b).

Thus, the VTC phase is characterized by a series of innovations compared to the previous VTA and B phases. The reorganization of space in well-defined public and domestic areas is related to the presence of a new form of more powerful elites, with a certain preponderance of the Mochica style as a new identity and status marker. As in other parts of the north coast, this Mochica style seems to be the outgrowth of previouly simpler polities; in the Vicús area it does not seem to represent "newcomers." This elite apparently cooperated with others, particularly those characterized by the Vicús style, whose interdependence or status differences are not adequately understood yet. Territoriality suggests better social and economic control in the Vicús pocket, perhaps due to technical improvements in the exploitation of key resources, but presence outside this zone was probably slight, and limited to acculturation at the elite level. This reorganization led to a short blossoming during the VTC2 phase, comparable to what is known as Moche IV in the south. Specialists like potters, metal workers, and probably weavers worked under the patronage of these elites, who, together with a base population of agriculturalists and herders, seem to form part of a socio-economic system similar to an autonomous, small state-like polity, although many of the constituent elements are yet to be defined.

THE NORTHERN CONNECTION

While Vicús relationships to the "southern" styles cannot be questioned, the frontier situation demands a better understanding of relations with the northern "Ecuadorian" styles. Indeed, the Vicús pottery style is usually considered to be one of those

latter (see Amaru 1994; Hocquenghem 1991; Lumbreras 1979, 1987). The convoluted interpretations discussed in the beginning of this paper "justify" conquest from the south and acculturation of a social stranger into the more ordered Central Andean world. Amaru (1994: 78–79, essentially accepted by Bawden 1996: 210) even sustains that Vicús was basically identical to the late Formative Chorrera style in spite of the recognized spatial and temporal distances involved (for Chorrera chronology see Zeidler 2003). On the other hand, there is no clear Vicús style in the territory of modern Ecuador; it seems to be absent even in the neighboring highlands of the Piura department (see above); nor are there any convincing remains in the northern Chira and Tumbes valleys. At least partially, this absence seems to relate to research conditions along the modern Peruvian and Ecuadorian border: archaeological investigation is scarce to non-existent in that frontier area, in what Burger (2003: 468) calls an "artificial buffer zone of ignorance." Comprehension is also hindered by nationalistic or "separatistic" trends in both nation's "archaeologies," different chronological schemes, and therefore the absence of serious comparative approaches. From the "Peruvian" side, the lack of clear definitions of non-"classic" styles like Gallinazo (to the point that until recently it remained undocumented in the Lambayeque, Zaña and Jequetepeque valleys) further hinders the development of essential comparisons. Clear evidence of northern contacts in the Upper Piura seems to be restricted to VTC times, when interaction appears to have been with the Guangala sphere of southwestern Ecuador (basically the Guayas Peninsula) and the Tolita sphere on the Esmeraldas coast of north Ecuador. The Tolita-Upper Piura relationship is particularly fascinating for it relates two cultural spheres separated by more than 600 kms, but nonetheless much more connected than expected, so that a closer comparison between these areas, their metal and pottery styles, as well as their social and technical background should be highly rewarding. On the other hand, in addition to the Tolita region, Mochica-style products seem to be distributed sparsely over much of the Ecuadorian highlands (Hocquenghem et al.1993: 461, fig. 5; Kaulicke 1991: 385). But the Vicús style also might have had its impact in the Ecuadorian highlands (instead of the other way round). In the Cuenca Basin, Tacalshapa I-II pottery and metal objects share many "new" characteristics which might be explained as introductions from the Upper Piura region (Hocquenghem et al 1993: 459–461). One possible explanation would recognize an area of transition created by intense and mutual interaction between Piura and Cuenca (Hocquenghem et al. 1993).

CONCLUSION

Results obtained by the Upper Piura Archaeological Project shed important new light on the early development of complex societies in the Far North of Peru, but archaeological work is still too limited to allow definitive understandings of the complex cultural situations involved in that area. Consequently, many of the points touched on in this paper necessarily retain a hypothetical character that must be resolved by more research in the frontier region. However, some important points

are becoming increasingly clear, showing how the Upper Piura participated in the greater cultural panorama.

The prominence of monumental architecture at Ñañañique and the Vicús-Tamarindo complex, confirmed by specific construction techniques, spatial organization, and representations of notions about sacred landscapes, form a complex of elements shared with the rest of the north coast over an extended period of more than a thousand years. In particular, the Vicús-Tamarindo complex repeats essentially the same sequence of diverse building techniques defined for the Gallinazo I–III phases in the Virú Valley. The same is true for pottery, metal objects, and other artifacts that, as a whole, also imply strong relationships with the southern cultures or societies, following the same chronological schemes recognized for the southern valleys. Therefore, the Vicús pottery style, exhibiting so many Gallinazo characteristics, should be considered more as a style belonging to the complex than a different and "northern culture." The famed Mochica I pottery, while only detected in few specimens during the excavations, is undoubtedly present in the Upper Piura, too. There, as in other valleys to the south, it should be seen as a product of blending of Salinar, Gallinazo and earlier Formative elements, much in the way suggested long ago by Larco. Particularly, Gallinazo has an important role in this process, as recognized recently in other valleys. Furthermore, symbiosis of Gallinazo (Vicús)-Mochica does not fade out during Piura Valley cultural development, but seems to be reinforced until the end of the major occupation of the Tamarindo center, that was contemporary with the late apogee at Sipán as well as Huaca Cao Viejo and Huaca de la Luna/Huaca del Sol (Mochica IV). The combination of elements also appears in the Piura highlands and on the coast, influencing elite cultures in these simpler societies.

Unfortunately, this overly simplified culture historical scenario conceals an inherent diversity of political complexities, differential site growth and declines, types, intensities, and reaches of relationships with neighboring societies, as well as inner complexity, demographic increase and decline, socio-technical and environmental adaptations, and more. Ñañañique and Vicús-Tamarindo share relatively short growth periods and general occupation lengths, frequently interrupted by severe climatic impacts. These impacts, however, also seemed to have had beneficial influences for the intensification of agricultural in of local valley pocket as well as the growth of substantial grazing zones for camelids, fostering demographic growth capable of sustaining major population concentrations in some of the centers. Pottery and metal production seems to have been at least partially under the control of elites, who used them in ceremonies and feasts as identity markers. The different styles, thus, could reflect the existence of different types of elite or power groups within a single society, powerful enough to attract other, distant elites anxious to share or imitate this power in otherwise distinct societies. Probably all of these polities were restricted to reduced territories. The prominence and attraction of the Vicús-Loma Negra center, therefore, was not only due to its economic prosperity and superior technology but also to its recognized importance as a major ceremonial complex. In this perspective intensified warfare or sustained aggression would have been too expensive to be able to maintain a reasonably long-term

power equilibrium. The same is true for hypothesized conquests from the outside, for which there is no convincing evidence whatsoever.

This alternative picture of the Vicús polity, or polities, should have significant repercussions for understanding the more general Mochica world. While certainly part of that world, Vicús was a somewhat provincial or marginal expression compared to other polities in the larger valleys to the south. These latter, however, cannot be adequately characterized by interpretations based almost exclusively on rich burial contexts (such as Sipán) and their spectacular corpuses of iconographic representations.

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Chapter **5**

Competitive Feasting, Religious Pluralism and Decentralized Power in the Late Moche Period

Edward R. Swenson

INTRODUCTION

Ritual plays a fundamental role in the creation of political subjectivity and the materialization of ideological struggles, and its inextricable relationship to power has been the subject of productive anthropological inquiry (Bell 1992, 1997; Bloch 1989; Cohen 1981; Comaroff and Comaroff 1991, 1993; Kelly and Kaplan 1990; Kertzer 1988). Indeed, the analysis of religious practices, as best inferred from the material record, is critical to interpreting power relations in prehistoric societies (Brumfiel 1998; A. Joyce et al. 2001). Ritual performance and the manipulation of ceremonial space articulated differing political dispositions in the ancient Andes that variably shaped hierarchical socioeconomic systems (Moore 1996a). Therefore, political and ideological structures in prehistoric Peru can only be fully understood through archaeological investigations of the ritual mediation of power by different communities comprising a given polity.

Such an approach is of particular relevance in deciphering the wide-ranging political, economic, and ideological transformations characterizing the north coast of Peru during the Late Moche Period (AD 550–800). Pervasive social unrest and environmental perturbations inaugurated the Late Moche era, and these developments appear to have resulted in the collapse of the Middle Moche state based at Cerro Blanco (Huaca del Sol and Huaca de la Luna) in the Moche Valley (Bawden 1996). The exacerbation of social tensions, the emergence of inland urban centers, and the adoption of new religious and ideological systems further define this period (Bawden 1996, 2001; Castillo 2000, 2001; Shimada et al. 1991). Political and economic disruptions are thought to have led to the reconstitution or outright rejection of traditional Moche belief systems in different regions of the north coast (Bawden 1996; Castillo 2000, 2001). In fact, religious transformations of the Late Moche Period are usually portrayed as reactive: as reflexive (or adaptive) responses to social and ecological trauma (McClelland 1990; Shimada 1994: 232–234). It is increasingly clear, however, that religious ideology, differently wielded by various agents, directly shaped the formation of alternative political and economic systems in the Late Moche Period. This is especially evident in the lower Jequetepeque Valley (also referred to as the Pacasmayo region), located 100 kms north of the

Moche capital, which witnessed the anomalous proliferation of ceremonial sites in its hinterland and the emergence of distinctive social and religious organizations during this time (Dillehay 2001).

In this paper, I argue that feasting, conducted within specialized ceremonial constructions, was implicated in localized strategies of political empowerment in Jequetepeque during the Late Moche Period. These strategies, directed by lower level kin groups, subverted elite authority and urban-based social control in the region. The archaeological data indicate that Late Moche Pacasmayo was characterized by political decentralization and intense ideological production directed by multiple, dispersed, and relatively autonomous social groups. Therefore, an apparent "religious pluralism," defined here as widespread ritual expression unregulated by state institutions, distinguished Jequetepeque during the early Middle Horizon. The evidence runs counter to the generally held view that the north coast as a whole experienced rapid political centralization, the elite monopolization of religious authority, and intensified social stratification during the Late Moche Period.

I support this interpretation in part through a proxemic analysis of ceremonial constructions located in the hinterland of more prominent centers of the region. Proxemics, related to phenomenology and architectonics, examines the social dimensions of spatial interaction, communication, and perception (see Hall 1966; Moore 1996a, b). For archaeologists it provides an especially powerful tool in assessing the political implications of architecturally staged ritual performance. Analysis reveals that rural communities in Jequetepeque promoted divergent spatial ideologies and liberally appropriated and recontextualized corporate religious programs. The archaeological evidence suggests that widespread feasting rites and the localized celebration of elite religious traditions by hinterland groups reinforced parochial political identities while simultaneously contributing to the popularization of Moche ideology in the region as a whole.

Ultimately, the Jequetepeque archaeological data are of value in interpreting and theorizing the politics of religious experience, a subject crucial to Andean archaeology and of considerable relevance to anthropology writ large. The inventive emulation of Moche iconography and sacred architecture in the Pacasmayo hinterland cannot simply be interpreted as a crude archaeological measure of state hegemony. Nor can it be viewed as signaling the widespread acceptance of a dominant religious ideology disseminated from urban centers. Rather, an important theoretical implication of this paper is that the manipulation of corporate religious and ideological programs by non-elite groups (and the horizontal dissemination of ideological complexes through space) is often complicit in the creation of decidedly local political subjects and sectarian social dynamics.

ARCHAEOLOGY OF RITUAL, IDEOLOGY, AND POWER

Ideology is increasingly understood not simply as false consciousness mystifying exploitative economic conditions and promoting dominant interests (see Eagleton

1991). Instead, it is viewed as polyvocal and conflicting, the politicized practice of diverse factions comprising a given society (Roseberry 1988; Scott 1990). Even Marx and Engels (1967) did not narrowly conceive of religion as the exclusive ideological tool of the upper class but recognized its force in promoting class solidarity (in a manner reminiscent of Durkheim's interpretation of the integrative functions of ritual) (Morris 1987: 44–45). Engels, for instance, expressed interest in millenarian cults as subversive organizations, while the later Marxist theorist, Karl Kautsky, (1972) analyzed Christianity in the Roman Empire as a movement among the impoverished and disenfranchised. In a similar manner, Weber contrasted the political motivations of state-instituted priests with anti-establishment prophets. He further contended that the idea of salvation appeals to lower status groups and women in particular but is little embraced by the privileged; notions of salvation arise to ameliorate the impact of social and economic exploitation (Weber 1965: 107).

Jean and John Comaroff (1991, 1993) similarly explore how ritual praxis is the site of experimentation, transformative action, and "subversive poetics." In fact, scholars have investigated numerous examples of resistive political practices which have taken the explicit form of religious movements (Comaroff 1985; Kertzer 1988; Stern 1982). In struggles of representation ritual is paramount. At the very least it can secure for its practitioners a redemptive foothold within hegemonic and oppressive social structures (Bell 1992).

Ritual is inherently political (and hence ideological) given that agents consciously situate and scrutinize their place within the world through ceremonial acts (Bell 1997; Geertz 1973; Gluckman 1963; Smith 1987; Turner 1967). Ritual's inextricable relationship to power is also a consequence of its perceived efficacy; it ultimately "empowers" participants in transformative states made possible through contact with divine influence (the ultimate source of power and measure of difference) (Bloch 1992; Swenson 2003; Valeri 1985).

It is precisely the inherent force in the perceived sanctity, timelessness, and supernatural essence of religious practice that renders ritual a formidable vehicle of political control (Bloch 1988; Godelier 1978, 1986). The condensed dramaturgy and affective symbolism characterizing religious rites stimulate a heightened aesthetic awareness that serves to legitimize elite authority and subversive political practices alike (Bloch 1989; Kelly and Kaplan 1990; Kertzer 1988: 86). Indeed, ritual constructs political dispositions through formalized performance, which conflates the emotional and sensual with the traditional and authoritative (whether hegemonic or resistive) (Bloch 1989; Dirks 1994; Lincoln 1994; Tambiah 1990). Moreover, ritual crystallizes cultural conceptions of space and time and is instrumental in structuring identities of place and association (Bourdieu 1994; Dillehay 2004).

Religious and political ceremonies in Late Moche Jequetepeque (which would have included feasting, formal exchange of objects, human sacrifice, ritual warfare, peregrination, canal maintenance, ancestor worship, temple construction, dancing, singing, supervised production of corn beer, and shamanistic intercession, among other activities) reified social identities and ideological worldviews while

structuring economic relations of production. Such performative acts inevitably contributed to the conceptualization, transformation, and contestation of prevailing sociopolitical orders. Therefore, archaeological analyses of ritual production in varied material settings offer an important means to interpret complex ideological dispositions that affected broader shifts in prehistoric economy, ecology, and politics.

Significantly, the last two decades have witnessed important developments in archaeological studies of power, ritual, and ideology. Archaeologists are moving beyond analyses which simply explore the dominant ideology of elites and their religious structures of authority. Social inequality is not merely identified in the material record but is examined in a more holistic and relational framework of power which emphasizes the totality of the social, as comprised of competing and often opposing factions (Alcock 1993; Brumfiel 1992; McGuire 1992; Miller and Tilley 1984; Miller, Rowlands, and Tilley 1989; Paynter and McGuire 1991; Wylie 1992). Since ritual is fundamental to identity politics, it represents an accessible domain for the examination of differential value systems coexisting in prehistoric society. Indeed, the analysis of divergent ritual regimes can disclose the ideological worldviews of the majority lower class populations and permit a more probing analysis of their essential role in historical process (Brumfiel 1998, 2001; R. Joyce 1993, 2000; A. Joyce et al. 2001).

Reconstructing parallel or competing ideologies from the archaeological record is a daunting task. It requires sensitive interpretation of the full range of material patterns and their interrelationships in order to formulate robust inferences supported by the empirical record. The analytical "playing-off" of diverse ritual contexts, such as tomb structures versus temples or domestic space, has proved insightful in deciphering varied ideological strategies and contradictions, as well as in interpreting the full historical trajectory of power relations (Bradley 1991; Braithwaite 1984; Dietler 1995; Miller and Tilley 1984). It is in this spirit of examining the intimate relationship between power, religion, and ideology that I set out to analyze the non-elite ceremonial architecture in the hinterland of the Jequetepeque Valley.

THE JEQUETEPEQUE VALLEY IN THE LATE MOCHE PERIOD

The lower Jequetepeque Valley or Pacasmayo region is situated 600 kms north of Lima in the northern Moche sphere. This region constitutes one of the larger and more productive river valleys of the Peruvian coast and its archaeological landscape is characterized by complex irrigation systems, vast agricultural infrastructures, road systems, and monumental architecture dispersed in the desert or concentrated in civic-ceremonial centers such as Pacatnamú, Dos Cabezas, Cerro Chepén, Farfan, Cañoncillo, Talambo, and San José de Moro (Castillo 2001; Dillehay and Kolata 2004; Donnan 2001; Donnan and Cock 1986, 1997; Eling 1987; Hecker and Hecker 1985, 1990; Keatinge and Conrad 1983; Ubbelohde-Doering 1967, 1983). The valley is situated at a critical geographical and cultural juncture, forming an

important route to the sierras and representing the southern limit of the northern Moche subregion (Castillo and Donnan 1994a; Kosok 1965). Inhabitants of Jequetepeque contributed to the florescence of Cupisnique, Salinar, Moche, Lambayeque, and Chimú cultures, and recent survey work conducted by Dillehay and Kolata (Dillehay 2001; Dillehay and Kolata 2004) confirms earlier observations (Castillo and Donnan 1994a; Hecker and Hecker 1990) that the majority of archaeological sites in the lower valley date to the urbanized Late Moche and Late Intermediate Periods (AD 550–1470).

One of the more outstanding features of Jequetepeque archaeology is the striking number and variety of seemingly non-elite ceremonial sites distributed throughout the lower valley. Such settlements first emerged and proliferated during the Late Moche Period. The Late Moche era (AD 550–750) represents a time of dramatic transformation in cultural norms, settlement patterns, and belief systems throughout the north coast (Bawden 1996, 2001; Castillo 2000, 2001, 2003; McClelland 1990; Shimada 1994). These changes represent a notable deviation from the preceding Middle Moche Period (Phases III and IV), considered the apex of Moche cultural production expressed in more homogenous political and ideological systems (Bawden 1996; Conklin and Moseley 1988). Importantly, the Late Moche Period witnessed the collapse of the multi-valley southern state which wielded considerable influence over much of the north coast.

The transformations of the Late Moche Period (Moche V) have been interpreted as responses to social discord and environmental catastrophe and indirectly to the encroachment of highland cultures (Bawden 1996; Castillo 2000). Geomorphological analyses have linked severe droughts and El Niño floods to onset of this Period (Shimada et al. 1991). Scholars have argued that new religions were adopted wholesale during this time to cope with ecological disruption and sociopolitical realignment (Bawden 1996; Castillo 2001). Bawden (1996, 2001) contends that the Moche V period witnessed a form of iconoclasm in the Moche Valley in which traditional modes of narrative art and the established pantheon of deities were systematically rejected by elites and commoners alike. Similarly, Castillo (2001) argues that in the Jequetepeque Valley political instability and social crisis are evident in elite emulation of foreign artistic canons, as identified in the extravagant tombs of elite priestesses buried at San José de Moro. Castillo contends that new value systems were adopted to shore up elite legitimacy and reinforce tarnished political and religious systems which were discredited as a result of ecological perturbations and social turmoil.

Urbanization represents the hallmark of the Moche V transformation; the large centers of Galindo and Pampa Grande emerge at the valley necks of the Moche and Lambayeque Valleys respectively, while settlement generally collapsed in the lower portions of these two regions (Bawden 1996, 2001; Shimada 1994). Bawden and Shimada interpret these developments as symptomatic of heightened insecurity, conflict, and social stratification. They also contend that the nucleation of settlement in the valley necks reflects elite attempts to exert greater control over the distribution of irrigation water and to facilitate surveillance of aggregated populations.

However, the Jequetepeque region deviates from this trend toward centralization; rural settlement and population expanded in the lower valley during the Late Moche Period (Castillo and Donnan 1994a; Dillehay and Kolata 2004). In fact, the unfortified cult center of San José de Moro near the modern-day town of Chepén represents one of the premier Moche V sites on the north coast but lacks the urban characteristics of Pampa Grande and Galindo, mainly agglomerated populations and dense and diversified city architecture. The elite priestesses interred in adobe platforms at the site and supported by a retinue of skilled craft specialists appear to have secured the religious devotion of far-flung communities, possibly attracting pilgrims and valued gifts from neighboring polities (Castillo and Donnan 1994b; Castillo 2001; Donnan and Castillo 1994). However, the numerous forts and ceremonial locales dating to the Late Moche Period (Dillehay 2001; Dillehay and Kolata 2004), including the massive nearby settlement of Cerro Chepén, indicate that the priestesses exercised little direct coercive or economic control in the greater Jequetepeque region. Certainly, the continued reenactment of the Sacrifice Ceremony by elite figures and the production of fineline wares celebrating Moche religious values at San José de Moro (Castillo and Donnan 1994b) reveal that the Jequetepeque region became central to the perpetuation of "traditional" though reconstituted theocratic principles associated with Moche ideology. Nonetheless, the following analysis demonstrates that ideological innovation reshaping Moche religious production was far from restricted to this Jequetepeque center.

THE CEREMONIAL SITES OF THE JEQUETEPEQUE HINTERLAND

The Late Moche Period in Jequetepeque is marked by the emergence and proliferation of intermediate-scale ceremonial sites in the rural hinterland of the valley (Figure 5.1) (Swenson 2002, 2004). These sites were rare prior to the Late Moche Period and are usually found in close proximity on coastal hills overlooking productive infrastructures such as canals and field systems. The settlements are readily distinguishable by their size but could not be hierarchically classified in terms of architectural distinction. The numerous ceremonial platforms in the large settlements of San Ildefonso or Catalina (discussed below) were comparable in scale, elaboration, and quality to structures within smaller sites in the sample. The lack of salient architectural distinctions in the countryside reflecting status differences suggests that power relations were more fluid and fragmented in Jequetepeque during the Late Moche phase.

"Hinterland ceremonial site" is an intentionally broad category that encompasses settlements built in ostensibly rural sectors of the lower valley, mainly secluded pampas and hillsides overlooking agricultural fields. The presence of elaborate and often multiple ceremonial constructions distinguishes this settlement type from the more common and smaller residential hamlet. The ritual architecture of the hinterland sites, although impressive in design and architectural conception, is constructed of earth and stone and contrasts with the monumental adobe pyramids dominating the typical Moche urban center. Domestic terraces and surface debris

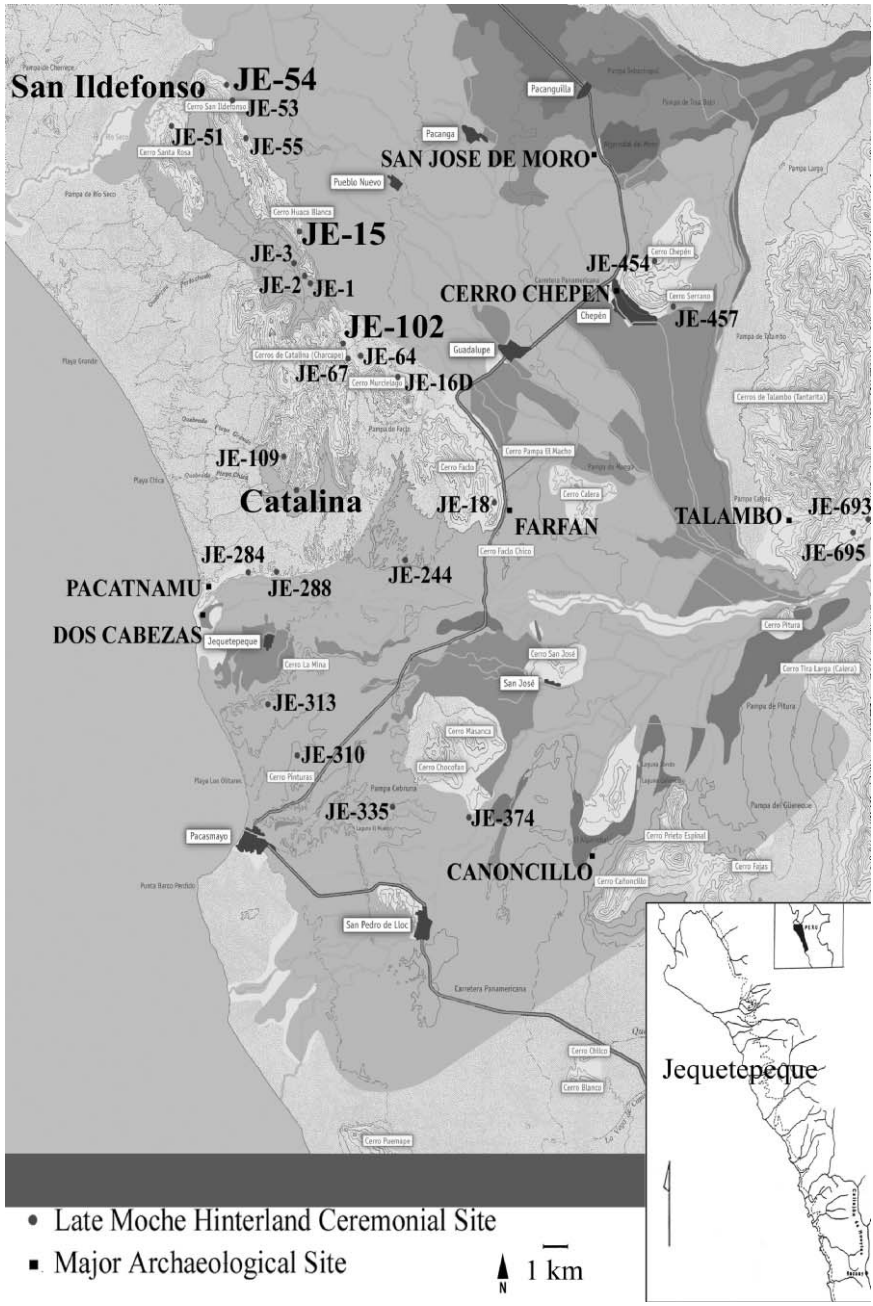


Figure 5.1. Map of the Lower Jequetepeque Valley illustrating the location of ceremonial sites dating to the Late Moche Period. Settlements mentioned in the article are shown in larger print.

reveal that people lived at these hinterland sites, either continuously or episodically. Therefore, ritual production was not an exclusive function of this class of settlement but appears to have been one of the more important activities. These sites are often built on the slopes of coastal hills, and they may have been related to the veneration of supernatural forces or huacas associated with sacred mountains. Twenty-five ceremonial sites in the hinterland dating to the Late Moche and Late Intermediate periods (of an identified sample of 72) were mapped with a total station and systematically surface collected (Figure 5.1) (Swenson 2004). Excavation was also conducted at selected settlements.

The most common form of ceremonial architecture identified at the Moche hinterland settlements are multi-terraced platform mounds with prominent ramps (Figure 5.2). Bawden (1982) refers to such structures at the contemporaneous urban center of Galindo as "tablados." Despite their diminished size in comparison to urban pyramids, these ramped structures were important symbols of religious and political authority (Bawden 1982; Shimada 1994). The dais-like platforms appear to be miniature versions of the massive pyramids that dominated Moche cities, and structures of this kind are commonly portrayed on Moche pottery (Bawden 1982). For instance, the fanged deity of the Moche pantheon is commonly shown presiding over ritual acts such as the presentation of a goblet from dais-ramp complexes (Figure 5.2a, b). The ramp leading to the dais upon which the deity is seated generally parallels the configuration of space of many of the platforms analyzed in the Pacasmayo hinterland.

In other iconographic depictions, dignitaries are shown supervising ceremonial and redistributive activities from the summit of such platforms (see Donnan and McClelland 1999: 19, 59, 167, 270). Further representations underscore the symbolic importance of this architectural form as a stage of ritual and administrative performance. For instance, a U-shaped ceramic model recovered from a burial at San José de Moro is strikingly similar to Structure C at Portachuelo de Charcape (JE-1) (Figure 5.3), located several kilometers to the northwest of San José de Moro (Castillo, Nelson, and Nelson 1997).

The models and iconographic data indicate that the structures conveyed profound symbolic significance related to religious authority and sanctioned ritual practice. In fact, the formal layout of these structures reveals that this class of architecture most likely represented an "authorized and authorizing" space (Lincoln 1994). That is, important politico-religious rites were conducted and legitimated on these platforms which conferred authority on their users. Furthermore, the ramps are more ornamental than functional; they often connect terraces that could be effortlessly ascended as steps. Clearly these ramps served to direct and formalize movement, enhancing the procession of important figures. Such scripted movement generates important dramaturgical effects which likely contributed to the consecration of an event or activity. The formality and non-instrumentality of ramps accentuated the sacred and authorizing symbolism of these structures.

Comparable ramped platforms were among the most important architectural forms at Galindo and Pampa Grande, the great urban centers of the Moche V Period (Bawden 1982, Shimada 1994, 2001). However, they are usually restricted

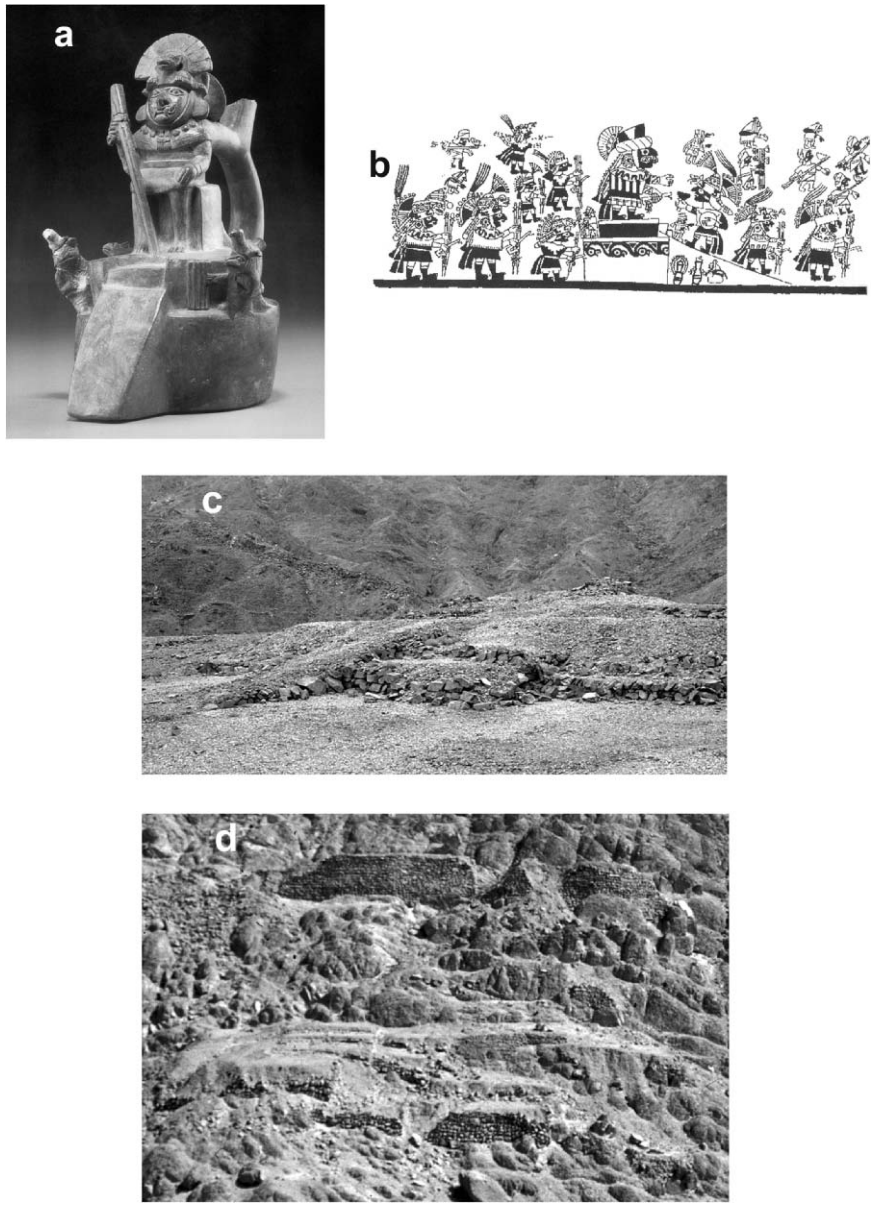
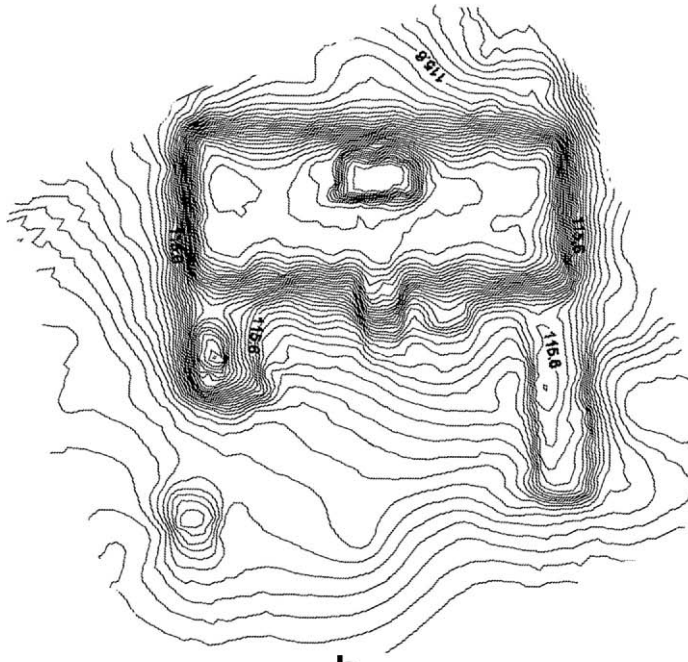


Figure 5.2. A Moche molded vessel (Makowski 2000: 139) and a fineline illustration (Hocquenghem 1989: fig. 2C) portraying the Fanged Deity situated on a platform with ramp and dais (a and b respectively). These structures depicted in Moche iconography are similar to platforms found in the Jequetepeque hinterland (photographs c and d).

a



b

Figure 5.3. Ceramic model of a platform recovered from a burial at San José de Moro, and a map of a similarly configured structure at Portachuelo de Charcape (JE-1) located several kilometers south of San José de Moro.

to the civic-ceremonial core of these principal cities, within or at the juncture of elite precincts (Bawden 1982, 1996, 2001; Shimada 1994, 2001). In contrast, ramped structures are more accessible and widely distributed in the Jequetepeque Valley. Unlike the tablados of the center, they are constructed of stone and earth and are usually found independent of decidedly elite architectural contexts. In other words, the intense ritualization of the Jequetepeque landscape defied the centralized exclusivity of ceremonial space evident in neighboring valleys. Indeed, the ubiquity and architectural redundancy of sacred space in Jequetepeque appear unprecedented in the Moche sphere.

Ramped platforms at Pampa Grande were associated with decorated face-neck jars used to prepare and decant maize beer or chicha. In fact, Shimada (1994: 221–224, 2001: 187, 192) argues that these structures served as the locus of supervisory rites involving chicha production and consumption. Significantly, a large quantity of mold-impressed face-neck jars were discovered at hinterland ceremonial sites in the lower Jequetepeque Valley (Figure 5.4) (Swenson 2004). These face impressions often distill Moche religious imagery, such as depictions of the fanged deity, wrinkled face, and warriors. These vessels share stylistic and thematic similarities with those of Pampa Grande despite distinct design elements (Swenson 2004: 757–759). Statistical analysis reveals that the ramped platforms were associated with a significantly high proportion of chicha jars and decorated ware at several sites in the study (Swenson 2004). Clearly, activities central to feasting and commensalism, involving the use of decorated jars and generous consumption of chicha, were staged on the platforms of both Pampa Grande and sites in the Jequetepeque hinterland. Figurines, talismans, and clay flutes were further collected in the vicinity of ceremonial structures (Figure 5.4). Music likely accompanied ritual spectacles orchestrated on these platforms.

PROXEMIC ANALYSIS OF LATE MOCHE SETTLEMENTS

In this paper, two of the larger ceremonial sites of the Jequetepeque hinterland are discussed and compared. The settlements of San Ildefonso (JE-279) and Catalina (JE-125), both located on the north side of the Valley, are analyzed in terms of their peculiar spatial configurations and the unique proxemic properties of their ceremonial architecture. Examples of site-specific architectural variability at other settlements are also briefly described to support my main argument. The spatial and archaeological evidence indicate that ritual production, and competitive feasting in particular, became an important vehicle of political advancement in rural Jequetepeque. Ultimately, the data suggest that numerous communities in the hinterland reformulated the symbolic capital of urban elites and constructed locally-inflected Moche political subjectivities as a means of ideological self-definition.

San Ildefonso (Figure 5.1) is located on the northern end of Cerro San Ildefonso directly south of the Chaman River drainage. Its considerable size, over 50 ha, suggests that it could be interpreted as a small urban settlement. However, its location on a defended coastal hill and the nature of its constructions reveal important

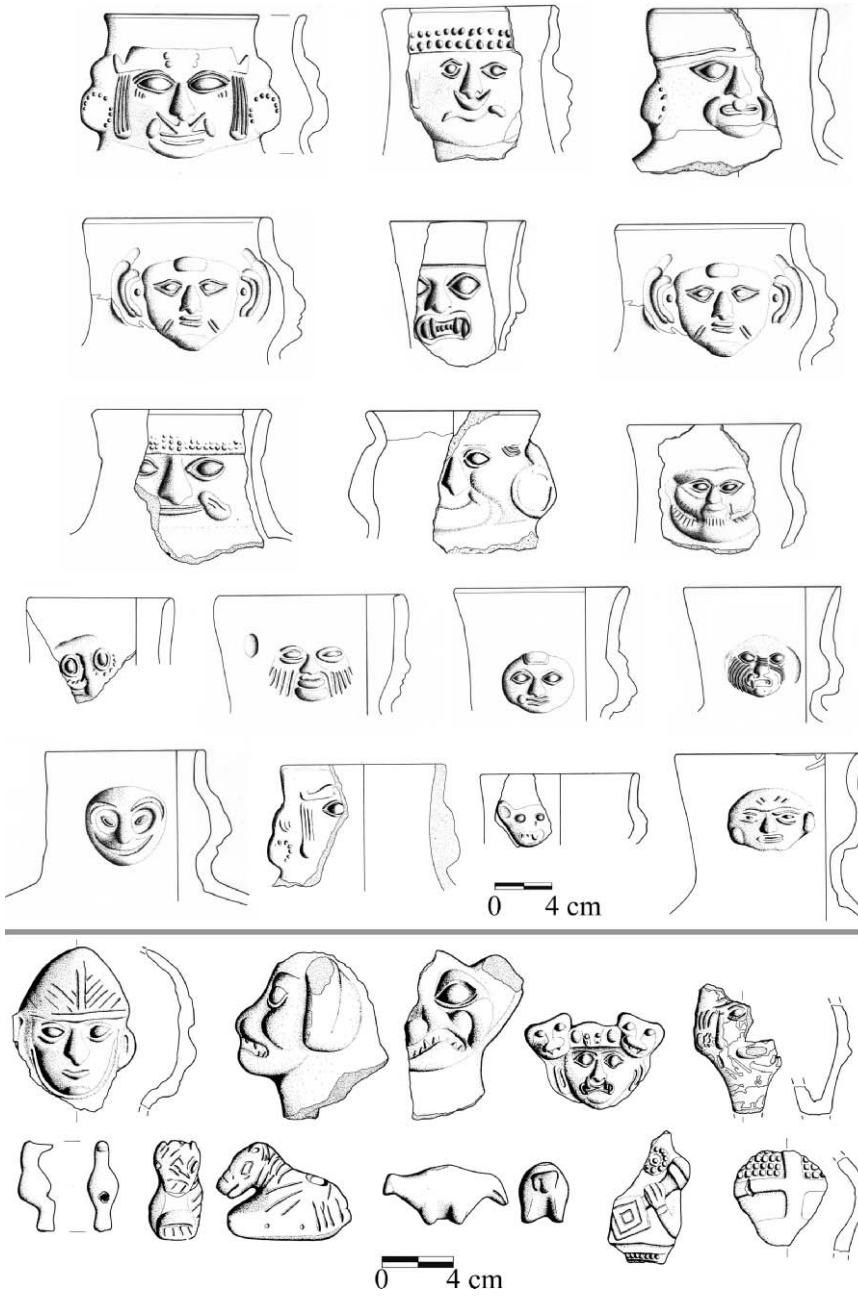


Figure 5.4. Decorated face-neck jars (upper five rows), figurines and musical instruments (lower two rows) in Moche style collected from various ceremonial sites of the Jequetepeque hinterland.

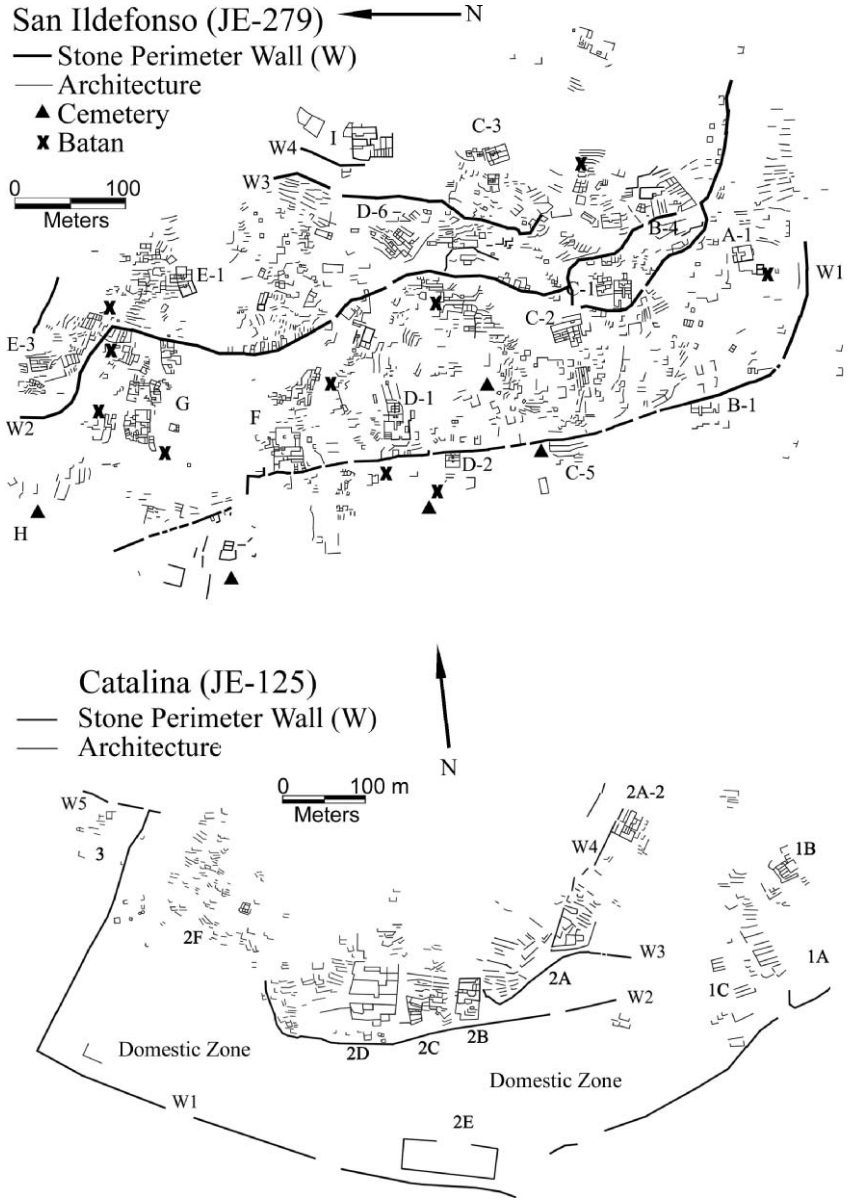


Figure 5.5. Site maps of San Ildefonso and Cerro Catalina. Labeled sectors contain one or more ceremonial platforms.

commonalities with the smaller ceremonial sites in the hinterland (Figure 5.5). For instance, terraced constructions made of stone and earth predominate at San Ildefonso, while adobe buildings are entirely lacking. Unlike the urban centers of Pampa Grande or Galindo, no one construction unequivocally dominates the

settlement as the focus of political authority or religious preeminence. In fact, the configuration of space at San Ildefonso was clearly dictated by an aesthetic which deviated significantly from the spatial ideologies inscribed in the physical layout of typical Moche urban centers.

San Ildefonso is delineated by four nested perimeter walls that survive to nearly 2 m in height in several sectors. Piles of sling stones are placed at varying intervals on the surface of the ramparts and it is clear that the settlement had a defensive function (possibly involving ritualized forms of warfare given the predominance of ceremonial architecture within the site) (Swenson 2004: 859–868). The walls roughly but inconsistently delimit functionally distinct architecture at San Ildefonso. The majority of storage and drying terraces are found in the highest reaches of the site, and low lying entrance platforms commonly front the first perimeter wall. San Ildefonso is further characterized by expansive domestic zones distinguished by residential terraces, rectilinear compounds, and contiguous and free-standing room-block units.

The replication of ceremonial platforms in different sectors of the site is San Ildefonso's most remarkable characteristic. Seventeen such structures were recorded here ranging in size from 15 to 45 sq m (Figure 5.5). The various platform mounds with ramps were built behind all four perimeter walls, indicating that "authoritative" architectural forms were not restricted to any one zone of the site. The most prominent platforms are free-standing structures on elevated mounds of earth and stone (from 3 to 6 m high; Figures 5.2, 5.6). They are usually comprised of a front patio for circumscribed public gatherings and symmetrical, ascending terraces that culminate in a high dais (Figure 5.6). The different platforms exhibit variability in scale and terrace orientation despite overarching formal similarities such as long perpendicular ramps and sunken entrances.

The platforms as a whole structured unencumbered axial movement along prominent, centrally-placed ramps. Movement progressed from lower patios to higher landings, and the experiential change in elevation, almost always proceeding east toward the hilltop, was undoubtedly integral to the performance of ritualized acts. Furthermore, sight lines within these platforms were unobstructed, suggesting that activities conducted at different elevations of the structures were fully synchronized (Figure 5.7). More precisely, visual perception and bodily movement, as dictated especially by the ramp, converge on centrally placed apical daises. Ritual expression at San Ildefonso seems to have been predicated on integrated suites of presentation, procession, and possibly supervision. This architectonic configuration corresponds well with the depictions of equivalent structures in Moche iconography. Three-dimensional plans illustrate the synchronized structure of visual communication on platform summits, as well as their limited potential for axial bodily movement (Figure 5.7).

The proliferation of ritual architecture at San Ildefonso suggests a pluralistic social and political milieu that is paralleled by the multiplicity of ceremonial sites in the lower valley as a whole. Radiocarbon samples obtained from three different platforms in the site suggest that the structures were built and used contemporaneously (Swenson 2004: 699). Whether or not the site can be partitioned into discrete "barrios," centered on a platform mound and its surrounding domestic zone, is

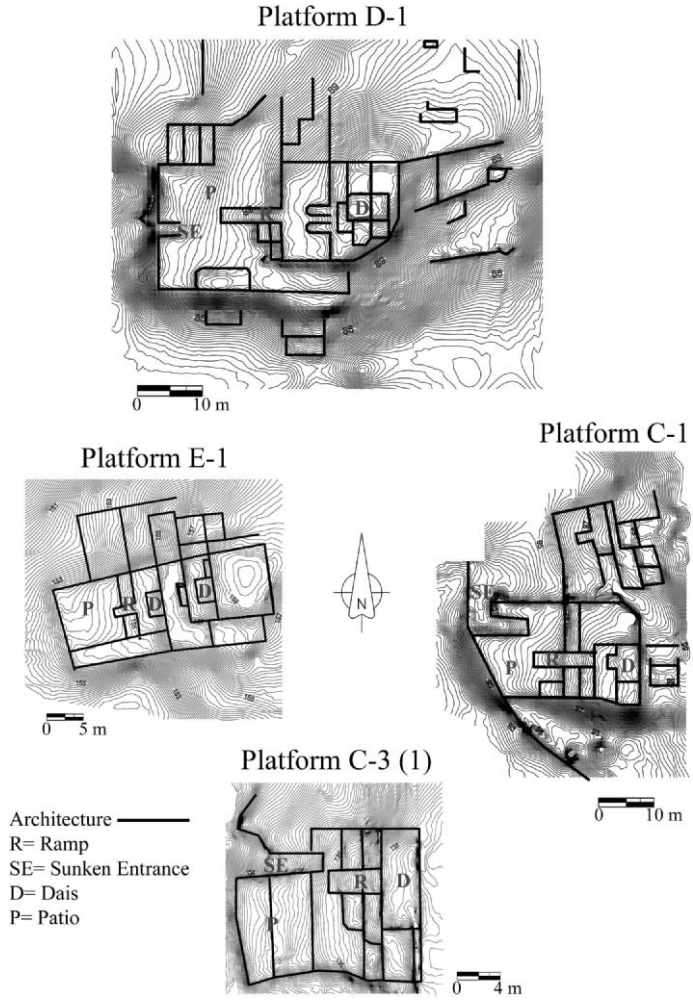


Figure 5.6. Architectural plans of platforms at San Ildefonso.

difficult to determine; distinct ceramic assemblages indexing specific communities did not differentiate sectors within the site. Interestingly, the most prominent structures are usually separated by 100 m or more. Although each platform exhibits subtle architectural differences, they do not appear significant enough to suggest functional variation. Moreover, excavation confirms that the multiple platforms served as stages for feasting rites. Specialized hearths, often identified on lower patios or adjacent to ramps, were laden with diverse food remains. Moreover, decorated cántaros used to decant chicha concentrated in significantly higher percentages with the numerous tablado-like structures than with domestic architecture and rectilinear precincts (Swenson 2004: 784–792). Small-scale feasts, most likely

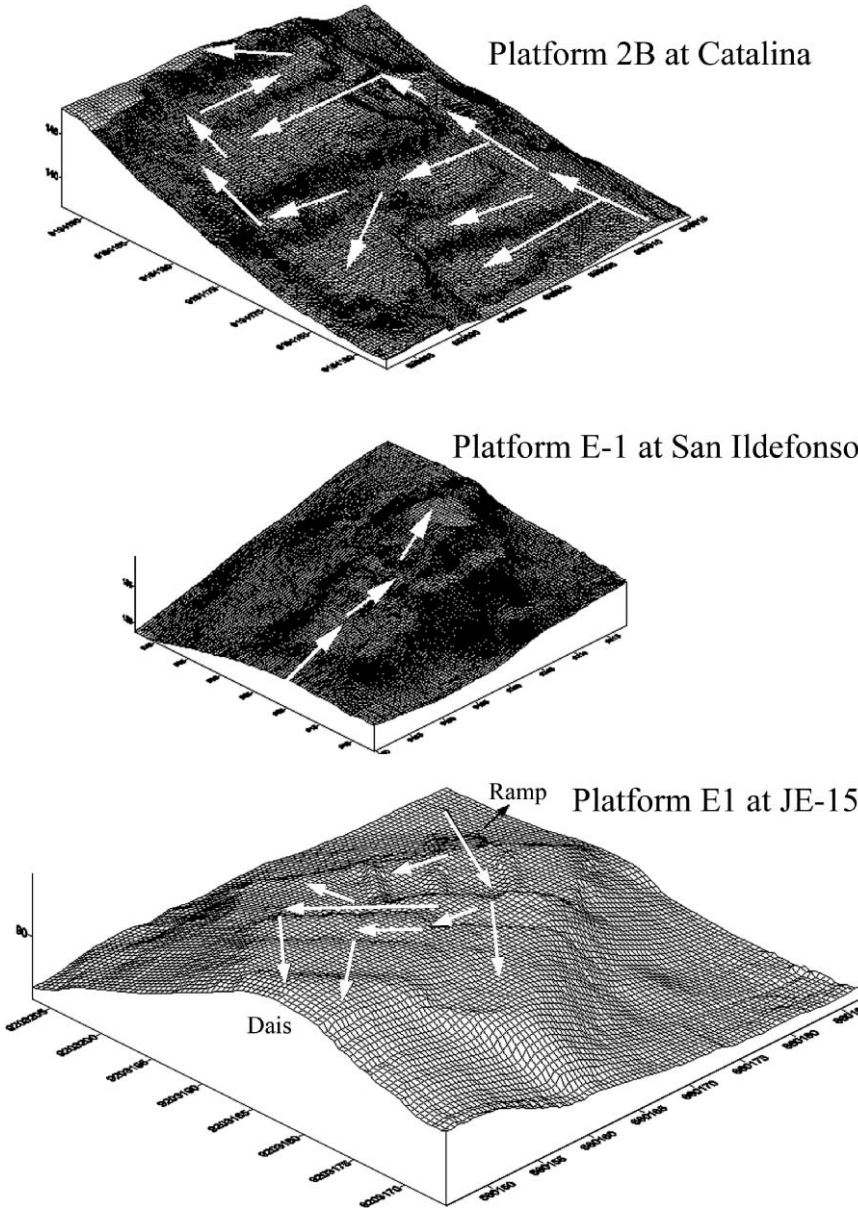


Figure 5.7. Three-dimensional plans of Platform 2B at Catalina, Platform E-1 at San Ildefonso, and Structure E-1 at JE-15. Arrows illustrate differences in access patterns and proxemics within ceremonial architecture of the Jequetepeque hinterland.

sponsored by particular patrons or lineage groups in charge of a specific platform, appear to have mediated political and economic relations within the site.

The multiplication of ritual constructions suggests that distinct groups congregated at San Ildefonso for joint ceremonial activities centered on numerous and likely competitive commensal tournaments. Each platform could have accommodated a relatively small number of participants and observers (no more than 50 to 75 people). Therefore, it seems that the structures were limited to "consultative," or "public-near" modes of ritual communication (Moore 1996a: 156). That is, at San Ildefonso, ceremonialism was predicated on intimate encounters involving a limited number of participants and spectators. In fact, an important function of San Ildefonso might very well have been to create a political and ideological arena for inter-group social exchange, reciprocity, and conflict resolution. Such practices likely enhanced the identities of sub-groups while promoting the ideological goals of the larger society assembled.

Although the replicate platforms of equal elaboration at San Ildefonso point to the maintenance of sub-group identity within the site, the architectural evidence nonetheless suggests that its inhabitants were in the process of forging a broader political community associated with San Ildefonso as a whole. In other words, a specific spatial aesthetic defined ritual practices at this settlement and materialized the emergence of a new social ethos transcending (but far from erasing) sectarian identity politics. That is, the platforms at San Ildefonso share important architectural elements which distinguish them from ceremonial constructions recorded at other Late Moche settlements, such as the Catalina site located 15 kms to the south.

Catalina is the impressive counterpart to San Ildefonso in terms of size and architectural elaboration (Figure 5.5). It is of special analytical significance for it shares many features with San Ildefonso, mainly location on the slopes of a coastal hill, tiered fortification walls with sling stones, and multiple terraced platforms. However, the differences between these settlements are equally illuminating, pointing to divergent architectural and ceramic traditions within the Late Moche Period (Swenson 2004). Five radiocarbon dates procured from each of the two sites attest to their contemporaneity (approximately AD 600–750; see Swenson 2004: 699).

Catalina is located on the southern slope of Cerro de Catalina overlooking the expansive plain of Pampa de Faclo to the south (Hecker and Hecker 1990: 12; Eling 1987: 396) (Figure 5.1). This site is of considerable size, measuring nearly 30 ha in area. Catalina possesses massive stone perimeter walls that encompass and delimit the settlement (Figure 5.5). They often survive to more than 3 m in height and run east-west for over 500 m along the coastal hill's length. The first rampart encloses a large residential zone that consisted of perishable cane huts identified by dense concentrations of ceramics, shell, and other organics. Grinding stones used to process maize are also frequent in this zone.

The second perimeter wall follows the edge of Cerro Catalina and separates the main suite of ceremonial platforms ascending the hill from the expansive domestic zone on the pampa below. Thus, there is a pronounced separation of domestic and ritual space and a clearer internal architectural hierarchy at Catalina. This configuration contrasts markedly with San Ildefonso, where the ramped platforms

were found distributed throughout the site near residential areas (see Figure 5.5). Although the multiplicity of platforms at Catalina finds parallel at San Ildefonso, divergent spatial ideologies dictated the production of authoritative space at these two Late Moche settlements.

The ceremonial structures of Catalina are similar to those at San Ildefonso in that they consist of discrete platforms with ramps ascending the hillside (Figures 5.2, 5.8). However, the platforms here are usually comprised of elongated landings, which lack the crescendo of narrowing terraces and long ramps. Many of the terraces appear to have been designed expressly for movement along lateral rather than perpendicular axes. Well-delineated patios fronting the main ritual complex are also rare, and the prominent central ramps of San Ildefonso, leading to a raised dais, are absent at Catalina; here smaller, offset ramps predominate (Figure 5.8). In other words, the phenomenological differences distinguishing the two sites are immediately evident. This is clearly demonstrated in an examination of three-dimensional maps of structures from these settlements (see Figure 5.7).

Flow patterns on platforms at Catalina were structured as a combination of perpendicular, staggered, and lateral movement. The unified synchronization of activity is thus much less apparent here than at San Ildefonso. At Catalina, ritual experience was predicated on diffuse lines of sight and communication. Ritual practice within the ample platforms was likely more compartmentalized and varied as compared to the structures of San Ildefonso. Nonetheless, excavation reveals that feasting rites were orchestrated on the individual platforms at both San Ildefonso and Catalina, notwithstanding their idiosyncratic forms. Thus the substantive content of rites appears to have varied little between these ceremonial settlements despite divergent experimental frameworks structuring ritual performance.

Ritual constructions at other Moche settlements built along hills in the north valley also exhibit salient inter-site variability in architectural form and design. For instance, several platforms at JE-15 located on the southeast side of Cerro Huaca Blanca display a unique combination of architectural styles encountered at San Ildefonso and Catalina (Figure 5.9). A monumental ramp serves as a formal entrance to Platform E1 (an unusual feature absent at San Ildefonso or Catalina) that leads to a broad terrace instead of a commanding dais. Access patterns to higher landings within this structure rely on both direct (axial) and lateral forms of movement. Similar to Catalina, visual communication and flow patterns were somewhat staggered, and sight lines do not appear to converge on any one feature within Platform E1, except initially on the frontal ramp. However, the elaborate balustrades aligned with the monumental entrance indicate that visually integrated ritual activities were staged toward the front of the structure in a manner similar to the platforms at San Ildefonso (Figure 5.9). Nonetheless, ritual spectacles at the two sites were realized in notably divergent spatial frameworks.

JE-54, located on the east side of Cerro San Ildefonso several kilometers north of JE-15, further underscores the diversity of Late Moche architectural traditions in the Jequetepeque hinterland. For instance, Structure B represents an unusual combination of ramped platform and compound; this is a construction rarely noted elsewhere (Figure 5.9). Synchronized performances converged toward the front

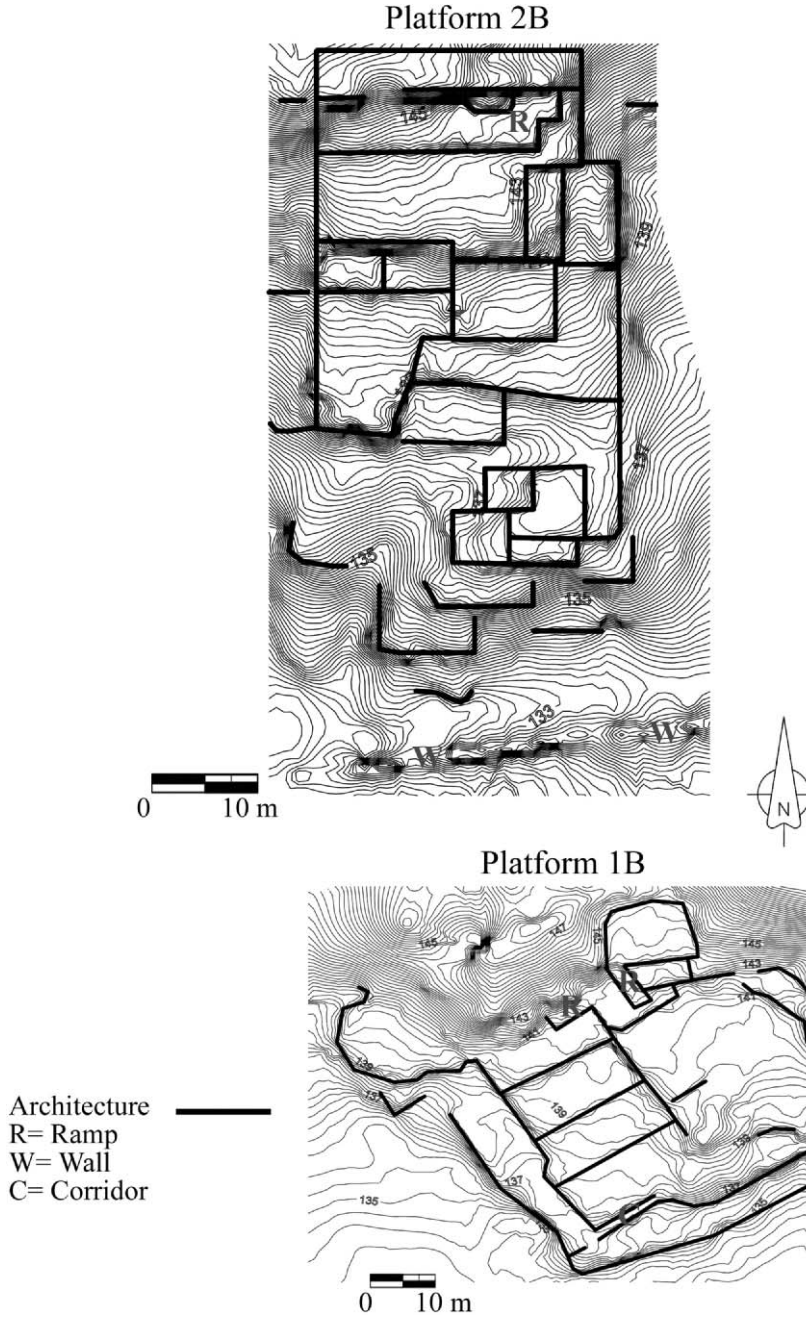


Figure 5.8. Architectural plans of two platforms at Catalina.

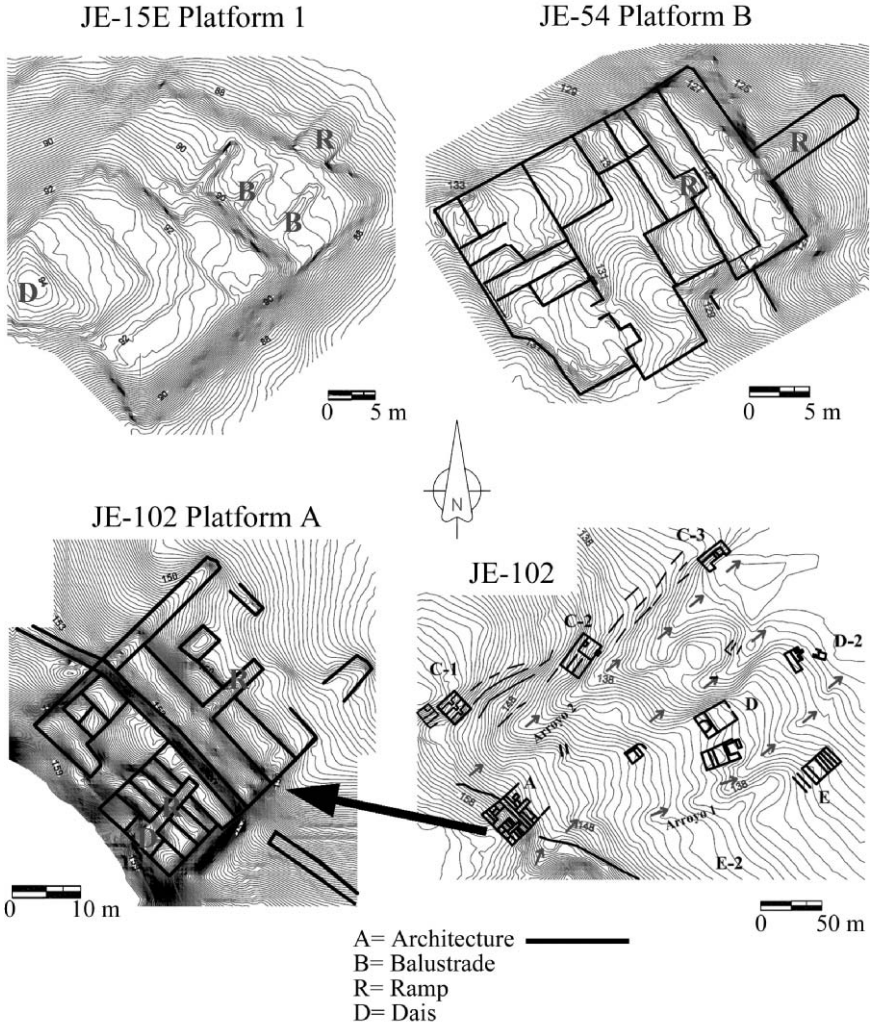


Figure 5.9. Architectural plans of platforms at JE-15, JE-54, and JE-102.

of the platform while compartmentalized and secluded activities characterized the small chambers toward the back. Here feasting spectacles performed near the front ramps and terraces (as indicated by a high quantity of serving jars associated with the edifice) may have regulated access to stored goods cached in the back chambers. This particular configuration contrasts with platforms analyzed at San Ildefonso which promoted unified movement toward the highest-back part of the constructions. Interestingly, the confining perimeter walls suggest more much restricted modes of ritual engagement, unlike the potential for at least small public gatherings at San Ildefonso, Catalina, and JE-15. The spacious front patios noted

at San Ildefonso are absent at JE-54, for instance, leaving little room for spectators or ritual participants.

Finally, JE-102, located on the east side of Cerro Catalina, is also characterized by a multiplicity of ritual constructions displaying site-specific architectural idiosyncrasies (U-shaped forms, uncommon elsewhere, predominate at this site) (Figure 5.9). However, unlike the internal site configuration of the other settlements, Platform A stands out in size, elaboration, and location (Figure 5.9). Although built of stone and earth and smaller than urban pyramids, it was visible from all sectors of the site and holds a commanding position within the settlement. Platform A was likely implicated in public spectacles involving a larger number of ritual participants (perhaps the entire assembled population) than did the more confined platforms within the other ceremonial sites discussed above. Unlike San Ildefonso or Catalina, a *primes inter pares* relationship of authoritative space distinguishes the ritual landscape of JE-102.

The comparison of ritual architecture at the different sites underscores the creative emulation of urban spatial templates by rural populations and the local determination of ritual politics during the Late Moche Period. Clearly, hinterland ceremonial sites cannot be forced into traditional scalar-settlement hierarchies that reflect the projection of centralized power or unidirectional information and resource flows (Wright and Johnson 1975). The distribution and internal spatial organization of the Jequetepeque ceremonial sites deviates notably from Inka and Chimú models of provincial administration (Keatinge and Conrad 1983; Mackey 1987; Morris and Thompson 1985). Contrary to expectations, rural ceremonial loci are found in close proximity, often three to five kilometers apart. The lack of standardized corporate architecture as well as the extraordinary redundancy of rural ceremonial loci point to the parochial political functions of the Late Moche settlements. Evidently these settlements did not serve as urban satellites in a centralized political economy directed by San José de Moro, Cerro Chepén, or Pampa Grande, nor do they represent secondary nodes of an elite-disseminated religious ideology. The hinterland ceremonial sites functioned as critical spaces for the creation and reproduction of *locally* empowered political subjects.

COMPETITIVE FEASTING IN LATE MOCHE JEQUETEPEQUE

Despite inter-site discrepancies in architectural design and ritual proxemics, the platforms of the different sites staged similar ritual spectacles rooted in feasting. Ceramic analysis along with the excavation of ten platform mounds at three sites (San Ildefonso, Catalina, and Portachuelo de Charcape) reveal that the celebration of feasts and consumption of chicha constituted the defining function of the hinterland platforms. The discovery of hearths adjacent to ramps or low patios (Figure 5.10) is one of the more salient patterns that emerged from the excavation program. Fires, which presumably transcended quotidian food preparation, were lit on the these ceremonial structures.

Excavation demonstrates that food consumption was closely linked with the use of the hinterland platforms; diverse faunal and marcobotanical remains were

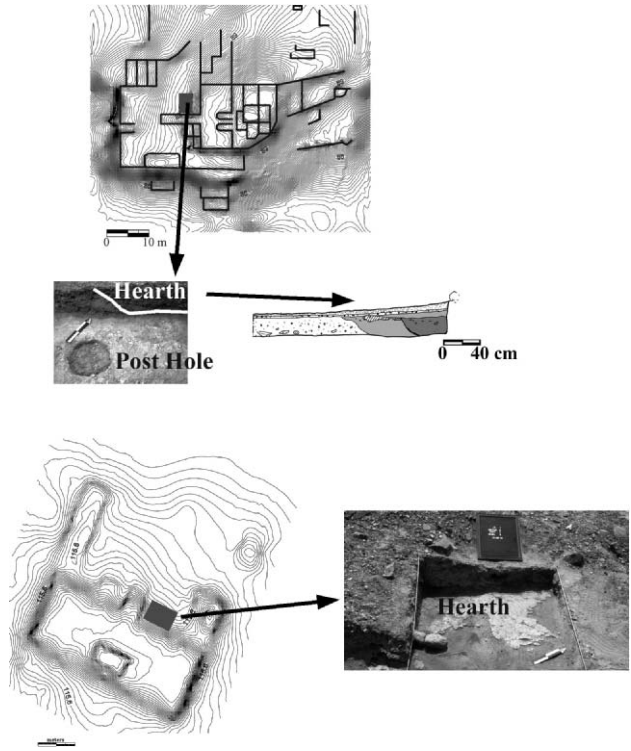


Figure 5.10. Hearths excavated on ceremonial platforms at San Ildefonso and Portachuelo de Charcape.

recovered from excavation units (Swenson 2004: 687–696,1159–1188). Llama, guinea pig, dog, sea lion, peanuts, beans, squash, fish, chili pepper, and shell were prepared and consumed in the vicinity of the excavated platforms. Significantly, maize was especially abundant, pointing to the importance of chicha production and consumption. And llama remains were found in almost every excavated platform. Extravagant feasts, involving the consumption of chicha and a rich and varied diet, were differently staged on the ramped structures dispersed throughout the Jequetepeque countryside.

The centrality of the feast in hinterland ceremonialism underscores the political aspirations and ideological strategies of rural populations in Jequetepeque. Feasting, or commensal politics, has long been recognized as the lynchpin of political relations in the Andes. The feast inextricably conflates ritual, ideology, and economics in the conception and exercise of power. Archaeologists working in many parts of the world have recently placed great importance in analyzing and theorizing the feast; valuable contributions have been made in investigations of the catalytic role of commensal politics in social stratification, gender relations, and colonial encounters (Bray 2003a, b; Dietler 1996, 2001; Dietler and Hayden 2001; Gero 1990, 1992; Lau 2002). In the Andes, as elsewhere, feasting was central

to political aggrandizement and social differentiation. Festive hospitality, a "sincere fiction of disinterested generosity" to use Bourdieu's phrase, was critical in reinforcing asymmetrical power relations (cited in Dietler 2001: 75). As is well known, regaling corvée labor with chicha-fueled banquets propelled the Inka political economy. In fact, the mit'a labor tax of the Inka state represented a distorted amplification of the bonds of dependency, reciprocity, and status linking traditional lineage chiefs with their kin (Morris and Thompson 1985: 91; Murra 1982). The feast dramatized authority by highlighting the generosity and legitimacy of the sponsor while incurring the respect, indebtedness, and compliance of participants.

In the case of coastal Peru, Arsenault (1992) argues that feasting was intimately connected to elite authority in the southern Moche state. The discovery of massive quantities of feasting ware and llama remains at Huaca del Sol at the Moche capital indicates that adobe pyramids were loci of ceremonial feasts. Furthermore, iconographic evidence suggests that a privileged corps of male religious specialists manufactured chicha and organized banquets on behalf of the state. Interestingly, the production and consumption of chicha were among the more important political rituals orchestrated at San José de Moro (Castillo 2001).

As Dietler (2001: 65) notes, feasts are important arenas "for the representation and manipulation of political power," and it is readily apparent that such arenas were not restricted to large centers or singular monumental complexes within the Jequetepeque hinterland. In fact, small-scale feasting at sites such as San Ildefonso and Catalina differed significantly from the centralization of commensal politics evident at Huaca del Sol. It also deviated from the Inka model, in which large provincial centers anchored state control over festive generosity and surplus labor appropriation (Morris and Thompson 1985). The use of such "authorizing" spaces was clearly regulated by centralized polities. Specialized structures were instrumental in visually articulating and legitimizing political privilege, and they were tightly guarded and often monopolized as a consequence. The appropriation of the feast and its diacritical space by rural communities in Jequetepeque reveals the audacious aspirations of lower-level chiefs who sought political privilege and social entitlement. Indeed, the archaeological landscape in Jequetepeque points to a veritable "competition among stages," demonstrating the fragmentation of authority in the region (Lincoln 1994: 138). Evidently, the social instability in the Late Moche Period enabled a greater number of actors to augment their political positions through the co-option of prestigious ritual programs and "empowering feasts" (Dietler 2001: 75–78).

Participation in ceremonial feasts was no doubt related to the reaffirmation of social identity and the mediation of economic relations engaging but competitively differentiating local groups. Feasts at sites such as San Ildefonso and Catalina appear to have been instrumental in ideologically defining and recasting power relations linking various social groups. The different hinterland ceremonial sites (and possibly platforms within larger settlements) likely symbolized "separate consumption communities"; however, these communities likely did not form strictly exclusive "commensal circles" (Dietler 2001: 94). Lesser chiefs may have attempted to expand their political influence by competitively soliciting the allegiance of different groups in the valley. As Lau (2002: 280) notes, "while

holding feasts 'catalyzes' potential for social differentiation, communal benefits may also be conferred." Thus, it is possible that the intensified ritual activities and political machinations of petty curacas, who competitively solicited the favor of potential followers, were advantageously manipulated by a large number of social groups residing in the hinterland.

The evidence for site-specific architectural variability strongly suggests that ritual production was "deregulated," the prerogative of local groups, likely defined by kinship or lineage affiliation. Again, this does not imply that ceremonial practice at these settlements was strictly parochial; rather, ritual architecture was built on local initiative, perhaps to mediate the interests of the community or more powerful individuals within the community who commissioned and used the monuments. The creative adoption of Moche ceremonial space reveals that local groups attempted to legitimize local political posturing by invoking widely recognized religious tenets. In fact, the Late Moche Period in Jequetepeque witnessed a veritable popularization of Moche religion.

Ritual in the Andes has traditionally articulated identity politics involving basic forms of kinship association and social organization (Rostworowski 1983; Salomon and Urioste 1991). Therefore, the individual ceremonial sites that proliferated throughout the Jequetepeque countryside may have served as the temples of lineage divinities, who were elevated in status through identification with Moche supernaturals. That is, separate kin groups or related sociopolitical associations which gained greater autonomy in the Late Moche Period constructed ceremonial monuments to commemorate community-specific supernaturals and their worldly representatives. San Ildefonso might represent the union of several lineage groups who competitively maintained distinct theaters of ideological self-expression, perhaps in honoring a more inclusive or regionally revered deity.

In fact, the nature of power relations at San Ildefonso and Catalina was perhaps reminiscent of the sociopolitical constitution of the Italian city during the Renaissance, wherein competing families vied for power through the manipulation of shared material symbols and practices. The many towers in San Gimignano, built to showcase the wealth of individuals families, is an apposite analogy. Kertzer also notes that the manifold churches of Sienna located within the fiercely proud neighborhoods (*contrade*) should not be interpreted as reflecting city-wide religious and ideological consensus based on shared Roman Catholicism. Instead, he rightly argues that "What is found in Sienna, then, is the solidarity that comes from common participation in ritual, but it is not the solidarity of an entire society, nor even of the entire community, but a solidarity that pits ritually marked neighborhoods of the same city against one another" (Kertzer 1988: 75).

Finally, it is worth noting that many of the Jequetepeque settlements are in close proximity to canals and field systems. Therefore, the groups that built and maintained these ceremonial sites may have resembled religious or hydraulic organizations defending usufruct rights to land and water through ceremonial feasting. Ritual feasts on specialized constructions materialized claims to resources and pooled the labor and productivity of participants. Such feasts were critical to the organization of production and to the local negotiation of political and economic relations.

CONCLUSION

To conclude, I will touch on some of the broader implications of the Jequetepeque data. In a recent article, Arthur Joyce and colleagues (2001) working in Oaxaca, Mexico argued that the ideological practices of lower status groups could be identified archaeologically through the examination of differing strategies of ritualized resistance, avoidance, and engagement. Resistance can be detected through such material signatures as the defacement of elite religious monuments and the violent destruction of corporate temples. "Avoidance," on the other hand, refers to the maintenance of alternative politico-religious systems that evade state ideologies and authority structures. Avoidance denotes the existence of incongruous ritual programs that do not directly contest elite representations but rather imply a contrary and self-assertive religious ethos. Figurines and iconographic symbols valorizing female fertility in certain Mesoamerican domestic contexts have been interpreted as examples of avoidance (A. Joyce et al. 2001; R. Joyce 1999, 2001). Such practices are thought to have circumvented the androcentric orientation of state-sponsored religions grounded in warfare and human sacrifice. Finally, engagement refers to manipulation of the tenets of dominant ideologies by subordinate communities in order to counter oppression within the system.

Certainly, the different communities that built and maintained the hinterland sites "engaged" with and contributed to the transformation of a Moche ideology in the Late Moche Period. Moche divinities, warriors, and mythic themes are commonly depicted on hinterland ceramics, and the ramped platforms themselves are interpretive miniatures of the great urban pyramids. This engagement, however was clearly inventive, mostly independent, and likely strategic. That is, it cannot simply be understood as a reflexive reaction of subaltern groups maneuvering within the oppressive framework of a dominant political ideology. Rather, it entailed a creative reformulation of ideological practices that was critical to the dynamic continuity of Moche religion as a whole.

In fact, depictions of Moche warriors and elites with nose pieces, ear spools, and elaborate headdresses (Figure 5.4) indicate that the inhabitants of the hinterland settlements did not reject Moche-defined values of religious privilege and elevated status. These emblems of elite power, along with other symbols of Moche ideology (such as corporate fineline vessels found in many of the sites), suggest that the evident "pluralism" and decentralization of religious practice in Jequetepeque did not translate to the development of radically alternative political ideologies explicitly hostile to urban-based belief systems. This scenario contrasts markedly from the situation in the Moche Valley, where the former state religious complex was discarded and constituted anew by a centralized elite (Bawden 1996; 2001).

In Jequetepeque, communities competitively financed religious feasts and political rituals. These groups sought political privilege by appropriating and redeploying the preeminent religious practices of urban elites, particularly feasts. In other words, the symbolic capital that defined traditional Moche conceptions of status distinction, political centricity, and religious primacy was co-opted and consequently transformed by numerous communities in the Jequetepeque hinterland.

In the end, hinterland communities appear to have "re-centered" or "de-centered" political power and diminished the relevance of cities such as Pampa Grande or San José de Moro. Therefore, the opposition between urban and rural in Late Moche Jequetepeque is a construct of convenience; in fact it is questionable whether the ceremonial sites can be considered a "hinterland" at all in relation to neighboring urban centers. The negative connotations of the periphery as disempowered, subservient, and economically dependent are certainly inapplicable in this instance (see Schwartz and Falconer 1994).

The Jequetepeque evidence demonstrates that power relations need to be conceptualized beyond reductive dichotomies of domination and resistance. The scaled-down Moche temples in the Jequetepeque hinterland are not simply emblematic of hegemonic forces, whether in a cultural, religious, or political sense. Nor do they reflect the success of upper class lords in inculcating urban-based religious values and engineering the compliance of non-elites. Instead, it is clear that rural communities actively contributed to the reproduction of Moche religion. Even Gramsci, the foremost theorist on hegemonic cultural forces, noted that Catholicism in Italy "is in reality a multiplicity of distinct and often contradictory religions: there is one Catholicism for the peasants, one for the petits-bourgeois and town workers, one for women, and one for intellectuals which is itself variegated and disconnected" (Gramsci 1971: 419–420). Gramsci would stress that the tailoring of Catholicism by particular groups to meet immediate needs often strengthened unequal relations of production and impeded resistive organization. However, in the Jequetepeque case, the differential propagation of Moche ideology secured greater political, religious, and even economic autonomy for local communities. Rural inhabitants in Jequetepeque did much more than passively engage with or opportunistically comply with a dominant ideology forged exclusively in San José de Moro, Cerro Chepén, or Pampa Grande. The Jequetepeque data challenge the assumption common among Andean scholars that Moche denotes an exclusively elite political and cultural phenomenon (Bawden 1996). In fact, they demonstrate the vital agency of lower status groups in Andean prehistory.

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Chapter **6**

Northern Exposures: Recuay-Cajamarca Boundaries and Interaction

George F. Lau

INTRODUCTION

This study aims to provide a trial characterization of boundary maintenance in the Recuay tradition of the Early Intermediate Period, ca. AD 1–700 (all age ranges are cited using cal AD dates as per Lau 2002–2004). By boundary maintenance, I mean the process of ascribing and communicating socio-cultural difference (Barth 1969). The process has been researched at different scales, from kin groups to communities to nations (Bentley 1987; Eriksen 1991; Hutchinson and Smith 1996; Lightfoot and Martinez 1995; Stark 1998). I review archaeological evidence for interaction in northern Peru to examine ways in which Cajamarca and Recuay peoples made purposeful choices through material culture.

Data for long distance trade and stylistic contact are used to contend that Recuay's cultural boundaries were fairly impermeable for much of its history. Both ideas and goods passed through them, but on a fairly limited level. Recuay groups relied on local traditions, while being generally unreceptive of contemporary, neighboring cultures. Although limited stylistic interaction can be discerned throughout, the exchange of goods with external groups became more prominent later in Recuay prehistory. Middle Horizon (AD 700–1000) developments, associated with the expansion of the Wari state, appear to have marked the dissolution of formerly rigid boundaries, when Recuay groups showed a greater receptivity toward outside stylistic influences as well as new forms of imported commodities. It is argued that while boundaries are shaped by internal and external factors, local groups opt for certain types of materials to express cultural emphases.

BACKGROUND

Boundaries are social constructs. They may describe physical or spatial features, for instance, of the environment (e.g., a river or a mountain range), or an anthropogenic divide (such as a fence). But they are also highly contested social phenomena. Boundaries are good to think, heuristically, because they are made,

imposed and negotiated (Baud and van Schendel 1997; Kearney 1991; Lightfoot and Martinez 1995). They characterize certain dimensions of multi-scalar interaction between cultures, groups and nations. They are also fundamental elements of social complexity (e.g., Brumfiel and Fox 1994).

The notion of boundaries has grown increasingly important to prehistorians, especially in the literature about material culture, style and technologies (e.g., Hegmon 1992; Stark 1998). The way that boundaries are constituted and how they are maintained are important dimensions of studies of archaeological communities and identity (e.g., Canuto and Yaeger 2000; Janusek 2002; Schortman 1989). Boundaries are elucidated by studies of interregional interaction, especially contexts of culture contact and asymmetric socio-economic interests. Yet the question of boundaries challenges archaeologists because we do not yet have methodologies to examine them systematically. Archaeologists employ at least four different usages, which draw inspiration from diverse fields, from political geography to environmental studies to critical theory.

The first concerns the spatial dimension of boundary, such as landmarks and borders (e.g., Isaac 1988; Kristof 1959; Waldron 1990). These are physical delimitations of territory, such as for reckoning political units, or geographical and anthropogenic features. Boundaries may coincide with natural environmental zones. In South America, for example, there are prominent ecological boundaries (i.e., coast, highland, Amazonia) defined on the basis of specific location, altitude, temperature, precipitation, resources, etc. Ecological conditions strongly color our understanding of cultural boundaries and development (Meggers 1971; Steward and Faron 1959).

Another usage of boundaries concerns the margins or edges of large social groups and nations (Baud and van Schendel 1997; Kearney 1991). Often they represent the outer limits of effective legal or political authority over peoples and resources (Kristof 1959: 271–273). Borderlands are also the domains for marked culture contact, commodities exchange, interregional interaction and intermixing (e.g., Burger 1984; Lightfoot and Martínez 1995; Stein 2002). Recent popular models (e.g, core/periphery, peer polity interaction, factional competition and rural agency) articulate, if in profoundly different ways, the ranges of socio-economic relationships at the interfaces of discrete geopolitical units. These approaches treat forms of interaction that transcend political borders.

The third use of boundary centers on the cultural limits of a grouping, as reflected in shared culture. This is commonly expressed in the form of similar cultural elements, such as pottery attributes used to construct culture areas and culture histories. Due to the nearness between the inference (cultures) and the data set (artifacts), archaeologists are fond of using this genre of boundaries for social interpretations. The operative term here is "style," and its myriad definitions and applications (Hegmon 1992; Stark 1998). Groups may be differentiated on the basis of shared practices, reflected in things as diverse as subsistence techniques to cranial deformation. One recent volume examines common affiliations/distinctions through group-based "ways of doing things"(Dietler and Herbich 1998: 234–236; Stark 1998).

The fourth approximation resembles the previous, but focuses on the boundaries of social and ethnic identities (e.g., Emberling 1997; Hodder 1982). Ethnicity has been a subject of scholarship at least since Weber (Hutchinson and Smith 1996), but archaeologists have been less than sanguine about its application, in large part because of the imperfect fit with archaeological data. The maintenance of ethnic boundaries, Barth (1969) highlighted, was an ascriptive process of socio-cultural affiliation and differentiation, or "dichotomization." There is no one-on-one correspondence between ensembles of cultural features and ethnic groups. But basic predispositions or "value orientations" and diacritical features of culture do communicate distinctions. While subsequent work enhanced this foundation by suggesting a practice-based model to ethnic ascription (Bentley 1987), identifying the "core elements of ethnicity" (e.g., kinship, commensality and a common cult) (Nash 1989: 10–11), or a focus on ethnicity as a type of shared idiom (Eriksen 1991), it was a theoretical breakthrough to focus on the "boundary" as the analytical unit, not the "cultural stuff that it encloses" (Barth 1969: 15). Thus, the boundary itself can be abstracted as the expression as well as source for social and cultural distinction.

In archaeology, the four usages of "boundaries" converge mainly upon the reasoning that they exist in prehistory and that they articulate, in different ways, the principle of being in opposition to another (or others). For this inquiry, I use the term boundary maintenance not to distinguish ethnicities but to characterize changing relations of interaction between cultural groups. The fact of the matter is that rarely do social and cultural boundaries coincide fully in the ethnographic record. And rarely do prehistorians have unfettered access to data which allows us to reconstruct social boundaries unambiguously.

BOUNDARIES IN THE ANCIENT ANDES

Boundaries in the ancient Andes (Figure 6.1) have seen very little explicit analysis, but much research has been underwritten implicitly by one or, more commonly, a combination of the four perspectives outlined above. The logical starting point for this discussion concerns cultures and culture areas. Pioneering scholars constituted culture areas through distinctions in style, technology and achievement (Bennett 1948; Kroeber 1944; Willey 1945). Effectively, they established the groundwork on which we conceive of cultural borders and interaction across time and space. Macroscale terms such as co-traditions, nuclear areas, and horizons describe broad cultural configurations with boundaries situated at different levels and expectations of permeability. Horizons, for example, should see a blurring of cultural boundaries, with the expectation of socio-cultural integration across a wide swath of the Central Andes. An "intermediate" period (Rowe 1962), meanwhile, connotes strong regional developments, frequently attributed to balkanized cultural and geopolitical boundaries.

Many studies of regional exchange in the Andes rely on the "interaction sphere" concept (MacNeish et al. 1975; Shady 1988; Smith 1978). Originally formulated to consider the wide distribution of similar cultural elements and long-distance

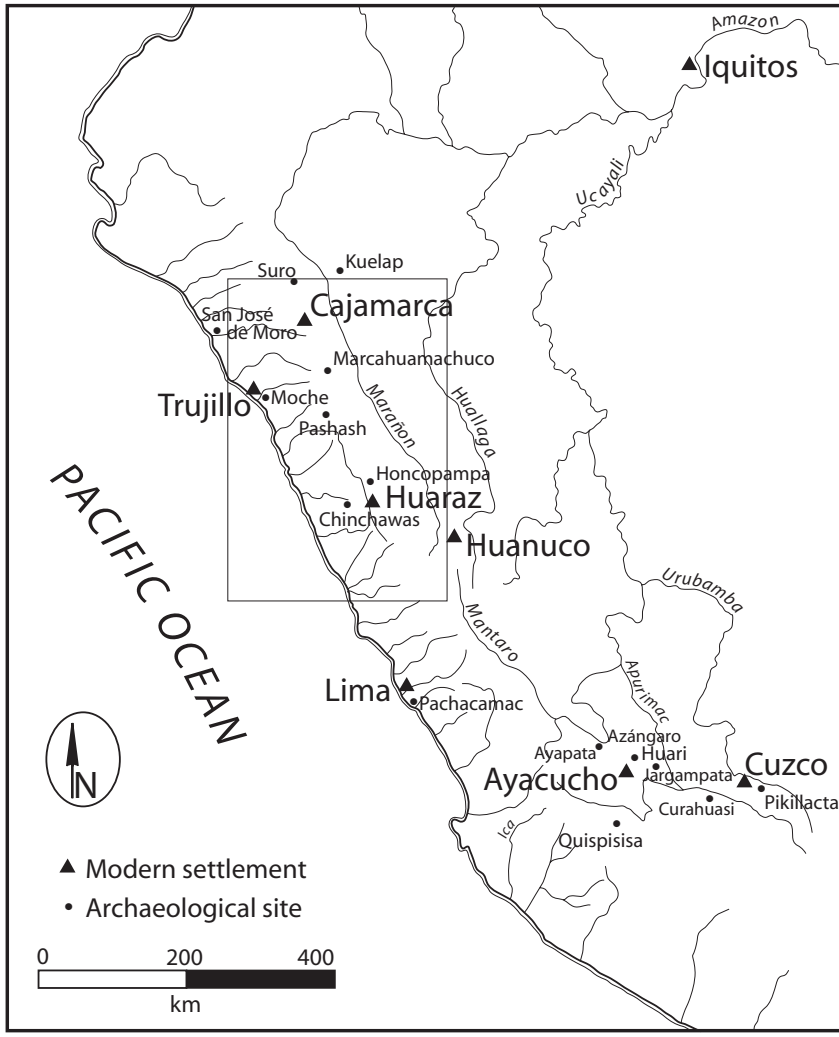

Figure 6.1. The Central Andes and sites/regions enumerated in the text. The inset identifies the area detailed on Figure 6.2.

goods, the concept frequently refers to a regional exchange system (Caldwell 1964). In practical terms, "interaction sphere" is a concept which is geared to manage things or ideas as a unit. In this way, it is similar to the term "horizon" but, crucially, without temporal expectations. Because of the emphasis on likeness and synchronicity, however, it may be poorly suited to account for asymmetric relationships or to model the record of variation and contrasts, especially at the diachronic level. Andean applications of the "interaction sphere" concept have been so general, or inclusive in scope, as to lose interpretative utility.

Murra's (1972) verticality model has long been the linchpin of interregional studies in the Central Andes. As an adaptive economic system, verticality stresses the maximization of resource acquisition from non-contiguous lands. But it can also be seen as a settlement pattern with a built-in network for interaction. Various scholars draw from the model to understand patterns of non-local material culture (e.g., Aldenderfer 1993; Dillehay 1979; Stanish 1992; cf. Van Buren 1996). A different perspective on verticality is offered by Goldstein (2000) who reconsidered Tiwanaku colonies as diaspora communities (see Stein 2002). As migrants from the altiplano, they maintained strong ties, in pottery and architectural style, that bound them to their original homeland. According to Goldstein (2000), these were "communities without borders" because of neighboring settlements of different ethnicities.

In contrast, Proulx (1982) identified a distinct border between Moche and Recuay groups in the upper Nepeña Valley during the Early Intermediate Period. A buffer zone marked a pattern of territoriality between the two cultures (e.g., in settlement patterns, ceramics). Proulx also identified its military character by citing defensive features as well as vessel imagery showing Moche warriors battling foreign style warriors, perhaps Recuay. The case of Moche-Recuay interaction, to be returned to later, has been a prominent topic of debate, specifically in respect to pottery emulation, trade and interethnic strife (e.g., Bankmann 1979; Lau 2002–2004; Reichert 1982, 1989; Schuler-Schömig 1979; Wilson 1988). Lechtman (1996) examined another form of territoriality in her analyses of Andean metallurgy. Specifically, she concluded that Middle Horizon metalwork can be distinguished on the basis of choices in the production of copper-metal alloys. The boundaries of Wari and Tiwanaku expansion, therefore, coincided strongly with different technological styles.

Boundaries are addressed through studies of defensive strategies as well as by road systems. These are material expressions of territorial boundaries as well as agents/markers for their permeability. Scholars model interaction between coast-highland zones on northern Peru based on efficiency of routes, ranked according to distances to places and character/difficulty of the terrain (Topic and Topic 1983). The difficulty of travel and transport altitudinally between the two regions reinforces the insularity of the coast and highlands, and encourages horizontal modes of movement/expansion.

Manachaqui Cave, located at the transitional ecological zone between the sierra and the ceja de selva of northern Peru, yielded data for "boundary-interaction" or "boundary-arbitration" (Church 1996). As a shelter for travellers from Preceramic to historical times, the site featured multiple episodes of occupation. The diversity of cultural input, location and particular economic practice resulted in unique cultural assemblages that defy conventional categories, such as highland vs. Amazonian, or Northern vs. Central Andean. Church (1996: 586–588) proposed that portable pottery represented a fertile domain for deliberate innovation and materialization of local cultural affiliation. The study viewed style explicitly as a vehicle for communicating identity and other purposeful information critical in exchange "protocol" (e.g., Wiessner 1983; Wobst 1977).

More recently, Janusek (2002) considered ceramic style and the negotiation of social boundaries within the Tiwanaku heartland. Stylistic variation in Tiwanaku IV communities, along with other cultural patterns, resulted from multiple pottery-producing social groups. These were probably independent, competing kin-based collectivities, "ayllus," embedded within the centralized apparatus of the Tiwanaku state. Diversity in social organization and in the construction/maintenance of local and national identities through state culture led to Tiwanaku's rise and, paradoxically, also its demise.

In addition to stylistic studies, the primary manner by which archaeologists interpret the crossing of regional scale boundaries is through exchange, particularly long-distance trade. Different patterns of trade distinguish the socio-political boundaries of civilizations (Renfrew 1975). The corollary argument, for Burger (1984: 38–39), is that the "contrast between inter-regional action within a civilization and interaction with external or 'foreign' systems provides one means by which . . . its frontiers can be delineated."

Characterization studies, for example, map out extensive obsidian trade distributions prevalent during the Chavín and Wari expansions (Burger and Asaro 1977; Burger and Glascock 2000), thus reinforcing the definition of the Early and Middle Horizon. Along with obsidian, Spondylus shell has been one of the privileged indices of long-distance trade in the Central Andes (Hocquenghem 1993; Paulsen 1974). Exotic commodities such as Spondylus are valued because they confer social credit to and between local leaders—as symbols of differential wealth, access, distance, and/or links to special knowledge or powers (Helms 1993). Despite their relative rarity, such exotica, because of their highly recognizable and sourceable character, feature heavily in interpretation of prehistoric exchange.

When we examine boundaries as archaeological phenomena, we often return to evidence which allows us to emphasize variability within given data sets for interaction, specifically in terms of: 1) material style and iconography and 2) long-distance exchange. The first relies on distributions of an artifact class and those indicators suggestive of distinctive shared "ways of doing things" (especially making and consuming), while the second trusts in the record of occurrence of rare things from identifiable sources. Curiously, the evidence for regional cultural boundaries may be strongest when there is variability in the data for interaction between comparable units. This may be consistent with Barth's proposal that ethnic boundaries are fundamentally permeable and, more important, that persistent transactions between them make the boundaries more prominent and durable (1969: 15–16). Boundary maintenance may be a way to envision certain forms of interaction, especially when accounting for the long history and persistence of neighboring cultural traditions.

RECUAY-CAJAMARCA INTERACTION

Recuay groups developed in a part of northern Peru more or less corresponding to the modern limits of the Department of Ancash (Figure 6.2). To the north lie the Departments of La Libertad and Cajamarca, while to the east and south lie

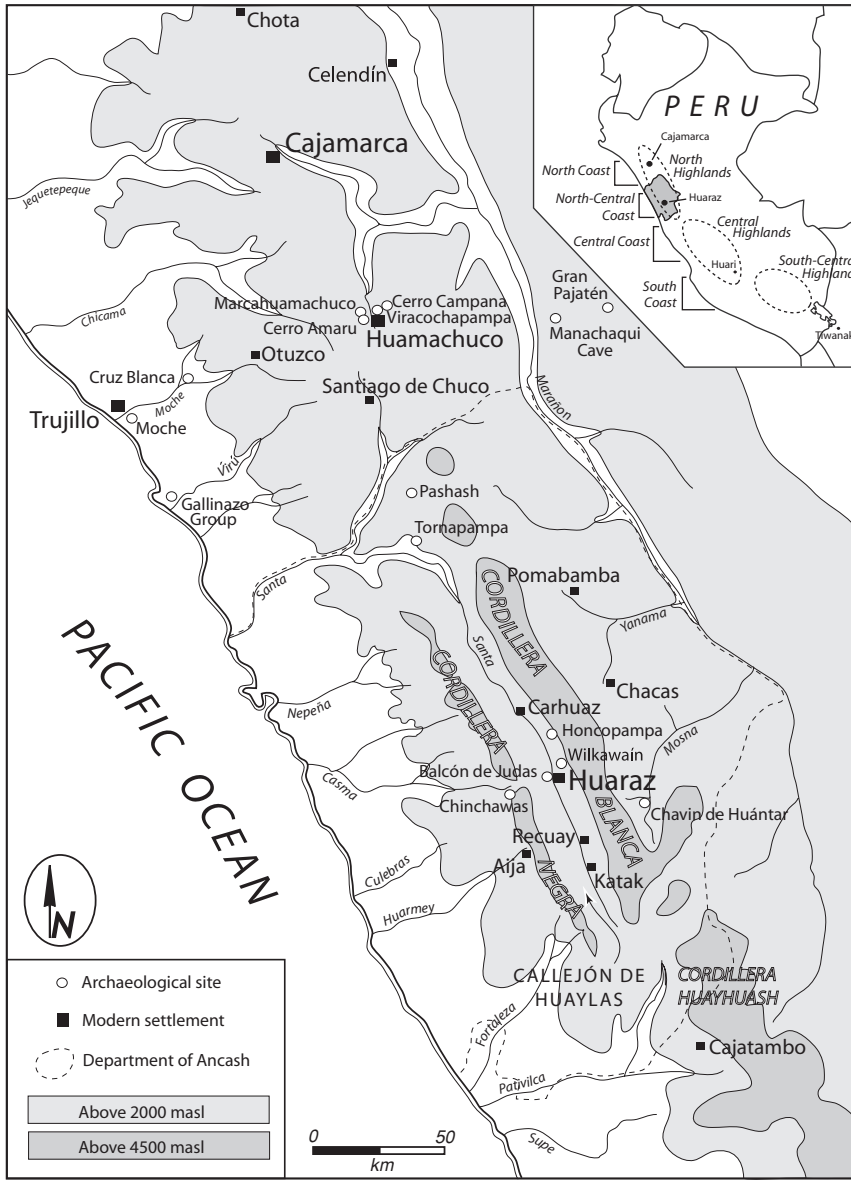

Figure 6.2. Northern Peru and sites mentioned in the text.

the Departments of Huánuco and Lima, respectively. East of the desert coastline, most of interior Ancash consists of mountainous zones and verdant, productive intermontane valleys, such as the Callejón de Huaylas. The eastern portion of Ancash descends into the dense forested edges of the Andean range, the Amazonian headwaters known as the ceja de selva or montaña.

A central location in northern Peru and sharply compressed vertical zonation appear to have predisposed Ancash's prehistoric development in two main ways. First, there was a long history of interzonal trade connecting different parts of the coast, highlands and Amazonian headwaters in Ancash. This occurred most clearly with exotic preciosities but trade also included bulkier materials, including foods and lithic materials (Burger 1985; Druc 1998; Grieder et al. 1988; Lynch 1980). Second, there was frequent interchange of ideas which bridged different ecological areas. Throughout the 1st and 2nd millennium BC, the art and architecture of highland Ancash groups shared forms and borrowed imagery from cultures of the coast and forested eastern Andes (Burger 1992; Lathrap 1973; Miller and Burger 1995; Rowe 1967). By the 1st millennium AD, Recuay's territory and propinquity to other regional cultures became fundamental to its emergence as a key player in northern Peru.

Stylistic Boundaries: Recuay and Cajamarca Pottery

In 1878 José Mariano Macedo observed, "This section is so well-defined, that when seeing a Recuay pot, it is not possible to confuse it with other pots from other sources. In my opinion, there existed, in Recuay, a civilization entirely isolated from the rest" [Endnote 1]. Macedo noted that Recuay's fancy pottery looks very little like the ceramics from its neighbors. In addition to architecture and stone sculpture (Schaedel 1948; Tello 1929), pottery is the hallmark of Recuay culture (Eisleb 1987; Grieder 1978; Reichert 1977; Smith 1978). I will focus on elements which may have been important in boundary maintenance.

Recuay fancy wares are the best identified of the pottery range. They are known mainly from funerary contexts. Fine Recuay pottery is characterized by fine thin pastes, sculptural modeling, and complex polychrome painting. Oxidizing firing was apparently preferred, although reduced vessels are known. White, black and red pigments were used for linear designs, often in orderly color fields. The painting also frequently employed a resist technique, i.e., negative painting. Resist decoration was shared by several contemporary cultures early in Recuay's development, including Salinar, Gallinazo and Vicús (Mejía Xesspe 1965–66). Like its neighbors, Recuay featured repetitive linear and geometric motifs.

In general, however, Recuay pottery production differed from its contemporaries. The use of molds, typical of Moche potters and other groups along the coast (Donnan 1965), was not a frequent mode of manufacture for Recuay groups. Grieder (1978: 96–101) has also suggested that some Recuay groups made vessels, specifically ring-based bowls, using potters wheels. Most Recuay pots used reddish terracotta clays, but some vessels employed whitish or pinkish pastes bearing varying amounts of kaolinite (Reichert 1977). The paste color left a distinctive light field on which positive and negative designs were applied. Recuay potters also applied white slips over terracotta clays to approximate purer kaolinite vessels and achieve the dark on light effects. Kaolinite use requires a higher firing temperature and access to raw clay sources, which are known from certain parts of

northern Peruvian sierra (Czwarno 1983). Applying resist decoration also likely necessitated multiple firing(s).

Kaolinite wares were also featured in Cajamarca culture (Julien 1988; Matsumoto 1994; Reichlen and Reichlen 1949; Terada and Matsumoto 1985). Like Recuay, the culture flourished in Peru's north highlands during the 1st millennium AD and is best known for its pottery. The Cajamarca basin lies about 250 kms north of the Huaraz area. The chronology of the Cajamarca pottery tradition has recently been reworked into Initial Cajamarca (250 BC–AD 200), Early Cajamarca (AD 200–450), Middle Cajamarca (AD 450–900), Late Cajamarca (AD 900–1200) and Final Cajamarca (AD 1200–1532) phases (Matsumoto 1994: 185). Overall, Recuay and Cajamarca ceramics have seen little systematic investigation, and particularly regarding their manufacture. No evidence of a Cajamarca or a Recuay pottery workshop has ever been described in print, and to my knowledge, no firing area, kilns, or wasters have yet been found. This sampling gap needs attention, especially given the frequently cited difficulty in kaolinite pottery production.

Recuay and Cajamarca fancy wares shared a number of common motifs, including: 1) bodiless frontal heads, sometimes with four appendages, 2) crested animals, perhaps a feline or viscacha, as well as 3) the emphasis on repetitive linear or geometric designs, such as exterior rim step frets (Reichert 1977; Smith 1978). The use of painted design panels on pottery has also been used to suggest stylistic interaction.

Like Recuay, kaolinite bowls, often with ring-bases, were a key form for fancy Cajamarca wares. Outside of bowls, Cajamarca fine pottery stressed very different shapes (e.g., tripod bowls and very small, delicate spoons), which do not have common Recuay analogues. Most Cajamarca fine vessels are fairly compact and simple, perhaps due to kaolinite's lower plasticity and tendency for less shrinkage during drying (Julien 1988; Topic 1985). Recuay potters, in contrast, sometimes created large and tall forms, such as flaring disc-rim jars, while other vessels feature very elaborate ceramic modelling and architectural detail. Distinctive Recuay shapes include dippers, double-chambered vessels, and many one-of-a-kind forms (i.e., architectural models).

Painted decoration was another domain for strong differentiation. Recuay, typically in wider strokes (ca. 3–4 mm), preferred to elaborate on the exterior surfaces of bowls while Cajamarca favored both interior and exterior fields. Cajamarca pottery was especially unique for its emphasis on "cursive" painting, referring to quick, repetitive and very thin strokes of dark paint on light background (Reichlen and Reichlen 1949). Finally, resist painting was not prominent in the Cajamarca tradition.

There were therefore discrete suites of preferences among Cajamarca and Recuay potters, although it is unclear whether these choices stemmed from differences in technical knowledge or by other cultural dispositions. The creative differences in the two kaolinite pottery traditions are notable because Recuay groups were not isolated from Cajamarca peoples. Substantive contact can be tracked through long-distance exchange (Table 6.1).

Table 6.1. Summary of Cajamarca style pottery in highland Ancash.

Site	Reference	Details	Cajamarca designation	Context	Local phase association	Associated diagnostics & exotics	Notes
CAJAMARCA							
Chinchawas	Lau 2001: 290–292, Fig. 9-3	7 cursive fragments (4 bowl; 3 spoons)	Classic & Floral Cursive	Sector 1 northern terraces & midden	Chinchawasi 2, Warmi	Wari polychrome styles, Nievería, Quispisisa obsidian	
Wilkawaín area	Bennett 1944: 41, Fig. 13D–E	8 cursive fragments	Classic Cursive (Matsumoto 1988)	Subterranean House Site (9H-2)	pre-Middle, pre-Tiahuanacoid Period (p. 52)	Recuay, White-on-red styles	
Ichik Wilkawaín	Bennett 1944: 30, Fig. 11C	1 spoon	—	Deep tomb (7H-1-4)	Middle Period	Wari polychrome styles, Chakipampa B	Exchanged with J.C. Tello (Steve Wegner, pers. communication, 2004)
Patay Katak	Bennett 1944: 12	1 spoon fragment	Floral Cursive	Mounds, north of Huaraz (probably destroyed chullpa tombs)	Middle Period	Lyre-shaped cup; Coast Tiahuanaco	Surface collection analyzed by Bennett at the Huaraz museum
Honco complex (Honco-pampa)	Lanning 1965: 140, Amat 1976b: 237	—	—	Chullpa tombs	Early Honco	Viñaque	"Marañon" style (Lanning 1976: 140; "Huari Cajamarca" & "Cajamarca III" style (Amat 1976b: 234)
Antaraká	N/A	1 open bowl; 2 fragments (1 bowl sherd perforated into piruru or pendant; 1 spoon handle and bowl fragment)	Cursive	Found while digging holes to plant apple trees (near Carhuaz)	—	Wari greenstone figurine, Blackware double spout and bridge	Felipe Diaz, pers. communication 2000, 2004

Tornapampa	Kato 1979: 166; Terada 1979: Pl.73a-2	1 bowl fragment	Floral Cursive	Chullpa 2 (Ch-2)	Tornapampa	Viñaque	In front of *chullpa* entrance
Mosna Basin	Amat 1976b:535	N/A	Cajamarca II	Recuay tombs	Desarrollos Regionales (Cajamarca II)	Moche II	Associated with Recuay tombs
CAJAMARCA-RELATED							
Katak	Eisleb 1987: Taf. 25	1 Recuay bowl, exterior Cajamarca design	—	Recuay tomb			
Chinchawas	Lau 2001: Fig. 8-15d	Tripod bowl	—	Terrace 5. OP36G	Warmi	Warmi ceramics, coastal press-molded ceramics	
Chinchawas	Lau 2001: Fig. 9-3j-o	16 Cajamarca-related sherds, from bowls where identifiable	—	Sector 1 terraces and room enclosures	Chinchawasi 2, Warmi	Wari polychrome styles, Nievería, Quispisisa obsidian	Some polychrome sherds approximate Cajamarca Cursive designs
Gantujirca (HI-12)	Ibarra 2003	1 spoon fragment	—	Surficial	Intermedio Temprano	None	Type “llano crema”
Unknown	Huaraz Archaeology Museum Collection (Accessions no. E1-156, E1-172)	2 bowls	cursive				Designs similar to Eisleb 1987: Taf.25; Topic and Topic 1984: Fig. 10a.

The Distribution and Prestige of Cajamarca

Cajamarca has long been recognized as a prestige ware, given its distinctiveness and wide, if sporadic, distribution (Menzel 1964) (Figures 6.1, 6.2). Cursive pottery has been documented widely in the Huamachuco area, just south of the Cajamarca zone (McCown 1945; Thatcher 1972). Cajamarca Cursive spoons and a pedestal bowl occurred as grave offerings in an early Middle Horizon mausoleum at Cerro Amaru (Topic and Topic 1984). Ceramics associated with the Middle Cajamarca phase (Terada and Matsumoto 1985) have also been found in nearby highland areas: Chota (Shady and Rosas 1977), Celendín (Chávez 1976) and forested eastern flanks of the Andes (Reichlen and Reichlen 1950; Ruiz 1969).

Cajamarca imports and Cajamarca-related styles also figured prominently as prestige wares in the north coast, found in Late Moche and later Middle Horizon sites (e.g., Castillo and Donnan 1994; Disselhoff 1958; Kroeber 1944; Larco Hoyle 1948; Leonard and Russell 1992; Montenegro 1993; Shimada 1994). Cajamarca pottery reached the south-central highlands, especially in settlements with Wari presence (e.g., Menzel 1964; Ravines 1968, 1977). Cursive styles have also been found at Wari, the capital of the Middle Horizon Wari state (Benavides 1991; Bennett 1953; Cook 1994; Menzel 1964), as well as Wari-related sites, namely Viracochapampa (McCown 1945), Honcopampa (Amat 1976a), Jargampata (Isbell 1977), Azángaro (Anders 1986) and Pikillacta (McEwan 1996).

Various sites in highland Ancash have produced Cajamarca imports. At Tornapampa, a site consisting of a series of chullpas (aboveground mausolea), surface collections at Chullpa 2 recovered Floral Cursive pottery [Endnote 2], characteristic of the Middle Cajamarca period (Kato 1979). Bennett (1944) documented a number of cursive fragments, including several complete spoons, from a "subterranean house site," a deep stone-lined tomb and other burial sites in the area of Wilkawaín and Huaraz. One of the spoons was broken at the handle, but the rough edges had been filed down (Figure 6.3). Cajamarca imports occur in a private collection in Carhuaz reportedly from Antaraká, an agricultural zone just south of Carhuaz. One sherd has a drilled hole (ca. 8 mm) for use as a spindle whorl or a pendant. Other occurrences have been reported: "Marañón" or "Cajamarca III" pottery from the chullpa sector of Honcopampa (Amat 1976a:237; Lanning 1965:140) and "Cajamarca II" style in the Mosna Valley (Amat 1976b: 535). The storeroom collection of the Museo Arqueológico de Ancash (in Huaraz) contains several small cursive style bowls, which appear to be poorly made imports or local derivations. The shapes and designs on the bowls are comparable to Cajamarca style materials in other parts of the north highlands (e.g., Eisleb 1987: Taf. 25; Topic and Topic 1984: fig. 10a).

Excavations at Chinchawas (Lau 2001) recovered both Cajamarca and Cajamarca-related pottery. The materials are contemporary with Chinchawasi and Warmi phase materials, ca. AD 600–900. The direct imports, all in a fine white kaolinite paste (Figure 6.4), bear cursive motifs, painted in a dark brown over a dull matte surface. Several are spoon fragments (Figure 6.4A–D) characteristic of Cajamarca forms (Terada and Onuki 1982: pl.62). Shallow bowls with ring-bases

Figure 6.3. Cajamarca spoon, from subterranean house site 9H-2, Wilkawaín. Bennett North Highlands Collection, American Museum of Natural History.

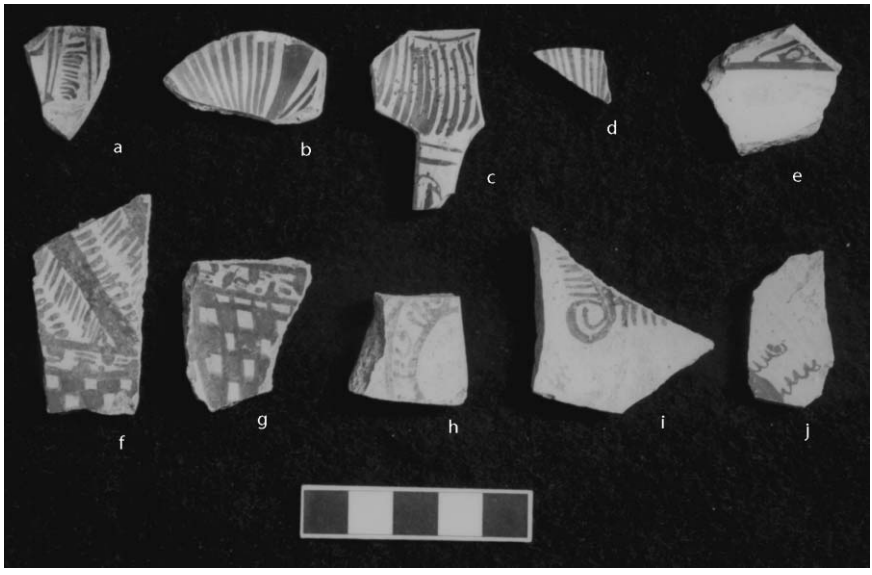

Figure 6.4. Imported Cajamarca cursive pottery at Chinchawas, including spoon fragments (A–D) and open bowl sherds (E–J). The checkerboard designs of sherds F and G contain dark red fill color.

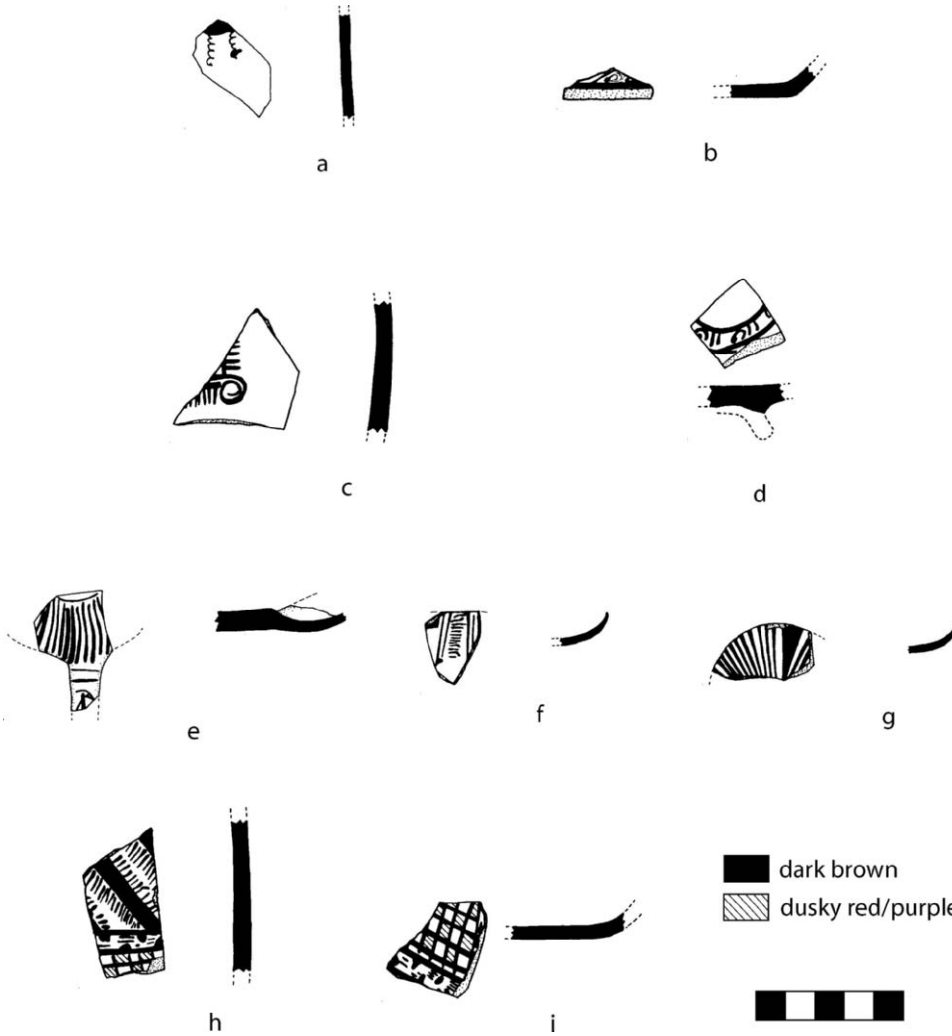

Figure 6.5. Imported Cajamarca cursive pottery at Chinchawas, including interior-painted open bowl sherds (A–D) and small spoon fragments (E–G). Also represented is Cajamarca-related pottery (H–I), in the form of interior painted open bowls.

are also represented (Figure 6.5D). The Cajamarca-related pottery, all bowl sherds, feature curlicues, banded designs and checkering typical for Cajamarca, but differ from the imports by employing less finely-sorted pastes, rougher surfaces and derivative cursive strokes (Figure 6.6). Another difference is the addition of yellow and red/purplish red paint. The source for this pottery is unknown, but it is foreign to Chinchawas and highland Ancash, in general. Finally, at Chinchawas, we also recovered a tripod vessel (Figure 6.7), which uses local techniques (paste,

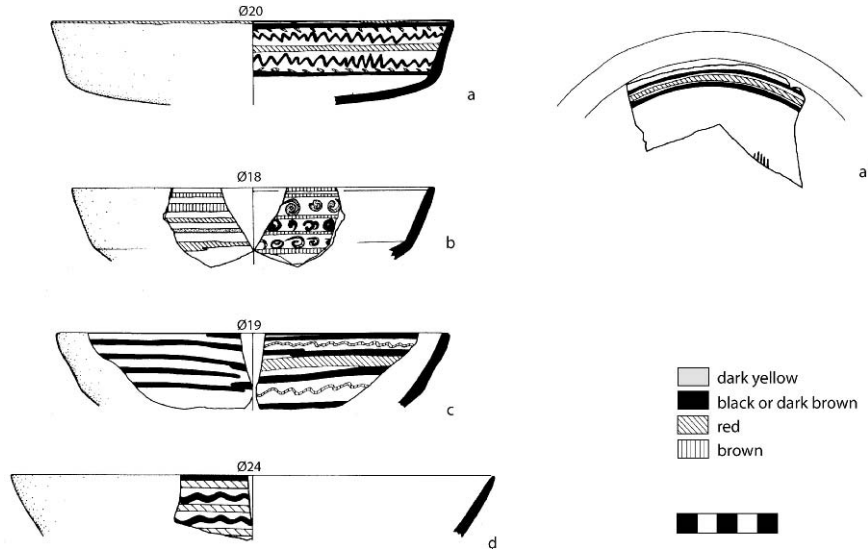

Figure 6.6. Cajamarca-related imports at Chinchawas, all open bowls (A–D). Polychrome curlicues (B) and comb-designs (A′) resemble Cajamarca Floral Cursive pottery.

line width, slip color) for a Cajamarca form and painted design. These may be comparable to styles found at the Wari site, specifically the Geometric on Light or the "cursive" variant of Wari Polychrome pottery (Bennett 1953: pl. 9, fig. 13), which appear to be locally made versions of Cajamarca wares.

Despite the limited sample, some tendencies emerge for the data on Cajamarca long-distance exchange with Ancash groups. First, the exchange appears to be restricted to a time period ca. AD 500–900. It was committed to two main forms:

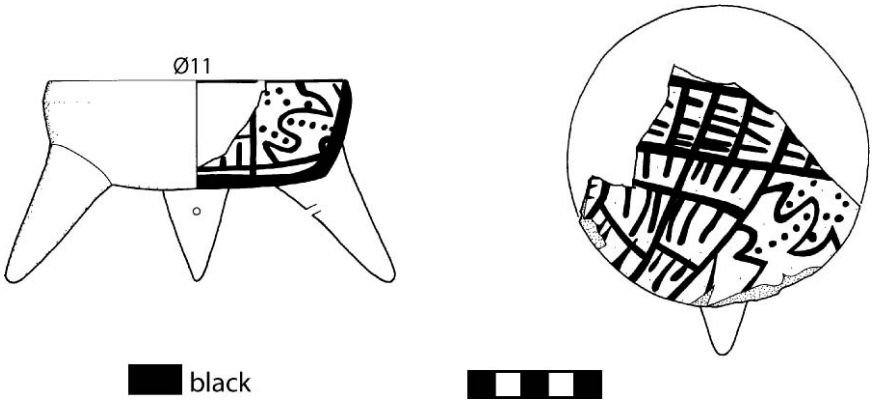

Figure 6.7. Locally made pottery in the style of Cajamarca tripod vessel, Warmi phase (ca. AD 800–950), Chinchawas.

kaolinite open bowls and spoons. The bowls are relatively small, with diameters often under 18–20 cms. The spoons are also small. Their size and portability no doubt facilitated their transport. A few examples from Wilkawaín and Carhuaz show different signs of re-use and curation, and imply some continuity of value and extended object biographies despite breakage—i.e., they do not appear to be casual, disposable items.

Recuay-Cajamarca Boundaries Through Time

Cajamarca-Ancash interaction spanned the Early Intermediate Period to Middle Horizon, and has different emphases through time (Figure 6.8) Early

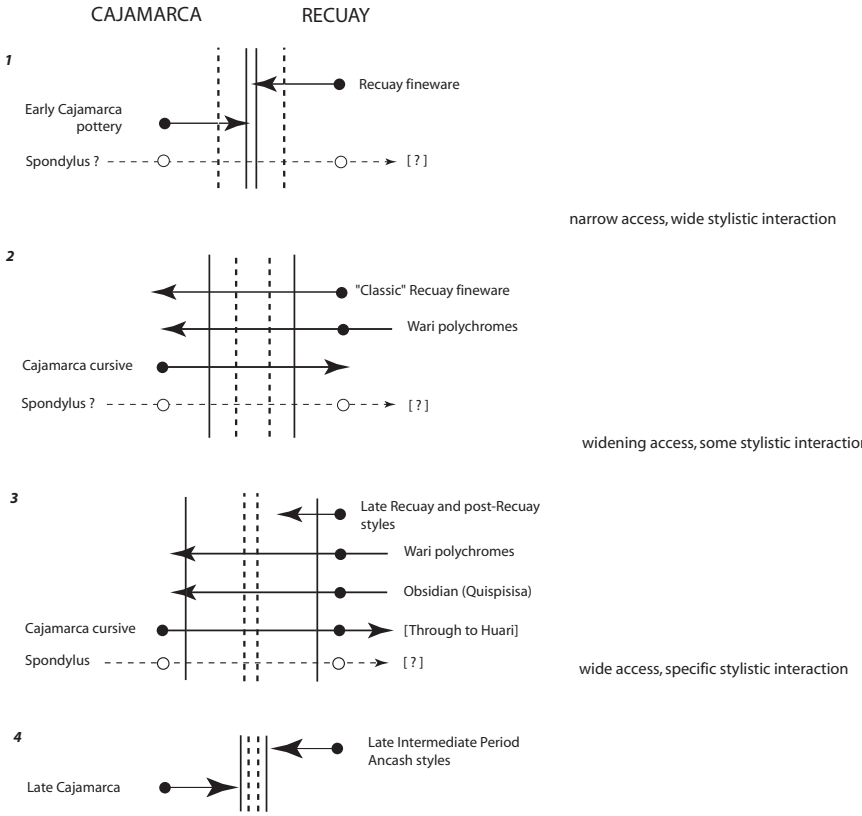

Figure 6.8. Reconstruction of interaction patterns between highland Cajamarca and Ancash groups, 1st millennium AD. Dashed lines demarcate fields for stylistic interaction, while solid vertical lines describe access to long-distance goods. Thus, Frame 1 (ca. AD ?–400) is characterized by generalized stylistic interaction but low access to exotica. Frame 2 (ca. AD 400–600) sees a widening of access but reduction in stylistic interaction, as the Recuay and Cajamarca styles grew increasingly divergent. Frame 3 (ca. AD 600–900) shows unprecedented access to exotica, with limited, very specific stylistic interaction. Frame 4 (post AD 900) shows very limited interregional interaction.

Cajamarca-Recuay relationships appear mainly to consist of general stylistic similarities. We see, in both traditions, emphasis on simple open bowls, made of kaolinite clay, frequently with exterior positive-painted geometric and linear designs (Terada and Matsumoto 1985). Certain designs, usually narrow parallel bands, design fields and some figurative motifs, also suggest shared tendencies in ceramic production (cf. Eisleb 1987: Abb. 25; Wegner 2003). It is uncertain whether these were stylistic/technical convergences or evidence of more intensive interaction.

Later, Cajamarca interaction in Ancash privileged direct importation of small, portable kaolinite objects with cursive painted designs. This occurred by Late Recuay times, roughly coeval with early Middle Cajamarca, and into the early part of the Middle Horizon. The quantities traded were limited. Stylistic contact continued with broad sharing of certain iconographic elements, such as concentric circles. The final stages of Cajamarca interaction in Ancash occurred in the middle to late Middle Horizon. Cursive pottery was still traded, but Callejón de Huaylas groups also began emulating specific attributes of Cajamarca cursive pottery. Such transformations also characterized the local pottery of Chota (Shady and Rosas 1977), Huamachuco (Thatcher 1972) and neighboring areas (Krzanowski 1986; Krzanowski and Pawlikowski 1980). Kaolinite was substituted and certain shapes adopted (tripod bowl); derivative cursive designs and painting (ticking) using broad line weights appear, sometimes, in the local decorated wares.

A number of important implications arise from this overview. First, Cajamarca pottery had the unusual ability to consistently transcend cultural and political boundaries, sometimes over one thousand kilometers from its source. Current evidence insinuates Wari intervention into the pattern because Wari imports or related pottery styles are consistent companions of Cajamarca pottery at Ancash sites (Chinchawas, Tornapampa, Honcopampa, Wilkawaín) and beyond (e.g., Cerro Amaru, San José de Moro, Ayapata, Jargampata). No other pairing is as immediately prominent. Cajamarca style pottery was much rarer in the Callejón de Conchucos, as was central highland Wari influence in general (Amat 1976b; Herrera 2003; Ibarra 2003). The Callejón de Huaylas was probably the primary north-south artery for Ancash-Cajamarca exchange during the early Middle Horizon.

When Cajamarca imports appeared in Ancash, they frequently occurred with other types of exotica, notably other prestige wares. These include styles from identifiable areas (i.e., Wari, Nievería, north coast) and unknown production sources. The pattern appears to be a type of pottery acquisition, which valued diversity and technical virtuosity in objects as much as it emphasized quantity. This might be likened to strains of numismatics or philately interested in prized regional exemplars, but not necessarily in full series.

In the Ancash highlands, Cajamarca pottery is, almost predictably, associated with contexts of status display, especially in mortuary contexts. This is a part of a broader pattern across the Central Andes, in which many diverse local groups incorporated Cajamarca objects to their collection of ritual equipment. Finally, most instances of imported cursive pottery are frequently accompanied by instances of clear stylistic emulation. Many Central Andean groups, including in Ancash, showed a willingness to emulate Cajamarca foreign elements, such as

at Chinchawas (Lau 2001), Wilkawaín (Bennett 1944), Huamachuco (Thatcher 1972), Wari itself (Bennett 1953), the site of Suro in Chota (Shady and Rosas 1977), and various north coast sites (Castillo and Donnan 1994; Leonard and Russell 1992; Montenegro 1993; Shimada 1994). This would suggest that the pottery was not simply a curiosity or remembrance (such as a souvenir, diplomatic gift or item of spoils), but represented a cultural field worth copying. Cajamarca was a source for pottery as well as a source for local appropriation and innovation.

Accounting for the Interaction

Can we account for these different manifestations of Cajamarca abroad? Unlike the attention given to other long-distance trade goods, Cajamarca pottery's circulation and distribution as a trade good have not been discussed systematically. A number of scholars have indicated Cajamarca's prominent role in elite exchange networks during Middle Cajamarca (Matsumoto 1988; Shady 1988; T. Topic 1991). Favoring a Wari conquest model, Menzel (1964: 72) suggested that the frequency of Cajamarca pottery and the related Geometric-on-Light style at Wari may have been the result of colonies from the north, "perhaps representing military units like the Cañar and Chachapoyas imperial guard units which the Incas established in Cuzco." Shady (1988) introduced a model where Cajamarca pottery was circulated during a period of strong cultural and economic interchange between regional city-states, with no domination on Wari's part. Cajamarca pottery, in this interaction sphere, was mediated by a large state based in highland La Libertad, with authority over Cajamarca and Huamachuco (Shady 1988: 73).

Theresa Topic (1991: 243–244) surmised that Wari interests in the Cajamarca and Huamachuco area were based on trade and elite alliances, as opposed to military conquest. The relations were created specifically to secure access to Cajamarca finewares and sources of Spondylus shell further north. Effectively, the distribution of Cajamarca pottery is considered the material expression of diplomatic and trade ties by Wari representatives in the north highlands. Recently, John and Theresa Topic (2000: 186) added that Cajamarca objects were distributed for their use in ritual hospitality across the Central Andes.

The Ancash data provide insight for some of these interpretations. First, there is little evidence to suggest that the interaction consisted of population movements, diasporas or local colonies of Cajamarca people in highland Ancash. Military conquest by Cajamarca or Huamachuco people also seems unlikely. Territorial boundaries never seemed to have shifted too greatly. Highland Ancash groups seemed to have been able to maintain local traditions even in the face of external influence during the Middle Horizon (Lau 2001, 2002; Tschauner 2003) and colonial periods (Espinoza Soriano 1978; Hernández Príncipe 1923).

Recuay boundaries relaxed, however, when it came to accommodating Cajamarca fine pottery, especially for status display as offerings and grave goods. The history of Recuay-Cajamarca interaction, it seems, was at least partly inspired by prestige economies and the appropriation of high status, fashionable cultural content (Gero 1990). In particular, acquiring and copying Cajamarca prestige goods

were probably useful for bolstering local ideologies of leadership authority (Clark and Blake 1994; Gosden 1989).

Recuay groups were integral to a long-distance exchange system, if only because north-south transport of objects proceeded through highland Ancash (Figure 6.8). But it remains unclear how they participated beyond their propensity for consuming Cajamarca goods. Were Recuay groups "middlemen"? It seems unlikely that they were simply "passive recipients" (Stein 2002), but there is no evidence for a widely dispersed Recuay good, such as textiles or metalwork.

Few instances are known where Recuay groups may have reciprocated with their own fancy pottery. For Cajamarca, Recuay vessels were mentioned from the site of Cerro Pila del Inca (Reichlen and Reichlen 1949: 145). Julien (1988: 218) also identified a Recuay vessel in a private collection, said to have come from the "vicinity of San Marcos," east of Cajamarca. Recuay interaction seems more secure from highland La Libertad. From settlement survey in the Santiago de Chuco region, Pérez Calderón (1988, 1994) identified surficial finds of "Recuay" and "Huaylas" style pottery. The illustrated examples (Pérez Calderón 1988: lám. 2) bear resemblances to the widespread pattern of kaolinite bowl manufacture during the Early Intermediate Period in many parts of the north highlands. The painted designs, it should be noted, also resemble Early Cajamarca "pre-cursive" (Matsumoto, in Topic and Topic 1983: 252, fig. 8–5). Recuay and Recuay-style pottery has been mentioned at Cerro Campana West, Site 47 (Topic and Topic 2000: 194; Topic and Topic 1987:18). From Manachaqui Cave, east of Huamachuco, a series of Empedrada phase vessels bear Recuay stylistic elements, including kaolinite paste and designs (Church 1996).

The current evidence appears to indicate that the most elaborate Recuay pottery (e.g., with figural and architectural modeling, polychrome/resist painting) did not circulate much outside of Ancash. Rather, Recuay interaction with northern Peruvian groups keyed in on open bowls with painted designs on exterior rims. As part of stylistic dispositions specific to exchange, a style "protocol," Church (1996: 601–602) suggested the bowls and simple designs were "innocuous"—and therefore could be understood and accommodated across a wide range of inter-cultural encounters, especially at gateway centers for interregional exchange (Topic and Topic 1983). I would add that similar bowls may have also been valuable for dedicatory purposes, as funerary (Eisleb 1987; Laurencich and Wegner 2001), commensal, and perhaps in pilgrimage offerings (Wegner 2003).

Other Boundary Regions and Wider Transformations

The Cajamarca case forms just a small part of the much larger history of Recuay's regional interaction with its neighbors. Various scholars have noted the prominent stylistic parallels between Recuay pottery and some of its other contemporaries, such as Moche, Lima and Gallinazo (Makowski and Yong 2000; Reichert 1977; Smith 1978). Detailed studies, especially field investigations, are needed to examine the contexts and chronological placement for these stylistic parallels. So far, the evidence is scant for Recuay-Lima exchange or other forms of intensive

interaction with the central coast. Was the Cajatambo area a buffer zone, or the Cordillera Huayhuash a natural geographic obstacle? Did Cajamarca pottery get transported via the central highlands or coast to reach the Wari heartland? Additional data on the Early Intermediate Period in the Lima highlands are needed to evaluate models of interaction along the southern boundaries of Recuay culture.

The record for Moche-Recuay relations is slightly clearer and here seems to have involved stylistic, trade, as well as hostile forms of boundary maintenance. Elsewhere, I have summarized some of the forms and contexts of Moche-Recuay relations (Lau 2002–2004), so now I wish only to return to several points pertaining to boundaries. Unlike the Recuay-Cajamarca case, where highland La Libertad buffers Cajamarca from Ancash geographically, some Moche and Recuay groups were neighbors. Proulx (1982) contended that Recuay and Moche groups resided in the Nepeña Valley, with segregation around the middle valley areas. Recuay and Moche peoples were quite cognizant of each other through trade and stylistic contact, yet they participated in very distinct cultural traditions.

One of the key commonalities for both Recuay and Moche traditions is a long period of relatively insular cultural development (ca. AD 200–700). In general, each tradition showed very few major stylistic displacements that can be attributed to outside agents or influence. This is not to say there was no interaction or that groups were isolated—in fact, quite the opposite. Rather, cultural developments in both areas follow a relatively conservative pattern, with innovation embedded within practices and traditions characteristic for their respective regions (Donnan 2003). As in the Recuay-Cajamarca case, this may be an instance where boundaries grew more prominent for the very reason that there was persistent interaction.

Around the time of Wari expansion, ca. AD 650–700, cultural boundaries in both Recuay and Moche became permeable. Evidence indicates that leaders and status groups gained more interest in and, crucially, wider access to long-distance goods. Bennett (1944: 42, 52) was puzzled by the diverse cultural contents of different Wilkawaín tombs, but now we know that his assemblages form part of a larger, more discernible pattern of cosmopolitanism for certain segments of northern Peruvian groups. In Ancash, this has been documented at Honcopampa (Amat 1976b) as well as Chinchawas (Lau 2001), where imported styles—such as Cajamarca, Nievería, coastal-style blackware, and Wari-related polychrome vessels—suggest new and intensified routes of commodities exchange during the end of the Early Intermediate Period and early Middle Horizon [Endnote 3]. Outside of Ancash, the burgeoning cosmopolitanism was manifested in tombs at San José de Moro in Jequetepeque (Castillo 2000, 2001) as well as in the mausoleum structure at Cerro Amaru in Huamachuco (Topic and Topic 1984). The emphasis on acquisition and access for diverse long-distance goods reached unprecedented levels during the Middle Horizon.

The general patterning of Recuay-Moche relations bears some resemblance to the Recuay-Cajamarca trajectory. There is first an early period of general stylistic interaction (Early Moche), followed by a period of very limited pottery exchange (Middle to Late Moche). Unlike the Cajamarca case, however, there does not seem to have been much late emulation of Moche wares by potters of highland Ancash.

By the end of the Recuay tradition, there was sustained emphasis on appropriating different elements from other cultures, especially ones which had shown up earlier in interaction as trade wares. The tripod vessel featuring Cajamarca style elements (described earlier) can be considered a unique local copy. But the Warmi phase, of which it was a part, consisted largely of a pottery, Ware A, which was based on derivative Wari forms and designs (Lau 2001: 237–264). Thus, the evidence appears to show different levels of receptivity for two prestigious styles: Wari and Cajamarca. It was in the early Middle Horizon that "Recuayness" in material style broke down.

CONCLUSION

This paper has been an investigation of prehistoric culture contact in the Central Andes. I described Cajamarca pottery in highland Ancash in order to outline different forms of boundaries in the ancient Andes and elucidate some types of interaction which maintained or transcended those boundaries. The boundaries treated in this study were largely cultural and stylistic. Some, however, carry social significance because they demonstrate intentionality. An instance of exotic pottery outside of its sources presumes some local interest in the object as well as the ability to acquire it. Similarly an instance of pottery emulation presumes the worthiness, or capacity, of one set of cultural dispositions (non-local) to displace a set of others (local).

The Recuay tradition flourished for more than half a millennium, even under conditions and zones of extended culture contact where one might expect more extensive intermixing. Although there was regional variation and change, Recuay groups were marked by a cultural coherence, "Recuayness" if you will, which set them apart from others. Their pottery, stone sculpture, architecture and some activities (e.g., funerary) differed greatly from other cultures. Fortunately, these types of data leave good traces, but their elucidation requires further study. While various aspects of stylistic interaction have been identified for northern Peru during the Early Intermediate Period and Middle Horizon, more detailed examination and interpretation are needed to interrogate the nature of the interchanges.

A wide range of materials (e.g., Spondylus, obsidian, etc.) and durable creative media (e.g., pottery, architecture, stone sculpture) can be indices of engagement in local/non-local interaction. It should be noted that considerable variability, receptivity and diachronic change should be expected from different classes of materials. I have subsumed various Recuay groups using kaolinite pottery into a general Recuay category, but that is not to deny the existence of substantial stylistic diversity, formed by "bounded" subdivisions, across space. It has been impossible, for reasons of space, to examine pottery distributions vis-à-vis stone sculpture or burial structure types, but I suspect that the substyles are not coterminous, but rather, are nested and overlapping and shifted through time. Further examination of ancient boundaries, those constructions that shape and embody difference, will help to clarify untidy patterns of prehistoric interaction.

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ENDNOTES

1. "Es tan marcada esta sección enfatizada, que viendo un huaco Recuay, no puede confundirse con huacos de otras procedencias; lo que a mi modo de ver, existió en Recuay, una civilización enteramente aislada del resto" (excerpted from Amat 1976b: 194, citing a letter published in *El Nacional*, 30 September 1878). The Macedo collection comes from the Roko Amá cemetery near Katak, Province of Recuay (Bennett 1944).
2. Reichlen and Reichlen (1949) indicated that Cajamarca Floral Cursive followed Classic Cursive. Subsequent research suggests, instead, that Floral Cursive and Classic Cursive are contemporary styles of the Middle Cajamarca phase, and that the only temporal discontinuity is that Classic Cursive does not last as long as Floral Cursive (Terada and Matsumoto 1985).
3. It should be noted that new patterns of obsidian procurement coincided with the patterns of ceramic exchange. During this time, much greater quantities of Quispisisa obsidian passed into Ancash. In fact, analysis of the 27 samples from Chinchawas, analyzed by Neutron Activation Analysis (Richard L. Burger, personal communication 2000), revealed that only Quispisisa source obsidian was represented.

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Chapter 7

Chimu Craft Specialization and Political Economy: A View from the Provinces

HARTMUT TSCHAUNER

INTRODUCTION

Recent archaeological approaches to craft specialization have championed a perspective that gives politics primacy over economics (Brumfiel and Earle 1987: 1–2; Earle 1987: 64 – 67; Peregrine 1991: 8). In this view, "attached specialization" develops under elite coercive control (Brumfiel and Earle 1987: 5; Costin 1991, 1998, 2001). Elites patronize the production of hand-crafted, labor-intensive (Clark and Parry 1990: 319) and hard-to-acquire, exotic goods (Helms 1993)—the quintessential status markers and prestige technologies (Hayden 1995: 258)—and hand these goods out to supporters and allies, allowing them to convert surpluses of staple goods into primitive wealth (Brumfiel and Earle 1987: 7; Clark and Parry 1990: 323; D'Altroy and Earle 1985; Earle 1987: 68–69). "Redistribution" is not about subsistence and utilitarian goods; it is a political rather than economic phenomenon (D'Altroy 1992: 68, 184) and a redistributive system is not to be confused with a centrally planned economy.

On the north coast of Peru, craft specialization has played a pivotal role in modeling Chimú political economy and imperial expansion. Existing models portray the Chimú economy as a poster child of the political approach. Based on his excavations of production facilities and artisans' residences at Chan Chan, Topic (2003: 269) argues that "the focus of the Chan Chan economy was craft production and the development of its specific storage and administrative pattern was intended to support that economy." That storage and administrative pattern was highly centralized, with both storage and administrators concentrated at a single site: Chan Chan (Topic 2003).

Chan Chan was composed of ten sequentially occupied ciudadelas or palaces (Cavallaro 1991; Kolata 1978, 1982), surrounded by elite compounds and small irregular agglutinated rooms (SIAR). Here, up to 12,000 artisans—virtually the entire adult population (Topic 2003: 269)—was internally stratified and organized in "horizontally integrated," multi-craft workshops and engaged in the production of luxury and wealth items on behalf of the ruling elite (Topic 1977, 1982, 1990). Thus, all residents were either themselves elite or retainers of the elite; all activities focused on the palaces of the reigning lords.

Chan Chan has been labeled a city by virtue of its apparent size and complexity (Kolata 1983, 1990; Moseley 1975). However, I contend that at any one time only a part of its vast area was occupied. Moreover, if the essence of urbanism is the (voluntary) aggregation of independent individual or corporate agents and the social contract that creates cohesion and mutual dependence between them, then Chan Chan was not a "city" but one palace complex blown up to enormous proportions.

Except for a single raw-material extraction site (Epstein and Shimada 1984), the workshops attached to the Chan Chan palace complex and their predictably elite-associated crafts have been the only primary archaeological evidence of Chimú craft production. The economy of the palace has become a stand-in for the entire Chimú economy; craft production has come to be tacitly equated with production of wealth items for circulation in the political economy. Moore (1981: 123), for example, explains the absence of specialized craft production at the provincial center of Manchán in Casma as a lack of demand for luxury items in the provinces. The heavily biased evidence from Chan Chan and a few large administrative centers has made the Chimú economy appear strongly centralized (Mackey and Klymyshyn 1990: 210, 221; see also Andrews 1974:259; but cf. Pozorski 1987: 115). Moore (1996: 205, 209) goes so far as to speak of a command economy under full state control.

The flip side of a highly centralized, administered "command economy" at Chan Chan, designed to produce large amounts of wealth items for the gift giving that underwrote alliances with provincial lords in a hegemonic state, is a series of independent provincial economies largely left alone by the Chimú rulers. Moreover, the political economy had to be articulated with another economic sphere of staple production that financed the production of wealth items, feeding 12,000 specialized artisans at Chan Chan. Thus, it is inconceivable that the Chimor economy at large was a "command economy" as described for Chan Chan. At most, the economies of Chimor's constituent polities might have followed a similar prototype at a reduced scale, as Netherly's (1977, 1984, 1990) model of nested north coast parcialidades suggests.

Modeling the Chimú economy on the highly centralized, elite-controlled manufacture of wealth items at Chan Chan is at odds with indirect archaeological evidence from the provinces, as well as at least one reading of the north coast ethnohistorical record. Literally billions of fragments of simple, utilitarian Chimú pottery hint at an industrial-scale mass production that is the diametrical opposite of elite-sponsored crafting of wealth items at Chan Chan, where pottery workshops were notably absent (Topic 1982:165). Similarly, the north coast ethnohistoric record contains references to independent specialized producers of regular consumer goods. No fewer than 24 specialized crafts and occupations are mentioned, organized in guild-like parcialidades, some of them internally specialized even further (Ramírez-Horton 1981: 291–292, 1982: table 1; Netherly 1977: 157, 1984: 231; Rostworowski 1977a: 171–173, 1977b: 221–222, 1989: 274, 284). This considerable diversity of crafts leads Rostworowski (1989: 273) to conclude that specialization and barter between specialists permeated north coast societies

and the division of labor was the main principle of social organization. Even the relationship between farmers and lords was conceived as a sharecropping or rental agreement: usufruct rights in exchange for a share of the harvest (Rostworowski 1989: 34; cf. Cock 1986: 174n4; see also Ramírez 1996:51 for a similar statement).

Ramírez-Horton (1982: 115), on the other hand, downplays the significance of specialization and exchange on quantitative grounds; specialists would have represented a mere 5–6% of an otherwise solidly agricultural population. However, her agent model of competing small-scale entrepreneurs in the dominant subsistence farming sector (Ramírez 1996: 51) is oddly more individualistic than her exclusively elite-sponsored, political scenario of craft specialists. Family-run workshops and at least some exchange between individual households would appear to be more in line with her model of the farming sector. Such an organization would also account for the full range of non-wealth, specialized craft products mentioned in the historical sources.

This paper addresses these issues surrounding craft specialization and the Chimú economy using primary archaeological evidence from a craft production center. To compensate for the heavy Chan Chan bias of existing models, it examines the production and distribution of simple, utilitarian pottery—a consumer item that was not manufactured at Chan Chan and does not fit the definition of a prestige technology—in a far northern province of Chimor, the Lambayeque Valley. This case study paints a far less centralized and politicized picture of the Chimú economy than the Chan Chan-centric view. Specialized potters produced and exchanged their wares without any interference on the part of the Chimú lords. A political approach is appropriate to the palace economy of Chan Chan; it is not a productive model of craft specialization in the general Chimú economy.

THE CHIMU OCCUPATION OF THE LAMBAYEQUE VALLEY

The Chimú intrusion into the Lambayeque Valley is marked by the appearance of an architecturally and structurally homogeneous new type of planned settlement that in both architectural design and location radically departs from local Lambayeque traditions and replaces adobe mounds at the top of the region's settlement size hierarchy. The four walled hilltop centers that form this type are regularly spaced near major inflection points of the Taymi irrigation canal (Figure 7.1). They are distinguished from all other settlements by the presence of audiencias as well as other elements of Chan Chan-style architecture. Their regular spacing along the north valley margin and the Taymi canal, paralleled by a chain of similar, if smaller, centers along the southern margin, strongly suggests that these centers formed a control network that transcended the boundary of two ethnohistorically known local polities on the north bank of the Lambayeque River. These polities, Cinto-Pátapo and Túcume, archaeologically manifest themselves as two settlement clusters separated by an empty corridor across the lower Lambayeque-Leche valley plain. Pátapo, paramount center of the Cinto polity, was co-opted and greatly enlarged by the Chimú, as was Túcume in the Leche Valley (Heyerdahl et al. 1995).

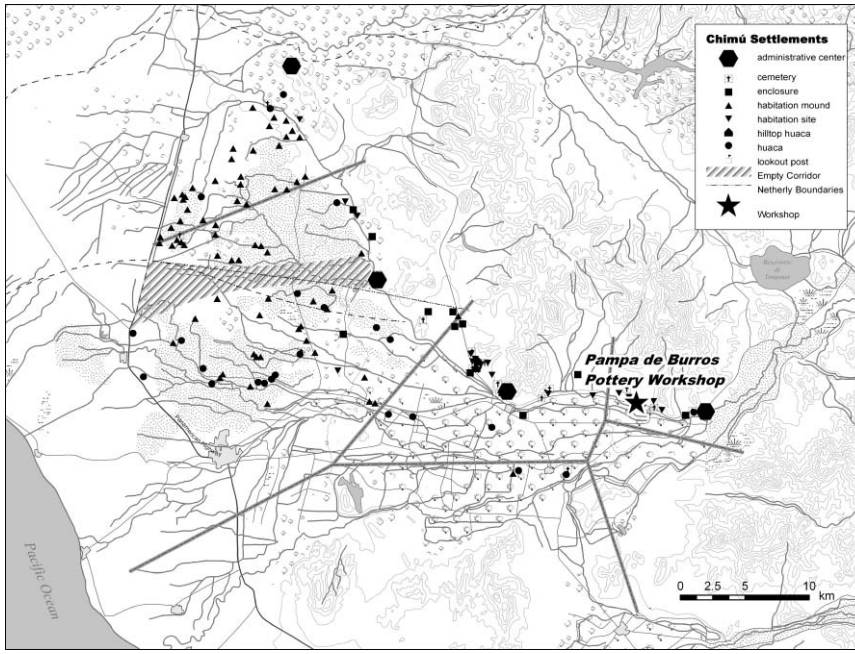

Figure 7.1. Chimú settlement system on the north bank of the Lambayeque River and location of the Pampa de Burros pottery workshop (S166c).

Aside from the emergence of these intrusive hilltop centers and the concomitant process of dissociation of settlement-size and mound-volume hierarchies, the local settlement systems remained largely intact under Chimú occupation (Tschauner 2001, 2003). The co-option of local paramount centers, the spatial arrangement at those centers of architecture of power in both the Chimú and local canons, and the territorial control afforded by the chains of fortified centers suggest a Chimú "indirect rule" that was akin to holding local elites hostage. The strategic placement and defensive architecture of the Chimú centers give the Chimú occupation of the Lambayeque Valley a distinctly military character.

The intra-site structure of the Chimú centers differs greatly from that of Inka administrative centers. Unlike the latter, the Chimú centers were not designed to play a part in the mobilization and feasting of local labor; they lack all the archaeological correlates of the Inka labor-tax model (see Tschauner 2001, 2002). The Chimú centers have no large plazas, no public storage facilities, and no concentrations of large cooking vessels. While the proportions of serving vessels in their pottery assemblages are exceptionally high, these vessels are undecorated and no more distinctive of a Chimú corporate style than serving vessels at common habitation sites. Moreover, they are found indiscriminately in residential and public sectors. Public spaces are much smaller and more numerous than Inka plazas and they are located inside self-contained, walled compounds, which are similar

to "private," residential ones. Therefore, the elevated proportions of serving vessels at the Chimú centers may best be attributed to the frequent entertainment of guests in the elite households suggested by the self-contained, sparsely spaced, and "overbuilt" (*sensu* Schiffer 1992: 27) compounds, of which the centers are composed.

Netherly's (1977, 1990) model of nested north coast parcialidades has all administrative functions, including the mobilization of agricultural labor, delegated to lower-ranking groups and their headmen. While the substantial elite permanent resident population and military character of the Lambayeque centers strongly support the presence of Chimú administrators in Lambayeque, the idea of local control over the mobilization of labor does fit the intra-site structure of the Chimú centers.

THE PAMPA DE BURROS POTTERY WORKSHOP

The evidence for this case study of provincial craft specialization comes from a Chimú pottery workshop (S166c) that is part of a 7-ha complex of fieldstone structures on the Pampa de Burros (Figure 7.2). It is located more than 5 kms from the nearest, and 9 kms from the second nearest Chimú center (Figure 7.1). Moreover, the excavation of the majority of its 18 architectural environments failed to uncover any "control features," such as arcones or audiencias; none were found anywhere on the Pampa de Burros. Thus, this pottery workshop is neither physically attached to an elite residence or government installation nor does its architecture show any evidence of the presence of outside administrators or government officials.

Although some parts remain to be excavated, it is abundantly clear that the entire S166c structure was dedicated to pottery production. The ubiquity of shaping and decorating tools and of firing features rules out any non-production-related use of the workshop structure. A number of characteristics identify the firing features as pit kilns, particularly in comparison with domestic hearths in the adjacent structure, S166b. Some of the kilns contained remains of kiln furniture; both ash composition and organic content are strikingly different from those of the hearths in S166b-1; and, again in sharp contrast to S166b-1, no accumulation of domestic pottery with corresponding use wear (especially soot) was associated with any of the hearths at S166c. On the contrary, quintessential domestic vessel forms related to food preparation are the most underrepresented categories in the S166c pottery assemblage.

A strong case can be made for the unexcavated environments having served as additional workspace. Virtually all the excavated area was devoted either to shaping and decorating or to firing. Conspicuously missing is protected drying and storage space, i.e., walled and roofed areas devoid of firing and other floor features except for possibly substantial amounts of broken pottery. In the comparatively damp northern north coast climate, roofed space is essential for safely handling, drying, and storing ceramic vessels in all stages of the manufacturing process. Arnold (1999: 70) argues that half-mold technology, as practiced by the Pampa

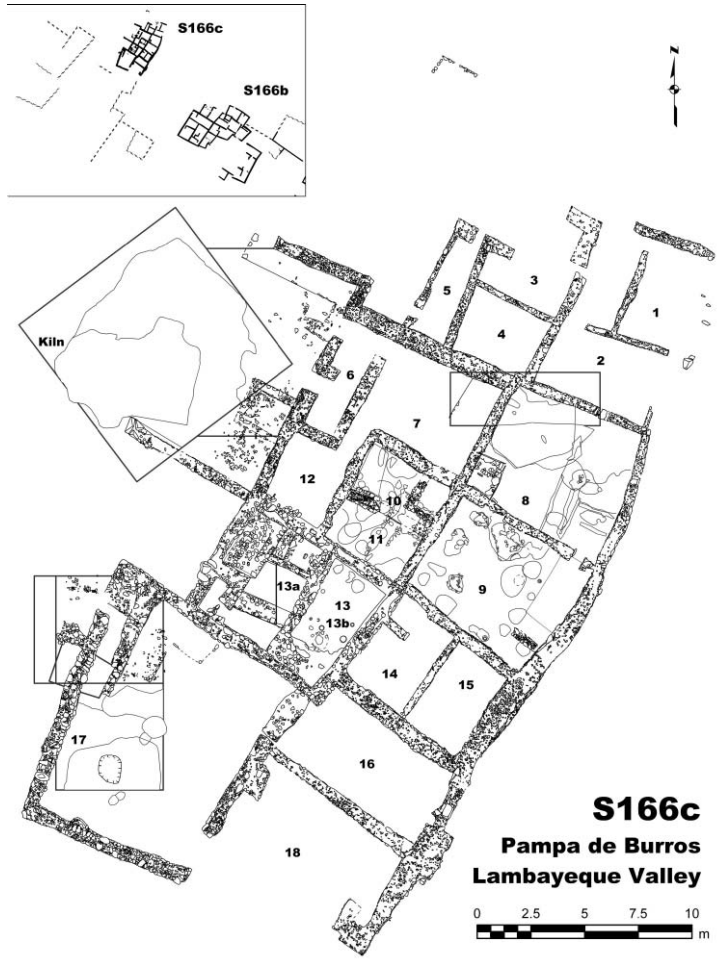

Figure 7.2. Plan of the Pampa de Burros pottery workshop (S166c).

de Burros potters, has a particularly large spatial footprint. Given that only small vessels can be made using this technique, daily output tends to be large, demanding considerable interior space for shaping and drying, protected from excessive sunshine and rain. Due to the drying period required before each piece may safely be removed from its mold, additional drying space is needed when complex shapes are made in multiple molds. The molds themselves take up further storage space since a whole set of molds is needed for each vessel shape and potter. Arnold (1994: 496–497) regards the availability of roofed space for shaping, drying, and firing as the crucial variable for the viability of full-time pottery production.

The potters' probable residence was the adjacent structure, S166b, some 40 m east of S166c, past a small arroyo. This self-contained room complex has not

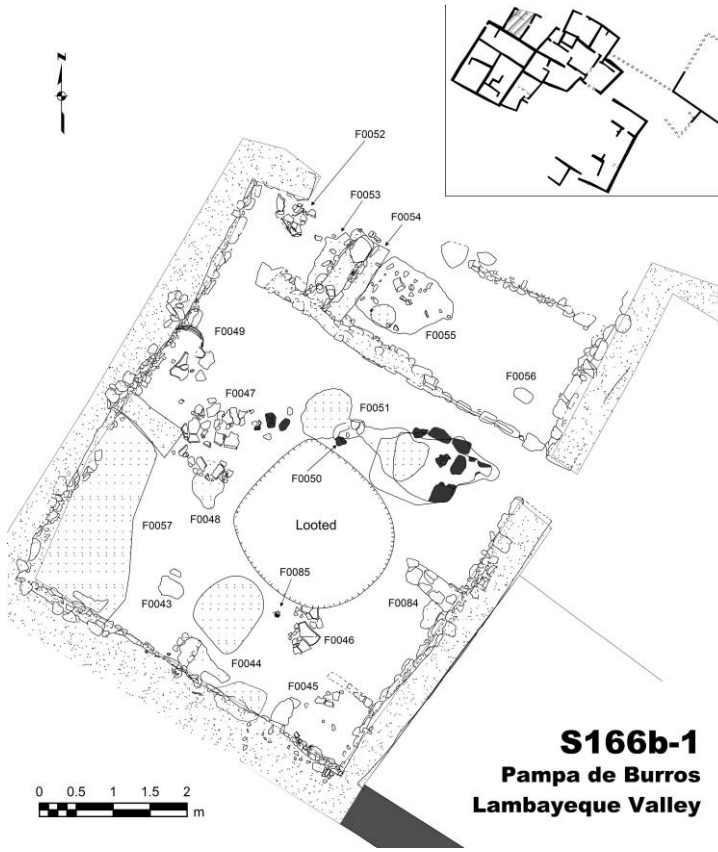

Figure 7.3. Plan of the large kitchen in the compound adjacent to the pottery workshop (S166b-1).

produced any craft activity areas; yet the frequency of mold fragments in its assemblage, while dramatically lower than at S166c, is greater than at the rest of Chimú sites in the study area combined. Instead of craft activity areas, S166b was equipped with another specialized facility (Figure 7.3): a kitchen that was not only substantially larger (37.5 sq m) than the typical cooking area of a single household, but also took up an entire room used exclusively for food preparation on multiple, large hearths. The fuel burned in these hearths includes a much greater variety of wood species than the algarrobo found in the S166c kilns, and the weight of food remains per excavated volume is 29 times greater in S166b-1 than in the only room at S166c that produced any. Moreover, the pottery assemblage is dominated by large vessels, particularly porrones, which only served as kiln furniture at S166c. Porrones are primarily liquid-storage vessels, but may also be used in large-volume cooking, such as the brewing of chicha. The size and nature of this kitchen suggest that it was a specialized, shared facility that likely provisioned the entire 1,500 sq m

compound. A self-contained compound with a communal kitchen facility points to a single corporate group or multi-family household (Stanish 1992: 37–38; Winter 1976: 25) well above the size of a nuclear family residing at S166b.

If the nature and size of the workshop and physically separate residential structure are indicative of a substantial, corporate group of Pampa de Burros potters, the patterned distribution of stratigraphically contemporary firing features at S166c allows us to draw some inferences about the internal organization of this group and the ceramic craft. In each architectural environment and stratum, one large kiln, showing clear evidence of in situ burning and filled with abundant hardwood charcoal, is associated with several smaller ash pits with faint or no evidence of in situ burning that probably served for pre-heating vessels before firing (see Russell et al. 1994: 213; Shimada 1994b: 308; Shimada and Wagner 2001: 27).

Firing is the most critical stage in the production sequence (Bernardini 2000:369; Leach 1976: 195). In the modern potters' village of Mórrope, 55 kms west of S166c, loss rates may vary between as little as 4–8% and no less than 90% of a kiln load (Shimada 1994b: 309, 311). With a shaping technology requiring as little motor skill as molding, firing is the routine task that demands the greatest expertise; it often becomes a specialized task within the pottery craft (Arnold 1999: 76–77). Therefore, the presence of multiple contemporary kilns, each in a walled-off environment, is suggestive of multiple master potters, and it is tempting to attribute each environment to one master potter. Judging from the distribution of molds and paddle stamps, there was only one obvious vessel shaping and decorating area, the southern S166c-17. If each walled subdivision were the workspace of one master potter, the northern masters would have had their vessels shaped in S166c-17 and largely specialized in firing. Vessel shaping with molds and decorating with paddle stamps are fairly simple tasks that can be carried out by non-expert labor, and large numbers of vessels can be produced quickly this way. S166c-17, easily the largest subdivision within S166c, could have accommodated a substantial number of such low-skill workers.

POTTERY PRODUCTION ON THE PAMPA DE BURROS

Four classes of paraphernalia have come to light at S166c that represent two prominent ceramic technological traditions of the late Prehispanic north coast, molding and paddling (Figure 7.4). These paraphernalia include molds, mold templates, paddle stamps, and a polisher. The paddle stamps are indicative of paddling as a *decorative* technique (Figure 7.4a–c); none of the tools associated with the paddle-and-anvil *shaping* technique have been found (such as wooden, handled paddles and cobbles used as anvils). On technological grounds, molding and paddle stamping make strange bedfellows. Before a vessel can be removed from the mold, its clay needs to be relatively dry. Thus, it may pose a challenge to stamp mold-made vessels without cracking the body or distorting its shape (Izumi Shimada, personal communication). However, a comparison of the de facto refuse from S166c and Chimú pottery assemblages from surveyed Lambayeque Valley settlements points

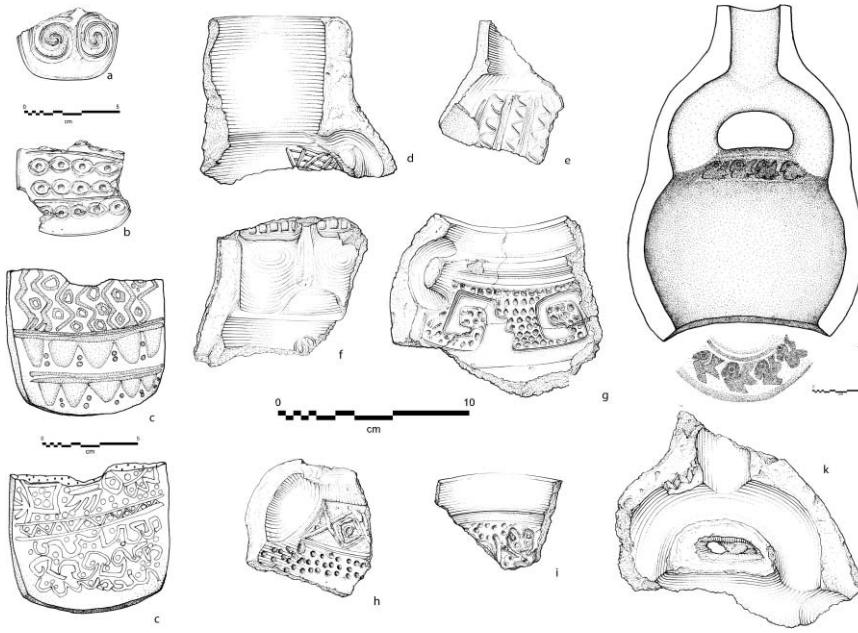

Figure 7.4. Examples of the toolkit from S166c. Paddle stamps (a–c). Molds: small jars (d–f); neckless ollas (g–h); plate (i); stirrup-spout bottles (j–k). Drawings by César Samillán (a–b, d–i, k) and Elisenda Estrems Gianella (c, j).

to the same conclusion as the toolkit (see following section). Anvil marks (facets on the vessel interior) are all but nonexistent in the de facto refuse, but ubiquitous in the survey collections; paddle-stamped decoration, on the other hand, is equally ubiquitous in the Pampa de Burros and survey assemblages (82% vs. 77% of Chimú jars).

The majority of vessel classes produced at S166c—jars, canteens or flasks, bottles, and ollas—were formed in vertical half-molds (Figure 7.4d–h, j–k). Only plates or dishes were shaped in single-piece molds (Figure 7.4i). The vertical half-molds comprise both whole-vessel molds, which include the neck and any spouts, handles, and appendages, and partial, body-only molds. The technical differences between these two classes of molds have implications for the organization of the pottery craft. The use of multiple molds to form a vessel greatly increases handling and drying times since the same 13-step workflow must be completed for each mold (Arnold 1999: 67–68; Arnold and Nieves 1992: 96, 99). The half-molding technique allows potters to collapse drying time into just three periods, one after shaping each half and another one after joining the halves. However, it requires an appropriate, medium-plastic clay. If the clay is too plastic, vessels will sag; if it is not plastic enough, they will tend to crack in the mold. For the same reason, the half-mold technique limits vessel size to ca. 20 cms height; larger objects must dry in the mold for a very long time. Similarly, the weight of a neck will either

make the body sag or, if the vessel is turned upside down, distort its shape if it is removed from the mold too soon. As a corollary of these technical limitations, in order to facilitate a continuous workflow and maximize output, potters either need to employ numerous molds concurrently or necks must be modeled separately. The latter strategy simultaneously minimizes capital investment in molds.

The necks of the vast majority of medium-sized or larger jars in the S166c de facto refuse and Chimú survey collections display characteristic parallel, horizontal striations. These are identical to the surface marks observed on the necks of vessels made by the traditional Chulucanas potter, Polo Ramírez Zapata. Sr. Ramírez forms the neck from a lump of clay attached to the finished body, through rotation and squeezing between two fingers covered by a folded piece of cloth. Thus, the Pampa de Burros potters most likely made larger necks separately and used whole-vessel molds for smaller and somewhat fancier vessels (small jars, flasks, bottles). Following Dean Arnold's reasoning, this mixed strategy minimized handling time and the number of production steps where vessel size would allow, and maximized output at minimum capital investment for the larger vessels.

Drying time is the critical factor limiting the output of vertical half-molding. A sufficient number of molds must be on hand to keep potters going while their prior products are drying in the mold. Consequently, each potter requires a separate set of molds, which cannot be shared (Arnold 1999: 69), and the number of molds should give us a clue to the number of (unskilled) potters in a workshop. Close to 600 fragments of molds were found at S166c. From their total weight and the average weight of three complete pairs of vertical half-molds and one semi-complete plate mold, we may extrapolate a number of approximately 71 complete molds represented by the fragments. Of these, about 59 would have been discarded in the work area without being cleaned away, strongly suggesting that they did not accumulate over a lengthy time span. This figure provides a baseline estimate of the number of molds in use at any one time. Such a minimum number of molds undoubtedly allows for multiple assistant potters engaged in forming vessels in S166c-17.

As another proxy of the scale of production, the size of a typical kiln load can be estimated from the capacity of the kiln (Bernardini 2000: 365, 372). Five open-pit kilns of the same simple technology that the Mórrope potters still use today have been excavated at S166c. The largest of these, located in a U-shaped space abutted to the outer west wall of the workshop structure, had apparently been converted into a specialized dump for production debris at some point before the site's abandonment (Tschauner 2001: 227–229). The maximum number of vessels per kiln load is given by the ratio of kiln area to average footprint of the prevalent vessel types fired. Depending on vessel type, the large western kiln could accommodate 200–400 vessels; the kilns in the structure's interior between 50–100 and 100–200. These are maximum estimates because no adjustment is made for gaps between vessels, probably filled with fuel. On the other hand, they assume a single layer of vessels in the kiln, although many potters stack vessels on top of each other. Extrapolating from ethnoarchaeological output figures (Arnold 1985: 208; Shimada 1994b: 306), such a single-layer load of the Pampa de Burros kilns

represented anywhere between a low of one to three person-days and a high of three person-days to two person-weeks. There is no direct way of knowing the firing interval of the Pampa de Burros potters. However, the unacceptable increase of the loss rate with too large a load is one inherent constraint of the open-pit technology that effectively limits the length of the firing interval (Shimada 1994b: 312). The modern Mórrope potters fire in irregular intervals ranging between 10–15 days and two months, whenever enough vessels have accumulated; the desirable output level largely depends on demand as well as the availability and cost of fuel (Shimada 1994b: 315; Rice 1996: 176).

Variations in the firing conditions to which the de facto refuse was subject illustrate the level of skill that successful operation of large open-pit kilns demands. Mössbauer spectroscopy was used to understand the firing regime in the Pampa de Burros kilns (Tschauner and Wagner 2003). Vessels were fired in a reducing environment at 800–900°C, but frequently partial re-oxidation took place at the end of the firing cycle when the pit kiln was opened up, usually after it had cooled down to 450–600°C. Most of the variation in firing conditions is in the temperature at which re-oxidation occurred, i. e., in the critical timing of opening the kiln. Potters' experience is the only available guide to proper timing. Open-pit firing is an unforgiving technology that does not allow for monitoring and corrections of the firing atmosphere or re-fuelling once the kiln has been ignited (Shimada 1997: 123). Moreover, the quality of firing greatly depends on proper arrangement of vessels and fuel in the kiln (Shimada 1997: 123). Thus, open-pit kilns are deceptively simple, quickly constructed installations whose operation requires a considerable amount of experience and skill in properly stacking vessels and fuel, covering the load, and timing the firing and opening of the kiln. Pit kilns can accommodate large loads of vessels, allowing for a substantial output of pottery. For all these reasons, open-pit kilns were an appropriate firing technology for specialized, large-scale production of pottery.

CHARACTERIZING PAMPA DE BURROS PRODUCTS

The hundreds of discarded molds and paddle stamps from S166c define a snapshot of this workshop's repertory of vessel classes, stylistic features, and design elements. However, these features do not necessarily distinguish Pampa de Burros products from those of other production centers that may have supplied the region. Their distinctiveness needs to be validated through statistical comparison of their frequencies at the production center and contemporary consumer settlements in the valley. Since there is no one-to-one mapping of feature frequencies from the toolkit onto the output and some features have a greater chance than others to be identified from mold fragments, these comparisons must be based on the de facto refuse rather than the toolkit itself. A characteristic feature is expected to be significantly more common in the de facto refuse than at consumer settlements (Stark 1992: 188–189). The margin of difference will depend on the degree to which consumers relied on additional providers to satisfy their pottery needs.

Judging from absolute frequencies in the de facto refuse, four main vessel categories were produced at S166c: jars, ollas, plates, and stirrup-spout bottles. All four are also well represented among the molds. Comparison with the pooled assemblage of surface collections from Chimú settlements on the north bank of the Lambayeque Valley (henceforth "survey assemblage") shows that this Pampa de Burros repertory essentially covers the entire range of small vessels in use during the Chimú period. Notably missing from the de facto refuse are large vessels (porrones) and graters. The diversity of vessel forms is actually greater in the de facto refuse than in the survey collections (Shannon-Weaver indexes different at $p < 0.001$ [t-test]). This is partially explained by the different nature of the assemblages: rare vessel types have a greater chance of representation in a complete population recovered through excavation than in an aggregate of many small surface collections. However, this finding does underscore that the Pampa de Burros potters did not specialize in a particular vessel form, but produced a wide range of small vessels. This diversity of products tends to water down the differences between de facto refuse and survey assemblage, complicating the characterization of Pampa de Burros products.

At least one of the four vessel classes that dominate the de facto refuse, neckless ollas, is so heavily overrepresented in the de facto refuse (χ^2-test: $p < 0.0001$, Cramer's $V = 0.28$) and these vessels are defined by such a specific attribute set that the entire class may be regarded as characteristic of the workshop. The same may be said of stirrup-spout bottles, albeit for a less satisfactory, negative reason. Stirrup-spout bottles are equally rare (<5%) in the de facto refuse and survey assemblage. A single workshop of the size of S166c easily accounts for the stirrup-spout bottles in the study area, and despite the archaeological visibility of half-mold technology, full-coverage survey did not discover any evidence of another pottery workshop.

Jars, in contrast, are the most common vessel class in both the de facto refuse and survey assemblage. However, there is an overwhelming technological difference between the workshop and survey jar populations. Mirroring the lack of paddle-and-anvil shaping tools in the toolkit, a mere 10 independently datable body sherds from the de facto refuse display interior anvil marks. By comparison, such fragments represent one third to over one half of Chimú jar sherds in the survey collections (χ^2-test: $p < 0.0001$): the default jar at consumer settlements was paddle-and-anvil made. Thus, both the toolkit and wasters strongly support the conclusion that molding was the only vessel-shaping technology practiced at S166c, combined with paddle stamping as a purely decorative technique. The distinctive trait of Pampa de Burros jars, then, is their technological style (e.g., Dietler and Herbich 1989; Lechtman 1977; Lemonnier 1993; Stark et al. 2000). Following Cleland and Shimada's (1994, 1998) technological argument, production of the paddle-and-anvil jars found in abundance at consumer settlements was likely a domestic affair, dispersed and of low intensity, whereas molding was the quintessential specialist shaping technology.

Although the de facto refuse contains no excess of plates, distinctive morphological and decorative features of Pampa de Burros specimens are readily identified.

Some 80% of plate molds share a decorative pattern that is also extremely common on plate wasters, but much rarer outside of S166c: a decorative band around the outer vessel wall, typically paralleled by plain bands along the rim and bottom or carination (henceforth referred to as "PdB plate"). Plate wasters from S166c further distinguish themselves by the rarity of the hook-shaped rim that is the hallmark of Chimú plates in the survey assemblage. In terms of the frequencies of these two features, de facto refuse and survey plate assemblage are mirror images of each other (χ^2-test: $p < 0.0001$, Cramer's $V = 0.72$). The hallmark Chimú hook rim was not missing from the Pampa de Burros repertory, but even 79% of its hook-rim plates have the trademark banded decoration.

Specialization and Socioeconomic Context of Pottery Production

Analysis of the toolkit and de facto refuse has established vertical half-molding as the characteristic shaping technology of the Pampa de Burros pottery workshop that defines its technological style. In a general discussion of vertical half-molding, Arnold (1999: 63–66, 69, 73, 75, 1994: 490) lists several properties of this technology that have crucial implications for the organization of the ceramic craft, assuming past agents chose from among available technologies those that best suited their needs: (1) Vessel shaping using half-mold technology requires little motor skill—so little indeed that some potters proficient in manual shaping techniques do not even recognize as potters those colleagues that exclusively rely on molding technology. As a result, unskilled labor can quickly be drawn into the craft in response to increased demand. Only skilled potters, however, can make mold templates from scratch. (2) New vessel types can be introduced quickly by making molds from copies of existing vessels. (3) Molding assures uniform products, with respect to both iconography and size. The former is primarily relevant to artistic products, which were not manufactured at the Pampa de Burros workshop; the latter is the essence of mass production. (4) Molding technology minimizes the risk involved in pottery production by reducing the rate of loss due to technical errors; faulty products may be sanded and repaired. (5) Substantial numbers of molds are needed, which represent a significant overhead cost.

In Arnold's analysis, then, half-mold technology is all about flexibility in responding to fluctuations in demand, both quantitative—meeting increased demand by adding unskilled labor—and qualitative—reacting to changed demand by quickly introducing new products. It is about investing in the means of production that will make such flexibility possible. It is about making standardized, uniform products that will reliably meet patrons' expectations (Longacre 1999: 49). It is about minimizing the exposure to risk of the mainstay of one's livelihood. In short, Arnold describes half-mold technology as an intrinsically "market-oriented" technology, entirely driven by outside demand and of benefit only to specialized professionals.

The archaeological record from the Pampa de Burros contains elements that relate to most of Arnold's points. Most importantly, the large, flexible, and internally

differentiated workforce that Arnold links with demand-driven molding technology resonates with many aspects of the internal organization of the workshop. The size and number of kilns; the placement of each kiln and its support features in a separate room or patio; the probable division of the shop into specialized areas for the low-skill shaping/decorating vs. high-skill firing stages of the production sequence and/or the manufacture of different vessel types; the creation of mold templates on the premises—all of these features suggest that multiple potters shared the facility and its personnel was composed at a minimum of two classes of workers, master artisans and low-skill assistants. The substantial, dedicated workshop structure itself and the large sets of molds and paddle stamps that can be inferred from the hundreds of discarded tools left behind represent a substantial capital investment.

This specialized workshop industry may well have been the only facility of its kind in the study area. Not only did full-coverage survey fail to produce any sign of another workshop, although molding is the archaeologically most visible ceramic technology (Arnold 1999: 74), but there are good reasons to believe that this negative evidence is real. A workshop of similar size and productive potential as S166c would have required a substantial catchment area. Unless both workshops shared virtually identical catchments, the hypothetical second one would have to be located in the valle nuevo, i.e., the western part of the coastal alluvium, close to the coast. Thick fog and heavy mist between April and September make the valle nuevo less suitable for year-round ceramic production than the Pampa de Burros in the valle viejo near the apex of the coastal plain, some 50 kms inland from the shore (Arnold 1994: 495). It makes sense that the pottery assemblage from valle nuevo settlements—mostly flimsy, low-status structures on dispersed habitation mounds—is dominated by paddle-and-anvil ware. This simple technology suggests domestic, presumably intermittent production (Cleland and Shimada 1994: 324–325), which is better suited to the climatic conditions of the valle nuevo. Such low-intensity production would hardly leave traces in the archaeological record, particularly on the surface (Santley and Kneebone 1993: 39; Hagstrum 2001; Stark 1985, 1992:187). Conversely, the extremely high visibility of pottery production at S166c is a strong argument for an intensive, specialized nature of the craft.

The Pampa de Burros potters likely drew their labor pool from the corporate group that inhabited the adjacent residential compound S166b. The organization reflected in this arrangement of living and workspace comes close to the descriptions of specialist parcialidades in the north coast historical record: a self-contained compound that was probably equipped with communal kitchen facilities and occupied by a corporate group of specialized potters; separate from other specialist groups and from the farming population that resided in one-to-two family clusters (Ramírez-Horton 1985: 424; Ramírez 1996: 31) on dispersed habitation mounds; far from the Chimú administrative centers and with no government control features on the premises. The lack of any Chimú government presence sets the Pampa de Burros workshop apart from other known Chimú craft production locales. Among excavated Chimú craft production facilities, S166c is the only pottery workshop and the only one not dedicated to the manufacture of wealth items. A compari-

son of pottery assemblages from the Chimú centers and regular habitation sites (Tschauner 2001: 156–157) makes it abundantly clear that Chimú pottery was no status symbol and far less important as a carrier of the Chimú "corporate style" (Moseley 1992) than metal artifacts. Thus, it is clear that only wealth items were produced under the auspices of the Chimú elite.

Shimada (1994a: 25) concludes from the lack of a Chimú government presence at S166c that the Chimú left the production of pottery in the hands of a local leader who presumably enjoyed their trust. Yet there really is no tangible evidence of any control, whether local or supralocal. At Chan Chan, Topic (1990: 156) interprets the arcones in the SIAR workshops as evidence of supervision of artisans by artisans; tools and finished products would have been stored in these temporary storage bins under the control of a master craftsman and headman. The attached nature of Chan Chan craft production follows from its location next to or inside palatial compounds at the capital site. At S166, both of these elements are missing. The only potential evidence of internal stratification, plastered walls in two architectural environments, is weak and likely an artifact of preservation since isolated remnants of wall plaster were found elsewhere. If the potters formed a corporate group of craft specialists, it is likely that any high-status individual in a leadership position would have played some role in pottery production. However, that says little about the relationship between such an individual and the Chimú elite. If the alleged leader were somehow affiliated with the Chimú and the Pampa de Burros potters under his leadership directly or indirectly worked for them (like Chincha fisher folk for the Inka: see Sandweiss 1992), we might expect some token of Chimú appreciation in the presumed high-status contexts. However, there were no prestige items of any kind anywhere at S166, and the only obvious imports were thousands of seashells that were found all across the site, mostly outside the two plastered rooms in the pottery production areas.

THE DISTRIBUTION OF PAMPA DE BURROS POTTERY

Statistical analysis of tools and de facto refuse from S166c has identified four distinctive Pampa de Burros products: mold-made jars, PdB plates, neckless ollas, and stirrup-spout bottles. If these vessels were directly distributed to consumer settlements and if at least some effort was made to minimize shipping distances between production and consumption locales, their frequencies at consumer settlements should bear some relation to distance from the production center. This spatial relationship can only be expected to hold if all classes of consumers had the same chance of acquiring Pampa de Burros products. This section examines the distribution of the four vessel classes both within the region and across settlement classes.

Geographically, all four Pampa de Burros vessel classes display the same pattern (Figure 7.5). They are concentrated in the valle viejo within a radius of about 15 kms around S166c; all but absent from the valle nuevo to the northwest; and they re-appear at the Chimú center of Salinas in the far north, whose ceramic

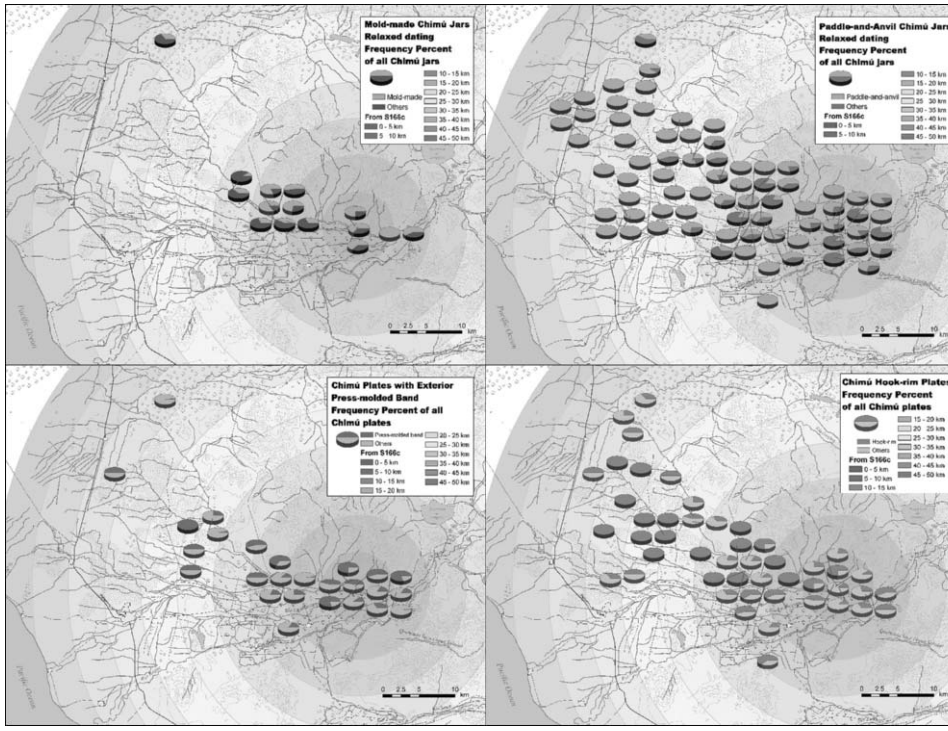

Figure 7.5. Regional distributions of vessel classes made (left) and not made (right) at the Pampa de Burros workshop: mold-made jars (upper left) vs. paddle-and-anvil jars (upper right) and plates with exterior band of press-molded decoration or "PdB plates" (lower left) vs. hook-rim plates (lower right).

assemblage includes at least minor amounts of all four Pampa de Burros products. The distributions of the two products that numerically dominate the de facto refuse are particularly instructive. Mold-made jars and PdB plates are technological or stylistic variants of broader functional vessel classes, and other variants of these classes were either not at all (paddle-and-anvil jars) or only sporadically (hook-rim plates) manufactured at S166c. In both cases, the distribution of the non-Pampa de Burros variants is diametrically different from that of the Pampa de Burros variants (Figure 7.5). The non-Pampa de Burros variants are essentially ubiquitous, a random "background noise" to the patterned distributions of the Pampa de Burros variants. In the valle nuevo, paddle-and-anvil jars are the only jar variant, whereas hardly any settlement, regardless of location, exclusively consumed mold-made jars.

The geographical distributions of Pampa de Burros and non-Pampa de Burros variants of jars and plates differ in strikingly similar ways, but their distributions across settlement classes are opposites of each other. Mold-made jars are significantly more common at the Chimú centers than at regular settlements (46–65% vs.

16–34% of jars, χ^2-test: $p < 0.0001$). The plate assemblages of the Chimú centers, on the other hand, are dominated by the non-Pampa de Burros, hook-rim variant, and percentages of PdB plates are uniformly low ($\leq 4\%$); at regular settlements, PdB plates are 10 times more, hook-rim plates about 25% less frequent than at the Chimú centers (χ^2-test centers vs. regular settlements: $p < 0.0001$). Regular settlements also consumed six to seven times as many neckless ollas as the Chimú centers (χ^2-test: $p < 0.0001$). The jar distributions make sense if paddle-and-anvil jars were domestic products to which everybody had access. Some, presumably low-status households consumed exclusively domestic products; the elite residents of the Chimú centers had a preference for and greater access to specialist-, mold-made jars. These may have been regarded as superior to paddle-and-anvil ware and perhaps fulfilled other functions, given their often finer surface finish and resultant lower permeability.

Clearly, Pampa de Burros products were not distributed en bloc; different vessel classes reached different consumers at different settlement classes. Even within settlement classes, there is a considerable range of variation in ceramic consumption patterns, and this range is similar for Chimú centers and regular settlements. Pottery procurement patterns of the Chimú centers are by no means uniform; for example, their percentages of hook-rim plates span a range from 35–58%. Such a heterogeneous picture of pottery consumption does not support the idea of centralized provisioning for any settlement class. Although far from an idealized fall-off pattern, the clustered distribution of all distinctive Pampa de Burros vessel classes around the production center and their generally low frequencies at the Chimú centers point to direct shipment of pottery from the production locale to consumer settlements. Since there is no evidence of Chimú control at the excavated production facility, these shipments were direct interactions between craft specialists and consumers in which the Chimú had no part.

Compositional data for 187 pottery and 35 clay samples (Figure 7.6) bolster the interpretation of the technological-stylistic evidence (for details see Tschauner 2001: 268–286). Although the data set is quite homogeneous, at least two chemical groups may be distinguished (Figure 7.7), and both are interpretable in spatial terms. One is associated with the Pampa de Burros workshop (labeled W^* for the core and W for more loosely affiliated members), the other with the Chimú administrative center of Salinas (labeled S^*/S) at the north tip of the study area. About 90% of W^*/W members come from settlements in the valle viejo, whereas all members of the S^*/S groups are from the valle nuevo, mostly from the Salinas center itself. This difference between valle viejo and valle nuevo is statistically highly significant (χ^2-test: $p < 0.0001$) and strong (Cramer's $V = 0.65$).

Although specimens from the Pampa de Burros workshop form a tight cluster, the tiny magnitude of chemical differences between all samples from the Lambayeque Valley suggests that bulk elemental analysis cannot distinguish ceramic raw materials within the valley. The Salinas group, however, is not only chemically clearly distinct, but also related to pottery and raw materials from the adjacent Leche Valley, previously analyzed by the same laboratory using the same protocols applied to the Chimú materials. Since the clay sources of the Leche

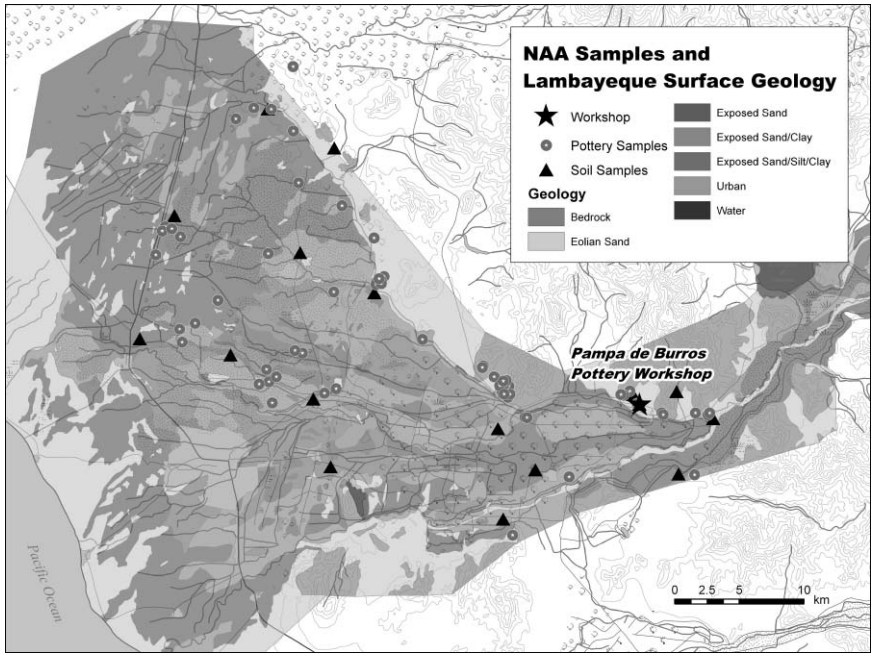

Figure 7.6. Map showing the provenience of pottery and clay samples submitted to bulk compositional analysis.

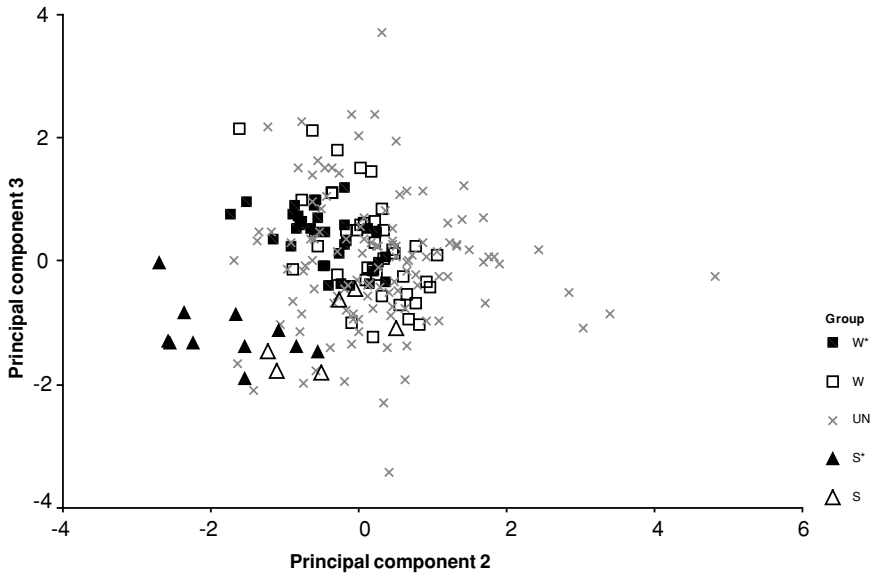

Figure 7.7. Neutron-activation analysis (218 pottery and soil samples): unrotated principal components two and three of 21 element concentrations. Symbols by Mahalanobis-distance groups.

samples are known to be local, these similarities point to a northern, Leche Valley affiliation of the Salinas group, consistent with the site's location on the boundary between the Lambayeque and Leche Valleys. Given that there is no evidence of pottery production at Salinas itself, the source or sources of the S^*/S group (which is more heterogeneous than W^*/W) are to be sought in the Leche Valley.

The overwhelming predominance of S^*/S pottery with its established northern affiliation at the northern Salinas center makes a strong case for local procurement of pottery at the Chimú centers. Salinas, positioned on the boundary between the Lambayeque and Leche valleys, participated primarily in a northern economic sphere, separate from a Lambayeque sphere in which the other centers took part. Overall, the higher relative frequencies of W^*/W members statistically distinguish the assemblages of the two valle viejo from those of the two valle nuevo centers (χ^2-tests: $p < 0.01$, Cramer's $V = 0.39/0.89$). In other words, the assemblages of the Chimú centers are chemically related to pottery from their respective hinterlands. However, local procurement does not imply that each center drew on pottery from a single source. In fact, most settlements—Chimú centers and regular habitation sites alike—consumed pottery from more than one source. Burger and co-workers (1994: 237) suggest that such diversity of sources in an assemblage points to a "noninstitutional character" of procurement.

At Salinas, Pampa de Burros products, as defined by technological-stylistic criteria, are associated with the S^*/S compositional group, which is geochemically anchored in the Leche Valley. This suggests that the northern production center represented by the S^*/S chemical group was also the source of the northern outlier from the otherwise cohesive valle viejo distribution of Pampa de Burros vessel classes. The northern production center employed the same technologies and made a similar repertory of vessels as S166c, but from notably different, local raw materials. The chemical data drive home the point, implicitly made earlier, that vertical half-molding is not a technological style distinctive of the Pampa de Burros workshop, but more generally of specialist-made pottery. The presumably domestic paddle-and-anvil ware consumed by rural residents of the valle nuevo habitation mounds does not join either of the two chemical groups that represent specialized production centers (W^*/W, S^*/S), and in one interpretation of the chemical evidence even forms a third group by itself.

This interpretation of the northern outlier defines a supply zone for the Pampa de Burros workshop that roughly coincides with the settlement cluster south of the empty corridor across the valle nuevo, which in turn roughly coincides with the territory of the Cinto-Lambayeque polity, as inferred from ethnohistoric sources. This definition covers local settlements and the Chimú centers alike; Salinas, the only Chimú center in Túcume territory, clearly participated in another exchange sphere than the other centers. There is an intriguing contradiction between a tightly integrated and planned Chimú settlement system that does, and a non-centralized pottery procurement pattern at the four administrative centers that does not crosscut the bipartite local settlement pattern. The ceramic procurement patterns of the Chimú centers reflect pre-Chimú economic and political structures; two largely self-sufficient pre-Chimú local polities persisted as economic units under Chimú

hegemony. The Chimú occupation caused little disruption of the region's economic systems.

While products from the Pampa de Burros production center did reach at least some of the Chimú centers, they were not shipped there in exceptionally large quantities. On the contrary, both technological-stylistic and chemical data suggest that with the exception of mold-made jars, the Chimú centers received proportionately less Pampa de Burros pottery than regular settlements; differences between the two settlement classes are not statistically significant. Within the centers, Pampa de Burros products are equally likely to be found in public and residential sectors; differences between residential and public sectors are likewise not statistically significant. I conclude that the elite households that resided in the insular compounds at the centers engaged in essentially "private" exchange relations with specialized craftspeople for these households' own consumption, in much the same way and from a similar variety of sources as non-elite households, albeit with somewhat different preferences. The archaeological record contains no indication of an institutionalized state involvement in the distribution of pottery. Pottery was a simple, mass-produced commodity with no role in state display, elite gift-exchange relations, and wealth-finance. Therefore, the Chimú government and elite had no interest in controlling its production and distribution.

CONCLUSION

The evidence presented fits the bill, so to speak, of a corporate group or multifamily household of specialized potters, independently producing and exchanging large volumes of mold-made, small pottery vessels for exchange. Internally, the organization of labor may have been an "individual (family-based) organization multiplied many times" (Sandweiss 1992: 15) rather than a coordinated effort. There is no evidence of a headman or internal stratification. In contrast to the "bureaucratic model" of a "command economy" (Moore 1996: 205) at Chan Chan, the Chimú state and elite were not involved in the production and distribution of simple consumer items such as pottery.

The "bureaucratic model" directly links craft specialization with administration. Klymyshyn (1987:97) argues that increased interdependence between specialized producers and complexity of distribution created a greater need for state administration. This model is unduly Chan Chan centric, describing the intensely politicized production of wealth items at the palace. The Chan Chan palace economy may have been centrally planned. Yet the Chimú made no attempt to administer every aspect of the subsistence economy in the provinces. Lurking behind the "bureaucratic model" is an obsession with administration, the assumption that only the management of complexity is genuine complexity.

Brumfiel and Earle (1987: 1–2) raise two issues against independent specialization as a factor in the development of social complexity. First, they argue that complexity originating through commercialization is unlikely because it presupposes that land and labor were treated as commodities, which could only have

happened after an extended period of centralization and inequality. Second, elites seldom play the role of promoters of economic efficiency through redistribution or market management and consequently have no interest in promoting independent specialization.

Like the "bureaucratic model" of Chimú socioeconomic organization, this reasoning tacitly assumes that complexity resides in the management of complexity and that independent specialization and direct exchange are inevitably commercial, efficiency maximizing, rational, economic behaviors. Perhaps a methodological motif is driving theory here, since increased efficiency and increased output of a standardized product provide relatively straightforward, measurable material correlates of specialization under this model. Thus defined, specialization is indeed economizing and may not be a cross-culturally valid concept (Clark and Parry 1990:293). Yet there is no need to invoke Adam Smith for a model of unmanaged, independent specialization and exchange. A behaviorally based definition of independent craft specialization as production of craft items whose consumers are not members of the producer's household and whose producers retain the rights of alienation (Clark and Parry 1990:297–298) does not define economic rationality into the concept. Moreover, this definition covers noncommercial forms of exchange, such as barter. We need to ask how and under what circumstances switching to a specialized occupation might have benefited individual peasant households and helped them resolve concrete difficulties that they were facing. As Stark (1999:72) puts it, peasants only specialize when they must. Far more effectively than elite patrons and attached specialists, independent specialization creates broad-based interdependencies between social groups. It is this specialization that is "the economic essence of complex society" (Earle 1987:64).

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Part III

The South

Introduction

William H. Isbell and Helaine Silverman

The contributions to this section on "The South" represent four key areas of current interest and research intensity. There is a truly extraordinary amount of fieldwork being conducted in the Titicaca Basin on both the Peruvian and Bolivian sides of the lake and its culturally affiliated areas in far south coastal Peru and neighboring Chile (e.g., Uribe and Agüero 2002; Goldstein 2003, 2005; Williams and Nash 2002). There is also a resurgence of interest in Wari now that Ayacucho is again safe for fieldwork (e.g., Cook and Glowacki 2003; Isbell 2004c; Isbell and Cook 2002; Isbell and Knobloch this volume; Leoni this volume; Ochatoma and Cabrera 2002; Perez 2002). Nasca culture of the south coast of Peru, one of the first of the "ancient Peruvian civilizations" to be identified by late 19th and early 20th century archaeologists (see, e.g., Uhle 1914), has seen consistent attention since the mid-1980s, although in the form of small projects (e.g., Carmichael 1988; Massey 1986; Proulx 1999; Reindel and Isla 2001, this volume; Schreiber 1999; Schreiber and Lancho Rojas 2003; Silverman 1993, 2002; Vaughn 2004) that nevertheless have achieved important breakthroughs and a new synthesis (Silverman and Proulx 2002). Arguably, Inca archaeology offers the greatest interpretive opportunities because of the huge areal extent of this empire, generally good preservation of its sites, and availability of ethnohistorical source material (see, e.g., Bray 2003a, b; Bauer 1992, 1998, 2004; Bauer and Stanish 2001; D'Altroy 1992, 2002; Kaulicke et al. 2002; Malpass 1993).

Long avoided because of grueling field conditions, some two decades of intensive fieldwork in the Titicaca Basin have greatly expanded our understanding of a spectacular example of complex society, recently proposed as an independent case study in pristine state formation (see Stanish 2001). Of particular interest is the shifting axis of power from the southern basin to the northern basin and back again, as seen in the rise of the Chiripa (Hastorf 1999), Pucara (Karen Mohr Chávez 1988a, 1988b; Sergio Chávez 2002; Conklin 1985; Franquemont 1986; Klarich 2005; Mujica 1987; Rowe and Brandel 1970; Young-Sanchez 2004), and Tiwanaku (e.g., Bermann 1994; Janusek 2004; Kolata 1993) spheres of influences and control. It is not unreasonable to consider Inca Cuzco as the most distant of the Basin's outlier territories.

Attention initially focused on economy and subsistence in the seemingly inhospitable altiplano. This brought to light a little-known system of wetlands cultivation—raised field agriculture—and instigated significant contemporary investment in the technology as a solution to problems of modern poverty. But serious question continues to loom over this research regarding the real productivity of raised field farming, its susceptibility to climatic variables, and explanation of the failure of initially heavily subsidized modern development programs (Erickson 1988a, 2000; Kolata 1993, 2004; Stanish 2003). Equally heated discussion concerns the causes and processes by which the Tiwanaku empire disintegrated, involving an ongoing debate regarding environmental degradation/climate change, within the context of a poorly understood chronology for dating Tiwanaku's apogee (Abbott et al. 1997; Erickson 1999; Binford and Kolata 1996; Binford et al. 1997; Browman 1981, 1985; Erickson 1999; Isbell 2004b, Isbell and Burkholder 2002; Kolata 1993, 2003; Kolata et al. 2000). Lamentably, there has been virtually no fieldwork follow-up to John Hyslop's pioneering study of the post-Tiwanku polities in the northern basin (Hyslop1977a, b, 1979; also see Lumbreras 1974a; outside the Titicaca Basin proper see Stanish 1992 for a discussion of the Lupaqa relationship to Moquegua).

Wari studies are experiencing an exciting renewal following the terrorism-necessitated premature closure of William H. Isbell's 1970s project at the Huari uban center (see Isbell and McEwan 1991). Since the mid 90s attention has focused on Conchopata, second city of the Huari heartland, as it was being obliterated by construction in the modern departmental capital of Ayacucho. Significantly, Conchopata has long been recognized as having the most Tiwanaku-like art north of the Titicaca Basin, and new excavations have revealed unknown representations in associational contexts that fill in critical gaps in the expansive spatial and temporal distribution of Tiwanakoid iconography (Cook 2004; Isbell 2001, 2004a; Isbell and Cook 2002; Knobloch 2000; Ochatoma and Cabrera 2001a, 2001b, 2002). For the first time, it is possible to revise and reconstruct Wari chronology, and use its fine stylistic sequence, along with radiocarbon dates, to recast relationships throughout Wari's far-flung sphere of religious, commercial, and political interaction. Isbell and Knobloch (this volume) propose an important but preliminary evaluation of cultural relations that imply that the Tiwanakoid style was not invented at and diffused from a precocious center in the south altiplano, but was the result of complex, multicultural interactions among peoples as distant as Ayacucho in central Peru and San Pedro de Atacama in central Chile. Much more is to be learned, but we can begin to recognize a complex process, perhaps with roots in Chavin, that embraced the entirety of the southern Andes, much of which was, until now, considered to be occupied by culturally marginal peoples.

Previously known almost exclusively from a brief discussion by Lumbreras (1974b, c, 1981), Leoni's (this volume) new excavations at Ñawinpukyo yield important new data on Huarpa, the Early Intermediate Period archaeological culture that is temporally and culturally antecedent to Wari. Leoni's data suggest that public communal rituals played a central role in Huarpa society and that some degree of social differentiation existed at Ñawinpukyo, the largest and most important of

the Huarpa sites, in the late part of the EIP. Although unspectacular in its material culture (notably its lackluster pottery), nevertheless in Huarpa there occurred a suite of important social and cultural processes of change that eventually led to the rise of the Wari polity and culture.

Ñawinpukyo had major ceremonial architecture and public spaces (plazas). Leoni identifies an obvious relationship between one plaza's (the East Plaza) main building and the snow-capped Rasuwaillka mountain, ethnographically reported to hold religious importance and therefore hinting at the probable existence of mountain worship-related activities and beliefs in the late EIP in Ayacucho. Although many scholars have employed ethnographic analogies with modern mountain worship to understand prehistoric Andean ideologies, this is the first confirming archaeological evidence. A central aspect of the ceremonies taking place in Ñawinpukyo's East Plaza involved the sacrifice, consumption (ritual feasting) and burial of domestic camelids. Leoni suggests that these were "ceremonies of fertility and regeneration" serving "as a community integrative mechanism" and to foster "some degree of supra-local integration, at a time in which political centralized authority seems not to have existed in the valley." Moreover, in another area of the site Leoni discovered parts of a possible elite compound.

Although modest in comparison to Huari, Ñawinpukyo nevertheless has features that anticipate the great Middle Horizon Wari culture as most elaborately expressed at the capital site of Huari. Late Huarpa society at Ñawinpukyo had ceramic deposits reminiscent of Wari ceramic offering deposits, an architectural layout that could have developed into aspects of the typical Middle Horizon orthogonal cellular patio groups, and circular and semicircular ritual ceremonial buildings that could have constituted the basis from which the typical D-shaped Wari temples developed. Arguably most important, Wari people recognized a cultural kinship with Huarpa: at Ñawinpukyo (which was not abandoned) MH inhabitants preserved the EIP ceremonial architecture in their own settlement, revealing concern for maintaining a strong connection with their Huarpa past.

The far south coast of Peru has emerged as a critical zone for understanding Wari-Tiwanaku engagement as well. The Moquegua Valley (e.g., Goldstein 1993, 2005; Stanish 1992), and Cerro Baúl in particular (e.g., Williams and Nash 2002), has seen intensive fieldwork. In this volume Tung and Owen extend the framework for geopolitical interpretation through their fieldwork in Majes, located several valleys north of Moquegua. There Tung and Owen find evidence that populations were within the orbit of Wari ideology, economic influence and, potentially, political or military power. Violence seems to have been endemic, but cannot securely be attributed to warfare alone. Local people "sought goods that reflected specific aspects of Wari iconography and technological style, both in objects of daily use and in those that expressed high status." Tung and Owen conclude that Majes-Wari interactions were complex and recursive, perhaps with cultural practices and goods flowing in both directions.

In the Titicaca Basin itself there is a very complex history of political evolution. In the southern basin the cultural trajectory takes off in the Early Formative Period, around 1500 BC, with the emergence of substantial populations living in villages,

practicing agriculture, and exploiting lacustrine resources. The situation, however, was unstable. As reconstructed by Bandy, village fissioning was common. Over time and by around 1000 BC social circumscription began to change community relations: scant unoccupied land was available for the founding of new villages, and other means had to be found to resolve intra-village conflicts and disputes. Around 800 BC the Yaya-Mama Religious Tradition (Chávez 1988) coalesced and "established a social framework for the production of authority and for the generation of community solidarity. . . and inaugurated a long interval of continuous village growth." Public architecture and religious ceremony grew in tandem with increasingly large and dense settlements. Indeed, Bandy argues for the "integrative function of public ritual activity and its ability to reduce, resolve, or redirect conflict within the village. The Yaya-Mama Religious Tradition . . . [w]as a kind of social technology that allowed the establishment of a system of large stable villages in the Middle Formative Period."

Within this Yaya-Mama universe the site of Chiripa in its middle and late phases is especially well investigated. But, breaking with earlier interpretations about its central and centralizing role in the southern basin, Bandy cautions that the eponymous site itself was not exceptional among its contemporaries. Rather, around 250 BC a political consolidation of autonomous villages began, resulting in heightened regional interaction and exchange. In the southern basin this process culminated in the formation of the Tiwanaku state.

Whitehead provides important data on Chiripa from the ground-up in the most literal way. Working as a paleoethnobotanist he demonstrates that people at the Chiripa site had a flexible subsistence economy based on simple cultivation, gathering, and domesticated animals; they "were using all the available dietary inputs." They were likely not intensive agriculturalists (e.g., there is no solid evidence but only suggested evidence for domesticated potato), but rather part-time horticulturalists, llama pastoralists, and wild food gatherers. Diversification enabled them to withstand climate change and population fluctuations. Cultural changes at Chiripa seem to coincide with the small climatic changes that affected the ancient Lake Titicaca water level.

Plourde and Stanish explain that in the northern Titicaca Basin Qaluyu (1400–500 BC) is the equivalent of Chiripa as "an archaeological site, a type site, a time period, a ceramic and art style, a culture, an archaeological horizon marker, and an icon of sorts for pre-Pucara culture." Qaluyu encompasses the first complex societies of the northern basin. The type-site of Qaluyu itself was a large settlement with important monumental architecture (probably including sunken court complexes), although it was smaller than a number of contemporary sites in the northern basin. This is the most important conclusion of the new fieldwork in this region: there was an extraordinary plethora of similar sites with ceremonial architecture, not just one, and population was remarkably dense in the region.

The iconographic intricacy of Nasca pottery has attracted scholarly attention from the moment the ceramic style was recognized, indeed prompting a search

for the source (Uhle 1914). In her chapter Suzette Doyon offers an art historian's approach to a particular Nasca icon, an anthropomorphic figure whose principal characteristic feature is a flat mask, often called a scroll mask. In a complex argument drawing on ethnographic and ethnohistoric analogy, internal thematic context and archaeological data, she argues that the "scroll mask is the sign for actively pooling liquid, which splashes and curls in eddies. The jagged staff represents fast-flowing, or channeled liquid. These motifs, when linked together, suggest waterfalls and cascades or—on a smaller scale—the canals and reservoirs of extensive irrigation systems in the greater Nazca River basin." She associates the appearance of this iconographic imagery with the Nasca peoples' development of "puquios" or filtration gallery irrigation in the Nasca 5 period (see Schreiber and Lancho Rojas 2003) and furthermore interprets pooling and channeled waters as examples of classic Andean dualism of like but dissimilar pairs and as an example of Andean peoples' ideology of a living landscape.

Haeberli also focuses on the great art of ancient Nasca society, but from the perspective of textiles. Here he proveniences to Arequipa a group of 54 iconographically elaborated textiles with "proliferous" imagery strongly reminiscent of the late Nasca Proliferous style. He dates these textiles to the early Early Intermediate Period, therefore centuries before similar iconography appeared on pottery and textiles in the Nasca heartland. This is a tremendously important issue. For years scholars have intermittently noted the presence of Nasca pottery and textiles south of the Río Grande de Nazca drainage (see, e.g., Disselhoff 1968; Goldstein 2000; Rowe 1963; Valdez 1998). Given that a Nasca occupation or control of the Acarí Valley is now rejected by Nasca scholars, the occurrence and/or influence of Nasca (early and late) farther south demands explanation. Haeberli makes an important contribution in this regard. His chapter also is significant in adding more data in support of the growing awareness of Arequipa's (and the far south coast's) participation as much more than a passive receptor in Central Andean cultural development (see discussion in Chapter 1).

Although enunciated from the perspective of the ideal culture types characterizing the neo-evolutionary chiefdom-state debate a few decades ago (see Silverman 1993: 341, 343, 2002: chaps. 1, 16 for critical statements in this regard concerning Nasca specifically), Isla and Reindel's excellent fieldwork and impressive set of recent publications make decisive contributions in an area inexplicably lacking in sufficient fieldwork. As correctly reconstructed by Isla and Reindel, Nasca 5 La Muña is an exceptional site in the known Nasca settlement universe. Its burials are the richest documented for Nasca culture of any phase. Although they pale in comparison with spectacular and more or less contemporary Sipán, of the northern Moche culture, the La Muña burials did contain multiple ceramic vessels of outstanding quality, semi-precious stones, Spondylus shell, and gold and copper objects. Moreover, as Isla and Reindel indicate, all of the tombs were looted, so the finest pieces were surely removed and remain unknown to archaeologists. Unquestionably, the individuals buried at La Muña were the maximal elite of Nasca 5 society. Isla and Reindel emphasize, as has Silverman (2002; Silverman and

Proulx 2002), that Nasca 5 society was significantly more complex than the Nasca societies of previous phases. Whether one parses this as a "state" or "chiefdom" is less relevant than the actual organization of power, as well as conditions that promoted the Nasca 5 transformation and the subsequent cosmopolitan yet politically fragmented late Nasca landscape (Silverman 2002: chap. 16; Silverman and Proulx 2002: chap. 10).

The coast south of Lima (actually, south of the Lurín Valley) lagged behind the fast-paced trajectory of political evolution on the north coast from as early as Preceramic VI (the Late Archaic in this volume) and into the Initial Period and Chavín Horizon (Silverman 1996: 107–110, 120–122). Only with Paracas and Nasca are there comparable social formations north and south, although among these societies Moche/Mochica stands out as unquestionably more complex. In the Middle Horizon two great empires enter into competition, Wari and Tiwanku, the former with significant yet modest antecedents, the latter with more than a millennium of preceding ceremonial and political interaction.

Arguably, the south highlands—specifically the Titicaca Basin—constitutes a separate venue of independent political evolution (Stanish 2001), one whose trajectory toward complexity begins in the Formative Period (equivalent to the Initial Period) and culminates in Tiwanaku. Within the Peruvian area, Stanish asserts that there were multiple political evolutions—some longer than others, most of which exhibited complex political organization for only a brief time, if at all—of which only the north coast (sensu strictu) sustained an essentially continuous, culturally coherent evolutionary course.

In the historical recognition of a Peruvian co-tradition, or Central Andean culture area, long-distance religious pilgrimages, trade in luxury goods, and caravan commerce have been recognized as some of the mechanisms of inter-regional integration. Ceramic horizons are among the more important material documents of the interaction. What technology could be more important for human travel in the ancient Andes than the suspension bridge? As the Spanish invaders showed when only some of them were willing to cross the great bridge over the Apurimac River, several days ride on horseback were eliminated by the hanging web of sticks and rope. Bauer (this volume) provides one of the first, and certainly one of the finest studies of Inca suspension bridges, cutting through romanticized images to carefully document form and location as known from history and archaeology. Indeed, the tunneled access to the Apurimac bridge shows how the narrowest crossing could be employed, in spite of the difficulty of the approach. At the same time, we must marvel at the technological sophistication, as well as the technological simplicity of Inca bridge construction and maintenance. Bauer's article is beautifully illustrated, supplying a basis for understanding the technology of Inca suspension bridges as never before. His material cultural emphasis is the prerequisite for future study of earlier bridges and transport, to provide some idea of when Andean peoples developed the technology required for linking their hyper-dissected environment into one integrated territory around which a single identity could be produced.

The papers in this section are fascinating for the many perspectives they offer on the range of variation in Andean societies. They also raise fascinating problems for further study.

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Chapter 8

Early Village Society in the Formative Period in the Southern Lake Titicaca Basin

Matthew S. Bandy

INTRODUCTION

The southern Lake Titicaca Basin (Figure 8.1) is best known as the heartland of the Tiwanaku state (Kolata 1993; Stanish 2003). Research in the area has until quite recently been predominantly oriented toward issues of state formation, expansion, and collapse. The Formative Period—a two thousand year interval of sedentary agricultural village life—has been considered mainly as an antecedent to Tiwanaku emergence. It is only recently that archaeologists have followed the lead of the pioneering projects of the early and middle 20th century (Bennett 1936; Browman 1978, 1986; Kidder 1956; Portugal Ortíz 1992), and begun to devote considerable resources to the investigation of the culture history and the social and economic dynamics of the Formative Period itself (Bandy 2001, 2004; Hastorf 2003; Hastorf ed. 1999; Hastorf et al. 2001; Janusek 2001, 2003; Lémuz 2001; Lémuz and Paz 2001). These efforts have recently begun to bear fruit (see Janusek 2004 for a recent review), with the result that it is now a very exciting time to be studying the Titicaca Basin Formative.

Since 1992, the Taraco Archaeological Project (TAP), currently directed by myself and Christine Hastorf, has been intensively investigating the Early and Middle Formative Period cultures of the southern Titicaca Basin (Bandy 2001, 2004; Hastorf 2003; Hastorf ed. 1999; Hastorf et al. 2001; see Figure 8.2). The work of TAP has focused on the Taraco Peninsula, a spit of land projecting into Lake Wiñaymarka, the shallow southern arm of Lake Titicaca (Figure 8.3). The Taraco Peninsula was one of several areas of high population density in the Early and Middle Formative Period of the southern Titicaca Basin. It was densely inhabited many centuries before the adjacent Tiwanaku Valley or Katari Basin were settled by a significant resident population. In this respect, the southern Titicaca Basin is typical of early village sequences worldwide. In many such cases, population in early phases is not evenly distributed, but rather is concentrated into tight clusters of high population density separated by vast expanses of very lightly-populated land. In this sense the Taraco Peninsula can be thought of as comparable to other early village population centers, such as the Etla arm of the Valley of Oaxaca

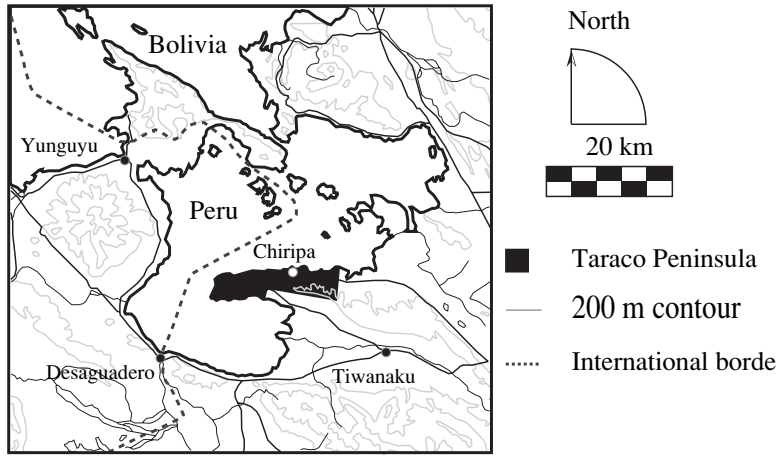


Figure 8.1. Southern Titicaca Basin.

	Study Region	Titicaca Basin	Lake Level
1500	Pacajes-Inka	Late Horizon	High
	Early Pacajes	Altiplano	Low (-13-18 m)
1000	Tiwanaku IV-V	Middle Horizon	High
500	Tiwanaku III	Late Formative	
	Tiwanaku Ib		Low (-16-18 m)
B.C./A.D.	Tiwanaku Ia		High
	Late Chiripa 2	Middle Formative	Low (-16-18 m)
500	Late Chiripa 1		High
	Middle Chiripa	Early Formative	Low (-11-14 m)
1000	Early Chiripa		High
1500			

Figure 8.2. Southern Titicaca Basin Chronology.

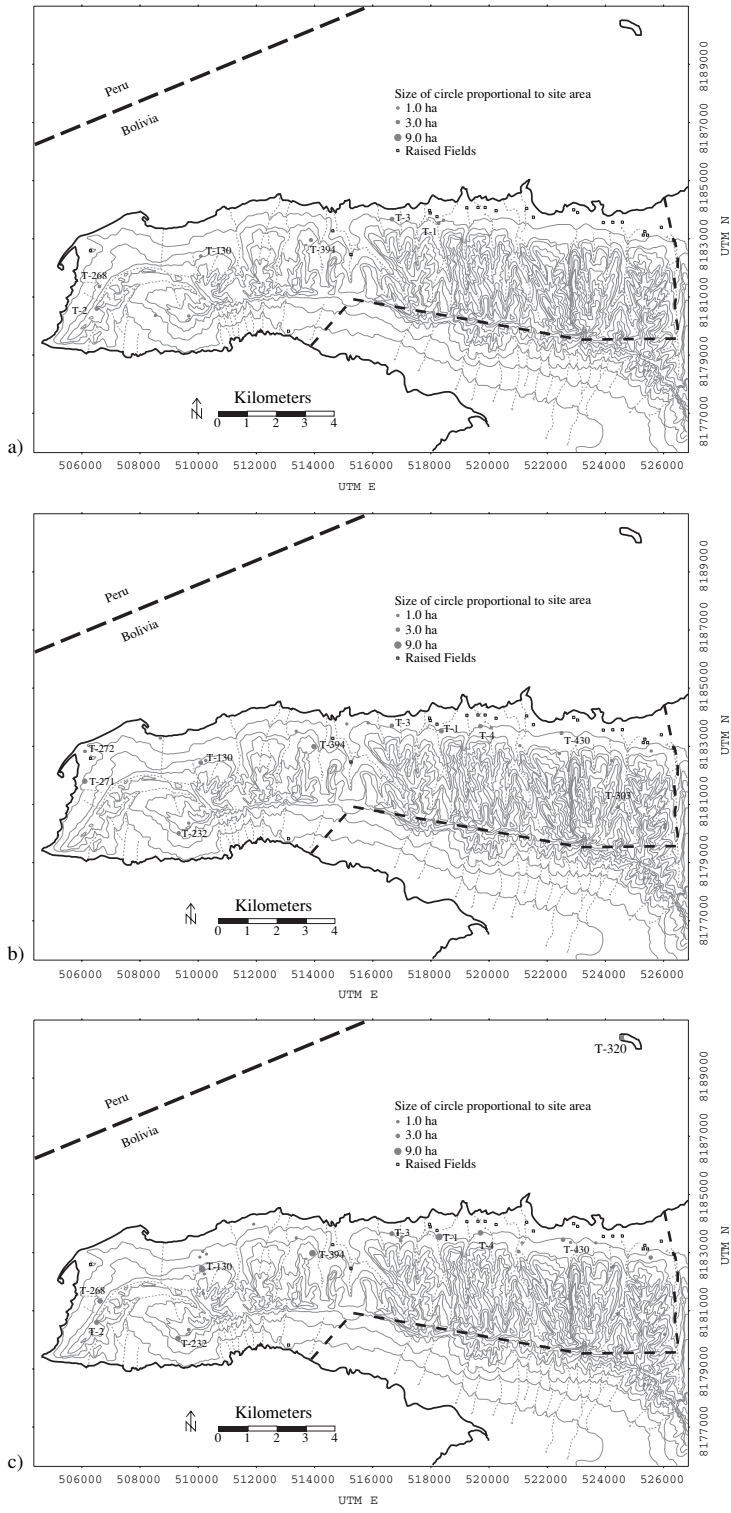


Figure 8.3. Early and Middle Formative Period settlement. (a) Early Chiripa. (b) Middle Chiripa. (c) Late Chiripa.

(Blanton et al. 1982; Kowalewski et al. 1989), or the Ixtapalapa Peninsula in the Basin of Mexico (Blanton 1972; Parsons 1976; Parsons et al. 1983).

TAP has completed a full-coverage pedestrian survey of the peninsula, directed by the author, which identified a number of major Early and Middle Formative villages (Bandy 2001). In addition, TAP has excavated for five seasons at the village of Chiripa (see Bandy 1999a; Hastorf ed. 1999; Hastorf et al. 2001) and for one season at Kala Uyuni (Bandy 2001:101; these excavations are as yet unpublished). In addition, Robin Beck, in close coordination with TAP, has excavated at the small Formative village of Alto Pukara (Beck 2004). This combination of settlement pattern data with problem-oriented site excavations has allowed us to considerably enlarge our understanding of the Formative Period sequence in the southern Titicaca Basin. The data and interpretations I present here are based primarily on the results of these investigations.

Our understanding of the Titicaca Basin Formative Period is becoming increasingly nuanced and sophisticated as one result of this flurry of recent research. As adequate data are becoming available on the organization, economy, ritual, and settlement of Formative Period society it is possible for the first time to make meaningful comparisons to other better documented early village sequences and to place the Titicaca Basin Formative Period into a cross-cultural comparative context. Thus, we are now in a position to make a positive contribution to anthropological knowledge of early village society.

EARLY VILLAGE SOCIETY

Julian Steward long ago argued that the primary goal of an evolutionary anthropology must be "to formulate the conditions determining phenomena of limited occurrence" (Steward 1955: 8). He emphasized that cross-cultural regularities are apparent in the archaeological and ethnological records and identified two types of regularities. "In some instances, there are constellations of phenomena that recur repeatedly because certain phenomena presuppose others. The nexus between them is functional . . . These regularities are synchronic. In other cases, there is a succession of similar constellations which succeed one another in a regular and predetermined way because of developmental laws. These developmental regularities are diachronic and require processual formulations" (Steward 1955: 4).

Early village society as an analytical concept implicates regularities of both types. It is, in fact, a constellation of various synchronic and diachronic regularities that loosely characterize autonomous village societies in many times and places. In this sense, then, it is a very general taxonomic term, comparable to Steward's own "patrilineal band" (1955: 122–142) and perhaps to "chiefdom" or "state"—but this comparison can only be made if "chiefdom" and "state" are similarly understood as constellations of synchronic and diachronic regularities, rather than as universal evolutionary "stages."

Richard Wilshusen has noted that "there has been very little problem-oriented work on pre-state or Formative villages, and only a handful of studies of such

villages as distinct evolutionary phenomena" (Wilshusen 1991: 22). As a consequence, the synchronic and diachronic regularities that should define the early village as an analytical category have not been well defined. Nevertheless, I would like to call attention to four diachronic regularities that I believe to be characteristic of many early village sequences worldwide, several of which are particularly well illustrated by the Titicaca Basin data. These are: 1) village formation, 2) village fissioning, 3) the growth of a system of stable villages, and 4) multi-community polity formation.

In the remainder of this paper, I will employ these cross-culturally recurring processes to structure my account of social evolution in the southern Titicaca Basin Formative. The early village period in the southern Titicaca Basin was inaugurated with the formation of sedentary agricultural villages at 1500 BC. This village system subsequently underwent a period of fissioning and instability, and a later period of village stability and growth. Finally, the early village period was terminated by the formation of a multi-community polity around 250 BC. At this point the previously independent villages lost their autonomy and became incorporated into a regional political economic system.

VILLAGE FORMATION

Around 1500 BC there was a major change in the lifeways of Titicaca Basin peoples. Browman notes "the adoption of new technologies such as ceramics, the development of new techniques in architecture, and the increasing reliance upon a wide range of domesticated plants" (Browman 1984: 119). We refer to this early time of agricultural, ceramic-using and village-dwelling peoples as the Early Formative Period. This cultural and economic watershed, which occurred locally around 1500 BC, marks the appearance of early village society on the Taraco Peninsula.

Unfortunately, we have very little evidence that can be brought directly to bear on the problem of village formation in the southern Titicaca Basin. We know virtually nothing of Archaic Period economy or society around Lake Wiñaymarka. There seems to have been no detectable occupation of the Taraco Peninsula prior to the appearance of ceramic-using agricultural villages in the Early Formative Period. In TAP's Taraco Peninsula survey not a single preceramic debitage scatter was observed, nor a single Archaic style point recovered. Although this contrasts sharply with reports of intensive Archaic Period occupation in other parts of the Basin (Aldenderfer and Barreto 2002), it is consistent with the fact that Albarracín-Jordan and Mathews (1990: 51–53) found only two isolated Archaic points in their Tiwanaku Valley survey. Although I encountered a small number of Archaic Period points in my analysis of lithics from TAP's excavations at Chiripa, these were highly eroded and were encountered in Formative Period levels. They seem to have been collected as curiosities by the Formative Period inhabitants of the site, much as they collected fossil trilobites from the surrounding hills. In sum, there is no evidence for a measurable human presence

on the Taraco Peninsula (indeed, in the Tiwanaku heartland) during the Archaic period.

There are several reasons why this might be the case. First, the spine of the Taraco Peninsula is formed by the Taraco Formation, a loose and poorly sorted deposit of fluvial origin. The hills of the peninsula are covered with nodules of quartzite and chert, and the entire area constituted an extensive quarry during the whole prehistoric period. In other words, the entire peninsula is a low-density debitage scatter. This could have the effect of obscuring ephemeral Archaic Period lithic scatters, which might be identifiable in a different geological context. However, local geology cannot account for the extreme rarity of Archaic Period projectile points.

Second, geologists have demonstrated (Abbott et al. 1997a, 1997b) that the little lake (Wiñaymarka) was completely dry prior to 1500 BC. In the Archaic Period, then, the peninsula would have been considerably colder and less hospitable to agriculture than it is today, lacking the climatic amelioration effects of the lake. Also, the area of the lake now covered with water would have been a vast *pampa* or grassland. Since pastoralism seems to have been the primary focus of the economy in the later or terminal Archaic (Aldenderfer and Barreto 2002), it could be that the local inhabitants lived on these pampas, perhaps near the small meandering rivers, as was the case in the Ilave Valley. If this was so, then the remains of their settlements and camps would now be inundated by Lake Wiñaymarka, rendering them archaeologically invisible.

Although it is impossible to evaluate this hypothesis archaeologically at present, it is possible to imagine what could have happened when the lake abruptly rose to near-modern levels around 1500 BC. We may postulate a landscape populated by small pastoral groups practicing a very extensive form of tuber agro-pastoralism on the vast pampas of what is now Lake Wiñaymarka. The rise in lake level—which seems to have been relatively abrupt—would have: 1) eliminated a vast expanse of grazing land, 2) made available rich lacustrine resources in the form of fish and lake birds, and 3) created a climate more amenable to agricultural production as a result of the thermal effects of the lake. All of these changes would have encouraged the development of a more sedentary fishing and agricultural economy by decreasing the region's suitability for a primarily pastoral economy and raising it for a mixed lacustrine and agro-pastoral economy. Assuming that adjacent grazing areas were already populated—thus limiting the possibility of out migration—this would have constituted a strong incentive for local populations to intensify their fishing and agricultural activities. Furthermore, since the Taraco Peninsula is a peninsula, pastoral groups inhabiting the entire surrounding pampa would have been forced onto what became a narrow spit of land with very poor grazing potential. This is the sort of situation we might imagine resulting in relatively dense populations (relative to the rest of the Titicaca Basin) and a marked economic shift away from pastoralism and toward agriculture and lacustrine fishing/collecting.

Testing of this model is, of course, impossible since sites of this terminal Archaic time period—if they do exist—are apparently submerged. It is nevertheless compelling since it explains several otherwise anomalous archaeological facts. First is

the lack of any evidence of an Archaic period occupation on the Taraco Peninsula. In the scenario outlined above virtually all such evidence would be inundated at the present time. Second, it explains the character of the Early Formative occupation of the peninsula, which is much more dense and concentrated than we might expect of an initial colonization of a region.

In any case, the inhabitants of the Taraco Peninsula lived in substantial, sedentary villages from the very beginning of the Early Formative Period. Figures 8.3a and 8.3b show the settlement pattern for the Early and Middle Chiripa phases, the two phases of the Early Formative in the local Taraco Peninsula chronology. Early Chiripa villages ranged up to 3.5 ha in area, with an estimated population of some 186 persons. Villages grew to a somewhat larger size in the Middle Chiripa phase, with the site of Sonaji (T-271) reaching 5 ha in area, with an estimated population of 277. The average Early Chiripa site population estimate is 77, and the figure for the Middle Chiripa phase is almost exactly the same at 76. This probably represents an average of more than 10 households per village. On the face of it, this is not a large number, compared to other areas of the Titicaca Basin at this time period, however, it is very high.

The Pasiri Period in the Juli-Pomata area can serve as an example. Pasiri ceramics are somewhat similar to Early Chiripa ceramics and they seem to be diagnostic of Early Formative sites in the southwestern Titicaca Basin (Stanish et al. 1997: 40). Pasiri sites average 0.8 ha in size (Stanish et al. 1997: 51). Treated in the same manner as the Taraco Peninsula data, this yields an average population estimate of 32. Early Formative sites on the Taraco Peninsula, therefore, are on average more than twice the size of those in the Juli-Pomata area.

Furthermore, Early Formative occupation is much more dense on the Taraco Peninsula than in Juli-Pomata. Ten Pasiri sites were encountered in the Juli-Pomata survey (Stanish et al. 1997: 40). This project intensively surveyed approximately 300 sq kms. Early Formative population density in the Juli-Pomata area may therefore be estimated to be approximately 1.1/sq km. The same calculation on the Early Chiripa Taraco Peninsula data (88.3 sq kms surveyed) produces a figure of 7.8/sq km.

It is apparent, then, that the Taraco Peninsula was exceptional from the very beginning of its occupation history. No other known area in the Titicaca Basin has Early Formative populations this dense or Early Formative villages this large. This Early Formative exceptionalism clearly set the stage for the continuing precocity of the Taraco Peninsula villages throughout the Early and Middle Formative Periods.

The degree to which these early villagers were committed to agriculture, however, is unclear. A recent study by Maria Bruno and William Whitehead (Bruno and Whitehead 2003) has shown that clear evidence of morphological modification of quinua (increased seed size, reduced testa thickness), which might be construed as evidence of intensive cultivation and management of the plant's reproductive cycle, does not appear until the following Middle Formative Period (and see Whitehead's chapter in this volume). Similarly, it is not until the Middle Formative that stone agricultural implements appear in the archaeological record of the Taraco Peninsula. Early Formative villagers, then, may have depended primarily upon lacustrine

foraging for their subsistence, supplemented by low-intensity cultivation of a variety of crops and by small-scale herding activity.

VILLAGE FISSIONING

Early Formative villages on the Taraco Peninsula may have been substantial and sedentary, and at least partially dependent upon agriculture, but they were not entirely stable. A detailed study of Early Formative settlement patterns shows that villages at this time were stable only until they reached a certain maximum population threshold. Upon reaching this size, the villages fissioned, splitting into two or more daughter communities. I have published a detailed argument outlining this scenario elsewhere (Bandy 2004), and will consider the matter only briefly here.

Figures 8.4a–c are not settlement pattern maps. Rather, they are population density maps. The survey area has been divided into 0.25 sq km squares (squares that are 500 m on a side). The population index values of all of the archaeological sectors falling within each square for a particular time period are summed. This summed population index is represented by the z axis. So higher spikes represent higher local population densities.

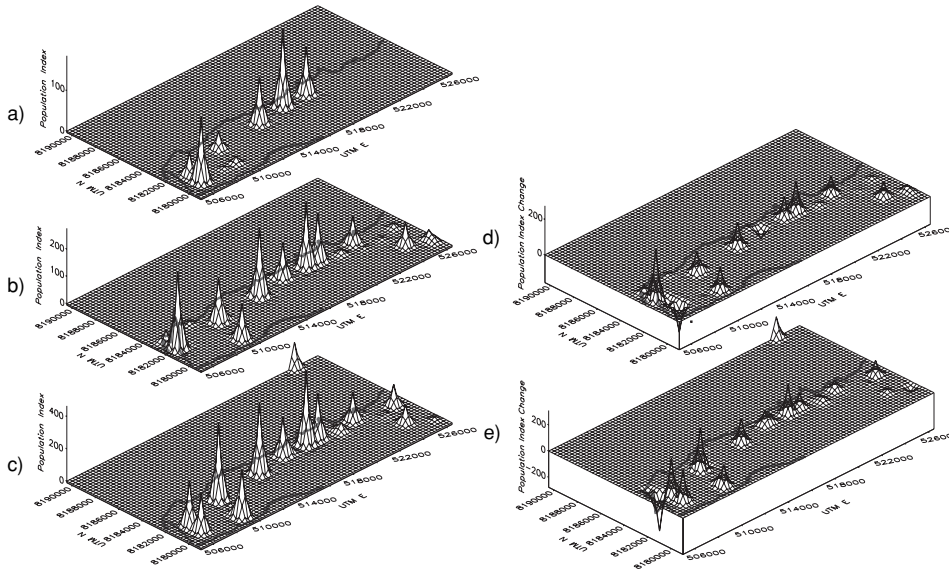


Figure 8.4. Early and Middle Formative Period settlement dynamics. (a) Early Chiripa population density. (b) Middle Chiripa population density. (c) Late Chiripa population density. (d) Middle Chiripa population density change. (e) Late Chiripa population density change.

A visual inspection of Figure 8.4a reveals two spikes in population density on the peninsula in the Early Chiripa phase. These correspond to the sites of Chiaramaya (T-3; see Figure 8.3a) and Cerro Choncaya (T-2). By the Middle Chiripa phase, however, (Figure 8.4b) these two sites are no longer the loci of highest population density on the peninsula. Cerro Choncaya has been abandoned, and Chiaramaya has shrunk dramatically in size. Three new sites have come to the fore: Chiripa (T-1; see Figure 8.3b), Janko Kala (T-394) and Sonaji (T-271).

Figure 8.4d graphically represents the spatial shifts in population that occurred in the Middle Chiripa phase. It was produced by subtracting the sum of Early Chiripa population indices for a given 0.25 sq km block from the sum of Middle Chiripa population indices for the same block. Essentially, it was produced by subtracting Figure 8.4a from Figure 8.4b. The vertical axis therefore represents the estimated amount by which the cumulative population index of the block increased or decreased during the Middle Chiripa phase. A raised spike indicates a population increase in a block, while a sunken area represents a decrease. A flat surface indicates no change.

Figure 8.4d shows that only three localities experienced population declines in the Middle Chiripa phase. These were the two sites of Cerro Choncaya and Chiaramaya (mentioned above), together with the site of Sunaj Pata (T-268), located very near to Cerro Choncaya. At the same time, however, a number of new sites were founded and experienced very rapid growth. Among these were Chiripa Pata (T-4), Sonaji (T-271), Kumi Kipa (T-272), Kala Uyuni/Achachi Coa Kkollu (T-232/T-225), Alto Pukara (T-430) and Quiswaran (T-303).

A careful consideration of the growth rates of all of these villages has led me to interpret these data as evidence for several instances of village fissioning (Figure 8.5a; see Bandy 2004 for a detailed explication). Around 1000 BC, near the boundary between the Early and Middle Chiripa phases, the site of Cerro Choncaya fissioned, splitting into two groups. The first of these moved to the east, founding the village of Kala Uyuni and its small neighbor, Achachi Coa Kkollu. The other moved to the west, combining with the former population of Sunaj Pata to found the village of Sonaji. At the same time, the site of Chiaramaya fissioned into three groups. One of these remained at the original site of the village, while the other two moved to the east, jumping past the site of Chiripa to found Chiripa Pata and Alto Pukara.

A similar event took place around 800 BC, near the boundary between the Middle and Late Chiripa phases. Figure 8.4e shows that at this time the site of Sonaji was abandoned, and the sites of Cerro Choncaya and Sunaj Pata simultaneously reoccupied. Combined, the growth rate of these three sites was 0.11% annually, almost exactly the same as the Late Chiripa phase average. I consider this strong evidence that the site of Sonaji fissioned at the beginning of the Late Chiripa phase, resulting in the reoccupation of Sunaj Pata and Cerro Choncaya (Figure 8.5b). This is particularly interesting since Sonaji was originally formed by the fusion of the population of Sunaj Pata with a faction fleeing the 1000 BC fissioning of Cerro Choncaya. It seems probable that the distinction between these two founder communities was maintained during their two century period of co-residence in

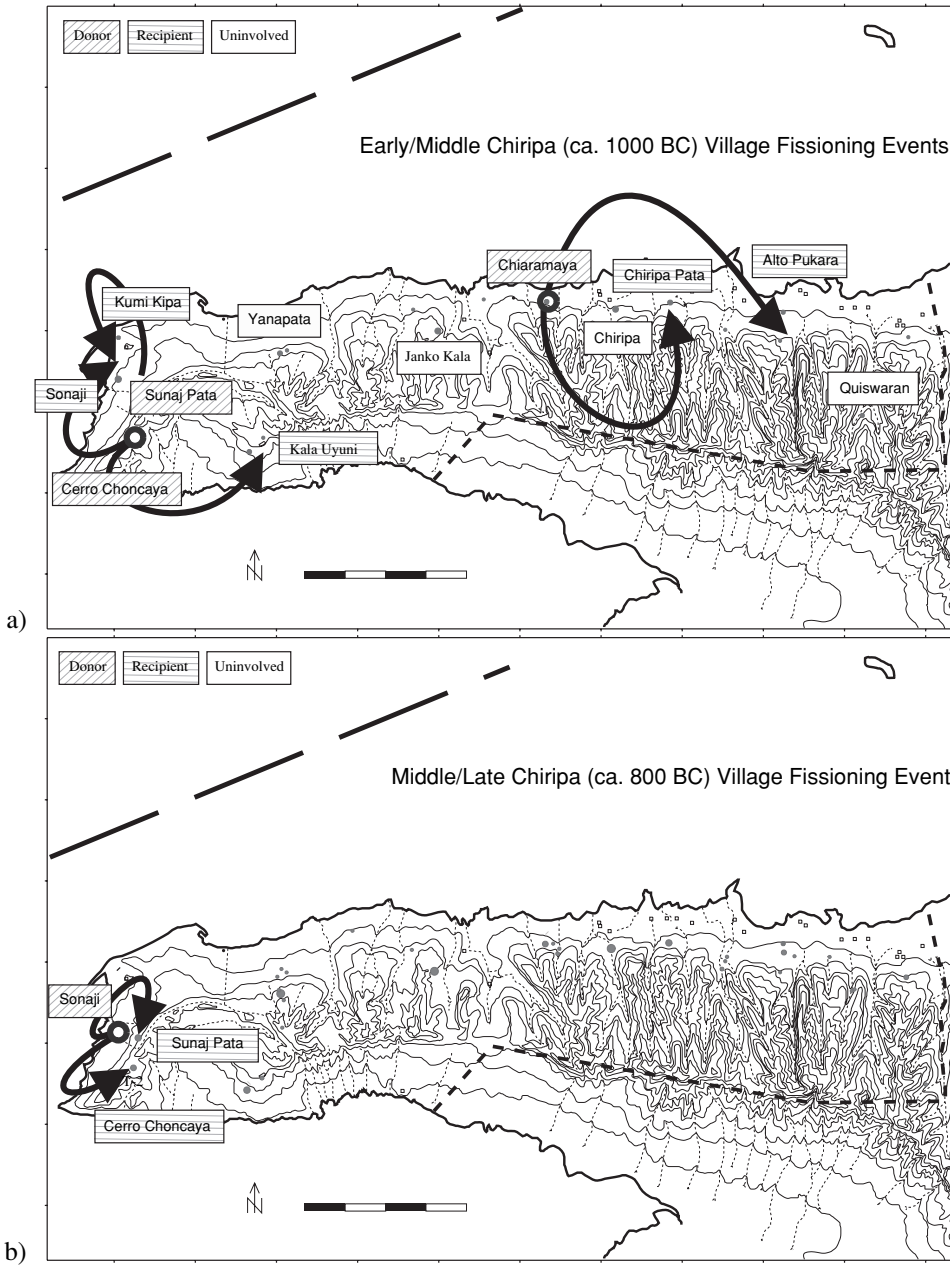


Figure 8.5. Reconstructed village fissioning events. (a) 1000 BC. (b) 800 BC.

Sonaji, and was the social "cleavage plane" along which the village fissioned at the beginning of the Late Chiripa phase.

It is very significant that in all three of these reconstructed fissioning events the villages that fissioned were the largest villages of their respective phases. Cerro Choncaya and Chiaramaya were the largest two villages of the Early Chiripa phase, while Sonaji was the largest village of the Middle Chiripa phase. This fact strongly suggests that villages during these phases were growing to a certain size and then fissioning. This in turn suggests that this fissioning was a result of scale-related social stresses within the Early Formative villages. Lacking social mechanisms or institutions for resolving conflicts or integrating large communities, Early Formative villages fissioned upon crossing a population threshold value. The Taraco Peninsula data suggest that this threshold increased through time, from approximately 170 villages in the Early Chiripa phase, to more than 250 villages at the end of the Middle Chiripa phase.

This increase in the fissioning threshold of villages probably relates to two factors. First, the Late Chiripa phase was a time of increased social circumscription, as the landscape of the Taraco Peninsula filled up. There was now little unoccupied land available for the founding of new villages. If villages were to continue fissioning the daughter communities would be forced either to appropriate land from an established village (a daunting task for a newly-formed fractional village with a small population) or to relocate to progressively more distant and marginal areas. That is to say that fissioning began to seem less and less a desirable means of resolving intra-village conflicts and disputes. Second, the beginning of the Late Chiripa phase witnessed the emergence of a regional religious tradition. This phenomenon, termed the Yaya-Mama Religious Tradition (Chávez 1988), had the effect, I have argued (Bandy 2004), of establishing a social framework for the production of authority and for the generation of community solidarity. The development of the Yaya-Mama Religious Tradition coincided with the cessation of village fissioning, and inaugurated a long interval of continuous village growth, and the establishment of a system of stable, sizable villages on the Taraco Peninsula.

THE GROWTH OF STABLE VILLAGES

The last documented instance of village fissioning on the Taraco Peninsula took place around 800 BC. This was the fissioning of Sonaji (T-271), described above. From that moment on, the existing villages continued to grow throughout the Middle Formative without fissioning or relocating. This fact would seem to indicate that by early in the Middle Formative mechanisms/institutions/practices were developing to deal with the stresses and pressures that arise in large, permanent villages (Carneiro 1987; Johnson 1982). This development represents a significant evolutionary milestone.

It is important to recognize that there is nothing necessary or inevitable about the cessation of village fissioning. In many archaeological early village sequences village fissioning apparently goes on forever, at least until local autonomy is ended

by conquest by a foreign power. Such was apparently the case with the Wankarani culture in the La Jolla vicinity (McAndrews 2001).

The Yaya-Mama Religious Tradition has been defined by Karen Chávez (1988) by the more or less simultaneous appearance throughout the Titicaca Basin of the following traits: 1) the sunken court architectural form, sometimes associated with more or less elaborate enclosures of above-ground rooms, 2) the appearance of pedestal-based, hyperboloid ceramic burning bowls, or *incensarios*, 3) the appearance of ceramic "trumpets," 4) the development of a Basin-wide style of stone sculpture (Figure 8.7). To these I would add a fifth trait: the appearance of an assemblage of decorated serving bowls. All of these items share a strong spatial association, at least within Late Chiripa sites. That is, stone sculpture, incensarios, trumpets, and decorated ceramics all seem to be strongly associated with sunken court structures, and to be largely absent from domestic midden contexts. This strongly supports Chávez's interpretation of all of these items as comprising an integrated assemblage of ceremonial artifacts and spaces, all employed in the enactment of public ritual.

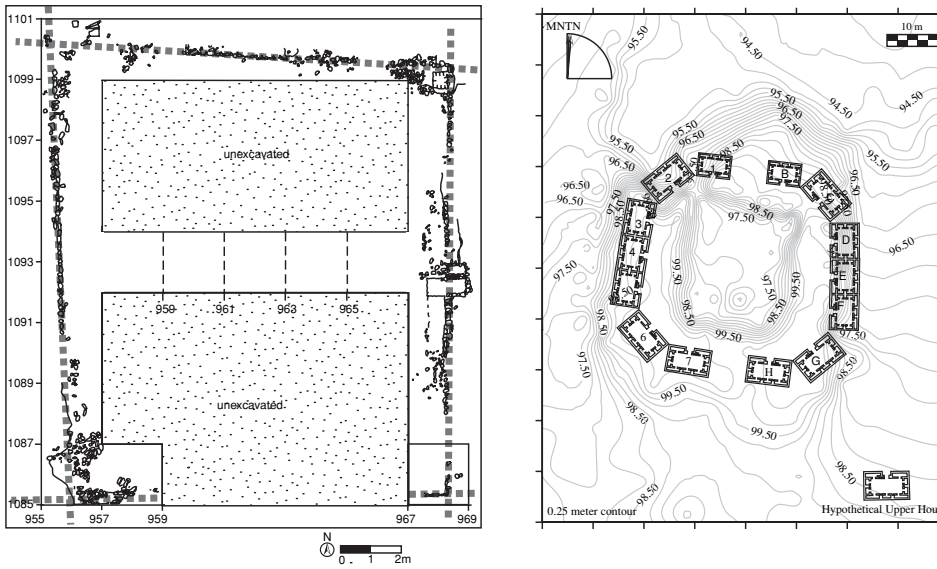
The earliest indication we have of the development of this complex of ritual items appears in the Middle Chiripa phase. At that time we see the introduction of decorated serving ceramics, heretofore absent, and the construction of the first public architectural features, exemplified by the Choquehuanca structure at Chiripa. These Middle Chiripa ceramics and structures were probably the product of early experimentation, which was not entirely successful, as is shown by continuing village fissioning through the beginning of the Late Chiripa phase. Early in the Middle Formative, however, the developing complex of public ceremonialism and its associated ideological forms crystallized and was to endure for more than five hundred years, though with continual modifications and adjustments.

The internal development of the Yaya-Mama Religious Tradition is attested by a gradual and continuous increase in the elaboration and scale of public architecture on the Taraco Peninsula during the Middle and Late Chiripa phases. Our understanding of this process derives primarily from the work of TAP and others at Chiripa, and for this reason the following discussion primarily concerns the Chiripa architectural sequence. A somewhat different version of this sequence has previously been presented by Hastorf (2003).

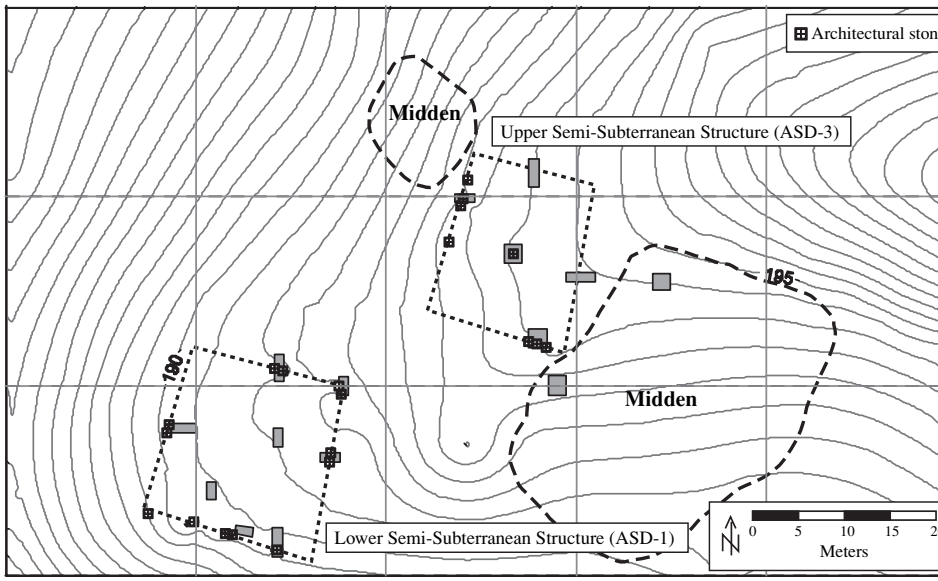
CHIRIPA PHASES AND STRUCTURES

Middle Chiripa: The Choquehuanca Structure

During the Middle Chiripa phase—and probably early in the phase—a sunken court was constructed in the area of the site we refer to as Santiago (Figure 8.6a). This court, which we call the Choquehuanca structure, was cut through Early and Middle Chiripa fill. Its walls were lined with unworked cobbles and plastered with yellow clay (Dean and Kojan 1999). It had a prepared clay floor. In plan, the structure is trapezoidal, wider to the south than to the north. It is approximately 14×14 m (Hastorf et al. 2001), and has a shallow niche in the eastern wall (Dean



a) b)



c)

Figure 8.6. Early and Middle Formative sunken court architecture from the Taraco Peninsula. (a) Choquehuanca Structure, 1000 BC, Chiripa. (b) Upper House Level, 380 BC, Chiripa. (c) ASD-1 and ASD-3, Achachi Coa Kkollu sector (T-225), Kala Uyuni.

Figure 8.7. Late Chiripa "lightning stone" from sunken court ASD-3, Achachi Coa Kkollu sector (T-225), Kala Uyuni.

and Kojan 1999: figs. 10–11). It should be emphasized that this is the earliest example of corporate architecture known from the Titicaca Basin and anticipates two thousand more years of sunken court construction.

The Choquehuanca structure probably reflects early experimentation with public ceremonialism and ritual in the context of expanding communities, escalating intra-village conflict, and rising costs of community fissioning and relocation. At the time it was constructed, the first decorated serving ceramics also appeared, in the form of the very rare Middle Chiripa Red-on-Cream bowls (Hastorf et al. 2001; Steadman 1999). However, the full complement of the Yaya-Mama Religious Tradition was not to crystallize until the beginning of the Late Chiripa phase, several centuries later.

Late Chiripa 1: The Llusco Structure

Toward the beginning of the Late Chiripa phase the Choquehuanca structure was abandoned and gradually filled with a Late Chiripa domestic midden (Hastorf et al. 2001). At this time another sunken court structure was constructed in the Llusco area (Hastorf et al. 2001; Paz Soria 1999). This structure measured approximately 13×11 m. The walls, like those of the Choquehuanca structure, were made of unworked alluvial cobbles set in a mud mortar. The structure had a prepared

floor of compact white clay, and a subterranean drainage canal was found in the northwest corner, the earliest example of a drainage feature associated with a corporate construction in the Titicaca Basin. It was abandoned in approximately 600 BC. There are no indications of associated surface structures, though these would almost certainly have been destroyed by modern plowing. The artifacts associated with this structure include trumpets, decorated serving vessels, and pedestal-base burning bowls, indicating that the full material expression of the Yaya-Mama Religious Tradition had by this time emerged. However, the structure itself is no more elaborate than was the earlier Choquehuanca structure.

Late Chiripa 1: The Lower House Level

The third public architectural phase at Chiripa is what Kidder called the Lower House Level (Kidder 1956; for a detailed discussion of pre-TAP excavations at Chiripa see Bandy 1999a). Before the 1996 excavations of TAP, this phase was known only through the 1955 excavations of Kidder and Bolivian archaeological pioneer, Gregorio Cordero Miranda. They—or rather, William Coe, the actual excavator—uncovered the remains of two fieldstone structures below the location of Bennett's Upper Houses 2 and 3, on the northwest corner of the mound. The details of this excavation have never been properly published, though the structures seem to have been constructed of alluvial cobbles, as were the Upper Houses. In the 1996 TAP excavations, in a level stratigraphically below the Upper House Level, I located the remains of at least three Lower House Level structures. These three structures (see Bandy 1999b) were constructed primarily of adobe—encountered as both bricks and as tapia, or puddled adobe—and were superimposed one on top of another. The walls of one of these structures were covered with a thin wash of red clay, and the finds of small bits of red plaster on other floors suggest that this was the case with the other structures, as well.

These three Lower House Level structures were built one on top of the other, the upper portion of the existing structure being destroyed in order to make way for the walls of the new one. The resulting rubble was used to create a platform for the construction of the new structure. Apparently, the abandonment of one floor and the construction of another was accompanied by a specific ritual practice. First, a thin cap of fill—generally derived from midden or other cultural deposits, in one case sterile sand—was placed over the old floor. On top of this fill level, a fire was kindled. Evidence of fire is present on top of the fill levels covering at least six of the eight floors in the sequence. For the moment, we interpret these burning events as elements of a standardized ritual practice associated with the closing or "killing" of an old floor, and the construction or opening of another. Immediately following the termination of this "burning ritual" a new floor was constructed of clean yellow clay. The floor was placed immediately on top of the ash deposit resulting from the burning episode. This cycle was repeated at least eight times in the sequence of structures, and would seem to indicate a long-term ritual use of the mound area long before the construction of the Upper House Level.

The earliest of these three structures was constructed in approximately 600 BC, and the last was abandoned in approximately 400 BC (Bandy 1999b). This is

based on a series of seven radiocarbon dates taken from the Lower House Level sequence (reported in Whitehead 1999). It appears, then, that the Lower House Level structures were occupied for approximately two hundred years. Given this fact, and the fact that there are eight floors in the sequence, we can suggest that the proposed "burning ritual" (the replacement of a floor, and at times an entire structure, with another) took place at approximately 25-year intervals. The correspondence of this figure with the length of human generations would seem to be more than mere coincidence, and I propose, though I am unable to demonstrate this, that the reconstruction of these special-purpose structures was associated with generational succession; perhaps with the death of one leader and the naming of another. It should be noted that the wide error ranges of the dates in question make it impossible to have total confidence in this scenario. It remains, nevertheless, an intriguing possibility. Since there are various Lower Houses, probably arranged in an enclosure around a sunken court, as suggested by Browman (1978: 808), this would in turn imply that each structure was associated with a lineage or kin group, and that the "burning ritual" took place at the time of the death of a lineage elder or leader. As I have stated, this interpretation is entirely speculation. However, it is interesting in terms of later developments at the site.

Late Chiripa 1: Alto Pukara

I argued earlier that the small Middle and Late Chiripa village of Alto Pukara (T-430) resulted from the fissioning of Chiaramaya at 1000 BC. The site comprises a series of low terraces rising up form the lacustrine plain to just below the modern road. Robin Beck (2004) excavated at Alto Pukara because the uppermost of these terraces appeared on the surface to contain a sunken court. Rather than a sunken court, however, Beck encountered the remains of two rather elaborate stone chambers built upon a low platform. These chambers were clearly not domestic in function, and proved to be roughly contemporary with the Llusco structure and the Lower House Level structures at Chiripa (that is, between 800 and 400 BC).

Drawing on the work of Levi-Strauss and others, Beck has argued persuasively that these structures can be interpreted as the physical manifestations of social "houses"—corporate land-holding groups integrated by shared descent and ritual practice. His interpretation is entirely compatible with my own interpretation of the Lower House Level structures, and emphasizes in a useful manner that the mechanisms of social integration that allowed the growth of large, stable villages in the Late Chiripa phase were not only cultural and ceremonial in nature, but social as well. That is, larger villages were most likely characterized by more intricate social structures (Carneiro 1987) involving multiple corporate groups related in a heterarchical manner.

Late Chiripa 2: The Upper House Level

After the final abandonment of the uppermost structures of the Lower House Level, a thick layer of intentional fill was placed over their remains, creating a roughly level earthen platform. This is the first example of true platform architecture at

the site. It should be noted, however, that there were no true "mounds" on the Taraco Peninsula until the Late Formative Period. The Chiripa mound in the Middle Formative was more properly a monumental terrace. That is, it was a large, roughly level terrace, the upslope side of which was at ground level. As the terrace is located on a slope, however, and since the structure was approximately 30 m from north to south, the downslope side of the terrace was probably elevated 2.5 to 3 m above the natural ground surface. Browman recognized that the Upper House level platform is located on a terrace and not on a true mound, stating, "The temple was placed in the center of a larger mound . . . The larger mound measures 50 m on a side; three sides on a downhill slope were faced of and revetted with a fieldstone wall up to 3 m high" (Browman 1981: 414). This was still an imposing structure when viewed from downslope, and would have required steps or a ladder to climb the facing wall. Moreover, these structures were built to be viewed from downslope. In every well-preserved case the terrace is located in the highest part of the site, with the bulk of the habitation areas located downslope.

On top of this monumental terrace, the Upper House Level structures were built. This almost certainly took place relatively soon after the abandonment of the Lower House Level structures, or sometime around 400 BC. The Upper House Level complex was first discovered by Bennett, who excavated Houses 1 and 2 (Bennett 1936; see Figure 8.6b for excavation locations on the Chiripa mound). Other houses were subsequently excavated by Portugal Zamora (Portugal Zamora 1940; Portugal Ortíz 1992) and by Kidder (1956). The houses excavated by Bennett have proven to be representative of all of the Upper Houses so far discovered; they seem to be highly standardized.

The Upper Houses are rectangular structures made of rounded cobbles set in a mud mortar. The plan of the structures is unique, and may be appreciated on Figure 8.6b. The structures are all double-walled, with an empty "bin space" between the inner and outer walls. The bins were partitioned by a series of short crosswalls connecting the inner and outer walls of the structures. Access to these bins was through elaborate windows or niches, decorated with molded plaster step-fret motifs on their upper corners. The houses were colorfully plastered in red and yellow, as were the Lower House structures, and were almost certainly thatched with *totora* reeds. Apparently at least a part of the courtyard enclosed by the structures was also surfaced with colored clay. Under the floors of at least some of the structures were found numerous human burials (13 in the case of House 2 [Bennett 1936: 432–433]; none in House 1), frequently accompanied by wealth items including gold and copper objects. Also uniquely, the Upper Houses seem to have been equipped with sliding doors. To one side of the principal entryway of each structure is a deep, narrow groove which would have held a recessed panel, probably of wood and reeds or cloth. These panels could have been pulled from the grooves to close off the entrances.

The number of houses in the Upper House complex has been the subject of some controversy. Bennett originally estimated that there were 14 (Bennett 1936); Kidder estimated 15 (Kidder 1956); and Browman (1978) went as far as 16. It is now possible to say with reasonable certainty that Bennett was in fact correct, and

the enclosure consisted of 14 structures with openings to the north and to the south (Bandy 2001: 129–131).

I would also like to emphasize that, as shown in Figure 8.6b, the plan of the Upper House complex takes the form of a trapezoid opening to the south. It is not, after all, a rectangular enclosure. This is of particular interest, since the Choquehuanca structure is also trapezoidal (Dean and Kojan 1999: fig. 10), and the Llusco structure may be, as are two sunken courts recently excavated by TAP at the site of Kala Uyuni. The trapezoidal arrangement of the Upper Houses was portrayed correctly by Karen Chávez (1988: fig. 3), though she did not remark upon it. It is also interesting since the later Enclosure 2 at Pukara is likewise trapezoidal in plan (Chávez 1988: fig. 9), yet another point of similarity between the Pukara Kalasasaya enclosures and the sunken courts of the earlier Chiripa Culture, particularly the Upper House Level complex.

The labor and care invested in the construction of the platform, the 14 structures, and probably in the sunken court in the center of the enclosure (Browman 1978) represents a substantial elaboration of public architectural space above and beyond any Lower House Level precedent, and an appreciable increment in labor investment in this realm of endeavor.

The form and function of the Upper House Level structures has been considered most systematically by Karen Chávez (1988). She argues that the fact that the "bins" in the structures take up close to half of the potential interior floor space indicates an unusual focus on storage as opposed to habitation, while the very ornate decorations and elaborate construction, together with "ceremonial" sculptural and iconographic associations, suggest a non-domestic use. I agree completely with her on these points, and would add that her reasoning has been confirmed by the very high frequencies of decorated pottery associated with mound structures relative to the quotidian contents of contemporary domestic middens. It has become clear that Bennett's original interpretation of the compound as a circular village—a view subsequently echoed by Kidder and Browman (Browman 1981: 414; Kidder 1956)—is untenable. The Upper Houses are not "houses" after all. Chávez suggests rather that the Upper House complex as a whole represents a "temple-storage complex" (Chávez 1988: 25).

I agree with Chávez's assessment, and would add to her observations that the architecturally redundant nature of the Upper House complex (multiple nearly identical structures, symmetrically arranged) seems to suggest that the structures and the activities which were carried out in and around them represent a segmentary social structure. That is, each structure would be associated with a lineage, kin group, or other kind of social segment of the village—a "social house" in Beck's terminology. If this is in fact the case, then it is interesting to observe that while the Upper Houses themselves are all basically identical, they differ in the number and in the richness of their associated burials. Upper House burials were excavated by Bennett (Bennett 1936), by Portugal Zamora (Portugal Ortíz 1992), and possibly by Kidder and Cordero Miranda in House 5 (Layman and Mohr 1965: table 10.1). Thus some structures have more burials than others, and some have none at all. The burials from some structures contain more wealth items than burials from

other structures. If the structures were indeed associated with different lineages, corporate groups, or "houses" then this seems to indicate that leaders and their constituencies had begun to differentiate, with some commanding more wealth, labor, prestige and authority than others.

MULTI-COMMUNITY POLITY FORMATION

One of the major regularities in certain prehistoric evolutionary sequences worldwide, particularly in those sequences culminating in state formation and the emergence of class-divided civilizations, is the formation of multi-community polities. "Multi-community polity" is a term I use in lieu of "simple chiefdom," "rank society," or other staples of archaeological interpretations. I prefer "multi-community polity" for several reasons. Most importantly, the term maintains a significant neutrality as to the precise nature of the political system under discussion. It is my contention that there are many kinds of political organization that can permit regional political and economic integration. Some of these may entail the emergence of a hereditary ruling class, while others may maintain a considerable degree of political equality. We are often incapable of distinguishing the finer points of political organization in prehistoric societies. The term "multi-community polity" focuses our attention on the fact of primary importance: that a political system has emerged that includes more than a single village, without invoking spuriously exact ethnographic parallels.

Multi-community polity formation is therefore the cross-culturally recurring process that defines the end of early village society in many regional sequences, though of course it does not occur in all early village sequences. Typically, multi-community polity formation will entail the emergence of a political center out of a pre-existing regional system of large, stable, interacting villages, such as existed during the Middle Formative on the Taraco Peninsula. Exactly this process took place during the Late Formative Period in the southern Titicaca Basin. Before considering this process in more detail, however, it is necessary to dispense with the notion of the "Chiripa polity." This entity has never existed, yet has had a remarkably substantial career in the literature of Titicaca Basin archaeology.

The "Chiripa Polity"

When considered in terms of their corporate architecture or in terms of their size and population, there is no one site which stands out clearly from the rest during the Middle Formative. In the Late Chiripa phase there were four major villages on the Taraco Peninsula, all in the 7 ha size range. These were Chiripa, Yanapata, Janko Kala, and Kala Uyuni. At least three of these sites had public architectural complexes of more or less comparable scale. No one site, and certainly not Chiripa, can be singled out as a "center" or a "capital." This directly contradicts a common assumption in the literature that — due to its supposedly elaborate public architecture—Chiripa was in some way exceptional for its time, a ceremonial

center or locus of paramount chiefly power. For example, Mathews, in his survey of the middle Tiwanaku Valley, noted that Middle Formative sites were not randomly distributed, but rather were clustered. He writes,

> . . . the Chiripa-associated sites do not appear to be random settlements, but rather suggest a higher degree of settlement organization, possibly directed by the administrative leadership of Chiripa itself. The exact nature of their control is unclear . . . Given Chiripa's manifestation of the earliest public architecture in the region, however . . . a scenario of direct contiguous control of the Tiwanaku Valley by the Chiripa polity is not outside the pale of possibility. (Mathews 1992: 68)

Stanish arrives at a similar conclusion:

> I argue that the construction of this major corporate architecture [the Upper House complex] correlated with the development of a complex chiefdom at Chiripa. (Stanish et al. 1997: 115)

Browman sees Chiripa as a center similar in principle to Pukara and Tiwanaku:

> Pukara dominated the area north of Lake Titicaca . . . while first Chiripa and later Tiwanaku dominated the area immediately south of the lake. (Browman 1981: 413)

What has become clear from the recent research on the Taraco Peninsula is that a number of other sites very like Chiripa existed during the Late Chiripa phase, and that Chiripa was in no way unique in having elaborate public architecture. The preservation of the Middle Formative architecture at Chiripa is exceptional—owing to its burial and protection by a subsequent mound construction episode—but on present evidence it seems that the architecture itself was not particularly unusual in the context of the contemporaneous Taraco Peninsula villages. Chiripa was one—not first—of many. Chiripa was not the center of a polity in the Middle Formative, or in any other period. Rather, it was one village in a regional system of autonomous villages. When Chiripa did enter into a more complex political system, as it did early in the Late Formative Period, it was as a subordinate, not as a center. There was never a Chiripa polity. If this paper accomplishes only one thing, my hope is that it will succeed in eliminating the idea of the Chiripa Polity from the Andean archaeological literature.

The Taraco Peninsula Polity

The overall settlement pattern of the Late Formative 1 (LF1) Period (the Tiwanaku I phase) evinces a remarkable continuity with the earlier Middle Formative pattern (compare Figures 8.8a and 8.3c). However, the patterns of settlement growth and population movement were entirely distinct. A true three-tiered settlement hierarchy emerged on the Taraco Peninsula for the first time in the early Late Formative 1. This was a result of the fact that Kala Uyuni (T-232/T-225), one of the four principal Middle Formative villages, more than doubled in size, to an estimated population of 901, from an estimated Middle Formative population of 361. Over the entire Late Formative 1 period, this works out to an average annual

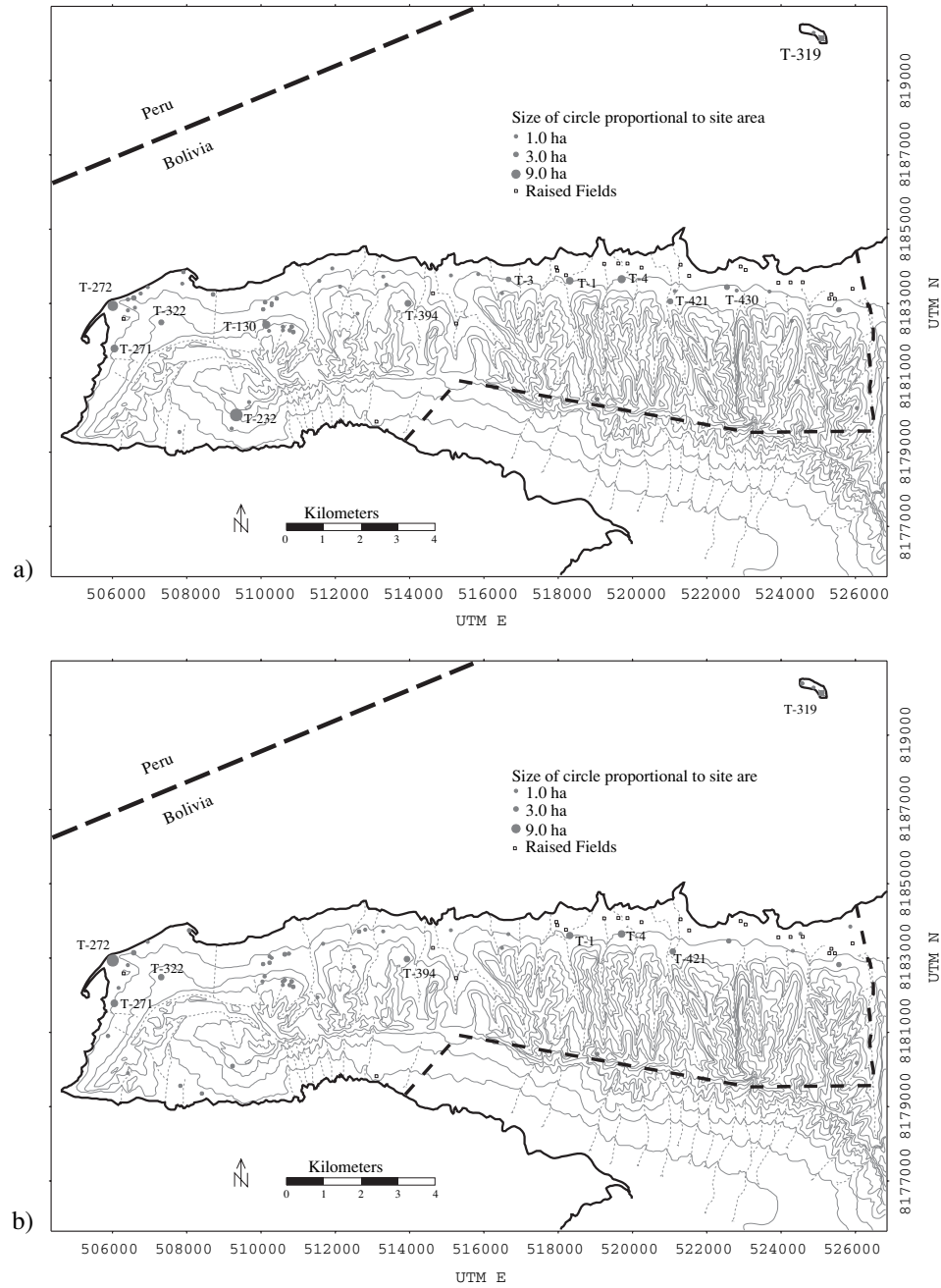


Figure 8.8. Late Formative Period settlement. (a) Late Formative 1. (b) Late Formative 2.

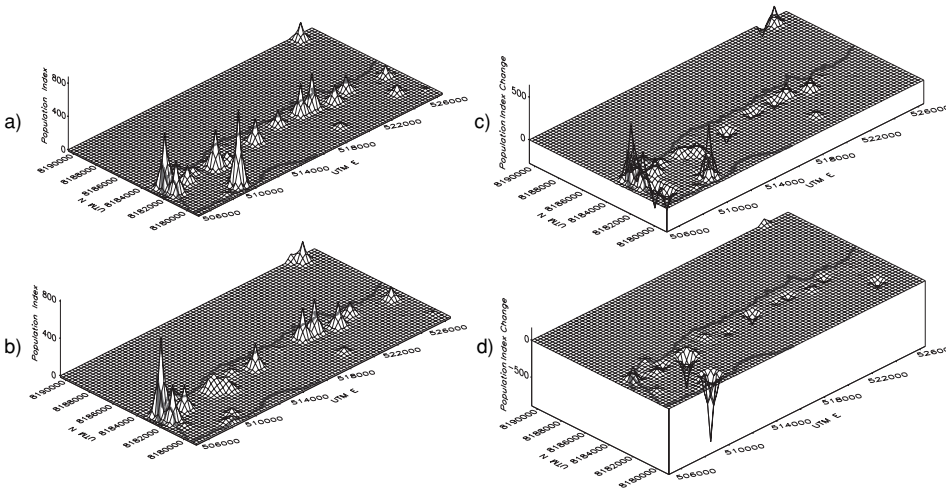


Figure 8.9. Late Formative and Tiwanaku settlement dynamics. (a) Late Formative 1 population density. (b) Late Formative 2 population density. (c) Late Formative 1 population density change. (d) Late Formative 2 population density change.

growth rate of 0.17%, more than twice the baseline population growth rate for the Late Formative 1 period. In fact, however, most of this growth probably took place over a much shorter period at a more dramatic rate. At the same time the other old Middle Formative centers all were slightly reduced in size. Chiripa (T-1), for example, shrank from an estimated Middle Formative population of 445 to an estimated Late Formative 1 population of 343, a population growth rate of approximately -0.04% per annum. This is the first period in the site's occupation history in which it lost rather than gained population. Janko Kala shrank at a comparable rate, as did many of the smaller Middle Formative sites on the Taraco Peninsula.

This pattern can be appreciated in Figure 8.9a. Kala Uyuni is evident as a large spike on the south side of the peninsula, more than twice the size of any contemporary population concentration in the area. Figure 8.9c shows the population density change in the Late Formative 1 period, and clearly shows the anomalous growth of Kala Uyuni, and the concomitant decline of the other old Middle Formative villages.

I interpret this as indicating that the entire Taraco Peninsula was unified into a single polity encompassing perhaps 100 sq kms with an overall population index value of around 5,000. I have tentatively located the eastern boundary of this polity between the sites of Chiripa (T-1) and Chiripa Pata (T-4) on the northern side of the peninsula (see Figure 8.8a). Sites to the west of this line lost population in the LF1, whereas sites to the east of this line grew normally. I interpret this difference as indicating subjugation by Kala Uyuni of the sites that shrank, and independence for the sites that grew normally.

This scenario is complicated somewhat, however, by events that took place on the western tip of the Taraco Peninsula at this time. Figure 8.9c clearly shows that not only did Kala Uyuni experience growth during the Late Formative 1 period, but that a group of sites on the tip of the peninsula also experienced growth. This group of sites includes Sonaji (T-271), Kumi Kipa (T-272), and Kollin Pata (T-322). Collectively, these sites are known as the Santa Rosa group, since they are all in the vicinity of the modern town of that name. What then was the relation between Kala Uyuni and the Santa Rosa group, both of which seem to have experienced phenomenal growth during the LF1?

I believe that we can understand Kala Uyuni and the Santa Rosa group as representing the sequential capitals of a single political entity. This interpretation is supported by a consideration of the occupation histories of all the sites in question. Kala Uyuni, for example, has a long history of occupation going back as far as the Middle Chiripa phase. The LF1, however, is the last phase in which it is a major village. In the following Late Formative 2 Kala Uyuni is reduced to a very small site covering no more than 1.5 ha with an estimated population of about 70 persons. The sites of the Santa Rosa group, however, have no Middle Formative occupation at all. Their massive Late Formative 1 occupations appear literally out of nowhere, and then persist into later phases. All of the sites of that Santa Rosa group continue to be major sites in the Late Formative 2 period (Figures 8.9b, d) and into the Middle Horizon. It is therefore entirely plausible to hypothesize that at some point late in the Late Formative 1 phase the site of Kala Uyuni was largely abandoned, the vast majority of its population relocating to the new sites of the Santa Rosa group. These sites collectively became the new capital of the polity formerly centered at Kala Uyuni. Since this polity seems to have had two sequential capitals, and is not identified with a single central site for its entire history, I have decided to term it the Taraco Peninsula Polity.

The emergence of the Taraco Peninsula Polity seems to have coincided with the emergence of multi-community polities throughout the southern Titicaca Basin. At roughly the same time the site of Tiwanaku was first occupied in a substantial way, and came to be the capital of its own eponymous polity, eventually to dominate the entire Titicaca Basin and South-Central Andes. During the Late Formative 1 period, however, the Tiwanaku Polity was probably similar to or smaller than the Taraco Peninsula Polity, and the two were most likely competitors. Other polities emerged at roughly the same time in the southern and northern Ccapia areas (centered at the sites of Kanamarka/Lakaya and Ccakachipata, respectively), and in the Upper Tiwanaku Valley (centered at Kallamarka, probably).

CONCLUSION

The Taraco Peninsula of the southern Titicaca Basin presents an important early village sequence in terms of social evolution. This sequence begins with the establishment of a system of autonomous, sedentary, and at least partly agricultural villages around 1500 BC. There followed a period of some 700 years in which

these villages grew to a certain size and then fissioned, probably due to scale-related internal conflict. These villages were very simple, with no evidence for formalized public ritual activity, institutionalized status competition, or complex social structure. The village fissioning threshold at this period appears to have been in the range of 170 persons.

At around 1000 BC village fissioning became more difficult due to heightened social circumscription of the Taraco Peninsula villages. It is at this time that we see the first experimentation with formal ritual activity and public ceremonialism, in the form of the Choquehuanca structure at Chiripa. This sunken court, constructed around 1000 BC, is the earliest known example of this quintessential Titicaca Basin public architectural form. While at least one further village fissioning event is known to have occurred after the construction of the Choquehuance structure, the village fissioning threshold appears to have increased to more than 250 persons.

At 800 BC two things happen at once. First, a formal tradition of religion and public ceremonialism emerges that comes to spread throughout the entire Titicaca Basin. This is the Yaya-Mama Religious Tradition, a complex and integrated set of ritual and practice with associated material paraphernalia that emerged from the early experimentation documented at Chiripa. Second, the villages of the Taraco Peninsula ceased fissioning and began a period of uninterrupted growth that was to continue for more than 500 years. During these five centuries of the Middle Formative Period, the Taraco Peninsula villages grew to sizes that would have been unimaginable prior to the appearance of the Yaya-Mama Religious Tradition. I argue that the Taraco Peninsula sequence constitutes powerful evidence for the integrative function of public ritual activity and its ability to reduce, resolve, or redirect conflict within the village. The Yaya-Mama Religious Tradition can therefore be thought of as a kind of social technology that allowed the establishment of a system of large stable villages in the Middle Formative Period.

The early village period was finally brought to an end by the formation of a multi-community polity on the Taraco Peninsula around 250 BC. The formation of this polity is evident in the rapid growth of the site of Kala Uyuni, and the simultaneous shrinking of the other old villages of the peninsula. The formation of this polity, and of other contemporary polities centered at Tiwanaku, in the southern and northern Ccapia areas, and perhaps in the Upper Tiwanaku Valley, inaugurated a centuries-long period of political consolidation, as well as heightened regional interaction and exchange, that culminated in the formation of the Tiwanaku State sometime in the 4th or 5th centuries AD. By that time, however, the autonomous villages of the old Taraco Peninsula had been long forgotten.

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Chapter **9**

The Emergence of Complex Society in the Titicaca Basin: The View from the North

Aimée M. Plourde and Charles Stanish

INTRODUCTION

The Titicaca Basin straddles the modern countries of Peru and Bolivia and represents one of the great areas of prehistoric cultural evolution on the globe. While it is common to view the Andes as a culturally-unified whole, the reality is that there were three very distinct cultural, geographical, and linguistic regions in the Andes in the 16th century where these state societies developed (Figures 9.1, 9.2). These regions corresponded to the general areas of Wari, Moche, and Tiwanaku state expansion in the late Early Intermediate Period and Middle Horizon where proto-Quechua, Mochic, and Jaqi languages dominated respectively (Browman 1994; Mannheim 1991; Stanish 2001). In short, the Titicaca Basin, where Jaqi or proto-Aymara was dominant and was most likely the language of the Tiwanaku state (see Janusek 2004 for a fuller discussion), represents one of the great areas of first-generation state development in world.

In areas where first-generation states developed without much influence from neighboring areas, such as the Titicaca Basin, we can study the processes by which complex society emerges. The term "complex society" is of course controversial. We reject totalizing notions of cultural evolution and instead see the evolution of complex society as confined to political and economic organization. Cultural complexity is defined as a process of increasing heterogeneity in economic and political organization with craft specialization, proliferation of political and social statuses, creation of economies of scale and so forth as the key indices of complexity. Evolution is likewise not stepwise nor unidirectional. Political and economic organizations become increasingly more heterogeneous as well as becoming more homogenous with some frequency (see Marcus 1992 for a discussion of cycling in complex societies). It is critical to note that other aspects of human culture do not evolve in this way. The evolution of complex society can therefore be measured by the increase or decrease in the differentiation and heterogeneity of political and economic lifeways (Plourde 2006; Stanish 2004).

In this paper we examine this critical question in anthropological archaeology—the emergence of politically and economically complex societies—with information from the Titicaca Basin. We will show that while our knowledge of this cultural

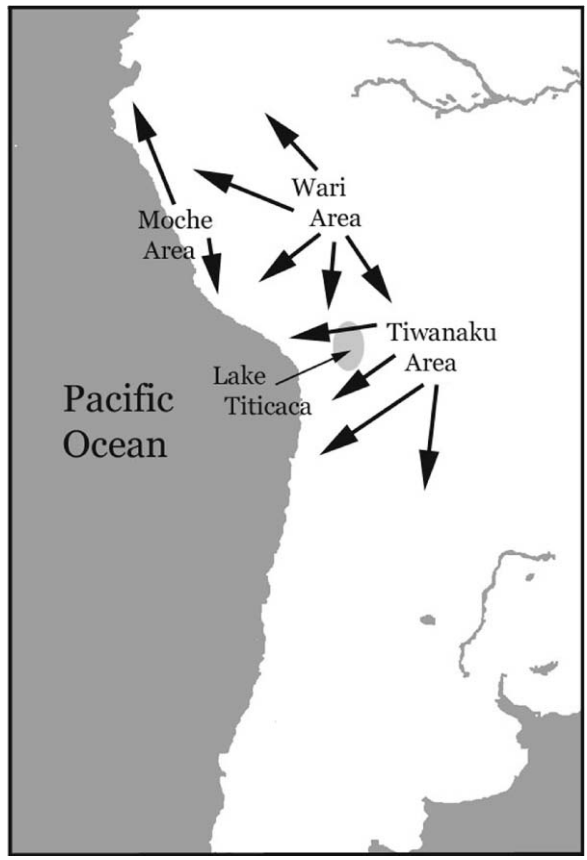

Figure 9.1. Early states in the Andes.

process in this area of first-generation state development is simultaneously scarce throughout the region as a whole, there are pockets of intensive research that have provided crucial data. While excellent work has been done in the last one hundred years in the region, we are still far from an understanding of this process to the degree that exists in Mesoamerica and Mesopotamia.

On the other hand, we will demonstrate that archaeologists have made great strides in framing the question in testable terms in the Titicaca Basin. New empirical work by scholars such as Christine Hastorf, John Janusek, Alan Kolata, Carlos Lémuz, Sonia Alconini, Matthew Bandy and others in the south, plus work by scholars reported on here in the north Basin, have eliminated previously viable explanations and have pointed us in new directions. We will assemble data from survey and excavations by our colleagues that allow us to frame and reorient the issue of the emergence of complex society in the northern Titicaca Basin. In short,

Figure 9.2. Map of the Titicaca Basin.

we focus on the first sedentary, complex societies in the Titicaca Basin—Qaluyu and Chiripa—that emerged in the first half of the second millennium BC.

EARLY COMPLEX SOCIETY IN THE TITICACA BASIN

During the 6th through 11th century AD, the urban center of Tiwanaku grew into the capital of only one of three indigenous states in South America, and one of the few in the world (Janusek 1994; Kolata 1993; Ponce S. 1995; Stanish 2001, 2003; Stanish et al 2002 Vranich 1999). This period, known variously as the Middle Horizon, the Tiwanaku Expansive Period, the Tiwanaku Period (and so forth) represents the highest expression of political and economic organization in the circum-Titicaca Basin until the Inca state invasion of the 15th century. The period immediately prior to the apogee of Tiwanaku as an expansive state is known variously as the Early Intermediate Period, the Upper or Late Formative Period, Qeya in the south, and Pucara in the north. We prefer the term "Upper Formative" for this time period for the Titicaca Basin as a whole, recognizing the extreme variability in local sequences at the same time. The period prior to the

Upper Formative, defined as the Middle Formative (Stanish 2003), is the time in which the first politically and economically complex societies developed in the circum-Titicaca Basin and is the focus of this paper.

As defined above, the first Middle Formative complex societies in the Titicaca Basin are locally known as Chiripa and Qaluyu. We have known for years (Rowe 1956; Lumbreras 1974; Kroeber 1939, Valcárcel 1925, 1932, 1935, 1938) that the earliest complex societies in the Titicaca Basin developed roughly in tandem in the far south and far north of the lake area. The far northern Titicaca Basin today and in the 16th century was home to Quechua-speakers with a smaller mix of Pukina- and Aymara-speakers. This is the core area of the Qaluyu culture. The far southern Titicaca Basin today and in the 16th century was the heartland of Aymara-speakers. Two other minor languages—Pukina and Uruquilla-Chipaya—were also spoken in the Desaguadero River drainage to the south toward Lake Poopó. This is the area of Chiripa culture. The work of Wendell Bennett (1936), Alfred Kidder II (1956) and Carlos Ponce S. (see 1995 for a review) established the site of Chiripa, located on the Taraco Peninsula, as the icon of pre-Tiwanaku archaeology.

This cumulative work produced a number of chronologies for both regions, a result of the cultural historical or space-time systematics focus of archaeology of that era. At times, these sequences were inconsistent in terminology. Some of the periods were, and continue to be, huge blocks of time and often the absolute dates did not match. We continue to refine our chronologies with new data and interpretations. The chronology that we use is a dual one, with several absolute phase sequences for various parts of the Titicaca region (over 50,000 sq kms in size) that exist parallel to a stage designation chronology. The stage chronology reflects the political and economic structure of the most dominant societies in the Basin at the time (Figure 9.3) and has proven to be an effective regional chronology and a viable substitute for the Ica sequence chronology used in the central Andes (see Stanish 2003).

CHIRIPA AND THE SOUTHERN TITICACA PRE-MIDDLE HORIZON CULTURES

The site of Chiripa was first excavated by Bennett in his 1933–1934 season in Bolivia. The large number of monoliths at this otherwise small, hacienda-owned and protected site was indeed impressive. This fact plus Bennett's status as one of the premier Andean archaeologists at the time served to push Chiripa as representative of the earliest complex societies of the southern Titicaca region. Later on, Alfred Kidder II and Michael Coe worked at the site as well, defining their own chronologies (e.g., Kidder 1956). Work in the 1980s and 1990s at related sites by a number of scholars, including Juan Faldín (1990, 1991), Max Portugal Ortiz (1988a, 1988b, 1991, 1992), Marc Bermann (1994), Alan Kolata (1993) and others reinforced this view of the primacy of Chiripa as the type-culture for the pre-Tiwanaku periods. The Chiripa phenomenon figures prominently in the

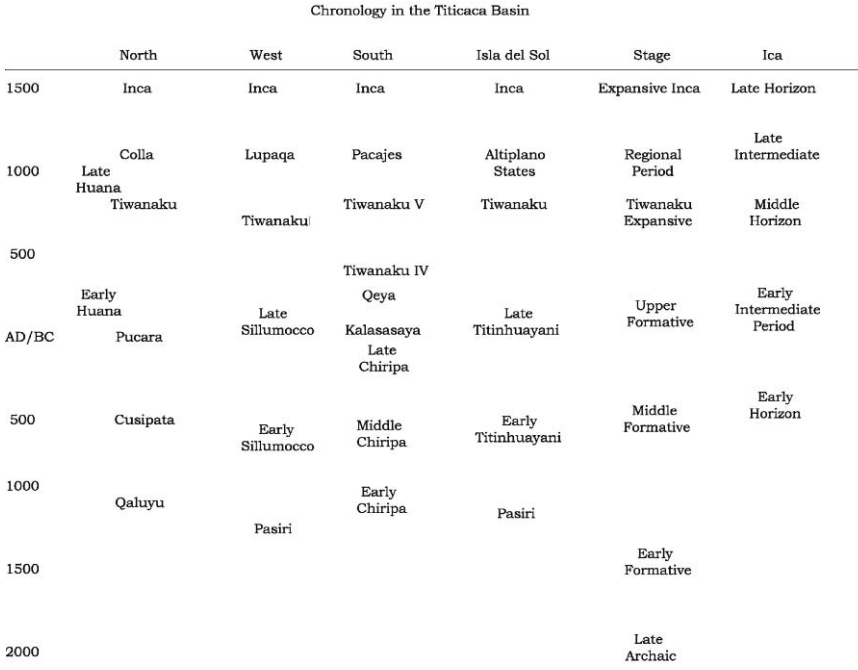

Figure 9.3. Chronology of the Titicaca Basin.

modern syntheses of Andean prehistory by Luis Lumbreras (1974) and Michael Moseley (1992: 145–148).

Bennett's work revealed a sequence of three or four levels, the first of which he called "Pre-mound." These stratigraphic levels corresponded to the natural contours of the hill. This indicates that this occupation was not characterized by any type of corporate construction that modified this area near the lake. Bennett (1936: 430) found evidence of domestic occupation, including "rough stone walls . . . , ash beds, stones, fish, animal and human bones, and pottery fragments." These limited data suggested an agglutinated village on a low hill above the lake.

The second set of strata that Bennett grouped into a single cultural period was characterized by a "circle of houses" with a diameter of approximately 32 m (Bennett 1936: 430). These houses were built on an artificial "ridge" that was "built specifically for the houses." This occupation was ultimately destroyed by fire with the old surface covered with adobe bricks. This event left a low mound with a slight depression in the center (Bennett 1936: 431), perhaps the first sunken court at the site in this relatively early period (Stanish 2003).

Alfred Kidder and Michael Coe enlarged upon Bennett's work at the site with brief excavations in 1955, with the goal of gaining more information on the houses he had discovered (Kidder 1956: 144). In addition to obtaining more detail on the plan of the circle of houses, Kidder and Coe uncovered a set of houses lying

underneath those found by Bennett, and beneath this "Lower House Level" an earlier level of occupation, which they termed the "Sub-Lower House Level." This lowest level may correspond to Bennett's "Pre-Mound" strata, or may have been construction fill for the Lower House Level structures (Bandy 1999a: 14); unfortunately excavation into the lowest level was very limited and the results of the excavation were not fully published. The map of the houses and a description of the excavations were published by Karen Mohr Chávez (1988).

Chávez renamed Kidder's and Coe's levels as Early, Middle, and Late Chiripa. She assigned to Early Chiripa a date of 1400–900 BC and suggested that the Middle Chiripa dated to 900–600 BC (K. Chávez 1988: 18). The Early and Middle Chiripa occupations at the site, corresponding to Bennett's Pre-mound and House phases, represent the Middle Formative Period occupation in the general chronology utilized here. The Middle Formative is also represented by the structures discovered by Kidder and Coe below Bennett's House level.

The most recent work at the site has been directed by Christine Hastorf and represents a qualitative increase in our understanding of this important site. The meticulous work of the Taraco Archaeological Project provides us the best excavation data from any comparable site in the Titicaca Basin to date. Hastorf et al. divide the sequence into Early, Middle, and Late Chiripa as well, revising the dates listed above. Systematic surface collection data by Matthew Bandy indicate a scatter of Chiripa pottery over 7.5 ha at its height (Bandy 1999b). As he describes it, this latest work at Chiripa "firmly establishes the existence of large-scale, nucleated habitation at least by the Late Chiripa phase" (Bandy 1999b: 26). Hastorf's project provides us with revised dates (reported by Whitehead 1999): Early Chiripa at 1500–1000 BC, Middle Chiripa at 1000–800 BC, and the early part of Late Chiripa. Late Chiripa is dated by Whitehead to 800–100 BC.

Hastorf's team discovered a very important semi-subterranean structure 200 m south of the main mound (where Bennett, Coe, and others had excavated previously) that dated to 800–750 BC. In the theoretical framework adopted here, such structures are indicative of political and economic complexity (and see Stanish 2003, 2004). The Llusco structure, as they term it, is a semi-subterranean construction with a plaster floor. It measures approximately 11×13 m. The walls are constructed with "rounded cobbles and clay." José Luis Paz Soria (1999) further reports the existence of a "drainage canal, an attached wall, and the presence of a new floor in the interior." Presuming the presence of an adobe superstructure (Paz Soria 1999), the Llusco structure would have been an impressive construction. It would have been almost 150 sq m in size, sunken partially into the earth, with plaster walls that may have been painted, a subterranean drainage system, and a well-made white plaster floor. The Llusco structure represents one of the earliest such structures known in the region and, as such, indicates some of the earliest evidence of political and economic complexity.

It is significant that Hastorf reports at least one, and possibly two more of these structures at Chiripa that are either contemporary or even earlier than the Llusco structure (Hastorf 1999). Each of these is about 13 m on a side, square, and semi-subterranean. It is a reasonable hypothesis that there are other similar structures at

Chiripa, and at other Middle Formative sites in the region, as has been confirmed by Robin Beck in his excavations at Alto Pukara, and Matthew Bandy in his survey of the Taraco Peninsula.

Bandy discovered several sites along the Peninsula dating to the Middle Formative that contained public architectural complexes (Bandy 2001: 128), and in fact his data suggest an increase during the Middle Formative in the elaboration and scale of public architecture (Bandy 2001: 139). At this time Chiripa constituted only one of four principal villages located on the Peninsula, which collectively constituted the first of a two-tier settlement size hierarchy. While none of the other Formative sites had yet been excavated, Bandy hypothesized it unlikely that Chiripa was unique in its possession of corporate architecture. He notes that several of the larger sites, including Yanapata and Achachi Coa Kkollu, have monumental terraces very similar to the one at Chiripa upon which the house complex is located, and the presence of many large, shaped stones that would suggest architecture. Several of the second tier sites also have terracing.

Beck conducted excavations in 2001 at one of these sites, Alto Pukara (2004a). While the terrace at this site is smaller than that at Chiripa, approximately 20 × 20 m, he discovered a pair of structures arrayed on either side of an open plaza located on top of the terrace. He interprets these structures as being similar in construction and function to the Lower Houses at Chiripa (Beck 2004b: 330), first discovered by Kidder and Coe (Kidder 1956; see also Chávez 1988) but excavated in much greater detail by Bandy (1999c). The structures at Alto Pukara were contemporaneous with those at Chiripa and very similar to them in numerous ways, including the presence of niches that may have been used as ritual storage facilities, following Chávez's (1988: 19) interpretation, and the presence of a red-floored patio area (Beck 2004b: 334). Beck's excavations confirm the presence of ritual architecture at other sites within the region as well. This suggests that while Chiripa was very likely well-integrated into Middle Formative political landscape, it was by no means the only location in the area where such process was occurring.

What is Chiripa?

The word "Chiripa" is confusing. It is at once an archaeological site, a type site, a time period, a ceramic and art style, a culture, an archaeological horizon marker, and an icon of Bolivian prehistoric science. Because Qaluyu holds a similar status in the north, it is necessary to examine the significance of the Chiripa "concept" given our new data of the last decade or so. The site of Chiripa itself is of course an extremely important site and is the best-excavated pre-Middle Horizon site in the southern Titicaca Basin. Until the last generation, however, Titicaca Basin archaeology was largely conducted without regard to regional considerations[1]. Sites were excavated, pottery styles described, and cultures created largely from single-site excavations. This paper is not the arena to discuss the problems inherent in the "type-site" concept, but suffice to say that both Chiripa and Qaluyu embody all of the problems associated with that concept. As a result, sites like Chiripa and

Qaluyu took on an importance far larger than their actual size or complexity would allow given the regional data base that we now have.

An example is the survey by Bandy (2001) who discovered a number of contemporary settlements as large as or larger than Chiripa on the Taraco Peninsula. Settlement size alone is not necessarily an indicator of importance. However, the degree to which the size of the settlement is commensurate with the population, and the degree to which larger settlements have corporate architecture, reflects the degree to which they are central in the political and economic landscape of any region (see papers in Billman and Feinman 1999; Wright 1994).

The site of Lukurmata is likewise massive compared to Chiripa, almost certainly the major settlement on the Taraco Peninsula at the time far dwarfing Chiripa as a political and economic center (Bermann 1994; Stanish 1989). There is a large Chiripa period occupation at Lukurmata, and it is likely that the present sunken court found at the top of one of the hills had antecedents in Chiripa. We also know that the site of Tiwanaku has a substantial pre-Tiwanaku (i.e., before approximately AD 400–500) population making it possibly the largest site in the region. In short, at its apogee, the site of Chiripa was merely one of a number of large, architecturally-complex settlements around the southern Titicaca Basin.

The importance of Chiripa lies more with the fact that the monoliths at the site were protected by a hacienda owner and that this owner permitted a distinguished archaeologist to excavate and record the data from the site at a critical "formative" juncture in Bolivian archaeology. The simple fact is we do not know where the principal Chiripa settlement was during the height of the Chiripa phenomenon circa 500–100 BC or after, up to the beginning of Tiwanaku IV. Candidates include Tiwanaku, Pajchiri, Lukurmata, Khonko Wancané, sites discovered by Bandy on the Taraco Peninsula, and a slew of sites still unworked in the Huatta Peninsula (Lémuz 2001), Koani Pampa, and Desaguadero river valley (see Janusek 2004). In fact, we do not even know if a strict hierarchical model even works for this phenomenon. Given our present data base, it is entirely possible that a heterarchical model characterized by a series of similarly sized and politically and economically equal sites existed in the southern Titicaca Basin during the immediate pre-expansive Tiwanaku periods. As we shall see, a very similar situation exists in the northern Titicaca Basin as well.

QALUYU AND THE NORTHERN TITICACA PRE-MIDDLE HORIZON CULTURES

The nature of Tiwanaku expansion into the north Titicaca Basin is vastly different from that in the south (Stanish 2003 Stanish et al 2002). The Tiwanaku settlement system north of the Ilave and Escoma river valleys is sporadic and strategically targeted at roads and sustainable areas near rivers, bays and/or potential raised field areas (and see Schultz and Sosa Alcón 2003; Cohen n.d.; Stanish and Plourde 2000). The logic of Tiwanaku expansion outside of its core area is most certainly related to interregional economic exchange, and this is most emphatically demonstrated by the survey data from the north (Plourde 2006; Stanish and Umire 2002).

In the south, Ponce sought, with a nationalist zeal equal to Posnansky, to emphasize Tiwanaku chronological primacy over Wari by incautiously labeling his early, pre-urban periods at the type site of Tiwanaku as "Tiwanaku I-III." We now know that Tiwanaku II simply does not exist separate from Tiwanaku I by any rational typological logic (Stanish 2003:165–166). If chronological periods are to have any relationship to cultural complexity and continuity, style, interregional relationships etc., then Tiwanaku I has little to do with Tiwanaku IV or V. Likewise, Tiwanaku III is better referred to now as Qeya which dates to circa AD 200–400/500, a period that represents a pre-urban, pre-expansive polity that did not produce pottery, stone sculpture or other art or architecture much related to Tiwanaku IV (see Bermann 1994; Janusek 2004; Bauer and Stanish 2001; Stanish and Bauer 2004). Therefore, the period between the Late Chiripa of Hastorf et al. that ends at 100 BC and the beginning of Tiwanaku IV around AD 500 is not culturally Tiwanaku insofar as the latter term refers to an expansive state of great political and economic complexity. This period, representing no less that five or six centuries and most profitably referred to as the Upper Formative, remains a major problem for southern Titicaca Basin specialists.

Fortunately for those of us who work in the north, this is not much of a problem. This is because this late Middle and Upper Formative time is dominated by a large site that started to produce a distinctive fancy art style by 500 BC and stopped producing such objects and architecture by around AD 300, perhaps a bit later (Mujica 1987). There was no Tiwanaku-equivalent to obscure the Upper Formative Period occupation of the area. This iconic site for the north was, and remains, the proto-urban center of Pukara mentioned as early as the 16th century by the Spanish scholar Cieza de León who visited it and immediately recognized it as pre-Inca in date (Figure 9.4). Pucara is the most complex pre-Middle Horizon site in the area and its position as the most important site has not changed in

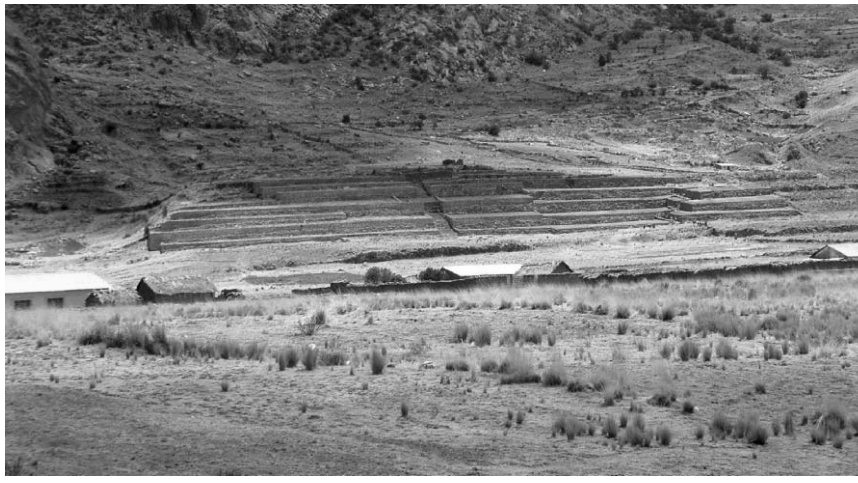

Figure 9.4. The site of Pukara.

several decades (Lumbreras 1974; Lumbreras and Amat 1968). As Kidder (1948: 89) remarked in a short review of Titicaca Basin prehistory in 1948, "It would still appear that Pucara represents one of the larger, if not the largest, center of a northern Titicaca basin culture."

Kidder's observation remains true to the present day, and recent survey research makes in highly unlikely that any site will be discovered in the northern basin that is larger than Pucara at its height around AD 200. Unlike the south, therefore, we have no Upper Formative Period "early Tihauanaco" underneath a huge urban center to "obscure" our chronology. The residents of Pucara ceased to create objects identifiable as Pucara circa AD 300–400, a century or two before the time that the people of Tiwanaku began to build a proto-urban center as complex as Pucara. They likewise ceased building bigger temples on the site and instead, the site fell into a general decline with post-Pucara occupations living in a much less complex and extensive settlement (Klarich and Pinto P. 2003). Unlike Tiwanaku, the buildings that remain near the surface of Pucara provide us with a snapshot of Upper Formative Period life in the north. In other words, we know with some certainty when Pucara stopped as a complex polity and when post-Pucara began and we have a reasonably good view of what it looked like at that time. We can not say that about the Tiwanaku area or the rest of the south Titicaca Basin. Whenever Qeya or Tiwanaku III (or whatever one wishes to call it) ends and "Tiwanaku" as an urban, state polity begins, is a typological nightmare for any sentient archaeologist working in the area.

However, like the south for the earlier Middle to Upper Formative Period transition, the Pucara culture obscures the transition between the earliest complex societies and the more complex one of Pucara itself. The site of Pucara happens to have a sequence of temples or sunken court complexes beginning many centuries before its collapse. These are associated with the Qaluyu culture and they represent the "Chiripa" equivalent in the north.

The type-site of Qaluyu was discovered by Manuel Chávez Ballón and was recognized to be a settlement with a pre-Pucara occupation early on in the course of modern archaeological studies of the Titicaca region (Rowe 1963). It was test-excavated in 1955 by Alfred Kidder II and Chávez Ballón, with carbon dates provided to K. Chávez (1977: 1022) for her synthesis of Early Horizon pottery in her dissertation. The Qaluyu type-site is a moderate-sized mound that John Rowe felt was intentionally built in the shape of a catfish, an interpretation with which we disagree on the basis of our observations and topographic mapping. The dominant culture of the north Basin is therefore known as Qaluyu. This culture traditionally dates between 1400–500 BC (Browman 1978a, 1978b,1980; Mohr 1966; S. Chávez 1992; Wheeler and Mujica 1981; Stanish 2003).

The site of Qaluyu is just a few a kms from Pucara. Its proximity to the major iconic site of Pucara certainly enhanced its status as a major candidate. Chávez Ballón, Kidder, and Rowe, among others, based upon observations at Qaluyu and at other sites in the region such as Balsas Pata (or Pueblo Libre) in Ayaviri, argued that Qaluyu represented the pre-Pucara occupation in the north. Rowe (1956: 6) described Qaluyu as a large habitation mound with refuse that covers "several acres

in extent." With at least three of the great Andeanists of their time (Chávez Ballón, Kidder, and Rowe) providing their imprimatur, Qaluyu took on iconic status.

Later on, K. Chávez (1977: 1020) worked at the site and noted that it was about 14 ha in size. As mentioned below, we calculate the Qaluyu Period site area at Qaluyu at a little more than half that size. K. Chávez mentions that "Qaluyu refuse is not present in all of that [700 × 210 meters] area." Therefore, our respective methodologies differed: we only measured the area of Qaluyu surface evidence (pottery and architecture) whereas Chávez referred to the entire site that had both earlier and later occupations. We concur that the entire site area of the site of Qaluyu, including all occupations, approaches Chávez's estimates but conclude that the Qaluyu habitation and corporate architecture areas covered about seven hectares or perhaps slightly more.

Chávez found Qaluyu materials in three out of five units excavated. She discovered two subphases, the first dating from as early as 1400–1100 BC. A second phase was dated to 1000–600 BC based not on materials from Qaluyu itself but on comparisons with her main work at Marcavalle near Cuzco.

Later work by a number of outstanding scholars, including Jane Wheeler and Elías Mujica (1981); Mujica (1979, 1987, 1991), Rowe (1963); Rowe and Brandel (1971, 1975), S. Chávez (1975, 1981, 1988), S. Chávez and K. Chávez (1969, 1970, 1975), William Conklin (1983), Edward Franquemont (1986), Máximo Neira (1962, 1967) at Pucara and Qaluyu or on their artifacts has contributed greatly to the cultural history of these societies.

What is Qaluyu?

All of the problems inherent in the Chiripa "type-site" concept are embodied in the Qaluyu "concept" as well. Like Chiripa, Qaluyu has iconic status well beyond its importance as measured by size and complexity of the settlement. Like Chiripa, Qaluyu is an archaeological site, a type site, a time period, a ceramic and art style, a culture, an archaeological horizon marker, and an icon of sorts for pre-Pucara culture in the south central Peruvian highlands. But Qaluyu does not enjoy the same relative status as Chiripa because Peruvian archaeology is vastly larger and more complex than Bolivian archaeology, with many spectacular archaeological cultures such as Moche, Nasca, Wari and Inca. Nevertheless, for the smaller subset of Titicaca Basin archaeologists, Qaluyu holds a very important position similar to Chiripa in the Bolivian Altiplano. Likewise, as a horizon marker, Qaluyu is usually viewed as more restricted in scope than Chiripa. In the latter case, Bolivian archaeologists have identified "Chiripa" culture as far away as the Amazonian drainage (e.g., Faldín 1990, 1991).

As mentioned above, partial mapping of the site by members of Programa Collasuyu indicates that the Qaluyu occupation of the site was at least seven hectares in size, and probably a bit larger but still within the 7–10 ha range[2]. There is substantial evidence of corporate construction over the site and through time over the entire mound area. Several low terraces were built on at least the north and south sides. These terraces have remains of domestic artifacts and were most

likely habitation areas. The surface features also indicate that there were at least five, and probably several more sunken courts at the site. The sunken courts were built with large, shaped blocks typical for Formative Period political centers in the Titicaca Basin. These are comparable to the largest surface sunken court at Chiripa.

We can now say that the Qaluyu type-site was one of the largest Middle Formative Period settlements in the Pucara Valley, although it is smaller than a number of other sites in the northern Titicaca Basin (see Cohen n.d. for survey data from the Pucara valley). The site was characterized by a massive mound built with fill, used to support complex architectural compounds. This mound supported a number of sunken court complexes that do not appear to have been constructed under any architectural plan. That is, the courts appear to have been slowly added, growing by accretion over time. Associated with these sunken courts are possible contemporary structures, along with a substantial domestic area along the sides. As mentioned, there are Qaluyu occupations under the main temples at Pucara. Excavations by archaeologists working with a UNESCO project indicate that the visible surface temple that dates to the Upper Formative was built over an earlier one. Thomas Lynch (1981) reports that this earlier one dates to 800–200 BC (and see Mujica and Wheeler 1981). This Early date would place the earlier temple squarely within the Middle Formative or Qaluyu period contemporary with the construction of similar structures at Chiripa.

The relative importance of the Qaluyu type-site, as indicated by size and complexity, was reinforced by Amanda Cohen in her survey of the Pucara Valley. Given the fact that Pucara and Qaluyu were located in the Pucara valley, it was assumed for years that this valley was the most densely occupied area of the northern Titicaca Basin. Recent settlement survey research in the Arapa, Taraco, Huancané, and Putina areas unequivocally contradicts this assumption. In fact, while rich in archaeological sites of all time periods, the Pucara Valley is curiously one of the least intensively occupied river drainages on the north side of the Titicaca Basin. Our recent work (since 1999) in the rest of this area indicates that the largest density and complexity of Qaluyu period occupation centers around the towns of Arapa and Taraco, with substantial Qaluyu-related sites located far up the Huancané-Putina valley. There are undoubtedly a number of Qaluyu sites in the Azángaro region and the Lampa area is poorly-explored to date. The type-site of Qaluyu is, in fact, an outlier of Qaluyu culture. Qaluyu is a settlement that squarely falls in the second tier of site sizes for the Qaluyu period.

RECENT RESEARCH IN THE NORTHERN TITICACA BASIN

In the last several years, we have conducted survey and excavations in the northern Titicaca Basin. We focused on several areas including the Huancané-Putina river valley, the area around Lake Arapa, and the area south of Arapa along the Río Ramis in the Taraco region. From 1999–2001 we conducted a full-regional coverage of the entire Huancané-Putina river valley. From 2002–2004, we completed

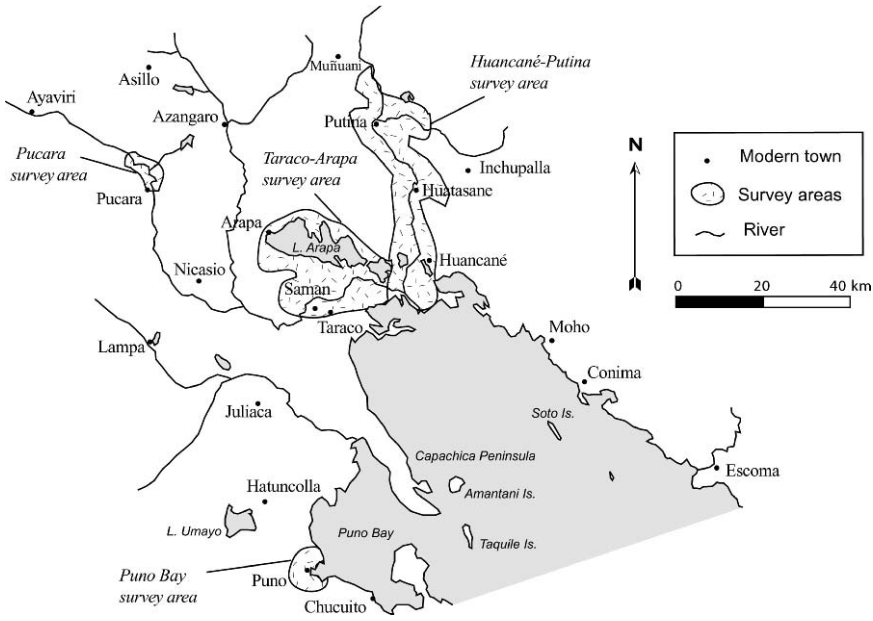

Figure 9.5. Survey areas in the northern Titicaca Basin.

survey in the Arapa and Taraco areas. Data from the 1999–2001 seasons have been analyzed and we are completing work on the Arapa and Taraco areas (Figure 9.5). Fortunately, we have enough preliminary results to report to allow us to assess the Qaluyu presence in the region. Of the more than 1,280 new sites recorded in the survey areas, at least 280 have Formative Period occupations (Qaluyu- or Pucara-contemporary). Of these, a significant proportion has Qaluyu pottery. At least two dozen Formative sites are in the size range of the type site of Qaluyu (5–10 ha of domestic residence and corporate architecture) and several sites are substantially larger (over 20 ha). There are two clusters of Qaluyu sites near Arapa and Taraco that comprise settlements complexes vastly larger than Qaluyu and nearby sites. Recent excavations at the town of Taraco by Stanish (Stanish and Chávez 2004) indicates a long Qaluyu and Pucara sequence at this town which also is home to a very high density of Qaluyu and Pucara stelae.

Recent Excavations at the Site of Cachichupa

The Huancané-Putina valley is located in the northeast corner of the Titicaca Basin and constitutes one of the five major river drainages of the Lake. The valley runs for approximately 35 kms to the north from the edges of the lake to the mountains that separate the Amazonian drainage from that of Lake Titicaca. The Huancané-Putina valley varies in width between 1–10 kms. At the confluence of the Ríos Lloquecolla y Pongongoni, the valley merges into another river leading to the

modern town of Inchupalla where it in turn runs towards the eastern slope valley of Sandia.

In 1999 Aimée Plourde conducted test excavations at a major Formative site known as Cachichupa. Noted during the initial reconnaissance of the valley in 1998 as being one of the larger Formative sites, full-coverage survey in the valley in the following seasons revealed that it falls into a pattern of sunken court sites placed at roughly equi-distant intervals up the entire length of the valley. Sculptural and ceramic evidence from these sites suggests a Middle Formative date for many of them. Cachichupa is located approximately two thirds of the way up the valley on the western side, in a strategic position where the sides of the valley narrow to produce an opening only 1 km in width. This geological formation could give the site's occupants control of traffic passing through the valley, which must pass through the narrow opening created by the river. In addition to the fact that traffic must actually pass right through the site, as does the modern road today, the site also commands a view several kilometers in either direction, which would further assist in its control of traffic through the valley. This supposition is lent strength by the fact that another larger Formative Period site, HU-30, located under the modern town of Putina and itself located at a strategic position for the control of traffic to the eastern slopes, is visible from the highest portion of Cachichupa.

Cachichupa is approximately 5–7 ha in size with two major components: a set of large terraces up the slope of the hill side, and a series of what we provisionally term "compounds" at their base, outlined by wall foundations made of shaped stone visible on the surface. The terraces are much larger than typical for agriculture or normal residence; the largest of these measures 20 m wide, 40 m long and was probably 6 m in height at the time of construction. Radiocarbon dates obtained from the terrace date its construction to 1400 BC. Further, the dates from the entire sequence cluster tightly, giving the impression that the entire construction occurred in a limited amount of time, possibly one episode. The early date of construction is confirmed by the presence of an intrusive pit into the surface of the terrace, which yielded a cache of decorated Qaluyu pottery, including a piece that has a modeled figure in low relief on the exterior of the vessel, very reminiscent of a Yaya-Mama female figure. Radiocarbon dates from this pit date it to 1000 BC. This pit caps the construction of the terraces during the Middle Formative Period, and suggests that ritual/ceremonial activities were taking place on the terrace or in conjunction with its construction. Unfortunately, intensive surface collection of the site encountered very few decorated ceramic fragments that could be attributed to Qaluyu, and therefore the extent of the Qaluyu occupation at the site in unclear. However, all of the terraces and the compounds at their base contained a high density of utilitarian forms with the mica tempered paste characteristic of the Middle and Upper Formative Periods.

The compounds at the base of the terraces (17 in total) are very likely areas in which ritual occurred, and also might be areas of craft production and/or elite residence. Excavation in one of the best preserved of these produced evidence of corporate architecture in the form of a probable sunken court with surrounding

structures, the presence of one and possibly more large, shaped monoliths, evidence of feasting or other ritual activities, and elite burials. Radiocarbon dates from the excavation of this court complex firmly establish it in the Upper Formative Period. However, as mentioned above, the extent of Middle Formative occupation at the base of the terraces is not clear from surface collections, and excavation in other compounds could possibly reveal Middle Formative deposits.

Finally, it is worth noting that several lines of evidence from the site indicate that the inhabitants of Cachichupa had access to non-local goods, and mostly likely ones coming from the eastern Amazonian lowlands. A fragment of a carved bone snuff spoon was recovered during excavation of the Middle Formative terrace, implying that hallucinogenic substances, possibly from lower elevations, were being consumed at the site during this time. More direct evidence of contact with the lowlands was found in the form of fragments of numerous undecorated ceramic jars, bearing the impression of tightly coiled basketry on their bases. To date, we know of only two other places where vessels with such a motif have been found: central lowland Bolivia and the Pucara type site itself.

Although these data are preliminary, the discoveries made at Cachichupa have important ramifications for conceptualizing the Middle Formative political landscape. While it is not likely that the Middle Formative occupation at Cachichupa is more extensive than that at the type-site of Qaluyu, the construction of its massive terracing as early as 1400 BC suggests that some kind of elite-directed or managed corporate group or groups existed by this time. Additionally, the presence of different kinds of evidence suggesting assess to eastern lowlands goods lends support to the idea that a political economy built in part through the control of the exchange of such goods was already underway.

CONCLUSION: QALUYU IN PERSPECTIVE

The first complex societies in the northern Titicaca Basin are known collectively as Qaluyu. As such, the term Qaluyu serves as a horizon marker for a particular moment in the cultural evolutionary history of the Titicaca Basin. The processes of the emergence of complex society in the northern Titicaca Basin parallel those in the south. There is even some reason to suspect that the first complex societies in the north predate those in the south by a century or two, perhaps as a result of an interaction with the complex contemporary societies in the Ayaviri and Cusco valleys to the north. This proposition remains to be tested with future data.

We can now confidently say that the type-site of Qaluyu is one of more than several dozen sites of equal or greater complexity in the northern Titicaca Basin. Qaluyu is historically important, but analytically it is no more important than most other second-tier contemporary sites in the region. As in the south, we face a question: was there in fact a Qaluyu regional center or capital, or was Qaluyu society characterized by a heterarchically-structured society with a series of peer-polities of roughly equal size distributed over the northern Titicaca Basin centered

on the Lake of Arapa and north to Ayaviri (e.g., Stanish 2003: 5, map 1.3). Our survey data suggest the latter; that there was indeed a classic site size hierarchy of Qaluyu settlements that peaked around 800–500 BC. Certainly the Huancané-Putina survey data indicate a plethora of small Formative sites under 1 ha, many sites in the 1–5 ha range, at least two dozen sites larger than 5 ha, and a few of substantial size and complexity, the magnitude of which is yet unknown. At present, we have identified several "candidates" for the main Qaluyu settlement at its height, including the site of Pucara and associated settlements, the cluster of sites at Taraco, the cluster of sites near Arapa, possible site clusters near Balsas Pata in Ayaviri, and possibly the site of Canchacancha-Asiruni and associated settlements in the Azángaro river valley[3].

Stanish (2003: 111) has hypothesized earlier that the Middle Formative was characterized by three site size categories: regional centers, villages and hamlets. The discovery of tightly-clustered settlements that formed a single functioning political entity could alter this to include a fourth, higher-level settlement category—in effect a regional "capital" that integrated the entire north in a classic chiefdom organization of intraregional political and economic cooperation and interregional exchange. This is, in our view, a central question about the political and economic structure of Qaluyu. If these settlement clusters are indeed contemporary, then we can hypothesize central places of at least 50 ha in the case of Taraco and Arapa, possibly other areas such as Pucara, Ayaviri, or Canchacancha-Asiruni. If, on the other hand, these settlement clusters turn out to be non-contemporary "palimpsests" of sites that moved over the landscape in a restricted area, then the three-tiered model still holds and a heterarchical model may still hold for Qaluyu political organization.

In short, we have learned much in our investigations in the northern Basin. We have eliminated any model that places the type site of Qaluyu as the principal settlement. We have identified scores of sites as large or larger than Qaluyu itself, and have identified a clear site size hierarchy of settlement. Qaluyu was the first complex society in the Titicaca Basin. Future research promises to provide fascinating new insights into this formative culture of one of the world's great centers of early civilization.

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ENDNOTES

1. A modest exception would be Kidder's (1943) and Tschopik's (1946) reconnaissance of the western and northern basin.
2. We were able to map about 50% of the area of the site. One landowner did not give us permission and we therefore were unable to complete the map. Unfortunately, in this particular area where we were denied permission to walk, there are a number of possible sunken court areas and other architectural features. We were able to estimate the size of the site visually without violating the rights of the landowner, but we admit that our size estimate is very provisional.
3. We have not surveyed near Canchacancha-Asiruni or in the Ayaviri area. However, the site of Canchacancha-Asiruni is large, at least 12 hectares (Stanish 2003: 113) and the site near Ayaviri, first visited and reported on scientifically by Rowe and Chávez Ballón, was (it has since been largely destroyed by house construction) quite large as well. If there are substantial numbers of contemporary Qaluyu settlements near these sites, they could well be the primary regional center of the Qaluyu polity.

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Chapter 10

Redefining Plant Use at the Formative Site of Chiripa in the Southern Titicaca Basin

William T. Whitehead

INTRODUCTION

In the Lake Titicaca Basin the transition from gathering and hunting to intensive agriculture occurred some time between 1500 BC to AD 500 and is coincidental with the group of archaeological cultures classified as Formative in Bolivia (equivalent to the Initial Period-Early Horizon in Peru). The placement of this important material and cultural change in a context of environmental and economic change is central to explaining the growth and intensive settlement of the Altiplano (capitalized here to specify the Lake Titicaca Basin region). The origin of the Tiwanaku manifestation with its conspicuous material cultural production and territorially wide distribution in the South Central Andes lies in the Formative.

Our understanding of the Altiplano Tiwanaku should flow from the Formative's contextually diverse set of economic strategies and cultures. The food production transition, which is presumed to have happened during the Formative, is not well understood at the moment, especially in the area of human and plant interactions, which was literally and metaphorically the food and fuel for the Formative people. Investigations on the Taraco Peninsula from survey and excavations by the Taraco Archaeological Project (TAP) (Bandy 2001; Hastorf 2003) and a team of archaeo-ethnobiological specialists have produced the best documented case study available for the Altiplano, from the Archaic to the Middle Horizon of this transition (Moore et al. 1999; Whitehead 2004). At present, the site of Chiripa has the largest database of botanical remains for the Formative and gives a glimpse into the floral economy of the area. Here I discuss some of the long-term trends in plant use derived from these Chiripa data and place the information in a context of continual environmental, cultural, and material change.

CHIRIPA'S SETTING

Chiripa is found a few hundred meters from the south shore of Wiñamara, the shallow southern portion of Lake Titicaca (Figure 10.1). At an elevation of around 3800 m, the site is in a unique environmental setting of fairly warm, well moderated

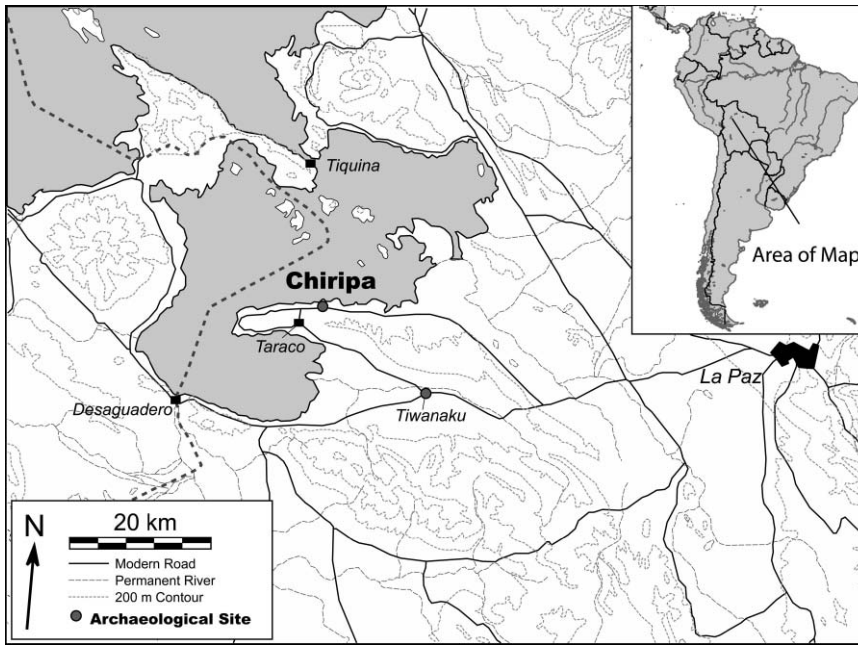

Figure 10.1. Location of the site of Chiripa in the Southern Lake Titicaca Basin.

temperatures, humidity, and solar insulation in comparison to other sites on the Altiplano. The altitude and basal geology have remained consistent over the last ten thousand years, but the climate, hydrology, and phytogeography have been characterized by a state of constant flux (Abbott et al. 2000; Cross et al. 2001; Rowe and Dunbar 2004; Sandweiss and Maasch 2001; Thompson et al. 1985; Thompson et al. 1998; Wirrman and Mourguiart 1995). On the Taraco Peninsula, a series of terraces rise from the lake, both of natural and human inspired origin. The site of Chiripa is located in a geological position between a permeable Holocene alluvial and gravel sediment and less permeable clay that produces a string of water seeps and streams. The site location is a reasonable place to put a permanent settlement in an area where perennial water sources are relatively hard to find, and the ones that do occur are found in less desirable canyons prone to flooding, or on the marshy pampas.

The current population of the local area around the site is approximately 300 individuals. Most of the current land use patterns are for farming and pasturage, with a high proportion of the land used for grazing European domesticates, such as cows, sheep, goats and pigs. This leads to the first point of the discussion. In the past, the area around Chiripa could have supported many more people than the landscape supports today. The modern ecosystem is radically different than conditions in the past and our assumptions based on the current landscape will produce erroneous conclusions. Moreover, many research programs have shown

that climate on this planet changes over time and this can happen quite quickly (Hughen et al. 2004; Smith et al. 1997). Not only do we have to consider factors beyond human control when thinking about ancient landscapes, but over the last 3500 years of intensive occupation, residents of the Altiplano have created an anthropogenic landscape. The impact of European domesticates and introduced plant and animal species have so fully altered the ecosystems of the Lake Titicaca Basin and the Altiplano that we are at something of a loss to know what the pre-contact flora and fauna would have looked like in the presence of a dense human occupation.

The anthropogenic nature of the Lake Titicaca Basin is easily discernable to the casual viewer, and, when the evidence for ancient and modern land manipulation is taken into account it seems that all the available land in the area is under some form of human control. Erickson (2002) defines the area as "one of the best examples of an anthropogenic or human-built landscape." From the raised fields in the lake basin (Albarracin-Jordon 1992; Graffam 1990; Kolata and Orloff 1996a, 1996b; Kolata et al. 1996; Lennon 1982, 1983; Seddon 1994; Smith et al. 1967; Stanish 1994) to the terraced hill sides (Bandelier 1910; Seddon 1998; Stanish et al. 1993; Stanish et al. 1997) to the lake itself (Orlove 1991, 2002) we see the cumulative effect of thousands of years of human action on the landscape. The link between landscape manipulation and plant evolution can be deduced from within the context of human landscape change to which plants and animals have had to adapt for survival (Terrell et al. 2003). Some of the plants and animals we consider wild and part of the natural landscape should be considered domesticate or under human control if we accept the assumption that the landscape itself is under human control. The plants that are currently part of the landscape are part of this human/plant/land interaction. So the concept of things we currently consider part of the domesticate complex, such as food, should be opened up to include grasses, weeds, trees, and all forms of plants that are interacting with humans.

One example of a quasi-domesticate, if we accept this line of thinking, is *Schenoplectus totora* which occupies most of the broad littoral zone in the shallow Wiñamara basin (Whitehead 2001). Entire groups of people have made the littoral region their home until very recently, which leads me to believe that totora and the ecological zone it occupies is again an anthropogenic creation. Without management, the totora fields change in character. Orlove (2002) discusses this ecological zone in detail and his discussion emphasizes the politics of living on the land and lake, stressing the managed quality of the land and water interface. When we then consider the terra-manipulation, continual rotation of almost every strip and fragment of land for some agricultural or pastoral purpose, and the lack of any wild places in the Lake Titicaca Basin, I think a solid case can be made for emphasizing human impact on the area, and beginning the search for when these processes started to occur.

Within this context of anthropogenic manipulation of the landscape, the climate (temperature, precipitation, wind, solar input, and annual variance) of the Lake Titicaca Basin has been fluctuating. The recent programs of climate investigation in South America and especially of the Titicaca Basin shed light on the possible

amount, causes, and consequences of large and small climate change (Abbott et al. 1997; Baker et al. 2001a, 2001b; Cross et al. 1999, Cross et al. 2001; Garreaud et al. 2003; Hastenrath and Kutzbach 1985; Kessler 1974, 1984; Kirkish and Taylor 1984; Martin et al. 1993; Rowe et al. 2002; Rowe et al. 2003; Sandweiss et al. 1996; Seltzer et al. 1998; Sylvestre et al. 1999; Thompson et al. 1995; Wirrmann and Mourguiart 1995). These investigations also show that minor changes in temperature, precipitation, and other climatic factors can cause major changes in water input into the Lake Titicaca drainage and ultimately the lake level itself. The implications for human populations must have been enormous as local populations would have to adapt culturally to these changing conditions, which is what we encounter when we see artifact (inferred as cultural) change.

The final point to stress is the flexibility of economic strategies that many Altiplano cultures use today (Lewellen 1978; Murra 1984, 1985) and used in the past (Murra et al. 1986). The modern Aymara and Quechua people provide examples of how we can envision ancient cultures. Diversification of resource strategies seems to be the current predominant strategy among the Aymara, and is a recurring theme in economic strategies from the Andes in general (Browman 1980; Hastorf 1993; MacNeish et al.1975; Murra 1985). More recent examples of economic strategies such as the "mini-max" and "Bayesian" models could work quite well when we build theory about the economies of the past (Cowgill 1993; Dorfman 1997; Palfrey et al. 2002). Altiplano cultures, in my opinion, are not inherently conservative or progressive by nature but diversifying and pragmatic, minimizing the outcomes of losses in worst-case scenarios by making choices that maximize the average gains from any strategy. This form of economic thinking gets us away from trying to find single optimal strategies, and should allow non-economic decisions to be incorporated into our calculus of understanding ancient economies.

With these four ideas in mind I now turn to our primary example on the Altiplano, the Formative through modern occupation area of Chiripa.

ARCHAEOLOGICAL BACKGROUND

The chronology of the Chiripa phases used here have been extensively tested with radiocarbon and ceramic analysis and are reported by TAP (Whitehead 1999). The TAP chronology supplants the chronologies of Bennett (1950), Kidder (1956), and Browman (1991); it has yet to be verified with radiocarbon dates for other sites with Chiripa phase pottery. I focus on materials that date to between 1500–100 BC in calibrated radiocarbon years. Three Chiripa phases have been defined by Steadman (1999): Early (1500–1000 BC), Middle (1000–800 BC), and Late (800–100 BC). The Late phase is further divided into two minor divisions defined as Late Chiripa 1 and Late Chiripa 2. The Early and Middle Chiripa phases are locally referred to as the Early Formative, and the Late Chiripa phases are in the Middle Formative (Figure 10.2).

The archaeological record of Chiripa is fairly well known in South American archaeology. Chiripa is famous for its elaborate sculpture, semi-subterranean

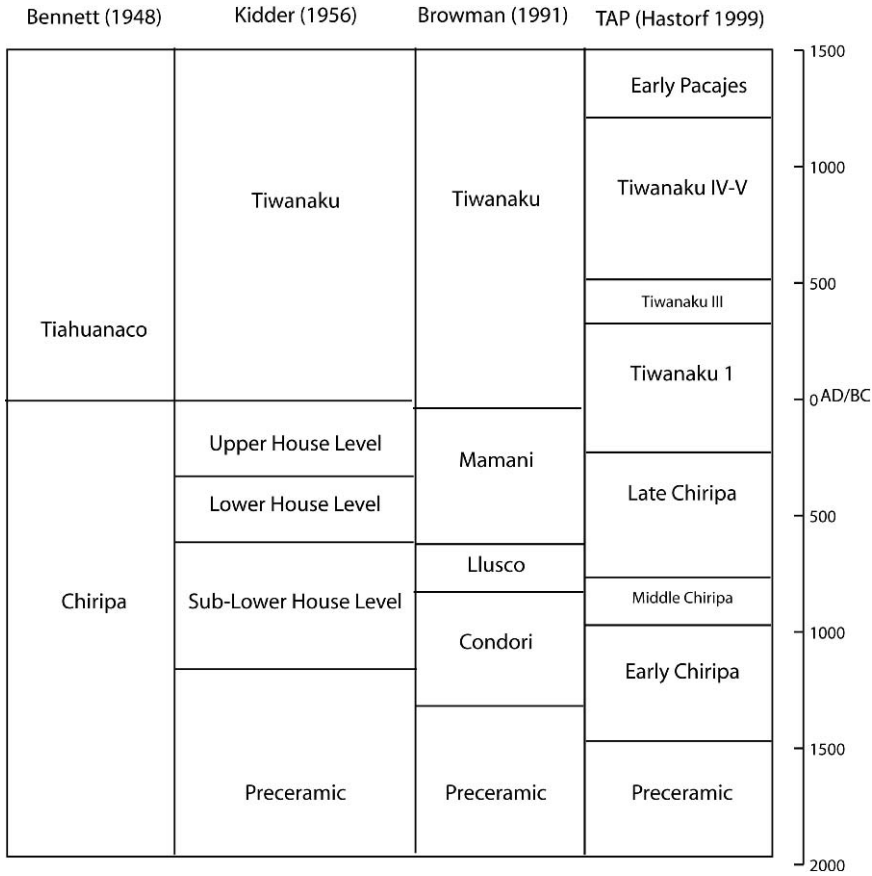

Figure 10.2. Chronology at the site of Chiripa, comparing the previous phase definitions from various authors.

structures, fine ceramics, precious metals and inferred status as an early example of an important polity in the Lake Titicaca Basin. The site has been intensively studied over many decades (Bennett 1936; Browman 1977, 1986; Cordero Miranda, n.d., Kidder 1956; Mohr 1966; Mohr-Chávez 1988; Ponce 1957, 1970; Portugal-Ortiz 1992; Portugal-Zamora 1940). Most of these previous projects chose to focus or were forced to focus on the mound and its elaborate and well preserved architecture. TAP has shown that the Semi-Subterranean Court tradition found in the Yaya-Mama tradition of the Lake Titicaca Basin has its foundation in the Early Formative, with two examples from the site of Chiripa (Hastorf 1999; Hastorf et al.1992; Hastorf et al. 1996; Hastorf et al. 1998; Hastorf et al. 1999a). The most familiar Chiripa structures have double walls, in-wall storage bins, sliding doors, and plastered and painted interiors; these lay under the Late Formative reconstruction of the mound. Chiripa's predominant economic strategies have been

described by various authors as agriculturalist, horticulturalist, fisher-gatherer, and pastoralist.

Chiripa has been described in the literature as a village, hamlet, temple-storage complex, and pueblo, without an accurate estimate of population size ever having been given. Indeed, the actual size of the site was not well know until the TAP project. Most of the evidence from the elaborate structures, highly decorated ceramics, and stone sculpture led many researchers to create a model of fairly dense occupation, well-developed agriculture, extensive pastoralism, and far-flung trade with other regions, with very little physical evidence to back up these claims.

I do not want to challenge these earlier proposals, because they are all well within the boundaries of reasonable archaeological interpretation and recognize Chiripa as a special site in the Lake Titicaca Basin. Rather, I would like to look at the botanical and other archaeological evidence from a slightly different perspective and propose a set of hypotheses that rely on the TAP paleoethnobotanical evidence and hopefully require fewer assumptions. All of the changes in human activity seen at Chiripa should be seen against a background of climate and landscape change. I would also like to consider the environment not as a limiting factor against which people struggle, but as a broad backdrop to think about culture and economic change. I point out the coincidences of environmental and cultural/botanical/artifactual change and explore these potential synergies.

ENVIRONMENTAL CHANGE DURING THE CHIRIPA PHASE

The first evidence of environmental change to consider for the Formative are temperature and precipitation, which come primarily from environmental reconstruction and paleoclimate proxy data from lake core sediments (Abbot et al. 1997; Baker et al. 2001; Cross et al. 1999; Rowe et al. 2002, 2003; Wirrman and Mourguiart 1995). These two factors affect the landscape, primarily Lake Titicaca and the available water for maintaining lake level, the underground water table, and the land/water ratio of the basin. Finally, the change in biota caused by these variations should be considered; however no one has published what the effects of climate change would have had on specific species and ecosystems. Lake level changes can be produced by a number of factors such as higher/lower temperatures, increased/decreased rainfall, cloud cover, humidity, and surface reflectivity or a combination of these phenomena. Rowe and Dunbar (2004) found that small changes in mean annual temperature, precipitation, or cloud cover could account for most of the fluctuations seen in prehistory and today. They used a Dynamic STELLA model to simulate the interaction of 25 climate variables to find solutions for how much each factor would have to vary from present day conditions to create the paleolake levels reported previously. Small climatic changes that vary the already cool but mild weather conditions to increase evaporation or decrease the amount of water draining into the lake were the most influential, with only approximately $+2$ degree change in annual temperature, $\sim 8\%$ decrease in precipitation, or $+22\%$ decrease in cloud cover accounting for the lake level variation

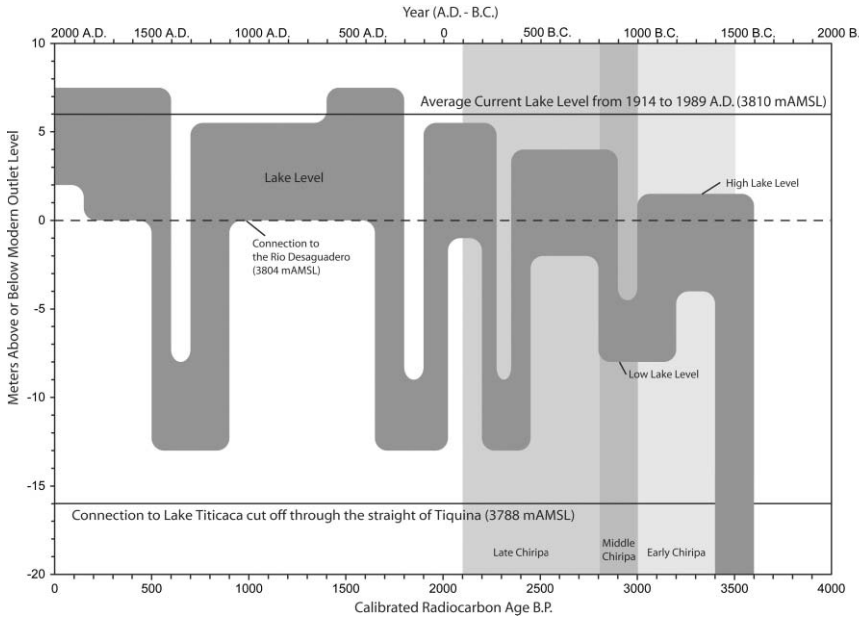

Figure 10.3. The fluctuations in water level in Lake Titicaca are represented by the grey band, with the Chiripa phases marked by vertical bars between 3500 BP to 2100 BP. The current average lake level, the connection to the Desaguadero River, and the connection to the northern lake via the Strait of Tiquina are shown in horizontal lines. (Adapted from Abbott et al. 2001: fig. 5)

seen during the Formative. These seemingly small changes would also have large effects on the plant and animal communities and the humans with whom they were interacting.

The Lake Titicaca Basin was highly impacted by the above described fluctuations as seen in the paleo-lake level record. D'Agostino (2002) published a graphic representation of what lake levels would have been by using side-scanning radar to map the bottom of the lake in fine detail (adapted here in Figure 10.3). Lake Titicaca has retreated and rebounded at least four times in the last three thousand years, with changes in lake level during the Formative occurring five times with two low level stands and three high level stands. The outline of the current Lake Titicaca is shown in Figure 10.4; the familiar pattern of the lake is visible with a large, fairly shallow portion of the Lago Menor/Wiñamarka visible. At the lowest lake levels the southern basin would be dry to virtually dry with a small lake area around the strait of Tiquina (Figure 10.5).

The coincidences that link two cultural changes in the Early and Middle Chiripa phases with what appears to be a very dynamic climatic background should not be overlooked. Today's lake front property would have been more distant from Chiripa at various points of the Chiripa phases. Bandy (2001) uses this type of reasoning to

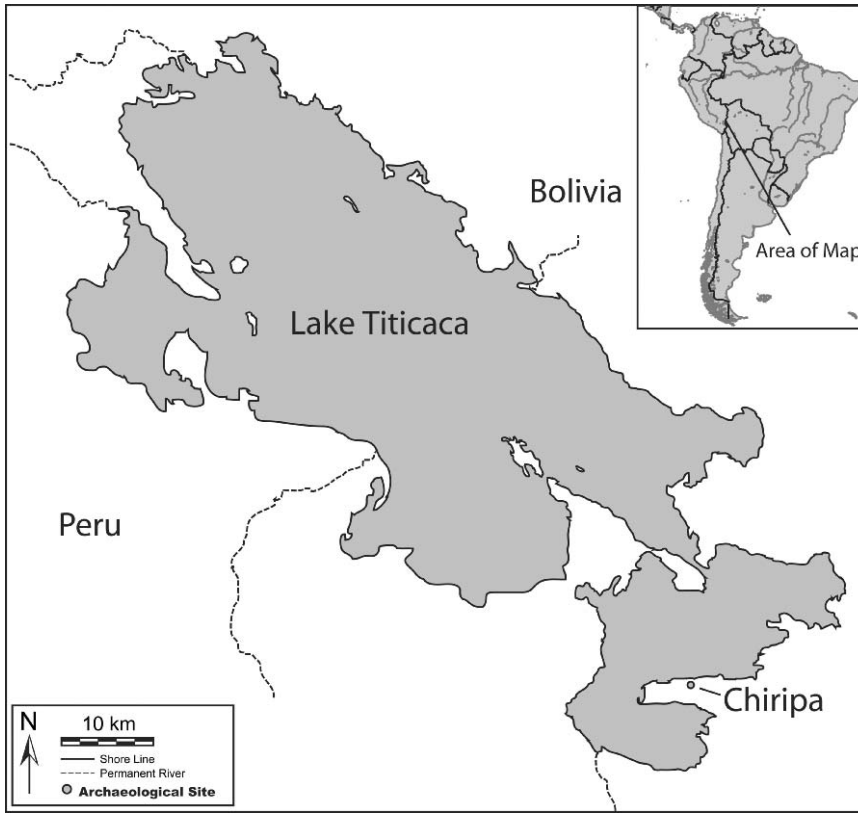

Figure 10.4. Outline of the current lake level in the Titicaca Basin. (Adapted from D'Agostino et al. 2002: fig. 14)

help explain the shift of population away from Chiripa and the Taraco Peninsula to other areas, and aspects in material culture change that occurred during the Middle Formative. The full impact of lake level change on residents of the Chiripa area should be understood in terms of how these changes would have produced new opportunities and changed existing patterns of land availability, ecological area shifts, species representation, and exploitation patterns. With this in mind we now turn to the evidence produced so far by TAP about plant use in the Chiripa phases.

PALEOETHNOBOTANICAL EVIDENCE

Changing environmental patterns and land availability, due to lake level fluctuations, constitute the context for the paleoethnobotanical record of Chiripa. The dataset for this study contains 448 samples, representing 4,612 cubic liters of soil, and approximately 340,000 identified specimens. The magnitude of the sample

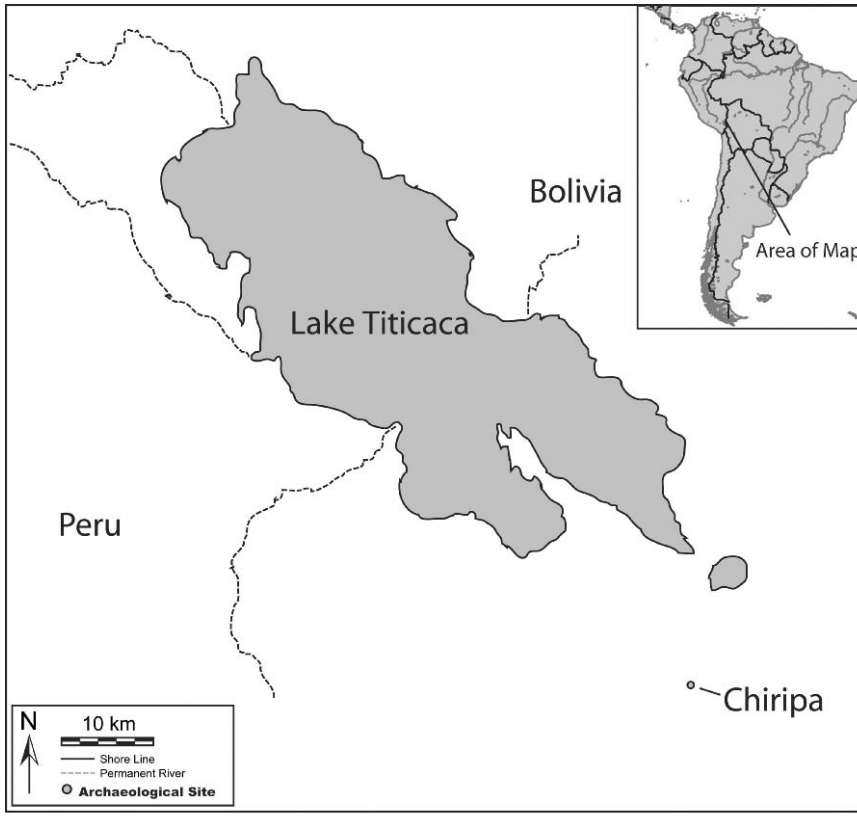

Figure 10.5. Outline of the ancient lake during the low lake level stands, as presented in Figure 10.3. (Adapted from D'Agostino et al. 2002: fig. 14)

size should allow large trends to be seen or deduced by merging many samples into a few analysis groups and minimize errors produced by small sample size. Several broad trends can be seen in a diachronic analysis from the Early to Late Chiripa Phases.

The first trend to be identified is a non-dietary pattern seen when looking at the amount of wood and dung found in the samples through time. Table 10.1 shows the standardized density (number of specimens identified per 10-liter sample) and ubiquity (percent of samples present by phase) from the samples dating to the Early, Middle and Late Chiripa phases. The amount of wood and dung found at the site drops dramatically from the Early to Middle Chiripa phase and again from the Middle to Late Chiripa phase. From the lowest lake level stand at 3600 BP to 3400 BP to the first high level stand of the lake in our chronology, which coincides with the beginning of the Early Formative and the Early Chiripa Phase, wood was much more abundant than in the next two phases to come. The two common

Table 10.1. Fuel use at Chiripa site through Early Chiripa, Middle Chiripa and Late Chiripa phases. Standardized density, fragments all larger than 2.00 mm.

	Phase		
Type	EC	MC	LC
Wood			
Ubiquity	89.77%	77.65%	74.64%
Density	73.18	19.05	*0.75*
Dung			
Ubiquity	22.73%	11.76%	13.41%
Density	4.24	10.88	*0.13*

tree species found in the Lake Titicaca region are Polylepis and Buddlejia (ten other species with the ability to grow above 3800 m have been reported for the northern basin department of Puno; see Macbride and Weberbauer 1936). There are at least eighty other species of shrubs reported from the Department of Puno, Peru; however, these plants rarely produce stems that could be confused as tree woods. Visual inspection of the landscape shows very little wood in the modern area, and a low species diversity of shrubs. The dung found in the Altiplano is primarily from camelids and guinea pigs but the preservation of this fuel resource is poor and in many cases impossible to identify with any accuracy. The current data show that woody plant species were present on the Taraco peninsula and may have gained a foothold during the period of increased precipitation between 3600–3400 BC that coincided with lower temperatures or higher cloud cover. The area around Chiripa was then deforested of most of this wood. The precipitous drop in wood and dung, the primary fuels, over all the samples and context types, probably reflects the localized shortages of fuel for cooking and heat produced by population increase and that the fuel that was being consumed was either from very small bushy plants and/or was being totally consumed, leaving little to no traces in the archaeobotanical record. An obvious counter-argument to this interpretation is that the intrinsic sample representation is giving a skewed representation of the true environmental developments or that the processes of burning changed and large pieces of wood not being preserved. Both of these conditions may be true, but even if the original hypothesis of deforestation is false, the alternatives are still interesting lines of enquiry: how did fuel representation change through time, and how did burning technology change to produce the overall pattern seen so far? Obviously more investigation into the conditions of the woody species representation before intensive human occupation would help clarify this finding.

The next trend concerns the pattern of decreasing fuel representation and density of both wood and dung and changing climate and population in the local area. We should expect the types, quantities, and qualities of the utilized foods to change over time. The overall model of diet at Chiripa should contain a shifting emphasis

between aquatic and terrestrial resources due to the changing lake levels. At no time during the Chiripa phases was the lake as large as it is today, and during the beginning of the Middle Chiripa and the Late Chiripa II phase the lake was significantly lower (between 5 to 13 m lower). The area around Chiripa would have had much more grassland, less lacustrine zone, and possibly drier, less cloudy, or warmer conditions. We should expect to see more of a terrestrial base to the Formative diet, and longer travel times to acquire aquatic resources. Depending on the population density and the overall settlement pattern, this may not pose a problem to overall resource acquirement. If a one or two day journey is all that is required to reap aquatic resources, we should expect this to be the case.

I believe that the Early Chiripa residents had domesticated llamas, guinea pigs (cuy), tuber crops and chenopods. Thus far the precise role between the domesticated and wild food resources as a key component of the change from being a model hunter/gatherer population in the Lake Titicaca basin to resident food producers is unknown. The expected trend should be more domesticated foods being produced and found in the paleoethnobotanical record through time. Along with the food pattern we should also see other plant uses change at Chiripa due to a more sedentary lifestyle, such as medicinal plants and plants used purely as tools and for construction. While this study is not solely a search for agriculture, it would be surprising to find no evidence for domesticated plant foods or agriculture at all. By comparison, by 1500 BC (the beginning of the Early Chiripa phase) most sites along the coast of Peru have evidence of some form of agriculture (Hastorf 2003; Smith 1995). Peoples of the Altiplano could have been exposed to the plants and ideas behind domestication and agriculture from the coast for thousands of years. However, only a few highland sites have evidence of domesticated plant cultivation and evidence for the incipient domestication of the major Andean tuber crops in the same time period (Browman 1986; Erickson 1976; Eisentraut 1998; Pearsall 1992; Pearsall and Moore 1985). Research at Chiripa can provide more evidence for what highland societies were doing in relation to cultivating and domesticating highland plants.

A summary of plants identified from Chiripa is given in Table 10.2. The most abundant type of plant found at Chiripa is the *Chenopodium* crop/weed complex (Bruno and Whitehead 2002). The archaeological *Chenopodium* come in three overlapping forms: thin testa but small size, thick testa similar to modern weedy varities, and a thin testa with a larger size which would be more like modern day quinoa (testa thickness refers to the seed covering that provides defense and germination control in the species). None of the archaeological chenopods found at Chiripa are as large as the modern day types found in the area and do not overlap significantly in size or testa thickness. The size of the chenopods shows change through time from the Early to Late Chiripa phases. Roughly 3% of the chenopods (58,000 identified) from the Early phase are >1.18 mm with almost none (0.01%) larger than 2mm, but by the Late Chiripa phase (99,000 identified) almost 9% are >1.18mm and 0.34% are larger than 2mm. These sizes are no where near the sizes we find in later archaeological and modern quinoa in the area. The second type of change seen in the archeological chenopods is the testa thickness. Testa

Table 10.2. Families/Taxa/Identified Types found at Chiripa in the Formative Period.

EC and MC				LC	
Amaranthaceae	*Amaranthus* sp. (Wild Type)	Plantagenaceae	*Plantago* sp.	Apiaceae	Unknown sp.
Asteraceae	3 Unknown species	Poaceae	*Stipa* sp. 30 Unknown sp.	Cactaceae	*Trichocereus pachanoi*—San Pedro
Boraginaceae	Unknown sp.	Potamagentonaceae	*Potamageton* sp.	Oxalidaceae	*Oxalis* sp.
Brassicaceae	*Lepidium* sp. Unknown species	Rosaceae	*Rubus* sp.	Poaceae	*Bromus* sp. *Dactyloctenium agyptium*
Cactaceae	*Cereus* sp. *Opuntia* sp. Unknown sp.	Rubiaceae	*Galium* sp *Relbunium* sp. Unknown sp.	Ruppiaceae	*Ruppia* sp.
Capparidaceae	Unknown sp.	Solanaceae	*Nicotiana* sp. *Physalis* sp. Unknown sp.		
Chenopodiaceae	*Chenopodium* sp.	Verbenaceae	*Verbena* sp.		
Cyperaceae	*Scirpus* sp. Unknown sp.				
Convolvulaceae	Unknown sp.	Wood	(Various Types)		
Euphorbiaceae	Unknown sp.	Dung			
Fabaceae	Wild Type *Lupinus* sp.	Tubers	Unknown sp.		
Lamiaceae	Unknown sp.	Lumps	Unknown Sp.		
Malvaceae	Unknown sp.	Unidentified Specimens	13 Types		

thickness decreases through time much more dramatically than size changes. The percentage of thick testa chenopods independent of size is roughly 35%, with only 8% having a thin testa, the type of testa seen in modern day quinoa. The percentage of thick testa chenopods fall to only 2% in the Late Chiripa phase and 58% are of the thin testa type. These changes are seen at the population level in the local area, since it is almost impossible to sexually segregate modern and wild chenopods in nature because they are wind pollinated. The testa would be the desirable feature we can easily examine in the archaeological chenopods because this tissue is were the majority of the toxic saponins are stored. If we interpret these data in terms of human activity, we can see that between the beginning and end of the Formative the local residents changed the population genetics of a group of plants to improve their size and morphology—a plant that grows extremely well in the local area and would do well in a locally warmer and drier climate.

The next group of plants that is very important to the local economy in the present but of unknown importance archaeologically in the Formative is constituted by the

Table 10.3. Starchy Cell Representation for the Formative Phases at Chiripa. Density is the standardized density of all fragments larger than 2.00 mm.

	Phase		
Type	EC	MC	LC
Tuber			
Ubiquity	6%	7%	13%
Density	0.18	0.33	1.66
Parenchyma			
Ubiquity	80%	74%	69%
Density	43.74	114.39	40.67

many species of plants that have underground storage organs, commonly called tubers as a group (Table 10.3). The representation of tubers/parenchyma tissue is relatively low in comparison to the chenopods. We find only 16 individual examples of charred tuber from the Early Chiripa phase (0.02% of the Early Chiripa sample); by the Late Chiripa phase the number of examples jumps to 459 specimens (0.29% of the Late Chiripa sample). The ubiquity of the specimens by phase is also low, with 6% of the Early Chiripa samples containing at least one tuber fragment, and by the Late Chiripa phase 13% have tuber fragments. Other studies show that tubers are also very rare in archaeological contexts on the Altiplano. Wright et al. (2003) found very low density and ubiquity in tuber remains from the Late Formative and Tiwanaku period occupations at Tiwanaku; Eisentraut (1998) also did not find tubers in any significant number. Pearsall and Moore (1985) did not find significant amounts of tuber in the samples for Pauñalauca either.

To date, the issue of whether domesticated *Solanum tuberosum* is present in the Formative at Chiripa is debatable. Some tissue with a thin dermis and parenchyma is present, but SEM and comparative microscopy does not allow these specimens of tuber to be identified past the level of recognizing them as tuber. The majority of the tuber-like specimens are lumps of starchy cells. Chiripa has quite a few specimens of charred parenchyma tissue, but at this time I do not feel confident in identifying a tuber because of the diversity of tissues that are not tubers that have parenchyma. However, we do see a trend in tuber density and ubiquity. At around 1500 BC *Solanum* has been found in only four sites so far, so the time depth of tuber production is clear but the extent and intensity is still up for debate. Carl Sauer (1952) states that intensive tuber production in the Andes may not be more than a thousand years in antiquity. Tubers of *Solanum* and other species were being used in the area but the exact type and intensity is not known; therefore I will have to resist the impulse to create a tuber based economy for the Formative. Much more work in identification is needed to resolve this issue.

Another trend concerns weeds versus crops. While the wood/fuel availability was changing, it seems that the Chiripa folk were beginning the process of

Table 10.4. Crops versus Weeds for the Formative Phases at Chiripa. Density is the standardized density of all fragments larger than 2.00 mm.

	Phase		
Type	EC	MC	LC
Weed			
Density	355.72	231.31	130.67
% of Samples	33.36%	27.43%	24.59%
# Species	23	22	26
Crop			
Density	710.60	612.07	400.73
% of Samples	66.64%	75.57%	75.41%
# of Species	7	5	7

domesticating chenopods; the proportion of weedy species to crop species stayed relatively the same (Table 10.4). The link between weeds and crops has been explored to identify the link between the diversity of weed specimens and crop production. Density goes down through time as seen in the fuel example, but the ubiquity remains relatively stable. We may be experiencing two competing forces when we compare the overall density of fuels and weeds versus crops in our samples. We would expect that with greater population and settlement size the overall amount of burned items would increase through time, the logic being more activity, more people, more opportunities for burning and preservation. However, what we see is a decrease in overall density in both arenas of plants. There is no one explanation for this trend other than the processes that produce carbonized plant remains and their preservation in the archaeological record either changed through time or that the overall density of burned items to sorted matrix decreased. At the present time there is no one way to control for these effects when analyzing archaeobotanical data other than to sample across a broad spectrum of samples and context types and try to reduce the error of small sample sizes.

DISCUSSION

The goal of paleoethnobotany is to provide information on plant biology and human activity, which in most cases are so intertwined that one cannot be talked about without the other. Paleoethnobotanical analysis reveals that the Chiripa phase people had a simple cultivation system and also practiced gathering, depending on the mode of propagation that was predominant at the time. Domesticated animals are abundant (Moore et al. 1999). Permanent (perhaps semi-permanent) settlements are dotted across the peninsula (Bandy 2001). A diverse resource base is apparent, given the evidence that 36 species of animals were found in the Chiripa phases,

and a minimum of 100 species of plant were recovered from the float samples. The Chiripa folk were using all the available dietary inputs when we look at the food base. This was a flexible system that could withstand climate and population change, even though the ambient conditions did not change much in terms of overall temperature, humidity and precipitation. The climatic changes referenced may not have been actually noticed on a daily or yearly basis but the cumulative effects would definitely be felt over decades. There is no solid evidence but only suggested evidence for domesticated potato at Chiripa, and there is no evidence for maize (*Zea mays L.*) either by charred macroremains or phytoliths in the Formative Chiripa samples. This is not surprising given the difficulty maize has growing at high altitude, since maize has high water, temperature, and CO_2 requirements to come to fruit. Maize can be grown in the local area in isolated geographic locations, but this does not mean it was grown prehistorically.

The cultural changes seen at Chiripa are defined as ceramic phase changes and seem to coincide with the small climatic changes that affected the ancient Lake Titicaca water level. Population increases through time and environmental change does not seem to be a negative pressure on this increase (Bandy 2001). Chiripa as a site grows to approximates 7.5 ha over the Early and Middle Formative (Hastorf et al. 1999), but an accurate population estimate for the site or the region is unknown.

Bandy (2001) makes the argument that in the Chiripa phases, high quality basalt stone hoes from the North Basin are a marker of the regional focus on agriculture when climatic conditions became adequate for agriculture. This is a reasonable argument and one that cannot be refuted by the current dataset. However, the intensity of the agricultural investment may have been comparatively lower than we may expect. Given the knowledge that we have for only one agricultural crop, *Chenopodium sp.*, in the macro-botanical flotation samples, and some form of tuber, I do not feel comfortable saying that the Chiripa residents were intensive agriculturalists. The tools found on the peninsula and at the site of Chiripa may have been used for horticulture or for the extracting of wild resources, such as totora, or simply for digging. The construction of large semi-subterranean structures, above ground architecture, and pottery production would certainly require effective digging implements, so we may have a duel explanation for the presence of a large number of digging tools at Chiripa and on the peninsula as a whole. The production of high quality pottery and elaborate stone carvings does not necessarily require the inhabitants to be full time agriculturalists, only that there is sufficient food to sustain the population and allow for sufficient free time to put surplus labor into other activities. A comparison between the Formative Chiripa phase folk to the Late Archaic and Woodland societies in North America is begging to be explored.

I am purposefully advocating a position of lower energy and less intensive forms of plant production and exploitation to explain the Formative economy at Chiripa. Population density, macrobotanical remains, and an abundance of wild resources could have sustained a population of part-time horticulturalists, llama pastoralists, and wild food gatherers in the Chiripa phases on the Taraco Peninsula. Fluctuating climate, lake levels, and populations would make this explanation the

most reasonable at the present time before we explore intensive techniques for Early and Middle Formative.

Several types of studies are needed to create better economic and archaeological models for the Altiplano. The foremost need is a reliable method of identification for tubers and a firm sequence of domestication events that can link the coast with the highlands. More detailed information on climate change in the Altiplano would allow better model building for economic outcomes, using different strategies of plant production and pastoralism. Investigation of the submerged settlement pattern will allow us to know with more certainty if the lake basin was occupied during the several intervals when the southern lake was mostly dry for a century or more at a time. Better population estimates would help build models of carrying capacity changes in times of environmental fluctuation. Finally, more paleoethnobotanical work is needed in the Archaic and Late Formative periods to bracket the current work in the Early and Middle Formative.

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Chapter **11**

Ritual and Society in Early Intermediate Period Ayacucho: A View From the Site of Ñawinpukyo

JUAN B. LEONI

INTRODUCTION

The Early Intermediate Period (EIP) (ca. 200 BC–AD 550/600) was a crucially important time in the cultural developmental trajectory of the Ayacucho Valley. Characterized by the little-known Huarpa culture, the EIP seems to have been the period in which important socio-cultural processes started to occur, eventually leading to the rise of Wari in the Middle Horizon (MH) (ca. AD 550/600–1000), with the development of urbanism and statehood. Although the importance of Huarpa as the local foundation upon which Wari was constructed is generally acknowledged, research on this crucial period has been scarce. While the nature of Huarpa society and the EIP in Ayacucho have been debated and interpretive models have been advanced in the past, substantial empirical evidence is still largely lacking. In fact, very little is known about Huarpa culture besides its characteristic ceramics. This precludes a clear understanding of the nature of culture and society in Ayacucho in this crucial temporal period.

The Ñawinpukyo Archaeological Project (Leoni 2004) sought to start addressing these problems by investigating a site traditionally considered as one of the most important of the EIP Huarpa culture (Lumbreras 1974a, b, 1981). The investigations of the Ñawinpukyo Archaeological Project (NAP) have produced new and valuable information about the EIP in Ayacucho, especially with respect to communal rituals and public ceremonial architecture, thus undoubtedly advancing our knowledge of Huarpa culture and society. In this paper I present the new information from the investigations at Ñawinpukyo, propose interpretive scenarios about the site's organization and role in the EIP, and explore the implications of these finds for the understanding of Huarpa society. To anticipate my conclusions, the archaeological data suggest that public communal rituals had a central role in Huarpa society and that some degree of social differentiation existed at Ñawinpukyo in the late part of the EIP.

THE EIP IN AYACUCHO: ÑAWINPUKYO AND THE HUARPA CULTURE

Most of the available archaeological information for Ayacucho's EIP corresponds to Huarpa as a ceramic style. Huarpa ceramics represent a tradition in which the principal decorative technique consists of red and black painting on a matte white slip; motifs are simple, geometric and linear, beginning with simple forms and gaining in complexity through time, partly as a result of stylistic interactions with the later phases of the Nasca style of the south coast (Benavides 1971; Bennett 1953; Cavero 1985; González Carré 1972; Knobloch 1976, 1983, in press; Lumbreras 1974a, b; Menzel 1964; Paulsen 1983; Rowe, Collier and Willey 1950).

The Huarpa settlement pattern is poorly understood at present. Early systematic research by the Universidad Nacional de San Cristóbal de Huamanga (Benavides 1976) and the Ayacucho-Huanta Archaeological-Botanical Project (MacNeish et al. 1981: fig. 8–11, table 8–16) recorded over one hundred presumed Huarpa sites, the largest number of sites for any cultural phase in the region's prehistory. This has been interpreted as an indicator of marked population growth in Ayacucho during the EIP (Lumbreras 1974a, b). Huarpa sites seem to be primarily small rural communities located close to rivers and water springs; extensive terracing of hillsides for agriculture and construction of irrigation facilities seem to have characterized this period as well, presumably resulting in a complete reshaping of the regional landscape (Benavides 1971; Lumbreras 1974a, b, 2000a).

Luis Lumbreras (1974a, b, 1981) propounded one of the most influential characterizations of Huarpa society. In his original view, Huarpa was described as a regional culture of a complex nature, characterized by the presence of state organization, a high technological development with respect to agriculture, and the urban or proto-urban character of its political capital located at the site of Ñawinpukyo (Figure 11.1). A Huarpa elite would have resided at Ñawinpukyo, ruling over most of the Ayacucho Valley, thanks to their control of water resources and trade (Lumbreras 1974a, b; see also González Carré 1992; Machaca 1997).

William Isbell and Katharina Schreiber (Isbell 1985, 1987, 2001, inter alia; Isbell and Schreiber 1978; Schreiber 1992) contested this view arguing that available settlement pattern information does not support the existence of state-level societies in Ayacucho in the EIP, but rather indicates the existence of small-scale polities, perhaps chiefdoms. According to Isbell (1997a, 2001), local enclaves or clusters of villages characterized the EIP, and Ñawinpukyo was one of the sites in the southernmost cluster, along with Conchopata, Acuchimay and more modest settlements. The site's alleged urban character also received criticisms (Isbell 1987: 85), as well as the attribution of most of its remains to the EIP (Menzel 1964: 69). Finally, Lumbreras (2000a: 35–36, 2000b: 19–23) recently reviewed his original characterization of Huarpa society, departing from the idea of the presence of state and cities in Ayacucho in the EIP. In his revised characterization Lumbreras emphasizes the existence of non-theocratic local authorities in the late part of the EIP residing in large villages such as Ñawinpukyo, with the existence of only modest political centralization related mainly to the management of agricultural activities.

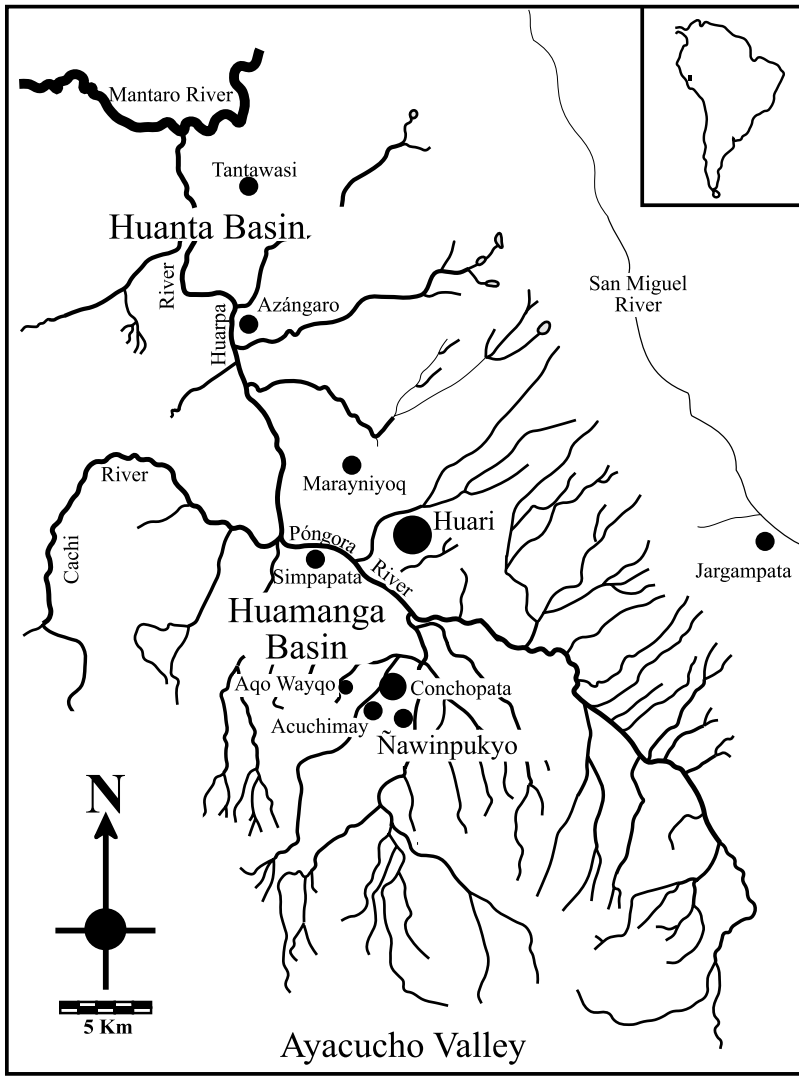

Figure 11.1. Ayacucho with location of Ñawinpukyo and other major archaeological sites. (Courtesy William H. Isbell)

An accurate picture of Huarpa society is, nonetheless, far from having emerged. In fact, the archaeological record of Ayacucho's EIP is extremely fragmentary and very little can be securely inferred from it. Basic information such as the shape and internal organization of Huarpa houses and residential compounds is generally lacking, as well as ample data on mortuary practices, ceremonialism and religious life. Thus, addressing more complex aspects of Huarpa social and political organization with such a limited empirical base becomes difficult at best. Likewise,

a diachronic understanding of the EIP in Ayacucho has yet to emerge. At present, the paucity of archaeological data leads us to lump all available information from the EIP under the label "Huarpa," forming a single homogeneous and static social and temporal block. This naturally biases us to see Huarpa as a cultural entity with little internal (both temporal and regional) variation. Such a view might obscure a variety of important social and cultural processes of change that took place in the region between AD 1–550/600, eventually leading to the rise of Wari polity and culture. Our recent investigations at Ñawinpukyo have only started to redress these basic empirical limitations.

NEW INVESTIGATIONS AT ÑAWINPUKYO

The Site of Ñawinpukyo

Located on a rocky hill, approximately 6 kms southeast of downtown Ayacucho, the site of Ñawinpukyo commands a panoramic view of the southern part of the Ayacucho Valley. The hill is a low-lying elevation in the southern flank of the Ayacucho Valley, reaching a maximum height of 3,007 m above sea level. From the hilltop one can see vast extensions of the valley up to the Pampa de Quinoa and the northern flanks of the valley. Although varied archaeological remains, including the badly preserved remains of archaeological terraces, can be found scattered on the slopes and lower parts of the hill (Cabrera 1998; Lumbreras 1974a, b; Machaca 1997; Ochatoma 1992), the largest concentration is certainly located on the hilltop.

Although the site was first mentioned in the 1930s and 1940s by local Ayacucho scholars (see Benavides 1976, Lumbreras 1974a), systematic archaeological investigations did not start until the 1960s, when archaeologists and students from the Universidad Nacional de San Cristóbal de Huamanga carried out surface collections and test excavations (González Carré 1972). Luis Lumbreras (1974a, 1981) led a more intensive research program at Ñawinpukyo in 1971. He partially mapped the site and described the buildings on the hilltop, which he interpreted as representing Huarpa elite residences and public architecture. His excavations identified a refuse dump, a canal segment, and part of what he interpreted as a ceremonial platform. Further archaeological work took place on lower parts of the hill in the 1980s and 1990s. Limited research by Mario Benavides and José Ochatoma (Ochatoma 1992), Gudelia Machaca (1997) and Martha Cabrera (1998) revealed diverse remains of Formative, EIP and MH occupations in the lower parts of the hill's western slope. These investigations slowly started to reshape existing ideas about Ñawinpukyo, principally showing that the Wari occupation of the hill had been much more significant than formerly realized. No further systematic investigations were, however, carried out on the hilltop and thus the interpretation of Ñawinpukyo as a major Huarpa center originated in Lumbreras's work remained largely unchanged.

Ñawinpukyo's hilltop is a softly rolling, elongated area, approximately 500 m long × about 200 m wide, that extends in a slightly NE-SW direction.

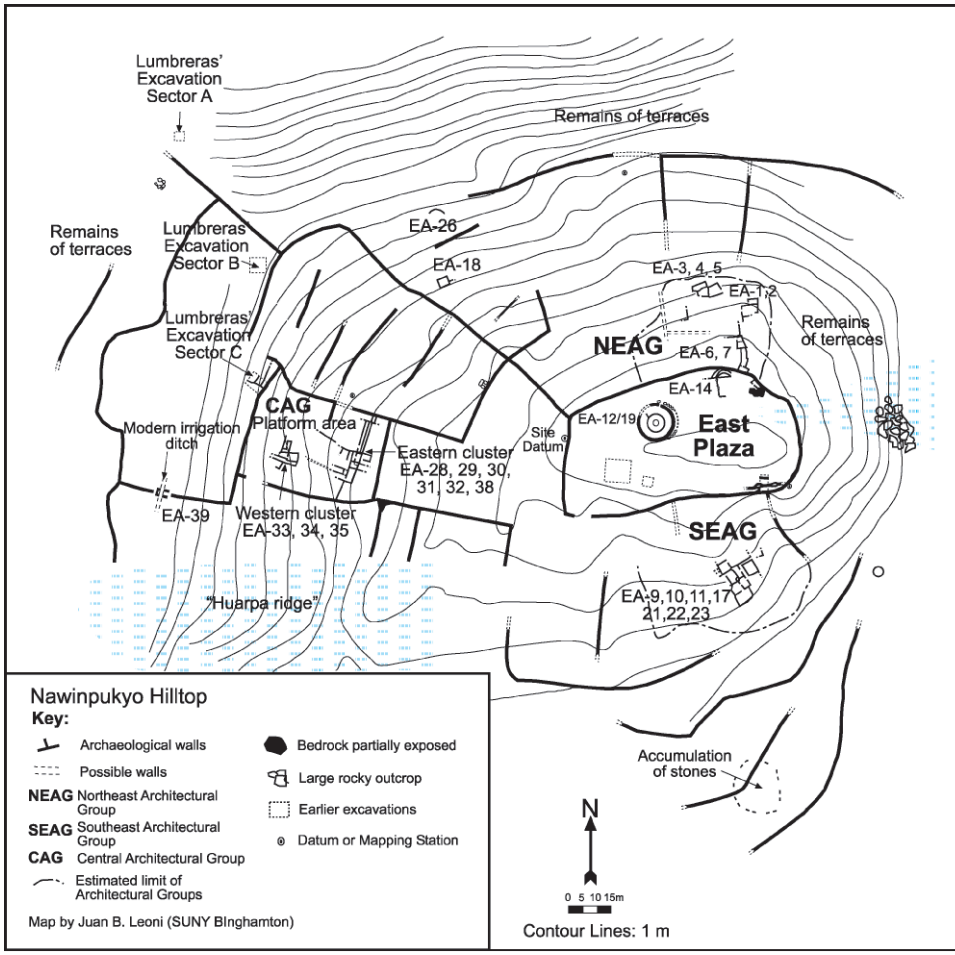

Figure 11.2. Ñawinpukyo hilltop area.

Our investigations there revealed two main temporal components, representing a continuous occupation span of at least five or six centuries (Leoni 2004). The earliest component corresponds to the Huarpa occupation of the site, while the second is the Wari settlement. Unfortunately, no finer-grained temporal phases could be discriminated within these main components. Interestingly, the majority of the architectural remains on the hilltop actually belong to the MH. Four discrete architectural sectors were identified. Three of them consist of clusters of densely agglutinated MH structures, each cluster probably comprising as many as 40 to 60 buildings (Figure 11.2). The fourth architectural sector is a large enclosure of irregular shape, the East Plaza (Lumbreras 1974a: 111; 1981: fig. 7–22), that dates to the EIP (Figure 11.2). Interspersed with these architectural sectors are large

open spaces, many of them terraced, that might have served as agricultural fields or gathering areas in the past.

General Layout of the EIP Hilltop Occupation

I now describe the EIP component of the site, presenting the empirical information and attempting an interpretation of the EIP Ñawinpukyo occupation. The Huarpa occupation of Ñawinpukyo showed a complex layout. Despite the fragmentary nature of the archaeological remains, which precludes a clear understanding of the development of the site's layout throughout the EIP, it seems clear that between the 4th and 6th centuries AD the core of the site was the East Plaza. This was a modest ceremonial walled compound located on the highest part of the hill that contained several ceremonial buildings and served as the focus of intense communal ritual activities (Figure 11.3). Additionally, this enclosure might have

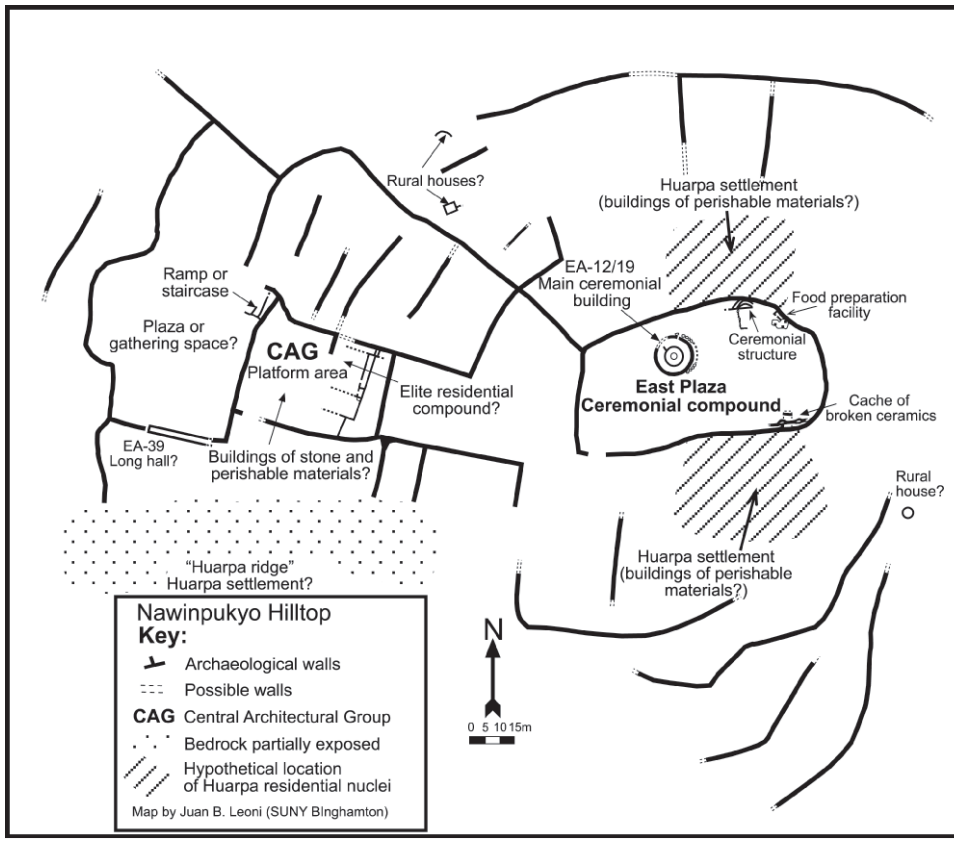

Figure 11.3. Ñawinpukyo. Hypothetical layout of Early Intermediate Period hilltop occupation.

served defensive purposes, not necessarily protecting the whole hilltop settlement but at least providing temporary shelter for the members of the community against enemy incursions.

Residential compounds were perhaps constructed immediately north and south of the Plaza (Figure 11.3). This is suggested by the occurrence of diagnostic ceramics both on the surface and in the excavations, though no Huarpa architectural remains were detected. Other population nuclei might have been located on a rocky ridge a short distance to the south, and on the southwest extreme of the hilltop area (areas that were not systematically investigated) (Figure 11.3). Since all these population nuclei are represented basically by surface sherd scatters, their layouts remain totally unknown. Huarpa occupation nuclei also existed on the lower parts of the western slope as well, as shown by earlier investigations (Cabrera 1998; Lumbreras 1974a; Machaca 1997).

An important group of buildings, designated Central Architectural Group (CAG), was located a short distance to the west of the Plaza. Lumbreras (1974a: 110) described this sector as a system of interconnected platforms on which both residential and ceremonial buildings might have been built. Our excavations there revealed, as discussed below, the remains of what seems to have been an elite residential compound composed of rectilinear rooms, patios and elongated halls.

Interestingly, this site layout seems to reflect an internally differentiated community; the existence of specific ceremonial and residential areas clearly indicates intra-site functional differences. Social differentiation is implied as well by the presumed differences between the residential areas, with at least one, the CAG, clearly standing out among the rest by its layout, architectural construction, and location. This might reflect a social organization with at least some internal ranking.

The East Plaza: A Huarpa Ceremonial Compound

The East Plaza is a large walled enclosure that crowns the Ñawinpukyo hill (Figures 11.3, 11.4). It is built on a flat expanse on the highest part of the hill and has a commanding view of the southern part of the Ayacucho Basin and the Rasuwillka snow-capped peak to the north. The East Plaza is irregular in shape, rectangular to oval, and is roughly 82 m long $\times$ 45 m wide. No large stone buildings or structures seem to have existed in the central open area of the plaza with the exception of a nested circular building. Accumulations of rubble along the interior face of the perimeter wall, on the other hand, suggest that a variety of small structures existed on the edges of the plaza. The perimeter wall of the plaza was built using rough stones, and has an average thickness of 80 to 100 cms, reaching a maximum of 150 cms in some parts. The amount of rubble suggests that originally the wall might have been considerably higher, perhaps between 1.5 and 2 m. There is only one opening in the perimeter, at the southwest corner, about 5 m wide today.

Significantly, only pottery styles commonly ascribed to the EIP (variants of the Huarpa, Cruz Pata and Kumunsenqa styles) can be found on the surface of the East Plaza. Excavations and radiocarbon dates (Table 11.1) confirmed this surface information, demonstrating that the East Plaza was probably constructed and used

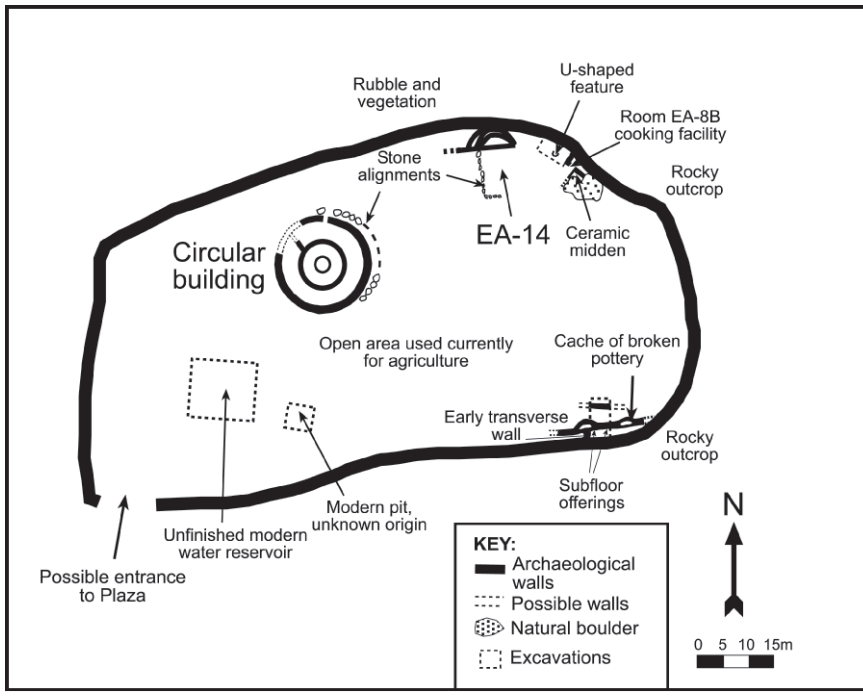

Figure 11.4. Ñawinpukyo. East Plaza showing location of buildings and features mentioned in the text.

in the late part of the EIP. Evidence of Huarpa occupation and activities, including a circular ceremonial building, a semi-circular presumably ritual structure, food preparation facilities, and a carefully prepared cache of broken ceramics were uncovered inside the enclosure. These remains document a variety of ceremonial activities that might have included communal feasts possibly related to an ancient Ayacucho mountain cult (see below).

The Circular Temple

This building is located in the central part of the East Plaza (Figure 11.4) and comprises three concentric stone circles. Its unique location implies a central

Table 11.1. Radiocarbon dates from Ñawinpukyo early intermediate period component

Lab Sample #	Site Temporal Component	Date BP	Date calibrated AD 1 Sigma	Date calibrated AD 2 Sigma	13C/12C Ratio	Material	Provenience
Beta-180665	EIP	1600 +/−70	AD 400–540	AD 260–290 AD 320–620	−23.5	Charred beans	EA-14, fill between walls
AA-46633	EIP	1583 +/−34	AD 425–537	AD 408–560	−21.2	Charcoal	Circular temple, subfloor fill

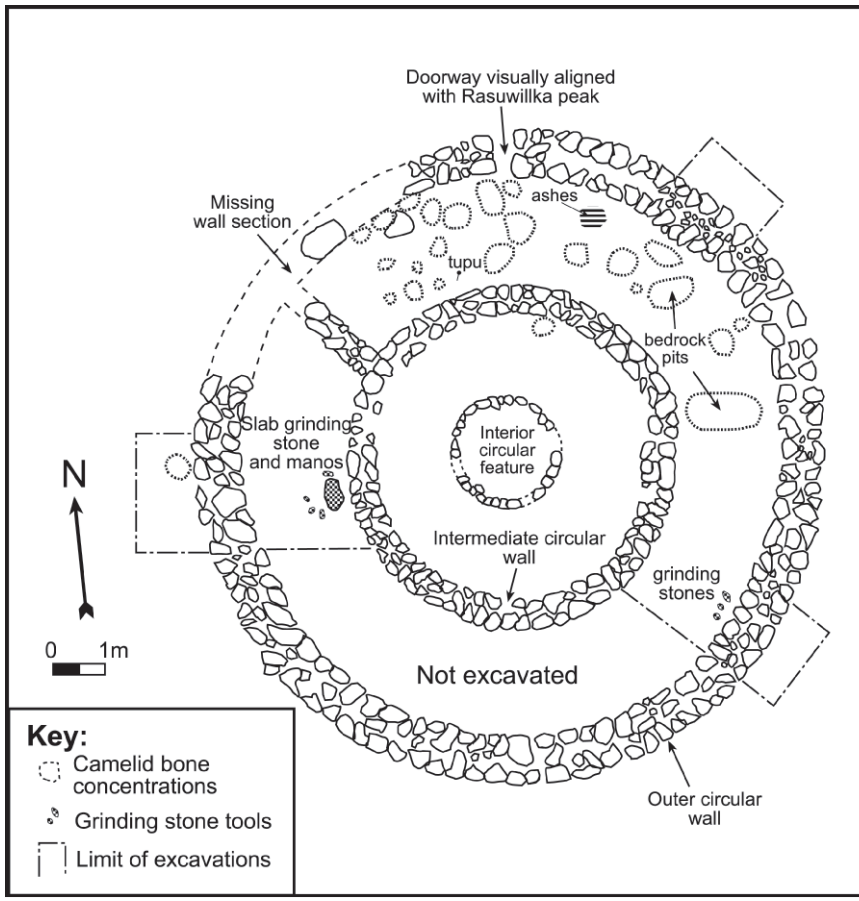

Figure 11.5. Ñawinpukyo. Plan of Huarpa circular ceremonial building showing location of camelid bone concentrations and other artifact associations.

importance for the activities that took place within the compound. The outermost circular wall has a diameter oscillating between 11 and 11.5 m (inside dimensions), and it averages 1 m thick. The intermediate circular wall is 5.6 m in diameter (inside dimensions), averaging 60 cms thick. The interior, smallest circular feature has a diameter of 1.9 m and an average thickness of 25 cms. All the walls are based on a same layer of compacted earth that also served as the building's floor. A segment of a radial wall was found in the northwest quadrant, in the space between the intermediate and outer walls (Figure 11.5). This wall would have created an internal separation within the outer circle, preventing a free circulation inside it. Several large stones were found outside the building in an apparent but discontinuous alignment. They form what could have been a fourth and outermost circle.

The circular building has only one doorway, located in the north section of the outer wall (Figure 11.5). It is very narrow, just 30 cms wide, and its sides are made

of stones with flat faces. The most important aspect of this doorway lies in its location and orientation: it is perfectly aligned with the Rasuwillka snow-capped peak, the highest mountain visible from Ayacucho valley. The ritual importance of this peak as the home of a hatun wamani or major mountain deity in contemporary Andean cosmology has been pointed out (Anders 1986; B.J. Isbell 1978; Morissette and Racine 1973). Thus, the orientation of the building's doorway might imply that cult functions related with this mountain constituted a primary aspect of this building (see discussion below).

The excavation of this building revealed intriguing contexts that seem to support its proposed ceremonial function. No special artifact associations were found inside the small circular feature in the center of the building, nor in the intermediate circular area, suggesting that the innermost part of the building was perhaps kept carefully clean. The only context revealed was a concentration of disarticulated camelid bones against the northeast part of the intermediate wall (Figure 11.5); analysis of the bones determined that they correspond to a juvenile camelid, 15 to 18 months old (Rosenfeld ms.). The space between the intermediate and outer walls, on the other hand, contained a number of archaeological remains. Two concentrations of ground stone tools were found on the building's earthen floor (Figure 11.5). The first one, in the southeast part of the circle, consisted of three slab grinding manos; the second one, in the west part, comprised a slab grinding stone and four manos. These finds might imply food preparation, perhaps grinding vegetal materials, inside the circular building.

A total of 23 animal bone concentrations were also found distributed all over the north and northeast sections of the building (Figure 11.5). They consist of perfectly defined groups of disarticulated camelid bones; some of them contain the incomplete remains of several animals while others contain a few bones of a single animal. Most of the bone groups were buried directly in the building's floor; two of the groups were placed in pits in the bedrock. It is, however, impossible to determine with certainty if the bone groups were deposited simultaneously or sequentially. Detected differences in depth and deposition might support the latter, implying that these contexts represent activities taking place within the circular building over time. An additional animal bone group with similar characteristics was located in a small-scale test excavation carried out to the west of the building very close to the outer circular wall.

Structures in the Northeastern Part of the East Plaza

Excavations in the northeastern part of the Plaza uncovered ritual structures and features, as well as evidence for cooking activities. The amount of rubble along the perimeter wall suggests that several other unexcavated structures might exist in this area as well.

Building EA-14 is a small semicircular structure located very close to the enclosure's perimeter wall (Figure 11.4). It consists of three curved concentric walls and a straight transverse wall closing the semi-circle on its south side. South of the semicircular structure, an alignment of upright stones defining a trapezoidal

open space (approximately 7.5 × 6.5 m) was detected. It seems that this building underwent several remodeling episodes over time, and that the shape described above is only a final aspect. It is possible that the structure was originally circular, and later modified into a semicircle, though no clear evidence to support this possibility was found.

The semicircular structure had a floor made of compacted earth and small fragments of white diatomaceous rock. Few artifacts were found in association with this floor, except for EIP pottery sherds and a few lithics, most probably secondary refuse. An infant burial was found under the floor, in a small pit dug into bedrock. The pit is located by the central part of the curved wall and was capped with two flat stones. Underneath the stones several large sooted sherds of a Kumunsenqa style jar had been arranged to cover the remains of a 6-month-old (+/−3 months) infant (Lichtenfeld ms.). An exploratory excavation in the open trapezoidal area to the south detected the continuation of the above-described floor but no significant artifact associations. Notably, charcoal, charred maize cobs and beans were found in the sub-floor fill, inside the burial pit, and among the secondary refuse found between the building's concentric walls, perhaps documenting that food preparation and consumption took place in this part of the plaza. A late EIP radiocarbon date was obtained from a sample of charred beans (Table 11.1).

The semicircular structure EA-14 and its associated open area represent an unusual architectural unit. The function of this structure is difficult to ascertain since very little is known of Huarpa architecture, both domestic and non-domestic. Its unusual shape seems to indicate that it was a special purpose building, probably ceremonial in character. Martha Cabrera (1998) reported a roughly comparable structure from her investigations on a lower slope of Ñawinpukyo. The presence of an infant skull on a flat stone inside the building (in a generally similar location to the infant burial in EA-14) led Cabrera to attribute that structure a ceremonial function.

A narrow rectangular room, EA-8B, was built against the interior face of the plaza's north wall, about 10 m to the southeast of EA-14 (Figure 11.4). This small (370 × 90 cms) room was expediently built, using the plaza's perimeter wall as north edge and a large natural rock as its eastern side. Three successive activity surfaces were identified in the excavation of the room; the walls are built directly on the last one, indicating that either an open area or a larger architectural unit that was not identified existed in this part of the plaza before EA-8B was built. A large broken slab grinding stone was found on the last activity surface as well as an ashy concentration against the north wall. This evidence suggests that food preparation might have taken place in this room, perhaps in relation with the ceremonial activities presumably carried out in EA-14 and the circular building. A midden containing mostly broken EIP ceramics was found immediately south of EA-8B, in a narrow space between the room's south wall and a large rocky outcrop. This residual space might have received trash from activities carried out in the plaza, though it is unclear why ceramics constitute the vast majority of the refuse.

A test excavation immediately west of room EA-8B revealed the same activity surfaces and earthen floors identified inside the room, as well as a small U-shaped structure containing animal bones (Figure 11.4). This feature was built directly on

the surface of an earthen floor, and consists of a single line of stones aligned to form a "U" with its open side to the north. The structure is 90 cms long × 80 cms wide (exterior dimensions), with the opening about 30 cms wide. It contained disarticulated bones, most of them belonging to a neonate camelid and the rest to an adult deer (Rosenfeld ms.). No ashes or charcoal were found in this structure and the stones show no signs of thermal alteration indicating that this feature did not serve as a hearth. It might be interpreted as a ritual structure, in which selected parts of the animals were placed as an offering, perhaps functioning in relation with the activities carried out in the adjacent buildings.

Walls and Features in the Southeastern Part of the East Plaza

Exploratory excavations in the southeastern edge of the East Plaza identified the partial and poorly preserved remains of several structures (Figure 11.4). A thick wall was found, running parallel to the plaza's perimeter wall less than a meter north of it. An 8-m long section of this wall was defined, and it surely continues to the east and west. Its thickness averages 85 cms, and is built with rough stones in two parallel rows, with rubble and earth filling the space between them. A short section (80 cms long) of a transverse, slightly curved wall was found underlying both the plaza's perimeter wall and the parallel wall, indicating that several construction episodes took place in this part of the enclosure. Another E-W wall was discovered about 3 m north of the perimeter wall (Figure 11.4), consisting of a single line of stones based on an earthen floor. In sum, these fragmentary architectural remains show that buildings existed along the southeast edge of the plaza just as along the northeastern margin of the enclosure. It seems clear that different construction and remodeling events took place, and that the plaza's perimeter wall was built at least partially on top of earlier structures. The amount of rubble to the west of this excavation unit is a possible indicator of the existence of more structures or rooms, but no further excavation could be carried out to confirm this possibility.

The excavations in this area of the enclosure revealed several activity surfaces but almost no significant contexts, except for two subfloor features and a deposit of late EIP pottery. Two small pits dug in the bedrock were found between the thick, parallel walls (Figure 11.4). The first one partially intruded under the plaza's perimeter wall and contained a grinding stone tool in an upright position and 6 large plain ceramic sherds. The second pit was located very close to the transverse wall, containing two superimposed, upside down conical jar bases. They had been deliberately cut and were extensively sooted. Even though no remains were found underneath the ceramic bases, this particular arrangement suggests that they might have covered perishable elements or even human remains that did not preserve. Both subfloor features seem to represent ritual events, perhaps dedicatory offering associated with the construction of buildings in this part of the East Plaza.

A cache of broken EIP ceramics was found about 5 m east of the early transverse wall. Embedded in the interior wall, a semicircular stone structure, 1.5 m long × 60 cms wide, was detected. This feature was filled with broken pottery, comprising a total of 1,904 sherds weighing about 60 kgs. While several vessels could be partially

reconstructed none appeared to have been complete, indicating that the breakage took place somewhere else and that some of the sherds might have been discarded in other places (perhaps in other similar deposits) or recycled for other purposes (to cover burials, bulk for fills, reworked into ceramic artifacts such as spindle whorls, etc). Conspicuously, no other materials, except for a shell bead, were found in association with the pottery. The careful preparation of the receptacle along with its location inside a ceremonial compound, led me to interpret this context as a special deposit where ceramics used in ceremonies carried out within the East Plaza were ritually interred.

The ceramic assemblage in this feature comprises an estimated minimum number of 63 vessels: 36 jars, 21 bowls, 2 cups, and 4 spoons. While the Huarpa simple linear and geometric decoration of black and sometimes red lines on both white and natural backgrounds predominates (10 of the jars and 9 of the bowls), the assemblage shows a relatively a high occurrence of Cruz Pata, Nasca-influenced decorations. Six of the jars and the 2 cups belong to variants of this stylistic unit (Figure 11.6). Additionally, several tall-necked jars with flaring rims have Cruz

Figure 11.6. Ñawinpukyo. Ceramics from ritual deposit in East Plaza: Nasca-influenced Cruz Pata cup.

Figure 11.7. Ñawinpukyo. Ceramics from ritual deposit in East Plaza: Huarpa tall-necked jars with flaring rims.

Pata motifs and color combinations in the horizontal decorated bands on their black and white necks (Figure 11.7). Interestingly, a tall-necked jar has the Acuchimay zigzag pattern (commonly described as a Chakipampa A feature [Menzel 1964]) on its neck and Cruz Pata and Huarpa motifs on the decorated panel on its front (Figure 11.8). Typical Kumunsenqa jars comprise an important proportion of the assemblage (12 vessels) as well. Plainware vessels are not uncommon either, and at least 4 bowls and 2 jars show no decoration of any kind. Finally, a rim sherd of an open bowl with exterior bright orange Okros-like slip, but simple geometric black and red designs on it was also found. In general stylistic terms, the presence of Cruz Pata Nasca-influenced pottery clearly suggests a late EIP date for this assemblage (see Knobloch 1983, in press; Lumbreras 1974b; Menzel 1964; Paulsen 1983).

The heterogeneous composition of the assemblage in terms of vessel shapes reflects a wide variety of activities, related with the preparation and consumption of both food and beverages, and seems to have resulted from a single depositional episode. Thus, the assemblage might very well be interpreted as the material correlate of a feasting event, which included abundant food and beverage consumption by a large number of people, judging from the relatively high number of jars. This type of event was probably central in the religious and ceremonial life of the Huarpa society, and could have played a key role in the socio-political realm as well (see discussion below). In this sense, this context somewhat resembles the typical ceramic offering deposits of the MH (Cook 1985; Isbell 2000; Isbell and Cook 2002). Unlike the MH cases, which are composed typically of oversize pottery, the Ñawinpukyo deposit has only ordinary size vessels. Additionally, a wider

Figure 11.8. Ñawinpukyo. Ceramics from ritual deposit in East Plaza: Large jar with Acuchimay zigzag decoration on its neck and Huarpa and Cruz Pata designs on its body.

range of vessel shapes seems to be represented in the Ñawinpukyo EIP deposit, which includes not only fancy fine wares but also simple plain vessels. Finally, the small above-ground semicircular receptacle found at Ñawinpukyo has no parallels in the known MH examples (see Cook 1985: table 1; Isbell 2000: tabla 2). Nevertheless, the Ñawinpukyo deposit could still be documenting the antecedents of the characteristic MH ceramic offering deposits, indicating that the practice of

ritually interring the remains of vessels used in feasts and ceremonies might have early local precedents in Ayacucho.

Inclusive and Exclusionary Aspects in the Architecture of the East Plaza

The archaeological finds at the East Plaza suggest that it served as a locale for large communal feasting events, perhaps in relation with a mountain cult, if the obvious alignment of the circular building with the Rasuwillka nevado (snow-capped mountain) can be interpreted to have had some cosmological significance. Judging from the uncovered remains, the ceremonies in the plaza would have involved the consumption of food and beverages, as well as the ritual disposal of some the remains (animal bones, pottery). The variety of ceremonial buildings and features uncovered might indicate that a range of rituals of different scale and meaning could have taken place at the compound, besides the larger communal feasts.

Interestingly, the design of the East Plaza combines dimensions of openness and seemingly unrestricted access to the general area of the enclosure with a marked restriction in the access to its main buildings. The possible entryway was wide enough to permit an unhindered entrance to the enclosure, and the open space in the plaza around the circular building was large enough to accommodate a sizable crowd of at least a few hundred people. Nevertheless, the buildings inside the walled compound constituted much more restricted spaces. Their size, location and plan would have made it very difficult to accommodate more than a few dozen people or less at most.

The restrictive aspect is best exemplified by the circular building, whose dimensions, plan, and narrow doorway would have posed physical limits to access and circulation inside the edifice. The interior of this building might, thus, have remained as an intimate domain, to be accessed only by few people at a time. Thus, a complex interplay of integration and exclusion could have operated within the compound, bringing people together but perhaps also marking some differentiation in the process. Patterns that combine instances of massive and selective access within the same architectural compounds are not uncommon in ritual precincts, and have been observed in a variety of archaeological cases (Moore 1996:163). As Julian Thomas (1993: 43) has pointed out, layouts like these allow a set of practices to be carried out in such a way as to produce an impression of social unity while at the same time reproducing differential access to knowledge.

The Central Architectural Group: A Huarpa Elite Compound?

The Central Architectural Group (CAG) is located about 70 m west of the East Plaza (Figure 11.2). It is a densely built up area, surrounded by perimeter walls. It has a rectangular shape, measuring 50 m (E-W) $\times$ 35 m (N-S). Lumbreras (1974a: 110) described this part of the site as a platform or system of platforms of probable ceremonial purpose. The platform effect was achieved by carefully terracing a section of the slope with a main retaining wall, between 1.5 and 2 m

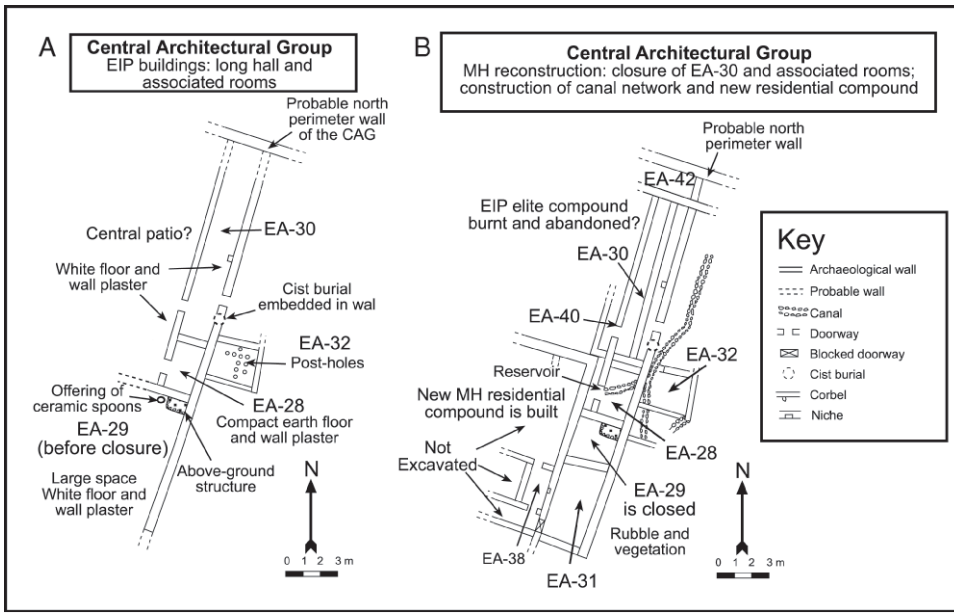

Figure 11.9. Ñawinpukyo. Central Architectural Group showing (a) Early Intermediate Period hypothetical architectural layout of presumed Huarpa elite compound; (b) final architectural palimpsest after Middle Horizon reconstruction.

high, on its western edge. The platform itself does not present a flat surface but has at least three main terraced levels defined by N-S retaining walls on which the architectural remains are located. The platform overlooks an open expanse to the west. A dramatic effect could have been achieved if this lower open space had been used as a plaza or gathering place, functioning in conjunction with the elevated, dominant platform. The platform is accessed from the west by a possible ramp or staircase (Figure 11.3) excavated by Lumbreras (1974a: 110) in 1971; two other possible entrances existed in the north and south perimeter walls (Figure 11.3). Excavations at the CAG revealed partially superimposed EIP and MH architectural remains, representing a series of architectural construction and reconstruction episodes (Leoni 2004).

Two main clusters of rooms were defined and excavated in the CAG (Figure 11.2). Interestingly, the eastern cluster included the partial remains of what seems to have been a late EIP elite residential compound, possibly composed of elongated galleries and rooms around a central patio. This cluster comprises 6 rooms that could be entirely defined (EA-28, 29, 30, 31, 32, 38), plus a number of partial sections of walls and structures (EA-40, 42) (Figure 11.9). The western room cluster, on the other hand, corresponds mostly to the MH occupation, though wall segments possibly dating to the EIP were detected underneath some of the rooms.

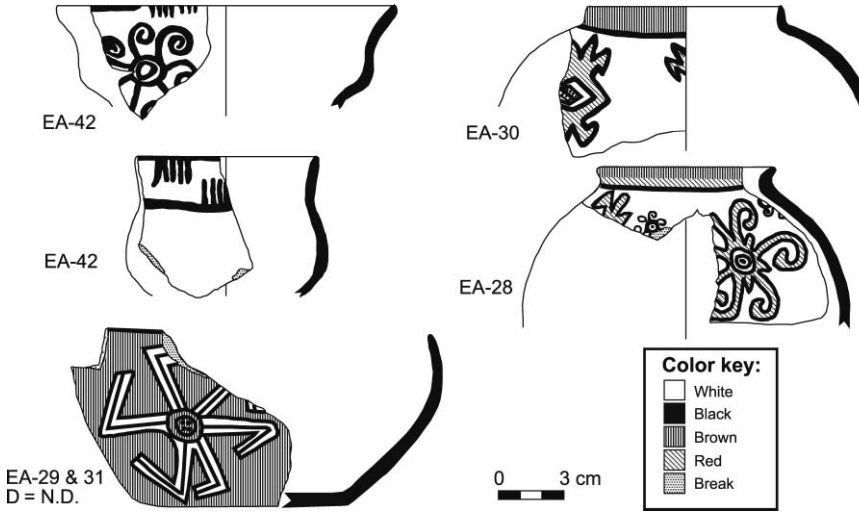

Figure 11.10. Ñawinpukyo. Late EIP ceramics from the Central Architectural Group, showing Nasca-influenced decorative motifs (e.g., spoke wheel, rotating spirals, triple-rayed appendages; see Menzel 1964; Knobloch 1983, in press).

The elongated hall EA-30 is perhaps the most remarkable building in the eastern room cluster. It would have formed part, along with room EA-28, of a larger, and not fully defined architectural compound that extended both east and west of these rooms. EA-30 would have been at least 10 m long (its northern extreme could not be clearly defined) $\times$1.80 m wide. The original hall had two doorways located in the southern section of the east and west walls, which communicated with unexcavated rooms or courtyards. A small (45 $\times$ 40 cms) above-ground square feature, made of stones and mud mortar, was located in the central part of the hall (Figure 11.9a), against the east wall. A stone-lined cylindrical cist burial was found embedded in the east wall (Figure 11.9a) as well. It is 90 cms deep and 50 cms in diameter, dug into bedrock. It was capped with a round flagstone and contained the very decomposed remains of an adult of unknown age and sex.

The excavation of the hall revealed a shallow stratigraphy and no significant artifact associations. A succession of four carefully prepared white plaster floors was detected, indicating that the building underwent at least four successive replacements of its floor, and perhaps wall plaster as well. A stratum of soil with a high content of ashes (also identified in test excavations outside the hall) was found above the latest floor, perhaps representing the burning of the roof upon or after the abandonment of the building. Diagnostic pottery recovered from the excavations comprises an overwhelming majority of late EIP styles (Figure 11.10). Reconstruction or remodeling occurred after the abandonment of the hall, with the addition of several wall sections including an apparently little functional longitudinal wall that divided the hall into two even narrower spaces (Figure 11.9b).

To the south of EA-30 is EA-28, a small (1.8 × 2.8 m) rectangular room (Figure 11.9a, b). It seems to have been created by subdividing hall EA-30, and had a doorway on its west side. EA-28 was subjected to successive remodeling, including the addition of several wall sections, floors, and an above-ground canal, which drastically altered its original form and function.

East of EA-28 is EA-32, a small, almost square (3 m long × 2.6 m wide) room, defined by very irregular walls. As the above-described buildings, it shows evidence for successive reconstruction that affected its shape and function over time. Excavations revealed only a shallow stratigraphy, consisting of a succession of earthen floors. Interestingly, one of the floors (which predates the construction of the stone walls) presented ten small (15–20 cms in diameter, 7–15 cms deep) postholes (Figure 11.9a). It is not clear if they were part of the roofing structure of a building or had another purpose. It is possible that perishable structures might have been constructed for unknown purposes within large spaces, perhaps to subdivide them, and later replaced with more permanent stone masonry walls.

Other contemporary buildings seem to have existed immediately to the south, including a large space with a white plaster floor that was later subdivided into smaller rooms, and further altered by the construction of MH buildings (Figure 11.9a, b). Room EA-29, thus, seems to have originally been a larger space, reduced to its final form by successive architectural remodeling. The most salient feature in this area is a rectangular above-ground structure, located in the northeast corner. This structure (120 cms long × 60 cms wide × 6 cms high) was finely made, with stone walls coated with clay. An internal layer of flagstones separated two hollow levels within the structure, with a small floor-level rectangular aperture giving access to the lower level. No contents were found inside this structure, however. Interestingly, the addition of several walls later isolated this structure, creating a small space with no doorways (Figure 11.9b).

A subfloor pit (20 cms in diameter × 5 cms deep) was found 30 cms west of the corner structure and 5 cms form the north wall (Figure 11.9a). It contained four ceramic spoons, apparently new or almost unused, placed forming a tight assemblage. The spoons have the typical bright orange slip of the Okros style, but the black-outlined red bands of the painted decoration seem more related to the Huarpa style (Leoni 2004: figs. 6.8, 10.45). Slight variations in the decoration divide the spoons into two pairs, implying some kind of dual pattern. This context was presumably deposited at the moment of construction of the original large architectural space and before the white plaster floor was laid out, and it might be interpreted as some kind of dedicatory offering associated with the construction of the building.

Thus, the excavations in the eastern sector of the CAG uncovered parts of what seems to have been a large architectural compound. At least part of it could have comprised an elongated hall and smaller rooms arranged around a central space, perhaps a patio, in a pattern reminiscent of the later MH orthogonal patio groups (*sensu* Isbell 1991), implying perhaps an early local Ayacucho antecedent for these characteristic Wari compounds. Unfortunately, no clear artifact associations were detected that could serve to infer the function of this group of buildings. The

general good quality of floors and wall plasters, and the presence of some special architectural features would imply that these buildings had a special function, perhaps as part of an elite architectural complex. This compound might have had residential function, but could have also served ceremonial and/or administrative purposes, if the presumed similarity with MH orthogonal compounds pertained not only to formal but also functional aspects. The fact that only EIP diagnostic ceramics were recovered from the excavation of EA-30, 28, 32 and from the early floors of EA-29 would argue for their EIP temporal affiliation, though this determination has to be definitively confirmed with additional stratigraphic, artifact and chronometric data.

Interestingly, later MH buildings were partially built on top of the earlier remains, reutilizing and incorporating some of the walls into the later rooms (Figure 11.9b). This asserts a radically different attitude from that expressed by the Wari Ñawinpukinos toward the East Plaza, which was left essentially untouched during the MH. This differential attitude was perhaps inspired in the different nature of the EIP buildings concerned, with the East Plaza holding a more significant religious and cosmological meaning that led to its preservation over time.

ÑAWINPUKYO IN THE EARLY INTERMEDIATE PERIOD: CEREMONIAL CENTER AND SACRED PLACE

The archaeological finds from Ñawinpukyo's hilltop indicate that communal religious feasts had a central importance for the Huarpa inhabitants of the site. As such, specialized, though modest, ceremonial architecture constituted the core of the hilltop occupation and served as the stage for significant ritual activities whose importance perhaps extended beyond the purely religious realm to constitute key socio-political practices in late Huarpa society.

The East Plaza had a primary cosmological importance in the life of the EIP Ñawinpukinos. Its location crowning the hill and commanding a panoramic view of the valley, as well as the activities carried out inside it in possible relation with an ancient mountain cult, signaled the special status of this compound and transformed it into a sacred space. These events would have also played a crucial role in the integration of the local community and in the affirmation of a community identity, which emphasized the attachment to a meaningful place, and perhaps also, as suggested below, a participation in a broader supra-community cultural realm.

Celebrating Gods and Community: Religious Dimensions of Feasting at the East Plaza

As discussed above, the obvious relationship between the East Plaza's main building and the Rasuwaillka nevado, a mountain ethnographically reported to hold religious importance, hints at the possible existence of mountain worship-related activities and beliefs in the late EIP in Ayacucho. The importance of mountain

gods, commonly called apus or wamanis, in modern Andean cosmology is well documented (e.g. Allen 2002; Bolin 1998; Favre 1967; B.J. Isbell 1978; Morissette and Racine 1973). Deities reside in hills, rocky knolls, caves, snow-capped peaks and mountain lakes, as well as other topographical features. They are believed to control meteorological phenomena and are regarded as the owners of animals and plants; thus, propitiatory rituals are commonly directed to them to ensure the reproduction of animals, harvests, and people. Wamanis are organized in a hierarchy in which deities of increasing importance and power preside over increasingly wider territories. In this hierarchical arrangement snowy peaks, visible from greater distances, commonly hold sway over extensive geographical areas and larger numbers of people.

Mountain peaks also had religious importance in Inca and early post-conquest times. Mountain worship was an important part of the state religion, as indicated by ethnohistorical accounts and archaeological remains of mountain shrines and sacrifices (Besom 2000; Reinhard 1985). According to Johan Reinhard (1985: 306), mountains were venerated by the Incas and by the local peoples incorporated into their empire, constituting the most important deities at a regional level and perhaps worshipped for fertility and water supply. Mountain veneration seems to have been deeply intertwined with other important religious notions and practices such as fertility rites and ancestor worship as well, as part of complex cosmological systems (Reinhard 1985: 309).

Mountain-related religious beliefs and practices might have also existed in pre-Inca times. Several scholars have argued for this possibility, interpreting varied archaeological cases as related with aspects of mountain worship similar to those reported ethnohistorically and ethnographically (e.g. Anders 1986: 782–805; Glowacki and Malpass 2003: 439–441; Reinhard 1985: 309, 1992). However, as Isbell (1997b: 124–135) has argued, important pre- and post-Hispanic cultural and historical transformations might have introduced changes in Andean cosmological beliefs, as well as in social and economic organization, posing limits to the use of a direct historical approach. While the exact meaning of the Rasuwillka nevado for the EIP Ayacucho people remains totally unknown, the archaeological remains from Ñawinpukyo seem to indicate that at least some supernatural aspects associated with mountains could have been a central part of Huarpa religion and cosmology. Whereas I use ethnographic analogies to illustrate formal similarities that could help to interpret the archaeological remains uncovered in the plaza, this is not to imply, however, that exactly the same religious and cosmological beliefs reported ethnographically were already in place in the late EIP.

As discussed above, a central aspect of the ceremonies taking place in the plaza involved the sacrifice, consumption and burial of domestic camelids. Interestingly, an ethnographic study of a village in Cuzco by Inge Bolin (1998: 53–57) describes a ritual animal sacrifice to a mountain god that shows some formal similarities with these archaeological remains. Bolin describes a household-level ritual in which a llama is sacrificed and eaten; the bones are later buried in the sacred ground of the family's ceremonial corral. The sacrifice is dedicated to the most important mountain god in the area in order to ensure the prosperity of the family.

Keeping in mind the risks of projecting ethnographic analogies into the past, I suggest that the animal bone concentrations at Ñawinpukyo might represent similar propitiatory rites, appealing to the Rasuwillka mountain deity for good livestock yields and harvests. The rites involving camelids documented at the East Plaza were possibly accompanied by consumption of other foods and beverages, and would have culminated in the disposal of the remains in several ritualized manners.

In sum, I argue that the archaeological remains uncovered at the East Plaza might represent ritual feasts meant to honor the Rasuwillka peak, perhaps in ceremonies of fertility and regeneration. The ceremonies could have served as a community integrative mechanism, bringing together the members of the local community on a periodic basis. The community itself would have been celebrated and its identity reaffirmed in the process of propitiating the gods. The congregation in the sacred space of the walled compound would have served to assert the community's existence and unity, as well as its attachment to the hill and its surroundings. In other words, a sense of belonging both to place and community was fostered and reproduced in these periodic ceremonies. The community's internal organization and its position in the broader region would have been cosmologically sanctioned, legitimizing its existence, and its access to a territory and its resources.

Additionally, these ritual feasts could have also fostered some degree of supra-local integration, at a time in which political centralized authority seems not to have existed in the valley. Ethnographic studies have shown the supra-community integrative value of ceremonies in which major mountain deities are venerated. As Catherine Allen (2002: 85) pointed out, highly visible peaks provide a common focus for wide regional integration, promoting regional identities reproduced by participation in ceremonies that honor of these major deities. If the Rasuwillka peak held in the past an importance as a regional deity comparable to that documented ethnographically, the East Plaza might have constituted a sanctuary that congregated at least some non-local participation. Thus, Ñawinpukyo could have projected its character of sacred place regionally, perhaps serving as a focus of pilgrimage or as a stopping point in a pilgrimage route leading to other more important sanctuaries.

The Socio-Political Dimensions of Feasting at the East Plaza

As Michael Dietler (2001:78) has pointed out, even religious feasts dedicated to supernatural entities ultimately have multiple human audiences. Thus, social and political dimensions can be important components of religious ceremonies as well. While the integrative aspects of these ceremonies are perhaps the most obvious (as discussed above), ritual feasts can also serve as arenas for socio-political competition and expression of differentiation, and thus have a central importance in processes leading to the development of complex socio-political structures.

Perhaps the most obvious indicator of implicit social differences in our case is provided by the spatial layout of the East Plaza, with its simultaneous inclusive and

exclusionary aspects, that could have promoted a differential access to certain sets of knowledge and practices. Nevertheless, even if this pattern actually reflects the existence of a corpus of knowledge to which only a segment of the community had access, it does not necessarily imply the existence of institutionalized social and political differentiation. In other words, religious differences would not necessarily translate into socio-political hierarchy and ranking.

Other archaeological materials from the Plaza show only limited indications of the existence of marked social differentiation. The presence of a few examples of fine drinking cups in the ceramic cache along with less fancy bowls and cups might be interpreted along these lines, suggesting perhaps a differential access to fine ceramic wares. Conspicuously, a high-quality decorated shawl pin, a typically female artifact, was found inside the circular building among the animal bone groups. While one artifact is obviously too limited a basis on which to draw social inferences, the possibility that high status women not only had access to the temple's restricted interior but also actively participated or even directed the ceremonies deserves consideration. As Joan Gero (1992) has showed, this was a common occurrence in roughly contemporary feasts in the northern highlands Callejón de Huaylas, where high-ranking women centrally displayed their membership to the groups who sponsored the feasts, in a context of political competition and increased social differentiation. Perhaps comparable processes were taking place at Ñawinpukyo in the late EIP as well.

The main evidence to support the existence of internal socio-political differences at Ñawinpukyo (and by extension in Huarpa society), however, comes not from the East Plaza but from the CAG, where parts of a possible elite compound were uncovered. The partial layout of the compound and the quality of its walls and floors imply a special building that might have been similar to later MH orthogonal patio groups, with long halls and rooms arranged around a central square or rectangular patio. Whereas the temporal and functional interpretation of this compound remains tentative, its existence would suggest that at least some members within the local community resided in buildings that departed markedly from the simpler architecture that seems to have characterized most of the EIP in Ayacucho. Perhaps its inhabitants were an emergent local elite, maybe the sponsors of the feasts carried out in the East Plaza or the specialists who controlled the cosmological knowledge associated with those ceremonies. In any case, it would indicate that the process of differentiation that would eventually lead to the rise of Wari and statehood in the valley had already begun in the late EIP at places like Ñawinpukyo.

CONCLUSION

Since little is known about the antecedents of the Huarpa culture in Ayacucho (see Isbell 2001; Lumbreras 1974a; Ochatoma 1992), it is very hard to determine if the rise of Huarpa implied drastic cultural changes or a gradual development from a local substratum. It is uncertain when, where and how the Huarpa archaeological culture and its characteristic pottery style emerged. It is possible that intra-regional

differences might have existed, with the archaeological indicators of the Huarpa culture appearing at different times in different parts of the Ayacucho Valley (see Knobloch 1976, 1983, in press).

Recent investigations at Ñawinpukyo do shed new light on the little known EIP in the Ayacucho Valley, producing valuable empirical information about Huarpa society and culture and allowing us to assess more correctly the character and role of the site in this period of Ayacucho's prehistory. The archaeological evidence discussed herein clearly shows that public ceremonialism played an important role in late EIP Huarpa society. The ceremonial East Plaza occupied a pivotal position within the Huarpa settlement on Ñawinpukyo's hilltop and bestowed on the site a special sacred character, perhaps also projecting it regionally as a prestigious religious center. While the ritual feasts carried out in it would have served as important integrative practices, asserting the unity and identity of the Huarpa inhabitants of Ñawinpukyo and its surroundings, they could have also offered an arena on which political agendas and identities could have been advanced and negotiated, at a local and perhaps supra-local level as well. As discussed above, both integrative and exclusionary social dimensions seem to have been communicated through the architectural layout of the compound, and presumably reproduced in the actual ceremonies. Thus, propitiatory communal rituals in honor of mountain deities, celebrating the unity and identity of the community could have potentially served to promote and legitimize social and political differences as well. Perhaps the sponsorship of these ritual events had a central importance in the rise and legitimating of a ruling elite that took advantage of religious practices and knowledge to consolidate its power.

Nevertheless, while some aspects of the site layout seem to support the existence of some degree of social differentiation at Ñawinpukyo, the information is still too fragmentary to conclusively support this line of argument. And even if a local elite did exist at Ñawinpukyo in the late EIP controlling or sponsoring the ceremonies carried out at the East Plaza, its development would not continue into the MH. In fact, Ñawinpukyo became a local community with little internal differentiation in most of the MH, firmly integrated into the Wari state administrative structure in the lower tiers of its settlement hierarchy (Leoni 2004). Perhaps, as Isbell (2001) has suggested, the thriving center of Conchopata outperformed Ñawinpukyo and other centers in the southern part of the Ayacucho Valley, thanks to a combination of innovative ideology and sophisticated material culture, as well as economic and perhaps also military power. Ñawinpukyo's ceremonies in honor of Rasuwillka would not have been a match in the political competition against the more powerful elites based at sites like Conchopata and Huari.

While great socio-political changes seem to have been brought about with the onset of the MH, the rise of the Wari polity did not mark a complete cultural rupture with the local Huarpa past. Interestingly, late Huarpa society would have included a number of features that anticipated later characteristic MH developments. Thus, the investigations at Ñawinpukyo revealed ceramic deposits that be the local antecedents of the later Wari ceramic offering deposits, as well as architectural layouts that could anticipate aspects of the typical MH orthogonal patio groups. The circular and semicircular ritual EIP ceremonial buildings could have

constituted the basis from which the typical MH D-shaped temples developed as well. But while these practices and features were part of the local substratum upon which Wari culture was constructed, important innovations and re-signification possibly altered their original Huarpa meanings and functions. Finally, the continuity between Wari and Huarpa was specifically stressed at Ñawinpukyo, where the MH inhabitants chose to preserve the EIP ceremonial architecture, occupying a central place in the Wari settlement and indicating a manifest interest in maintaining a strong connection with their Huarpa past (Leoni 2004).

Unfortunately, the paucity of archaeological information for Ayacucho's EIP largely precludes a comparative approach to assess Ñawinpukyo's place in the regional context. Since very few EIP sites have been systematically studied, it is not possible at present to discern if the patterns identified at Ñawinpukyo were common and widespread or, on the contrary, represent a more rare occurrence. It seems clear, however, that even though the site might have had some regional projection as a ceremonial center, Ñawinpukyo was not the dominant urban or proto urban capital once believed, but more probably one of many more or less equivalent centers. Sites like Ñawinpukyo would have nucleated smaller hamlets around them and formed in turn loosely integrated settlement and political enclaves (*sensu* Isbell 1997a, 2001) along with other comparable sites. While these enclaves would constitute the foundation for later MH urbanism and statehood, the processes leading to those developments are only partially known at present. Perhaps a manipulation of public ceremonialism and its transformation into politically competitive feasting masked as religious ritual, like the instances presumably documented at Ñawinpukyo might show, played a major role in the rise and consolidation of complex socio-political structures in the Ayacucho Valley in the late EIP and early MH.

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Chapter **12**

Missing Links, Imaginary Links: Staff God Imagery in the South Andean Past

William H. Isbell and Patricia J. Knobloch

INTRODUCTION TO ANDEAN STAFF GOD IMAGERY

Early in the Middle Horizon, a new set of religious images appeared in the ceramic arts of Central Peru, demonstrating radical ideological change that almost certainly documents the adoption of a new religion. Eventually the images became official symbols of allegiance to the Huari empire, as its political strength expanded from a capital in the Ayacucho Valley, subjecting older polities throughout much of Peru. Significantly, similar icons occurred at the Bolivian site of Tiwanaku and throughout its great sphere of influence to the south of Huari.

Several scholars (Demarest 1981; Menzel 1968, 1977; Rowe 1946, 1960; Valcárcel 1959) believe that the foremost icon, the Wari-Tiwanaku Staff God, was the forerunner of principal gods of the Inca pantheon, Sun, Moon, and Thunder. Menzel (1977) compared Wari and Tiwanaku's front-faced staff-being as represented on oversized Conchopata urns (Figure 12.1a), and Tiwanaku's Gate of the Sun (Figure 12.1b) with Thunder, a god of weather and rain. Another set of oversized Wari-style urns from Pacheco have paintings of a male and a female front-faced being, also grasping staffs in both hands (Morris and von Hagen 1993: 112; Posnansky 1957: plate LVII a). Menzel suggested that they might represent the Sun and Moon deities. Of course fertility worship would adhere to such a divine couple, an ideology that probably gained popularity through time, becoming especially apparent in Middle Horizon 3 press-molded pottery from the North Coast (Menzel 1977: 55)

If the Wari and Tiwanaku front-faced beings with two staffs represent primary deities, then it seems that they were assisted by a group of anthropomorphic attendants and mythical animals, represented in profile, often with a single staff, and usually with wings (Figures 12.1a, b, 12.2, 12.3b, 12.6, 12.7, 12.8a, b, c, 12.9a, 12.10a, b). In many cases these Wari and Tiwanaku figures are associated with light-colored circles with broad central dots suggestive of stars. Considering the importance of star constellations in Inca religion, perhaps these creatures represented seasonal constellations that could fly across the night sky and walk the earth during the day, in constant attendance to staff gods who represented the sun and moon (Knobloch 1989: 116).

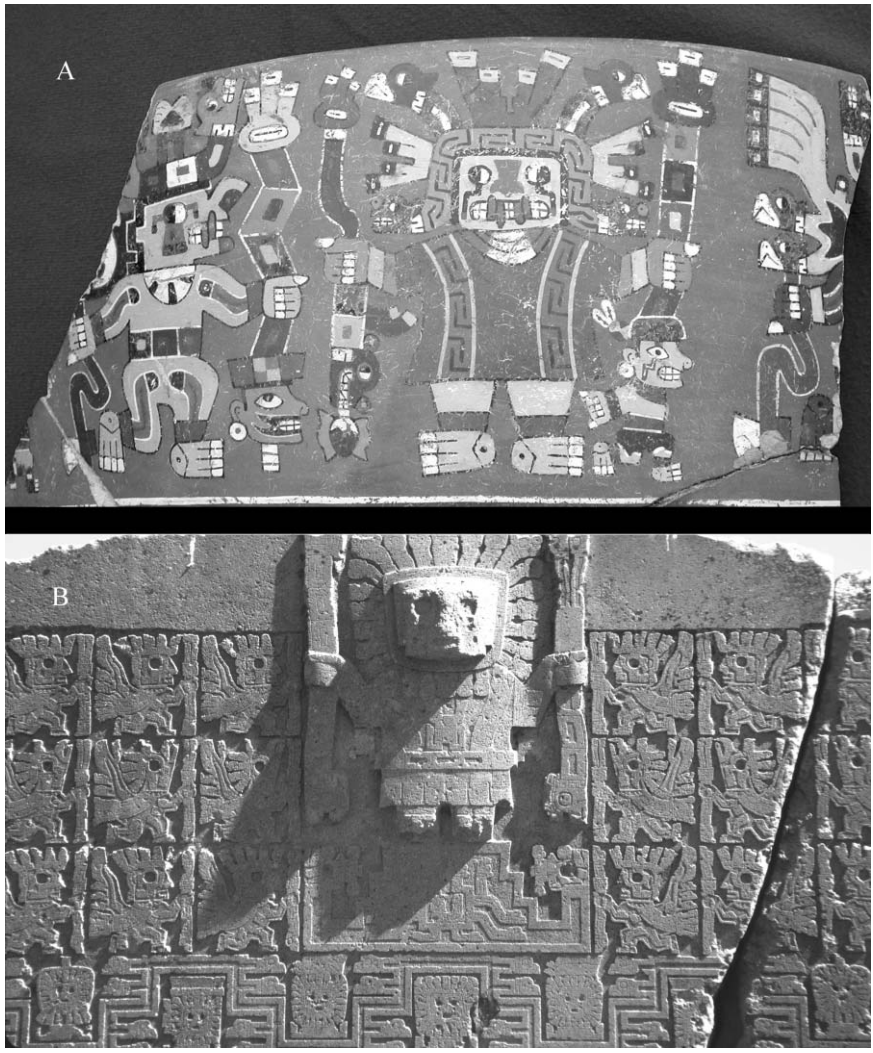


Figure 12.1. a. Conchopata urn of 1942/1999 style, with Staff God. (Photo by W. H. Isbell); b. Gate of the Sun, Tiwanaku. (Photo by W. H. Isbell)

John Rowe (1971) argued that the origin of the Staff God imagery, so prominent in the Middle Horizon religion, was in earlier Chavín iconography and ideology. More recently, Haas, Creamer and Ruiz (2003: 9) claim to have identified the original "Staff God" in the late Archaic Phase, as Andean peoples took their first steps toward civilization. Has a deep structural principle of Andean civilization been discovered, that shaped religion from 3000 BC until AD 1500? Anthropological theory is critical of cultural essentialism implied by the assertion that a single religious ideology dominated the whole of Andean civilization. But what of the

iconographic remains reported by archaeologists? Do they support a unified ideological essence underlying four millennia of Andean religion? Or have archaeologists over-interpreted ancient art, recognizing similarities but missing difference and change? This is a question to which we address ourselves.

Staff God and Profile Attendant religious imagery was undoubtedly new to the emerging cities of Conchopata and Huari during the first century or so of the Middle Horizon (AD 550–1000). The iconographic evidence is undeniable. But did Staff God religion enter Ayacucho culture as a unified ideology, as an integrated essence unchanged from its presumed Tiwanaku source, so it could be passed more or less intact to the Incas, half a millennium later? Or did this new religion undergo selective syncretism, construction out of heterogeneous fragments, and combination into a unique new hybrid, in which meanings were surely transformed, even if some key icons may have retained their form over several centuries? We plan an investigation of the alleged four-millennium Andean religious essence by focusing on the Middle Horizon component, for which there is a wealth of new information.

The Middle Horizon represents something of a mid point in the proposed transmission of the great tradition, so identification of integrated continuity, or of complex recombination and reinterpretation will provide a conclusive answer. Furthermore, this research will take us into fascinating examinations of interaction and long distance relations among diverse Andean cultures, laying groundwork for a more rigorous determination of who participated in the Staff God cultural tradition. This requires us to confront the issue of relative chronology among the cultures and widespread set of icons, whose interpretations have not always been rigorous and systematic. Indeed, special confusion and misunderstanding adheres to Tiwanaku and its art, left over from eras when assumptions about hyper-diffusion, racism, nationalism, and effects of the accidental sequence of early archaeological discoveries determined inferences about the past more than objectively evaluated investigation of the archaeological record.

This study is an excellent opportunity to reexamine the chronology and relationships of religious imagery from the Middle Horizon. Rich iconographic discoveries have been made at Conchopata (Cook 2004; Knobloch 2000; Isbell 2001a, 2004; Isbell and Cook 2002; Ochatoma and Cabrera 2001, 2002) and Huari (Isbell 1997, 2001b, 2001c; Perez 1999, 2001, 2002) as well as new studies at Tiwanaku (Couture 2004; Couture and Sampeck 2003; Kolata 1993, 1996, 2003, 2004; Janusek 2004), San Pedro de Atacama (Torres and Conklin 1995), Moquegua (Goldstein 2000; Goldstein and Owen 2002; Owen and Goldstein 2002; Williams 2001; Williams and Nash 2002) and Pucara (Chávez 1992, 2002a, 2004). An entire new stylistic sphere has been identified (Haeberli 2002). An electrifying sample of highly relevant art was recently displayed at the Denver Art Museum, accompanied by the publication of a marvelous catalogue (Young-Sánchez 2004b). Two compendium volumes (Kaulicke and Isbell 2001, 2002) from an international symposium held at Lima's Universidad Católica in 1999 have been published. Of course, we still have more questions than current data can answer. These inadequacies are intensified by the distribution of the art across international boundaries separating the

modern nations of Bolivia, Peru, Chile and Argentina, where communication is poor, different chronologies are in use, and political tensions impede archaeological investigations.

CHRONOLOGICAL CONFUSION AT TIWANAKU

For more than a century archaeologists have believed that Tiwanaku was the center where Staff God art and religion developed, and from which it diffused. Today, this perspective is too simplistic, and is partially contradicted by the archaeological record from the southern Andes. We suspect that Tiwanaku, or more properly phrased, the Tiwanaku Style at the type site, is too late and too specialized to qualify as the origin and center of diffusion for all Tiwanaku-related art and iconography. In this section of our paper we review the history of investigations of Tiwanaku's past, pointing out factors that encouraged earlier investigators to consider Tiwanaku the origin center of all Tiwanaku Style art and culture. This powerful legacy, that we can only highlight in this chapter, makes it difficult to objectively evaluate the dating, cultural role and importance of Tiwanaku, as a site, as a style of stone sculpture, as a collection of monuments, as a temporal scheme, and all the other meanings for which "Tiwanaku" stands.

The Tiwanaku site is certainly a spectacular archaeological center by any standards. Located 20 kms from the southern shore of Lake Titicaca, it lies on the high and cold altiplano, considered too inhospitable to support civilization by early visitors and scholars. This incongruity promoted a shroud of mystical speculation about Tiwanaku, that continues today, as thousands of new age pilgrims assemble on the night of the June solstice to absorb power from solar rays rising though the megalithic Kalasasaya gateway. Indeed, Tiwanaku's fame as archaeological spectacle contributed greatly to its furnishing the first prehistoric style to be defined for the Central Andes.

As the 19th century drew to a close Europeans ascribed little antiquity to indigenous American civilizations, assigning archaeological remains to a synchronic pre-conquest period. An exception was Max Uhle (Stübel and Uhle 1892) who undertook to define the "Tiwanaku Style," abstracting formal and technical attributes from sculptural representations of anthropomorphic figures collected from or described at the Tiwanaku site. Subsequently he showed that this "Tiwanaku Style" was older than the Incas, representing a culture of the altiplano before Inca conquest. This was the first chronology for an archaeological site in the Americas.

Several years later, Uhle (1903a, b) excavated at the Peruvian center of Pachacamac, 25 kms south of Lima. In some of the tombs he discovered art in the Tiwanaku Style. Given his curiosity about chronology, Uhle presumed that the Tiwanaku Style had reached Pachacamac from the Tiwanaku site, so he postulated a time when the popular style spread far and wide—anticipating the modern "horizon concept."

Uhle concluded that Pachacamac's Tiwanaku Style must have spread from, and be broadly contemporary with, Tiwanaku's Tiwanaku Style. Both styles were

pre-Inca. Furthermore, in the Pachacamac cemeteries Uhle observed stratigraphic relationships that permitted him to identify a ceramic style that preceded Tiwanaku, and another that followed it, temporally between Tiwanaku and Inca remains. Uhle argued that the two global styles, Tiwanaku and Inca, could be used to cross date other, more local, cultural styles of the Andean past, that were being recognized by art collectors and museum curators.

Uhle's accomplishment was groundbreaking, providing the first regional chronology for the Americas. But it resulted in Tiwanaku stylistic influence being sought out in every other Andean archaeological style, until it became recognized even where it did not exist. When the next great synthesizer of Andean archaeology, Philip Means (1931), wrote his compendium, he evaluated each archaeological style in terms of its similarities with the Tiwanaku temporal marker. Art that bore no similarity to Tiwanaku should predate it. Tiwanaku's high quality and distinctive iconography belonged to a second phase, but an early moment when the Tiwanaku style was spreading. Poor copies of Tiwanaku belonged to the end of the second phase, that Uhle called "Epigone," when distant artists no longer knew "true" Tiwanaku art. When Tiwanaku influences died out, or were only a trace, a third and local phase was recognized. Finally, anything in Inca style belonged to the fourth phase.

In order to date as many Andean art traditions as possible, the Tiwanaku style was generalized and conflated with related traditions. Remote similarities were exaggerated so problematic styles could be dated, until Tiwanaku appeared to have influenced everything. For example, Means (1931) believed that Chavín art showed Tiwanaku influence, and he suggested that it dated several centuries later than Tiwanaku, for it appeared to have undergone considerable stylistic development. Of course, we now know that Chavín predates Tiwanaku, by half a millennium or more, so it could not have been influenced by Tiwanaku. But our concern is the long-term effect of this pre-radiocarbon approach to chronology building that promoted a predisposition for thinking of Tiwanaku as more of an origin center than it really was, predating and influencing more Andean styles than it actually did.

Influential early scholars, motivated by nationalism and other non-scientific ideas, built on this exaggerated image of Tiwanaku. Arthur Posnansky (1945, 1957) was surely the most extreme, arguing that Tiwanaku was the singular center of American civilization, so old that its apogee preceded the rise of the Andes mountains to their current elevations. However unacceptable to modern scholarship, these affirmations of Tiwanaku's antiquity and widespread influence have had lasting influences.

Scientific excavations by professional archaeologist Wendell Bennett (1934) in the 1930s failed to correct the situation by providing an accurate ceramic chronology. Bennett employed what at that time was a new methodology, excavation of arbitrary levels, to define a "stratigraphic pottery series." He described his chronology in terms of three phases, Early, Classic and Decadent Tiwanaku. But he was not rigorous in his approach, and data from his published tables contradict his conclusions. Unfortunately, the youthful Bennett allowed expectations about change

in art styles to determine his chronology more than the stratigraphy he excavated. In his sequence, Early Tiwanaku consisted of soft paste, oddly-shaped vessels with bold designs. It developed into technically excellent pottery with richly painted naturalistic decorations on hard-fired, highly varied vessel forms. Eventually, Classic pottery gave way to Decadent ceramics of drab colors and simplified designs based on elements from Classic icons.

Bennett's Early Tiwanaku phase was actually based on decorated museum pieces because only plain ware shapes and pottery with simple linear or wavy lines appeared in the excavation levels he designated as Early Tiwanaku. The Early Tiwanaku phase bowl with modeled animal heads that he designated "Shape Bf," was found in both Early and Classic phase deposits. Examination of his report yields no real examples of the Early Tiwanaku angular design, the long-necked decanter shape, and spittoon vessel shape (Bennett 1934: fig. 13c, 14b) in any stratigraphic tables (Knobloch 1989: 120). Perhaps this problem can be put into perspective by the results of settlement survey in the Tiwanaku Valley. Using this ceramic chronology, there are only two or three settlements in the entire Tiwanaku Valley during Early Tiwanaku times (Albarracin-Jordan 1996; Albarracin-Jordan and Matthews 1990). Either the Valley was virtually empty immediately before the great city appeared, early occupations are all buried under later trash, or the ceramic chronology is seriously in error. The fact that eight thermoluminescent tests made on Early Tiwanaku-style pottery found it to date between AD 830 and 940 (Eisleb and Strelow 1980: 171) supports the argument that the problem is with the Tiwanaku ceramic chronology.

Problems with Bennett's Tiwanaku chronology are not limited to the Early phase. Nowhere is the chronological separation of Classic and Decadent style pottery confirmed by stratigraphic findings. Rather, Bennett's statistics show that the two types were either isolated in different pits—indicating spatial and functional difference—or mixed within the same excavation—implying contemporaneous use. For example, wide-open, flaring-rim bowls classified as Shape C have typical Classic decorations, not Decadent designs, yet they are found in greatest frequency in deposits that Bennett classified as Decadent in date, including Pit IV, which is supposed to date entirely to the Decadent period (Knobloch 1989: 121). Unfortunately, Bennett's ceramic chronology is still in use, little improved, except for changes in some of the names.

Since the 1950s and until his recent death, archaeologist/politician Carlos Ponce (1969a, 1969b 1976, 1985, 1999) promoted an extravagant vision of Tiwanaku as a heritage program for Bolivia, intended to equalize the past of indigenous peoples with that of European Bolivians. Though a laudable political goal, such a vision misdirected scientific archaeology. In accord with his goals Ponce consistently promoted the earliest dates for Tiwanaku's phases, the greatest population estimates, the grandest descriptions of urbanism, the highest degree of political centralization, and the most extensive inferences about expansion and provincial power. He also insisted that Tiwanaku was exclusively Bolivian, with no cultural contributions from outside. Tiwanaku was always a cultural donor, through conquest, to other Andean territories, but the development of its civilization was

exclusively autochthonous. This nationalistic bias infiltrating archaeology and art history promotes inferences that things outside but stylistically similar to Tiwanaku diffused from Tiwanaku rather than being sources of inspiration for Tiwanaku's development.

Ponce and his disciples created a five-phase chronology for Tiwanaku, named Tiwanaku I, II, III, IV, and V. Phases III, IV and V correspond respectively with Bennett's Early, Classic and Decadent phases, essentially unmodified. Phases I and II purport to represent earlier ceramic assemblages discovered by Ponce at Tiwanaku, from formative stage hamlets that preceded the city by several centuries.

A recent large-scale research program at Tiwanaku, directed by Alan Kolata (1993, 1996, 2003, 2004), involved many investigators. Huge collections were excavated, but, unfortunately, ceramic chronology was a low a priority for this program. During their early years the project members employed the Ponce phases. As problems became apparent name changes were introduced, and some phases were divided and re-dated. But the ceramic characteristics of renamed phases have only begun to be worked out and described in sufficient detail for other investigators to evaluate and employ (see Janusek 2003). In large part this is because the team continues to use temporal phases and style groups interdependently and interchangeably, without establishing an independent ceramic typology or set of style descriptions. Only after styles or types have been defined can archaeologists do their best work determining stratigraphic distributions and relative dates for each style or type. A set of style descriptions for Tiwanaku ceramics was worked out by Isbell and Burkholder (2002; Isbell, Burkholder and Albarracin-Jordan 2002; Burkholder 1997, 2002) but they have not been adopted by Tiwanaku traditionalists.

Isbell and Burkholder (2002) found that at the site of Iwawi, 20 kms from the capital, on the shore of Lake Titicaca, Tiwanaku ceramics experienced a radical change between AD 600 and 700. New decoration techniques, new design themes, and many new vessel shapes appeared quickly and more or less simultaneously. Certainly, some vessel shapes and styles did continue from the early half of the sequence, but it seems likely that continuity at Tiwanaku was not so very much greater than it was in Ayacucho, where everyone agrees that Tiwanaku-style art and artifacts were introduced suddenly (See Leoni, this volume for a description of pre-Tiwanaku culture in Ayacucho).

THE TIWANAKU STYLE—STAFF GODS AND PROFILE ATTENDANTS

Tiwanaku is home to many spectacular stone sculptures, but representations of the Staff God and Profile Attendants, that define the Tiwanaku style, occur in relief sculpture, and most frequently in fine-line incision, sometime combined with shallow excision. The delicately carved relief figures occur as decorative details on statues of well-dressed humans that range in size from diminutive to immense. Less common are architectural lintels and gateways that also range in size but are usually monumental. These sculptures come from Tiwanaku and a few

neighboring sites, and there are unprovenienced pieces that were probably looted from core area sites many years ago. Another set of Tiwanaku-style representations, smaller and stylistically less unified, are portable stone carvings such as mortars, bowls, keros, and snuff tablets. These objects are sometimes decorated with Staff God and Attendant icons, but different themes appear as well, such as felines, other animals and geometric motifs. Occasionally, these other themes appear on human statues and portals, where they are usually depicted with the fine-line incision technique that characterizes Staff God and Profile Attendant iconography. So the boundaries of the Tiwanaku style are neither sharp nor well defined. They grade into closely related styles and repertories of sculpture that were also popular at Tiwanaku and its surrounding heartland.

Tapestry textiles were an important medium for depicting images of Tiwanaku-style Profile Attendants, but none have been discovered at Tiwanaku, where preservation is poor. The best examples come from far-off northern Chile, and especially San Pedro de Atacama, where they have been described by Amy Oakland Rodman (Oakland 1986a, 1986b; Rodman 1992) and William Conklin (1985, 2004a; Torres and Conklin 1995; see also Berenguer 2000: 90). Recently, a lovely specimen was found in a dry cave near Sucre, associated with six richly honored individuals, possibly shamans (Berenguer 2000: 86–87). Based on the published specimens depiction of Profile Attendants was common, but representations of the Staff God were rare to absent in Tiwanaku tapestries.

Tiwanaku pottery, even from the capital itself, was rarely decorated with Tiwanaku-style icons. Perhaps this means that the great statues and gateways bearing the iconography were hidden from the gaze of less exalted inhabitants of the city, such as potters. Or perhaps the representation of Tiwanaku-style icons was limited by custom, rules of sanctity, or law. Be that as it may, only a very small number of Profile Attendants were depicted on kero vessels, and Rayed Heads occasionally appear on handled jars.

Our current goal is not to exhaustively examine Tiwanaku sculpture, but to consider the Tiwanaku style as it is commonly represented in stone sculpture. Certainly the most famous Tiwanaku-style carving is the Gate of the Sun (Posnansky 1945: figs. 112–114). Additional lintels are the Kantataita Lintel (Conklin 1991: 284, fig. 5; Isbell and Cook 1987: 32–33; Ponce 1981: 223, fig. 104); and the Linares Lintel (Posnansky 1945: figs. 140, 140a). Among the statues we examined are Stela 10, or Bennett Monolith (Ponce and Mogrovejo 1970: 304, fig. 27; Posnansky 1945: figs. 112–114); Stela 8, or Ponce Monolith (Figure 12.2; see also Ponce 1995: 315, fig. 147; Ponce and Mogrovejo 1970: 305, fig. 28; Makowski 2002: fig. 11b); Stela 2 or Kochamama Monolith (Ponce 1995: 184, fig. 79; Posnansky 1945: figs. 99–102); and the dynamited stela or Pachacama/Pachatatac (Posnansky 1945: figs. 132–133; Makowski 2002: fig. 11C). The decorated stone bowl or mortar excavated in the Semisubterranean Temple also provided important information (Ponce 1969: 84, figs. 58–60, lam. 14, 16).

Old attempts to date architectural and sculptural remains from Tiwanaku on the basis of orientations to ancient astronomical positions, differential erosion, and material (especially red sandstone vs. gray andesite) have proven unreliable,

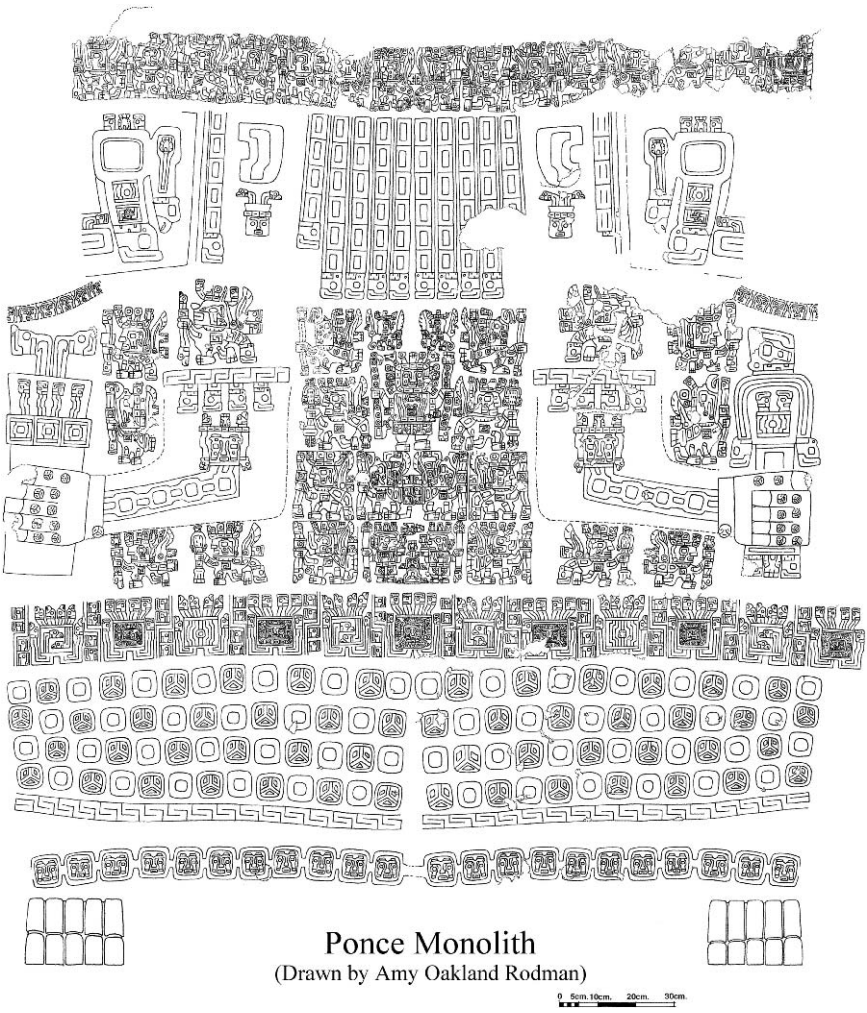


Figure 12.2. Ponce Monolith details. (Drawing by Amy Oakland Rodman)

although some scholars continue to believe in these techniques. Like the ceramic chronology, they are based on expectations derived from unproven assumptions. Several scholars have observed that primitive techniques employed in the Linares Lintel, and the long-nosed faces of its Flying Profile Attendants might imply that it is an early example of the Tiwanaku style. Furthermore, similarities with the Kantataita lintel suggest that these two were close in time (Conklin 1991; Isbell and Cook 1987). However, these preliminary inferences should not be given much credence without supporting evidence.

There are two competing reconstructions of the severely damaged Kantataita Lintel, one by Isbell and Cook (1987: 32–33), the other by Conklin (1991: fig. 5).

Isbell and Cook reconstructed six images, three Profile Attendants on one side mirrored by three on the other side. Their drawing is probably correct in identifying the object held behind the horizontal bodies as an axe and severed head motif, and in defining an ear at the upper rear of each attendant's face. Conklin's drawing is probably correct in identifying different nose forms on pairs of these attendants. One pair with circled-dot noses occurs in the middle figure on either side, while the other four have long-nosed snouts. Damage to this architrave prevents observation of design elements that might differentiate these two iconic variants with respect to crown appendages and other attributes.

EARLY SOURCES FOR TIWANAKU STYLE ICONOGRAPHY

San Pedro de Atacama Snuff Tablets

Popular consensus assigns Tiwanaku-style sculpture, with fine-line incisions, to the Tiwanaku IV period, although none of the sculptures have convincing ceramic associations or radiocarbon dates. Extreme differences of opinion can be found regarding the best date for the beginning of Tiwanaku IV. However, no currently active investigators would argue that Tiwanaku IV began before AD 500, and some would place the date closer to AD 600 or even AD 700. If Tiwanaku-style sculptures first appeared at about that time, and this seems most likely to us, then there can be no question that the earliest examples of Tiwanaku-style icons come from the deserts of northern Chile, where they decorated hallucinogenic snuffing paraphernalia of wood. Many of these objects have come from cemeteries at San Pedro de Atacama.

The snuff tablets are shallow wooden trays of rectangular form that often have a sculptured figure on a broad handle or tab projecting from one end. At the Quitor 8 cemetery, dated 300 BC to AD 200, three of five snuff tablets have Tiwanaku decorations (Torres and Conklin 1995: 81, fig. 3). So, by the first or second century of our era, and perhaps significantly earlier, inhabitants of the Chilean oases were employing Tiwanaku-style icons to express ideas associated with hallucinatory experiences that were probably part of shamanic activities.

Tiwanaku-style iconic inventory from San Pedro includes Staff Gods as well as Rayed Heads, a number of distinct Profile Attendants, and several zoomorphic figures that represent raptorial birds, felines, llamas and perhaps a fox or dog. Many of the figures stand on a three-step pyramid, a feature of Tiwanaku Staff Gods and disembodied Rayed Heads as they appear on the Gate of the Sun and the Bennett Monolith. But the chronology of San Pedro iconography is not worked out, and no one has organized the sample of Tiwanaku-style snuffing paraphernalia in terms of its most probable sequence.

Now, if the earliest Tiwanaku-style art is not from Tiwanaku, but from San Pedro de Atacama, and northern Chile, is "Tiwanaku style" an appropriate name? Probably not. So if we continue to use the name "Tiwanaku style" it must be understood as a deference to Uhle's initial definition of the style at the Tiwanaku site–not some imagined implication of the name—that the style originated at Tiwanaku.

Of course, in defense of Tiwanaku, wooden snuff tablets similar to those of San Pedro de Atacama have been found associated with burials in dry caves from the eastern side of the Andes (Wassén 1972). A continuous distribution from northern Chile would have included Tiwanaku, and indeed, several unprovenienced tablets in museum collections, of the same shape, but made of stone, probably came from Tiwanaku (Torres 1987). Furthermore, Berenguer (2000) argues that the objects so often seen in the hands of the Tiwanaku's great statues—the bearers of Tiwanaku-style incised icons—are a ceramic kero and a snuff tablet. But snuffing paraphernalia from the eastern Andes appears to date two to five or six centuries later than the earliest San Pedro specimens, and the stone snuff tablets ascribed to Tiwanaku have elements of monumental Tiwanaku sculptures that also imply relatively late dates.

The antiquity of snuff tablets and the possibility that they were an early vehicle for Tiwanaku-style icons spreading throughout the southern Andes is an important issue for study, but it is a complex topic. Torres (Torres, Repke, Chan, McKenna, Llagostera, and Schultes 1991; Torres and Repke 1996) identified an hallucinogenic substance used with ancient snuffing paraphernalia as a powder ground from beans of the *Anadenanthera colubrina* plant. Indeed, *A. colubrina* is still widely used by lowland Amazonian shamans today, and Knobloch (2000) recognized graphic symbols of the plant on many examples of the Tiwanaku style, including snuff tablets, ceramic vessels, textiles, and stone sculptures from northern Chile, Tiwanaku and its hinterlands, as well as the Wari sphere, including Conchopata. As indicated above, snuff tablets have a wide distribution from San Pedro de Atacama to the eastern Lake Titicaca montaña. They also occur to the north at Puerto Nuevo, Paracas—possibly associated with Chavín pottery (Wassén 1972: fig. 14)—and at the Middle Horizon site of Castillo de Huarmey, as far away as Peru's central coast (Prümers 2001: 304–305).

Archaeologists might infer an early shamanic cult linking *A. colubrina* snuffing with Tiwanaku-style icons. Perhaps the strange supernatural icons originally represented "spirit animals" that guided the participants or shamans through an altered state of consciousness and spiritual quest. If this scenario were the case, the associated cosmological model could have become more formalized as shamans were replaced by priests during the development of the Wari and Tiwanaku complex societies. Knobloch (2000) has already advanced this argument. However, Isbell points out that the truth is probably much more complex, for it seems that *A. colubrina* may not have been the only hallucinogen snuffed, and *A. colubrina* was probably ingested in other ways as well. Furthermore, at San Pedro de Atacama, 614 snuffing kits are recorded in archaeological literature but only 56 trays and 32 tubes have Tiwanaku-style decorations (Torres 2002). Of course, some are plain, but many others are decorated with figures of different traditions, unrelated to the Tiwanaku style. Were these snuffing accoutrements employed with different hallucinogens, was the trance-world populated by beings of different cultural traditions, or is the archaeological inference that Tiwanaku-style icons represent hallucinatory trance experiences in error? More research and analysis are required.

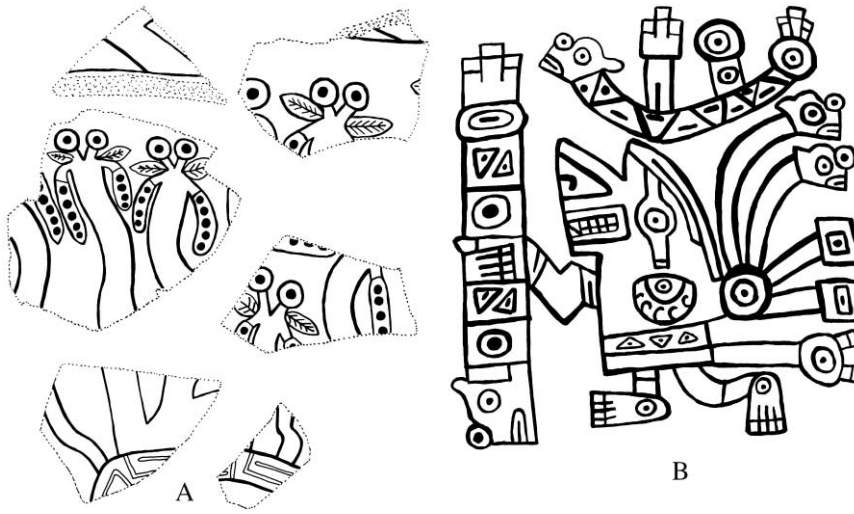


Figure 12.3. a. Realistic *A. Colubrina* from Conchopata jars. (Drawing by P. J. Knobloch, based on photographs by José Ochatoma and Martha Cabrera); b. Profile Attendant on 1977 offering jars. (Drawn by P. J. Knobloch from photographs by W. H. Isbell, see also Cook 1994 lám. 6, 10)

To complicate matters, at Conchopata, in the Wari cultural region, *A. colubrina* symbols appear on pottery vessels, especially jars that were probably used for brewing, and urns that were appropriate for serving a beverage (Figure 12.3a; Knobloch 2000: fig. 2). This implies that *A. colubrina* was drunk, not snuffed. Perhaps wooden spoons from Peru (Kelemen 1943: plate 275c), that look like snuff tablets, decorated with Tiwanaku-style figures on their handles, were ladles for dipping up the potent brew in preparation for drinking. However, we do not know whether as a drink *A. colubrina* is rendered ineffective by digestive acids, whether additional plants may have been included to neutralize stomach fluids, or whether the ritual powers of the plant were so great that the hallucinatory trance was no longer relevant. Again, more research is required, including some psychedelic experimental archaeology, before we have convincing answers. In the meantime Isbell believes that it is premature to affirm that *A. colubrina* was directly linked to, and explains Tiwanaku-style figures as coming from snuff-induced trances.

The Yaya-Mama Religious Tradition

Numerous statues at Tiwanaku and elsewhere about the altiplano are not in the Tiwanaku style, but in an earlier style, or group of styles. We follow Karen Mohr Chávez and Sergio Chávez (K. Chávez 1988, 2002; S. Chávez 2002b, 2004b; Chávez and Chávez 1976), in discussing them as members of the highly variable Yaya-Mama Religious Tradition.

"Yaya-Mama" means "Man-Woman," or "Father-Mother" in Quechua. This name was selected because some of the sculptures have two human faces or full figures on a slab-like sculpture, sometimes on opposite sides that apparently represent a male and a female. Yaya-Mama culture and art date from approximately 800 BC to AD 200-400 (K. Chávez 1988). But in the south, an advanced form of Yaya-Mama culture may have continued until the century of transformation at Tiwanaku, that Isbell and Burkholder (2002) place at AD 600-700, but John Janusek (2003) dates a century earlier, to AD 500–600. Yaya-Mama culture was most likely spread among independent farming and herding communities by rituals that involved mutual feasting as well as an increasingly popular religious ideology that may have involved shamanism, although no hallucinogenic snuff tablets have been found. The appearance of decorated pottery may mark the beginning of communal feasting activities that brought neighbors together from different communities (Steadman 2002).

Yaya-Mama religious objects included sunken court temples, ceramic burners and trumpets, as well as stone sculptures on rectangular stele and flat slabs, all of which continue with little modification into Tiwanaku (except the ceramic trumpets). Among the slab sculptures are fine rectangular grinding stones whose backs are decorated with a human head in front view, that has projections or rays emanating from all around the face (K. Chávez 1988: fig. 4a, b; S. Chávez 2004: fig. 3.21). We call this icon the Rayed Head. Usually displaying 6 appendages or rays, these disembodied faces are the earliest antecedent for Tiwanaku-style Rayed Heads that are so closely related to full-bodied Staff Gods. But many differences separate the two sets of images.

Variations of the Yaya-Mama Rayed Head appear on three gold artifacts collected in Cuzco, although their original provenience is unknown. The simplest, the Disco Oberti, has 8 rays, while the famous Echenique Plate has more, as many as 20 if each design at the edge of the circular plate is counted (Rowe 1977). The most spectacular of these objects is an ornamented gold plume (Rowe 1977; Young-Sánchez 2004a: fig. 3.28) that shows a full-bodied figure whose head has 11 rays that employ forms more reminiscent of the Tiwanaku style than the stone slab heads, or the other gold artifacts. The body is, however, shown in profile, with a feline tail, and avian feet. Both hands are positioned in front of the body, and hold objects, perhaps one of which is a staff that is being pecked by a bird. The figure stands in a scene of profile personages and what may be an architectural enclosure with llamas surrounding a circular motif. Several features suggest that the gold objects probably cross date with late Paracas, and if so, they probably belong to the Pucara culture.

The Pucara Style

The Pucara style (Valcarcel 1935) is best understood as a late and exuberant version of the Yaya-Mama Tradition, that developed and spread through the northern altiplano between approximately 200 BC and AD 200 (K. Chávez 1988). The first monumental altiplano capital was constructed at Pucara, a site 60 kms north of

Lake Titicaca, where artists depicted esoteric religious concepts in stone sculpture, ceramics (Rowe 1958; Rowe and Brandel 1970; S. Chávez 2002a), and apparently also fine woolen textiles and wood carvings (Conklin 1985, 2004; Torres and Conklin 1995). Some of the San Pedro de Atacama snuff tablets surely relate to Pucara art and times.

Pucara ceremonial architecture in the capital type-site included at least three sunken courts crowning a monumental platform complex, suggesting some kind of confederacy. Each court was surrounded by a D-shaped complex of rooms that may have facilitated large ritual activities by providing storage facilities for costumes, food, and other essentials (K. Chávez 1988: fig. 9). The extent of Pucara political domination is unknown, but it was probably a sizable polity.

The fundamental opposition of male and female, that dominated Yaya-Mama sculptures, was expressed in Pucara art as the opposition between the Camelid Woman and the Feline Man icons (Chávez 1992, 2002a). Pucara art became more sophisticated than other Yaya-Mama representation, including a greater repertoire of beings and symbolic elements. However, trumpets and burners continued to be important, and icons with Rayed Heads appeared in Pucara sculpture and ceramic art. Especially prominent are stone boxes with representations of Rayed Heads (Chávez 2004b: fig. 3.23) that have 16 rays. Among the rays is what is probably a plant figure that also occurs with the Camelid Woman (S. Chávez 2002a: figs, 2.2, 2.3).

Pucara art includes pottery forms as well as iconographic features and themes more closely related to the later Tiwanaku style than earlier Yaya-Mama art, and there are sculptures from Tiwanaku that are remarkably similar to Pucara. One, the Arapa Thunderbolt, was apparently carved in the Pucara area, later broken, and half was carried to Tiwanaku, where it was found in the Putuni building (Chávez and Chávez 1976; Chávez 2004). However, Pucara sculpture rarely has fine-line incised figures, and is otherwise different enough to require several transitional phases before it could be converted into the Tiwanaku style.

Among the new Pucara beings is a "Sacrificer" with fanged, feline mouth, as well as an axe and severed head in its hands (Valcárcel 1935). In fact, the frequency of weapons, severed heads, decapitated bodies, and other human body parts relates Pucara to Conchopata/Huari, as well as Tiwanaku versions of the Tiwanaku style. The Pucara Feline Man is definitely related to Tiwanaku-style Profile Attendants. On pottery it is outlined with fine-line incisions, showing a running figure wearing a crown and grasping a staff in the hand positioned in front of the body. The other hand usually holds an axe and a severed head. The Camelid Woman is shown in front-faced pose, with something in each outstretched hand, like the Tiwanaku Staff Gods, but the Tiwanaku Staff Gods have rays around the entire face, and other male attributes, while the Camelid Woman has the female attributes (Chávez 2004).

In a single example of Pucara sculpture the Rayed Head comes together with a full body, represented with staffs in both hands. The carving is a small 12 cms-high sculpture in the round with certain details added in fine, line incision. Its provenience is unknown, but it probably belongs at the late end of Pucara stylistic developments (Sergio Chávez, personal communication 2002). The anthropomorphic

figure is shown standing, or perhaps sitting on a stool, with arms extended holding vertical staves, a face surrounded by a band of interlocking frets apparently representing rays, but now damaged, and wings on the back. This carving is certainly a unique version of the Staff God. Perhaps at the close of Pucara culture, an important religious innovation took place, but how was it spread, to where, and what meanings could it have carried? Pucara culture was in decline and soon disappeared.

Pucara Provincial Art

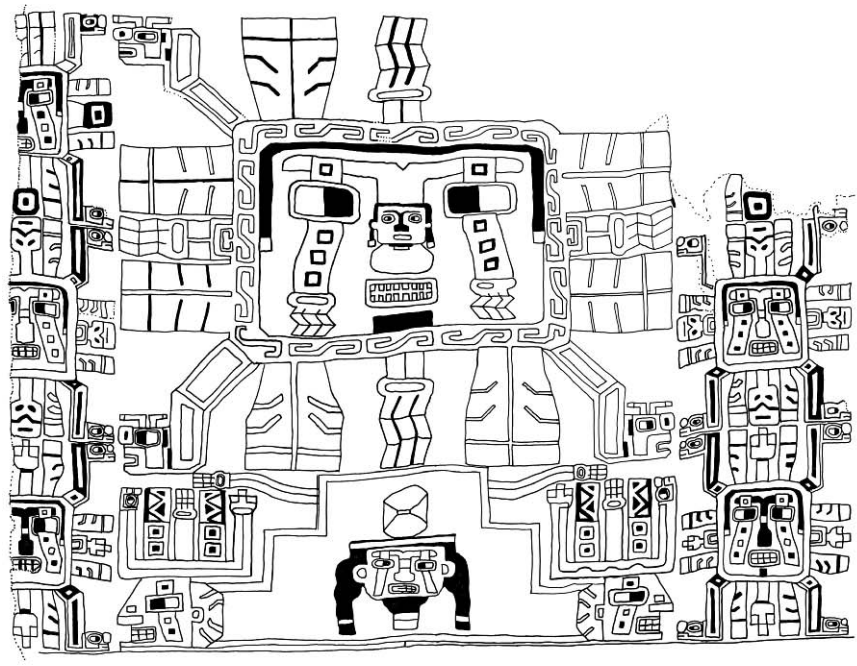
The Yaya-Mama and Pucara cultures had contemporaries on the adjacent coast who used fine textiles obtained though trade or other relationships with altiplano people (Conklin 1991; Haeberli 2002). Perhaps some of these textiles even represent highland colonists. The cloth is interlocking tapestry, with warp and weft of camelid fibers, typical of the highlands, but examples are few and limited to private collections.

Joerg Haeberli (2002) defined two important new textile styles that he named Siguas 1, 2 and 3, and Pucara Provincial. He employs the name "Siguas" because he believes that most of the weavings came from looted cemeteries in the Sihuas, Vitor, and Majes valleys of Arequipa. The Siguas phases share important designs with Yaya-Mama art, including male and female figures, and the Rayed-Head theme. More than 20 calibrated radiocarbon dates from textile specimens imply a time range from about 600 BC to AD 150 for Siguas 1, and about AD 150-750 for Siguas 3, broadly paralleling the span of the Yaya-Mama tradition (Haeberli 2002: table 1).

The second group of textiles is characterized by tunics with separately woven shoulder panels, very elaborate with a Rayed Head on top of a three-step pyramid, and a column of smaller figures to the right and left of the face. These textiles are neither typical of iconography known at the type site of Pucara, nor Tiwanaku or Wari textiles that are both characterized by vertical bands of attendant figures that alternate in orientation and color schemes, as well as other conventions (Bergh 1999). Since the iconography is more or less intermediate among the styles, Haeberli (2002) proposes the name "Pucara Provincial." Three radiocarbon dates place textiles between AD 200 and 400 (Haeberli 2002: table 1), or late in the Pucara style.

Within the Pucara Provincial group there appear to be two classes, based on iconography (Haeberli 2002). The Rayed Head with feather rays has an encircling band with S-shaped figures, and two broad, segmented appendages that look like feathers projecting from each of the four sides of the block-like face (Figure 12.4a). Between the pair of feathers is a ray with a bulb-based, wavy three-filleted tuft. At each corner of the squared head is a ray with a profile animal head with divided eye. This rayed head is perched on a three-step pyramid. To the right and left of the big face is a stack of three similar faces, in alternating color schemes (Haeberli 2002: fig. 30; Young-Sánchez 2004b: fig. 2.22).

The second Pucara Provincial shoulder-panel style, the Rayed Head with circled-dot rays is also placed above a three-step pyramid (Figure 12.4b). The head has a



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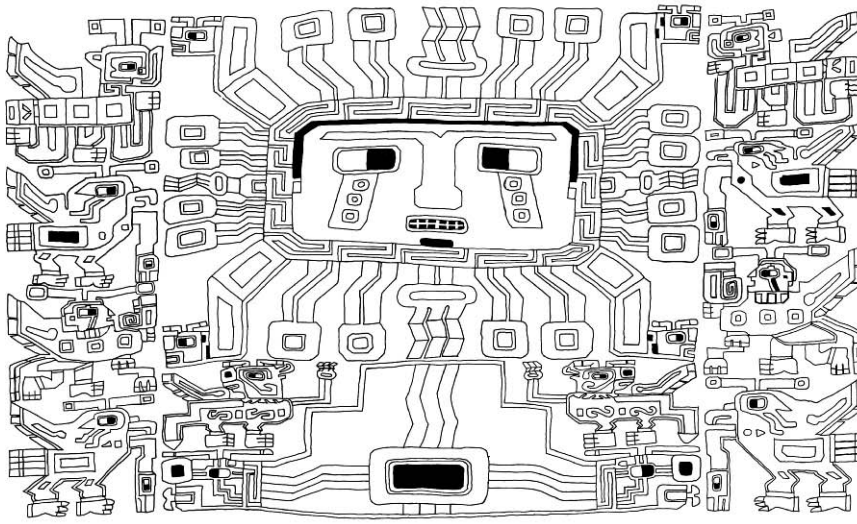

B

Figure 12.4. a. Pucara Provincial Rayed Head weaving with feather rays (Redrawn by P. J. Knobloch from Haeberli 2002: fig.30, p. 118); b. Pucara Provincial Rayed Head weaving with circle and dot rays (Redrawn by P. J. Knobloch from Brinckerhoff 1999: cat. no. 99, p. 21)

band surrounding its face that contains interlocking frets. Four rays project from each side of the face that end in circled dots. At the center, between each pair of two rays is one projection terminating in a bulb-based, wavy three-filleted tuft, and at the corners of the blocky face are rays with profile heads at their tips (Brinckerhoff 1999: fig. 29; Young-Sánchez 2004b: fig. 19 [same textile]). To the right and left are a group of profile beings with distinctive antennae on their heads, one above the other, that have legs, a wing, and something projecting from the chest. Felines, deer, raptorial birds, and humans appear, with the human sometimes grasping a shell trumpet.

An exceptionally spectacular weaving of a Pucara Provincial Rayed Head with circled-dot rays was displayed at the Denver Art Museum (Young-Sánchez 2004b: fig. 26a). Surprisingly, tapestry decoration is not limited to the shoulder panels, but is spread over the entire tunic. In the center of the chest is the Rayed Head on its pedestal. To the left and right are three rows of three front-faced, standing persons, wearing elaborate clothing and headdresses, and grasping objects in both outstretched hands. In this tapestry tunic, the shoulder panels were apparently woven in one piece, and represent two architectural enclosures with a triple-jamb gateway remarkably similar to Tiwanaku's Gate of the Sun (and closely-related portals, see Protzen and Nair 2000, 2002). Standing in the center of the enclosure is a front-face figure grasping a staff in each hand. This being, with divided eyes, wears an elaborate headdress and earrings that resemble those of the smaller front-face persons. Surely this lovely garment is a cosmological map, representing concepts that later guided Tiwanaku architects in their megalithic constructions. The crown or headdress of the front-face personages are not like those of the Rayed Face on the same textile, and differ much more from the rays of Staff-God crowns than the projections surrounding the big Rayed Face. If these front-face figures represent Staff Gods, as we suspect, they are quite idiosyncratic. Astonishingly, several radiocarbon dates convincingly place the tunic immediately before the beginning of our era (Blackmon 2005).

In conclusion, we can affirm that late in the Pucara art tradition, and perhaps earlier in Pucara Provincial art, a Rayed Head was occasionally represented as a standing, full-bodied figure grasping two staffs. Do these prototypical Staff Gods represent the same being as the disembodied Rayed Head present since Yaya-Mama times? Or were new figures appearing, such as the unusual front-face Staff Gods on the Tapestry displayed at Denver? Be that as it may, these full-bodied figures must be the antecedent of the Staff God image. Do they—the Staff God in the tiny Pucara sculpture, and the numerous Staff Gods of the Pucara Provincial Denver Tapestry—represent the kind of centrality and hierarchy that seems to characterize Staff God iconography at Tiwanaku and at Conchopata/Huari? Perhaps on the textile, but not the little sculpture. Certainly, significant ideological transformations were yet to take place.

Do these Staff Gods represent influence from the art and ideology of Chavín? Their appearance seems a bit late for Chavín, and this Staff God seems to develop from a disembodied rayed head, that was never a prominent feature of Chavín iconography. Furthermore, these Staff Gods appear in a south Andean tradition in

which front-face vs. profile pose, and one or two staffs in outstretched hands had been key means of symbolic communication for centuries—in art styles ranging from San Pedro de Atacama to Pucara. We conclude that if Chavín did play a part in the iconography, it was slight, in relation to the strong, "Southern Tradition" in which these icons developed.

RELEVANT PERUVIAN STYLES

Rayed Head, and Staff God iconography are nowhere apparent in immediately pre-Middle Horizon art of Huarpa and Nasca, the principal antecedents of Huari and its second city of Conchopata. Huarpa peoples of the Ayacucho Valley produced pottery painted with geometric black-on-white, as well as red-and-black-on-white decorations (Leoni, this volume). Beginning in Epoch 7 of the Early Intermediate Period, cultural interaction between Huarpa and south coastal Nasca peoples (fabricators of spectacular polychrome pottery) stimulated an increase in colors and curvilinear designs in the Huarpa style. However, these cultural exchanges seem to have remained rather distant. Interactions and stylistic exchanges continued into Epoch 8, resulting in the gradual replacement of Ayacucho's Huarpa pottery by a complex repertoire of polychrome Conchopata/Huari styles in Middle Horizon Epoch 1, especially Chakipampa, Ocros and Conchopata (Knobloch 1983, 1991).

Staff God iconography appeared in Conchpata/Huari art in Epoch 1, and soon became a central motif, first in ceremonial and then in more secular pottery, and other artifacts. Furthermore, based on the analysis of Wari's Chakipampa B-style design features, Menzel (1964: 68) argued that Middle Horizon 1B was a time of empire building and conquest by Huari. The old Nasca area fell, as Huari incorporated the south and central coasts from Acarí to Chancay and the highlands to Huaraz. Moche Phase V (Rafael Larco Hoyle 1948, 2001), dates to Middle Horizon 1B based on the "association of Moche V and Wari-style features on some objects, and the associations of Moche V and Wari-style objects in the same burials" (Menzel 1977: 59). Indeed, Knobloch (1983) observed Moche V press-molded blackware from excavations at Huari, along with central coast Nievería and north highland Cajamarca-style pottery. So foreign influences coming into Ayacucho during the century or two from Early Intermediate Period 7 through Middle Horizon 1 were diverse, representing the major cultures of the Andean world, but full understanding of the chronology, details, and relative importance of different influences has eluded archaeologists.

STAFF GOD AND PROFILE ATTENDANT IMAGERY IN CONCHOPATA/HUARI AND TIWANAKU

The most spectacular Tiwanaku-style art north of the altiplano is the painted pottery of Conchopata, the second city of Ayacucho during the Middle Horizon, located 10 kms south of Huari. Before current excavation projects began in the late 1990s,

two collections of oversize ceramic vessels with Tiwanaku-style iconography had been discovered. The first discovery was made by Julio Tello (1942) in 1942. The second was by construction workers in 1977, which was subsequently investigated by Isbell's Huari Urban Prehistory Project (Cook 1987, 1994; Isbell 1987; Isbell and Cook 1987; Knobloch 1983). When Dorothy Menzel (1964, 1968, 1977) seriated the art and styles of the Peruvian Middle Horizon she had only the 1942 collections to consider, and they were largely unpublished. She concluded that Tello's 1942 Conchopata style depictions of the Staff God represented the first wave of Tiwanaku influence to reach central Peru. This event initiated the Middle Horizon, beginning Epoch 1A, which, in turn, was characterized by a new religious tradition of deliberately smashing oversized ceramic vessels decorated with polychrome images of Tiwanaku's Staff God and Profile Attendants. Simultaneously, the polychrome Chakipampa-style became popular, Regular and Fancy varieties, with both displaying colors diffused from Nasca 9 ceramics, while the Fancy variant also adopted features of vessel shape and attributes of mythical animals.

Following the 1977 discovery of a second cache of oversized jars with Tiwanaku-style beings (Isbell and Cook 1987), Isbell furnished Menzel with photographs and drawings. She concluded that this new pottery was later than the 1942 style, belonging to Epoch 1B. Menzel (personal communication, 1978) also inferred that icons of the 1977 offering must lie off the major evolutionary path of Wari-Tiwanaku art because they were so idiosyncratic, especially the Profile Attendants (see Fig. 12.3b).

Menzel's stylistic groupings and seriation became the standard for subsequent understandings of Wari, Tiwanaku and the Middle Horizon, especially its chronology. However, Knobloch (1983) observed that in stratified excavation at Huari, Regular Chakipampa pottery was present at the beginning of the Middle Horizon while Fancy Chakipampa appeared only in higher strata. She concluded that Fancy Chakipampa 1A pottery had developed slowly and locally in Ayacucho from Regular Chakipampa 1A antecedents and could be no earlier than Epoch 1B. Furthermore, this stylistic development was responsible for the fancy pottery of the Nasca 9 style, through a reintroduction to south coast art later in Epoch 1B, by Wari/Nasca interaction.

Knobloch's modest chronological revision has significant ramifications. In large part, Menzel dated the Conchopata style to Epoch 1A because of design similarities to Fancy Chakipampa 1A pottery. If these features belonged to Epoch 1B, then so did the Conchopata style of Tiwanaku-influenced pottery. Knobloch (1991: 252–253) went on to argue that the iconography of the 1977 offering vessels predated the 1942 Conchopata icons, although also probably dating to Middle Horizon 1B. Indeed, Epoch 1A of the Middle Horizon appeares to have been a time when Regular Chakipampa and Ocros pottery, influenced by Nasca and perhaps other styles, became the preferred new styles of Ayacucho peoples.

Recent excavations at Conchopata support Knobloch's revision of Menzel's chronology. Of course there has been a lot of disturbance at Conchopata, and many more fragments must be reconstructed before the earliest stratigraphic appearance of any icons can be confirmed, but both radiocarbon dates and stratigraphic

locations imply that the 1977 version of Tiwanaku-Style iconography predates the 1942 discoveries, by perhaps a century. Furthermore, both are later than the beginning of the Middle Horizon. Finally, a close relative of the 1977 offering was discovered in 2003, stratigraphically probably slightly earlier, consisting of only a few sherds, but significantly expanding information about early Tiwanaku-Style iconography at Conchopata.

The 1977 offering had two types of large jars, the more frequent variant decorated with a Staff God on a pedestal, flanked by two horizontal rows of Profile Attendants (Cook 1979, 1987, 1994). This Staff God icon (Figure 12.5) is related to the Pucara

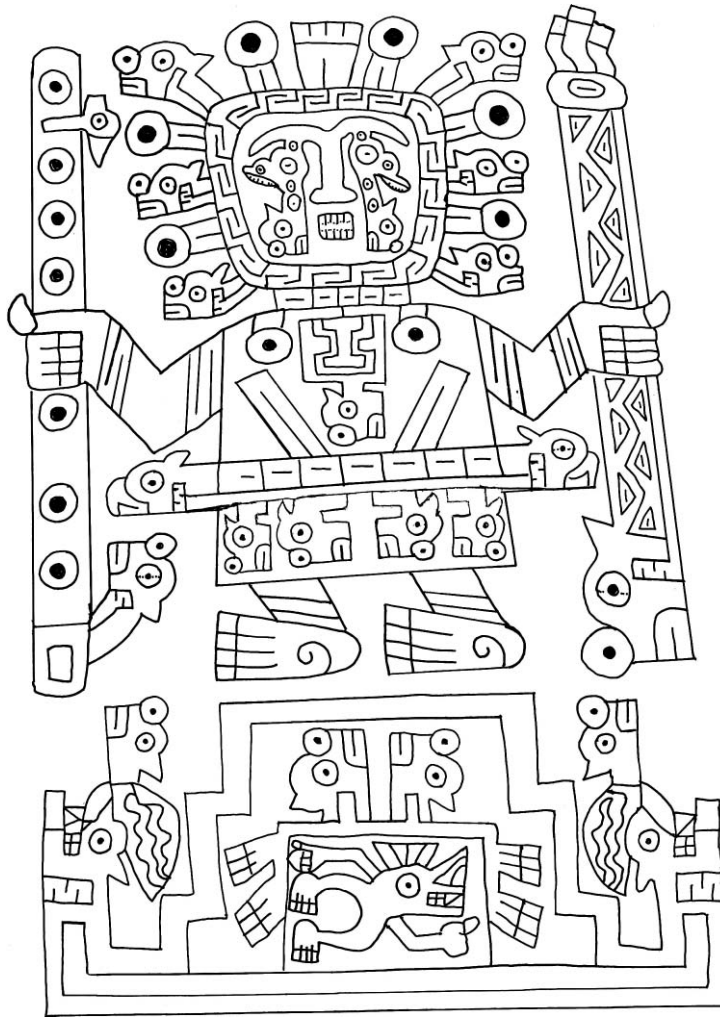

Figure 12.5. Staff-God on 1977 Conchopata offering jars. (Drawn by P. Knobloch from photographs by W. H. Isbell)

Provincial Rayed Head with circled-dot rays, apparent in the three-step pyramid on which the full-bodied deity stands, and in the form of the rays projecting from the crown, even though they are less in number than the Pucara Provincial crown (Haeberli 2002).

The 1977 Staff God lacks the supernatural attributes of divided eye and N-shaped canines. Its design attributes include: 1) Staff God's right-hand staff of circled-dot filler elements has animal heads near the ends, attached along the inner side of the staff, and the bottom end of the staff terminates in a nested square; 2) Staff God's left-hand staff of zigzag, nested triangle elements ends with a feline head at the bottom and bulb-based, three-filleted tuft on top; 3) a crown encircles the head with an interlocking fret band; 4) crown appendages include circled dots, flat-based tuft and feline heads; 5) circled dots and animal-headed breastplate are suspended from the neck; 6) shoulder to belt "suspenders" are abbreviated fillet bands above the belt; 7) belt, of segmented squares and filler dashes, ends in avian heads; 8) four feline heads project from bottom of belt; 9) anklets, wristbands and shoulder bands; 10) toed feet with spiral heels; and, 11) icon stands on a three-stepped pedestal with animal heads to each side.

Tiwanaku Profile Attendants are anthropomorphic except for specific animal features such as wings, a beak, a snout, or salient canine teeth. Profile Attendants on the 1977 Conchopata offering jars are highly stylized, and only one version is represented (Figure 12.3b). Many of its features are distorted almost beyond recognition, and many elements are minimized. On the other hand, the kneeling posture with rear leg bent, and some other aspects of the figures remain apparent. Their attributes include: 1) N-shaped canine teeth, and a triangular nose that extends above the head; 2) eye is a simple circle with small tear bands above and below; 3) head is bullet-shaped, and not reminiscent of any animal form; 4) the curved crown floats above the head, with a profile animal head at one end and a bulb-based, three-filleted tuft at the other, that has a zigzag filler as well as a circled dot and a nested rectangle with three projections as ray appendages; 5) a scrawny wing of four bands; 6) collar with radiating lines near middle of body; 7) belt of alternating nested triangles; 8) heel and belt appendages; and, 9) staff of segmented squares filled with triangles or circled dots topped with a bulb-based, three-filleted tuft and animal head at the bottom.

The Conchopata 1977 Profile Attendants have a wing that is spindly and idiosyncratic, although somewhat similar to Conchopata's Standing Profile Attendant's wing (Figs 12.1A, 12.7E). The collar with radiating lines that characterizes many Tiwanaku Profile Attendants, including those on the Ponce Monolith (Figure 12.2), is present but the motifs are so stylized that only someone very familiar with the conventions could depict or decipher such a confusing and atypical variant.

The 1977 Conchopata Staff God icon (Figure 12.5) is astonishingly similar to the Staff God icon on the back of the Ponce Monolith (Figure 12.2). They are so similar that the two must be very close in time, and based on a common representation known to the artisans responsible for the respective representations. Specifically, both Staff Gods' right-hand staffs contain circled-dot elements, inner projecting heads at top and bottom and the bottom end is a nested square. The

Staff God's left-hand staff is topped with bulb-based, three-filleted tufts and a feline head is at the bottom. Crown bands encircle both heads that have the same types of appendages as well as their spacing. The faces share a T-shaped brow and nose, fancy eye markings and non-fanged mouth. Though the eye markings are not identical, the Conchopata figures' eye markings are very similar to those on the face of the Ponce statue's large head. Both have wing-like elements on the outside corners of the eye and a hanging band with two elements, one below the other, under the open eye, and then an animal head with its eye—in the case of the Ponce Monolith's face, the fish or snake theme. Both Staff Gods have a head with ray appendages projecting from three sides only, excluding the chin. Two circled dots and a larger central pendant hang from the neck. Both Staff God representations have segmented belts, with an avian head at each end. Suspended from the belt are four other heads, avian on the Ponce Monolith, feline on the 1977 Conchopata Staff God. These attributes are too similar for coincidence. The artisans who created these two representations had to be working with the same concepts and rules, and probably even the same model, whether in textiles or in some other medium.

One very important feature distinguishes the Ponce Monolith Staff God from the Conchopata 1977 Staff God: the symbol for *A. colubrina*. This motif, identified by Knobloch (2000), is one of the first Tiwanaku-style conventionalized symbols to be interpreted since Posnansky's (1945, 1957) extraordinary treatise on the entire corpus of Tiwanaku art. With modest variations, this plant symbol is found in Tiwanaku, Huari and San Pedro de Atacama depictions, and perhaps in type-site Pucara art. So far, no depictions of *A. colubrina* have been observed in Pucara Provincial textiles, but these weavings are little published, so perhaps the icon is yet to be recognized. Be that as it may, the Tiwanaku Ponce Monolith version of the Staff God has an *A. colubrina* symbol on the top of its left-hand staff. Two of the staffs carried by Profile Attendants adjacent to the Staff God are also topped with *A. colubrina* elements, as are several other staffs of Profile Attendants scattered about the statue, some of their crown rays, some rays on the backs of wings, and some of the elements at the tips of Profile Figures' capes or tails. Two of the elements of the eye decoration from the face of the Ponce statue are also *A. colubrina* symbols (Figure 12.2). In short, *A. colubrina* is all over this statue.

A lot of *A. colubrina* symbols also occur on the mortar found in Tiwanaku's Semisubterranean Temple (Ponce 1969b: lam. 14, 16), but they are very selectively placed. Each of the eight Rayed Heads on the upper side of the sculpture has three *A. colubrina* symbols in its headdress. But none of the eight Staff God representations on the side of the stone have *A. colubrina* symbols. Presence or absence seems deliberate. *A. colubrina* symbols, albeit slightly different, are also present on the Bennett Monolith (Posnansky 1945: figs. 112–114), where they are part of the foot attachments of the Staff God as well as the tops of numerous other objects, and on the statue's chest, between the objects held in the hands. The symbol also appears in the eye design of the avian attendants on the Gate of the Sun (Posnansky 1945: plate XXV, top), and in the belt, neck and suspenders of the Taquiri cube (Rydén 1947: fig. 147). So, some, but not all, Tiwanaku-Style sculptures have *A. colubrina* symbols, and of those that do,

some have many, while others have few (for illustrations see Knobloch 2001 and http://www-rohan.sdsu.edu/~bharley/WWWPlantIDICON.html#Acolubrina).

The Conchopata 1977 Staff God and Profile Attendants have no *A. colubrina* symbols. Why is this, if the artisans responsible for the two Staff God representations were working from a common model?

On one hand, since Uhle's time, Andean archaeologists have explained change in iconographic representations as misunderstandings of the original by ancient artisans, who created copies that were not true to the original. Knobloch favors this argument in relation to *A. colubrina* symbols on the Ponce Monolith and the 1977 Conchopata jars. She suggests that an authentic version of the Staff God, perhaps represented in a textile, included *A. colubrina* icons, that were carefully depicted in fine-line relief on the Ponce Monolith. However, the Conchopata jar painter did not understand the symbols, and simplified the images beyond recognition. Or, perhaps painters were following verbal instructions rather than working from a visual model, so words for shapes in different languages resulted in different final shapes.

On the other hand, Isbell believes that ancient artists were much more informed about religious icons and their details than modern archaeologists. He believes that the Ponce statue's sculptors and the Conchopata jar painters shared common models, although the scarcity of a "Staff God with Profile Attendants" theme on textiles from the Middle Horizon makes him reluctant to assume that the shared models were weavings. Be that as it may, he suggests that ancient artisans acted knowingly, selecting some elements instead of others, stylizing some icons while creating conservative copies of others, and even creating new icons and elements in conjunction with changing ideology and practice. The *A. colubrina* symbol appears on some Tiwanaku sculptures in abundance, but is relatively rare on some, and completely absent on others. The *A. colubrina* symbol appears on some Tiwanaku-style snuff trays, but on most, it does not. The *A. colubrina* symbol appears on some Conchopata/Huari ceramics and textiles (of unknown provenience), but not others. At Conchopata there seem to be some chronological factors influencing the representation of *A. colubrina*, that we will try to identify, but it seems undeniable that artisans who created Tiwanaku-style iconography made decisions about the representation of *A. colubrina* as well as other elements and themes.

Isbell argues that if Conchopata artisans were just simplifying *A. colubrina* symbols, or painting in accord with verbal descriptions, they would have replaced all *A. colubrina* elements from the model with the same design. But this is not what we see on the Conchopata 1977 jars. Crowns of some of the Profile Attendants on the Ponce Monolith have *A. colubrina* symbols, while the crown of the Conchopata 1977 Profile Attendant has a three-segment tuft with nested rectangle base. It certainly is not a typical *A. colubrina* symbol, although it might be a simplification of the sort suggested by Knobloch. However, on the Conchopata Staff God's left-hand staff, *A. colubrina* is replaced by a different, and well-known symbol, the bulb-based, three-filleted tuft. And although Ponce Monolith Profile Attendants' staffs are tipped with diverse elements that include examples of the *A. colubrina* symbol, the universal Profile Attendant on the Conchopata 1977 jars holds a staff

tipped with the bulb-based, three-filleted tuft, as well. On the other hand, the wing rays of some Ponce Monolith Attendants have *A. colubrina* symbols, but all the Conchopata 1977 jar Attendants have profile feline heads and nested rectangles. None of the Conchopata 1977 Attendants have capes or tails so, of course, no *A. colubrina* symbols appear on them. Finally, the face of the Ponce Monolith has *A. colubrina* symbols in its eye decorations, but none of the face necks of the Conchopata jars have *A. colubrina* as elements included in eye decorations.

Isbell concludes that Conchopata painters made explicit iconic choices expressing religious ideas and practices. He argues that they were participating in a broad, multi-regional sphere that was interactively shaping the Tiwanaku style. In all probability this style was dynamic, involving both universally accepted ideology and iconography, as well as competing knowledge and symbols regarding the cosmos, its symbolic representation, and the conduct of rituals and ceremonies.

New Tiwanaku-style sherds discovered in 2003 appear to have come from a large jar similar to those found in 1977. They represent only a tiny part of the original design but include the Staff God's chest, belt and left elbow. The segmented belt, suspenders, animal head on the chest, and position of at least one arm, wristband and shoulder band are identical to the Staff God depicted on the 1977 giant jars (Figure 12.6). Perhaps other features were also the same, such as the face, crown and stepped pedestal.

The 2003 Profile Attendants are represented by several fragments showing the head, crown, upper staff, partial body, wing and bent or kneeling leg (Figure 12.6). These fragments provide a composite imagery complete enough to show that there was no rear arm, and probably at least two rows of attendants, one above the other, perhaps in opposing processions. No rim is preserved but potter's wiping marks on the interior of the vessel are horizontal when attendants are positioned vertically. The attributes of these Profile Attendants include: 1) a feline head that points up; 2) nose is a circled dot, mouth has N-shaped canines and projecting bulb-based, three-filleted tuft; 3) chin bar or band has nested zigzags and ends with nested square; 4) divided eye and eye band with nested circles; 5) eyebrow is a segmented band with human head in front of the eye and bulb-based, three-filleted tuft near the neck; 6) curved crown of two bands, the first has a nested zigzag band with feline head at front and bulb-based, three-filleted tuft at back while the second band is segmented and has "E"-shape filler elements, rays from the top consist of two front-faced human heads with a bulb-based, three-filleted tuft between them; 7) collar with inward lines; 8) body segments are outlined with single fillet; 9) limbs have nested fillet bands and feline heads; 10) belt and staff of zigzag with alternating triangle band; 11) staff topped with bulb-based, three-filleted tuft and fillet band outlines top and side; 12) two bulb-based, three-filleted tufts project behind back (ends broken off); 13) projecting wing has saber curve of fillet bands with multi-feathered edge; and 14) probably toed feet. The fillet outlining is unique to this version of the Profile Attendant icon and very typical of Nasca-related designs and motifs. The cache includes a sherd from a different vessel decorated with a bicolored asymmetrical ray that developed from the earlier Nasca 8 "monkey head" icon. In the Wari area this design's stylistic dates must be early Epoch 1B

Figure 12.6. Newly discovered Tiwanaku Style Staff God with Profile Attendants, excavated at Conchopata in 2003, all known fragments. (Photo by W. H. Isbell) (See also Color Plate 1.)

(Knobloch in press). Therefore we date this cache to be the transition from Wari art with Nasca antecedents to Wari art displaying the new, Tiwanaku style repertoire of mythical iconography. A similar stylistic date is implied for the iconography of the 1977 Conchopata jars.

The 2003 Profile Attendants are unlike any others from Ayacucho. The crown differs from other Conchopata/Huari, and Tiwanaku crowns, that have a single band from which rays emanate. This crown has a band, and another above that, from which rays emanate. The tall, double band is more like the crowns of Feline Man in Pucara art (Figure 12.7a; Chávez 2002a: fig. 2.10). The lower band is like an animal pelt in having a head at one end and a tail at the other, consisting of a bulb-based, three-filleted tuft. This band is decorated with the same zigzag design as the chin band, and a zigzag design also characterizes many Pucara crowns. Above the first band is another segmented band, from which emanate three rays. They are capped by a severed human head, upside down and front face, a bulb-based, wavy three-filleted tuft, and another upside-down head. An upside-down profile

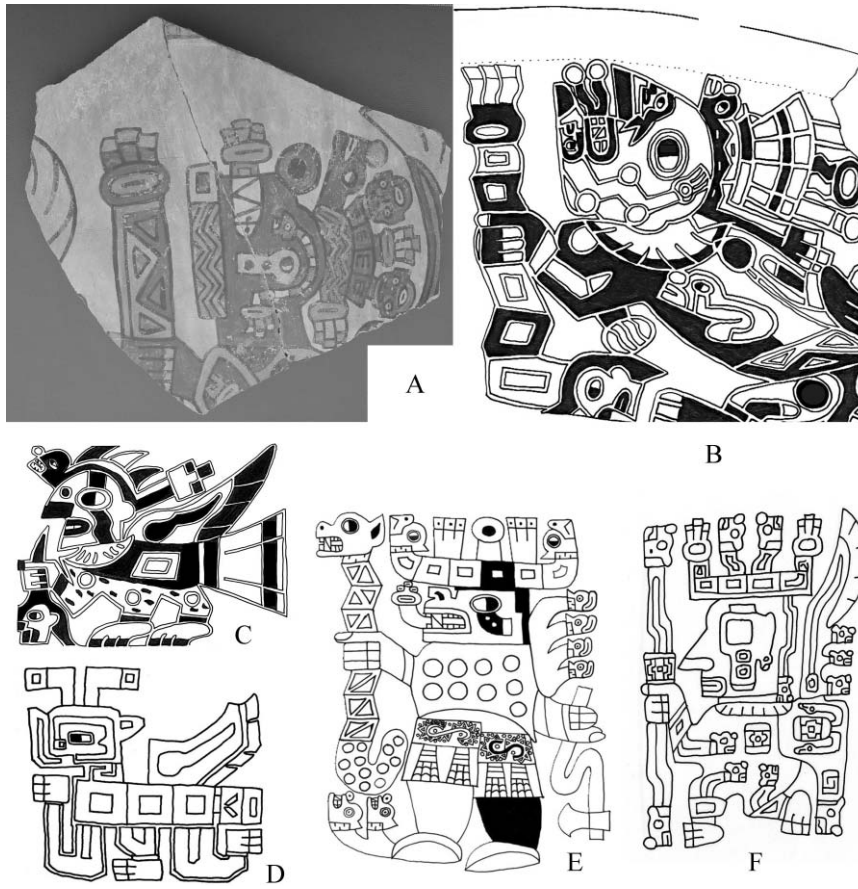

Figure 12.7. a. Conchopata 2003 Profile Attendant showing head with crown, and part of wing; b. Pucara Feline Man with Crown (Redrawn by P. J. Knobloch from Chávez 2002a: fig. 2.8a); c. Pucara style wing (Redrawn by P. J. Knobloch from Chávez 2002a: fig. 2.19a); d. Pucara Provincial style wing (Redrawn by P. J. Knobloch from Brinckerhoff 1999: cat. no. 99, p. 21); e. Conchopata 1942 Profile Attendant wing (Redrawn by P. J. Knobloch from Menzel 1977: fig. 66); f. Tiwanaku Profile Attendant wing, Kochamama Monolith (Redrawn by P. J. Knobloch from Posnansky 1945: fig. 100c)

human head in a fragmentary crown design that cannot be securely identified as part of an Profile Attendant is also reminiscent of Pucara severed heads (Figure 12.7a; Chávez 2002a: fig. 2.11).

The wing of the 2003 Profile Attendants is especially interesting. It is not like other Conchopata wings composed of 3 or 4 bands that curve up and out from the back (Figure 12.7e). Rather, it is more like Pucara wings (Figure 12.7c, Chávez 2002: 219a), Pucara Provincial wings (Figure 12.7d, Brinkerhoff 1999: fig. 29), and Tiwanaku wings (Figure 12.7f, Posnansky 1945: plate XXXIV, 3 and 4).

The 2003 wing, and its altiplano relatives, are almost straight, with a structural element that curves slightly, like a saber, and to which a membrane is attached that has slim internal lines suggesting division into feathers. The closest parallels to the Conchopata 2003 wings are Profile Attendants on Tiwanaku sculptures, especially the Kochamama, Bennett, and Ponce monoliths. On the other hand, the wings of Profile Attendant on textiles from San Pedro de Atacama are less similar than the 2003 jar and the Tiwanaku sculptures are to one another. Perhaps textile representations were not the intermediate models used by early Conchopata and Tiwanaku artists.

We have no information about the staffs held by the 2003 Staff God, but the Profile Attendants grasp a staff divided by a zigzag band with nested triangles (Figure 12.6). Their belts have the same design. This kind of division of staffs and belts is not found among the figures incised on Tiwanaku monoliths, but appears on two lintels, Linares and Kantataita, that are usually considered early in the Tiwanaku sequence. On the Linares lintel the zigzag band with nested triangles is on both staffs in the hands of the Staff God (Posnansky 1945: fig. 140 a, b). On the Kantataita Lintel, the staffs are held by the Profile Attendants (Isbell and Cook 1987: 33), and there is no central Staff God. The belts and chin bands of the Profile Attendants have the same design. Both these sculptures are characterized by Profile Attendants whose bodies float horizontally as though they were flying, what we shall refer to as Flying Profile Attendants (Figure 12.8a, b, c).

At Conchopata, Flying Profile Attendants are also illustrated, but not among the 1977 and 2003 materials we have assigned to the beginning of Middle Horizon 1B. They occur on the 1942 style urns that we date to the end of Middle Horizon 1B, or perhaps Epoch 2.

Two types of Flying Profile Attendants, each with two variants labeled Types A1 and A2 (Figure 12.8a), and Types B1 and B2 (Figure 12.8b, c) all appear to be contemporary. Menzel (1977: fig. 63 upper left) illustrated horizontal Profile Attendant of Type A that have no wings on their backs, but rather have ray-like projections. Differences between A1 and A2 are in the staffs they carry. Type B Flying Profile Attendants have wings on their backs; B1 has the same kind of head as Type A flyers, perhaps a feline (Figure 12.8b; Isbell 2001c: fig. 4) while Type B2 has an avian head (Figure 12.8c; Isbell 2001c: fig. 5). Diversity of staffs within this pair means that they can probably be further subdivided.

As a group, Conchopata's Flying Profile Attendant icons share numerous attributes, including: 1) bodies travel right to left; 2) body and head colors alternate between pairs; 3) belt has alternating nested triangles; 4) wristbands and ankle bands; 5) U-shaped crown band of interlocking frets; 6) crown ends have feline, avian and bulb-based, three-filleted tuft endings; 7) center of crown has flat-based or bulb-based, three-filleted tuft; 8) toed feet with ankle dot; 9) ray projects from mouth and terminates in feline, fish/snake, or deer head; 10) A2 and B2 icons grasp staffs of segmented zigzag with nested triangles design in body, topped with feline (possibly canine) head, and terminated with a curved end; 11) A1 and B1 icons grasp straight staffs topped with bulb-based, three-filleted tuft that splays open the fillets; 12) two legs in standing position, and one arm grasping staff;

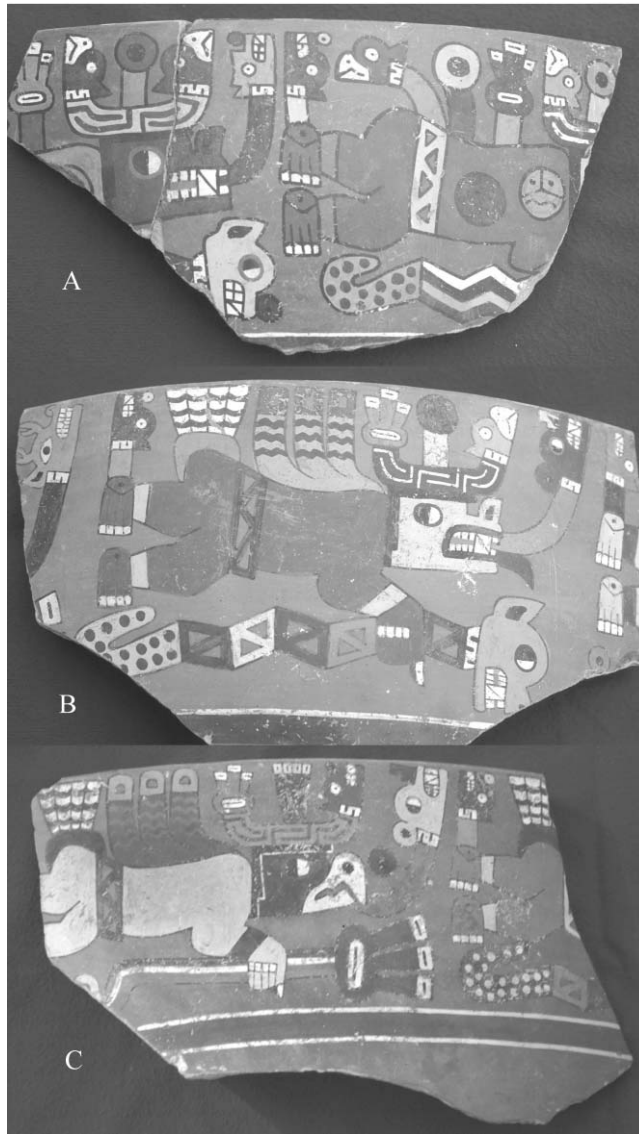

Figure 12.8. Horizontal Flying Attendants. a. Types A1 and A2 (Photo by W. H. Isbell); b. Type B1 (Photo by W. H. Isbell); c. Type B2 (Photo by W. H. Isbell)

13) right-angled black hair band; 14) red-outlined and divided eyes; 15) bulb-based, three-filleted tufts; 16) ray appendages end in feline and avian heads; 17) ray appendage to one heel; and 18) flat-based, three-filleted tuft in crown.

The A-type Flying Attendants are distinctive in having round, abstract facial design elements or "tripartite faces" on the body (Figure 12.8a). The circle is divided

into three sections with dots for eyes and horizontal line for a mouth. Similar tripartite faces occur on Tiwanaku sculptures, especially on the Ponce Monolith, where some of the circles on the skirt are shown as more elaborate tripartite faces, but the fingers of the hands have almost identical tripartite faced circles. Other attributes of A-type Flying Attendants include: 1) hook-shaped noses; 2) ray appendages project from back; 3) U-based, three-filleted tuft; and 4) ray appendages end in disks.

Flying Attendants type B (Figure 12.8b, c) alternate between avian and feline, and include the following attributes: 1) three-or four-band wing motif across the back; 2) divided eye peers backward; and 3) feather tufts project from the buttocks.

Tiwanaku Flying Profile Attendants differ significantly from the Conchopata examples with respect to the body position. The Tiwanaku Attendant's upper body is turned toward the front allowing both arms to extend from the two sides of the body while the head and lower body are viewed from the side. This pose allows the chest area of Tiwanaku Attendants to be decorated while also displaying the collar with radiating lines from the front. Limbs also have nested fillet bands. On the other hand, Conchopata's profile bodies reveal wings on the back of the figure. The pose of Tiwanaku's Flying Profile Attendants is similar to vertically positioned Profile Attendants with legs in the kneeling position, and with the representation of the second arm, shown grasping an axe and severed head, above or behind the body, while the staff is below or in front of the body. But the Tiwanaku and Conchopata Flying Profile Attendants share important attributes as well, including: 1) belt designs; 2) elongated snout; 3) bulb-based, three-filleted tuft; 4) projecting round disk; 5) alternation of two types in procession (probably in the Linares Lintel); and 6) ray projecting from the mouth. Also, Conchopata Flying Profile Attendants Type 1 do not have wings while Type 2 have wings as well as round-based, tufts projecting below the belt like tail feathers. The "wingless" attribute is shared by the Tiwanaku examples. The lack of fillet bands in the limbs of the Conchopata attendants is an interesting distinction that may relate to body position.

Tiwanaku-style iconography is not absolutely limited to stone sculpture for a few examples appear on pottery. Near the southwestern corner of the Tiwanaku V building known as the Putuni there are a number of disturbed intrusions interpreted as tombs that have been assigned to the Late Tiwanaku IV phase by excavators Couture and Sampeck (2003: 238–245 and fig. 9.28). One of the features contained ceramic fragments that appear to have belonged originally to a matched pair of kero vessels (Figure 12.9a). Given the incomplete representations, Couture (2002: 197–222 and fig. 5.29) confused feet for wings, concluding that some of the figures were standing. She argued that the scene depicted a battle narrative, but what is represented is the most common scene at Tiwanaku, a procession of Attendants. In this case they are horizontal Flying Profile Attendants.

The theme of a procession of Flying Profile Attendants is rare at Conchopata and at Tiwanaku. At Conchopata it was prominent for a short time, and if this was the case at Tiwanaku, we should be able to cross date the Putuni keros as well as Tiwanaku's Linares and Kantataita lintels with Conchopata's 1942 style of giant urns. Such correlations would suggest that the Tiwanaku lintels may date later than the Bennett and Ponce Monoliths and, therefore, reverse the current order as

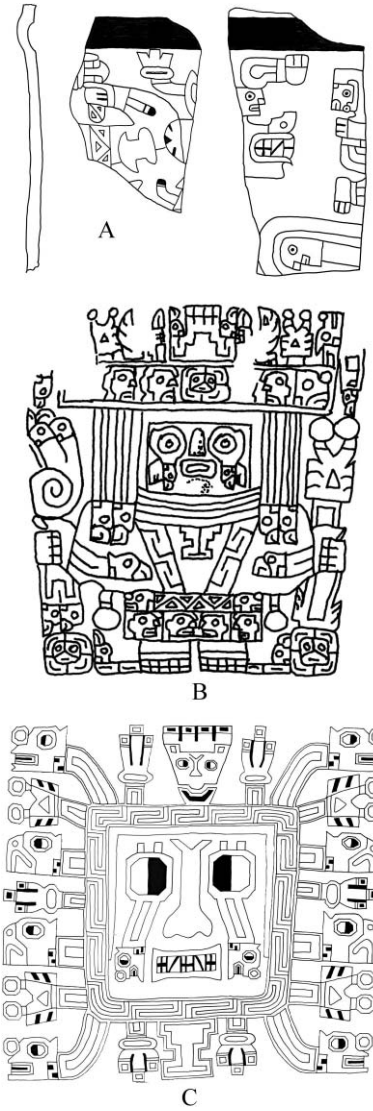

Figure 12.9. a. Tiwanaku flying Profile Attendants from ceramic keros (Redrawn by P. J. Knobloch from Couture and Sampeck 2003: fig. 9.28, p. 245); b. *A. colubrina* symbol on a snuff tray from San Pedro de Atacama (Redrawn by P. J. Knobloch from Torres 1987: p. 43, fig. 1); c. *A. colubrina* symbol on the "Fire Textile" Rayed Head (Redrawn by P. J. Knobloch from Conklin 2004: fig. 5, p. 97)

suggested in the literature. This sequence is, however, attractive in that monolithic statue carving at Tiwanaku must have continued with little or no interruption from earlier Yaya-Mama and Pucara styles, but megalithic gateways were a new invention. More likely, fine-line incised imagery would have been worked out

on the familiar medium of statuary rather than the new medium of architectural gateways.

At Conchopata, Flying Profile Attendants are associated with other vessels decorated with a Staff God flanked by Profile Attendants. These different iconic themes appear on urns of the same shape, with the same color schemes. Examples were recovered by Tello in 1942, and illustrated by Menzel (1977: fig. 62, 66, 67). More recent examples were excavated by Isbell and Cook (2002) in their 1999 excavations (Figure 12.1a). So if the cross dating of Flying Profile Attendants, proposed above works, this Deity with Attendants theme should be contemporary with the Putuni Keros, as well the Linares and Kantataita Lintels. Perhaps the Gate of the Sun belongs only slightly later.

The icons and organization of Conchopata's 1942/1999 Deity with Attendants theme (Figure 12.1a) differs significantly from the 1977 representation, and from what we know of the 2003 icons as well. The profile figures are Kneeling Profile Attendants characterized by: 1) snout noses; 2) great canines shown as long peg teeth projecting beyond the lips; 3) bent-knee legs; 4) limbs with internal fillet; 5) segmented belt; 6) collar with radiating lines; 7) front hand grasps a zigzag, segmented staff that has a bulb-based, three-filleted tuft on the top, and a severed head or captive at the bottom; 8) back hand grasps an axe hafted onto a recurved handle; and, 9) crown with a segmented band terminates at both ends with a feline head and what is probably a two-leaf representation of *A. colubrina* icon is in the middle (Figure 12.1a; Knobloch 2000: fig. 8a). Isbell believes that this rendition may be the first representational appearance of the hallucinogenic plant at Conchopata, probably late Epoch 1B, or early Epoch 2.

Knobloch suggests the possibility of an earlier appearance of *A. colubrina* representations at Conchopata. The realistic rendition of the icon on sherds discovered in 1997–98 by Ochatoma and Cabrera (Figure 12.3a; Knobloch 2000: fig. 2) might be an earlier rendition. On these sherds the spherical flowers, bipinnate leaves and leguminous seedpods of the "pea family" *A. colubrina* plant are much more naturalistically represented. The plant is depicted attached to an interlocking fret band, almost certainly from a round anthropomorphic head. Similar head motifs with crowns of highly stylized plants "growing" from the fret band come from another jar with early appearing shape, from the same excavations (Ochatoma and Cabrera 2002: fig. 8.8E). Perhaps the vessel represents an old Huarpa-style vessel like ones illustrated by Knobloch (1983: plate 39). Isbell, however, emphasizes that in spite of the archaistic vessel form, the fine painting and the context of this jar suggest that it is probably broadly contemporary with the 1942/1999 offerings. If so, the appearance of crowns with realistic *A. colubrina* growing from disembodied heads would be approximately contemporary with the more stylized *A. colubrina* icon in the middle of the 1942/1999 Profile Attendant crown. Be this dating issue as it may, disembodied heads with plants growing from them, sometimes with encircling interlocking fret band, appear on Tiwanaku sculptures, San Pedro snuff tablets, and other Tiwanaku-style art, but space prevents the exploration of this iconic relationship more than Knobloch (2000) has already discussed.

A Staff God is represented between Kneeling Profile Attendants on 1942/1999 oversize urns, consistent with the "Deity with Attendants" theme that has been

compared with Tiwanaku's Gate of the Sun by many investigators (Figure 12.1a, b; Cook 1994; Isbell and Cook 1987; Menzel 1964, 1977). However, specific similarities among these icons are not as many as the frequently repeated comparisons suggest. Of course, there is the basic organization of the scene, consisting of a front-face Staff God with Profile Attendants to its right and left. However, on the Gate of the Sun there are three rows of Profile Attendants, who are all smaller than the Staff God, and who kneel facing, or run toward, the Staff God. Furthermore, the Staff God stands on the three-step pyramid. There can be no confusion about hierarchical status, and who is in charge of whom.

In the 1942/1999 Deity with Attendants scene, the Kneeling Profile Attendants are all traveling right to left, like Flying Profile Attendants, not toward the deity. Furthermore, they are the same size as the Staff God. If it were not for the more famous Gate of the Sun theme, there would be no reason to infer difference in status for the front-face and profile figures. In fact, the two perspectives could be alternative representations of the same being, perhaps seasonal manifestations, as the god travels though the year, always in the right to left direction. Motifs the 1942/1999 Staff God shares with the Gate of the Sun Staff God include: 1) belted tunic with two vertical bands with interlocking frets or alternative segments, that resemble suspenders; 2) staff decoration consisting of segmented, nested squares; and, 3) crown appendages that emphasize profile animal heads at four corners, separated by other motifs. On the other hand, dissimilarities include: 1) crowns are shaped differently, especially the band of interlocking frets around the face; 2) crown rays are different in form and organization, with the 1942/1999 Staff God's rays differing significantly from all other known ray sets; 3) the mouth includes salient peg teeth similar to those of the Profile Attendant, but otherwise virtually unique in Tiwanaku-Style iconography; 4) ends of staff tufts are very different; 5) Staff God is no larger than the Profile Attendant; 6) the Conchopata version lacks a stepped pedestal. These distinctions suggest that in terms of stylistic development Conchopata was taking innovative steps, and that the art and religion of Tiwanaku and Conchopata/Huari were beginning to diverge, even if some elements may be more similar than ever. Perhaps the divergence was not due to a breakdown in communication, but to disagreement about religious symbols and meanings.

One of the most curious aspects of the 1942/1999 Staff God is its crown (Fig. 12.1a). In Pucara Provincial, Tiwanaku, and other Conchopata/Huari representations, the Staff God has a rather blocky head, with a band completely encircling the face, as though it were an emanation from the face itself. Rays project from this band, sometimes from all four sides, and sometimes from only three, so that nothing projects below the chin. In those cases, decorative elements below the chin seem to be hanging around the being's neck, or represented as on the clothing. The 1942/1999 Staff God face and crown violate this tradition, taking conventionalization of the crown a step farther than any other representation. Not only are there no rays below the chin, but the encircling band does not pass below the chin, and instead turns out over each shoulder. Rays terminating in profile heads that projected from the corners of the encircling band are now attached to the ends of the band. This crown looks very much more like a hat or headdress than an

essential radiance of the face, or like an encircling collar. And very curiously, the broad feather-like rays of 1942/1999, between the profile heads at the corners of the face, remind the observer of rays from the Pucara Provincial Rayed Head with feather rays (Figure 12.4a) textile style.

The 1942/1999 Staff God is not the only icon that suggests increasing divergence between the Conchopata/Huari iconic and religious tradition, and that of Tiwanaku. One Tiwanaku-Style icon was apparently invented at Conchopata and never appears at Tiwanaku. The innovative icon appears for the first time in the 1942/1999 style, but this style continued to dominate Conchopata art for some time, perhaps until the end of the oversize-urn tradition. The new icon gained popularity later than other 1942/1999 icons, and perhaps its invention was also relatively late. At any rate, this icon could be no earlier than Epoch 2 of the Middle Horizon, and may have continued into Epoch 3—although Ayacucho ceramic styles for Epochs 3 and 4 are still to be worked out.

Conchopata's new Tiwanaku-style icon is a disembodied profile head that is almost surely an abbreviated version of the Profile Attendant. Consequently, we refer to it as the Attendant Head.

Attendant Head icons are large enough to occupy the entire decorative band on the exterior of giant urns. Menzel (1964, 1977) recognized one form with what she called a feline snout. Rosalind Spielvogel published black and white photos of a Tello urn showing Attendant Heads (Spielvogel 1955: plate 55) that later was fully reconstructed and exhibited at the Palazzo Strozzi Museum in Florence, although it has some errors.

The Conchopata Archaeological Project discovered an unusually complete urn with two alternating feline Attendant Heads encircling the wide-rim band (Figure 12.10a). Both icons face left and have the following general attributes: 1) crown with a straight, segmented top band and curved, three-filleted neck band; 2) projecting tufts at either end of top band; 3) curved tear bands below the eye with two divided circles; 4) round disk and wing-like tufts on either side of the eye; 5) spiral nose; and, 6) open mouth with squared teeth. There are design elements that distinguish these heads. One Attendant Head icon has the following: 1) N-shaped canines; 2) oval eye with black pupil; 3) three avian- and one feline-head motifs projecting as crown rays; 4) top band is segmented, nested squares; and, 5) central crown tuft has U-shaped base. The other Attendant Head icon has: 1) long, peg-tooth canines; 2) divided eye; 3) three feline and one avian-head motifs as crown rays; 4) top band is segmented nested squares and chevrons; and 5) central crown tuft with bodiless head motif.

Another urn from near by (Figure 12.10b), has two alternating Attendant Heads occupying the broad rim band; one is feline and has a divided eye, spiral nose and N-shaped canines while the other is avian with pupil eye and slightly open beak. These two, as well as the Attendant Heads from the former urn have the same headband pattern of alternating nested squares and chevrons. On the other hand, the Attendant Heads on the feline and avian urn have eye decorations that represent a serpentine body with double-curved legs. The Feline Attendant Head's eye marking ends in a avian profile head, while the Avian Attendant Head's eye marking terminates in

Figure 12.10. a. Conchopata Urn in late variant of the 1942/1999 style, showing alternating Attendant Head icons (Photo by W. H. Isbell); b. Conchopata Urn in late variant of the 1942/1999 style, showing alternating feline and avian Attendant Head icons with ray appendages that include the late *A. colubrina* symbol with two circles-with-dot flowers (Photo by W. H. Isbell)

a feline profile head. The urn with the feline and avian attendant head has another element that appears for the first time, a projecting crown ray that represents *A. colubrina* (see Knobloch 2000: fig. 8a). This *A. colubrina* symbol is different from the two-leafed icon on the head of the Kneeling Profile Attendant from the 1942/1999 Deity with Attendants theme, and different from relatively realistic *A. colubrina* representations on oversize jars excavated by Ochatoma and Cabrera, that may predate the urns discussed here. This new icon has a two-leafed rectangle

with internal crescent. On the top are two circled dots that apparently represent the flowers of the *A. colubrina* plant. Significantly, Tiwanaku representations of *A. colubrina* that employ the two-leafed rectangle also have circles representing the flowers on the top of the icon, but there are always three. At first glance, the two-circle, or two-flower *A. colubrina* seems unique to Conchopata, but in fact, it is almost identical to the *A. colubrina* symbol on a snuff tray from San Pedro de Atacama (Figure 12.9b; Torres 1987: 43 no. 1, plate 74, left hand staff top), as already noted by Knobloch (2000: fig. 5a). Probably sometime in Epoch 2 or 3 of the Middle Horizon, Conchopata urn painters and San Pedro de Atacama snuff tablet carvers employed almost identical symbols for *A. colubrina*.

Communication of this *A. colubrina* symbol between Conchopata and San Pedro de Atacama could have taken place with textiles, for the new Conchopata-style icon appears almost exactly like its ceramic version, on several textiles. One, published by Conklin (2004b) as the "Fire Textile" shows a Rayed Head of the Staff God head, with rays that include the late Conchopata-style *A. colubrina* icon (Figure 12.9c; Knobloch 2000: fig. 7). The Fire Textile was named for a minor theme showing two men holding a vertical staff, which Conklin (1970, 2004b) considers to be a depiction of the pair drilling fire. The *A. colubrina* symbol also occurs in other examples of this kind of textile, either in the Rayed Head, or on the top of minor heads. A similar rendition of *A. colubrina* occurs in several locations of a Kneeling Attendant icon on a textile with unknown provenience (Knobloch 2000: fig. 4). If this variant of the *A. colubrina* symbol is temporally significant, then these textiles must date no earlier than late Epoch 2 of the Middle Horizon.

Returning to Conchopata's Profile Attendant Heads, Ochatoma and Cabrera (2001: fig. 7, 2002: fig. 8.9A, B, C) found a distinct type, characterized by a nose that resembles the noses of Conchopata's Flying Profile Attendant B2. They are also different in having a nested square of contrasting color at the tip of the chin. Similar elements occur in the Pucara-Style Feline-Man theme (Chávez 2002a: fig. 2.8 A and B). Other design elements include: 1) peg canine teeth that extend beyond the lips, like the Staff God and Kneeling Profile Attendants from the 1942/1999 urns; 2) crown is a segmented band of nested squares that turns up at both ends, with a feline head at one end and a bulb-based, three-filleted tuft for a tail at the other; 3) crown rays have circled dot, tuft, and avian head tips; 4) projection from ends in fish/snake head or bulb-based, three-filleted tuft; and 5) hair at the back of the head in unusual yellow-orange color. Unusual to these icons is the use of white outlining of design elements, although the Kneeling Attendant on the Tello/1999 urns has some white outlining.

Additional Attendant Heads occur at Conchopata, but we have discussed the most salient and best preserved variants. There are also other icons that we are just beginning to define as we reconstruct Conchopata's smashed pottery. Some of these icons relate to the Tiwanaku style, while others apparently do not. As at Tiwanaku, boundaries of the Tiwanaku style do not seem to have been sharp and clear. Some marginal icons, such as a winged bird with feline attributes, are probably shared by Tiwanaku and Conchopata/Huari, while others such as profile felines with front-face body, a llama with a plant on its back, frogs, eagles/hawks,

and elaborately clothed humans with weapons may be part of one repertoire or the other. Much iconography remains to be studied, and this preliminary reevaluation reveals the kind of breakthroughs that are coming.

CONCLUSION

We believe that our research has answered the key question posed at the onset of this paper. Was Staff God with Profile Attendant religion a unified, deep structural ideology that endured Archaic origins, the Early Horizon, the Middle Horizon and the Inca Empire essentially unchanged? The answer is "No." In the rise of Middle Horizon religious art, we see the Staff God emerge out of an older theme, the Rayed Head. This development involved significant syncretism, reinterpretation, and hybridization, perhaps over half a millennium. The process appears to have begun by the end of the Early Horizon, if the ornamented gold plume from Cuzco is an early representation of the synthesis. Consequently, Chavín iconography and meaning probably contributed something. But local traditions, not Chavín influence, seem to provide the most meaningful antecedents and context for this innovative theme. Probably slightly later is the little Pucara statuette, but these objects still appear to be unique examples that are unlikely to have been the focus of major religious activities.

In Pucara Provincial art, emphasis continued on the Rayed Head, but the Denver Tapestry shows that the Staff God, or multiple Staff Gods, were important images too. However, this textile seems to imply that the Rayed Head and Staff God(s) were not unified into a single concept. Furthermore, with the two Staff Gods in secondary position, and 36 front-face figures with staffs seeming to represent tertiary rank, there is little resemblance to a pantheon emphasizing Sun, Moon and Thunder.

The Staff God appears to have achieved religious supremacy by Middle Horizon 1B, that is probably synchronous with its popular appearance at both Conchopata/Huari, and at Tiwanaku. At Tiwanaku the new religion was introduced into a context of Yaya-Mama culture and ideology that was surely more consistent with new Staff God beliefs than Huarpa/Nasca cultural contexts were for the new religion in Ayacucho. However, interactions between Conchopata/Huari and Tiwanaku were apparently close at the time, so religious ideology in the respective areas may have maintained considerable homogeneity. But it was not long before the religions of the two centers began to separate, following independent evolutionary lines, as at least Ayacucho invented new icons that never appeared at Tiwanaku.

What can we make of *Anadenanthera colubrina*, hallucinogenic snuffing, and shamanism in the evolution of Rayed Head into Staff God and Profile Attendants religion? Certainly, hallucinatory experiences played a significant role. Isbell argues that from quite early on, some practitioners of the religion, or closely related set of religions, preferred an ecstatic and personal worship, such as shamans, while others preferred a more sober and institutionalized experience, such as priests. But

he believes that the chronology shows that these alternatives were contemporary, not sequential. They influenced one another rather than developing from one to the other. If the frequency of *A. colubrina* symbols in the objects of a religious art style measures the popularity of its use, there appears to have been an on-going dialog between worshippers with different attitudes toward *A. colubrina* for a very long time. *A. colubrina* seems to have begun more in the southwest portion of our vast region, but it was very strong at Tiwanaku when the Ponce Monolith was cut. On the other hand, it was much less popular with those who sculpted the Gate of the Sun.

Isbell believes that *A. colubrina* was resoundingly rejected by the painters or commissioners of Conchopata's 1977 jars. But they were contemporaries of Tiwanaku's Ponce Monolith carvers who repeated the symbol all over that statue. With the invention of the Attendant Head icon, *A. colubrina* became more obvious and popular at Conchopata, appearing also in spectacular textiles.

It seems that during the Middle Horizon, Staff God religion was dynamic, varied and changing. Surely Wari influence on Inca religion—perhaps reaching Chokepukio from Huaro and Pikillacta (Hiltunen and McEwan 2004)—could not have carried an encapsulated and ancient essence of Andean cosmology, for there never was a universal ideology. Dynamic competition, change, reinterpretation and invention appear to have been the rule as the Rayed Head developed into Staff God worship.

Is "Tiwanaku style" an appropriate name for Middle Horizon Staff God and Profile Attendant iconography? We think not, even though historical precedent associates the icons with the place where they were first defined, in this case by archaeologist Max Uhle. Unfortunately, by naming the style and religion for Tiwanaku, the amazing vitality and complexity of this Andean "Southern Tradition" is obscured, camouflaging its interactive, multi-regional and multicultural odyssey in the old garb of diffusion from a precocious origin center. We do not want to detract from the magnitude of Tiwanaku as a great center of Andean culture. But we are striving for an Andean past that is consistent with its material remains, and that accounts for the archaeological record better than alternative pronouncements. In the past we have just proposed, places considered marginal, like San Pedro de Atacama, are recognized as important contributors to Andean civilization. Styles hardly known to archaeologists before, such as Pucara Provincial, have been acknowledged. The remains and their dates support us.

We feel that Early Tiwanaku, or Tiwanaku III, is still inadequately defined and it is not correlated with stylistic changes in the Huari sphere. This shortcoming means that inferring what was going on in the southern altiplano just before the apogee of Tiwanaku is little more than guesswork. Facing this problem, some scholars prefer to place everything stylistically antecedent to local monuments and remains at Tiwanku, as well as everything ancestral to the widely diffused Tiwanaku style, into an undefined "Early Tiwanaku" class. We feel that if materials did not come from Tiwanaku, are stylistically different from known Tiwanaku examples, and include several pieces with internal stylistic integrity, and are consistently dated earlier than Tiwanaku's apogee, we are better off creating a new stylistic name that

recognizes the spatial and temporal unity of the objects and collections rather than lumping all into an Early Tiwanaku category that we do not understand—in space, in time, or in culture. Haeberli's (2002) Provincial Pucara style is an excellent example.

On the basis of archaeology at Iwawi (Isbell and Burkholder 2002), in Tiwanaku's heartland, we suggest that Early Tiwanaku at the type site of Tiwanaku continued a Yaya-Mama tradition, probably with significant Pucara influence. The impressive developments responsible for the monumental Tiwanaku center came relatively late, after AD 500 or 600. To the degree that we are correct, the origins of the "Tiwanaku style" are not in local, long-term evolution in the south altiplano, but in intensified interactions among distant cultures of the southern Andes, from Ayacucho to San Pedro de Atacama, and from Cochabamba to Moquegua. Furthemore, a smidgen of northern Chavín iconography and meaning seems to have participated. Tiwanaku-style iconography and religion came out of innovation promoted by cultural interaction in a vast sphere linked by llama caravans, where social difference and political power were increasingly important. It was not invented and sustained for millennia by precocious elites at a monumental capital.

This discussion has proposed important chronological changes for Conchopata/Huari, and the Peruvian Middle Horizon. We feel that some of the changes are very secure—that the 1942/1999 oversized urns date to the end of Middle Horizon 1B, and not the beginning of Epoch 1A, for example. Indeed, one of Tello's 1942 fragments shows the Staff God and Profile Attendants with a small human standing by, perhaps a shaman or priest. This man is wearing a 4-cornered hat, and all other depictions of these textile hats on ceramics found at Huari are in association with Epoch 2 style pottery in the Bennett collection from his Huari excavations (Knobloch 1989: 118). On the other hand, we are not as secure about the date when the 1942/1999 Conchopata style disappeared. Perhaps it survived as late as Middle Horizon Epoch 3.

We have proposed important stylistic and chronological links between Conchopata and Tiwanaku and, with less precision, links to Pucara, Pucara Provincial, and San Pedro de Atacama. Some of the links seem unassailable—the 1977 Staff God with the Ponce Monolith Staff God, for example. Others are more problematic and contradict traditional thinking. We are puzzled by the implication that Flying Profile Attendants, and therefore the Linares and Kantataita lintels, are later than the Ponce Monolith and 1977/2003 Conchopata jars, when we apply Conchopata's sequence to Tiwanaku sculpture. But the numerous stylistic attributes and themes that are shared must not be ignored in favor of the ideas that are accepted because they have been for decades. Of course, much remains to be learned. This paper answers a few of the old questions about Middle Horizon chronology and iconography, while laying a foundation for a host of new interrogatives.

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Chapter **13**

Water, Blood and Semen: Signs of Life and Fertility in Nasca Art

SUZETTE J. DOYON

INTRODUCTION

The scarcity of water along southern coast of Peru has conditioned all aspects of life, since the first settlers moved into region. The Nazca River basin often remains bone dry until December, when the snow-capped summits of the nearby Andean mountains begin to melt from the rising summer temperatures [Endnote 1]. For the next few months, cool water cascades down the canyons of the upper elevations, refilling many of the coastal rivers, streams and washes, and replenishing the underground aquifers. Only through extensive irrigation are the dry riverbeds transformed into verdant oases, some of which can stretch from the seashore to the mountains, like dark green ribbons laid across the pale desert sands.

Today's more traditional Andean communities view their dramatic surroundings as a landscape peopled by sentient spirits, not one filled with inert matter. Pilgrimages and offerings are commonly directed toward mountains, springs, lakes, and even oddly-shaped stones, all of which may be regarded as mythic ancestors by local populations [Endnote 2]. While reference is often made to the "sacred landscape" of the Andes, this nomenclature misses the point: for the landscape is not just sacred, but *living*. The ancestral Andean spirits do not reside in the landscape, as the Greek gods did, but instead *are* its most outstanding features. Interestingly, whereas Moche vessels are frequently modeled in the form of mountains, similar geographic features (as well as celestial phenomena) are either lacking or rarely seen in the two-dimensional art of their southern contemporaries, the Nasca (Proulx 2000:42–43).

I propose that elements of the living landscape were commonly depicted in Nasca art but that they have previously eluded detection. To test this hypothesis, this study will focus on a single motif (Figure 13.1), which is frequently represented in south coastal funerary art from the Late Nasca period, or Proliferous Nasca era (ca. AD 500–750). The image is that of an anthropomorphic figure, whose principal characteristic feature is a flat mask, often called a "scroll mask" (shown here in red). The name comes from the "ray-with-curling-tip" designs, or scrolls, which radiate out from the mask's facial features. A jagged band, or tentacle with diamond

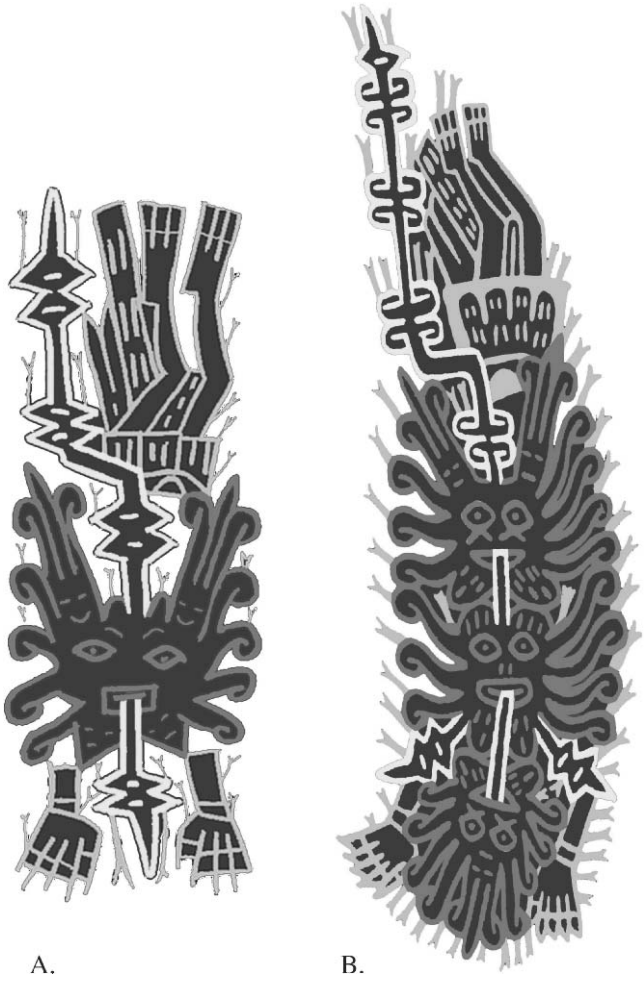

Figure 13.1. The leitmotif of Late Nasca ceramics combines one or more "flat masks," and a long, flowing tentacle (shown here in red and yellow respectively). These principal features obscure, or replace, the head and torso of an active, outstretched figure, who may be perceived by western eyes either as swimming, flying, or diving, depending on the orientation of the published image. On the left-hand side, Figure 13.1a is drawn from vessel #905 in the John V. and Mary P. Carter Collection, Florida State University (line drawing by author; see Figure 13.3). Figure 13.1b comes from a vessel in the Nathan Cummings Collection, 64.228.79, in the Metropolitan Museum of Art (original line drawing by Alan Sawyer; color added by the author; see Figure 13.4). (See also Color Plate 2.)

shapes (outlined here in yellow), often trails from the forehead of the mask, and it may also extend like a tongue from the mask's mouth. In more complex renditions, this band may link together several masks that cover all but the hands and legs of the underlying figure.

Eduard Seler first isolated this distinctive figure in 1923, in his extensive study of Nasca ceramic motifs. Seler noted that the scroll mask and the jagged band were frequently paired, the later occasionally serving as a staff for the main figure. He therefore attributed both motifs to the same "deity," which he dubbed "Der Zackenstabdämon", or the "Jagged-Staff Demon" (Figure 13.2). Today, the tendency is to treat the mask and the staff independently. According to Proulx (2000: 41), only the humanoid figures carrying jagged staffs should be classified as examples of the Jagged-Staff God, while the scroll mask is generally considered to be a Late Nasca attribute of Masked or Anthropomorphic Mythical Beings (Roark 1965; Proulx 2000) [Endnote 3]. To broadly characterize all masked figures as the same, however, is to ignore the inherent differences between the masks depicted on Nasca pottery. Many bear the straight whiskers of a feline, which the scroll mask does not. Other Nasca facial coverings are not really masks at all, but are large nose ornaments, often worn with diadems and pendant earrings.

The following detailed examination of the physical appearance of the Jagged-Staff Demon supports Seler's original observation, that the scroll mask and the jagged staff are conceptually-related for, in this author's opinion, they represent two physical states of water, or liquids in general. The scroll mask is the sign for actively pooling liquid, which splashes and curls in eddies. The jagged staff, on the other hand, represents fast-flowing, or channeled liquid. These motifs, when linked together, suggest waterfalls and cascades or—on a smaller scale—the canals and reservoirs of extensive irrigation systems in the greater Nazca River basin. Alternatively, the mask and staff may be depicted separately, often as attributes of other Late Nasca beings. Regardless of the new context however, the individual motifs still refer to the two physical states of liquid: pooling and flowing. The depiction of the scroll mask, or even just the scroll, for example, can indicate the presence of a pool of water or blood. In Andean folklore, pooling liquids are generally perceived as being female, whether found in a lake, a spring, or the womb of a fertile woman. By contrast, male liquids are channeled, so that the jagged-staff motif may connote a flowing river, a poured libation, or even semen, depending on the context. However, the most far-reaching significance of this imagery may be its allusion to the Andean perception of the cosmos. In it, every drop of water is viewed as part of one vast hydraulic system, whose movement is cyclical, flowing out from, and returning to, its ultimate point of origin, the Sea.

POOLING AND CHANNELED LIQUIDS

Three ceramic vessels will serve to illustrate how the signifiers of pooling and channeled liquids may be combined with humanoid features to form one of the most characteristic figures of Late Nasca or Proliferous Nasca art. The first example is drawn from the Carter Collection at Florida State University, where the motif appears twice within the central band of a cylindrical vessel, the base of which represents a human head (Figure 13.3a,b). A roll-out drawing of one of the two identical figures facilitates a discussion of its salient features (Figure 13.1a).

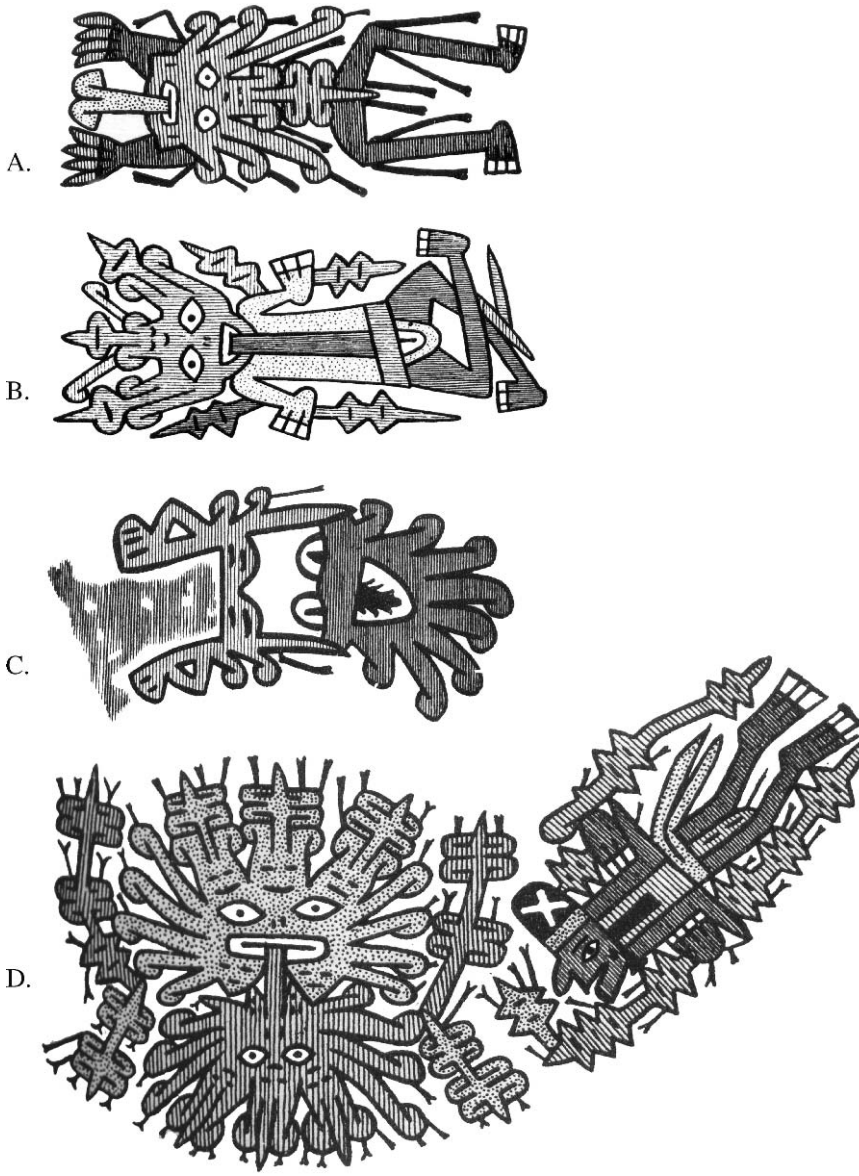

Figure 13.2. Four examples of the "Jagged-Staff Demon" from illustrations in Edward Seler's 1923 study of Nasca ceramic decoration (the horizontal orientation follows Seler's publication): a) anthropomorphic scroll-mask variety (fig. 223); b) humanoid staff figure (fig. 221); c) "bloody mouth" type (fig. 236); d) a staff figure with paired scroll-masks (fig. 230).

Figure 13.3. a,b A human head forms the base of this cylindrical vase in the Proliferous Nasca style. The middle register is filled with two outstretched masked figures; the upper band is decorated with stylized trophy heads. John V. and Mary P. Carter Collection, #905, Florida State University. (Photos by William Langford) (See also Color Plate 3.)

Its arms are actively outstretched, in direct line with the torso, and its head is completely covered (or replaced) by a flat mask. At first glance, the eyes and mouth may seem to be upside-down, relative to the torso. However, the orientation of the mask, the outstretched arms, and the loosely bent legs, lend the impression that the figure is viewed from above, with its head thrown back in the direction of the viewer.

The scroll mask is composed of tentacle-like emanations that fan out in a radial pattern; these end in points, curling tips, or an arrangement similar to a fleur-de-lis. In the center of the mask, is a pair of lively, staring eyes, and a pert, square mouth. On the creature's tongue is a pair of diamond shapes that are echoed in the steamer that flies backward from the center of the forehead (or the neck). It is these diamond shapes, which give the "demon" its characteristic "jagged" features. Introduced within each diamond is a short line, which lies perpendicular to the general direction of the tongue, streamer, or staff. Overall, the impression is that of a figure in quick, forward motion, a sensation that is further encouraged by numerous, small, barb-like appendages that fall along the central line of energy.

Seler's first illustrations of the Jagged-Staff Demon set a precedent, so that all subsequent images of the "demon" were placed horizontally across the printed page (Figure 13.2). This orientation prejudices western interpretation, which is more likely to interpret a horizontal figure in motion as either swimming or flying. To be fair, the customary horizontal orientation of published drawings is derived

Figure 13.4. Male and female water impersonators decorate the mantle worn by a figure holding vegetation. Late Nasca. British Museum. (Drawing adapted from Seler 1923:264, figure 210)

directly from the banded decoration of Nasca ceramic cups, such as the one just described. In cases where the Nasca artist is not limited by this constraint, as in the effigy vessel of Figure 13.4, these same "demons" are painted with their scroll masks pointed downward. The inverted figure, with its head down and its feet loosely trailing, is now "read" by western eyes as "diving."

A second example of this Late Nasca motif is found in the Nathan Cummings collection in the Metropolitan Museum (Figures 13.1b, 13.5). The Cummings figure sports multiple, interconnecting masks; two of the masks look in the direction of the figure's outstretched arms. A third mask is located between the arms, and is a mirror image of the other two masks. A ribbon-like streamer emerges from each mouth, and appears to be part of a contiguous band that weaves the three masks together. The flying portion of this streamer is similar to one found in the Carter Collection example, but the diamond-shapes of the latter's streamer are replaced by what Richard Roark (1965: fig. 34c) calls "quartet rays."

Figure 13.5. A figure with multiple masks, a streamer, and numerous barbs is outstretched over the shoulders of a globular Nasca vessel with double-spout and handle in the Proliferous Nasca style. Trophy heads with "fez" hats are repeated around the base. Nathan Cummings Collection, 64.228.79. Metropolitan Museum of Art. Photo by Alan Sawyer. (See drawing of motif in Figure 13.1b.)

Later vessels continue to multiply the scroll mask until the motif fills every vacant space on the vessel. An example of this type is found in the Museo Nacional de Antropología y Arqueología in Lima (Figure 13.6). Lines of scroll masks are joined together by an elaborate, branching arrangement of streamers. These, along with the interspersed quartet rays, seem to converge on a single mouth belonging to the central mask. Underneath this profusion of elements, however, the figure is in the same pose as in the Carter example described above, only here the impression of reproductive energy is more emphatic. Alan Sawyer (1968:63) describes the characteristic features of this Proliferous Nasca motif in these terms: "Face whiskers, forehead ornaments and plumes proliferate in detail until they almost obscure the basic motif. These elements are rendered in sharp, crisp lines interspersed with barb-like trophy hair symbols, making the surface of the ceramics crackle with energy like a Fourth of July sparkler."

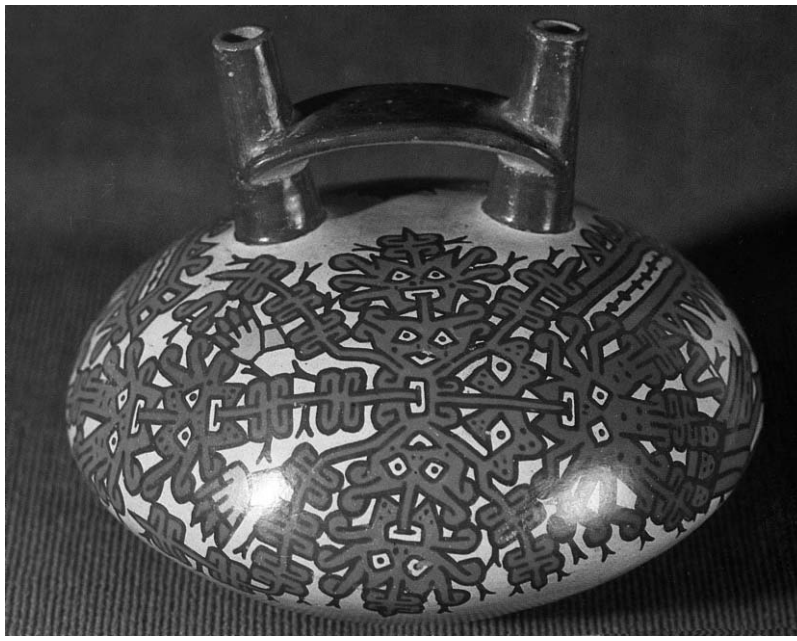

Figure 13.6. A design of scroll masks and jagged staffs converge on a central mask, and all but obliterate the underlying human form. Only the hands (left), the figure's belt (with three trophy heads) and the dangling legs (extreme lower right) can be seen on the side of this globular Nasca 6 vessel with double-spout and handle. Museo Nacional de Antropología y Arqueología, Lima. (Photo by Henri Stierlin)

BREAKING THE VISUAL CODE

In non-literate societies, where art replaces the written word, an agreed referent in the physical world would seem to be a necessary precondition for visual communication within a given society. But the question, "What is it?" is not so easily answered by individuals born outside of that society. Mutual intelligibility across artistic traditions is stymied by the fact that visual communication—like its verbal counterpart is learned. In his book, *Art and Illusion* (1960), Ernst Gombrich exposes a fallacy of European and American aesthetic chauvinism: the notion that so-called "western art" accurately duplicates what the eye sees, and is therefore universally intelligible. Until Gombrich, it was widely believed that the Renaissance conquered visual realism through its mastery of shading and its development of one-point perspective. Gombrich exposes the fallacy of this smug notion, and convincingly demonstrates that shading and perspective are culturally-based conventions, merely accepted formulas for describing form and space that have no universal validity.

For the sake of the present argument, it would be helpful if we could will ourselves to unlearn these western conventions. To us, Leonardo da Vinci's study

of the movement of water (Figure 13.7) seems like the only natural way to illustrate this phenomenon, for the splashing liquid appears to us to reach out in all directions, i.e. the third dimension. Leonardo's drawing is part of a larger series of sketches, which supported his investigations into the construction of Milan's canal system with its locks and weir gates. In the lower part, water flows quickly out of a sluice, splashing into a pool of curling eddies. If we can dismiss for a moment the western penchant for three-dimensional effects, and reduce the motion to a single plane, the resulting design would be remarkably similar to the scroll mask of Nasca art. Any perceived differences between the two renderings can be dismissed as culturally derived. The Nasca artist— true to his perception— renders the curling water in two-dimensions, not three. Consistent, too, with this view of an animistic universe, the Nasca artist depicts moving water with a face and limbs, for the artist understands that water not only grants life, but is itself very much alive.

The comparison between the two artistic visions holds true, even down to Leonardo's "realistic" sluice gate, from which pours a torrent of water. The more metaphysical Nasca version envisions the water as disgorging from a mouth, which is also square in this case. Given the Andean fondness for puns, both visual and verbal, it is not surprising that the Quechua word for mouth, or simi, also signifies an outlet for water. The outlets of a little pond, a canal, or a lake are all described as mouths, in the colonial Huarochirí manuscript (Avila 1991:62, 63, 141). Even in many European languages, the word, "mouth", can refer to an opening through which a body of water disgorges. Consider the English, Spanish, and French phrases: "the mouth of the bay," "la boca del río," and "l'embouchure d'un fleuve."

Further similarities between the European and Nasca perception of water can be detected in the two studies at the top of Leonardo's drawing. In these sketches, the water's flow is impeded by some flat slabs (Figure 13.7), which cause the channeled water to curl back upon itself in rivulets [Endnote 4]. The Nasca artist perhaps intended to represent similar obstructions within a fast moving current, when he introduced either the bisected diamonds, or the quartet ray, along the length of the jagged staff (Figures 13.1, 13.3, 13.5). The obstacles depicted may be naturally occurring, as rocks in a gorge, or man-made obstructions, such as small dams within irrigation channels.

It can hardly be coincidental that the scroll mask and jagged staff emerged as the hallmarks of the Late Nasca era, just when the south coast was witnessing a radical transformation of its irrigation system. Puquios, or subterranean filtration galleries, were introduced at this time to tap the mountain aquifers (Schreiber and Lancho Rojas 1995). Katharina Schreiber, who has studied the ingenious irrigation systems of the Nazca region, observes that the demon's staff is visually similar to the long, narrow filtration galleries, from which subterranean water is discharged into a holding pond or reservoir, represented by the scroll (personal communication, January 2002). She also agrees that the lines within the diamond shapes of the jagged staff could easily suggest weirs within a more conventional irrigation canal (personal communication, January 2003). Oscillating patterns are equally typical of native irrigation canals and ditches, just as changes in the depth and width of these canals (Kosok 1965; Ortloff 1988).

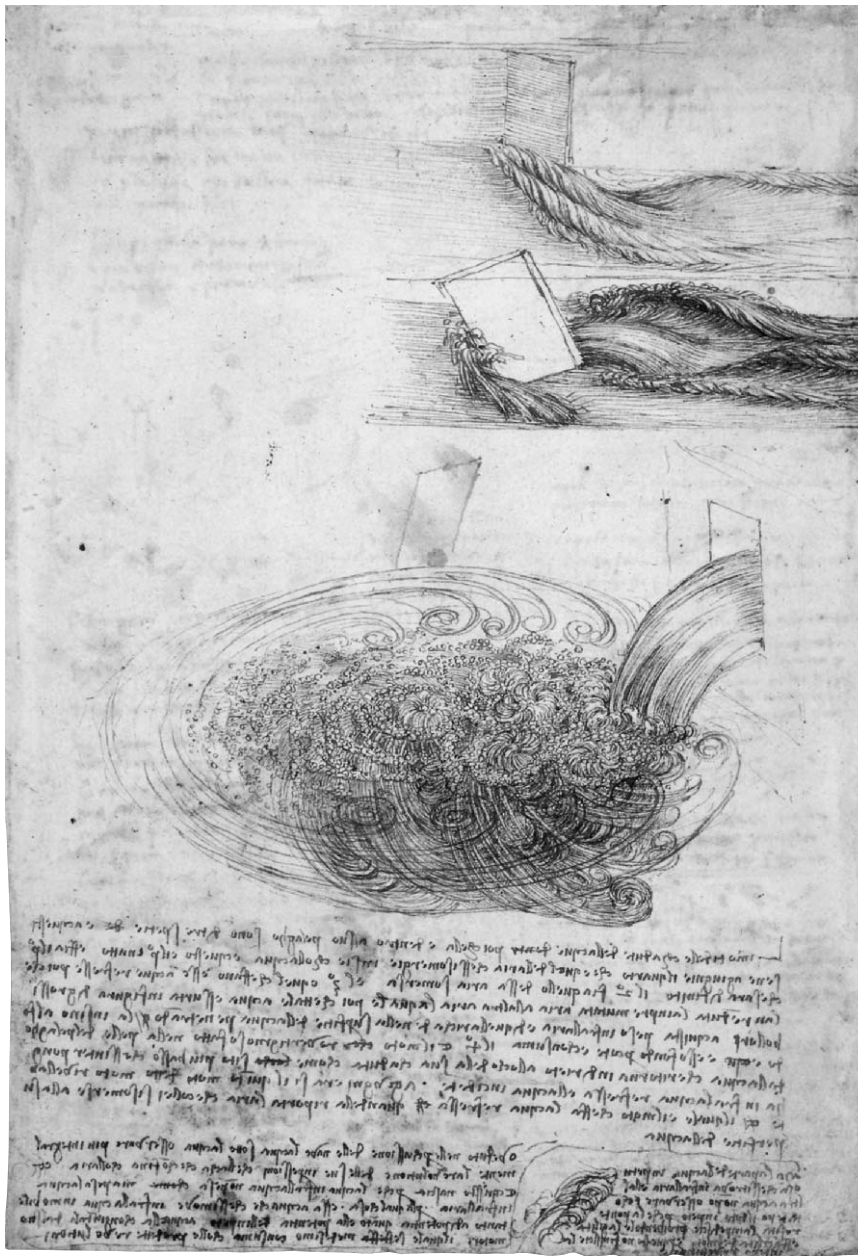

Figure 13.7. "Study of the Flow of Water" by Leonardo da Vinci, ca. 1507 or 1509. Pen and ink. The Royal Collection © 2005, Her Majesty Queen Elizabeth II (RL12660 verso).

The synchronicity of the first appearance of puquios and the Late Nasca motifs support the visual judgment that these motifs are conceptually related to Leonardo's sketches of Milan's canal systems. The scroll mask and the jagged staff are no less faithful to the visual appearance of pooled and channeled water than Leonardo's sketches are. The principal differences between the two renderings are limited to culturally acquired techniques. Whereas Leonardo used the spatial conceits developed in the Italian Renaissance, the Nasca artist flattened the images, consistent with the two-dimensional nature of that style, and endowed them with a life force fundamental to an animistic worldview.

ICHI OQLLO, THE ELF OF THE WATERFALL

If the single scroll mask and jagged-staff of the Carter example (Figures 13.1a, 13.3) signifies a stream of water falling into a pool, the same visual metaphor can be extended to interpret the multiple masks depicted on the Cummings vessel (Figures 13.1b, 13.5). Here the impression is a series of linked waterfalls, a phenomenon that typifies both the torrential mountain stream and the irrigation system, the difference being only one of scale. Recalling for a moment the annual flow of water down the coastal canyons, it is apparent that the repeated rendition of pooling and channeled liquid is very logically derived. The figure from the Cummings Collection, like the Carter example, is viewed from above and dives down with obvious speed. It echoes the rapid descent of mountain water, as it rushes through a narrow channel, splashes into a churning basin, and then spills out again into another channel on its journey to the coast. If a single scroll mask signifies a pool of water, then the linked masks may be recognized as a series of small waterfalls, or a cascade, joined by a channel, or ribbon, of water.

Upon reexamination, it is clear that the Jagged-Staff Demon is neither demon-like nor monsterous. Such a characterization reveals more about western man's desire to find the "primitive" in Amerindian cultures, than any objective reading of the image. The anthropomorphized figure of cascading water sports a pert mouth, which is not fearsome at all, and his quick movements are more like those of a playful sprite than a "demon." Perhaps it is time to re-baptized this figure with a name consistent with his evidently benevolent character. It is tempting to call him Ichi Oqllo, the Elf of the Waterfall (or Cascades), who is celebrated today in popular Quechua songs (Ortiz Rescaniere 1992: 136–37, 269). While it is impossible to determine if this benevolent elf is himself a legacy from Andean prehistory, there is considerable evidence demonstrating that both natural and man-made waterfalls, or cascades, were given special status among the Inca, who viewed them as places of power.

Jeannette Sherbondy (1992: 60), who studied the ceque system around Cuzco, reports that over one hundred huacas in the system (or over one-third of the sites) can be identified as sources of water, while still others are conceptually associated with water, such as mountains. Of these huacas, no fewer than thirteen around Cuzco have names that include the Quechua name for waterfall, or cascade:

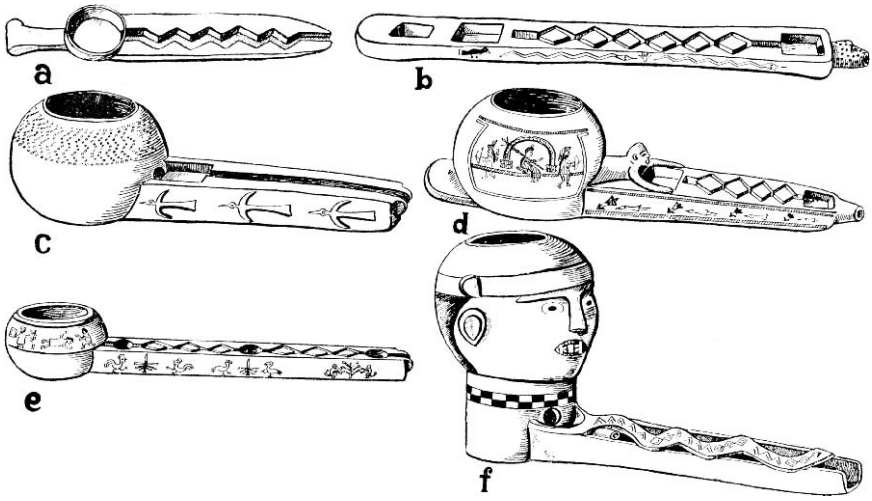

Figure 13.8. Wooden Inca pacchas, or libation vessels, with zigzagging channels. (Source: Carrion Cachot 1955: pl. XXV)

phaqcha [Endnote 5]. According to a sixteenth-century dictionary, the Quechua verb, phaj'chan, indicates the action of water flowing though a channel, while the related noun, phaj'chequen, refers to water that is actively moving, or water that spills out of a pass [Endnote 6]. Another apparent cognate, paccha, refers to a common ritual vessel; it holds libations, which are poured on the earth to increase its fertility. In her study of precolumbian pacchas, Carrion Cachot (1955: 9, 23–24) illustrated some Inca examples carved in wood (Figure 13.8); these were designed so that the liquid must exit the container through an open, zigzagging channel. While this carved channel vividly recalls the jagged-staff, these historical Inca pacchas and practices can only suggest a possible conceptual relationship with Nasca rituals a millennium earlier. Even so, the act of pouring libations from a paccha must be an ancient one, given the universality of the ritual in the Andes today. Pacchas can be perceived as mimicking the sound and action of a phaqcha, or waterfall, for the same auditory and visual clues are present: that of liquid falling to the earth in a pool or puddle.

This water imagery may be applied to even the more complex Proliferous arrangement of scroll masks, as seen in the Lima example (Figure 13.6). With very little imagination, the branch-like arrangement on the Nasca vessel can be likened to the pattern that is created when streams converge. It is probably not a coincidence that the merging of two rivers held a special significance in the funerary rituals of the Colonial era. According to Guaman Poma de Ayala (1992: 272, 732), the place where two rivers join was known as tinkuq yaku. It was within this fork that the widow and the relatives of the deceased went to cleanse themselves and their clothes, first within five days of the burial ceremony, and then again a year later. Assuming that this colonial practice echoes a prehistoric ritual, the Proliferous

Nasca motif is highly appropriate for a funerary vessel, given the water's symbolic association with life, death, and renewal.

WATER AND BLOOD, EXPANDING THE VISUAL VOCABULARY

The images, identified here as waterfalls and cascades, represent but one subtype of the Jagged-Staff Demon found in Eduard Seler's 1923 taxonomy of Nasca imagery. Seler assumed that the scroll, or the scroll-mask motif, indicated the attribute of a particular deity, rather than allowing the possibility that the scroll could be used as a simple descriptive modifier. Because his working premise remained unexamined, Seler included within the Jagged-Staff Demon category virtually all examples of the scroll mask, regardless of the associated imagery.

One subcategory of the Jagged-Staff Demon that Seler isolated was a scroll mask with blood between its toothy jaws (Figure 13.2c). Shortly after Seler's publication, Yacovleff (1932) identified this same motif as an aspect of the Killer Whale. Since Late Nasca depictions of the Killer Whale often included the scroll mask, many subsequent studies allowed the pendulum to swing in the opposite direction. The scroll mask became for some researchers a diagnostic feature of the whale, rather than recognizing this mask as a sign of the whale's watery habitat, the ocean. More recently, the very identity of the Killer Whale has been called into question. The image may instead represent the "Master or Mistress of the Fishes" (Lyon 1978:ff. 57; Morgan 1988). In any case, it should not be surprising that a scroll mask is represented in conjunction with an aquatic supernatural to signify pooling of water. Its presence only underscores the sign's versatility in adapting to new contexts.

I want to emphasize the scroll mask's radial arrangement, which is diagnostic of the centrifugal movement of pooling liquid. Parallel scrolls are also frequent in Nasca art, and are commonly associated with the depiction of trophy heads. In a typical example (Figure 13.9), five trophy heads encircle the exterior lip of a flaring bowl; two profiles are flesh-colored, while three others are purplish brown. The quick brushwork reduces the chins and noses to open triangles, and the facial features to mere lines. For present purposes, the most important feature is what appears to be diadem, crowning each head. Significantly, every diadem is red in color, and is rendered with a few curling tips, or scrolls, suggesting the blood flowing from the head of a sacrificial victim. Therefore, the single scroll motif can be likened to a phoneme in speech; it is a flexible, visual building block, whose simplest form communicates the curling action of liquids in general. It is only when these scrolls are arranged in a radial pattern, as in the scroll mask, that a pool of liquid is signified.

Certainly one of the more provocative applications of the "pooling-liquid" motif appears on the pubes and/or buttocks of several Nasca female figurines (Figure 13.10). The obesity of these hollow, ceramic figures seems to invoke a tribute to female fecundity, much like the Venus figures of Paleolithic Europe, and elsewhere.

Figure 13.9. Five stylized trophy heads decorate the inner rim of a Late Nasca open bowl. John V. and Mary P. Carter Collection, #890, Florida State University. (Photo by Kelly Snyder)

The scroll mask is painted over the genitalia of these females, so that the scrolls are suggestive of the figure's pubic hair (see Endnote 4), while the mask's mouth and tongue denote the labia and the entrance to the vagina. This strategic positioning has generated considerable speculation, especially since the scroll mask has been associated with the Killer Whale. If the scroll mask is read instead as a symbol of pooling liquid, its location suddenly makes perfect sense, for it designates the water or blood that fills the womb of pregnant or fertile women.

Blood and water—the two life-giving liquids associated with fertility—are often conflated in today's Andean ritual, songs, and legends. One popular Carnival song warns that a young man will be dragged along by the yawar mayu, which is translated literally as a "river of blood," but is in reality a turbulent river made red with clay from recent rains (Ortiz Recaniere 1992: 141). In the rural community of Puquio, about a hundred miles from Nazca, the inhabitants still worship the nearby mountains, the Lords Wamani, as the source of their water. They speak of the mountain aquifers as the blood flowing through the veins of these Lords (Arguedas 1956: 200–201).

Figure 13.10. Seated "Mother Goddess" figure with mask over pubes and additional masked figure on buttocks. Late Nasca, Phases 6 and 7. Museo Regional de Ica, Peru. (Photo by Henri Stierlin)

DUALITY OF MALE AND FEMALE

In Andean lore, the beings that comprise the living landscape are often addressed as male or female entities. Evidently, pooling water is female, and channeled water is male. These fixed gender associations can be witnessed on numerous Nasca vessels. One example, currently housed in the British Museum, neatly pairs

Figure 13.11. Two costumed figures are depicted on one side of a Late Nasca vessel; the obverse repeats nearly identical figures. The stepped shape, suggestive of a mountain, is typical of the style, along with the tapering spout and strap handle. John V. and Mary P. Carter Collection, #953, Florida State University. (Photo by William Langford; Inset drawing by author) (See also Color Plate 4.)

figures of both sexes on the mantle of a costumed figure (Figure 13.4). On the lower abdomen of the more diminutive creature (at the upper right in the illustration), the symbol for pooling water seems to emerge from an agnathic mouth, while three bisected diamonds dangle from the loincloth worn by the larger figure. Apparently, the symbol for channeled water can be extended to include seminal fluids as well, just as the scroll mask can represent pooling liquid in general, or more specifically the periodic flow from the womb.

The masculine nature of the jagged staff is even more obvious in another vessel from Florida State's Carter Collection (Figure 13.11). One of the collection's

finest pieces, the vessel is modeled in a step arrangement that is thought to signify a mountain. On either side of the central cavity dance two costumed figures. Rays and scrolls rise like hair from their backs, while they hold jagged staffs aloft. That these figures are male is obvious from the jagged stream of fluid ejaculating from their penises. One figure has the symbol for pooling water emerging from a toothy mouth. While the combined use of the scroll mask and the jagged staff may recall the principal traits of the Waterfall Elf, it is clear that a more profane version is intended here, for the bodily form is given new emphasis. The antics of these creatures, and perhaps even their toothy mouths may be rationalized if they are understood as impersonators of water [Endnote 7]. Although water is an inert element to western man, this vital liquid is viewed by native populations as both life sustaining and endowed with life. Water, in this view, is worthy of costumed impersonation, as worthy as any other potent creature of nature.

Dominating the landscape around the modern town Nazca is a mountain of white sand, called Cerro Blanco. Local legends identify this coastal mountain as a female entity, and it is commonly believed that within her interior is a "vast chamber with a waterfall and a lake" (Reinhard 1985:16). In one myth, Cerro Blanco is the unfaithful, and ill-fated, wife of Illi-Kata, a distant snow-capped peak. It is Illi-Kata's melting snow which is thought to feed the lake inside Cerro Blanco, and this reserve of water in turn supplies all the region's aquifers. "The belief that Cerro Blanco is the source of subterranean water," Reinhard (1985: 16) observes, "neatly supplements the fact of surface water having Illi-kata for its source. It is commonly believed in the Andes that lower mountains and lakes are the wives of higher mountains which fertilize them."

Within contemporary Andean cosmology, rivers and streams are considered to be the agents of masculine entities; their channeled waters inseminate the female spirits of the living landscape where their fluids collect. By extension then, it logically follows that many Andean communities consider irrigation water as a male force [Endnote 8] for like seminal fluid, its liquid is channeled, and its waters bring life to an otherwise dormant land. It has already been observed that the jagged staff resembles the appearance of channeled water, whether flowing in natural streams, through irrigation ditches, or as it is poured out of certain libation vessels. Recognizing the logical and consistent application of gender roles to these two aspects of water, it may be possible to divine some meaning from a Nasca motif, originally illustrated in Seler's 1923 publication (Figure 13.2d). The formerly enigmatic scroll mask can now be read as a lake or womb, which receives the fertilizing energy of the male force in the form of channeled water or semen.

THE CYCLE OF LIFE AND DEATH

Today's Andean populations recognize the cycle of life not as an abstract concept but as an ever-present reality, born out of experience and reinforced by myth. Beliefs reflect the general observation that the world is a closed system, where everything is conserved and interconnected. This principle is particularly applicable

to that animating essence of life, called sami. For contemporary Cuzqueño populations, "rivers and streams provide a tangible manifestation of the sami's flow, and they are conceptualized in terms of a vast circulatory system that distributes water throughout the cosmos" (Allen 1988: 52). Because it is a closed system, it follows that sources of water can only be maintained, if spent water is somehow returned to the system.

Studies of Andean ritual and myth, both past and present, would suggest that there are two complementary systems at work, both cyclical. In one system, water flows out from subterranean sources to the surface of the earth and then back again to the point of origin, as described by Jeannette Sherbondy (1982, 1992) and Joseph Bastien (1978: 155–157). The other system is atmospheric, as evidenced by Gary Urton's (1981) study of the Andean cosmos. Following the western arc of the Milky Way, or Mayu, the celestial river appears to draw its moisture from the Sea, and "flows" up to the mountains, where it releases its precipitation. From the mountaintop, the water is eventually returned the Sea, ready to begin the cycle anew. Both these systems are implied by the circulatory themes and reports of mountain worship found in Arguedas (1956), Zuidema (1964, 1978), Reinhard (1985, 1988, 1992), and others.

The observation of atmospheric phenomena squares comfortably with western science, and accounts for the precipitation that falls in the higher elevations and eventually winds its way down to the sea, where evaporation and the formation of clouds complete the cycle. The Andean understanding of underground water is similarly based on empirical evidence, even through the conclusions are not always consistent with the hydraulic reality. Natural phenomena, such as springs breaking through the earth's crust and the disappearance of rivers into the ground with no apparently outlets, were explained by the Inca as a consequence of the fact that all bodies of water are interconnected through underground channels to the Sea. (Sherbondy 1982, 1992). Surface lakes, springs and rivers were envisioned as part of a closed system of circulating water, whose "ultimate origins and ends are in the Sea" (Sherbondy 1992: 57).

Inca origin myths refer to these subterranean waterways as having been used by their ancestors to travel to their final destinations, where they emerged from underground to establish their ayllus and homelands. It is no coincidence, Sherbondy points out, that "most of the sites of emergence of the original ancestors were sources of water: lakes, rivers, streams, and springs" (1992: 58). A similar concept survives today in the highlands, not far from the Nazca region, in the town of Puquio. Here, the aquifers are not only called the veins of these Mountain Lords (as noted earlier), but they are also pathways through which their ancestors traveled to reach their homeland (Arguedas 1956; Sherbondy 1982).

A remarkably similar view of the cosmos is still held today by the Aymara communities studied by Joseph Bastien (1978). Here, however, the cycle of water begins and returns to the head of the mountain, the uma pacha. The river washes away the mountain's body, but all that is removed is eventually restored in this closed cycle. For the groups Bastien studied, the heavenly river, or Mayu, has its underground parallels, underneath the mountain body's exterior. Through these

aquifers, the dead travel to return to their point of origin, a lake located on the uma pacha (Bastien 1978:155).

In light of these myths, the identification of Ichi Oqllo as a principal motif of the Late Nasca funerary ware seems all the more credible. The cascades referenced in these vessels could be subterranean passages for the dead, traveling back along the same route as their original ancestors to the point of origin, whether to the Sea, or to the mountaintop. Such a final voyage over waterfalls and through the underground pools of water would be a fitting completion to the cycle of life. At the very least, the image of Ichi Oqllo on mortuary vessels would signify life-giving water to a desert people.

CONCLUSION

The Andean penchant for creating dualism, for finding "like but dissimilar pairs" is evident in the two principal features of Ichi Oqllo: the jagged staff and the scroll mask. The first represents the male principal found in channeled water, whether in mountain streams or irrigation canals. The second characterizes the pooling water found in the womb or mountain lakes. Wherever either sign appears, it indicates the presence of life-giving liquids, be it water, blood, semen, or another fluid. The scroll, the scroll mask, and the jagged staff describe three states of liquid, either flowing, pooling, or channeled, while the context conveys its material nature.

While modern scholarship recognizes the animistic impulse in Andean thought, it is probable that the deeper implications of a truly living landscape have yet to breach our western consciousness. So ingrained is our division between living and inert matter that while we might intellectually appreciate animism as a unifying principle in Andean cosmology we unconsciously apply our living/non-living distinction to the interpretation of precolumbian iconography. Never considered is the possibility that some of the more puzzling figures, which have been variously-termed "demons," "deities," or "mythical beings," might actually be personifications of what western observers would dismiss as "inert objects." It appears that we have yet to fully internalize the lessons of colonial writers and the modern ethnographers, who repeatedly demonstrate that "For the Andean, nature is a living world: Mother Corn cares for her corn plants; the mountain that dominates a district is the father and mother of its people and animals . . . The stars are maidens [and] . . . the cascade has an owner, the elf *ichi oqllo*" (Ortiz Rescaniere 1992: 136–137, my translation).

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ENDNOTES

1. The statistics gathered by ONERN (Oficina Nacional de Evaluación, y de Recursos Naturales) record that, during a nine-year period (1957–1965), less than one inch of rain (2mm) fell in six of those nine years. For these data and charts on temperature, precipitation, and river water discharge, see Clarkson 1990:119–121, figs. III.3, III.4.
2. For further amplification of this theme, see Arguedas 1956; Bastien 1978; Reinhard 1985, 1988, 1992; and Gelles 2000: chap. 3.
3. Seler's Jagged-Staff Demon can be distinguished from similar figures by its combined use of the scroll mask and jagged elements, as well as the general disposition of the body. Even so, its identity is often conflated with that of earlier Nasca images, including the feline, the killer-whale, the otter, the falcon, the monkey and so forth (Gayton and Kroeber 1927; Yacovleff 1932; Sawyer 1961, 1966; Roark 1965; Proulx 1983, 2000).
4. Several authors have noted that the patterns Leonardo used to describe water are identical to those found in his drawings of human hair. The Andean populations may have recognized the same visual conceit, given their enjoyment of visual and verbal puns. Graphic examples of the visual connection between hair and water might include the Raimondi Stela, in which the figure is depicted wearing a headdress of stacked scroll masks. Another example occurs in Moche ceramics, where the body of a vessel is modeled to resemble mountain peaks. Often, a small human figure is bent over the uppermost peak, and lying face down, so that the figure's long black tresses flow down the mountainside like a river.
5. The names of the huacas of the Cusco ceque system are cited here from Margot Beyersdorff (1998: 179–196) and were drawn from colonial texts written by Bernabé Cobo [1653] and Cristóbal de Albornoz [ca. 1582].
6. Rafael Aguilar Paez, *Gramática Quechua y Vocabularios* (Lima: Universidad Nacional Mayor de San Marcos, 1970): 170. This volume is an adaptation of the first edition of Antonio Ricardo's *Arte, y vocabvlario en la lengva general del Perv llamada Quichua, y en la lengua Español*, published in Lima in 1586.
7. Normally, the scroll mask is represented as if viewed from above, so that the flow of water from the mask's mouth would obscure the bottom jaw, creating an agnathic mouth. Perhaps the toothy mouth is inspired from that angle of vision. While this remains purely conjectural, Anne Paul (1990) has used similar criteria to distinguish the mythical figures from their human impersonators in embroidered textiles of the earlier Paracas Necropolis era.
8. Cabanaconde in the Colca Valley would seem to be an exception to this rule. See Gelles 2000:181–182, ff. 13.

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Chapter **14**

Burial Patterns and Sociopolitical Organization in Nasca 5 Society

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(translated by Tom Besom)

INTRODUCTION

One of the most important goals of archaeology involves the reconstruction of the political and social organization of precontact societies. In recent years, there has been much discussion about the social structure and the type of political organization that existed in Nasca culture (see, e.g., Carmichael 1995; Massey 1986; Reindel and Isla 2001; Schreiber 1999; Silverman 1993, 2002a, b; Silverman and Proulx 2002). In this paper we review the existing information that serves as the basis for discussion about Nasca sociopolitical organization and we present new mortuary data from our own investigations conducted in the Palpa Valley (Figure 14.1) that relate to this issue, particularly insofar as the Nasca 5 period is concerned.

The debate on the sociopolitical structures of prehistoric societies in general, and our perspective on Nasca culture in particular, derives from the influential work carried out by Elman Service on the social organization of "primitive societies" and on the origins of the state (Service 1962, 1984). Service's theories were formulated as a result of his analyses of cultures with different levels of complexity, from different time periods, and from different parts of the world. In this way, his evolutionary model became extremely generalized so that it could be applied to all human societies. The theoretical aspects of it that are relevant to archaeology are well summarized by Renfrew and Bahn (1993: 162–164). According to Service, human societies can be classified as bands, tribes (or "segmentary societies" as they have been designated more recently), chiefdoms, and states. In the archaeological literature, there is consensus that the Nasca culture (ca. 200 BC-AD 600) had reached a high level of complexity, so the debate centers on the question of whether it was organized along the lines of a chiefdom or if it had acquired the characteristics of a primitive state. Service himself is not very precise about the distinction between the two levels of social development. As part of his definition of the state, however, he declares the following: "A true state . . . is distinguishable from chiefdoms in particular, and all lower levels in general, by the presence of that special form of control, the consistent threat of force by a body of persons legitimately constituted to use it" (Service 1962: 171).

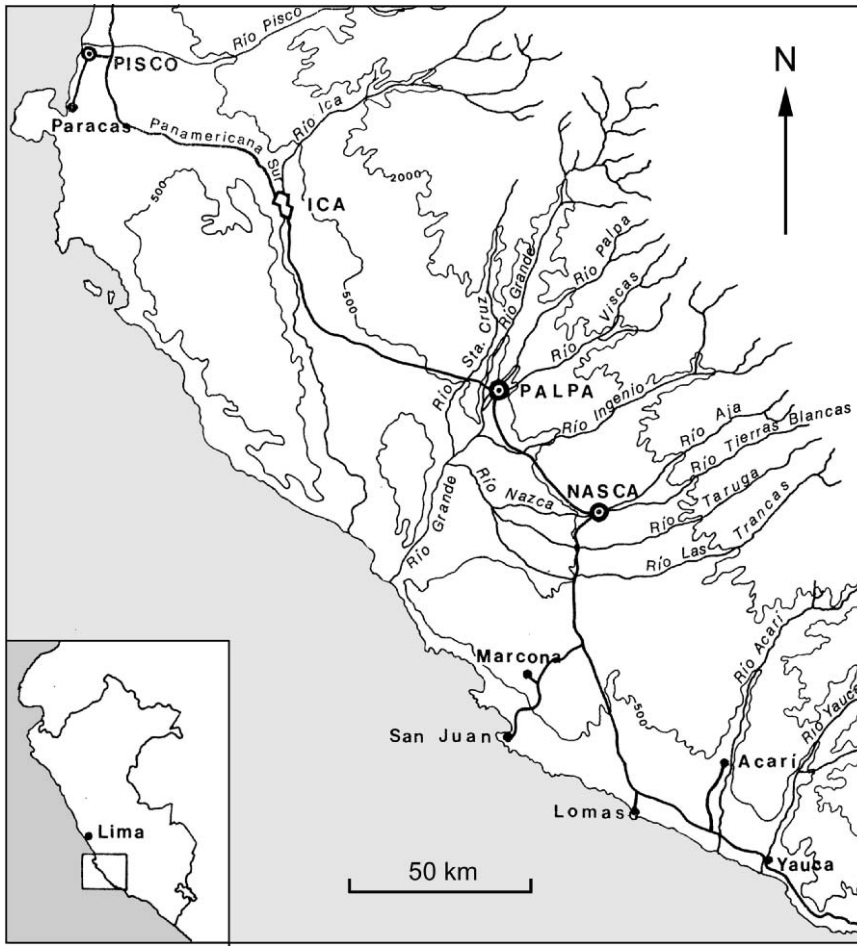


Figure 14.1. Map of the south coast of Peru showing the position of the Río Grande de Nazca drainage and the Palpa Valley within it.

Sanders and Marino (1970) interpret Service's work and apply it to the precontact cultures of America. They list various criteria by which chiefdoms and states can be respectively defined. Although their criteria are overly simplified, they are nonetheless very clear. According to these authors, chiefdoms are characterized by the importance of kinship ties for determining one's membership in a particular social group. Within the kin-based group, there exist a range of social ranks that are defined by their proximity to the chief. Chiefdoms are not stratified into clearly differentiated social classes and their leaders have political as well as religious functions. Furthermore, in these societies production is very specialized. Surplus production is turned over to the chief, who uses it to maintain his court and for redistribution. There are no markets in chiefdoms. There are, however, central

places or even cities where, in many cases, thousands of people live (Sanders and Marino 1970: 6).

The state retains many of the characteristics of the chiefdom, but is much more centralized. Power, in the majority of cases, is in the hands of a single individual, and the exalted position of the ruler is reserved exclusively for a member of the royal kin group. The ruler executes his/her authority by means of laws, and his/her functions are separate from those of the priests. States also have armies and bureaucracies. They are comprised of people who live in a particular territory, as opposed to individuals who are united by kin ties. Additionally, the payment of tribute within a state is based on a social contract, rather than on obligations of kinship. Production is so highly specialized that it requires the existence of commerce and markets, and the seat of government is either a complex urban center or a ceremonial center (Sanders and Marino 1970: 7).

According to the definitions given above, one of the criteria for determining whether a society is a chiefdom or a state is the degree of social differentiation. Whereas chiefdoms have "social ranking," primitive states have "social classes." Carmichael (1995:162) makes the following observation: "A ranked society is a graded society, while a stratified society is divided. The distinction is that of degree and kind. Ranked societies follow a continuous status gradient, while stratified societies contain discontinuous status groupings" (1995: 162). The application of all of these various criteria to a past society as part of an archaeological investigation is very difficult, especially given the fragmentary nature of archaeological data.

John Rowe proposed that Nasca society may have created a small empire on the coast with its capital at Cahuachi (Rowe 1963: 11–12). His theory was later adopted by Lanning (1967: 121), Proulx (1968: 96), and Lumbreras (1974: 123). More recently, Massey (1986: 349) reached the same conclusion that early Nasca was a state-level society despite the fact that, in our judgement, she does not have the substantive data to support the hypothesis; Silverman (1993: 321) also criticized Massey on similar grounds. Carmichael (1995) also rejected John Rowe's conclusion.

Patrick Carmichael (1995) considered the level of Nasca sociopolitical organization from the perspective of Nasca mortuary customs (see also Silverman 1993: 215–217, 2002a). Carmichael studied 168 Nasca burials for his dissertation research in the late 1980s. In order to determine status differences among individuals, he considered such traits as the depth of the tombs, the type of mortuary architecture present, and the quantity of ceramics accompanying the dead. During the course of his research, he made two discoveries: 1) there is a continuum of different types of tombs of increasing complexity, and 2) there is no discontinuous separation between the various types. In his sample, he noted few objects of gold that could be considered as indicators of an elite class.

Carmichael's investigation leads him to conclude, "Ranking was present in Nasca society, but there was a low degree of formalized social differentiation in the status hierarchy" (Carmichael 1995: 174; again, see Silverman 1993: 217). He is, however, cautious about this conclusion, given that he does not know the representativeness of his sample. Thus, he tells us, "It is possible that more elaborated

graves remain to be discovered" (Carmichael 1995: 179). Carmichael's hypothesis reflects the data that were available to him when he carried out his study, which he acknowledges when he states, "The current mortuary evidence provides no support of the theory that Nasca society was stratified" (Carmichael 1995: 179; Silverman [1993: 216] also based her argument on the basis of the data available to her at the time).

The argument that Nasca culture was not stratified is significant not only for understanding the internal structure of the society, but also for defining its political organization. As we have seen above, states are characterized by the presence of stratification. However, they have other traits too, which Carmichael notes were lacking in Nasca (and see discussion in Silverman 1993: chap. 23). For example, there is no indication that there were full-time specialists in the society dedicated to a specific occupation. There is no real monumental architecture: the structures at Cahuachi are small compared to the truly monumental works in northern Peru (see, e.g., Silverman 1985, 1993). The creation of the geoglyphs did not require much of an investment in labor. Nor is there a marked hierarchy of settlements (see, e.g., Silverman 1993: figs. 23.3–23.9, 2002b). Thus, considering his criteria for the state and his data on the complexity of Nasca society, Carmichael regards the latter as an incipient chiefdom (Carmichael 1995: 181).

To date, the most extensive discussion of the political organization of this society has been written by Helaine Silverman (1985, 1988, 1993, 2002a, b inter alia; Silverman and Proulx 2002). She has examined the various criteria that constitute the definitions of chiefdoms and states along with the available archaeological evidence. According to Silverman (1993), the distribution of early Nasca ceramics over a wide area was the product of participation in a religious cult, whose main locus of performance was Cahuachi, rather than the result of imperial conquest, as Rowe had postulated. Also, she does not recognize a settlement pattern for Nasca consisting of a well-defined hierarchy of sites (Silverman 1993, 2002b). Furthermore, like Carmichael, she does not find evidence for clearly demarcated social classes in the early Nasca burial data from Cahuachi and other sites (Silverman 1993, 2002a). Nor does she see evidence for specialization in production: for instance, she found no pottery workshops at Cahuachi or on survey in the Ingenio and Grande valleys, which would be indicative of the specialized manufacture of ceramics. With regard to monumental architecture, another feature of the state, Silverman says that the structures at Cahuachi were "monumentally unmonumental" and thus not characteristic of a state (Silverman 1985, 1993: 322–337).

While Silverman finds that early Nasca society had few characteristics of a state, she determines that it had numerous features of a chiefdom. The sites of Cahuachi and Ventilla could have comprised the upper level of a settlement pattern with two tiers. She tells us, however, that "At times, Nasca settlement patterns may have exhibited more than these two tiers" (Silverman 1993: 338). As with most chiefdoms, she observes no intrasite stratification at the Nasca sites within her survey area, with the possible exceptions of two sites, called Estudiante and Ventilla. With respect to evidence for social stratification in an early Nasca mortuary context, she says, "Status differences are visible in Nasca mortuary patterns, but true social

stratification (as evidenced by exclusive and absolute differences in types of burial treatment, tomb forms, body preparation, grave goods, and spatial divisions in cemetery patterning) are not" (Silverman 1993: 339). Silverman recognizes Nasca trophy head taking but sees no evidence of Nasca armies (Silverman 1993; Browne et al. 1993). Lastly, she does not see evidence of agricultural intensification in the early Nasca period, and found only limited storage features at Cahuachi itself (Silverman 1993: 337–340).

Based on her studies, Silverman (1993) proposes a model that characterizes early Nasca society as a "sphere of religious interaction," or as a group of independent chiefdoms that are united by a shared religious tradition. In her model, Cahuachi is considered to be the religious center of this social formation rather than the center or capital of a state with a well developed bureaucracy. Referring to Cahuachi she concludes: "The very nature of Cahuachi—with its multiple 'unmonumental' mounds, lack of dense domestic population, limited socioeconomic differentiation and specialization, pilgrimage function, ranked burials, hypertrophied ceremonial behavior, overall lack of formal storage facilities, and long-term sacredness—argues against it being the capital of a bureaucratic state" (Silverman 1993: 341).

Arguing beyond Cahuachi and from the perspective or her own and others' survey data, Silverman recognizes that there were regional centers in the various valleys of the Río Grande drainage, but considers it a matter of interpretation as to whether they were the capitals of states or the centers of chiefdoms (Silverman and Proulx: 2002: 247–249). Moreover, it is important to recognize that Silverman rejects the chiefdom-state debate as a meaningful inquiry. She writes that she attempted to reconstruct Nasca "as an Andean society rather than abstract western category of social and political organization" (Silverman 1993: 343), and that "Archaeologists have created a Nasca archaeological culture as we create all archaeological cultures" (Silverman 2002b: 179). The introductory chapter to her recent *Ancient Nasca Settlement and Society* (Silverman 2002b) is especially critical of the settlement pattern studies that have been used to create site hierarchies and from them inferences of levels of sociopolitical organization.

In a more recent study on the socioeconomic structure of Nasca culture, Kevin Vaughn furnishes little new information on the role that Cahuachi played in Nasca society. Arguing only from the perspective of Marcaya, a site that occupies a middle tier in his reconstructed settlement hierarchy, he interprets early Nasca society as being organized into chiefdoms and concurs that Cahuachi was a ceremonial center (Vaughn 2000).

To summarize, scholars working on early Nasca society seem to agree that there were autonomous chiefdoms, which were united by their shared religious beliefs and by Cahuachi. Cahuachi served as a common ceremonial center and pilgrimage site. The most significant argument given in favor of the model is the lack of evidence for a highly stratified society, especially in a mortuary context. This lack of evidence is used to discredit the idea that early Nasca society could have had the political organization of a state. In the discussion that follows, we review current treatment of temporally pan-Nasca burial patterns before undertaking a description

of newly discovered Nasca 5 mortuary practices; these post-date the early Nasca social formation about which Carmichael, Silverman and Vaughn have written.

TEMPORALLY PAN-NASCA MORTUARY PATTERNS

Our studies of Nasca's mortuary patterns are based on three principal traits, which remain stable during all temporal phases of the society and throughout all areas under its influence. The three traits are tomb form, body treatment, and grave contents. Together they constitute a unique mortuary pattern. Even though it may overlap with patterns from the Paracas or Wari cultures, it is easily identified as being Nasca.

Types of Tombs

Considering the evidence available to date, among Nasca mortuary practices there are three basic categories of interments: burials in cooking ollas or storage jars (funerary urns); burials in pits; and burials in chambers or "barbacoas." Each of these categories can be further divided into types based on the size of the tomb, the depth of the shaft, and any additional labor that went into building it. It is important to note that individuals of both sexes and of all ages were buried in every type of tomb, without any major differences among them (see Carmichael 1988, 1995). We also should mention that most Nasca burials involved the interment of a single person, there being only a few exceptional cases where two individuals were found in a tomb.

Burials in Funerary Urns

This category of burial was very common during every developmental phase of the Nasca culture and almost always occurred in a pit or shaft that had been excavated to a depth of between 0.5 and 1.5 m. In the majority of cases, the shafts were dug directly into the natural soil or into a cultural layer representing an earlier occupation of the site [Endnote 1]. Slightly fewer than 30% of the interments represent urn burials, of which there are three major types: an individual placed in a vessel with the mouth up; a person placed directly in a grave and then covered with a cooking olla or storage jar with the mouth down; and an individual placed in a pit and partially covered by large fragments of vessels, and sometimes by adobes and mud.

Most urn burials involve children younger than six, although occasionally youths and adults were interred in this manner. The individuals were usually placed in a seated and semi-flexed position. Generally, the burials falling into this category were very simple, the bodies often being wrapped in nothing more than undecorated plainweave textiles. Also, the majority of them have no grave goods, though there are exceptions, and even some cases where a tomb contains fine vessels. The

reasons for this variation, which could be related to the Nasca social order, must be investigated further.

Pit Burials

These interments took place in holes with a tubular form, usually excavated to a depth of between 1.5 and 2.0 m. According to the data we have at our disposal, the pit burial was the most common category of tomb during all temporal phases of Nasca culture (Carmichael 1988: 186). In most cases, the hole was dug into the natural soil and its walls were not modified in any way. There are exceptions to the latter rule, however, which take the form of pits whose walls were covered with a layer of mud or that were lined with adobes or with stones set in mud. In this category of burial, the hole itself served as the funerary chamber: the body of the deceased was placed at the bottom of the pit, along with the grave goods, usually on top of a thin layer of sand, after which the cavity was filled and sealed with a cap of mud. Sometimes the cap included rocks or adobes. Often a single cane was stuck vertically into the mud cap to serve as a tomb marker.

There also are pit graves that have a small roof or covering over their mouths (in this respect, they resemble the tombs with a "barbacoa" form). Such roofs are usually constructed of canes that have been fastened together or of sticks and poles from huarango trees, over which has been spread a thin layer of leaves from pacae trees and from gramineous plants. Covering the leaves is a thin layer of mud. It is this roof that defines the actual burial chamber in a pit grave. In a variation on this type of structure, a number of poles are set into the pit at an angle so that they appear to form an inclined roof. The space between the inclined roof and the mouth of the pit is completely filled in.

The more than 30% of Nasca tombs that fall into the pit category have a single occupant who is usually a youth or an adult. The body is placed either in a seated position with the knees drawn up to the chest and the arms wrapped around the knees, or on its side with the legs slightly flexed. Though these positions are the most common ones in pit burials, there is a certain amount of variation. Taking into account the grave goods and the rest of the mortuary data, we can conclude that this type of burial was reserved for people of mid status, even though some tombs are more elaborate than others.

Chamber Tombs or "Barbacoas"

Chamber tombs are the largest and best constructed mortuary structures known to date; it would appear that within them were buried the highest status individuals of the society. These tombs comprise the most familiar category from the Nasca culture, and their immediate antecedents are the funerary structures from Nasca 1, which were excavated by Aldo Rubiní and Lawrence Dawson in the Ica Valley (see Carmichael 1988: figs. 4–7; see also Silverman 2002a). They also have antecedents in structures from the Paracas culture that were excavated by Strong (1957) in the Ocucaje Oasis, located in the Ica Valley as well. In general, Nasca chamber tombs are characterized by the presence of a chamber with either a circular, oval, or

quadrangular plan, that has been dug directly into the natural soil. Such structures are between 2.5 and 5.0 m deep. The walls of the chambers are often lined with adobes or with stones set in mud, though there are many instances where they remain unadorned. Finally, there are cases where the walls are coated with a layer of mud.

Once the deceased had been placed in the tomb along with various offerings, the chamber was bridged by a roof or "barbacoa," very solidly built, usually of huarango poles or logs. The logs were then overlaid with a series of layers: canes, either loose or tied together; leaves from pacae trees or gramineous plants; rocks; and finally, a cap of mud. It has frequently been observed in this type of tomb that the funerary chamber was either partially or completely filled with dirt before the logs were set in place. This fact would seem to indicate that the roof had more of a cultural than a structural function: it served to divide the tomb into various spaces with different meanings. After the roof was constructed, the antechamber—the part of structure above the roof—was filled to the level of the ground surface, where a marker was placed or built. Markers were often made from adobes or from rocks and mud. Or it could consist of a rough cane stalk that was stuck in the roof of the chamber and that reached the surface. In more elaborate cases, which we shall examine in greater detail, there is evidence for the existence of a mud structure sitting atop the tombs. This mud structure had poles set into its four corners that could have supported a light roof or that could have been intended to make the mortuary structure appear more conspicuous.

A common variation of the chamber tomb is referred to as the "barbacoa inclinada," which often has a single sloping roof. Or sometimes it will have two roofs, one sloping, the other horizontal. In the case of the two-roofed structure, the chamber would be located to the side of the shaft rather than directly below it, or one of the chamber walls would be formed by the sloping roof. Such multicomponent structures were probably used to bury people with a mid to high status. They have been documented at such sites as Puente Gentil (Isla 2001a) and La Muña (Reindel et al. 2002).

Almost one-third of the known mortuary structures from the Nasca culture can be categorized as chamber tombs. Within this category, though, some tombs are more elaborate than others, and there is a certain amount of variation among them.

All chamber tombs contain a single body, which is usually placed at the back of the chamber in either a seated or an extended position with the legs flexed. As we shall see later, the most exceptional tombs of this type are those that were excavated at La Muña (Reindel and Isla 2001; Reindel et al. 2002), which are the first to be described that in our opinion demonstrate the existence of marked social differentiation in Nasca society; these tombs pertain to Nasca 5, not early Nasca.

The Treatment of the Body

To date, there has been little information on the treatment of the corpse in Nasca culture, which is primarily due to the poor state of preservation of bodies and to the lack of documentation on them. The degree of preservation, especially of the soft tissue, to a large extent depends on the conditions under which the corpse was

deposited; and it depends on the soil in which a particular tomb was excavated. Thus, at sites where the terrain is dry or which are formed of fill from construction projects, as is the case at Cahuachi (Nazca Valley) and Los Molinos (Palpa Valley), bodies have been found that are extremely well preserved. Conversely, at sites where there is much humidity or water percolating through the soil, such as in the Palpa Valley at La Muña, Jauranga, and Hanaq Pacha, preservation is bad. It is also possible that most well preserved human remains were intentionally mummified: by being treated with herbs, by being bathed in a liquid containing preservatives (Lombardi 1992: 43), or through the application of heat. In the latter instance, the body would become desiccated before it started to decompose (Sonia Gillén, personal communication).

With respect to burial posture, corpses were generally placed in a seated or an extended position. When seated, the body would be flexed with the knees drawn up to the chest and with the hands resting between the chest and the thighs. Alternatively, the hands could be placed on the knees or around the knees. There also are cases where the individual was seated, but laid slightly on his side, with his legs loosely flexed and his arms wrapped around his legs. When extended, the corpse would be placed on its back, with legs together and slightly flexed to one side, and with hands at the sides or resting on the chest. Though the latter position was very common in Nasca burials, it is rarely mentioned in the literature. Finally, it should be noted that there has never been a documented case from the Nasca period of a body being tied with cords in order to maintain the burial posture; this stands in contrast with corpses from the Wari culture of the Middle Horizon (Isla 2001b).

Once the body had been placed in a particular position, it was shrouded with one or two plainweave textiles of varying quality and texture. In exceptional cases, some of the textiles have embroidered bands or fringes, or have feathers sewn onto them. Unfortunately, since the finest tombs were looted, there is no data on the preparation and treatment of the bodies that were laid to rest in them. Nevertheless, there are examples of tombs of mid status discovered in Cahuachi, in which the deceased were wrapped in fine gauze decorated with an elaborate three-dimensional fringe (see Silverman 1993). We would like to emphasize that in Nasca culture there is no evidence for the existence of mummy bundles similar to those from Paracas (Tello 1959) or from the Wari culture on the south coast (Isla 2001b). The reason may be simple: there are very few Nasca mummies in museum collections (Elsa Tomasto, personal communication).

There does not appear to have been a definite direction toward which a body was oriented when placed in the tomb, though clearly there seems to have been a marked preference for the direction that the head faced: south, and to a lesser extent, west and southwest. Even so, the heads of a small percentage of individuals are oriented in other directions.

Grave Goods

Nasca tombs contain a large quantity of offerings, chief among which are ceramic vessels; but, depending on the degree of preservation, a variety of organic materials also may be present. Evidently, where preservation is good, completely intact

burials have been discovered, while in the majority of cases, where preservation is poor, the only remains found have been a skeleton, ceramic offerings, lithics, and other artifacts of imperishable materials.

Among the organic remains recovered have been a large variety of vegetables and fruits, which may have been placed in the grave as nourishment for the deceased on his/her journey to the underworld. The edible plants (including maize, manioc, sweet potato, common beans, and lima beans) were almost always put in ceramic vessels or containers made from gourds. Among the edible fauna are the remains of guinea pigs, shrimp, and mollusks. In terms of non-edible but perishable materials, the following items have been found: textiles [Endnote 2], baskets, feathers, objects of leather, worked shell, bone artifacts, etc. In some tombs, complete camelids and human trophy-heads have even been discovered; these items most likely represent special offerings that were consecrated to high status individuals (Isla 2001a).

The ceramic vessel, which constitutes the most common type of offering in Nasca burials, "provides a number of variables (wares, shapes, and motifs) that may have been used as social markers" (Carmichael 1995: 168). In general, the tombs contain fine, decorated vessels with a large variety of forms (dishes, bowls, cups, cup-bowls, double-spout-and-bridge bottles, jars, etc.). Depending on the degree of complexity of a vessel's shape and the motifs with which it is decorated, it can be tentatively assigned a certain "value"; that is to say, the form of some pieces (e.g., the double-spout-and-bridge bottles or panpipes) had a higher social worth than the forms of other vessels (e.g., dishes or bowls). Likewise, certain motifs that appear on ceramic pieces were considered to be relatively important (e.g., abstract or mythological designs), while other motifs were thought to be less significant (renditions of fruit or geometric designs).

In an analysis of grave goods, we must consider the distinct variables one at a time and in combination. From our perspective, it is more informative to determine the quality of the grave goods than their quantity. Quality can be considered as an arbitrary and subjective attribute of an item; nonetheless, by examining the criteria by which we establish the quality of a particular item in relation to other data from a tomb, we can verify the appropriateness of the criteria.

THE EXTRAORDINARY MORTUARY STRUCTURES AT NASCA 5 LA MUÑA

Since 1997, we have been conducting archaeological investigations in several of the northern river valleys of the Río Grande de Nazca drainage. The main objective of the investigations has been to collect new data that will allow us to better understand how Nasca culture developed and functioned within a well defined geographical and cultural context. With this goal in mind, we have carried out detailed and exhaustive surveys in the Grande, Palpa, and Viscas valleys (Figure 14.1), intended to identify and document the principal features of cultural development in the region (Reindel et al. 1999). We also have studied, in a systematic and meticulous manner, the geoglyphs that are located there (Reindel et al. 2003).

Based on a preliminary analysis of the settlement patterns that existed during Nasca's development, we have identified various sites that clearly represent Nasca urban centers. These sites have a public character; that is, a number of different activities were carried out at each of them, and they appear to have been important population centers. We were particularly intrigued by two of the sites, one of which dates to the Early Nasca period (Los Molinos), the other to the Nasca 5 or Middle Nasca period (La Muña). The two centers differ in many respects from other settlements in the study area: they are located at strategic points in the valley; they have formal architecture of adobe; and the artifacts found at each of them are of good quality. Because of these differences, we believe them to have been the administrative centers of their respective periods.

We have conducted excavations at both Los Molinos and La Muña (Reindel and Isla 2001). At Los Molinos we found more than 50 burials, only half of which were intact. Despite the degree of destruction that has taken place, we were able to reconstruct the mortuary structures and, in some cases, even the sets of grave goods of many looted tombs. The burials at Los Molinos can be attributed to different temporal phases of Nasca culture, and some even to the Middle Horizon. In Los Molinos, we observed a number of burial types, including some very simple ones in which the deceased was placed in a pit or in a chamber between 2.0 and 3.0 m deep. We also discovered children interred in ollas and jars.

We now turn to La Muña. From the start we concentrated our excavations on an area located in the northern part of the site, between the upper edge of the valley and the surrounding hills. It was in this area that we observed the looted remains of a number of immense tombs (Figure 14.2). We now know that there are at least

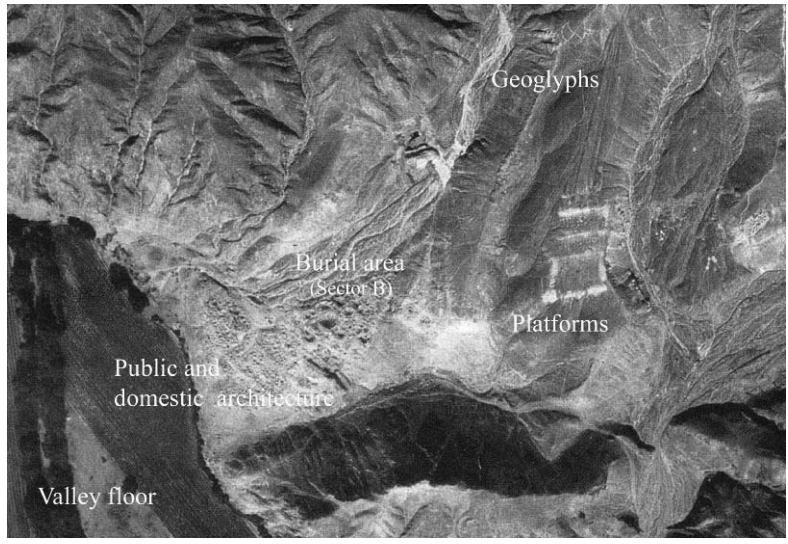


Figure 14.2. Aerial photograph of the site of La Muña with the location of the cemetery that we excavated (Sector B).

twelve mortuary structures there, which were built on three platforms that are very large and that were adapted to the slope of the hill. Without doubt, this cemetery is very special. It is bounded by large and solid walls of adobe. Due to the amount of destruction that has taken place in the northern part of the site, however, especially at the higher elevations, it has not been possible determine the exact number of tombs, nor the size of the smallest structures.

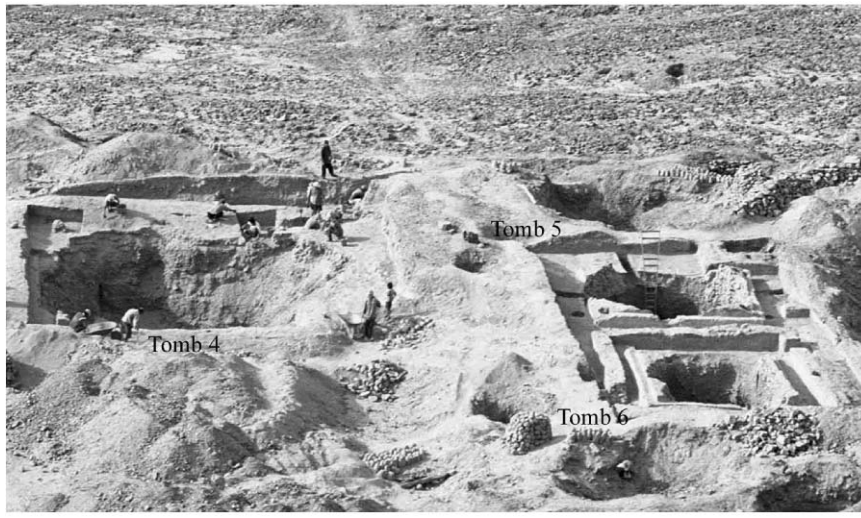
To date, six of the mortuary structures have been excavated at La Muña, each of which was looted in its central part, where the funerary chamber is situated at a depth of between 5.0 and 8.0 m (Figures 14.3, 14.4). It should be noted that the structures have similar formal layouts and that they were built in almost the same way, with small differences that will be discussed below. The description that follows relates to Tombs 1, 3, 4, and 6, which turned out to be the most complete and the most representative of the funerary complex (Figure 14.5).

Each of the mortuary structures is comprised of a construction at the surface level and a chamber located at the bottom of a deep shaft excavated into the natural soil. The construction at ground level has a quadrangular form. It consists of four interior walls (which are made from adobes and are relatively high) as well as four exterior walls (which are relatively low and abut the interior walls to form a type of bench) (Figure 14.6). In the inner walls are embedded huarango posts that extend down to below their bases. These posts, many of which are well preserved and can be seen lined up along the walls, are of a size suggesting that they were originally meant to support a roof. The interior of the square enclosure was completely filled in and sealed with a cap of mud. Thus, a platform was created that was very carefully plastered. Lastly, the ground-level construction was enclosed by a perimeter wall that on the eastern, western, and northern sides formed a long passageway around the platform. Meanwhile, on the southern side the builders left a larger space like a small patio. Access to the mortuary structure was gained from the southwest, and just west of the patio.

All the walls were constructed of handmade adobes that have a conical (odontiform) shape. Such adobes are typical of the Middle Nasca period (AD 200–400) and are characterized by a base that is oval or nearly round and that measures from 12 to 16 cms in diameter. They have a height of about 30 cms and are made from three or four small "cloths-full" of mixed mud. This variety of adobe can be clearly differentiated from the type utilized during the Early Nasca period at the sites of Los Molinos and Cahuachi, which is more loaf-shaped. Generally, the adobes from the tombs at La Muña were set with much mortar in alternating layers: a row of adobes in an upright or vertical position, followed by a row with their bases pointing outward. The walls thus constructed are very solid and present two faces, an outer one and an inner one, that are very regular in appearance. The foundations of the quadrangular structures were laid in shallow trenches, on top of the natural soil. Once the walls of these structures had been completed, the interiors were filled with mud, dirt clods, and fragments of adobes. Based on the associated ceramics, the walls of the tombs at La Muña were all built at about the same time: during the Nasca 5 phase.

The mortuary chamber was constructed at the bottom of a shaft dug into the natural soil. The shaft is between 4.5 and 5.5 m in diameter, and between 5.5 and

A



B

Figure 14.3. Panoramic photographs of the La Muña Sector B cemetery showing Tombs 4, 5 and 6. Photo A is from the west, photo B is from the north.

7.0 m deep (Figures 14.4, 14.7). On the other hand, the chamber consists of a nearly square space that in the case of Tomb 3 measures 2.0 × 2.5 m, and that in the case of Tomb 4 measures 2.9 × 3.0 m, and is 1.8 m high. The walls of these rooms, which are of natural soil, are lined with one or two courses of adobe. In the

Figure 14.4. Photograph showing our excavation of Tomb 4 at La Muña.

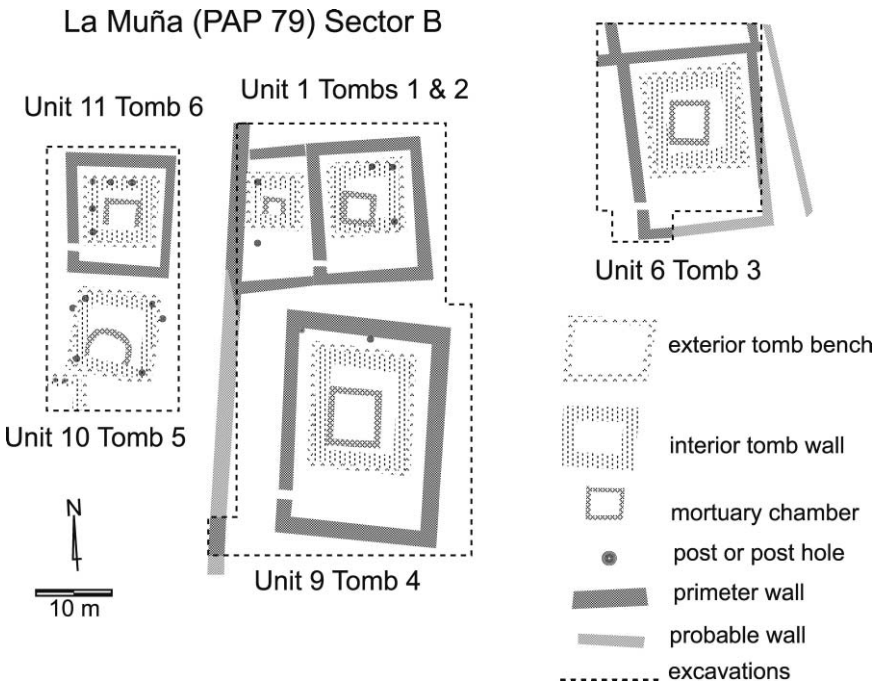


Figure 14.5. General plan of Sector B at La Muña with the locations of the tombs that we excavated.

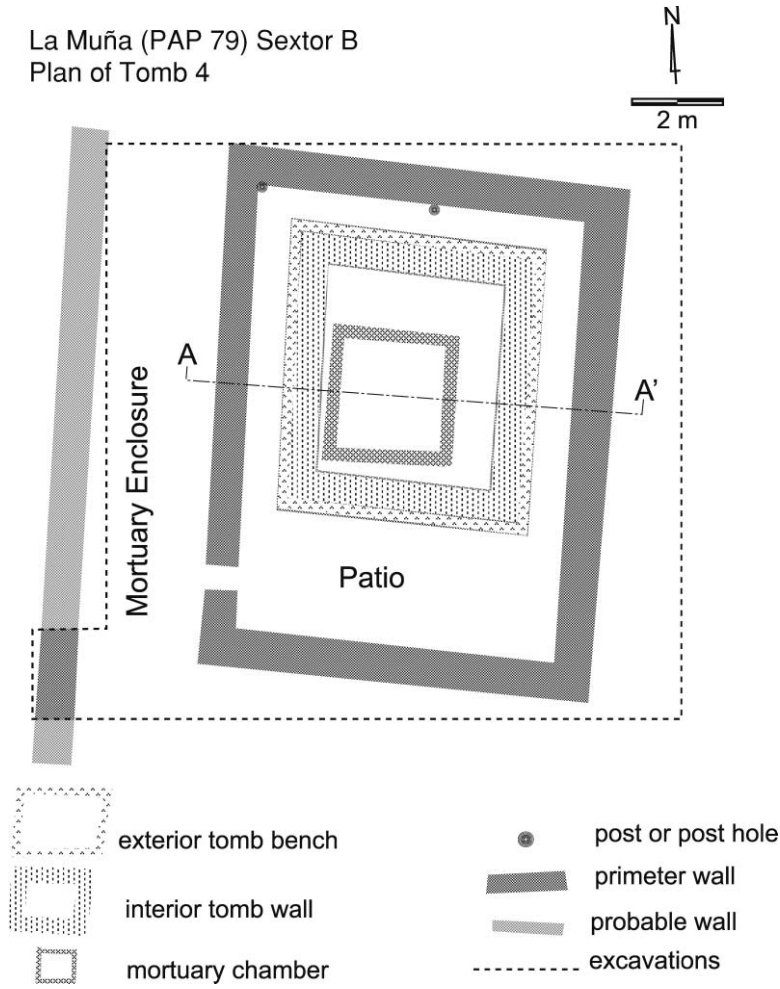


Figure 14.6. Plan of Tomb 4 at La Muña.

instances of Tombs 2, 5, and 6, however, the southern part of the chamber consists of an unlined wall. The sides and tops of the walls are nicely plastered and for the most part painted white, though it appears that some of them originally may have been painted other colors, little of which remains. In the chamber of Tomb 3, the upper parts of the eastern and western walls have two small niches in them, measuring 30 cm in height, 25 cm in width, and 25 cm in depth, where special offerings were placed. The same chamber has a floor of compact mud, the surface of which is very flat and over which was spread a thin layer of river sand; the surface served as a platform where the deceased and his grave goods were placed.

The roof of a chamber was formed from the thick trunks of huarango trees. These trunks were laid down in an east-west direction, one against another, with

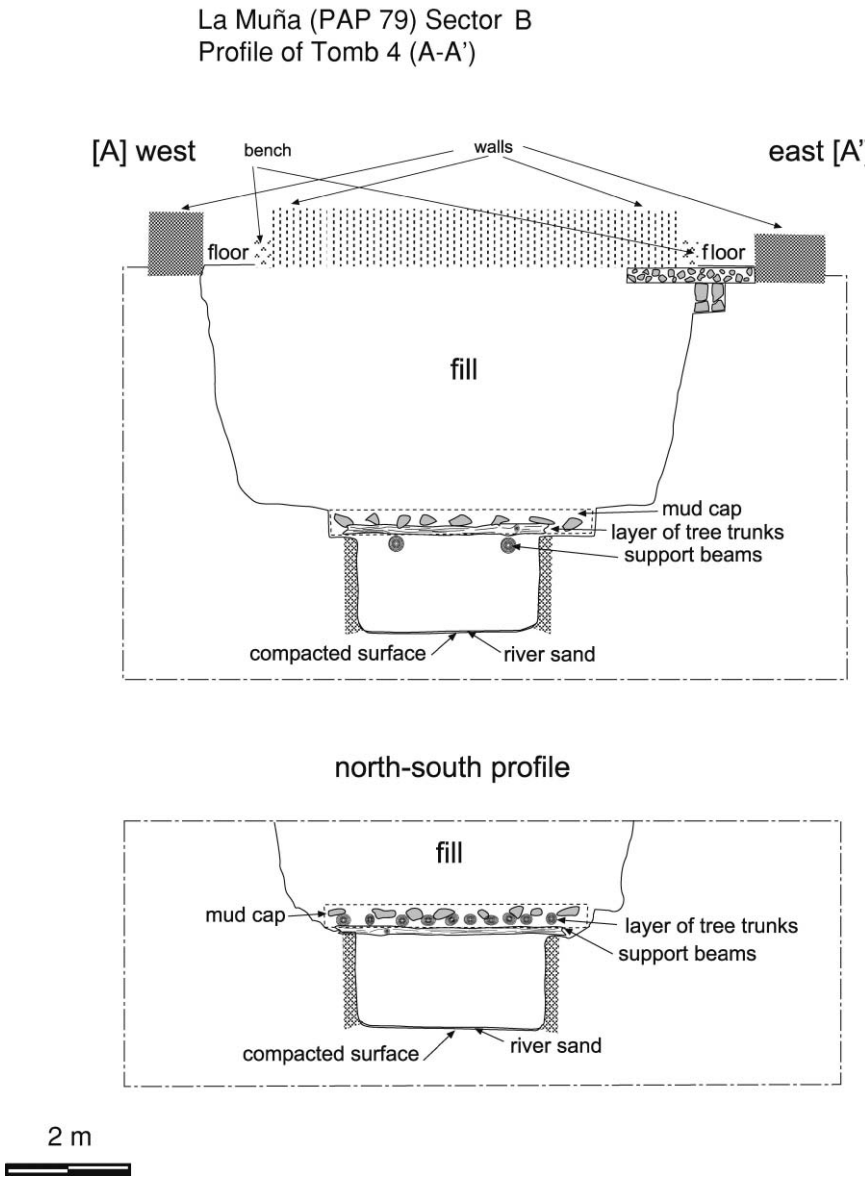


Figure 14.7. Profile of Tomb 4 at La Muña.

their ends resting on the tops of the walls. Placed over and between the trunks were a layer of pacae leaves and cane branches, and then a thick cap of mud mixed with large stones. Finally, the upper-most part of the roof was sealed with a layer of mud that was completely free of stones. In the case of Tomb 4, the builders embedded two transverse beams into the north and south walls, just below the

huarango trunks, to help support the immense weight that would rest on the roof (Figure 14.7). Considering how carefully the roofs were constructed and the fact that they later collapsed, we would have to conclude that the chambers themselves were never filled with earth.

Once the chamber was closed, the shaft was filled almost to the ground surface, and the previously described structures were built. Through time, though, the weight of the fill and of water soaking into the earth put tremendous pressure on the huarango logs, which eventually broke, thus damaging the tops of the walls, the niches (in the instance of Tomb 3), and the body of the deceased along with his grave goods. The mortuary chambers were partially destroyed not only by the collapse of their roofs, but by looting that occurred during the 1930's. Despite this destruction, we were able to recover some human remains, ceramic vessels and other remains (Reindel and Isla 2001: fig. 31).

Our data indicate that after the chambers were sealed, the ground-level mortuary complexes continued to be used, both the outside as well as the inside spaces. However, since the sand floors in the interiors of the structures had not been compacted and were fairly clean, only a few activities must have been carried out in them. And these activities probably involved a limited number of people. We would like to emphasize that the mortuary complexes were visited over a long period of time, even up until the Late Nasca. We know this because two ceramic cups from the Nasca 7 phase were left as offerings in the southeastern corner of Tomb 3, on top of the patio's sand floor. Similarly, a ceramic cup from the same phase was discovered in the patio of Tomb 4, which had been almost completely destroyed, while an offering of a parrot was found in the patio of Tomb 5.

The exterior spaces of the ground-level structures appear to differ markedly from the interior spaces in terms of the use they received. The walkways circling the outside of the structures also consist of a layer of sand. They had been compacted in some places and worn away in others, most likely the result of a constant flow of people and of attempts to renovate the walkways with new sand and water. Within the compact sand were unearthed fragments of ceramics, vegetable remains, the bones of camelids, and signs of burning. Some portions of the walkways even contained partially burned canes, which may have comprised part of the roofs of the quadrangular structures that were situated over the tombs.

Despite the fact that the tombs had been looted, in all of them we found a large quantity of grave goods. As mentioned earlier, due to the tremendous weight of the earth over the mortuary chambers, their roofs eventually collapsed, dumping fill into the chambers, and crushing their contents, especially the ceramic vessels. Then when the "huaqueros" or looters dug into the tombs, they obviously took the finest and most complete vessels, as well as other valuable items. Even so, just with the ceramic fragments that we recovered from each chamber we were able to reconstruct between three and fourteen vessels, some of them very fine, as well as some panpipes (Figure 14.8). Also, in several tombs we unearthed dozens of beads made from a diversity of materials: semi-precious stones, Spondylus shell, gold and copper. Moreover, in Tomb 4 we discovered five whole Spondylus shells (one of which is engraved in its interior with a zoomorphic face), five obsidian projectile points, and four gold beads. The latter items measure 1×2 cm and have

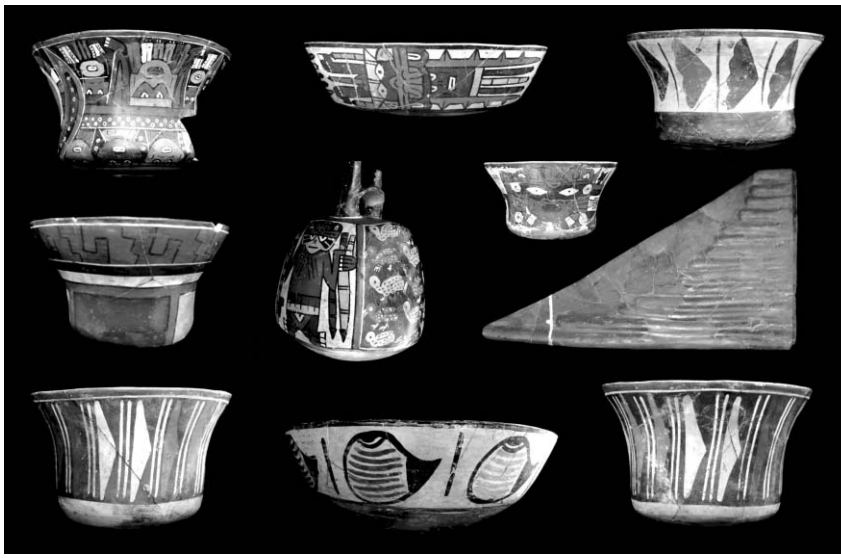


Figure 14.8. Reconstructed ceramic vessels from Tomb 4 at La Muña. (See also Color Plate 5.)

the shape of chili peppers. Perhaps the most spectacular find was made in Tomb 6, consisting of nineteen small gold pendants, each of which measures 1×2 cm and which takes the form of an orca or killer whale (Figure 14.9). In Table 14.1, we summarize the materials recovered from the six tombs.

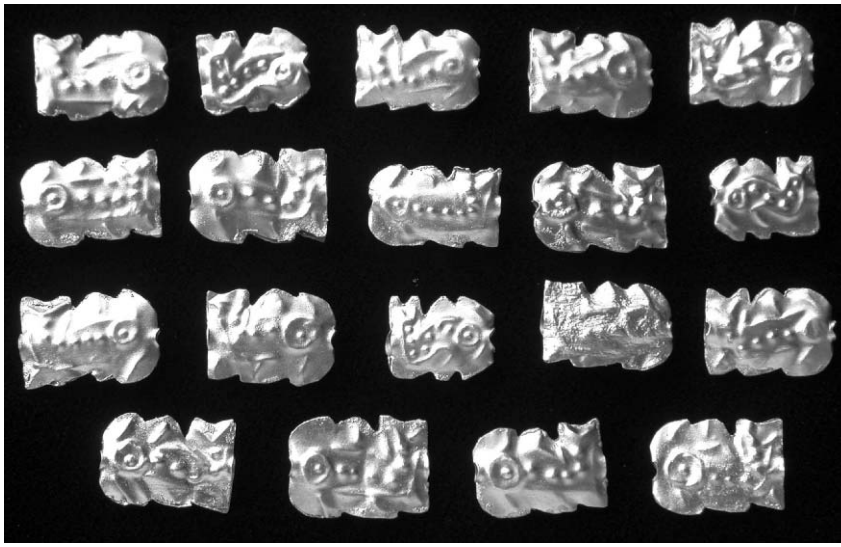


Figure 14.9. Golden pendants in the shape of small orcas, recovered from Tomb 6 at La Muña.

Table 14.1. Rasgos generales de las tumbas de La Muña

# de Tumba	Medidas de las estructuras funerarias (en metros)			Profundidad total	# de Individuos	Ofrendas asociadas
	Recinto	Plataforma	Cámara			
1	8.0 × 9.4	5.25 × 5.25	2 × 2 Altura: 1.5	5.0 metros	1	6 vasijas de cerámica
2	5.5 × 9.5	4.0 × 5.0	1.3 × 1.3 Altura: 1.5	4.8 metros	1	5 vasijas de cerámica
3	9.0 × 12	6.8 × 6.8	2.1 × 2.5 Altura: 1.8	5.5 metros	1	10 vasijas de cerámica
4	11 × 14.5	7.0 × 8.0	2.8 × 3.0 Altura: 1.8	7.2 metros	1	14 vasijas de cerámica 5 puntas de obsidiana 5 valvas y cuentas de spondylus, cuentas de piedras semipreciosas y láminas de oro
5	No tiene	5.7 × 6.0	2.5 × 3.0 Altura: 1.65	6.8 metros	1	9 vasijas de cerámica Cuentas de piedras semipreciosas Láminas de oro
6	7.0 × 7.6	4.6 × 5.0	2.0 × 2.5 Altura: 1.65	5.1 metros	1	12 vasijas de cerámica Cuentas de piedras semipreciosas Láminas de oro

In order to estimate the richness of the tombs excavated at La Muña, we have to bear in mind that all of them were looted. And without doubt, the "huaqueros" took most of the grave goods, which means that the objects we recovered during our "clean up" of the mortuary chambers consisted of those materials that had been forgotten, or that had insufficient value on the black market.

It is important to emphasize that to date there is little evidence for other Nasca tombs of similar richness or of the same type as these at La Muña. The only other large grave that has been reported was excavated in 1927 by Julio C. Tello and by and his assistant, EugenioYacovleff, at the site of Puente Gentil in the Santa Cruz Valley (Isla 2001a). This grave was smaller than those at La Muña, however, and probably did not have the surface structures, though it did have an intact shaft and mortuary chamber. The grave goods it contained consisted of, among other things, 46 ceramic vessels and various objects of gold, including a mask, nose-ring, two pendants, and a necklace of orcas similar to those from La Muña. Based on the style of the ceramics from the tomb, it can be dated to the end of Nasca 4, which is to say that it is a little older than the La Muña tombs and after the apogee of Cahuachi. We do not know if the richness of Nasca burials can be directly correlated with their size; nonetheless, we believe that the contents of the tombs at La Muña, which were certainly larger and more impressive than those at Puente Gentil, are truly extraordinary.

DISCUSSION

The La Muña tombs differ in many respects from other burials in ancient Nasca society. They consist of more than simple pits in the ground, and they have surface architecture that is reminiscent of a mausoleum. Their mortuary chambers were constructed quite deep—much deeper, for example, than those of the highest status tombs described by Carmichael, which have a depth of only 4.5 m. Additionally, Carmichael's tombs contain no more than ten ceramic vessels as offerings (Carmichael 1995: table 1). The architectural pattern observed in the La Muña structures was very exclusive and clearly meant for high ranking people; this stands in stark contrast with the layouts of tombs that are found in the archaeological literature or that were excavated at Los Molinos and Hanaq Pacha. The differences between them are further accentuated by the fact that the La Muña tombs—unlike the others—are located in an exclusive part of the site, separated from the surrounding area by thick walls of adobe. The distinction in quality can be observed not only in the tombs themselves, but in the sets of grave goods they contain. Despite the fact that they were looted, we can see that the tombs from La Muña constitute the richest and most elaborate burials of Nasca culture, of whatever period. The quality of the ceramics is excellent. And considering the opulence and variety of the remaining items, including Spondylus shells and gold objects, we can recognize a marked difference between them and the grave goods from other sites. Finally, offerings were left in the patios and antechambers of the La Muña tombs many years after the mortuary chambers were sealed; this means that the people buried there were very important and that they were venerated for generations after their deaths. No such offerings have been discovered at the sites of other Nasca burials.

Considering the size of the tombs at La Muña, the unique nature of the mortuary architecture found there, the exclusivity of the necropolis, and the richness of the grave goods (especially of such luxury items as the adornments of Spondylus and gold) we are left with no doubt that these tombs were meant for individuals who belonged to an elite class, and who were clearly separate from the rest of the population. In other words, the remains can be taken as evidence for real social stratification among the Nasca in the Palpa Valleys during the Nasca 5 phase.

This hypothesis was first formulated by Reindel and Isla (2001: 285, 312). In a response to it, Silverman and Proulx (2002: 252) concur with our interpretation that during Nasca 5 there was marked socioeconomic differentiation in Nasca culture, though they equivocate over the existence of social classes, whose existence would imply that there was "hereditary inequality with corresponding alienation from the means of production." The distinction is important, since acknowledgment of the existence of social classes would mean acceptance of a crucial part of the definition of the state. Ultimately, it would mean recognition that Nasca 5 society was organized as a state. It is important to underscore that we are talking only about Nasca 5, not the early Nasca social formation. Silverman and Proulx (2002) clearly recognize the dramatic difference between the early Nasca and Nasca 5 sociopolitical organizations.

In his mortuary work, Carmichael refers to tombs from the Ica culture that are similar to those from La Muña, though from a later period. Considering them to be evidence for social stratification, he makes the following statement: "Menzel's Late Horizon burials are particularly illustrative of social differentiation expressed in mortuary symbolism . . . In addition to state-sanctioned markers [referring to the Inka state], Menzel was able to clearly identify the local hierarchy on the basis of indigenous symbols of status and authority. The nobility were buried in large, structured tombs at depths of 4.5 to 6.5 m, which penetrated the clay subsoil . . . Grave posts were buried above the chamber, and grave goods included artifacts of gold and silver, wooden carvings with metal sheathing, and distinct pottery types . . . Under Inka rule Ica society was stratified. . . . This is shown by absolute differences in burial customs which sharply delineate the social hierarchy" (Carmichael 1995: 163–164).

Using the criteria cited by Carmichael, the La Muña tombs clearly constitute evidence for the existence of a social hierarchy in Nasca 5 society, and therefore, for social stratification. We now turn to a discussion of other archaeological data that might give us a clearer picture of the political organization found in Nasca culture, especially during Nasca 5.

NASCA POLITICAL ORGANIZATION OVER TIME

The information recovered by our archaeological surveys in the northern valleys of the Río Grande de Nazca drainage indicates that during the development of Nasca culture there were marked differences in settlement ranking (Reindel et al. 1999). It is possible to discuss the various categories of settlements based on their size and function; in this work, however, it will be sufficient to say that among all the settlements in the region, there are numerous small ones (simple hamlets), some medium ones (habitation sites with special buildings), and a few major centers (sites with habitation areas, "public" buildings, ceremonial platforms, geoglyphs, etc). During the Early and Middle Nasca periods, respectively, there appeared in these valleys a single settlement that differed from the others in terms of its size, its architecture, and its material culture. Each of the settlements was probably the major population center, if not administrative center, of its time. In other words, there existed a settlement hierarchy with two or three tiers.

We know that as far back as the Initial Nasca (Proto Nasca, Nasca 1) and Early Nasca phases, the people of the valleys of the northern drainage had developed irrigation systems (Reindel et al. 1999: 314). With the intensification of agriculture, a surplus could be produced that enabled farmers to become more specialized and other people to be freed from the need to produce food; thus, the latter people could dedicate themselves to additional specialized activities. In the excavations conducted at Los Molinos, a predominantly Nasca 3 site, we found no evidence of food production. Rather, the structures there gave us the impression that they had been the residences of privileged persons in Nasca society. Thus, it seems evident that their construction had been organized and directed by specialists; so too were

activities relating to the geoglyphs, which would explain the degree of uniformity in the planning and design of the geoglyphs throughout the Río Grande drainage.

This degree of uniformity—which shows that the whole population was well integrated throughout the territory occupied by the Nasca culture—can also be seen in the production of ceramics and textiles. The high quality and extreme consistency of Nasca ceramics in terms of their shape and decoration would lead us to believe that there were pottery-production centers where specialized craftsmen worked. In the same vein, some interesting data furnished by Vaughn (2004) indicate that the fine wares of Marcaya were manufactured by specialists, who may have been located at Cahuachi, although Silverman and Proulx (2002) note that the dating of Marcaya does not coincide with Cahuachi's Nasca 3 apogee. Vaughn (2004) argues that domestic and utilitarian pottery was most likely made by the people who used it or by local workshops.

According to the theoretical model discussed earlier, a culture with the social organization of a chiefdom will have certain features: elite tombs, a settlement hierarchy with two or more tiers, a degree of specialized production, and population or ceremonial centers. In the Nasca case, each chiefdom (out of a number of them) could have occupied a different valley within the Río Grande drainage, or two chiefdoms could have occupied different parts of the same valley. Centers similar to Los Molinos and La Muña are found in the following valleys: Puente Gentil in Santa Cruz; La Ventilla in Ingenio; Cantayoq in the middle of the Nasca Valley; Jumana in the lower part of the same valley; Tambo Viejo in Acari. This scenario does not, however, explain the cultural consistency that can be observed throughout Nasca territory. Note that it is important to control for the dating of these sites in this argument.

Besides the uniformity of the geoglyphs, ceramics, and textiles, we can see parallels in architecture. For instance, the structures situated in the central part of Los Molinos have a hall with columns on one side. These structures are almost identical—even in terms of small details relating to construction—to a room excavated by Giuseppe Orefici in Cahuachi (Reindel and Isla 2001: fig. 5; Orefici 1993: fig. 278). Also, the architectural plan of the central part of Los Molinos is much like Unit 19, a particular sector of Cahuachi that was documented by Silverman (1993). In this sector, the slope of a hill was leveled and terraced with thick walls of adobe; between access ramps and passages are found large chambers that have almost the same dimensions as the chambers located at Los Molinos. Furthermore, at Los Molinos and the sector of Cahuachi just mentioned, there was a late stage of construction that involved building various square structures that Silverman (1993: figs. 12.3 to 12.7) calls "rooms" in which she documented burials (i.e., intrusive to the "rooms"), but which we think are probably Middle Nasca tombs (see below).

The site of Cahuachi has many architectural features in common with other important centers situated in Nasca territory. Nonetheless, its general character is very different from theirs, especially in terms of its size and the dimensions of its buildings, which have no equal at any other Nasca site. Thus, we agree with Silverman that Cahuachi was the early Nasca center of the entire Nasca territory.

But we see that territory as politically centralized and argue that Cahuachi, in early Nasca times, occupied the highest tier of a regional settlement hierarchy with at least three levels; in other words, its political structure corresponds to that of a primitive state, just as John Rowe claimed in 1963. Of course, our hypothesis needs to be verified, and Silverman (1993, 2002b inter alia) has cogently argued against the levels of hierarchy game, so to speak, played by archaeologists, particularly in contrast to the more complex settlement pattern hierarchy known for other states whose sociopolitical status of statehood is not contested (e.g., Wari, Tiwanaku, Chimu, Inca).

The distinction we are making between Cahuachi as a religious seat and the site as a political one is, to some degree, minimal. Silverman recognizes this as well, saying, she "envisions early Nasca society as a paramount chiefdom in which paramountcy [sic] may have rotated or been subject to competition. Cahuachi, in this model, would have been the seat of the paramountcy" (1993: 322). On the basis of existing information, Silverman's idea has neither more nor less merit than the hypothesis that Cahuachi was the principal center of a state that controlled regional centers throughout Nasca territory. Considering the limited excavations that have been conducted at Cahuachi by all archaeologists (including A. L. Kroeber, William Duncan Strong, Helaine Silverman, and even the much larger excavations of Giuseppe Orefici) we think it impossible to discard the possibility that the enormous site was used to permanently house a large population, as is implied by remains of domestic activities. These remains are located around the nucleus of the site, especially to the east of it—although here we get into the issue of site delimitation that Silverman (1988, 1993 inter alia) has addressed, responding to Rowe (1963: 11–12). More excavations of the peripheral zones surrounding the core of Cahuachi are needed. Orefici has actually begun such a project, but has yet to publish his results.

Vaughn re-interprets Silverman's data on Cahuachi, based on a perspective that derives from the investigations he has carried out at the site of Marcaya; he relates her data to the development of domestic activities. For instance, whereas Silverman, from her perspective of Cahuachi, sees the presence of fine polychrome ceramics as an indicator of activities that are overwhelmingly ceremonial, Vaughn does not. He points out that at Marcaya, which is clearly a domestic site, the percentages of polychrome wares and domestic pottery are 56% and 44%, respectively (Vaughn 2000: 518–519). These percentages are comparable to the ones observed at Nasca sites in the northern drainage.

When Silverman talks about Cahuachi, she is referring only to the Early Nasca phase of the site since she (as well as Rowe 1963) believes that it was effectively abandoned thereafter. Her ceramic analysis and the ceramic remains recovered by earlier scholars are said to support this interpretation of the dating of apogee of the site. Thus, all data from the Middle Nasca phase would be irrelevant to Silverman's interpretation of the site. Silverman (1993; see also Silverman and Proulx 2002: 249; Rowe 1963) argues that *major* construction at Cahuachi was not undertaken after Nasca 3, although at Unit 19 she dated some architecture to Nasca 4 (Silverman 1993: 169).

However, in our opinion there is no doubt that what we call conical (or odontiform) adobes are diagnostic of Nasca 5 and, indeed, in Silverman's (1993) principal text on Cahuachi we can see in one illustration a wall consisting of alternating layers of conical adobes—a row of them set in a vertical position, followed by a row with their bases pointing outward—as part of an important structure, and which therefore represents more than superficial construction that took place after the abandonment of the site.

Moreover, the same type of Nasca 5 adobe is found in constructions located near the Room of the Posts, as documented by Silverman (1993: 144–146). Indeed, we argue that these rooms (see Silverman 1993: figs. 12.3–12.7) are looted tombs from the Nasca 5 phase, even though Silverman (1993: 197–201) illustrates burial cists (Burial 3, Burial 7), Nasca 3 pottery (Burial 3, Burial 4, Burial 5), and fine early Nasca textiles (Burial 7) from some of these contexts. Nevertheless, the architectural features we are talking about for Unit 19 at Cahuachi are very similar to those found in Nasca 5 structures at La Muña, although the latter have smaller dimensions. Finally, tombs dating to Nasca 5, that were built inside of constructions dating to Nasca 3—with terraces, walls, and passages—have been located in the central part of Los Molinos (Reindel and Isla 2001: fig. 5).

It seems very obvious that the type of tomb documented in La Muña is not unique, but rather, despite size differences, is also found at other sites from the Nasca culture: Los Molinos, Puente Gentil, Cahuachi, Los Médanos, etc. There can be no doubt that further exploration and excavation at these sites, especially at Cahuachi, will provide additional examples of this type of tomb. For it is evident that it constituted another distinct feature of Nasca culture that can be seen over a large part of the Nasca territory.

CONCLUSION

In our exploration of the Palpa region, we documented a variety of Nasca mortuary practices, which show that there were important social differences within the culture. The Nasca 5 tombs of La Muña represent an exceptional type of funerary structure associated with an elite stratum that was separate from the rest of the population; the tombs also can be interpreted as evidence for social stratification. There is sufficient information to corroborate the idea that Nasca 5 society was complex and highly structured, a hypothesis that is embraced by Nasca scholars. We furthermore argue that the early Nasca social formation was more complex and highly structured than previously believed—a hypothesis requiring corroboration by more fieldwork.

The social structure of a culture is closely related to its political structure. In the present case, the survey-generated settlement patterns of the Palpa region as well as the excavation data from Los Molinos and La Muña would seem to indicate that the political organization of Nasca was highly structured at the regional level. Similar political structures have been observed in the other valleys of the Nasca territory. Great uniformity also has been found in the architecture, in the

styles of various types of artifacts (e.g. ceramics, textiles, etc.), and in the large complexes of geoglyphs. All this evidence argues that Nasca culture was highly integrated.

Cahuachi is the only settlement that could possibly have been the seat of political power in the region, that could have controlled the entire Nasca territory, and that could have promoted the degree of cultural integration just discussed. The preeminence of Cahuachi has never been in doubt, as Rowe (1963), Strong (1957) Silverman (1993), and Orefici (1993) have all agreed prior to our work in the northern drainage. The issue is whether or not Cahuachi was the capital of a primitive state.

Based on the archaeological data available today, it is impossible to say definitively that Cahuachi housed a large and permanent population, and that it thereby constituted a true urban center; Silverman (1988, 1993) argues forcefully against the interpretation of Cahuachi as a city based on the data available to her and in terms of widely accepted definitions of "urban." However, if it were shown that Cahuachi was an urban center, we would be much more secure in characterizing Early Nasca as a primitive state with a center of power that dominated multiple regional centers located in the different valleys.

Along the same lines, we believe that during the Middle Nasca phase the settlement of La Muña assumed the role of paramount political center, which up until then had been held by Cahuachi. During the latter period, however, it appears that political power was more evenly distributed among the principal centers established in each valley. This conclusion is a major new hypothesis in Nasca studies.

Archaeologists are just beginning to document life in the Nasca culture. It seems that there is about as much information supporting the argument that Nasca was a chiefdom as there is backing the hypothesis that it was a primitive state; the fact that it is so difficult to decide which interpretation is correct makes the debate more interesting. In order to more adequately resolve such ambitious problems as the political organization of a precolumbian society, specifically Nasca, we will have to continue our search for new archaeological data.

Acknowledgments. The investigations of the Proyecto Arqueológico Nasca-Palpa have been authorized by the Instituto Nacional de Cultura (INC). We would like to express our gratitude to the members of this agency for their interest in our work and for making it so easy for us to get the required permits. We also offer our special thanks to the Fundación Suiza Liechtenstein para Investigaciones Arqueológicas en el Exterior (FSLA), which has its headquarters in Zurich, Switzerland and Vaduz, Liechtenstein. This institution has supported our project with both technical and financial resources since 1997. Lastly, we would like to acknowledge all the people—professionals, technicians, students, and laborers—who have worked with us during the various field seasons. They have made invaluable contributions to our study of the Palpa Valley, and to our excavations at Los Molinos and La Muña. We appreciate the input of Helaine Silverman in the final editing of this paper.

ENDNOTES

1. A large percentage of Nasca cemeteries were established on or near abandoned habitation sites. In the Palpa Valley, it has been observed that only a minimal percentage of sites functioned exclusively as cemeteries. This information suggests that the ancient inhabitants of Nasca were accustomed to burying their dead at the sites where they had previously lived.
2. The discovery of fine textiles at Cahuachi (Giussepe Orefici, personal communication) is evidence for the existence of a class of weavers there; these weavers would have been similar to the ones who wove fine cloth in the Paracas culture. To date, however, no Nasca burial has been found that is like the mummy bundles recovered from the Paracas Peninsula.

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Chapter **15**

When and Where Did the Nasca Proliferous Style Emerge?

JOERG HAEBERLI

INTRODUCTION

Nasca art and culture were among the first of Peru's great indigenous civilizations to be defined. In the 19th century, looted specimens of Nasca art were already reaching the major museums of the world, where their distinctive style, artistic quality, and charm attracted the attention of the scholars who would become the first generation of professional archaeologists. In the 1880s, young Max Uhle was working for the Museum für Völkerkunde, in Berlin, when he saw his first Nasca ceramics. Vowing to eventually discover their source, in February, 1901 he became the first archaeologist to document a cemetery containing polychrome Nasca pottery, located in Peru's south coast Ica Valley (Proulx 1970: 1–44; Silverman and Proulx 2002: 1–3).

Today, a great deal is known about the Nasca ceramic style, but the very early definition of this magnificent art has promoted the identification of similar traditions of art as "Nasca" as well. The purpose of this paper is to explore relations between the Nasca culture of the heartland's Rio Grande de Nazca drainage and Ica Valley, other south coast valleys, and less known cultures of the far south coastal valleys in the Department of Arequipa [Endnote 1]. How closely related to Nasca were other art styles of the far south, and can they be aligned chronologically with the better known Nasca sequence? Was spectacular Nasca art primarily a donor to more modest cultural traditions, or did unknown cultures of the far south achieve as much expertise in material culture as their better known "cousins" of the south coast? Of course, at this early stage of inquiry our goals must be modest, but in the long run we may hope to gain better understandings of southern Peruvian art, iconography and culture, the absolute chronology, and perhaps even the meanings underlying long iconographic histories, using clues from their reinterpretations through successive and multicultural interactions and modifications.

The data base and subject of this paper is a set of unusual Proliferous Nasca style textiles, several examples of which have been published (Bennett 1954: fig. 72; Berenguer 1996: frontispiece; de Lavalle 1989: figs. 11, 12; Frame 1999: plates 20, 21, 22, 23; Goodman 1999: lot 214; d'Harcourt 1962: plate 7; Kajitani 1982: fig. 53; Reid undated: plate 10). Their iconography consistently differs in specific details

from much more abundant Nasca heartland ceramic iconography [Endnote 2]. Frame (1999: 296) also recognizes stylistic aberrations in these weavings and suggests that they may come from outside the Nasca heartland. In an earlier article (Haeberli 2001: 104–106) I described two such textiles (one is the same as Frame's plate 21), both alleged to have been discovered in the Sihuas Valley, Department of Arequipa. The Proliferous Nasca style is securely dated to the later half of the Nasca sequence, but radiocarbon dates for these two unusual Proliferous Nasca style weavings place them into the range of dates obtained for Early Nasca textiles. Furthermore, this cross-dating is supported by the discovery of a locally made Nasca 3 style bowl (unfortunately fragmented) at cemetery 2 of La Chimba, a site in the Sihuas Valley. The surprising provenience and early dates for these textiles is the factor provoking me to undertake this complex description and comparison.

My hypothesis is that unusual Proliferous Nasca style textiles are not from the Nasca heartland in Ica or the Rio Grande de Nazca drainage, but from coastal Arequipa. Chronologically, they are not late Nasca but belong to the early Early Intermediate Period (EIP). The chronology places them centuries before a somewhat similar iconography appeared in the Nasca heartland. The significance of these textiles was unrecognized throughout most of the 20th century mainly due to the scarcity of radiocarbon dates and a lack of detailed comparative studies of iconography. I present a comparative analysis of selected iconographic features and details observed among these unusual Proliferous Nasca style textiles and Nasca heartland pottery iconography. Whenever possible and applicable I also include comparisons with iconography from Nasca and Topará textiles.

Unfortunately, none of the unusual Proliferous Nasca style textiles has verifiable provenience. So one of my objectives is to establish criteria for distinguishing these textiles from Nasca heartland artifacts based on iconographic details and select textile data. A second objective is to obtain additional radiocarbon dates to insert these textiles into the current temporal Central Andean chronology and more specifically the famous Berkeley Nasca pottery seriation (part of John Rowe's master sequence discussed in the conclusion of this volume [editors' comment]). A third objective considers the implications that will emerge regarding possible interactions between Arequipa and the Nasca heartland during the EIP, possibly shedding light on potential causes for the transition from Early or Monumental Nasca to Late or Proliferous Nasca iconography. The findings and conclusions reached must be considered preliminary since my sample, including 53 textiles, is small compared to the thousands of Nasca heartland pottery examples. Revisions will almost certainly be required as additional information, hopefully at least some based on archaeological excavations, becomes available. I alone am responsible for any errors.

INDICATIONS OF A FAR SOUTH COAST NASCA TRADITION

We must begin with some base line information about far south coast textiles that is relevant to the Early Intermediate Period. On 19 April 1997 I met with

the archaeologists Rómulo Pari and Marko López and together we visited three looted burial grounds (La Chimba, La Ramada, San Juan) in the Sihuas Valley. The purpose of the visit was to determine if certain textiles labeled Nasca, but with an alleged Sihuas Valley provenance, had indeed been found in that valley. It had been obvious to me that the iconography of these textiles was not Nasca but of two new traditions yet to be identified in the field. Looted remains discarded at La Chimba were collected and studied to establish the presence of the kind of textiles in question in the Sihuas Valley. These discarded remains verified the presence of the two new textile traditions in the Sihuas Valley. They represent two local traditions that I have named Siguas 1 and Siguas 3 (Haeberli 2001). The former is an Early Horizon culture and the latter is an Early Intermediate Period culture. However, what was most surprising was the presence at La Chimba of early Nasca textile borderbands in three-dimensional cross-looping on a cotton foundation. Additional Siguas artifacts and Nasca borderbands together with a fragmented Nasca 3 bowl were collected in 2000 during visits to La Chimba (Haeberli 2001).

At the Colegio Salesiano Don Bosco's museum in the city of Arequipa I had the opportunity to photograph artifacts of interest, including Nasca pottery also allegedly from the Sihuas Valley. Proulx (2000; Silverman and Proulx 2002: 92) believes that the fragmented Nasca 3 bowl and two of the Nasca 3 effigy vessels photographed at the museum may be of local manufacture imitating Nasca ware (Haeberli 2001: figs. 4, 17, 18) while others are from the Nasca heartland.

During my 2000 stay in Arequipa I was informed that Nasca textiles, particularly borderbands in cross-looping, have been found in the valleys of Ocoña, Majes, Sihuas and Vitor. The ratio between textiles and pottery is about 10:1. Interestingly, in print, the number of Nasca pottery vessels far exceeds the number of published textiles.

In 1965 Disselhoff (1968: 385–393) excavated at Cabezas Achatadas in the Camaná Valley where he uncovered 135 burials. He assigned these burials to Early Nasca due to the abundant presence of borderbands executed primarily in three-dimensional cross-looping. Among the contents there was only one early Nasca vessel (Disselhoff 1968: fig. 4a; Silverman and Proulx 2002: 91). Silverman and Proulx (2002) list other far south coast sites that have yielded Nasca artifacts, but at present, I am unaware of far south coast textiles in collections with proliferous iconography that have a secure provenance.

A comparative analysis by the author (Haeberli 2001: 103–104) of 102 borderbands with tabs (1 Paracas, 25 Topará, 34 Early Nasca from the south coast, 41 Early Nasca from the valleys in Arequipa, one from the Moquegua Valley), all with known valley or site provenance, revealed specific differences. For example, all Paracas and Topará tabs served as edging while 89% of the Early Nasca tabs, irrespective of provenance, served to link a borderband with a center cloth while fringes served as edging. All Topará designs were in embroidery while 53% of the south coast Early Nasca pieces were in embroidery and the remainder in cross-looping. All far south coast examples were in cross-looping. Among 12 tab designs, five are unique to Arequipa. Disselhoff (1968: 389) made the observation that the execution of Early Nasca textiles in cross-looping that he excavated at Cabezas

Achatadas was coarser, not as fine as similar textiles of the Nasca heartland. And he considers these far south coast examples to be of local manufacture rather than imported from the south coast. We made the same observation among the examples of cross-looping collected at La Chimba. Thus, the evidence is mounting for a far south coast Early Nasca tradition whose homeland is the valleys in the Department of Arequipa. These far south coast artifacts differ in specific design and details of manufacture from Nasca heartland examples. At present I know of no examples of these Arequipa variants occurring in south coast contexts, although wherever two traditions coexist, as in Arequipa, there will be examples in which mixing of traditions takes place (Haeberli 2001: 107–8, 116).

PERTINENT RADIOCARBON DATES

For dating I rely on recently obtained radiocarbon dates. Table 15.1 lists the nine currently available radiocarbon dates for these unusual Proliferous Nasca style textiles and one for an unusual Nasca style textile. These textiles were subdivided into four groups (G1, G2, G3 and G4, see below). The sequencing of groups and of textiles within a group is arranged mainly according to age. All dates listed are corrected and at the 2 sigma (95%) confidence interval, except as noted.

Table 15.1. Radiocarbon dates for ten unusual Nasca style textiles. The Rafter Radiocarbon Laboratory, New Zealand, performed the analyses during 2004. The figure number is given in parenthesis after the textile number.

			Radiocarbon ^{14}C Age		
				Corrected, A.D.	
Sample[1]	Textile (Fig. No. in parentheses)	$\delta\ ^{13}C$	Uncorrected B.P.	68%	95%
R 2186/3	G1 – 1[2]	−16.8	1790 ± 45	144 – 324	126 – 379
R 28524/4	G1 – 2 (1)	−18.2	1768 ± 40	228 – 334	137 – 389
R 28524/7	G2 – 1 (3)	−17.4	1752 ± 40	236 – 343	144 – 403
R 28524/6	G3 – 2 (4)	−18.1	1719 ± 35	257 – 304	
				316 – 319	236 – 416
R 26186/1	G3 – 3 (5)	−22.3	1675 ± 55	266 – 281	
				329 – 425	239 – 532
R 28524/5	G3 – 4 (6)	−17.1	1608 ± 45	409 – 532	346 – 549
R 28524/1	G3 – 5 (7)	−18.1	1515 ± 45	531 – 608	429 – 645
R 28524/2	G3 – 7 (9)	−16.5	1509 ± 40	535 – 609	434 – 644
R 24807/5	G4 – 1[3]	−19.8	1595 ± 60	408 – 541	336 – 606
R 28524/3	G4 – 2 (10)	−19.4	1452 ± 35	592 – 647	542 – 660

[1] The samples were either cut into smaller lengths or teased apart before treating them consecutively in warm organic solvents (hexane, isopropyl alcohol, and acetone), followed by a warm solution of acid, then cold solutions of alkali, and acid prior to conversion to carbon. The technology for the ^{14}C dates is an AMS.

[2] See Frame 1999: plate 20; Haeberli 2001: fig. 19

[3] See Haeberli 2001: fig 20

As will become evident below, these unusual Proliferous Nasca style textiles do not fit into the chronology for Nasca ceramic phases. The correlations that can be made are the appearance of and the temporal range of particular elements, designs, motifs and themes detected among the unusual Proliferous Nasca textiles and their appearance in the Nasca ceramic phases. For example, in the Nasca heartland, quartet rays appear during Nasca 5, but they appear among the G1 unusual textiles allegedly from Arequipa during the approximate temporal range of Nasca 3. For comparison, Table 15.2 includes radiocarbon dates for the temporal ranges of Nasca ceramic phases obtained recently at Los Molinos and La Muña in the Palpa Valley (Görsdorf and Reindel 2002: 151–6) and at Marcaya in the Tierras Blancas Valley (Vaughn 2004: 76) in addition to the temporal ranges of G1, G2, G3 and G4 textiles. Also included in Table 15.2 are the two major sixth century AD droughts (AD 524–540 and 562–594) that affected much of Peru (Shimada 1994: 124–6).

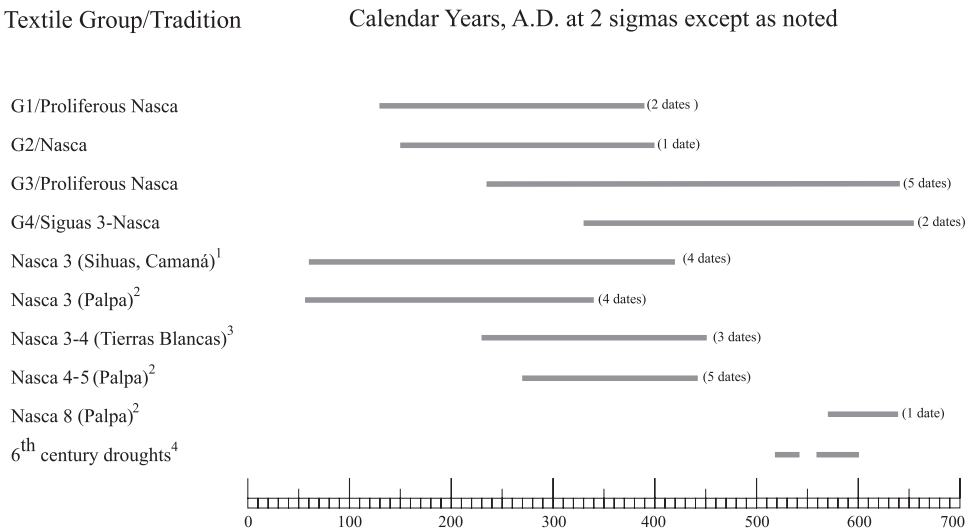
Regarding early Nasca chronology, Table 15.2 shows considerable overlap in the ranges of the three Nasca 3 date groups, although the Nasca 3 (in the Sihuas and Camaná valleys) range extends well into the Nasca 4 range of Nasca 3–4 dates from Tierras Blancas. This is due to one of two dates obtained from three-dimensional borderbands in cross-looping collected together with a fragmented Nasca 3 bowl at La Chimba, Sihuas Valley. Perhaps the overlap with Nasca 4 time may be due to conventions lasting longer in the Sihuas Valley, where they were relatively isolated from the Nasca heartland. Most surprising is the Nasca 4/5-5 (Palpa) range falling into the Nasca 3–4 (Tierras Blancas) range. The beginning of the Nasca 8 (Palpa) range coincides with the major sixth century drought. To facilitate direct comparison, the above dates are presented at the 1-sigma (68%) confidence interval because all tabulated Palpa values are given at that interval. The Palpa dates used for phase ranges were taken from Görsdorf and Reindel's table 1 and not the recalculated ranges employing the Gibbs Sampling Method.

Variation in the ranges of these dates is quite significant, for example, as regards the alleged droughts of the sixth century. The Nasca 4/5–5 (Palpa) and Nasca 8 (Palpa) ranges imply that the demise of Nasca culture is correlated with these droughts. On the other hand, the Nasca 3–4 (Tierras Blancas) dates from farther south correlate with the sociopolitical and religious changes of Nasca 5 that lead to Nasca 6 (at least, as reflected in pottery iconography), with the two droughts, implying that the collapse of Nasca style in phase 8 came significantly later. Additional dates for the Nasca ceramic phases, from different heartland valleys, and hopefully from Nasca 7 textiles, are desperately needed to better understand the significance of the radiocarbon ranges listed in Table 15.2.

THE SAMPLE OF UNUSUAL PROLIFEROUS NASCA STYLE TEXTILES

A total of 53 textiles, including one unusual Nasca style fabric devoid of proliferation and 52 unusual Proliferous Nasca style weavings, have come to my attention over the years, and constitute the sample on which this study is based. Given

Table 15.2. The calibrated temporal ranges available for G1, G2, G3 and G4 textiles are compared with dates of Nasca phases 3, 3–4, 4/5–5 and 8. Severe sixth century AD droughts affecting Peru are also indicated. The number of dates available is given in parenthesis after the range in calendar years.



[1] see Haeberli 2001:91–92, dates are at the 1 sigma confidence interval

[2] see Görsdorf and Reindel 2002:154–155, dates are at the 1 sigma confidence interval, the Nasca 3 samples Erl-3092 and Bln-5239, and Nasca 5 sample Erl-3090 were not included

[3] see Vaughn 2004:76, dates are at the 1 sigma confidence interval

[4] see Shimada 1994:124–126

Figure 15.1. Proliferous Nasca style textile G1-2, dated AD 140–390 (95%). Private collection. (See also Color Plate 6.)

the scarcity of decorated heartland Nasca textiles, iconographic comparisons have been based primarily on Nasca pottery designs. However, it is clear that the unusual textiles differ in specific details from Nasca heartland representations, and I will discuss the most pertinent aspects of these iconographic contrasts. To begin, the unusual textiles were divided into four groups based on stylistic, iconographic and thematic similarities/differences among themselves and the art of the Nasca heartland. Presence and absence of proliferous elements, particularly the quartet ray and its variations, played a particularly important role in classification.

A number was assigned to each style group, based on temporal ranges, with Group 1 (Figures 15.1, 15.2) being the oldest and Group 4 the most recent. Group 2 (Figure 15.3) is characterized by the absence of the distinctive quartet ray element while it is present in Group 1 as well as Group 3 (Figures 15.4, 15.5, 15.6, 15.7, 15.8, 15.9) and Group 4 (Figure 15.10). To facilitate my discussion I employ the abbreviations G1, G3 and G4 for Groups 1, 3 and 4 of the unusual Proliferous Nasca style textiles, and G2 for Group 2 that includes the only unusual Nasca style textile lacking proliferous elements that I know.

Certainly the most salient of the proliferous style design elements is the quartet ray, defined by Roark (1965: 16, fig. 34). Among textiles in Groups 1 and 4 we observe the two traditional Nasca heartland quartet ray variants, namely those with and without the spike between the two adjacent volute rays with the volutes not facing each other (Silverman and Proulx 2002: 154). In the text the generic name for these two variants will be quartet ray. Modifications of these two quartet rays

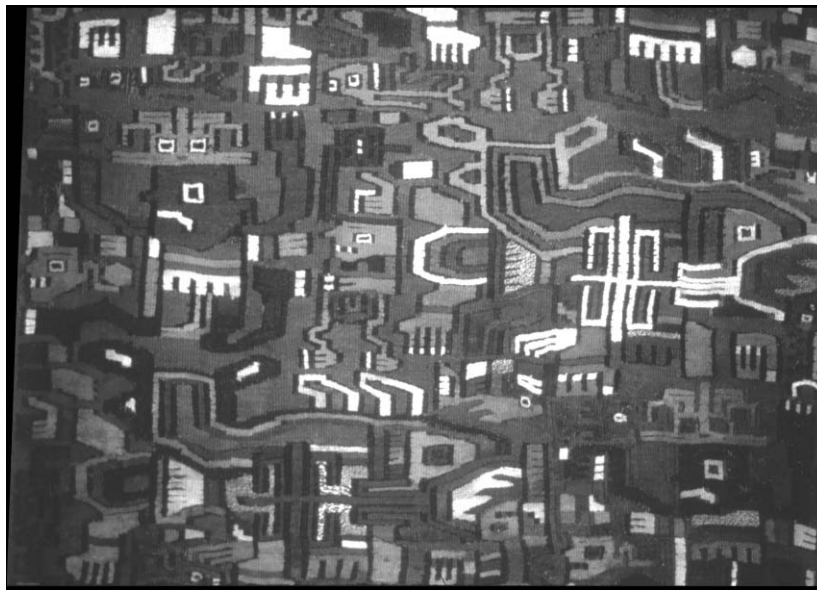


Figure 15.2. Proliferous Nasca style textile G1-3. Private collection. (See also Color Plate 7.)

predominate in Group 3, namely quartet rays having in their center two squares with or without dots, like two eyes with and without pupils. The term I employ to distinguish these two modifications is quartet rays with and without eyes. In Groups 3 and 4 we occasionally discover a quartet ray with only one eye. Quartet rays with eyes apparently were the prototype for the mouthmask with a single dot in the middle of two quartet rays represented on a Nasca 7 pot from the Acarí Valley

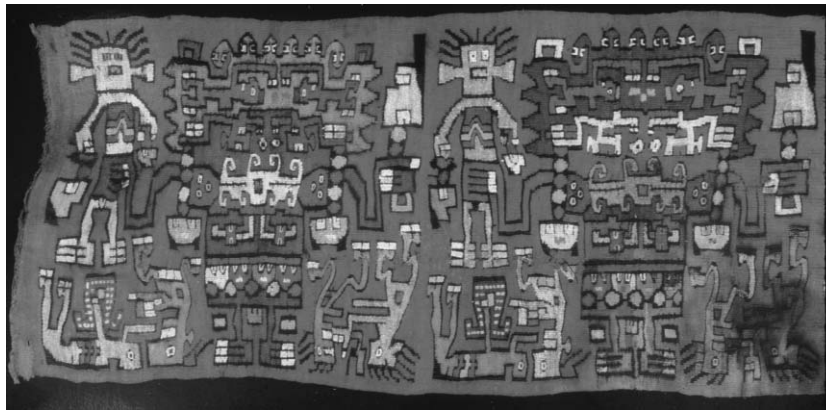


Figure 15.3. Nasca style textile G2-1, dated AD 140–400 (95%). Private collection. (See also Color Plate 8.)

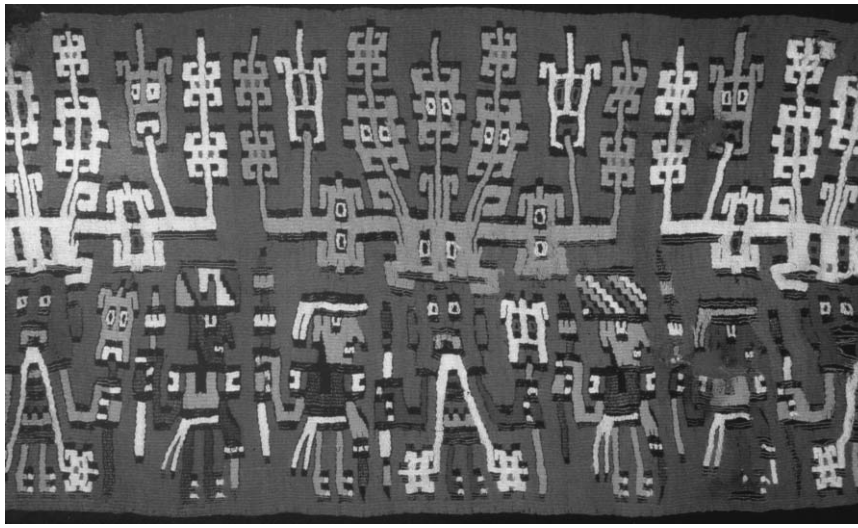


Figure 15.4. Proliferous Nasca style textile G3-2, dated AD 240–420 (95%). Private collection. (See also Color Plate 9.)

(Lothrop and Mahler 1957: fig. 4; plate 2b), which suggests influence from valleys farther to the south. Humans and anthropomorphs occur on textiles in Groups 1, 2 and 3 but so far have not been observed among the weavings of Group 4.

Perhaps equally important features of the proliferous Nasca style are forehead ornaments and mouth masks; these become remarkably complex in G1 and G3 textiles, with G3 examples almost overwhelming. In addition, there is a predilection for linking various motifs by narrow bands in G1 and G3 textiles or appending them to a tongue emerging from an open mouth in G3 fabrics. Before undertaking descriptions of each of the four groups of unusual Nasca textiles I want to introduce forehead ornaments, mouth masks and emanations from mouths, comparing the unusual iconography with art from the Nasca heartland as well as Topará style examples from Paracas Necrópolis.

Forehead Ornaments

Forehead ornaments consist of a face with whisker-like laterals as well as uprights. In the Nasca heartland from Nasca 1 to Nasca 5 these forehead ornaments are simple while in Nasca 6 and 7 they become complex and proliferous. Especially among these latter, the whisker-like uprights may become jagged rays (see Doyon, this volume, for discussion and illustrations of proliferous Nasca iconography from the heartland, including jagged rays or staffs; see Figure 13.1a), quartet rays, volute rays and tridents. Hanks of hair are sometimes attached to these whisker-like rays and tridents. The whisker-like uprights of G3 forehead ornaments differ from heartland Proliferous Nasca ones in that they become elongated bands that

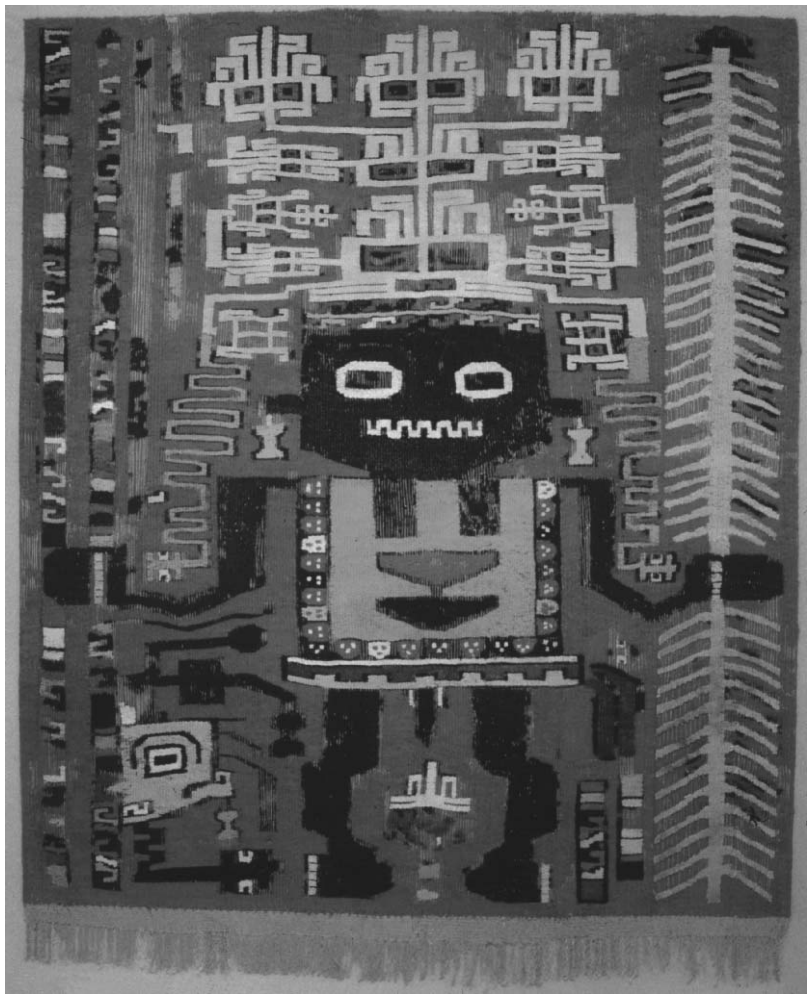


Figure 15.5. Proliferous Nasca style textile G3-3, dated AD 240–530 (95%). Private collection. (See also Color Plate 10.)

interlink one to five, but usually three quartet rays with eyes and/or proliferous heads. Furthermore, elements tend to be arranged orderly and in one to three spatial levels (Figure 15.5). Even lateral whiskers may interlink proliferous elements (Figures 15.5, 15.7; Frame 1999: plate 21). The weavers of these G3 textiles demonstrate great creativity using a rather limited number of building blocks to construct such elaborate forehead ornaments and mouthmasks (see below). They demonstrate an admirable sense for spatial symmetry and balance.

Forehead ornaments among G1 and G3 textiles are worn by Anthropomorphic Mythical Beings (AMBs) (Figures 15.1, 15.7), AMB heads (Figure 15.8), humans

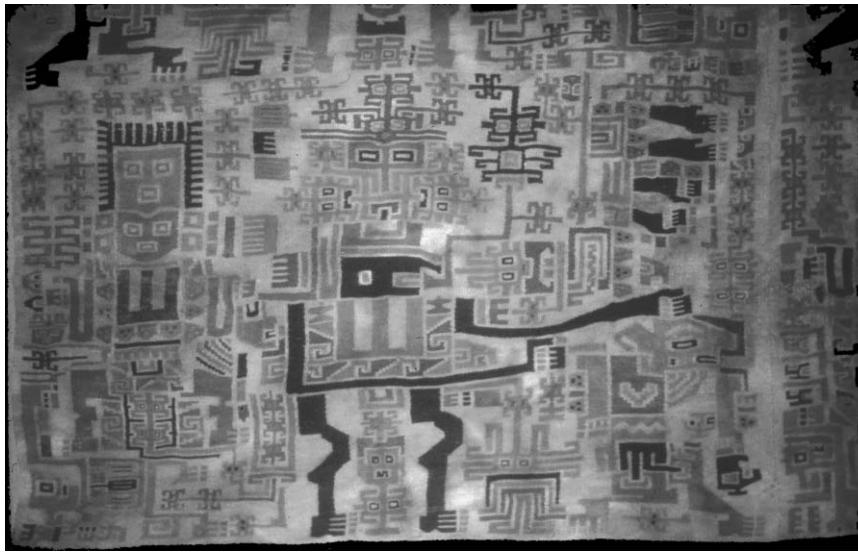


Figure 15.6. Proliferous Nasca style textile G3-4, dated AD 350–550 (95%). Private collection. (See also Color Plate 11.)

(Figure 15.4; Frame 1999: plate 23), animal-like creatures (Figure 15.1) and decapitated human heads (Figure 15.9). They also occur as a single motif stacked one above another.

G1 forehead ornaments (Figures 15.1, 15.2, Frame 1999: plate 20) are simple and share similarities with those we observe among Nasca 2 textiles (Frame 1999: plates 16, 17, 18; Haeberli 1995: brochure; Sawyer 1997: 80–1). G3 forehead ornaments (Figures 15.5, 15.7, 15.8, 15.9; Frame 1999: plates 21, 23) by comparison are complex and proliferous and resemble Nasca 6 forehead ornaments worn by Anthropomorphic Mythical Beings (AMBs) (Anton 1972: fig. 50; de Bock 1992: 148; Donnan 1992: figs. 92, 94; Roark 1965: fig. 62) and AMB heads (Blasco Bosqued and Ramos Gómez 1986 [1]: 58). It is noteworthy that jagged rays and hair hanks that first appear in Nasca 5 iconography are not represented among the unusual Proliferous Nasca style textiles.

Mouth Masks

In the literature, Nasca style representations of human figures wearing both a mouth mask and a forehead ornament tend to be labeled supernaturals, AMBs or ritual specialists under the influence of mind-altering substances. Basic or uncomplicated mouth masks consist of a center section with whisker-like laterals, indication of nostrils and an opening in the middle to reveal a mouth. The more complex ones, in addition to laterals, may have diagonals as well as uprights. In Topará textile iconography, contrary to forehead ornaments, mouth masks are infrequent.

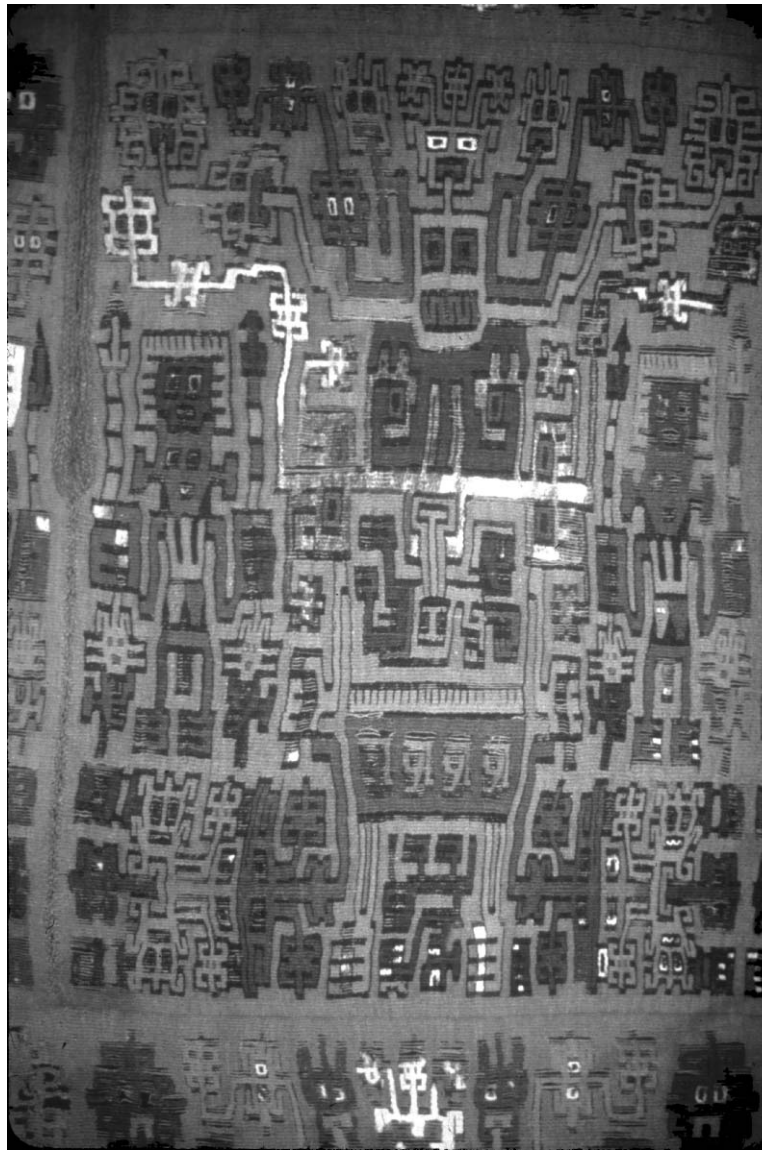


Figure 15.7. Proliferous Nasca style textile G3-5, dated AD 430–640 (95%). Private collection. (See also Color Plate 12.)

Early and Middle Nasca mouth masks are uncomplicated in form (Proulx 1968; Roark 1965) compared to Late Nasca examples, although a whisker-like upright extension partially encircling the eyes does occur in Nasca 1 and 2 pottery (Silverman and Proulx 2002: 28; Wieczorek and Tellenbach 2002: fig. 2.2) and textiles (Haeberli 1995: brochure) while mouth masks were also fashioned in gold (Sawyer

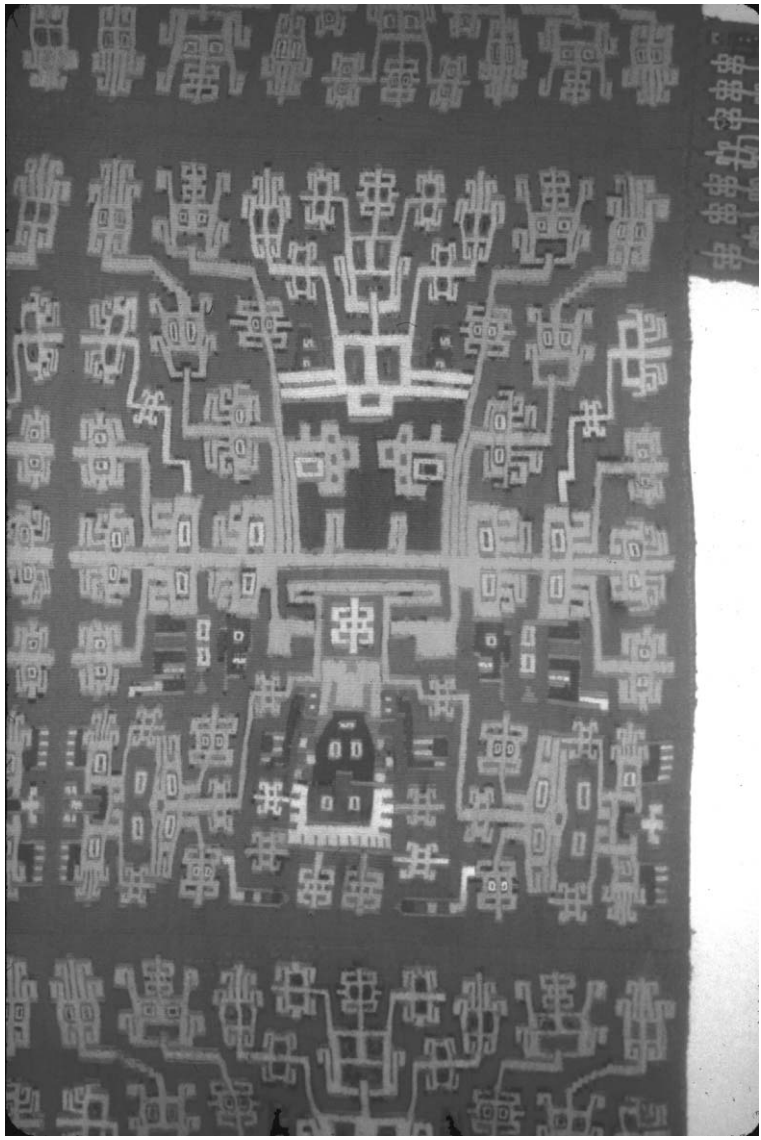


Figure 15.8. Proliferous Nasca style textile G3-6. Private collection. (See also Color Plate 13.)

1997: 53). Whisker-like laterals from Nasca 2 onward have dots or short lines for eyes and mouth but change drastically with Nasca 6 into larger proliferous heads with open eyes and mouth (de Bock 1992: 148; Donnan 1992: 53; Lapiner 1976: 212; Roark 1965: fig. 37; Silverman and Proulx 2002: 154; Stierlin 1984: fig. 112; Wieczorek and Tellenbach 2002: 166). Particularly during Nasca 3–4 the portion above the mouth can be closed or splayed open.

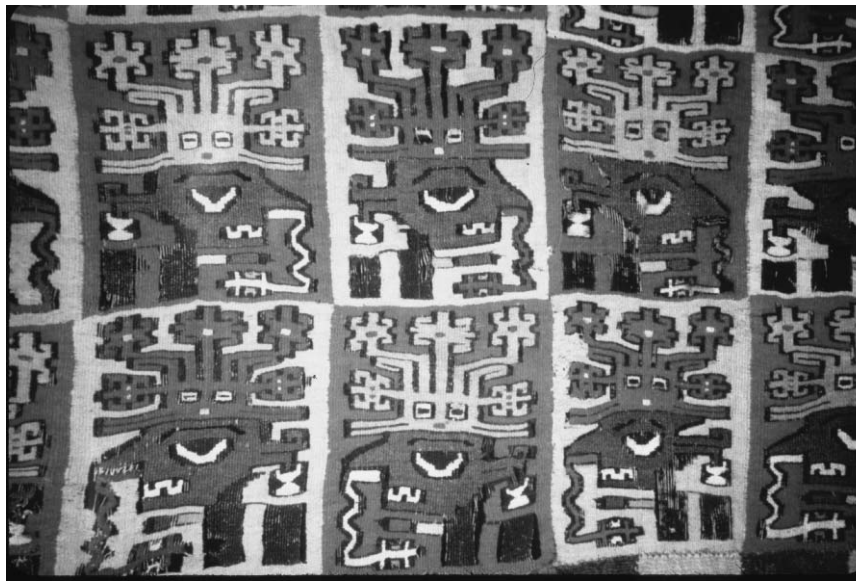


Figure 15.9. Proliferous Nasca style textile G3-7, dated AD 430–640 (95%). Private collection. (See also Color Plate 14.)

Among the unusual proliferous textiles, only anthropomorphs or AMBs in Groups 1, 2 and 3 wear mouth masks and they invariably wear a forehead ornament as well. These mouth masks relate to Nasca heartland specimens, although differences occur. A unique example includes one rendered in profile and worn by an anthropomorphic fish (Figure 15.2) and another is certainly very unusual (Figure 15.3). All of these masks have the section above the mouth closed, except for one with its middle splayed open (Bennett 1954: fig. 72). The laterals can be whisker-like but more frequently are proliferous heads with or without a jaw (Figures 15.1, 15.7, 15.8; D'Harcourt 1962: plate 7; Frame 1999: plate 20), although combinations of a head and whisker-like lateral extensions also occur (Berenguer 1996: cover; Frame 1999: plate 21).

Among G1 and G3 textiles the diagonal and vertical whisker-like extensions, one of which may partially encircle the eyes, end in different elements (Figures 15.1, 15.7, 15.8; Berenguer 1996: cover; D'Harcourt 1962: plate 7; Kajitani 1982: fig. 53). The vertical thin band-like uprights can have up to three sequentially interlinked elements such as quartet rays with eyes and proliferous heads with a mouth or implied mouth (Figure 15.8), creating two or three levels of stacked elements. Infrequently five levels of stacked elements occur (Bennett 1954: fig. 72). In the middle of the mouth mask's upper portion there is frequently a set of two short upright volute rays with the volutes facing each other giving the impression of nostrils (Figures 15.1, 15.7, 15.8) which is also typical of Nasca 6 heartland examples. As among forehead ornaments, we occasionally see decapitated heads attached to bands and elements of mouth masks (Figure 15.8).

Emanations from the Mouth

Group 1 and particularly Group 3 figures have appendages emerging from the mouth, hanging downward either over or from below the mouth mask. With Group 1 these appendages are long bands or strands (Figure 15.1; Frame 1999: plate 20). Linked along the appendage or at its end are traditional quartet rays and motifs difficult to identify, or an animal-like creature. Similar band-like appendages are present among figures represented on EIP 1B and EIP 2 Topará textiles from Paracas Necrópolis (Paul 1991: fig. 5.6; Peters 1991: fig. 7.86) as well as Nasca 1 and 2 pottery and textiles (Haeberli 1995: brochure; Silverman and Proulx 2002: fig. 2.5; Wieczorek and Tellenbach 2002: fig. 2.2). Among these south coast examples the appendages are serrated bands ending in motifs, while in G3 textiles there is significant variation in the objects linked to a tongue-like appendage or short band emerging from a mouth. Among the elements observed are quartet rays (Reid undated: 24), quartet rays with eyes, plus or minus pupils (Figure 15.8; Berenguer 1996: 3, cover; de Lavalle 1989: 55; Kajitani 1982: fig. 53) and a motif resembling a head without a mouth and lower jaw wearing a simple forehead ornament and bangles (D'Harcourt 1962: plate 7) [Endnote 3]. In one example a tongue pierces the chest of a human positioned horizontally below the supernatural's head, reminiscent of a Topará (Paracas Necrópolis) theme (Peters 1991: fig. 7.84). Another example has a snake emerging from an AMB's mouth gripping the chest of a horizontally positioned human (Figure 15.7). Others have a human linked to a band emerging from a supernatural's mouth, either headfirst (Figure 15.8) or feet first. From the mouth of a front-view figure, apparently a human (Figure 15.4), two long bands emerge and fall to the figure's feet, where they end in quartet rays with eyes minus pupils. Long narrow bands interlinked with quartet rays with eyes emerge from the mouth of two humans (Figure 15.6). They give the impression of being a symbolic representation of a message. Similarly, an animal, possibly a deer, has a horizontal appendage emerging from the mouth (Figure 15.1, bottom center). Examples of bands interlinked with elements, like quartet rays, emerging from the mouth of a human (La Farge 1981: 67) or Mythical Monkey also occur in Nasca 6 and 7 iconography, but infrequently. A short tongue particularly diagnostic of Nasca 3–5 AMBs is unknown among G1, G2 and G3 textile iconography.

Group 1 (G1) Textiles

Each textile description lists the group number followed by a dash and a sample number. A brief technical description follows, and then reference is given to illustrations, if available. Quartet rays define G1 textiles (Figures 15.1, 15.2; Frame 1999: plate 20; Haeberli 2001: fig. 19) and the earliest example is dated AD 130–380. Textiles G1-1 and G1-2 share a similar theme and approximate age. All three Group 1 textiles have representations of fish. Textile G1-3 has an anthropomorphic fish as a primary figure and all three textiles have fish as secondary figures. Fish as secondary figures occur among Topará EIP 1B and EIP 2 textiles together with representations of anthropomorphs (Paul 1990: plate 15; Peters 1991: figs. 7.4,

7.86) and seabirds (Paul 1990: fig. II 26; Peters 1991: fig. 7.31). In Nasca 1–5 iconography fish are frequently secondary figures, particularly among figural pots of fishermen (Eisleb 1977: figs. 36–38; Della Santa 1962: figs. 62–65; de Lavalle 1989: fig. 84), associated with anthropomorphs (Blasco Bosqued y Ramos Gómez 1986 [1]: 31, 216, 219; Seler 1923: fig. 46d) and seabirds catching fish (Della Santa 1962: plates 1, 4, 5). All three G1 textiles have representations of running figures. This is significant for Nasca iconography tends to be static and movement such as running is rare until Nasca 7, when warriors in particular tend to be represented running (Rickenbach 1999: 320–22). Proulx (1994) attributes this dynamism to Moche influence, however, the clearest case for movement in early EIP iconography is seen in type-site Pukara pottery. Here the Feline Man always is shown leaning forward and running (Chávez 1992: figs. 204–211; Chávez 2002: figs. 2.8–2.10). A convincing Early Nasca example of movement occurs on a late Nasca 2 or early Nasca 3 textile (Sawyer 1997: 62, figure No. 7).

Textile G1-1, fragment, 32 × 36 cm, camelid fibers, embroidery on plain-weave, AD 130–380 (Frame 1999: plate 20; Haeberli 2001: fig. 19). This decoration involves a primary figure associated with secondary figures, some of them attached to the primary figure by narrow bands of interlinked quartet rays. At present it is the earliest known example of quartet rays; in this time period they were unknown on the south coast. The represented theme is derived from Nasca 2 textile iconography (see Frame 1999: plates 16, 17, 18; Rowe 1972: figs. 1, 2, 3). This forward-leaning primary figure, an AMB, is running. As discussed above, movement is rarely represented in Early Nasca art. The AMB wears a large and impressive locally invented proliferous mouth mask and from its mouth emerges a band with an interlinked quartet ray and two attachments difficult to identify, all with similarities to Nasca 2 iconography, although Nasca 2 lacks proliferation. The forehead ornament's center upright and one set of the mouth mask's diagonal whiskers end in a jaw-less proliferated and unusual head with offset eyes (Unusual Head-1, or UH-1). Similar heads are present in Nasca pottery, for instance a non-proliferous example on the upper left side of a Nasca 2 panpipe (Rowe 1985: fig. 365) and proliferous ones on Nasca 5 (Freivogel 1984: 297) and Nasca 7 examples (Blasco Bosqued and Ramos Gómez 1986 [1]: 75; Lothrop and Mahler 1957: fig. 4 and plate 3b).

On the textile panel's left side we see another proliferous head (UH-2), clearly related but larger in size. Three bands emerge from its mouth and they end in quartet rays; the middle band links with one of the AMB's mouth mask lateral's long bands with quartet rays. A pair of anthropmorphic animals, in profile and situated above the primary figure, face each other with two upside-down fish and the UH-1 in between. The anthropmorphic animals have two antler-like appendages above their heads giving the impression of deer. Each holds a staff ending in a trident. These anthropomorphic deer wear clothing and from their shoulders hangs the band that ends in a quartet ray and links with one of the AMB's mouth mask lateral's long bands with quartet rays. Across the panel's top section is a serpentine creature with a feline head and paws, analogous to Early Nasca's Serpentine Creature (Blasco Bosqued and Ramos Gómez 1986 [1]: 145–180; Proulx 1968: 19). The head has a mouthmask and from the mouth a quartet ray emerges. Attached to the head is an

undulating snake-like body with right-angled triangles as spikes and ending in a fish-like tail. The band within the body has repeated a simple geometric design. Above the unusual UH-2 head is a cluster of narrow bands, some terminating in what appear to be severed limbs ending in finger- or toenails, similar to what we observe later among G4 textiles.

Textile G1-2, one of four corner panels, 40 × 38 cm, embroidery in camelid fibers 2Z into S on plain-weave in camelid fibers S, AD 140–390 (Figure 15.1). This theme involves a forward-leaning primary figure, an AMB, surrounded by a multitude of secondary figures, some of them linked to the AMB through narrow bands with quartet rays. The AMB's posture, the large and impressive proliferated mouthmask and forehead ornament are similar to those of textile G1-1. The AMB wears a tunic and a breechcloth and over his back falls what could represent a mantle with a fish design. This mantle is analogous to an Early Nasca heartland AMB's signifier. As with textile G1-1, below the mouth mask we see arms emerging from the tunic's fringed epaulets. One hand holds a staff with appendages and the other hand a knife with an obsidian blade.

Most of the secondary figures are difficult to identify or interpret. Some appear human-like and others animal-like. Since their heads differ they represent eight different protagonists. Some could be costumed humans with animal-like masks or anthropomorphized animals, like a fish (top right). The rendering of arms and legs frequently suggests movement; at least two apparently are running. Some wear forehead ornaments and mouth masks or hold different items, like a decapitated head, a staff ending in proliferous elements, a fish at the end of a band issuing from the mouth is observed twice. We see three free-floating small-size fish, one decapitated head and a hand holding a knife with an obsidian blade.

There is a strong stylistic, iconographic and thematic similarity between textiles G1-2 and G1-1. Both textiles use embroidery. Represented is the same main protagonist in slightly different guises. Some secondary figures and elements reoccur. Particularly noteworthy is linking of figures through bands, a multitude of quartet rays and the presence of fish. The initial urge is to relate the iconography of both textiles with that on three Nasca 2 textile fragments (Frame 1999: plates 16, 17, 18; Rowe 1972: figs. 1, 2, 3) and one Topará EIP 2 mantle from Paracas Necrópolis (Peters 1991: fig. 7.86). These south coast textiles show a primary figure, linked through bands or appendages, to several secondary figures that differ from those of the two G1 textiles. However, this kind of linking to several secondary figures appears primarily in EIP 2 south coast iconography.

Textile G1-3, height of running male 15.5 cm, slit tapestry, warp (vertical, 7/cm) beige colored camelid fibers 2Z into S, weft (22/cm) camelid fibers 2Z into S (Figure 15.2 detail). Mixing of colored yarns (chimi) was noted. For example: 1 white Z and 1 brown Z into S, and while spinning mixing some red fibers with white fibers to yield pink 2Z into S. An anthropomorphic shark and two humans are represented in profile, a position that is infrequent in Early Nasca iconography. They are arranged in four superimposed rows. The shark and one human face each other in the top and bottom rows, while in the middle two rows the shark and two humans face in opposite directions. Contrary to the killer whale with a single dorsal

fin, the shark has two dorsal fins, gills and its mouth is open, showing serrated teeth, below which is an upside-down decapitated head in profile. At the corner of the shark's mouth is a trident that terminates in a large quartet ray, suggesting a mouth mask in profile, a rarity in Nasca style iconography. Below the shark's body with its upturned tail we see two hands, the fringed bottom of a tunic, a breechcloth and two legs in a running position. In the two middle rows, behind the shark and below its upper foot is a small human figure wearing a breechcloth. The man's mouth is open and shows teeth. The vertical band above the upper front portion of his head ends in a quartet ray with eyes. A larger human wearing a forehead ornament, a fringed tunic with epaulettes and a breechcloth is represented either in front of this smaller man or facing the shark. He is shown running and his down-turned mouth gives him a mean-looking expression. If intended, it would be one of the rare cases in Nasca style iconography that emotion is shown. In front of him the man holds a decapitated head with open mouth, showing one row of teeth and we observe a round ear ornament. In addition, small fish are interspersed between the other figures. In the top and bottom rows a unique element somewhat similar to a quartet ray having multiple eyes is positioned behind the shark.

Group 2 (G2) Textiles

Presently this group consists of only two specimens, apparently fragments from the same textile. Quartet rays are absent. Both examples have the same theme. Although the figures tend to be rectilinear, interactions and movement are represented. Topará and Nasca 1-4 iconography tends to be static and figures are arranged as though in a lineup or procession. Most give the impression of either standing or walking, although there are a few exceptions. Interaction, equally rare, is represented on a Nasca 2 panpipe where two falling men will apparently join three men in a row below them (Rowe 1985: fig. 365). In this row the front man has his arms outstretched and carries a staff, while each of the two men behind him have their outstretched arms on the shoulders of the man in front. Another case of interaction among figures involves a Nasca 2 textile where a woman and a man hold a forehead ornament between them and their own forehead ornament's laterals are joined (Sawyer 1997: 110). The same iconography is represented on a Topará textile where two figures are linked, but only through the forehead ornament held between them (Paul 1979: 43, plates 27, 38; Sawyer 1997: 111). In Nasca 5, interactions become more frequent, such as among musicians (Silverman and Proulx 2002: 203, 216), or a person scooping something from a large vessel surrounded by others carrying cups (Ubbelohde-Doering 1926: plates 1, 3, 4). Still more interactions among figures occur in Nasca 7, especially warriors (de Lavalle 1989: 184; Rickenbach 1999: 321; Silverman and Proulx 2002: 232).

Textile fragments G2-1 and G2-2, width of band 23 cm, interlocking tapestry, warp (horizontal, 10/cm) brown camelid fibers 2Z into S, weft (22/cm) camelid fibers 2Z into S, AD 140–400 (Figure 15.3 detail). The iconography of both fragments is the same, except for minor variations in coloring, and as pointed out above, the two fragments probably come from the same textile. Repeated horizontally is a theme in which a primary figure is associated with five secondary human figures,

decapitated heads and what appears as a large vessel. Some of the theme's details occur in Nasca 3 to 5 iconography (relevant literature referenced below, in parentheses). The primary figure, an AMB, is represented in front view and upright. Both his face-mask and head cover are unique and unusual. The AMB wears a tunic and apparently a breechcloth. Two serpents with L-shaped tongues decorate the tunic's upper portion and four decapitated front-face heads in a row the lower. The unique face-mask is flanked by decapitated front-face heads, linked through their chins like extensions. The head cover is rather complex. Six snakeheads adorn the upper portion (Freivogel 1984: fig. 6.9; Seler 1923: 187) while the lateral section has a serrated edging. Above and at the edges of the lateral section are ears, best interpreted as feline. Within the head cover are two rows of humans. The bottom row is composed of the upper portion of two facing but inverted humans with outstretched arms. The hind arm hand gives the impression of holding a decorated staff supporting an upturned decapitated head. This staff and head at the same time are the bangles on a strand ending in a head hanging from the bottom of the head cover's sides. The upper row has two horizontal head to head humans with the front arm raised above the head. The AMB's arms are flexed and one hand holds a front-view human wearing a breechcloth, so presumably male (Blasco Bosqued and Ramos Gómez 1986 [1]: 23, 25; de Lavalle 1989: 132; Ubbelohde-Doering 1926 (2): plates 1, 4; Freivogel 1984: fig. 6.9; Seler 1923: 243), who has uniquely large triangular-shaped ears. Strands of hair, possibly braids, surround his upper head (Seler 1923: 184) and he holds a decapitated head in each of his hands. His chest shows its ribcage, generally a sign of death so this male is probably an ancestor (Blasco Bosqued and Ramos Gómez 1986 [1]: 25; Freivogel 1984: fig. 6.9). The AMB's other hand grasps a staff or hair strand with bangles above which is an inverted front-face decapitated head.

Flanking the lower right side of the AMB, and represented upside-down, are two facing human figures shown in animated action with outstretched arms. In one instance one set of arms are interlocked, suggesting a scuffle. To the lower left side of the AMB, and again represented upside-down, are two human figures. The one with chest ribs showing, leans over a large vessel and has one arm inserted into it. It appears this person, possibly an ancestor, is scooping either a liquid or solids into a cup. The other human is running toward this person with a cup. The motifs of two scuffling humans and of one apparently scooping a liquid from a vessel are present in Nasca 5 iconography (Ubbelohde-Doering 1926 [2]: plates 1, 3, 4; Wieczorek and Tellenbach 2002: 219).

Humans with their rib cage showing are interpreted as being dead rather than emaciated (de Lavalle 1989: fig. 204). Analogous to Moche iconography, skeletons or death figures are shown in animated action; they are alive in their own world (Donnan 1978: 110–11; Donnan 2001: 104) and may interact with the living.

Group 3 (G3) Textiles

Group 3 is the most numerous group among the unusual Proliferous Nasca textiles, with 39 examples. Motifs, figures and designs are mainly rectilinear. Quartet rays with eyes, plus and minus pupils, define G3 textiles. Considerably less numerous

are those with only one eye. Quartet rays with eyes are not seen in Nasca heartland iconography. The temporal range of five radiocarbon dates is AD 240–640. Although this is a rather extended time period, further seriation of these textiles is still premature.

A front-face AMB head with a highly proliferated mouth mask and proliferated forehead ornament is this group's most frequent motif (59%); nothing comparably proliferous is known in Nasca heartland pottery or textile iconography. Unfortunately, no dates for these AMB heads are available. Beneath this AMB's head can be two hands, each holding a decapitated head. A tongue-like appendage emerges from the mouth and within it or linked to it are different elements or motifs. Examples are a head with a forehead ornament and bangles (D'Harcourt 1962: plate 7), a quartet ray (Reid undated: plate 10), a quartet ray with eyes (Frame 1999: plate 21 shown upside-down; Kajitani 1982: fig. 53), a snake or a human. In the latter case either emerging headfirst (Figure 15.7) or feet first from the mouth, or the tongue pierces the chest of a human stretched horizontally below the AMB's head. At times above the AMB's head is a tunic, a loincloth, feet and additional decapitated heads (Berenguer 1996: front cover, for a similar heartland example see Silverman and Proulx 2002: 154). In the sample there is one example of a full front view AMB (Figure 15.7). Themes are formed by the addition of secondary figures like humans and llamas by the head's sides or below. Other motifs are stacked forehead ornaments, decapitated heads (Figure 15.9) and humans holding staffs (Figures 15.4, 15.5; Frame 1999: plate 23). Interactions and relationships between figures are implied, although interpretations remain controversial at best. An exception is a man with outstretched arms grasping a smaller running human with one hand (Figure 15.6).

Textile G3-1, sleeveless tunic with fringe, 149 × 123 cm, camelid fibers, slit tapestry (Frame 1999: plate 23). A front-view human is represented 16 times and the body color alternates between red and blue. The elongated eyes are unusual, above which are arched eyebrows. The ears are upward folding scrolls from which hang hourglass-shaped ear pendants. Scrolled ears (Blasco Bosqued and Ramos Gómez 1991 [2]: 152; Rickenbach 1999: 335; Lothrop and Mahler 1957: plate III top) and hourglass-shaped ear pendants (Donnan 1992: 42; Lapiner 1976: 205; Rickenbach 1999: 289) appear and are found mainly on Nasca 5–6 pottery. The open mouth is an elongated rectangle showing teeth. The representation of teeth as a wavy white line is common in the unusual Proliferous Nasca style textiles and occurs occasionally on heartland pottery, as for example Nasca 3 (Lapiner 1976: 220) and Nasca 6 (Blasco Bosqued and Ramos Gómez 1991 [2]: 232; Wieczorek and Tellenbach 2002: 170). Absent is a mouth mask, but the person wears a two-level complex proliferous forehead ornament whose second level head lacks eyes, but from its mouth emerges a tongue that links with the middle upright of the lower head. The person wears a tunic with a step-fret design along its side and bottom borders. Hair falls in two strands over the upper portion of the tunic, a feature seen frequently among these unusual textiles and that also occurs in Nasca heartland ceramic iconography (de Lavalle 1989: fig. 185). The breechcloth first is horizontal and then turns downward to foot height. It is composed of quartet rays

interspersed with quartet rays with eyes (for comparison Eisleb 1977: 209; Roark 1965: fig. 65). Two linked quartet rays hang from below the groin. The figure grasps staffs in both hands, one composed only of quartet rays while the other consists of quartet rays for the upper portion but downward pointing barbs for the lower portion. This second staff ends in a point that may represent an obsidian blade or the root system of a plant. In heartland Nasca iconography it is particularly in phases 6 and 7 that we see humans wearing tunics with designs along the bottom and/or sides (de Lavalle 1989: figs. 185, 186; Rickenbach 1999: 315, 349) and holding staffs with proliferous elements (de Lavalle 1989: fig. 186; Lothrop and Mahler 1957: 11).

Textile G3-2, band fragment, width 18.5 cm, slit tapestry, camelid fibers, warp brown fibers (horizontal), AD 240–420 (Figure 15.4). Represented is a row of human figures, some taller than others. The taller figures are in front-view and they wear a typical proliferous forehead ornament that is much larger than normal. From the figure's open mouth emerge two long appendages that end in quartet rays with eyes without pupils. The length of the piece of clothing worn by this figure is longer than the tunics worn by the flanking men, but is somewhat shorter than those worn by Nasca 2 women (Haeberli 1995: brochure; Sawyer 1997: 110). In the absence of a breechcloth it is possible that a woman is being represented here. In the right hand this person holds a banded staff and in the left one a staff surmounted by a proliferous head. The men are represented more or less in profile and slightly smaller than the front-view person. They all face toward the right, wear two kinds of head covers and each wears a short tunic and a breechcloth. The hair falls in one strand over the upper portion of the tunic, a convention for representing people in profile. The men hold two kind of staffs and something else difficult to identify.

Textile G3-3, fragment, slit tapestry, warp off-white fibers (vertical), weft camelid fibers, AD 240–530 (Figure 15.5). The color of the male figure represented in dark green is unusual and clashes with that of the decapitated head in yellow. The eyes are ovoid and above them are eyebrows. The mouth is open and the teeth are shown as a white wavy line. The ears, now as rectangular appendages, have the popular hourglass-shaped ear pendants. Above one wide or two narrow headbands with a step fret design is a very complex three-level proliferous forehead ornament composed of proliferous heads. From each of the lowest forehead ornament's two proliferous heads dangles an undulating snake. In the middle of the figure's tunic are two stacked inverted triangles and the tunic sides and bottom border are lined with decapitated heads. Again we note the two strands of hair falling over the shoulders of the tunic. A band appears to be tied around the lower part of the body leaving the genitals exposed. The individual's arms are extended holding a feather spear tipped with an obsidian blade in one hand and in the other hand staffs with geometric designs. Associated with these staffs is a decapitated head. This head, rendered in profile, has a squarish eye with rectangular pupil. Above the eye is an arched eyebrow. Below the pointed nose is an open mouth showing teeth shown in the typical wavy white line. The ear is an upward turning scroll from which hangs the hourglass-shaped ear pendant. Below the chin of the decapitated head hangs

an undulating snake. Three strands of hair probably represent braids. Rising above the decapitated head are two bands, one with an ill-preserved quartet ray ending in an element similar to the hourglass-shaped ear pendant. Due to poor preservation of the textile, what is represented between the legs of the main figure is difficult to determine, but the preserved forehead ornament suggests a head.

Depending on what one takes as the Nasca 7 temporal range (see above), one to three centuries separate this textile from somewhat similar Nasca 7 representations of men holding or flanking a feather spear. There is one particular Nasca 7 pot with a sequence of four animated scenes involving men, feather spears, decapitated heads and weapons (de Lavalle 1989: 184). One scene shows a dark-colored man in manual combat with a light-colored man holding a feather spear. The second scene has the dark man chasing and grasping the hand of the light-colored man who still holds the feather spear. The third scene has a dark-colored man holding a light-colored decapitated head in front of him as he grasps a weapon or standard in the other hand. The fourth scene is similar to the third except the weapon is exchanged for a feather spear. The message conveyed seems to be a struggle between a dark-colored and a white-colored man. We have to assume the former decapitates the later in the end. Next we see the victor with the vanquished man's head and the feather spear appropriated through force. It is not evident if the feather spear actually is a functional weapon or one modified into a standard. The men holding feather spears tend to have a dark-colored body, to be running, and the scene usually includes spears flying through the air (Blasco Bosqued and Ramos Gómez 1991 [2]: 81; Rickenbach 1999: 321–23). There are exceptions and a more comprehensive study may be required to reveal more about the meaning of feather spears, the nature of interactions between differently-colored Nasca men and the ultimate fate of these combatants.

Textile G3-4, theme panel 60.5 × 36.5 cm, slit tapestry, warp (vertical, 8/cm) camelid fibers 2Z into S, weft (40/cm) camelid fibers 2Z into S, AD 350–550 (Figure 15.6 detail). This tunic is made in two, four-selvage sections with warps worn vertically, and sections sewn together leaving openings for head and arms. The tunic's front and backside has four theme panels arranged in two rows. The iconography represented on each panel is the same except for minor variations, coloring and direction some figures face. The colors are arranged diagonally and the main protagonist faces right in the upper panels and left in the lower. It is noteworthy that the figures and designs are not outlined in black as with other textiles. The iconography is very complex and proliferous. There are two themes, A and B, each with a primary and secondary figure.

In theme A the textile's center area is occupied by a primary figure, a human, whose arms reach forward apparently grabbing with one hand a smaller running human by the top of its head. This scene involving a running man being taken prisoner suggests Moche iconographic influence (Proulx 1994). The primary figure wears a short tunic and a breechcloth. His head, in profile, is directed toward the smaller human and so are his feet. His hair falls in two strands over his chest but is not colored black as we see in other examples. The man's tunic has a step-fret design along its side and bottom borders. He wears hourglass-shaped ear pendants

and a unique, overpowering head cover, an AMB head with a proliferous mouth-mask and a proliferous forehead ornament. From the man's mouth emerges a thin band to which are interlinked various proliferous elements, probably representing a symbolic message. Below the breechcloth and possibly attached to it is a decapitated front-face head linked above and below it to a quartet ray, the lower with eyes. Between the arms and linked to the tunic is a decapitated head. Between the primary figure's front leg and the back of the secondary figure is another unusual motif, a forehead ornament and directly below it is something difficult to interpret, possibly a wide-open, gaping mouth. What emerges from it is not readily evident. This motif is linked to the primary figure through an extension of the ornament's upright into a band to which is interlinked a quartet ray with eyes. Similarly, in front of the primary figure's head and above his upper arm is a forehead ornament and at its bottom is another object that defies identification.

The secondary figure probably is a foreigner, based on its clothing as well as the lack of a pair of hair strands over the shoulders. In one hand he holds a decapitated head and from his mouth emerge thin bands, one with interlinking quartet rays with eyes. The space above this secondary figure contains two pairs of severed hands, one in fists and the other with fingers extended. Decapitated heads, a comb-like element and quartet rays with eyes, surround the hands. Additional single sided comb-like elements are to be seen between themes A and B, discussed below. They are typical Siguas 3 elements so their presence suggests possible cultural influence.

Theme B involves a crouching front-view human as primary figure and the secondary figure is represented horizontally below it. This front-view human wears a tunic and a breechcloth. The fringed tunic has a decapitated head design along its side and bottom borders, while the breechcloth's design is a stepped scroll fret. One gets the impression of the breechcloth falling to the feet, between the crouched legs with the center panel composed of quartet rays with eyes and flanked by bands with the stepped scroll fret design. The hair falls in two strands over the chest, apparently the way most men wore their hair. The figure's headdress is a large human head that may be wearing a head cover. Similar headdresses are present among other unusual Proliferous Nasca style textiles (Figures 15.7, 15.8) and also occur on a Nasca 1 panpipe (Purin 1991 [2]: 141), among Nasca 2 textiles (Haeberli 1995: brochure; Sawyer 1997: fig. 91) and EIP 1B and EIP 2 Topará textiles from Paracas Necrópolis (Paul 1990: figs. 5.14, 7.58). However, a forehead ornament is worn together with these south coast head covers. Quartet rays with eyes surround the man's headdress and a band of interlinked quartet rays with eyes falls along one side of the head. On each side of the primary figure's head are two bangles. The man's arms are flexed and one hand holds a decapitated head in profile, while the other grasps a front-view head with a forehead ornament. The secondary figure below the primary one has no head cover, but apparently wears a tunic with an unusual design and no breechcloth is present. What this figure holds in its hands is variable, and in some cases difficult to identify, but in two instances it is a decapitated head. Perhaps the scrolled tail of this figure identifies it as a monkey, but this is debatable. Perhaps it alludes to an altered state of mind,

and, of course, it may stand for a metaphor whose meaning remains unknown to us.

Textile G3-5, design height 36 cm, slit tapestry, warp (horizontal, 8/cm) camelid fibers 1 white Z and 1 beige Z into S, weft (37/cm) camelid fibers 2Z into S, AD 430–640 (Figure 15.7 detail). This tunic was made from one rectangular, four-selvage textile with warps worn horizontally, and a slit woven in. Unusual features divide the length into four horizontal sections of about equal size through the use of two rows of slightly raised warps employed three times. The slit woven in is between the first and third row of raised warps. The upper and lower portion of this slit are sewn together to leave a neck opening which is reinforced through four stitches in cross-looping. The two rows of slightly raised warp are accentuated through some red weft yarns. Each side of the tunic has a theme arranged in two rows and represented eight times. The theme is rendered in two color schemes.

The theme's primary figure is a front view AMB who is flanked by two secondary, matching front-view humans, alike even in coloring. Between the legs of the primary figure, represented upside-down, is an even smaller human figure and due to its size is considered a tertiary figure. On the primary figure's chest there is another tertiary figure, a human in a horizontal position with upturned head and legs. The AMB wears a complex proliferous forehead ornament, a proliferous mouth mask, a short tunic with fringes and below it another garment with four severed profile heads as design. Below this garment we do not detect a breechcloth and although the gender is not evident it is possible that the figure is female. The arms extend along the body and each hand holds a band that links with the proliferous headband ornament of a small AMB head. This small AMB head is similar to illustrated examples (Frame 1999: plate 21). Below the small AMB's proliferous mouth mask are two hands and from its mouth emerges a quartet ray with eyes.

The two matched secondary figures wear a headdress, a short tunic with a decapitated heads design and a breechcloth. The hair falls in two strands over the chest. The headdress is a front-view head analogous to the one worn by primary theme B figure on textile G3-4, described above, except that these examples lack surrounding quartet rays with eyes. The matching figures' arms are flexed and from the top of each hand a staff emerges, that ends in an obsidian point. From below each hand hangs a decapitated head with a forehead ornament. The tertiary figure between the AMB's legs wears only a breechcloth. The ears are like those of the secondary figure, also employed on other representations. They stick out in the shape of a capital T; the stem may be shortened as seen in Fig. 15.4. The arms extend forward and each hand holds an unidentifiable object. From the AMB's mouth emerges a snake whose head pierces the chest of the second tertiary human figure who wears a breechcloth. Attached to his upper chest is a decapitated head. The U-shaped, distorted body position of this tertiary human figure is unusual and rare. Although separated by centuries in time, there are certain similarities between this tertiary figure and the Falling Figure or Ecstatic Shaman of Topará textiles from Paracas Necrópolis (de Lavalle and González 1989: 67; Peters 1991: 305).

Peters' illustration is particularly relevant, representing an individual grasping a Falling Figure, with its tongue touching the latter's ribcage.

Textile G3-6, design height 43 cm, slit tapestry, warp (horizontal, 9.5/cm) camelid fibers 1 white Z and 2 brown Z into S, weft (44/cm) camelid fibers 2Z into S (Figure 15.8 detail; Frame 1999: plate 22). The construction of this tunic is analogous to that of textile G3-5 except the slightly raised warps are not accentuated by a color-contrasting weft yarn. The tunic has fringed epaulettes whose dimensions are too small for short sleeves. Each side of the tunic has a theme arranged in two rows and represented eight times. This theme is rendered in two color schemes.

The theme's primary figure is an AMB head wearing a proliferous forehead ornament and a rather complex proliferous mouth mask. Attached to the top side of each of the forehead ornament's laterals is a decapitated head. The mouth mask's laterals have three levels of proliferous heads lacking a mouth and a jaw. Attached to the bottom side of the first proliferous head is a decapitated head, and to the bottom side of the second proliferous head are two bangles attached to a strand of hair, and a hand holding an object that cannot be identified. From the AMB's mouth emerges a wide tongue-like appendage in whose center is a quartet ray with eyes and to which is linked the upper portion of an upside-down human with upraised arms. The human's headdress is a large human head that wears a head cover to which are linked six quartet rays with eyes, similar to the one worn by the primary theme B figure of textile G3-4 (Figure 15.6). However, this head headdress lacks a mouth, a feature observed on other icons, not illustrated. A similar headdress is represented on a Nasca 7 pot from the Tunga Valley, which suggests Arequipa influence, although the quartet rays lack eyes (Rossel Castro 1957: 157). The AMB's wide tongue-like appendage is framed by bands that extend to link with small proliferous AMB heads, analogous to ones on textile G3-5 (Figure 15.7). On the bottom of these heads' proliferous mouth masks are two hands, and from the mouth a trident-like element emerges.

Textile G3-7, design height 17.5 cm, slit tapestry, warp (vertical, 13/cm) white cotton 2Z into S, weft (35/cm) camelid fibers 2Z into S and white cotton 2Z into S, AD 430–640 (Figure 15.9 detail). The tunic is made in two four-selvage sections with vertical warps, sewn together leaving openings for head and arms. Attached to the tunic are fringed epaulettes and a fringed band across the bottom. Each tunic section includes 18 decapitated profile heads, all very similar and wearing a proliferous forehead ornament. They are arranged in three horizontal rows. The color of the heads alternates between blue and green, so all heads along a diagonal have the same color. The background and forehead ornament color respectively is yellow and red for blue-colored heads and these colors reverse for green heads. The pupils are attached to the upper eyelid of semicircular eyes, a sign of death. Above the eyes are arched eyebrows. The mouth is open, exposing teeth rendered in the typical wavy white line. Emerging from or below the nose is an undulating snake. From the somewhat horizontal proliferous ear hangs an hourglass-shaped ear pendant. The two strands of hair, usually falling over the chest, are indicated.

From one of the hair strands below the chin a horizontal object difficult to identify emerges.

The direction faced by the heads differs from row to row, up and down the garment. On one side of the tunic, in the first or upper row, the heads face towards the center, which is to say that the two middle heads face one another, and their orientation is duplicated by the heads behind them. The second row of heads all face toward the right while all heads in the third row face left. On the other side the first and third row heads face away from one another, which is to say that the pair of right-hand heads face right, and the pair of left-hand heads face left. The heads in the second or middle row face toward the center. Represented on each epaulette is a human figure much like that of textile G3-1 (Frame 1999: plate 23). The band's design are two intercalated stepped frets involving ascending and descending steps, like stepped platforms, with a color change in the middle of the top and bottom step. This stepped-platform design is rare in Nasca iconography, but common with Siguas 1 and 2.

Group 4 (G4) Textiles

Group 4 includes nine examples. By definition they are Siguas 3-Nasca tradition textiles, that is Siguas 3 iconography with Nasca quartet rays, some with a single eye (Haeberli 2001: 112–16; for other examples see de Lavalle 1989: 54; Goodman Nov. 1990: lot 24; Manning June 1996: lot 3633). Frequently limb-like designs with and without finger/toenails are represented.

Textile G4-1, camelid fibers, slit tapestry, AD 336–606 (Haeberli 2001: fig 20). The iconography is a mixture of Siguas 3 designs and traditional quartet rays.

Textile G4-2, width of center band 16 cm, slit tapestry, warp (horizontal, 6/cm) cotton 2Z into S, weft (33/cm) camelid fibers 2Z into S, AD 540–660 (Figure 15.10, detail). Figure 15.10 shows details of three bands from a tunic having five bands on each side. These three bands will be designated upper partial band, middle band and lower partial band. The iconography of the middle band is Siguas 3-Nasca, while that of the partial bands is Siguas 3. The interlinking among designs in the middle band is typically Siguas 3 as is the limb with nails on the right side of the illustration. But the quartet rays are Nasca, while the interlinked tridents, linking of two or more tridents through the middle upright, occurs with Siguas 3 and Nasca 7 (Berenguer 1996: 99). Below the lower partial band is a second band similar to the illustrated middle one. Both partial bands have zigzag striping. This zigzag design and the basic sequence of colors red-green-yellow-dark blue is typically Siguas 3 (Haeberli 2001: 112–16). As frequently is the case, the initial color can be any of the colors in the basic sequence. Such a sequence may be interrupted to start a new one by selecting a different color from among the four, at times achieving pleasing visual symmetries, as is the case with textile G4-2. The tunic's bottom band (not shown) with geometric designs in red and yellow outlined in dark blue is typical for Siguas 3 border bands, although outlining in brown is more common (Chirinos 1999: plates 15, 16, 17; de Lavalle 1989: 70, 77, 81).

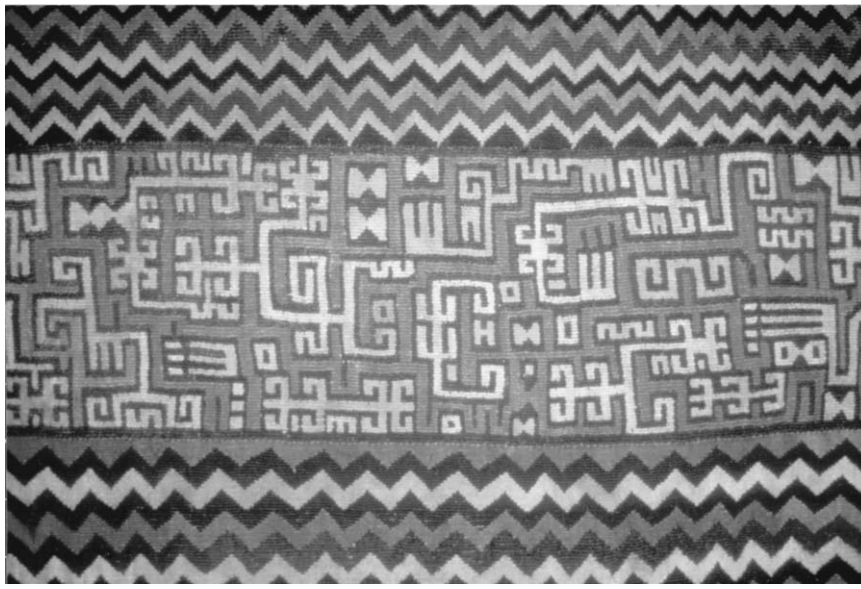


Figure 15.10. Siguas 3-Nasca style textile G4-2, dated AD 540–660 (95%). Private collection. (See also Color Plate 15.)

CONCLUSION

The archaeological and art historical literature for artifacts whose provenience is the department of Arequipa is quite limited when compared with that for other parts of Peru. This lack of interest by archaeologists is partly due to an absence of the kind of magnificent pottery found farther north (this volume's Introduction and Conclusion show that southern Arequipa has been excluded from the central Andean culture area, so in spite of the fact the Sihuas and neighboring valleys fall within the space of the Peruvian co-tradition, the region has long been considered peripheral to the more important cultural developments [editors' comment]). In this paper and a previous article (Haeberli 2001) I have attempted to dispel the notion that Arequipa was marginal to the important currents of Andean cultural life.

Local Early Horizon and Early Intermediate Period populations in Arequipa excelled in the creation of magnificent textiles, preferring that medium to pottery, as exemplified in the local Siguas 1 and Siguas 3 traditions. Two kinds of Nasca tradition textiles from Arequipa can be distinguished by their iconography and degree of workmanship. One kind is difficult to distinguish from Nasca heartland textiles and they are considered imports. A second kind differs in details from heartland textiles, both in iconography and nature of workmanship, and they are considered to represent local manufacture, as are some Nasca style ceramic pieces (Haeberli 2001: 103–4; Silverman and Proulx 2002: 92–3). To this pair, a third

kind is tentatively added, the textiles described in this paper. Stylistically these textiles are related to Nasca, but they differ in specific details from heartland Nasca iconography. Mary Frame (1999) alluded to the stylistically aberrant nature of these textiles and also suggested they may come from outside the Nasca heartland.

The current study has described 10 out of 54 unusual Nasca style textiles comparing iconography within the group, and with heartland Nasca pottery decorations, and where possible, with textiles. Some of these unusual Nasca style textiles are said to be from the Siguas Valley, although the author did not observe any while reconnoitering three looted cemetery sites among the many destroyed in that valley. Until proven otherwise the most convincing evidence is that they came from the valleys of Arequipa; hopefully future fieldwork will conclusively demonstrate their provenience.

These textiles were divided into four groups, G1, G2, G3 and G4, based on stylistic, iconographic, and thematic differences, as well as 10 radiocarbon dates. Some elements, motifs and themes that occur on these unusual Nasca style textiles are present earlier than on heartland Nasca pottery, and, consequently, assignment to a Nasca phase is not possible. Temporal range correlations are still tentative, especially in the absence of an adequate number of radiocarbon dates for the various Nasca phases, except Nasca 3.

The most relevant findings from this study of unusual Nasca style textiles are the following:

1. Textiles with elaborate iconography were produced between AD 130–660. That is centuries longer than in the Nasca heartland where, particularly after Nasca 2, complex iconography was depicted on pottery much more frequently than on surviving textiles.
2. The iconography of G1 textiles is derived from Nasca 2, but these weavings also exhibit local inventions.
3. Textile groups G2, G3 and G4 or Siguas 3-Nasca represent a local development and no influence from heartland Nasca iconography has yet been detected among them.
4. The quartet ray and volute ray was invented in Arequipa between AD 130–380, which correlates with Nasca 3. Noteworthy is the absence of jagged rays and hair hanks among the unusual Proliferous Nasca style textiles. These four elements appear in the Nasca heartland during Nasca 5. Quartet rays define G1 and G4 textiles.
5. The quartet ray with eyes was invented in Arequipa between AD 240–420 and so far the motif has not been detected in the Nasca heartland. This motif defines G3 textiles, which contribute 83% of the sample known to the author.
6. The variations noted among the proliferous front-face heads of unusual Proliferous Nasca style textiles were invented in Arequipa between AD 130–420. Similar proliferous front-face heads appear in the Nasca heartland during Nasca 5 among bizarre innovations like the Rayed Faces and the Scrambled Figures that lack Nasca 4 antecedents (Roark 1965: 26, figs. 48, 50) and occur particularly with Nasca 6 mouth masks and forehead ornaments.

7. Quartet rays, quartet rays with eyes and proliferous front-face heads with and without a mouth and jaw are particularly amenable to interlinking among themselves. We see the latter two motifs most frequently among the elaborate G3 mouth masks and forehead ornaments (see particularly Figures 15.4, 15.5, 15.8) [Endnote 4]. The interlinking of these motifs was invented in Arequipa between AD 130–420. Interlinked proliferous front-face heads as well as interlinked traditional quartet rays and jagged rays are typical of Nasca 6.
8. A slightly greater occurrence (60%) of warp yarns in camelid fibers (a mainly far south tradition), either in single color, bichrome or trichrome, than in cotton yarns (a mainly coastal and Wari tradition) is unexpected for Nasca style textiles.
9. Representations of actions like running and physical interaction between two humans appear among the unusual textiles by AD 130–400. The former action appears frequently on Nasca 7 pottery and the latter one starting with Nasca 5.
10. Ears frequently are in the shape of a large-size capital T (see Figures 15.3. 15.7), but the stem may be shortened (see Fig. 15.4). They are absent in Nasca heartland iconography.
11. In accord with a local Arequipa Nasca style development is an absence of many of Nasca's heartland supernaturals such as the Mythical Cat, Mythical Harvester, Horrible Bird, Mythical Harpy, Mythical Monkey, Fan-headed Anthropomorphic Mythical Being and non-supernaturals like girl faces, spotted cats, birds, fruits and plants.
12. I propose that Nasca people during the period of time corresponding to the Nasca 2 and early Nasca 3 ceramic phases penetrated into Arequipa. Elements and motifs of Nasca style iconography invented in Arequipa started to appear in Nasca heartland iconography during Nasca 5. The causes for and dynamics of this influence presently are unknown and to what extent the sociopolitical upheavals during Nasca 5 and 6 as reflected in iconography are due to this influence must await future inquiries.
13. There is variation in technique among G1, G2, G3 and G4 textiles. Slit tapestry is the technique used for G3 and G4 textiles, interlocking tapestry for a single G2 textile, and embroidery on plain-weave for two G1 textiles. In addition, warp and weft information is available for 15 of these textiles. Warp yarns are plied 2Z into S and in two cases 3Z into S. Warp yarns are in natural colors, some bichrome (40%) and even trichrome (7%). The natural colors are white, beige and different shades of brown. The warp in nine cases (60%) is camelid wool. Bichrome and trichrome warps combined occurred six times (40%). A high incidence of camelid fibers may be due to ownership of camelid herds along the river's headwaters as was the case in historic times along the Ampato slope in the Sihuas Valley (Barriga 1952: 103). Of six cotton warps, three are white and three bichrome. The warp count is between 6–9/cm with a mean of 8/cm. Wefts are of camelid fibers, either dyed or not, and only occasionally is white cotton used. Weft counts are between 22–44/cm with a mean of 36/cm. The high percentage of warp yarns in camelid fibers and of bichrome and even trichrome yarns is unusual since I am not aware of similar information for

heartland Nasca textiles. The construction of tunics was not standardized as the following examples demonstrate. Tunics G3-4 and G3-7 are made from two elongated rectangular four-selvage sections using vertical warps (long direction on loom) while tunics G3-5 and G3-6 consist of one rectangular four-selvage textile with horizontal warps as worn and the neck slit woven in. Tunics G3-6 and G3-7 have fringed epaulettes whose dimensions are too small for short sleeves.

In conclusion, we have an answer to the question posed by the title of this paper: *when and where did the Nasca Proliferous style emerge?* The answer is that there are two unique but related Proliferous Nasca styles: one is found on textiles and the other mainly on pottery. The older style/tradition, described above as the unusual one, apparently evolved in Arequipa during the early EIP from Nasca 2 textile prototypes and thrived throughout most of this period with little apparent additional heartland influence. The surviving textiles in this style are magnificent creations that can rival the best from regions farther to the north. The second and more recent style appears in the Nasca heartland during the later epochs of the EIP. This second style, best known through exquisite and well-crafted ceramics, apparently is derived from the former but went through its own evolutionary processes. The presently available information suggests the presence of sedentary Early Nasca people and their descendants, probably in small enclaves/colonies, in at least some of the valleys of the department of Arequipa. Interactions with the local native populations are evident from Siguas 2 (that is, Siguas-Early Nasca) and G4 (or Siguas 3-Nasca textiles). However, Siguas 3 had its own complex evolutionary trajectory that is not well understood.

These unusual Proliferous Nasca textiles, described above, open new and exciting areas of study and investigation. Their attribution to Arequipa needs to be confirmed in the field. Additional radiocarbon dates are much needed, particularly dates for the different Nasca phases in different heartland valleys and for a seriation of G3 textiles since they span approximately 400 years of development and comprise 83% of the sample.

After an initial penetration into Arequipa during Nasca 2 to early 3, why is there an apparent isolation from the Nasca heartland thus fostering a unique local tradition? It is unlikely that the quartet ray, volute ray and feather spear were invented twice. It raises the questions why, how, to what extent and when in calendrical years did this local far-south coast tradition influence the religious and socio-political upheavals in the heartland starting with Nasca 5. And why is there an absence of the quartet ray with eyes in the Rio Grande de Nazca drainage?

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Helaine Silverman for literature references; to Ann P. Rowe for making available for inspection textiles at the Textile Museum; and to Patrick Carmichael for searching through his Acarí Nasca style pottery file enabling me to confirm the existence of only one example of a quartet ray with allusion to eyes. I am most grateful to all for sharing photographs and allowing me to inspect textiles, to all those that contributed toward the cost or shared available radiocarbon dates, and to the help extended by the Foundation for Research & Conservation of Andean Monuments.

ENDNOTES

1. Following Helaine Silverman, I have adopted the spelling convention "Nazca" designates geographic features and locations, while "Nasca" refers to the archaeological culture. For similar reasons, I have adopted the spelling convention "Sihuas" to designate geographic features and locations, while "Siguas" refers to archaeological traditions.
2. Because decorated Nasca textiles are so scarce, I base the description and analysis of Nasca iconography on decorated ceramics, for which examples are numerous and well published.
3. The provenance listed for this textile is Nazca. However, a farmer in the Sihuas Valley informed us that grave robbers from the town of Nazca used to come to the Sihuas Valley and dig at night. Consequently, the looted artifacts appeared in Nazca, supporting the probability that the original source of the textile in question was a valley in Arequipa.
4. These forms remind me of Western family trees and it would not be surprising if in some way that is what they symbolically represent, namely relationships between the living and the ancestors. I suggest the proliferous head, in all its variations, as well as the quartet ray with eyes represent decapitated human heads of ancestors and of adopted/appropriated sacrificed prisoners, each endowed with a different degree of meaning and significance, which is implied through the less frequently represented severed profile head linked to appendages, proliferous heads and whiskers of mouth masks and forehead ornaments (Figure 15.8; d'Harcourt 1962: plate 7). One example has small humans linked to the end of a forehead ornament's uprights, a likely reference to ancestors. Andeans have complex genealogies that trace descent from supernaturals through mythic, heroic and revered ancestors to grandparents (Salomon and Urioste 1991: 14–22; Salomon 1995). They are huacas through which rights to land and water were inherited. Ancestors were guardians of fertility. Archaeological evidence of Nasca culture decapitated heads indicate that most are of men but women and children occur as well (Verano 1995: 214). In Nasca iconography decapitated heads are used in rites and relate to agricultural fertility, ancestors, cyclical death, rejuvenation and war (Silverman and Proulx 2002: 229–230). The Huarochiri Manuscript has a relevant passage relating to the Masoma rite where a mask fashioned from the skin and bone of a head's frontal portion, made either from an ancestor or a slain prisoner, was danced with in the plaza (Salomon and Urioste 1991: 120). At other times they were carried in a litter for two days and then together with maize, potatoes and other offerings. The Masoma rite relates to descent, fertility and affirmation to rights over resources. Apparently, slain prisoners' ancestors were adopted/appropriated to inherit their rights. I propose that the significance and

function of (particularly) Late Nasca decapitated heads were similar to these Huarochiri masks. Two such masks of unknown age were excavated in Huarochiri territory (Giglioli 1891).

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Chapter **16**

Violence and Rural Lifeways at Two Peripheral Wari Sites in the Majes Valley of Southern Peru

Tiffiny A. Tung and Bruce Owen

INTRODUCTION

Military power was a key factor in the expansion of many ancient empires, but it was not uniformly applied through time and across space, even within one imperial domain (Barfield 2001; D'Altroy 2002; Earle 1997; Morrison 2001; Sinopoli 2001). Support for the link between imperial expansion and militarism can often be found in the presence of defensible architecture and skeletal trauma; however, even in regions under imperial influence, evidence for bodily trauma may stem from causes other than military conflict between conquerors and the conquered. Indeed, violence may be of different levels and kinds, not all of which is purely military in nature, and it may arise in complex ways from the strategies and unintended effects of both the expanding powerful center and the players on the periphery.

Andean scholars have suggested that the Wari empire, which flourished from AD 550–1000, may have used military means to expand and incorporate populations (Feldman 1989; Isbell 1991; Larco Hoyle 1948:37; Menzel 1964a:68; Rowe 1956), possibly leading to high levels of violence among populations brought into the Wari sphere. Because violence is common among the Wari era populations in this study (Tung 2003), it is crucial to evaluate the possible social contexts in which violence occurred, rather than assuming it was military conflict between foreigners and locals. To illuminate these contexts, we describe the lifeways of rural and elite populations living in Wari's southern periphery, drawing from ceramic data from the site of Beringa (Owen, in press) and skeletal trauma data from Beringa and La Real (Tung 2003) in the Majes Valley (see Figure 16.1 for the location of sites discussed in the text.). With these combined datasets, we will examine the nature of Wari influence in its southern periphery.

Our focus highlights the perspective of local commoners and elites in the Wari periphery. We argue that these interactions, far from the Wari heartland, represent a crucial yet under-examined aspect of social life and the unprecedented geographic expansion of Wari influence during the Middle Horizon. Our investigation participates in a growing number of investigations that are examining village sites to gain a more nuanced view of ancient social organization at the local level, while also

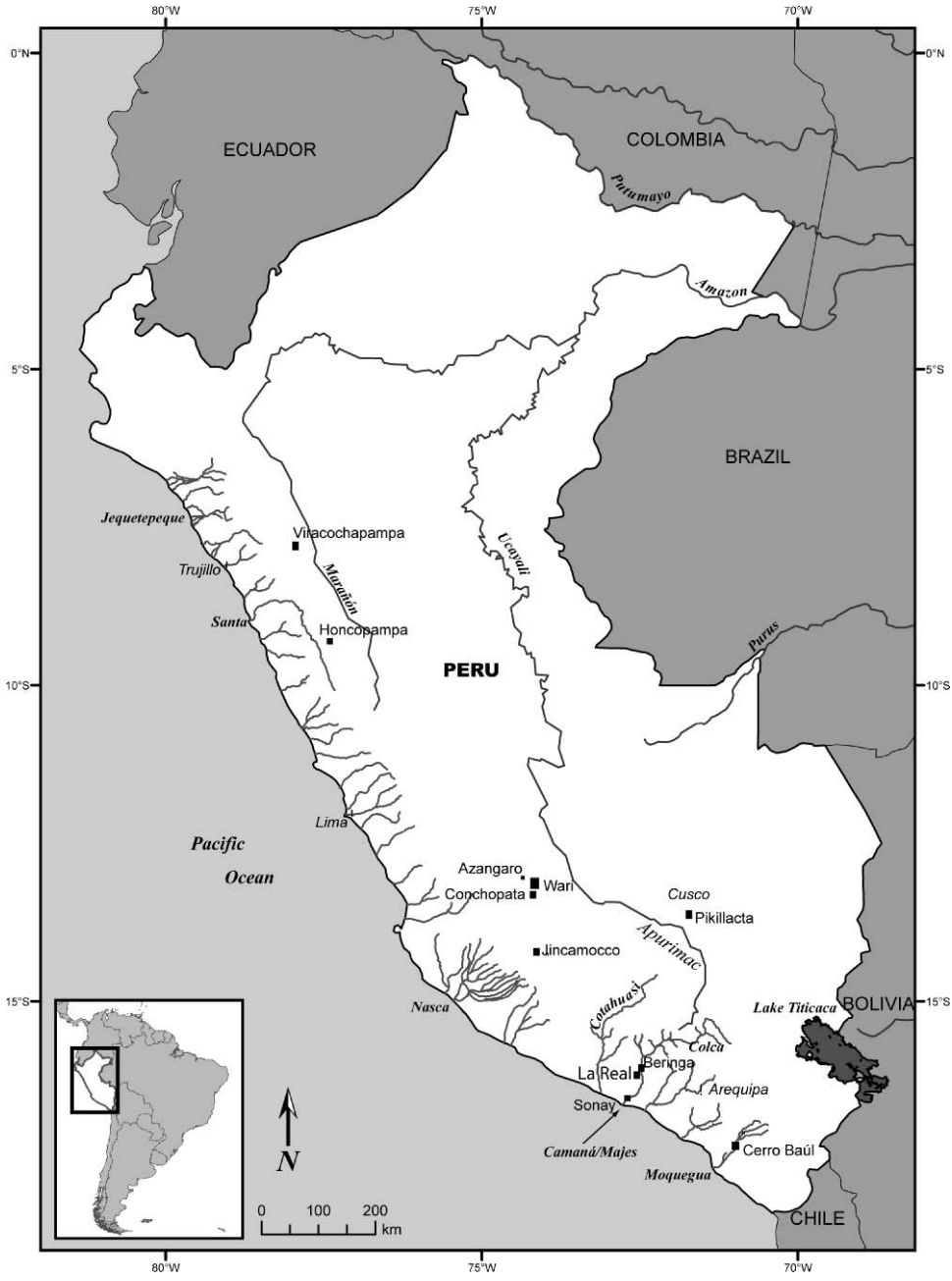

Figure 16.1. Map of Peru showing Wari sites discussed in the text (from Tung 2003).

providing a bottom-up perspective of trans-local political and economic organization. We highlight the lives of people who were members of rural communities in the Wari periphery in order to evaluate both sides of the local-imperial interactions.

Based on data from the sites of Beringa and La Real in the Majes Valley. We examine how foreign Wari influence interacted with the local culture, particularly as it related to fomenting circumstances or beliefs that permitted or even encouraged high levels of violence. We find that rural settlements such as Beringa are comparable to the farming villages near the capital at Huari and observe Wari iconographic traits in Beringa ceramics: traits that were shared with ceramics from the Wari heartland sites of Conchopata (Tung and Cook, 2006) and Aqo Wayqo (Ochatoma and Cabrera 2001), among others. We note that trauma frequencies were high among Majes Valley populations, showing that Wari influence in the periphery did little to curb violent interactions, and instead, may have intentionally or unintentionally contributed to the high levels of bodily injury (Tung 2003). Analyses of trauma frequencies, wound locations, and demographic patterns aid in revealing the social circumstances surrounding violence, while providing a fine-grained view of the lives (and sometimes causes of death) of individuals who had to negotiate a socio-political environment affected by a foreign power. As we will show, several lines of evidence from the village of Beringa suggest that raiding was the primary context in which trauma occurred, while osteological data from La Real suggest that the people interred there, particularly elite males, may have been involved in non-lethal ritualized violence. Together, these data suggest that local, regional, and foreign currents intersected in a multiplicity of ways, fomenting a notable degree of violence in both the indiscriminate realm of raiding and the contained realm of elite ritual.

IMPERIAL POWER AND THE SOCIO-POLTICIAL CONTEXT FOR VIOLENCE

Violence is one of the most notable features of the Middle Horizon bioarchaeological record in the Majes Valley, and because discussions about Wari are best understood framed in terms of empire, we begin with a discussion on the relationship between violence and imperialism [Endnotes 1, 2]. Archaeological studies that explore those relationships, coupled with data on skeletal trauma, have shown that a variety of factors can lead to interpersonal physical conflict. Violence may include warfare between outsiders and locals, inter or intraregional raiding, ritual violence, and/or domestic violence, among others. Violence that occurs in different social contexts often affects the "archaeological body" in similar ways, creating a challenge for the bioarchaeologist to identify crucial differences in the circumstances surrounding violence. Nevertheless, archaeological studies on imperialism and biological and forensic research on skeletal trauma can inform expectations and aid in elucidating the context for violent interactions.

There are various means by which an empire can expand and maintain power. Scholars have noted the role of militarism, economic control, political strength,

and ideological indoctrination, or some mix thereof as common means for imperial expansion (Alcock et al. 2001; D'Altroy and Hastorf 2001; Earle 1997). In particular, imperial expansion often involves militarism or the threat of violence (Barfield 2001; D'Altroy 2002; Earle 1997; Morrison 2001; Schreiber 2001; Sinopoli 2001), even if it is risky and costly (Barfield 2001; Sinopoli 2001). Thus, in a setting with evidence for imperial influence, skeletal and archaeological evidence for violence is often interpreted as the exercise of imperial military strength, reflecting the physical domination of an imperial force over subject populations. In cases of military conflict, it is most likely that adult males would exhibit skeletal trauma, though exceptions to this pattern certainly occur. Additionally, peri-mortem trauma (injuries that occur around the time of death, and which may be interpreted as the mechanism of death; but see Galloway, et al. 1999) is expected in military engagements when soldiers may attack opponents with lethal intent.

Although violent conflict can and does occur between outsiders and locals, those need not be the only sides in opposition. Even though imperial powers or other outside players such as trading partners or ideological competitors may not be the direct or sole agents of violent encounters, that does not preclude their role in fomenting a social milieu where violence is commonplace or even held in high esteem. New imperial powers can affect local and supra-local structures, disturbing existing forms of social and political organization, changing, for example, the way that individuals gain or maintain status or altering channels for forming alliances or trade networks. Just as imperial centers may be factionalized when distinct interest groups or individuals jockey for power, peripheral zones include individuals and groups competing for high status and its benefits (Sinopoli 2001), leading to conflict laden areas that reflect intralocal tensions stemming from, or being exacerbated by, the new regional order. Imperial powers often benefit from this "divide and conquer" strategy as they work to convince external communities that the empire represents and controls that which should be desired. In part, imperial success depends on convincing external groups that the empire and its trappings (basic resources, prestige goods, religion, alliances) are worth competing for—even fighting for. In this context, violence may be the result of intralocal conflict stemming from imperial strategies to achieve just that.

A foreign imperial presence also may have unintended consequences and inadvertently exacerbate preexisting tensions or create new intralocal conflicts, both among groups directly under their control and among those on the margins (see Ferguson and Whitehead 1992b). Depending on indigenous social organization and strategic local responses that reflect native interests and concerns (Ferguson and Whitehead 1992a; Morrison 2001), empires meet with variable success in implementing their policies. The local interests around which strategic responses are constructed may be diverse and contentious and may lead to conflict within the local group. Imperial strategies can sometimes fail, and violence can develop and rise creating a zone that teems with violence (Ferguson and Whitehead 1992b). This kind of scenario may reflect an empire's lack of control and inability to create or maintain stability. In this context, local groups could conduct raids against each other, leading to high levels of trauma among men, women, and children.

The notion of "social substitutability" in contexts of warfare and raids suggests that any individual from a community is a representative of that group, and thus a legitimate target, making all individuals (nearly) equally susceptible to attack (Kelly 2000). We argue that "social substitutability" is particularly likely in cases of raiding, making men, women, and children all vulnerable to attack, even more so than in warfare when only particular subgroups (e.g., men) may engage in battle. Thus, evidence for violence could reflect intralocal conflicts in which the empire was not directly involved physically or strategically, but to which it contributed inadvertently.

When a local population is subject to external political, economic, religious, or military influence, violence may take on new or altered meanings or may occur in different social contexts. That is, even in the face of foreign presence, violence may reflect something other than a strategy for conquering a people, annexing lands, or forcefully extracting tribute. For example, violence can occur in more intimate settings such as that of domestic violence, reflecting power negotiations at the household level (Foucault 1978). Violence also may be state or community sanctioned as a form of corporal punishment (e.g., stonings) for transgressions against an individual or the community, as was done by the Inka state (Moore 1973) and other prehistoric groups in North America (see Smith 2003). Additionally, ritual battles known as tinku (tinkuy) have been ethnographically documented in the Andes, demonstrating how violence is enmeshed in complex social processes, cosmology, and ideology (Allen 1988; Bolin 1998; Hartmann 1972; Orlove 1994). These ritual fights are tied to important agricultural and irrigation events, and while they can occasionally lead to death, they more commonly result in nonfatal skeletal trauma (Allen 1988; Bolin 1998; Orlove 1994; Schuller and Petermann 1992), which can be observed osteologically (Tung 2003).

THE WARI

The sociopolitical landscape of the central Andes changed dramatically during the Middle Horizon (AD 550–1000) when two expansive states—Wari and Tiwanaku—developed and incorporated many Andean regions and their inhabitants. The Wari Empire expanded beyond the Ayacucho Basin of the south-central highlands to spread in a discontinuous pattern across much of highland and coastal modern day Peru (Isbell and Cook 2002; Menzel 1977; Schreiber 1998; Williams 2001), while the contemporary Tiwanaku Empire originated in the Lake Titicaca Basin and established agricultural colonies in regions of Bolivia and southern Peru and exerted influence as far as northern Argentina and northern Chile (Janusek 2004; Kolata 1993). The coalescence of Wari authority and the geographical extent of its influence are well established in several areas of the Andes. Wari influence is evidenced, partly, by distinctive Wari architecture located both near and far from the Wari capital, as at Jincamocco (Schreiber 1992), Azangaro (Anders 1991), and Aqo Wayqo (Ochatoma and Cabrera 2001), all within the Department of Ayacucho. Regions far from the imperial core also show Wari

style buildings, as at Viracochapampa and Honcopampa in the north (Isbell 1989; J. Topic 1991), Pikillacta near Cuzco to the southeast (McEwan 1991), and Cerro Baúl in the Moquegua Valley in southern Peru (Feldman 1989; Moseley, et al. 1991; Williams 2001). These sites demonstrate Wari's ability to establish large, intrusive centers amid spatially and culturally remote populations. The wide distribution of goods with Wari iconography at these and other contemporary settlements, monuments, and burial places (Cardona Rosas 2002; Cook 1984-85, 1992, 1994; Cook and Glowacki 2003; Lau 2003; Menzel 1964, 1968; Owen, in press; Schreiber 1992) suggests that some aspects of Wari ideology were widespread.

Some scholars have described the Wari expansionist process as militaristic in nature (Feldman 1989; Isbell 1991; Larco Hoyle 1948:37; Rowe 1956), while others have suggested that militarism may have been combined with "religious propaganda" (Menzel 1964a: 68). If militarism was involved, there may be evidence for skeletal trauma and defensive architecture at Wari era sites. However, as noted above, skeletal injury may also result from non-military violence, so the frequency and kinds of wounds from different demographic groups must be taken into account.

While some scholars interpret the distribution of Wari architecture and goods as evidence for Wari imperial expansion, others doubt that Wari was geographically great or ideologically and militarily dominant (Bawden and Conrad 1982; Conrad 1981; Donnan and Mackey 1978; Shady Solis 1989; Shimada 1990). According to these researchers, Wari was one among several autonomous Andean states (Czwarno 1989), or was part of a confederation of kin groups and lineages (J. Topic 1991; Topic and Topic 1985, 1992; T. Topic 1991). Others suggest that Wari engaged in interregional trade with other polities, none of which wielded power over another (Shady and Ruiz 1979; Shady Solis 1982, 1988). While some debate persists regarding the nature of Wari expansion in some areas of the Andes (particularly in the north coast; see Castillo 2000), the evidence for Wari intrusion in the south-central Andes is quite clear (Anders 1989; McEwan 1991, 2005; Moseley, et al. 1991; Schreiber 1992; Williams 2001). The varying evidence for Wari presence from north to south is not surprising given the ecological and ethnic diversity in the prehispanic Andes. It is possible that various strategies were differentially employed over time and space in a flexible pattern of "improvised responses" (Nelson 1996: xvii). As with many empires, economic networks, religious institutions, and other forms of regional interaction that involved Wari would not have been uniform, but would have resembled a patchwork where some valleys were more strongly incorporated, or incorporated in different ways, probably reflecting specific goals of important players in the Wari heartland and local interests of those in the periphery.

WARI INFLUENCE IN THE MAJES VALLEY

Knowledge of the prehistory of the Majes Valley is growing, particularly as it relates to the Middle Horizon and the evidence for Wari influence in and around the

region. Archaeological reconnaissance and small-scale excavations in the 1980s documented Wari ceramics at Beringa, La Real, and other Majes Valley sites (de la Vera Cruz Chávez 1989; Garcia Márquez and Bustamante Montoro 1990; Ratti de Luchi Lomellini and Zegarra Arenas 1987), and collections from the middle Majes Valley show foreign objects that may be from the Wari heartland or provincial Wari centers (see Cardona Rosas 2002:68). Also, a human trophy head that exhibits the Wari form, not the Nasca form, is present in the middle Majes Valley, suggesting that Wari ritual practices may have infiltrated this region (Tung 2003). A possible Wari administrative site, Sonay, has been documented in the coastal stretches of the Majes Valley (Camaná), and based on Wari orthogonal architecture and two radiocarbon assays, Malpass suggests that it was built around AD 950 (Malpass 1998, 2001), some one to three centuries after the initial occupation of Beringa. Recent excavations at Beringa directed by the first author have yielded textiles and ceramics exhibiting Wari and local styles, and five radiocarbon dates show occupation at Beringa by the first half of the Middle Horizon, from AD 650 to AD 850 (all dates calibrated at 2 sigma) (See Tung 2003 for details). Ceramic style comparisons confirm these dates (Owen, in press).

Wari centers and ceramics with Wari characteristics are reported at higher altitudes of the region. Further up the Majes drainage, the Número 8 site in the Chuquibamba Valley is vaguely reminiscent of Wari complexes (Sciscento 1989) and Achachiwa in the lower Colca Valley is identified as a possible Wari center (de la Vera Cruz Chávez 1996; Sciscento 1989), but Schreiber doubts the Wari designation for the latter site (Schreiber 1992:104). In the lower Chuquibamba near Pacay chacra, Williams and Cardona recorded a site with "Wari-like" architectural features; however, because much of it was covered with volcanic ash, no surface ceramics were found (Patrick Ryan Williams, Pers. Comm. 2004). The large multi-occupant tomb that contained the type specimens of Qosqopa ceramics was also in the Chuquibamba Valley (Lumbreras 1974; Neira 1990; Sciscento 1989). Qosqopa (also spelled Ccoscopa) is a poorly defined, variable range of styles found mostly in the department of Arequipa that have unmistakable Wari features; however, these ceramics seem too idiosyncratic and variable to imply a Wari intrusion in the imperial sense (Owen, in press). There may be another Wari site in the lower Colca Valley (the upper portion of the Majes), where Doutriaux has identified the site of Charasuta that perhaps shows features in the Wari architectural style (Doutriaux 2003). In contrast, archaeological survey in the upper stretches of the Colca Valley show only local Middle Horizon settlements and agricultural complexes, not Wari centers (Wernke 2003). Other Wari-related occupations have been documented in neighboring valleys, such as the site of Quilca Pampa in the Siguas Valley (just south of Majes) (de la Vera Cruz Chávez 1996) and Pampa la Estrella in the Uchumayo Valley near the city of Arequipa (Cardona Rosas 2002). At the latter site, Qosqopa sherds and clusters of agglutinated structures resemble Wari patio groups like those at the provincial Wari site of Cerro Mejía (Cardona Rosas 2002; Nash 2001). Finally, in the neighboring high-altitude Cotahuasi Valley (north of Majes) Wari-related ceramics and architecture are present (Jennings 2002).

The distribution of Wari-influenced architecture and ceramics in the Majes Valley, its higher-elevation tributaries, and neighboring valleys suggests that populations living in these areas were within the orbit of Wari ideology, economic influence, and potentially political or military power. Contacts of these sorts could have directly impacted Majes peoples, or at least altered supralocal, sociopolitical organization, economic ties, and other supralocal alliances, affecting local politics and community lifeways in villages in Majes. At a minimum, people in the middle Majes Valley sought goods that reflected specific aspects of Wari iconography and technological style, both in objects of daily use and in those that expressed high status, including Wari tie-dye textiles, Wari feathered textiles, and Wari face-neck jars. This is not meant to imply that Wari and local interactions were purely about domination and acquiescence or resistance. Instead, interactions could have been complex and recursive, perhaps with cultural practices and goods flowing in both directions.

As discussed below, this period of interaction involved violence for which the social context might be illuminated if data are considered in light of what we know about empires, imperial strategies, and their intended and unintended consequences. Wari imperial influence could have helped to stabilize the region, leading to low levels of violence, similar to the later Pax Incaica that may have taken hold in some regions (D'Altroy 1992; D'Altroy and Hastorf 2001; Earle and D'Altroy 1989). In contrast, military power could have been used by Wari in order to gain control of a region and its people, leading to violent interactions between intruders and locals. It is also possible that Wari leaders employed strategies actively seeking to divide local alliances—creating intralocal violence in the process—but ultimately establishing new ones that favored outside interests (see Sinopoli 2001). Such tactics also could have had unintended consequences, leading to high levels of violence among indigenous groups, making external control nearly impossible. Finally, new kinds of interactions could have contributed to other kinds of violence, such as ritualized battles (tinku) or conflict resolution that might have included "head-clubbing" between males (see Chagnon 1992; Conklin 2001; Lambert 1994).

THE SITE OF BERINGA

The site of Beringa is situated at 700 m.a.s.l. in the middle Majes Valley (part of the Colca-Majes-Camaná drainage) in the Department of Arequipa (Figures 16.1, 16.2). The site is located 75 aerial kilometers from the Pacific coast atop a long alluvial terrace above the Majes River (Figure 16.3). Beringa was a village settlement with domestic and mortuary contexts, and archaeological evidence indicates that inhabitants were agriculturalists and fishers, many of whom engaged in textile production (Tung, in press). The site was occupied during the first half of the Middle Horizon and again in the beginning of the Late Intermediate Period (Owen, in press; Tung 2003). Data presented here will focus on remains that are attributed to the Middle Horizon. Beringa appears to be insulated or protected,

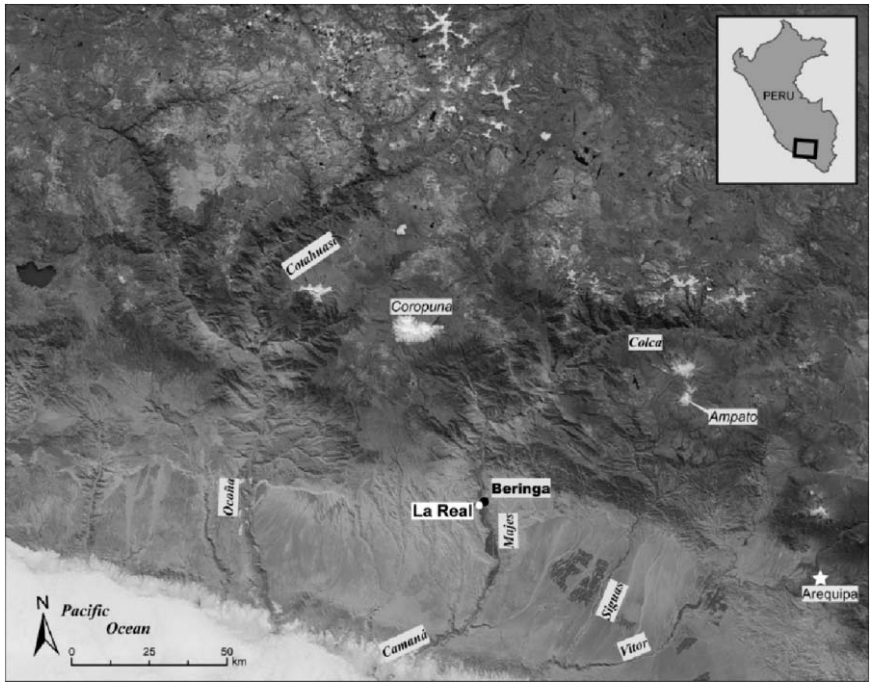

Figure 16.2. Satellite photo showing the sites of Beringa and La Real. (Image courtesy of NASA/GSFC/LaRC/JPL, MISR Team.)

perhaps making it defensible; the western edge of the site drops off to the Majes River, steep slopes border the eastern edge, and a long stone wall runs along the northern end of the site, either for defense or redirecting rare flows of water. This suggests that, while Beringa was by no means fortified and remained vulnerable to attack from the southern end or the eastern steep slopes, the Beringa inhabitants may have been concerned with issues of defense (Tung 2003).

Wari influence is evident at Beringa in a variety of media, including textiles, ceramics, and possibly in the large quantities of molle, a berry that was likely used for chicha de molle, which is particularly common at other Wari sites in southern Peru (see Goldstein and Quispe Valencia 2004). The dense deposits of molle found at Beringa in association with large ceramic vessels suggest that this beverage may have been served at large feasting events. Several Wari textiles recovered from Beringa demonstrate impressive weaving skills (Quinn 2003), and the Wari tie-dye textiles depict clothing styles worn by persons represented on face-neck jars from the Wari site of Pacheco in the Nazca Valley (Figure 16.4) (Tung, in press; see also Stone-Miller et al. 1992). Other textile design elements resemble Wari ceramic motifs described by Owen (in press), such as the alternating horizontal S and X motifs that are particularly common on textile edges and bands or belts (Quinn 2003). These textile motifs are particularly common on bowls of

Figure 16.3. Air photo of Beringa in the Majes valley; all human and material remains discussed in the text are from Sector A. (Image courtesy of Servicio Aerofotográfico Nacional del Perú.)

the Ocros style found at the rural Wari site of Aqo Wayqo (Ochatoma and Cabrera 2001).

Perhaps the most diagnostic Wari cultural markers are ceramics. At least six to seven percent of the sherds from Beringa with painted decoration are diagnostically Wari, including Chakipampa and Ocros styles, as well as other fragments with characteristic Wari features, such as the feathered wing motif or characteristic modeled and painted face necks from jars (Figure 16.5). Most of the remaining slipped or painted ceramics are variants that combine elements of decoration and form that are found in the Huamanga grade of less-fancy Wari ceramics with other features that are primarily limited to the coastal and Pacific slopes regions from Nazca south. The second author has argued that the Beringa ceramic assemblage is different from any of the rural assemblages known from closer to Huari, but not obviously more so than some of those assemblages are from each other. The Majes ceramics do not suggest a foreign intrusion, but rather a strong influence from a set of ceramic traditions in the Wari heartland (Owen, in press). In this view, the

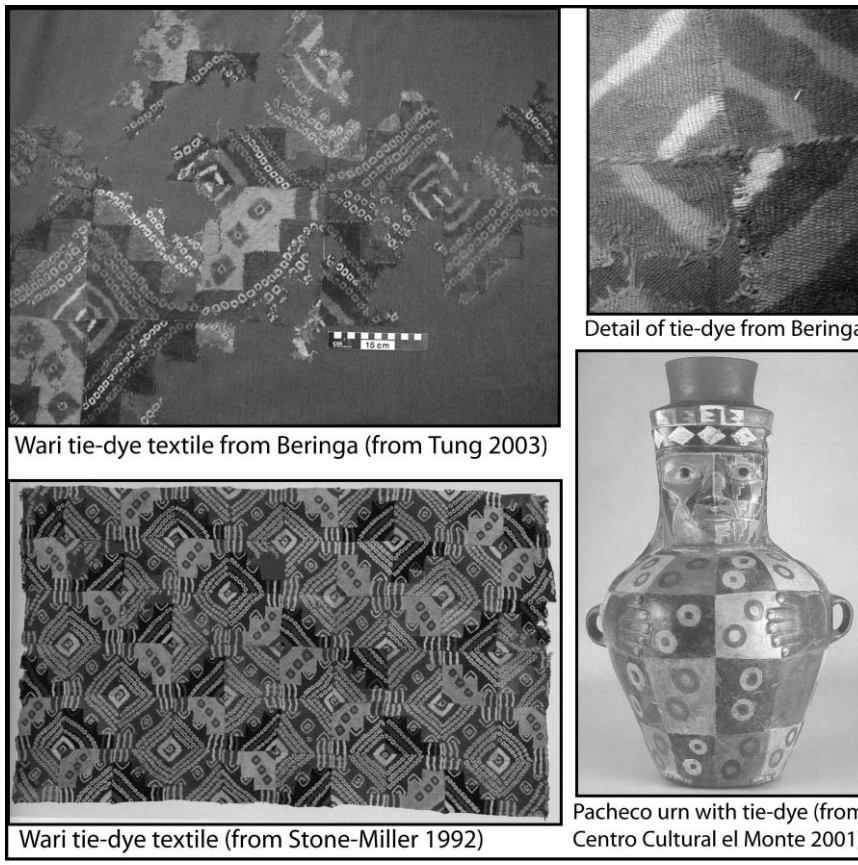

Figure 16.4. Wari tie-dye textile recovered from Beringa (upper left); detail of the tie-dye (upper right); complete Wari tie-dye textile (from Stone-Miller 1992) (lower left); ceramic urn from the Wari site of Pacheco depicting a person wearing a tie-dye manta (from Centro Cultural el Monte 2001) (lower right).

Majes tradition is simply another variant of the Huamanga grade of Wari-related ceramic traditions. The connection, whatever its nature, is undeniable and strong.

In contrast to the textiles and ceramics, obsidian points from Beringa are not similar to Wari styles. Given the quantity and importance of obsidian at Wari centers in the Moquegua Valley, such as Cerro Baúl and Cerro Mejía (Nash 2002), it is noteworthy that obsidian is somewhat scarce at Beringa. Thirty-seven fragments of obsidian were recovered, and only four were complete points (Tung, in press). Nonewhere diagnostically Wari (i.e., they were not broad and convex-sided with roughly Straight bases). (See Williams et al. 2001: fig. 12). The source of the obsidian at Beringa is currently unknown, but it is notable that relatively little was processed or consumed there. Perhaps this suggests that Beringa was not well incorporated into Wari's obsidian trade network. This is remarkable considering

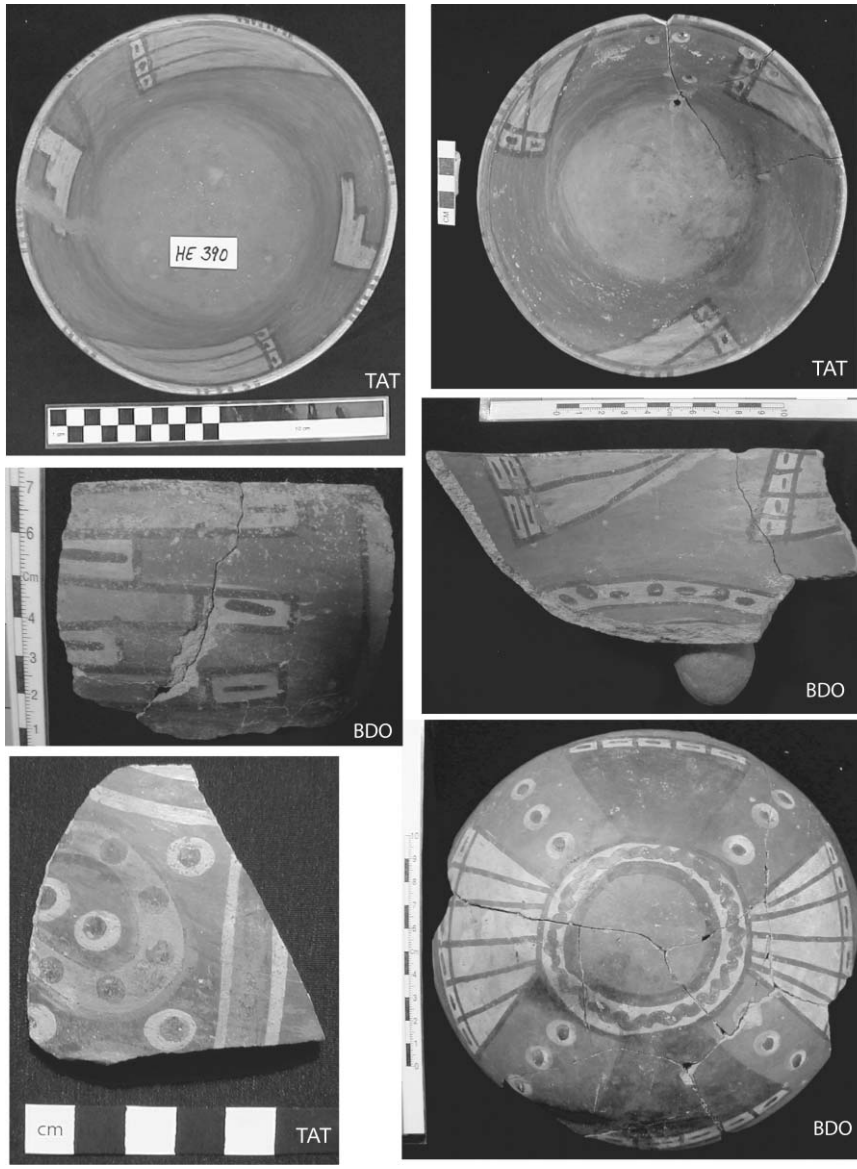

Figure 16.5. Wari-related ceramics recovered from Beringa. (See also Color Plate 16.)

the proximity of Beringa to the Cotahuasi (Alca) and Colca (Chivay) obsidian sources (see Figure 16.1). Granted, it is not expected that obsidian from the Colca Valley would be present at Beringa, as that source was apparently tied almost exclusively into the Tiwanaku economy (Burger et al. 2000). However, obsidian from Alca appears at the Wari capital far to the north and at other Wari sites such as

Jincamocco and even Cerro Baúl, far to the south (Burger et al. 2000; Jennings and Glascock 2002). These formal, intrusive Wari centers were evidently incorporated into Wari in a way that involved access to obsidian, while Beringa apparently was not. This supports the notion that Wari trade networks were variable and perhaps strategic, differing from zone to zone.

THE RESIDENTS OF BERINGA

The demographic data indicate that Beringa was home to numerous households, where equal numbers of men and women occupied the site and where the age-at-death distribution might reflect that of a once living village population (Tung 2003) [Endnote 3]. For the Middle Horizon skeletal series, one-third of the deaths were among infants, nearly one-quarter were among children, and the remaining deaths were among older adolescents and adults (N = 151) (Tung 2003). Such a high percentage of infants in a prehistoric skeletal population suggests either high fertility rates or immigration (see Paine and Boldsen 2002; Paine and Harpending 1996; Sattenspiel and Harpending 1983). While it is tempting to suggest that individuals from the Wari heartland were immigrants to the Majes Valley, no bio-distance or strontium data are yet available to test this hypothesis. A study of cranial modification among the Beringa population, however, has shown that only the fronto-occipital style was present, a common form in the coastal and yungas zones. No Beringa individuals exhibited annular cranial modification, which was common in the highland Andes and the only form observed at the Wari heartland site of Conchopata (Tung 2003). This might suggest that highland peoples were absent from Beringa. However, as Blom and colleagues have demonstrated among Middle Horizon populations in the southern Andes, there is no clear division between highland and coastal modification types; the highland site of Tiwanaku shows both forms, while coastal sites show only the fronto-occipital form (Blom, et al. 1998). Thus, although the absence of the annular head form at Beringa in no way confirms that highland populations were absent from the site, it limits the possibility that a particular subgroup of highland peoples migrated to the Majes Valley.

BERINGA CERAMICS AND VILLAGE LIFEWAYS IN THE WARI PERIPHERY

As noted above and argued elsewhere (Owen, in press), from the perspective of their decorated ceramics, the inhabitants of Beringa were culturally Wari to a degree comparable to people living in rural villages in the Ayacucho heartland with Huamanga grade ceramic assemblages. This Wari material culture at Beringa contrasts with the primarily local Middle Horizon assemblages upriver in the Chuquibamba and Colca valleys, and in the highland Cotahuasi Valley, but parallels the strong presence of Wari-related ceramics and textiles on looted sites

in the coastal valley of Camaná and the adjacent coastal Sihuas Valley. Yet the Wari people of this coastal, low-elevation pocket of societies were distant from the administrative infrastructure associated with Wari. Beringa is over 350 kms by air from the urban center of Huari. Moreover, there is no trace of a planned Wari architectural center in the vicinity of Beringa. The characteristically Wari compound at Sonay is located about 54 kms in a straight line from Beringa, in a topographically different segment of the valley, too far away to have been intended primarily to control the middle valley. Regardless of the eventual role of Sonay (see Malpass 1998, 2001), Beringa was apparently occupied by people using a version of Wari material culture for centuries before Sonay was built.

Just as Beringa is distant geographically from foci of overt Wari control, its material culture does not suggest a significant influx of Wari administrators or institutions. The second author argues that the mix of Wari traits found in the Beringa ceramic assemblage does not appear to derive from the fancy, ideologically charged ceramics that would have been among the markers of status, legitimacy, and power used by Wari conquerors or administrators (Owen, in press). If Wari influence in Majes involved conquest, intrusion, incorporation, colonization, or some other form of exploitation, then the stylistic features such as motifs, colors, forms, finish, and symmetry rules that local people would have associated with the powerful outsiders would presumably have been those of the fancier, iconographically loaded and lavishly executed wares in Chakipampa, Ocros, or Viñaque styles. These styles would be the sources of features that local populations would be expected to emulate, appropriate, or manipulate. Yet the more diagnostic features of these styles are rare or absent at Beringa. Instead, many of the most prevalent Wari features at Beringa are ones that are found primarily in less fancy Huamanga assemblages.

The term Huamanga describes a grade of ceramics, rather than a single style (Owen, in press). It encompasses a regionally variable set of decorated but quotidian ceramics that share some features of the fancier Wari wares, consistently lack others, and include additional features not found in the finer ceramics. The distinction between Huamanga and the fancier wares is not sharp, and is probably just an analytical division of a continuum of ceramics intended for use in various contexts. Rural settlements tend to have assemblages that contain primarily Huamanga grade ceramics with a small proportion of fancier wares, while people at urban, high-status, or institutional sites such as Huari, Conchopata, Azangaro, and Pikillacta used local assemblages of quotidian Huamanga ceramics plus fancy wares such as Chakipampa and others. Given that the Wari features of the Beringa assemblage seem to reflect the ordinary Huamanga grade of ceramics, rather than the fancy wares that evidently accompanied powerful outsiders when they moved into other peripheral regions, the second author suggests that Wari culture does not seem to have reached Beringa by way of an intrusion of conquering, administering, proselytizing, or other high-status, powerful foreigners, as it seemingly did in other parts of the Andes.

One possible explanation is that the Beringa ceramic tradition might have developed from a synthesis of local ideas and Huamanga traditions imported by

farmers from the Ayacucho area, long before formal administrative architecture or any significant concentration of ideologically loaded finewares came into the Majes Valley (Owen, in press). However, there is no known Huamanga tradition with the same combination of Wari features that could have begun a process leading to the Beringa assemblage. Of course, such a potential source may be found in the future. But in its absence, another option is possible. The second author suggests that the Beringa Wari tradition could have developed in situ, in much the same way as Huamanga traditions nearer to Huari. In this view, the styles at Huari would be the northern part of a range of stylistic variation that extended in an arc southwest to Nazca and from there southeast to Majes and Sihuas, perhaps reflecting older patterns of social interaction. The people around Huari developed a huge, complex urban core with expansionist policies. The people of Majes, using their related ceramic assemblage, remained outside of this formalized system for at least the first half of the Middle Horizon, but nevertheless maintained enough contact with it to obtain modest numbers of exotic fancy Wari ceramics, textiles, and other goods.

Either origin scenario results in a similar reconstruction of life at Beringa. The site was peopled by farmers with a local version of rural Wari beliefs and practices, leavened with some distinctly local differences to be addressed below. They lived outside of the formally administered Wari system but maintained a degree of ideological kinship and enough material contact to obtain some kinds of goods such as ceramics and textiles that were presumably produced by their more cosmopolitan, specialized, and urbanized contemporaries.

The lack of a direct or formal connection does not mean that the existence of Wari and its extension into its periphery had no effect on people in the Majes Valley. In fact, Beringa's access to the exchange of ceramics, contrasted with its possible exclusion from the exchange of obsidian points, might suggest tensions or at least some degree of complexity in its relations with institutions or factions within the Wari system. Wari's impact would not have been in the form of direct control, or probably even indirect exploitation, given that the principle products of the Majes Valley would probably have been food crops and perhaps camarones (river crayfish), both of which would have been prohibitively expensive to transport to the Wari core and could easily have been produced in closer valleys. Nevertheless, the immense Wari system of people, production, exchange, and wealth, with its at least occasionally expansionist and militarist practices, must have created ripples of tensions, competition, opportunities to negotiate economic advantages and prestige, chances to appropriate and manipulate ideological and symbolic capital, and so on throughout the surrounding societies.

If people in Majes were incompletely connected to the Wari system of exchange, it would not be surprising to find that their economic mechanisms were relatively simpler than those of comparable rural people immersed in the larger-scale, more cosmopolitan economy surrounding Huari. While it is too early to reconstruct much about the Majes exchange economy, the ceramics offer one tentative hint. At sites in the Wari heartland such as Azangaro (Anders 1989) and Aqo Wayqo (Ochatoma and Cabrera 2001:162, 164), ceramic vessels occasionally had complex patterns

scratched into their surfaces at some time after they were fired. Compared to the painted decoration on the same vessels, these marks are crude and casually executed, and do not appear to be decorative. One possible explanation for these marks is that they played a role in identifying ownership, tracking loans or exchanges, or otherwise labeling ceramics that moved from one person's control to another's. Of the eight examples of post-fire engraving from Beringa, six are simple X marks, one is an unintelligible pattern of several parallel and perpendicular lines, and one is a tiny series of linked Xs or lozenges. Most of these marks are simple and not very distinctive. If they served identification or tracking purposes, they probably did so in a system of exchange that was much more limited in scale and complexity than that navigated with the elaborate engravings used in the heartland.

The people of Beringa seem to have participated in the widespread Andean conceptual habit of dualism. Many burials appear to have contained matching unequal pairs of vessels (Owen, in press), perhaps reflecting ideas similar to the unequal gender pairing described by Andean ethnographers (Allen 2002; Moore 1995; Sallnow 1987). Typical examples include pairs of bowls of the same shape with almost, but not quite, identical painted decoration, of which one is always slightly but obviously larger than the other.

The utilitarian ceramics (Owen, in press) suggest a puzzling aspect of daily life at Beringa. First, they differ in form from utilitarian ceramics found with other Huamanga assemblages. Flat bottoms and single, high handles, common in cooking vessels from Ayacucho and Pikillacta, are absent from Beringa, while small tripod cooking vessels, present but not common in the Wari heartland, are relatively frequent at Beringa. Apparently food preparation practices, if not the cuisine itself, were different in Majes and the Wari heartland. The distribution of utilitarian vessel sizes is more surprising. Eight of ten small ollas, some with tripod feet and most crusted with organic deposits from cooking, fall in a size range from 170 ml to 580 ml when full to the rim, and presumably less in actual use. One other held 920 ml when full, and a final example, represented only by a large sherd, had a volume estimated between 360 and 1480 ml. These vessels would have provided a small cup of soup to just one to three people, or a substantial meal to just two or one, if any. The few boot pots from Beringa, probably used for toasting maize, are also smaller than is typical in other regions. At Beringa, food was apparently often prepared for just one or two people at a time (Owen, in press).

At the other end of the spectrum, large neckless cooking ollas and even larger open-mouthed cooking vessels with thickened rims exceeded 5 liters in volume, one holding over 56 liters. These are vessels suitable for preparing food for groups of one or two dozen or more. Yet of the 36 utilitarian vessels, there were virtually none in the 1 to 4 or 5 liter range. One small olla noted above might have exceeded 1 liter, and one large olla might have held slightly less than 5 liters, but both are the extremes of ranges estimated from incomplete vessels. This volume gap spans the range expected for preparing soups or stews for a family of two parents, a few children, and possibly a few others, and it is a size range that is common among cooking vessels illustrated from the Wari heartland (Owen, in press).

Unless this volume gap is due to bad sampling luck or preservation biases, it suggests that people at Beringa often prepared food for large groups or for very small ones, but rarely for groups the size of a nuclear family. The skeletal data suggest that a complete village population lived at Beringa. Perhaps specific responses to exigencies of field locations, work scheduling, or even the concerns related to raiding, defense, or personal danger when working away from the village encouraged staggered individual, dyad, or triad eating schedules interspersed with large multi-family meals. There are undoubtedly other interpretations, but in any case, the pattern of food preparation seems to be an unusual one in the Andes. It is tempting to link it in some way to the other unusual circumstances of the Middle Horizon Majes: the looming presence of Wari, culturally close, economically and ideologically powerful, but geographically distant, and the prevalence of violence suggested by the skeletal remains.

INTERPRETING TRAUMA TO IDENTIFY THE CONTEXT OF VIOLENCE

Intra-valley Conflict and Raiding at Beringa

Blunt force trauma leading to skull fractures was common among adults from Beringa; 33 percent show these kinds of head injuries (13 out of 39), all of which were likely caused by maces with stone heads, wooden clubs, or throwing stones hurled with hondas (slings) (Tung 2003). Each of these weapon types was recovered from Beringa, and although some obsidian and chert points were recovered, no points were found imbedded in bone. There was no statistically significant sex-based difference in cranial trauma, demonstrating that men and women were similarly affected (Tung 2003). As the first author has argued elsewhere, the frequency and locational patterning of the head wounds suggest that these injuries did not stem from accidental falls, but were likely the result of interpersonal violence whereby women received the majority of blows on the posterior of the skull and men suffered blows equally on the anterior and posterior (Tung 2003) (Figure 16.6). The anterior wounds likely stemmed from face-to-face conflicts (see Walker 1997). In contrast, posterior head wounds are common when attacked from behind; thus, the fractures on the back of the head may have been received while fleeing during raids (see Webb 1995). Two out of 51 left ulnae (lower arm bone) exhibit parry fractures, which result when an individual raises the arm above the head to block a blow; this provides corroborating evidence that traumas were received in violent contexts (Tung 2003). Parry fractures of the left arm indicate that victims were attempting to protect themselves from a right-handed attacker striking from the front. This defensive posturing seems more likely in the context of inter-personal violence, such as household and community disputes or attacks during raids, not accidental falls.

Among the 13 adults with head trauma, a majority show well-healed fractures (69%) indicating that they survived the injury, while a significant portion show

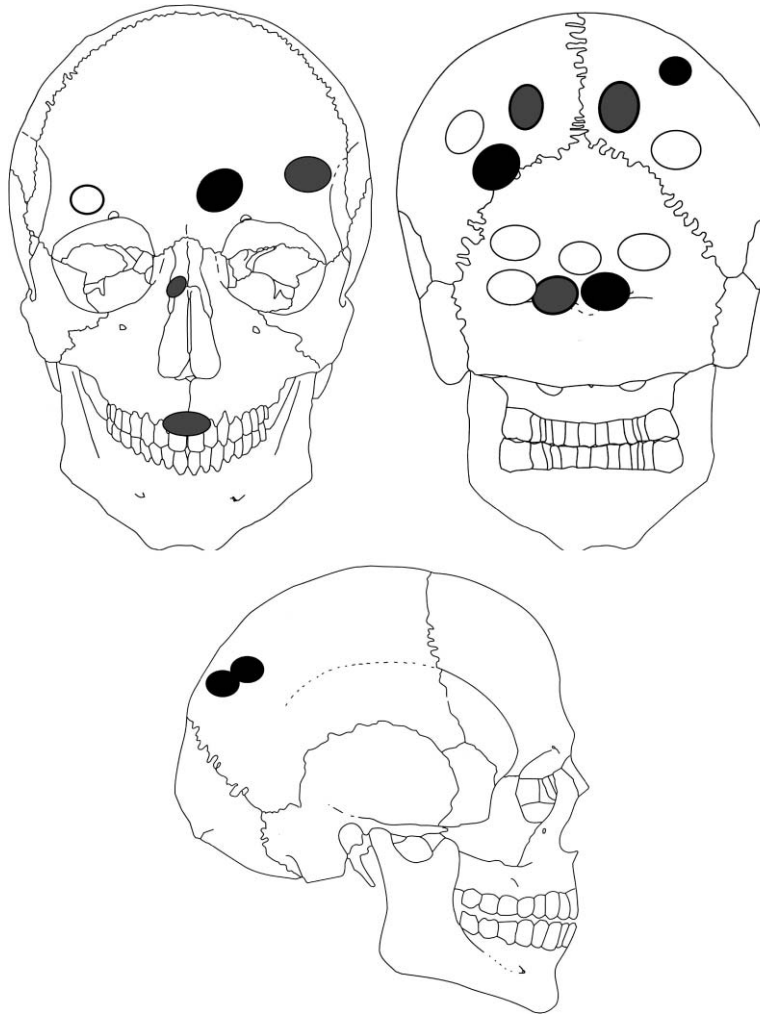

Figure 16.6. Locations of cranial wounds among adults from Beringa [Black = female wounds; Gray = male wounds; White = indeterminate sex.] (from Tung 2003).

peri-mortem cranial trauma (31%), suggesting that they died from the blow to the skull (Tung 2003). In other words, in nearly one-third of the violent encounters, the assailant may have attacked with lethal intent or at least hit forcefully enough to have caused death. Although lethally violent aggression can occur at the household level (Counts et al. 1999), it is probably more congruent with warfare and raiding, particularly when trauma frequencies are this high.

Given that men and women were involved in similar numbers of violent interactions, it appears that no particular subgroup was targeted. This is expected in cases of raids where "social substitutability" dictates that any individual is a

potential target. The gender parity in cranial trauma, the defensible site location, the high trauma frequencies, the percentage of lethal head traumas, and the locational patterning of head wounds (particularly the posterior wounds on women) all point towards raiding as a major cause of the skeletal injuries (Tung 2003).

Beringa villagers may have been victims of raids, but it is difficult to determine against whom they were fighting. The dearth of evidence for the presence of foreign peoples or intrusive architectural styles from Ayacucho suggest that it is unlikely that conflicts were between highland intruders and locals. Instead, intra-valley conflicts may have led to the observed traumas (Tung 2003). With Wari inspired changes in trade networks and local-regional alliances, it may be that these external forces affected the sociopolitical organization of indigenous groups in the Majes Valley, creating or exacerbating tensions. Similar conflicts arose among the Yanomami when Western influence reached native communities, altering trade relations, increasing factionalism, and fostering war within closely related indigenous groups (Ferguson 1992). Although the interaction between the Yanomami and Western players was quite distinct from the earlier prehispanic contact experiences in the Andes, the increasing levels of conflict among Yanomami groups during that time demonstrate how external influence can disrupt local and supralocal relations, potentially leading to intralocal violence. Similar outcomes may have occurred among the Wari era population at Beringa, where competition between indigenous groups for access to Wari goods may have contributed to high levels of violence. Native leaders also could have disagreed about how best to interact or negotiate with Wari on a variety of fronts, ranging from trade issues to styles of ritual practice, creating tensions between local communities in the process. Perhaps this caused both the local and imperial sides to renegotiate or redefine strategies of interaction. Here, then, the impetus for change, or at least a reevaluation of the status quo, may not have always flowed from the imperial center to the periphery, but may have been recursive. Actions, reactions, and interactions all would have been part of the process during a time of imperial expansion and interregional exchange.

Ritual Violence at La Real

The site of La Real is located eight kilometers downriver from Beringa (Figure 16.2), where three radiocarbon dates show that it was contemporaneous with Beringa (AD 640–740; AD 680–880; AD 690–900, all calibrated at 2 sigma) (Tung 2004). La Real was a ritual complex and mortuary cave site. In front of the cave, archaeologists encountered a rectangular ritual building with two rooms, a doorway connecting them, and a stone bench (de la Vera Cruz Chávez and Yépez Alvarez 1995); inside the room were three trophy heads (Tung 2003) and numerous high status goods, including gold and silver embossed plaques, snuff tablets, feathered textiles (probably related to Wari), and Wari polychrome ceramics (de la Vera Cruz Chávez and Yépez Alvarez 1995). The mortuary cave contained the majority of the bodies and more exotic Wari goods. These artifacts illustrate that La Real was notably richer in elaborate local and Wari goods than was Beringa,

suggesting that the people buried there may have been better connected to Wari trade networks and were of relatively high status (Tung 2003).

Based on demographic analysis of the La Real skeletons, Tung has argued that the sample does not represent a complete, once-living village community, but a subgroup of one or several communities (Tung 2003). At La Real, infants and children constitute only 25 percent of the age-at-death profile (N = 145), and the sex distribution is unequal; among adults, 61 percent are male and only 39 percent are female (N = 67), a distribution that significantly differs from a symmetrical distribution (50/50) (Fisher's exact, p = 0.0432, N = 67) (Tung 2003:130-131). This demographic profile indicates that select groups of people—biased towards adult males from one or more communities—were chosen for interment here (Tung 2003). Thus, while Beringa represents a rural, largely non-elite complete population, La Real represents a gender-biased, selective sample drawn from elite members of one or more communities in the same region and from approximately the same time, providing ideal cases for comparison.

The overall trauma frequencies among the Beringa and La Real skeletons are similar (Tung 2003). Thirty-one percent of La Real adults show cranial fractures (32 out of 104) resulting from blunt force trauma (i.e., a blow to the skull from a blunt object, like a stone), similar to the 33 percent at Beringa [Endnote 4]. Unlike Beringa, La Real shows sex-based differences in trauma; men exhibit (nearly) significantly more cranial trauma than La Real women (41% versus 19%, respectively; Fishers exact, p = 0.056; N = 65) (Tung 2003). These data demonstrate that during the first half of the Middle Horizon violence was common in the Majes Valley among both elite and commoner groups who exhibit cultural affiliations with Wari, yet only the elite La Real sample shows sex-based differences in cranial trauma, indicating that elite men engaged in violent conflict more than elite women (Tung 2003). In contrast, commoner men and women from Beringa were equally affected by violence (Tung 2003).

At La Real, only five of the 32 adults (16%) with cranial trauma exhibit perimortem fractures, suggesting that a relatively small percentage was actually killed by a blow to the skull (Tung 2003). This is low compared to the 31 percent of apparently fatal head wounds at Beringa; however, the difference is not statistically significant (Fisher's exact, p = 0.263; N = 46). Thus, while the trauma frequencies might suggest that lethal violence was more common at Beringa than at La Real, perhaps reflecting crucial differences in the social context for violence, the lack of statistical significance limits this interpretation.

Adults from La Real exhibit more healed head wounds per person than those from Beringa, indicating that many adults either received several hits to the head in one violent encounter or single blows in several separate encounters (Tung 2003). Among the 32 La Real adults with cranial injuries, 10 exhibited more than one head wound, for a total number of 53 cranial wounds among the 32 injured persons (Tung 2003). That is, nearly a third of the adults could have been involved in several violent events; events that could have occurred with some regularity or on some kind of a cyclical schedule. Because the multiple head wounds were well healed, there was no way to determine if they were received at the same time or during

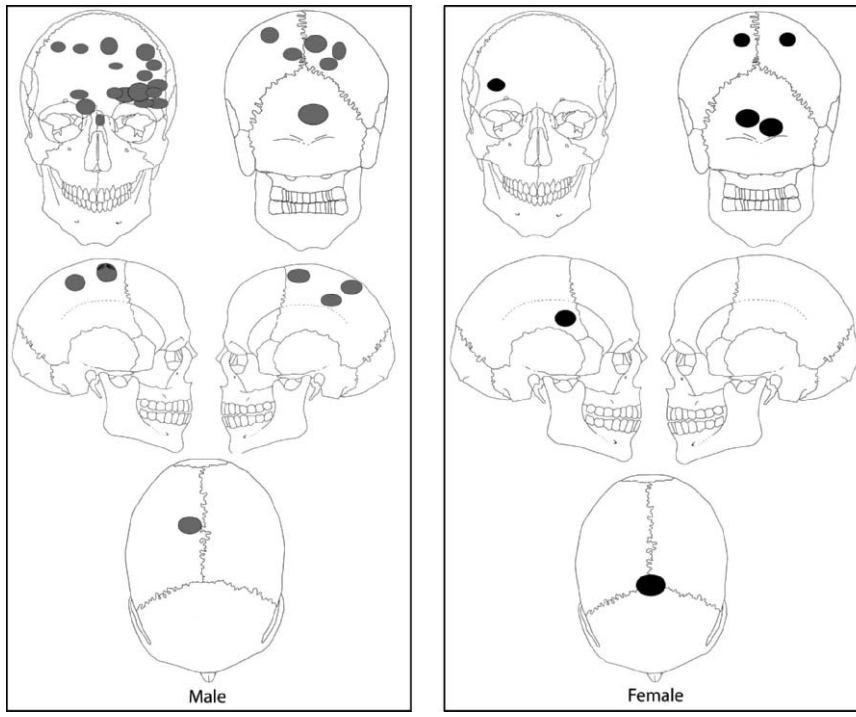

Figure 16.7. Locations of cranial wounds among adults from La Real (from Tung 2003).

different violent acts. While cyclical violence may represent endemic warfare, the low frequency of fatal head wounds suggests that military conflict might not be the only explanation. Instead, ritual violence involving sub-lethal injuries may better explain these patterns.

The locations of head wounds further support this interpretation. Among those buried at La Real, most injuries were sustained during face-to-face conflict: 52 percent of the wounds are on the anterior of the skull, 25 percent are on the posterior, and the remaining 23 percent are on the top and sides of the head (Figure 16.7) (Tung 2003). Notably among the anterior wounds, 70 percent are on the left side and 30 percent are on the right, indicating that the majority of wounds were likely inflicted by a right-handed attacker from the front, perhaps wielding a mace or club (Figure 16.8) (Tung 2003). While this could indicate warfare, the high frequency of non-fatal injuries suggests otherwise. These observations are similar to sub-lethal head wound patterning among Chumash males from prehistoric coastal California, where the pattern has been interpreted as evidence for "head clubbing," a ritualized form of fighting where men square off, giving and receiving blows to the head (Lambert 1994; Walker 1997). This is similar to ritual club fights between men in modern Amazonian groups, such as the Yanomami of Venezuela (Chagnon 1992) and the Brazilian Warí (note the accent: not to be con-

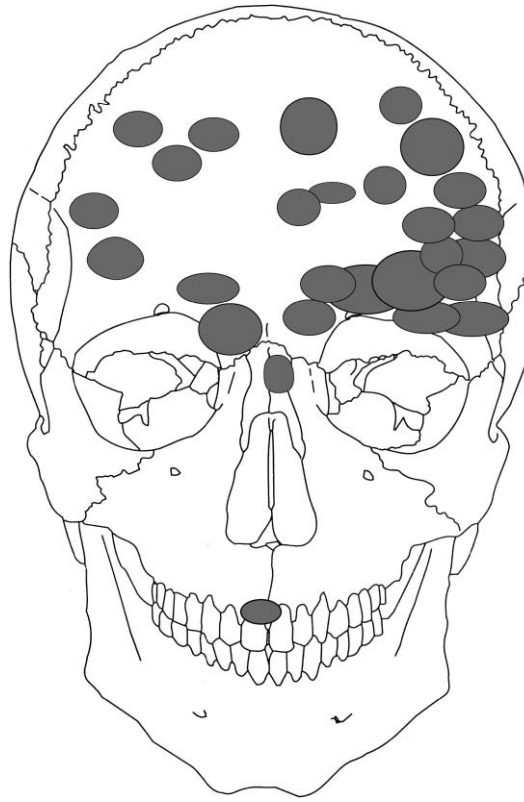

Figure 16.8. Locations of anterior cranial wounds among all adults (male, female, and unsexed) from La Real; note that the majority of wounds are on the left side of the face (from Tung 2003).

fused with the Wari discussed here) (Conklin 2001). Head-clubbing is often viewed as a form of organized conflict resolution, and it may be that La Real men, who appear to have been elites or local leaders, may have been engaged in this kind of practice.

In the ethnographically documented tinku in the Peruvian and Bolivian Andes and juego de la pucara (game of the fortress) in Ecuador (Allen 1988; Bolin 1998; Brachetti 2001; Chacon, et al. 2004; Gifford et al. 1976; Hartmann 1972; Orlove 1994; Sallnow 1987; Schuller and Petermann 1992; Schultz 1988), two communities converge as they attempt to spill an opponent's blood as an offering to earth for a bountiful harvest; the ritual battles are scheduled to correspond with festivals or the maize harvest (Allen 1988; Bolin 1998; Gifford et al. 1976; Hartmann 1972; Orlove 1994). While physical fights and stone-throwing are certainly key components of tinku, it is not perceived to be entirely hostile by the participants

because this ritualized convergence of opposites is meant to maintain balance and harmony (Allen 1988; Bolin 1998; Gifford et al. 1976; Hartmann 1972; Orlove 1994). As one of Bolin's informants from Chillhuani (in the Peruvian highlands) proclaimed about tinku, "it is not done in the mood of hostility. Instead it causes solidarity. It brings fertility for all" (Bolin 1998:95). Nevertheless, the fighting can be vicious, even fatal, and while the ultimate goal may be harmony, the proximate goal that brings this about is bodily conflict and bloodshed. Tinku typically involves men who square off in face-to-face fighting or who hurl stones at each other with an honda (sling) (Allen 1988; Bolin 1998; Chacon et al. 2004; Gifford et al. 1976; Hartmann 1972; Orlove 1994; see also Schuller and Petermann 1992: plates 64, 65), resulting in severe, but usually non-fatal head wounds that would be visible in the osteological record, possibly resembling those observed in the La Real sample.

TRAUMA IN OTHER ANDEAN REGIONS

The trauma frequency among Majes Valley peoples is exceptional when compared to contemporaneous populations also living within the orbit of Wari influence. In the nearby Nazca drainage, where Wari influence is evident at Wari ritual centers like Pacheco and in the material culture from other Middle Horizon Nazca sites, only nine percent of adults ($N = 97$) from the Wari era show head wounds (numbers are based on data tables presented by Kellner 2002). The combined trauma frequency of Beringa and La Real populations totals 31 percent ($45/143 = 32\%$), which is significantly higher than that of the Nazca population (Fisher's exact, $p<0.001$; $N = 240$), demonstrating that populations from two valleys in the southern hinterlands of the Wari empire experienced significantly different levels of violence (Tung 2003: 240). Perhaps differences in indigenous community organization and the ways in which each valley articulated with Wari contributed to these significant differences.

Trauma rates among Middle Horizon Majes populations also differed from contemporaneous populations at Tiwanaku settlements in the Titicaca Basin and Moquegua Valley, where only six percent of adult males ($4/72 = 5.5\%$) and no adult females ($0/119 = 0\%$) exhibited depression fractures on the parietal bones (sides and superio-posterior portions of the head) (Blom et al. 2003); however, one adult female from the site of Chen Chen in the Moquegua Valley suffered fractures to the ribs, zygomatic (cheek bone), and nasal bones which are reasonably interpreted as evidence of domestic violence (Blom et al. 2003; see also Draper 1992; Walker 1997). In the subsequent Late Intermediate Period, only 5.4% of individuals from the Moquegua Valley site of Estuquiña exhibit cranial depression fractures (Williams 1990). Overall, the cranial trauma frequency among the Majes Valley inhabitants is about six times higher than that among the Moquegua Valley and Titicaca Basin populations, and more than three times greater than that of Middle Horizon Nazca populations. These comparative data suggest that Wari

influence in the southern hinterland had variable effects on the peoples with whom Wari interacted. The differing levels of interactions or kinds of interactions, be they limited or extensive trade networks, religious propaganda, or resource exploitation, may have played a major role in creating or curbing violence.

Trauma data may hold the potential to discern specific aspects of imperial rule. Differences in the kind and frequency of trauma between Wari and Tiwanaku groups may provide insight into how these contemporaneous empires conducted business of imperial expansion and oversight. Given that the valleys of the Nazca drainage are geographically closer to the Wari heartland than the Majes Valley, and given that that Nazca populations appear to have been more closely integrated into the Wari infrastructure than the Majes populations (sites such as Pacheco and Pataraya suggest this; see Schreiber 2001), it may be that stronger Wari oversight in a region served to limit levels of violence. We do not mean to suggest that there was a Pax Wari in this locale, but the extent of Wari influence could have affected the extent of violence. In comparison, Tiwanaku settlements in the Moquegua Valley, which appear to be under strong Tiwanaku control, show low levels of trauma.

CONCLUSION

Recent excavations at the sites of Beringa and La Real have uncovered material evidence that demonstrates Wari influence in the middle Majes Valley during the first half of the Middle Horizon. While the pattern that emerges is not one of clear domination by Wari, the textiles, ceramics, and possibly the dense deposits of molle suggest Wari influence in realms including the mundane, such as food preparation and consumption wares, and the ceremonial, where large quantities of chicha de molle were produced and consumed, possibly in feasting events. The Wari textiles at Beringa illustrate another layer of interaction between Beringa villagers and those who were part of the Wari trade network and demonstrate that a few individuals at Beringa had access to high status Wari goods, such as tie-dye mantas. Additionally, the presence of a Wari style human trophy head in the middle Majes Valley suggests that Wari influence extended into the ritual sphere and was not solely limited to the exchange of material goods (Tung 2003).

The Beringa ceramic assemblage shows that these villagers were connected to the Wari system of exchange. But, the scarcity of obsidian and the absence of diagnostically Wari-style obsidian points suggest that people at Beringa may have been excluded from certain trading spheres. Beringa villagers may have shared the widespread Andean concept of unequal dualism, since many burials seem to have not-quite-matching pairs of vessels (Owen, in press). While Beringa ceramics display clear connections to Wari styles such as Chakipampa and Ocros, and the ceramic assemblage in general fits into the Huamanga grade of less-fancy Wari wares, the vessel forms and sizes vary from those in the Wari heartland. The differences in cooking vessels suggest that Beringa villagers consumed a

cuisine distinct from that of their counterparts in the Wari heartland (Owen, in press), perhaps due simply to a different mix of foods available in the yungas zone around Beringa. Nevertheless, the range of vessel volumes at Beringa indicates that food was often prepared for only one or two people at a time or was cooked in great quantities, perhaps for large groups during feasting events. If feasting was indeed part of the Beringa cultural repertoire during the Middle Horizon, then it is possible that some individuals may have been competing for status in a new political landscape affected by Wari.

The bioarchaeological data demonstrate that violence was prevalent among Majes Valley communities during the time of Wari influence. More than three out of ten adults from Beringa and La Real engaged in violent conflicts, and while it is unknown if this rate represents an increase or decrease from the preceding period, it is significantly higher than trauma frequencies among contemporaneous populations in the south-central Andes. It appears that Wari did little to curb violence in the Majes Valley during the Middle Horizon (Tung 2003). Indeed, it may be that peripheral partners in the Wari trade network were adversely affected by this interaction, such that negotiations with Wari leaders, traders, or their subsidiaries contributed to increased tensions among local communities and led to extreme levels of violence. Several lines of evidence point to the likelihood that Beringa inhabitants were victims of raids. Both men and women show head traumas, and they are similar in frequency, just as expected in cases of raiding where "social substitutability" merits the attack on any individual in the community. Although the perpetrators of the raids are unknown, we have suggested that foreign intrusion and attack by Wari soldiers was unlikely.

At La Real, injuries indicative of violent encounters affected more than 30 percent of the adult population, and men showed significantly more trauma than women, albeit only nearly at the 5% confidence level ($p = 0.056$) (Tung 2003). This sex-based difference in head wound frequency, the high percentage overall, and the prevalence of anterior head wounds are consistent with what has been observed among men who engage in ritualized "head clubbing." La Real men may have engaged in a form of ritual fighting, perhaps in a context similar to tinku. The individuals buried at La Real were high status persons who had access to a variety of exotic Wari goods, suggesting that participation in ritualized battles may have been exclusively for elites, or conversely, that ritual fights could have helped individuals, particularly men, gain higher status and, ultimately, access to the exclusive burial grounds at La Real.

As we have argued, there are times when violence on the periphery of an expansive power may nevertheless have little to do with military conquest. In the case of Wari, there is little evidence to suggest that direct military force was used in the Majes Valley. However, actions and policies of foreign powers can affect local and regional relations, perhaps having a secondary effect on peoples living in the periphery of an empire. It appears that Wari aided in creating or exacerbating intra-local violence among communities in at least this portion of its margins, and may have contributed intentionally or unintentionally to fomenting a social milieu

where violence was commonplace. Violence permeated the lives of many adults in the Majes Valley, and it appears to have varied in kind, ranging from raiding conflicts to ritualized battles, both of which led to high levels of bodily injury and sometimes death. Although a direct correlation can not yet be drawn between Wari influence and violence, the pattern is curious and adds to the parameters for understanding how imperial and local policies and actions may have come together to affect adversely the lives of people who had to negotiate these complex social and political systems.

ENDNOTES

1. The second author does not intend to assert that Wari was necessarily an empire, nor to make the discussion dependent upon that concept. Instead, in his view we are simply reviewing useful ideas concerning the interaction of a powerful center with less powerful peripheral communities that have been developed in the context of theorizing about empires.
2. The first author views the discussion of empires as a fruitful means to conceptualize Wari and Wari affiliated sites and the relationships between them. While the first author is cognizant of the potential problems of applying "European-derived concepts of empire" to the ancient Andes, she agrees with D'Altroy and Schreiber that comparative analyses benefit from a shared conceptual vocabulary that, nonetheless, must attempt to be historically and culturally situated (D'Altroy and Schreiber 2004:257). Also, various studies of empires have provided the first author with several ideas for understanding and contextualizing details of Wari society; thus, concepts drawn from studies of empire serve as a framework in much of this work (see Tung 2003).
3. It is rare that archaeological skeletal samples reflect the once-living population because biases that result from differential burial treatment or differential preservation often skew the demographic profile. This does not appear to be the case with the Beringa skeletal sample (see Tung 2003 for discussion).
4. However, one adult shows a possible healed cut wound on the posterior of the skull (see Tung 2003).

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Chapter **17**

Suspension Bridges of the Inca Empire

Brian S. Bauer

INTRODUCTION

When Spanish forces arrived on the coast of Peru in 1531, under the leadership of Francisco Pizarro, they entered the vast and highly organized empire of the Incas. As they marched into the Andean mountains the Spaniards marveled at the complexity of the empire and the sophistication of the immense road network that was maintained by the Incas. Pedro de Cieza de León, a young Spanish foot soldier who arrived in South America just ten years after Pizarro, recorded his thoughts on these engineering achievements, writing:

> In the memory of people I doubt there is record of another highway comparable to this, running through deep valleys and over high mountains, through piles of snow, quagmires, living rock, along turbulent rivers; in some places it ran smooth and paved, carefully laid out; in others over mountains, cut through the snow; everywhere it was clean-swept and kept free of rubbish, with lodgings, storehouses, temples to the Sun. (Cieza de León 1976: 138 [1554: Pt. 1, Ch. 41])

These roads connected every corner of the far-flung empire with its capital city of Cuzco. In order to cross the many deep rivers of the Andean region the Incas constructed innumerable bridges along their road system. In locations where the rivers were too large to be spanned by wooden beams, they built suspension bridges of grass and other fibers. These bridges, the largest suspension bridges of the pre-industrial age, represent one of the Incas' most impressive engineering achievements. However, because they were built with perishable materials and many of the bridge locations are now bypassed by modern roads, the suspension bridges of the Incas remain little discussed (the most extensive overview is provided by Regal 1972; also see Gade 1972; Harth-Terré 1961; Hyslop 1984).

The largest of the Inca suspension bridges were built across narrow gorges in deeply incised river valleys. In a few locations, such as the well known bridge across the Urubamba River near the town of Ollantaytambo (Figure 17.1), a center support was built in the middle of the river and a two span bridge connected the

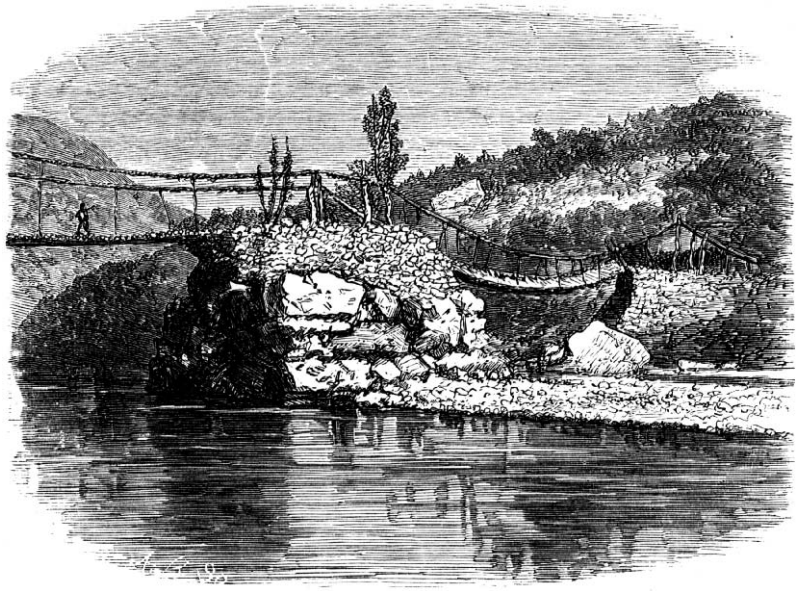


Figure 17.1. The Inca bridge at Ollantaytambo is unusual since it has two spans (Squier 1877: 506).

banks. This however, is unusual, since most of the Inca bridges were constructed with single span.

For the larger bridges, stone platforms were built on the riverbanks that fulfilled a number of different functions. Most importantly, they provided anchors for the bridge cables and minimized the distance that the bridge had to span (Figure 17.2). They also provided a stable and safe entrance to the swaying bridge. Along with platforms, the Incas generally built sets of stone towers at the bridge sites. These towers, which were used to suspend the primary side cables, had to be exceptionally strong since they carried the weight of the bridge as well as that of any traveler crossing it. While many of the bridge platforms survive today in various states of preservation, most of the towers were replaced with stone and mortar constructions during the Colonial and Republican Periods.

Besides studying the physical remains of the bridges, we can gain insight into these great engineering achievements through a variety of other sources. The bridges of the Inca Empire were so impressive that nearly all of the Colonial chronicles (AD 1531-1650) provide descriptions of them. They are also mentioned in a wide variety of governmental documents now stored in different archives of the Andean nations and Spain. In addition, various drawings of the bridges—and even a few photographs—dating to the late 1800s and early 1900s have survived. A

Figure 17.2. The western span and the central support of the Ollantaytambo Bridge. While the Inca platforms for the bridge are well preserved, the bridge towers used to suspend the cables have been rebuilt with stone and mortar. Also note the use of metal cables that allows the suspension of a flat walkway. (Anonymous, ca. 1930)

final source of information on Andean suspension bridges are the small number of bridges that continue to be used and maintained today.

EARLY SPANISH DESCRIPTIONS OF INCA SUSPENSION BRIDGES

A great deal of information on Inca suspension bridges is contained within the early Spanish chronicles of Peru. For example, Garcilaso de la Vega (1966: 149-150 [1609: Bk. 3, Ch. 7]), the child of an early Spanish conquistador and an Inca princess, provides an extremely detailed description of the construction of a suspension bridge (also see Betanzos 1996: 83–84 [1557]). His discussion is so well informed, detailing the many steps involved in bridge construction, that it likely represents an eyewitness account. Garcilaso writes that the participants had to first cut an enormous quantity of plant materials to be used in weaving the bridge. The materials selected for the bridge cables varied from willow to wild grasses depending on the local environment and the availability of different plants (also see Gade 1972: 96).

After the plant material was collected, it was braided into the required number of cables. To make a cable, thin strands of twine were plaited together to form a small cord. Three cords were then braided to form a strong cable. Cables were plaited together until the desired thickness and strength was reached. The cables of the major bridges of the Inca Empire are reported to have been one to two feet

thick. Frequently three or more of these thick cables were used in the construction of a bridge.

Once the cables were braided, the actual construction of the bridge could begin. At the start, a small cable would be transported across the river by a swimmer or on a raft. When this small cable was in place, the larger cables were pulled across. The immense weight of the cables demanded that this task be performed by long rows of workers on both sides of the river.

During the construction of a suspension bridge two large cables were drawn over the tops of the towers on both sides of the river. The ends of these cables were fastened to the ground after passing them through holes cut into the natural rock behind the bridge platforms or around masonry anchors specifically built into the platform for this purpose. The cables that passed over the stone towers supported the walkway and provided a continuous balustrade for the traveler to use while crossing the undulating bridge (Figure 17.3).

HANGING BRIDGE OVER THE RIO PAMPAS.

Figure 17.3. The bridge over the River Pampas in 1865 (Squier 1877: 558).

BRIDGE TECHNOLOGY

The Walkways

The walkways of Andean fiber bridges were constructed with a series of large cables drawn between the towers at ground level. The walkway cables, like the side cables, were pulled tight and then attached to anchors. Once secured, the cables were tied together. On the larger suspension bridges a network of small wooden branches, laid perpendicular to the cables, were woven into the walkway to provide a wider and more secure floor.

Pedro Sancho, a member of Francisco Pizarro's original army, wrote a clear description of the great fiber bridges he saw throughout the Inca Empire. He especially mentions the construction of the walkways:

> If the two banks of the river are stony, they build large walls of stone. [Between the walls] they place four [cables of] pliable reeds two palms or a little less in thickness. They weave [the cables] together, in a wattle-work fashion, with intertwined green osiers two fingers thick, in such a way that some are not left more slack than others, and all are well tied. Upon these they place branches crosswise so that the water is not seen. They make the floor of the bridge in this way. In the same manner they weave a balustrade of these same osiers along the side of the bridges so that no one may fall into the water, of which, in truth, there is no danger. (Sancho 1917: 60–61 [1534])

A detailed drawing of the Pampas River Bridge, produced by the American diplomat E. George Squier, clearly shows such a branch and mat covering (Figure 17.4).

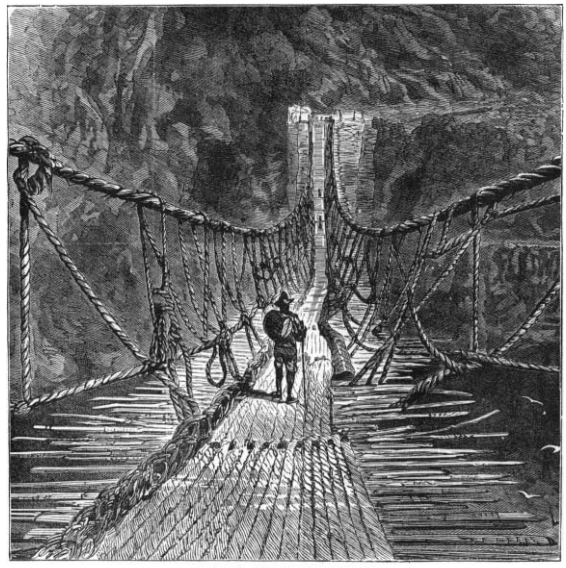


Figure 17.4. Detail of the River Pampas Bridge in 1865 (Squier 1877: 559). Note that the size of the individual crossing the bridge is poorly proportioned to the size of the bridge.

The woven mat helped to preserve the cables from wear and provided a secure footing so that even herds of llama, the major pack animals of the Incas, could be driven across the bridges.

The large side cables of the suspension bridge were attached to the walkway cables through numerous thin cords. These cords helped to stabilize the bridge. They also formed a netting that assured travelers that they would not fall through the sides of the bridge and into the river below.

Bridge Construction and Repair

The many bridges of the Inca Empire were built and maintained through a system of corvée labor. Villages located near a bridge were assigned the obligation of maintaining and replacing the cables, or the entire bridge, when necessary. Several Spanish chronicles note that the largest of the fiber suspension bridges had to be completely replaced as often as once every two years. A number of villages would work together to complete this task as part of the tribute owed to the empire. Little changed after European contact, since bridge repair duties continued to be held by local communities and were considered part of their tribute obligations to the King of Spain. Indeed, such obligations continued well into the twentieth century. Gade (1972: 98) writes, "Between 1920 and 1930, bridge renovation was part of a national road conscription act in Peru which required of an adult male up to twelve days a year compulsory public works service."

The replacement of a bridge was also an important social event; a festive time of communal work filled with celebrations and ritual observances to assure the safety of the bridge and its long duration. The communal construction work, like the suspension bridges themselves, bound the villages on either side of the river together.

Various writers tell us that the largest and most important bridges of the Inca Empire had full-time overseers. In one of his many drawings, Felipe Guaman Poma de Ayala, an indigenous writer who completed his chronicle in 1615, depicts such a guard in front of a suspension bridge (Figure 17.5). The guard's large ear spools indicate that he is a man of considerable importance in the empire. Behind the guard, a traveler with a large load can be seen crossing the bridge. The bridge is made of woven materials and built on stone platforms.

The Inca guards were especially important during periods of war when the bridges, critical control points in the countryside, were frequently attacked and burnt. For example, Pedro Sancho (1917: 61–62), writing his chronicle in 1534, describes how an Inca overseer was able to rebuild a suspension bridge within days after it was destroyed by enemy forces. Sancho states that the guards for the bridges lived nearby and always kept weaving materials and ready-made cords to mend the bridge (also see Betanzos 1996: 111 [1557]; Cobo 1990: 231–232 [1653: Bk. 14, Ch. 13]).

The Crossing

Crossing a suspension bridge was not easy. Although both ends of the suspension bridge were securely fastened to the bank, the middle of the bridge swayed with

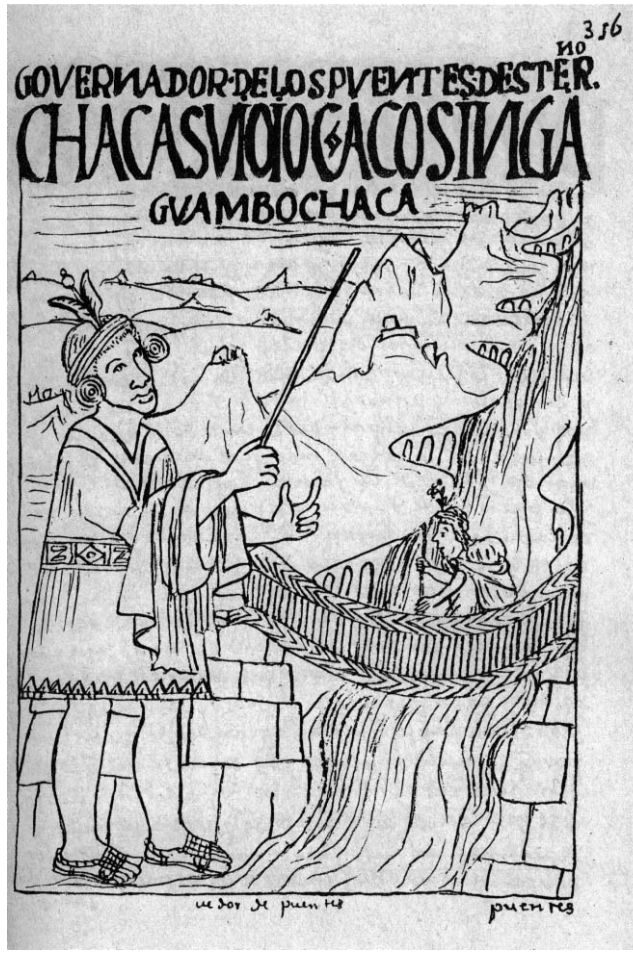


Figure 17.5. Guaman Poma de Ayala (1980: 328 [1615: 356(358)]). The caption reads: *Gobernador de los puentes deste reyno chaca suioioc Acos Inga, Guambo chaca* (Supervisor of the bridges of this kingdom, Acos Inca, Guambo Bridge). Beneath the drawing is written, *uedor de puentes* (overseer of bridges).

the lightest of winds. Larger bridges of the empire frequently could not be used in the afternoon because of cross winds. In addition, the suspension bridges of the Incas hung low across the rivers. One crossed, not on a flat walkway, but on a continuously sloping surface that dropped, swayed, and reverberated under the weight of the traveler. Many Spaniards are known to have crawled over a bridge on their first crossing. Again Pedro Sancho provides a clear description of his fears in crossing a suspension bridge:

> To one who is not used to it, crossing appears dangerous because the span is long [and] the bridge bends when one goes over it. One goes continually downward until the middle

is reached, and from there he keeps going up until he has finished crossing to the other bank. When the bridge is being crossed, it trembles very much, so that it can make any not accustomed to it dizzy. (Sancho 1986: 90 [1534])

CHANGES AFTER EUROPEAN CONTACT

The imposition of Spanish rule in the Americas brought with it a great range of new technologies. However, many of the suspension bridges of the Andes remained little changed for centuries (Gade 1972). In a limited number of locations, the suspension bridges were replaced by bridges with stone arches, but these were not widely used outside of towns because of the high cost of construction and the fact that seasonal floods frequently destroyed them (Gade 1972:100). One notable exception is the great single span stone bridge near Abancay that was completed in 1564 (Gibbon 1854: 35).

The widespread availability of iron during the 19th century did, however, bring changes to Andean bridges. Fiber cables were slowly replaced with metal ones, and the form of the bridges changed. Chains were first used, and later iron cables were introduced to the Andes. These metal cables could be drawn much tighter than the fiber cables; they could support greater weight, and perhaps most importantly, they provided the opportunity to construct and truly suspended a flat walkway over the river. Flat walkways held great advantages over the low hanging walkways of the fiber bridges; making the crossing easier and safer for humans as well as animals (Gade 1972: 102).

One of the most famous bridges in the central Andes was located near the mining town of La Oroya. By the first half of the 19th century iron chains had replaced its fiber cables and leather straps were used in place of hanging cords to suspend the walkway. William Lewis Herndan, recorded his crossing of the bridge on 5 June 1851:

The bridge consisted of four chains, of about a quarter of an inch diameter, stretched horizontally across the river from strong stone-work on each site. These are interlaced with throngs of hide; sticks of about one and a half inch in diameter are laid across them and lashed down, forming a floor. Two other chains are stretched across about four feet above these, and connected with them by thongs of hide; these serve for balustrades, and would prevent a mule from jumping off. The bridge was about fifty feet above the water when we passed. It seemed very light, and rocked and swayed under the motion of the mules in crossing it. The heavy cargoes are taken off and carried over on the shoulders of the bridge-keeper and his assistant. The toll is twelve and a half cents the mule, and the same, the cargo. (Herndan 1854: 65)

Middendorf (1973 [1893]) crossed the bridge some forty years later and noted that the bridge was composed of metal cables and animal hides. An anonymous pencil drawing of the bridge based on one of Middendorf's photographs (Figure 17.6), and a photograph taking of the bridge around 1900 (Figure 17.7) both show a flat walkway. The fact that the metal cables did not have to be replaced each year, and that they could be drawn tight enough, and were strong enough, to support

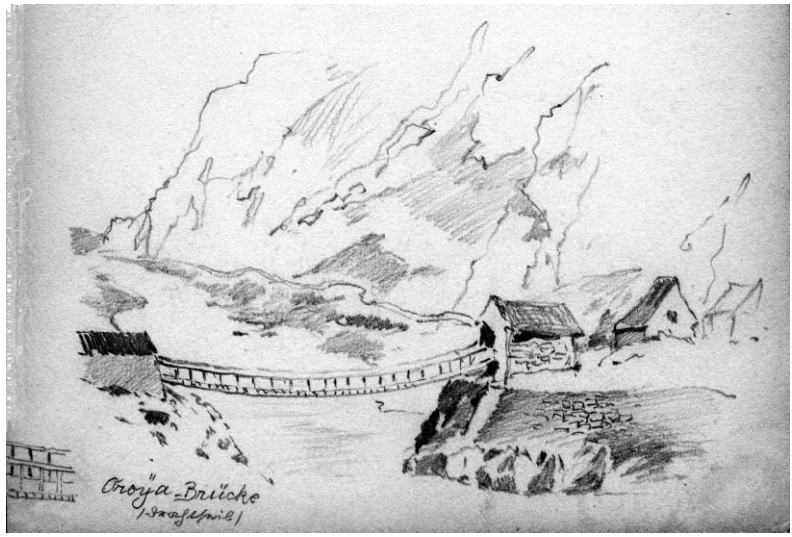


Figure 17.6. Anonymous pencil drawing of the Oroya Bridge. (Based on a photograph taken by E. W. Middendorf, 1888)

flat walkways was highly advantageous along a road system that was increasingly burdened with long horse and mule caravans.

The slow upgrade of materials for Andean suspension bridges is even better documented for the Ollantaytambo Bridge (Regal 1972). Gade (1972: 108) reports that in 1880 new masonry work was added to the bridge and the rope cables were

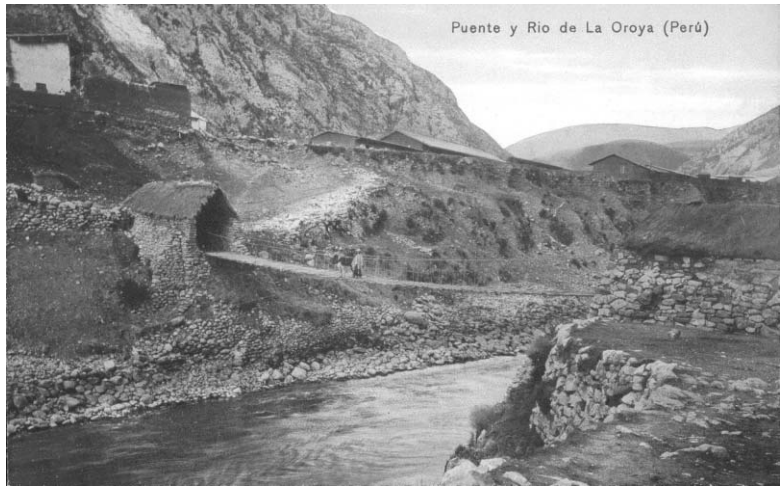


Figure 17.7. Photograph of the Oroya Bridge. (Photograph by E. Polack-Schneider, ca. 1910)

Figure 17.8. The Chanchamayo Bridge (Photograph by Oscar Lopez D, ca. 1910)

replaced with metal ones in 1899. This change is documented through Squire's 1865 drawing, showing the use of fiber cables, and later photographs showing the bridge with metal cables and a flat road way (Figures 17.1, 17.2). By the mid 20th century, the widespread use of automobiles in the central Andes brought dramatic changes to the road and bridge systems. Many of the steep, narrow gorges that were ideal for suspension bridges proved impossible for modern road engineers to reach. Numerous new roads where cut at less steep grades than the previous trails and arrived at the rivers in locations where new bridges had to be built (Figure 17.8). Gade (1972: 102) summarizes the changes that occurred across the former area of the Inca Empire: "Hanging vine bridges survived only where traffic remained on foot or hoof. As highway construction speeded up after 1925, modern steel bridges of simple beam of truss design were built to accommodate trucks and cars. Local involvement declined significantly as decisions for bridge construction and repair were made far away at public works departments in national or regional capitals."

THE APURIMAC BRIDGE

The largest Inca suspension bridge spanned the Apurimac River near the modern town of Curahuasi (Department of Cuzco). The Apurimac River, known as the "Talking God" for the sound that its turbulent waters make as it flows along its narrow course, is the source of the Amazon and the largest river of the central Andes of Peru. The bridge was located on the major highway that connected the heartland of the Incas with the northwestern sections of the empire (Regal 1972:80-86). It had a stone platform on each side of the river and four enormous stone towers from which it was suspended. Harth-Terré and Márquez (1961: 104) note that the

bridge had to be replaced annually; a task that took two weeks and involved more than 250 people.

Few who crossed the great bridge over the Apurimac River were left unmoved. For example, Garcilaso de la Vega wrote in 1609:

> The Apurimac bridge, which is the longest [Inca bridge] may be two hundred paces long. It is certainly a marvelous piece of work, and would be incredible if one could not still see it, for its very necessity has preserved it from destruction, or time might have destroyed it like many others which the Spaniards found on the same highways. (Garcilaso de la Vega 1966:150 [1609: Bk. 3, Ch. 7])

The bridge was built in a steep section of the Apurimac River Valley across a narrow rocky gorge. Even the construction of the trail to the bridge site by the Incas was an impressive engineering feat. Cieza de León, who crossed the bridge two decades after the conquest, writes of this steep trail:

> The road is well laid out along the slopes and mountains, and those who built it must have had a hard time breaking the rocks and leveling the ground, especially where it descends to the river, and the road is so rough and steep that some of the horses loaded with silver and gold have fallen into the river, where it was impossible to rescue them. There are two great platforms on which to lay the bridge. When I returned to the City of the Kings [Lima] after we had defeated Gonzalo Pizarro, some of us soldiers crossed the river without the bridge, for it had been destroyed, each of us in a basket, pulling ourselves along with a rope tied to the piles from one bank to the other, over fifty fathoms. It is a fearful thing to see the risks the men who go out to the Indies undergo. (Cieza de León 1976: 134 [1554: Pt. 1, Ch. 41])

More impressive still is the fact that to reach the narrowest section of the gorge, the Incas carved a tunnel along a natural fault in the rock. Several 19th century travelers who crossed the Apurimac Bridge record descriptions of it and the tunnel. Lardner Gibbon, an American who crossed the Apurimac River on 18 August 1851 on his way to explore the upper Amazon, provides a detailed description of the bridge:

> Our view (of the river) was cut off by another turn, and leaving the surface of the earth, we enter a tunnel, cut into the mountain, which stands like its strata, perpendicular, by the side of the river. Sky-light holes are cut through the rock, and as we travel along, in alternate light and darkness, the arrieros shout at the top of their voices at the train. The mules are fearful of proceeding. Coming to a house, which was open on both sides, we looked over the Apurimac bridge, and then down into the river, a fearful distance below. . . . The ropes of this suspension bridge—of bark, about the size of a sloop-of-war's hemp cable-are made fast to the posts which support the roof of the house. It is best for travelers not to be too particular in their examinations, how these ropes are fastened. . . . The baggage was taken off the mules as they were brought through the house, and one by one taken across the river, when the arrieros carried over the baggage on their own backs. (Gibbon 1854: 37)

Gibbon also recorded this memorable event in a drawing (Figure 17.9) which shows structures on either side of bridge as well as the entrance to the tunnel. A

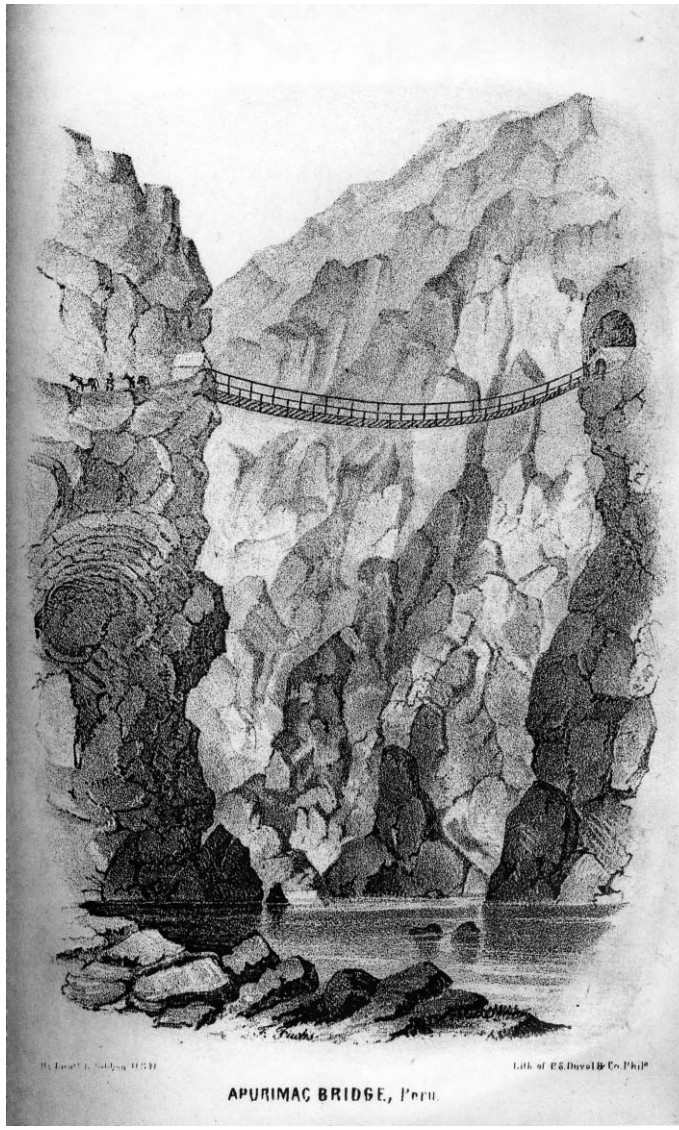


Figure 17.9. Lardner Gibbon (1854: op.cit. 37) crossed the Apurimac Bridge in 1851. Note the two entrance structures on either side of the bridge. Compare this view with that shown in Figure 17.10.

series of holes are depicted above the tunnel entrance, marking its continuation up the cliff.

Clement Markham, who crossed the bridge in March of 1853, also provides a drawing (Figure 17.10). Markham's drawing, done from the same spot on the

Figure 17.10. The most famous Inca suspension bridge crossed the Apurimac River. The bridge was located on the royal Inca highway and connected Cuzco with its provincial centers to the northwest. Note the structures on either side of the bridge as well as the trail to the upper right leading to the town of Curahuasi. (Markham 1910: 78)

Apurimac River bank as Gibbon's, shows both bridge structures as well as the tunnel. Far above the tunnel entrance, Markham portrays the zig-zagging trail that led up the steep valley slope to Curahuasi. Markham also offers the following vivid account of crossing the bridge:

> Next morning we continued our journey down the valley of Curahuasi and after a league reached the edge of the precipice, which descends perpendicularly to the banks of the Apurimac. The descent seemed almost impossible. The road wound backwards and forwards with such steep and frequent zigzags that I expected every moment to be hurled down. At the last the precipice became quite perpendicular and a sort of tunnel was excavated in the solid rock, about twenty yards long, at the end of which was the entrance to the bridge. It is constructed of sogas [cables] in the same way as that over the river Pampas and fifty yards across. It is a full 150 feet above the foaming river, which, though very deep, dashes nosily along between the might barriers which confine it on either side. The sogas rocked up and down at every step as I crossed. (Markham 1991: 83 [1853])

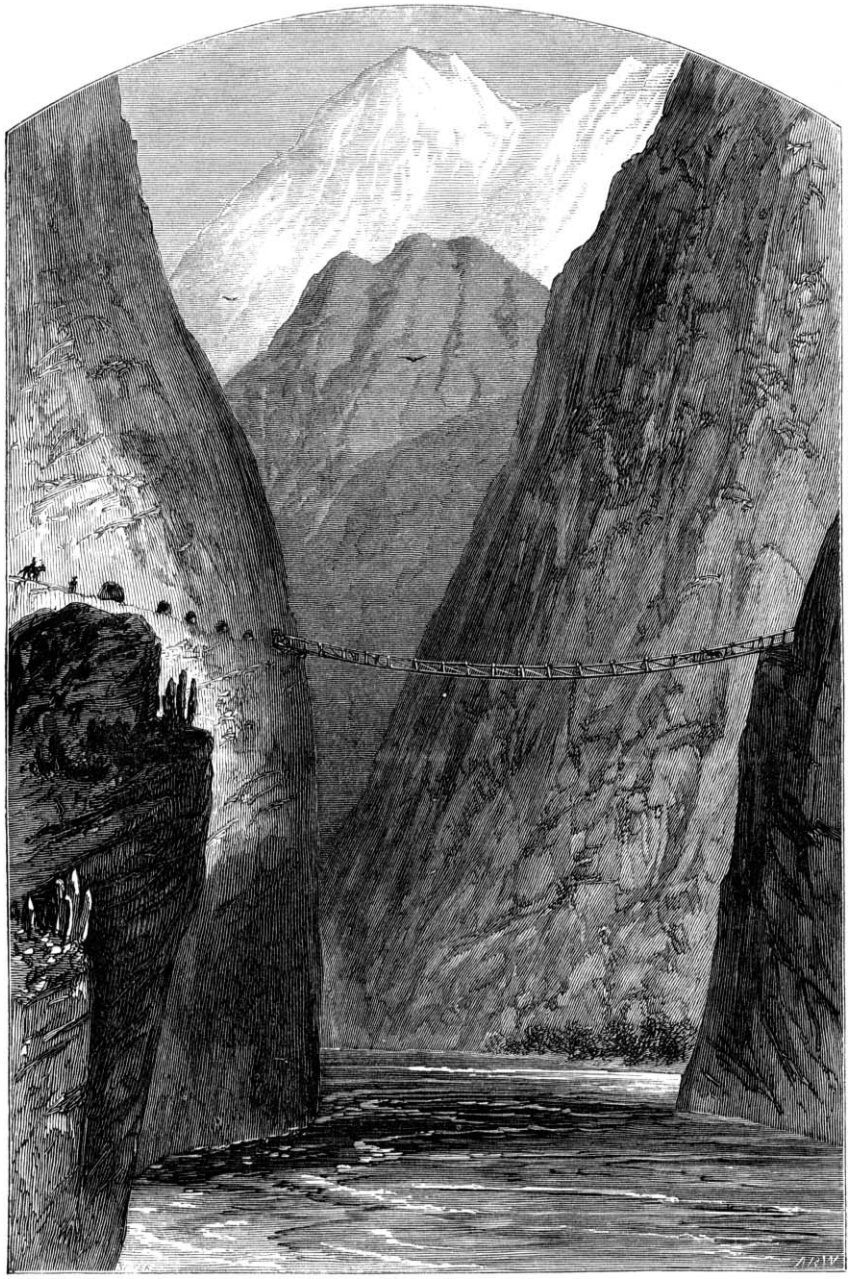
Several years later, in 1865, E. George Squier also passed over the bridge. His drawing, certainly the best known of the Apurimac Bridge, is especially interesting as it shows a mounted horseman about to enter the tunnel (Figure 17.11). Squier, intrigued with the engineering achievements of the Incas, not only stopped to draw the bridge but measured it as well. He notes that it was 148 feet long and rested 118 feet above the Apurimac River.

After hundreds of years of use, the bridge was finally abandoned around 1880. At that time all traffic crossed the river on a newly constructed bridge that was located in an area of easier access to the river. The remains of that late 19th century bridge can still be seen down stream from the modern highway bridge (Gade 1972; Heffernan 1996a, 1996b).

In a visit to the Apurimac Bridge in 1987, I found that Garcilaso de la Vega's fears for the collapse of the bridge structures had come true (Figure 17.12). Little evidence remains of what was once the largest bridge in the Americas. Although scattered remains of the road that led to the bridge can still be identified, it is badly eroded. Complete sections of the trail have fallen into the Apurimac River. This is especially true along the steep rock gorge near the tunnel entrance, a feature that makes the trip to the bridge site dangerous. In addition, the tunnel, once carved and maintained by the Incas, is now eroded and filled with debris (Figures 17.13, 17.14). Perhaps most regrettably, the bridge's impressive platforms and towers have been claimed by the river since Victor von Hagen (1955) noted their presence during a visit to the bridge site in 1953 (Figure 17.15).

THE PAMPAS RIVER BRIDGES

Two other well-known Andean suspension bridges crossed the Pampas River. One of them connected the important centers of Vilcashuamán (Department of Ayacucho) and Andahuaylas (Department of Apurimac). That bridge was located



BRIDGE OF THE APURIMAC.

Figure 17.11. Squier (1877) provides the best known drawing of the Apurimac Bridge. Note the mounted horseman entering the tunnel at upper left.

Figure 17.12. The largest suspension bridge of the Inca Empire once crossed this rocky gorge over the Apurimac Bridge (Photograph by author, 1987)

near the town of Uranmarca. Cieza de León traveled this road and crossed the river in the decades following the Spanish conquest. He writes:

> From one side of the river to the other there are two high rows of stone piles, stout and deeply buried, on which to lay the bridge, which is made of twisted withers, like well ropes for drawing up water with a pulley. The bridges made in this way are so strong that horses can gallop over them as through they were crossing the bridge of Alcántara or Córdoba. The bridge when I crossed it was seventy-six feet long. (Cieza de León 1976: 129 [1554: Pt. 1, Ch. 89])

In 2003 I visited an area called Incachaka, along the Pampas River down slope from Uranmarca (Socualaya 2005). On one side of the river are the remains of a

Figure 17.13. Remains of the tunnel leading to the Apurimac Bridge (Photograph by author, 1987)

late 19th century construction that once supported a suspension bridge. A similar structure once stood on the other side but it was destroyed in a flood several decades ago. Victor von Hagen (1955) suggests, however, that the site of the Inca bridge may have been located further upstream.

A second major Inca suspension bridge crossed the Pampas River between Orcos (Department of Ayacucho) and Chinchero (Department of Apurimac). The importance of this bridge during the Colonial Period is highlighted by a long lasting dispute between the surrounding communities. Whichever community controlled the bridge also controlled the revenue stream that came from the many travelers on the road (Hyland 2002).

Figure 17.14. Once high enough for mounted horsemen, the tunnel that leads to the Apurimac Bridge site is now filled with debris (Photograph by author, 1987)

Figure 17.15. The towers and platforms of the Apurimac Bridge have now collapsed (Photograph by author, 1987)

Lardner Gibbon provides a graphic description of the bridge. He crossed the River Pampas in early August 1851 and recorded the following impression:

> We crossed the Rio Pampas, flowing northwest, upon a suspension bridge made of bark rope. Eight cables are stretched across, over which small cross-pieces of light wood are fastened to form a floor; two large cables above the sides bear part of the weight, by small ropes laced from the floor over them. Great care had to be taken by leading the mules one by one. . . . The creaking and swinging of the bridge was fearful for about forty yards. (Gibbon 1854:30)

Markham crossed the bridge two years later in 1853. The number of cables used in the bridge construction appears to have changed over this brief time period. This is not surprising since Markham notes that the bridge had to be frequently renewed. This was certainly also the case for other bridges that were located on the central and most important road of the Andes:

> In a narrow place about twenty yards wide, a bridge of sogas, or ropes made of the twisted fibers of the maguey, had been thrown across the chasm. Six sogas, each about a foot in diameter, are stretched over the river and set up on the other side by a windlass. Across these hawsers other smaller ropes are secured and covered with matting, which forms the bridge. It is considerable lower in the centre than at the ends and it vibrated up and down a good deal as we passed over it. The bridge has to be renewed several times in the year. (Markham 1991: 78 [1853])

Squier, on his return journey from Cuzco to Lima in 1865, also crossed the Pampas River. He offers a noteworthy description of this bridge:

> The bridge is picturesquely situated, and is 135 feet in length, and 45 feet high, in the centre, above the rapid and broken waters of the river. At the time of our visit the bridge had sagged somewhat to one side, but not to an extent that made it at all dangerous and our animals crossed without giving us any difficulty.
>
> The morning enabled us to take some fine views [i.e., photographs], though carrying the photographic apparatus across this frail structure swaying in the wind was by no means an easy matter (Squier 1877: 559).

The Pampas River Bridge is one of the best-documented bridges of Inca road system (Regal 1972:92–95). Squier provides two illustrations that are based on two photographs taken at the bridge site (Figures 17.3, 17.4). Fortunately, these photographs have survived and can be seen at Tulane University (Figures 17.16, 17.17). Along with these illustrations there is also an anonymous pencil drawing made of the bridge dating to the early 1900s (Figure 17.18) as well as various anonymous photographs (Markham 1910; Regal 1972).

According to Gade (1972: 106), as early as 1849 the Peruvian Congress approved legislation to have this hanging bridge replaced with a metal structure. Nevertheless, the bridge continued to be used for many decades, even after other bridges, such as the Apurimac Bridge, were abandoned. An inscription at the bridge site indicates that new stone and mortar towers were built in 1906 (no doubt to support iron cables) and we can presume that the bridge continued to be used for some years after that. I was pleased to find in 2002 that both platforms of the Pampas River Bridge, as well as the impressive trail that leads to it from the Ayacucho side, are still well preserved (Figures 17.19, 17.20, 17.21).

Figure 17.16. The Pampas River Bridge, looking up stream. Compare this photograph with the etching provided in Figure 17.3. (Photograph by Squier 1865, courtesy of The Latin American Library, Tulane University)

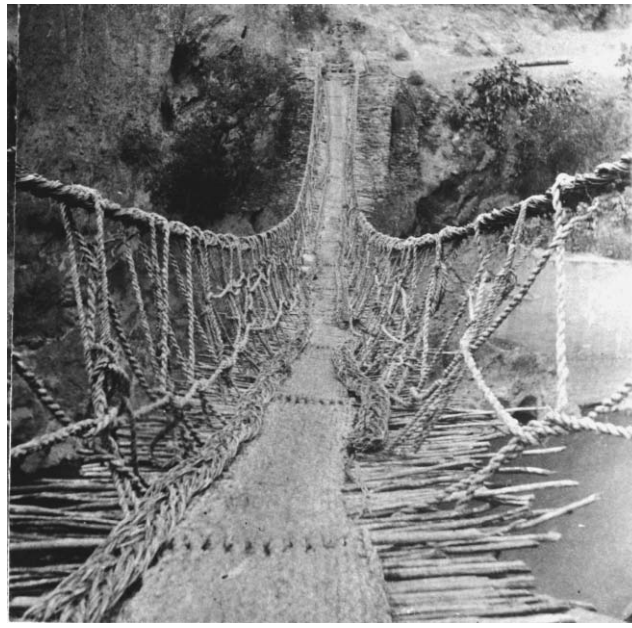


Figure 17.17. Detailed photograph of the Pampas River Bridge. Compare this photograph with the etching provided in Figure 17.4. (Photograph by Squier 1865, courtesy of The Latin American Library, Tulane University)

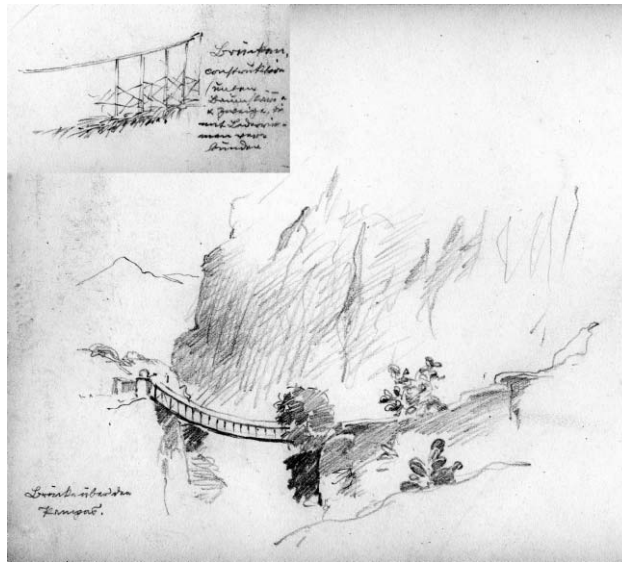


Figure 17.18. Anonymous pencil drawing of the Pampas River Bridge in the late 1890s.

Figure 17.19. The trail to the Pampas River Bridge is still well preserved. (Photograph by the author, 2003)

Figure 17.20. The Pampas River at the bridge site. (Photograph by the author, 2003)

Figure 17.21. The Pampas Ridge bridge towers on the Apurimac side of the river. Compare this photograph with that shown in Figure 17.17. (Photograph by the author, 2003)

Figure 17.22. The Quesuachaka Bridge, Department of Cusco, spans the upper course of the Apurimac River. (Photograph by the author, 1989)

Figure 17.23. The cables of the Quesuachaka Bridge are tied to masonry archers on each side of the river. (Photograph by the author, 1989)

MODERN SUSPENSION BRIDGES

Hundreds of fiber suspension bridges once spanned the rivers of the Andes. While most of these suspension bridges have long been abandoned, there are a few that continue to be used and maintained. Perhaps the most spectacular suspension bridge that has lasted into the 20th century is the bridge of Quesuachaka, located in a remote region of the Department of Cusco (Figure 17.22; see also McIntyre 1973; A.Von Hagen 1996: 199–205).

The bridge spans an entrenched section of the upper Apurimac River. As the name of the bridge indicates (quesua = grass, chaka = bridge), the bridge is constructed of woven, wild grasses, which are harvested from the nearby mountain pastures. The bridge contains two platforms on either side of the river and two pairs of stone towers. The side cables and the walkway cables, all approximately six inches thick, have been tied around masonry anchors behind the bridge platforms (Figure 17.23).

The Quesuachaka Bridge used to be rebuilt every two years, but when Gade visited it in 1970 the bridge had not been repaired for several years. McIntyre (1973), however, documented its reconstruction soon afterwords. When I visited the site in 1989 the bridge again stood in disrepair. The walkway cables were frayed and brittle, and the protective matting of the bridge had blow off the walkway cables (Figure 18.24). The decline of the bridge is due to the construction, in 1968, of a modern highway bridge some 500 yards upstream.

Figure 17.24. Entrance of the Quesuachaka bridge. (Photograph by the author, 1989)

THE FUTURE

In August 1994 documentary filmmakers working for public television's *Nova* series contracted for the reconstruction of Quesuachaka. As Adriana von Hagen has written about the experience, at least when encouraged to maintain them (in part due to *Nova*'s financial contribution), "for the surrounding communities the bridge [reconstruction] was more about bringing people together than about crossing a river" (1996: 199). The bridge reconstruction was an enactment of principles of Andean labor and social organization harking back to Inca times. Regretfully, only a handful of fiber suspension bridges remain in the Andean nations. Once these last bridges fall, the traditional art of fiber bridge construction, which reached its apogee under the rule of the Incas, will be lost.

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Part IV

Conclusion

Chapter 18

Rethinking the Central Andean Co-Tradition

WILLIAM H. ISBELL AND HELAINE SILVERMAN

Regional groupings of cultures have played important roles in South American anthropology, both in its culture history and in the interpretative models employed by social scientists investigating indigenous cultures, past and present. It is also clear that anthropological and archaeological interpretations were shaped by the information available (and not available) at key moments, as when the *Handbook of South American Indians* was edited, or the conference reappraising Peruvian archaeology was convened (see Bennett 1948a). It is equally apparent that arbitrary biases such as modern boundaries, and the nationalisms that accompany them, have influenced the way anthropologists have though about the culture areas in South America, including the Central Andes.

For more than half a century, the Peruvian co-tradition, as the "over-all unit of culture history of an area within which the component cultures have been interrelated over a period of time" (Bennett's 1948b: 1; see also Tello 1942), has dominated thinking about the Andean past. Its prominence is demonstrated by the many books that offer an introduction to the prehistory of the region, tacitly accepting it as the culturally relevant unit. Following *A Reappraisal of Peruvian Archaeology*, the next new synthesis to treat the region defined as the Peruvian co-tradition was by Bennett and Bird (1949). This influential book was followed by other synthetic presentations of the Central Andes, for instance, by J. Alden Mason (1957), Geoffrey Bushnell (1966), Rafael Larco Hoyle (1966), Edward Lanning (1967), Gordon Willey (1971), Luis Lumbreras (1969, 1974), Michael Moseley (1992), Craig Morris and Adriana von Hagen (1993), and James Richardson (1994), among others.

The way archaeological cultures are grouped must depend, at least to some degree, on the goals of one's research. But there also is a real past whose remains we should not misrepresent. In our introduction to this volume, we called attention to problems associated with the southern boundary of the Peruvian co-tradition. Bennett (1948b) followed earlier convictions that Tiwanaku and the Bolivian shore of the Titicaca Basin belonged with cultures of the Peruvian sphere, immediately to the north, but excluded everything farther from the modern Peruvian border, including the eastern valleys that descend from the altiplano to tropical forests and grasslands. The archaeology of these "valles transversales," as they are called in

Bolivia, was little known in the 1940s, and remains under-investigated even today. However, it certainly seems that large villages, intensive agriculture, advanced weaving, and perhaps even permanent buildings that included monumental architecture were part of the cultural repertoire of the people of at least the largest and best known of the eastern valleys, Cochabamba. Perhaps some of the cultural traits, which were formerly judged as Amazonian or Pampas in origin, appearing in regions such as Cochabamba, are as authentically Central Andean as irrigation and permanent architecture. Should the Central Andes be extended farther south, to include Cochabamba or even areas farther removed? There is no question that Cochabamba maintained a long-term relationship with Tiwanaku. For example, Isbell and Burkholder (2001) think that the kero ceramic form—so definitively associated with Tiwanaku and that appeared suddenly at that site—probably had its origin in Cochabamba.

When Bennett wrote in 1948 he was convinced that features such as urn burial were not part of the Peruvian co-tradition, but Isla and Reindel (this volume) report that nearly a third of the Nasca dead were buried in this fashion. Similarly, the bow and arrow was excluded from Central Andean culture traits, but a recently discovered Wari burial from Conchopata has an archer's bow in it, and iconography from the same site shows Wari warriors armed with shield, bow, and arrows, kneeling in a reed boat (Isbell 2001: fig. 26; Isbell and Cook 2002; Ochatoma and Cabrera 2002).

Upon what basis did Bennett draw the northern boundary of the co-tradition between Peruvian Cajamarca and Ecuadorian Loja? Was his decision based on real material differences, or on the scarcity of information about remote mountain cultures between these two large basins, or on convictions that have nothing to do with the prehistoric past, such as the modern history of animosity between Peru and Ecuador? Lau (this volume) shows that Cajamarca's ancient societies were interacting a great deal with Central Andean peoples farther to the south, and we know that Cajamarca ceramic styles appear on Peru's north and far north coasts as well. So Cajamarca seems a legitimate inclusion in the Central Andes—but would Bennett have been confident about placing a co-tradition boundary between Cajamarca and Loja if he had known about the important Initial Period and Early Horizon occupations at Pacopampa (summarized in Burger 1992), the impressive chullpas of Chota/Cutervo (Isbell 1997; Shady and Rosas 1976), and the prominence of Huari stylistic influence in these same valleys (Shady and Rosas 1976), all well north of Cajamaca? These remains—and many others—show that Central Andean cultural features were more broadly distributed than realized in 1948, so the gap between the northern extremes of the Peruvian co-tradition and the southern extent of an Ecuadorian region is really quite modest in the highlands (and see discussion in Burger 1984).

Similar questions about a northern frontier of Central Andean culture are raised by Peter Kaulicke (this volume) in terms of coastal cultures. He shows that Vicús is at once part of the Moche sphere and that it also interacted significantly with Ecuadorian cultures. As Kaulicke indicates, a normative and overly simplistic view of the Moche ceramic style and interaction sphere appears to need significant

revision before archaeologists will understand the dynamics of cultural development on the north and far north coasts, including long-term cultural relationships with neighboring Ecuador. Archaeologists have tended to classify artifacts into one of several major styles, such as Salinar, Gallinazo, Vicús, and to pigeonhole these styles into chronological and spatial slots. But the reality is beginning to appear much more nuanced, with variation apparently chronicling social complexity that has been escaping our gaze.

If the northern and southern boundaries of the Central Andean culture area are in play, what of Lathrap's (1971, 1973, 1974 inter alia) and Tello's (1923) arguments about long-term relations between highland and tropical forest cultures, the eastern boundary of the co-tradition? Lathrap realized that stone or adobe architecture was never part of a tropical forest cultural pattern, any more than irrigation. But is that relevant? The earliest accounts of European contact along the central Amazon chronicled large and densely occupied villages, that seem to be consistent with extensive archaeological middens discovered along larger Amazonian flood plains(see, e.g., Roosevelt 1980). Furthermore, if long-term cultural interaction is what is most relevant for determining a regional co-tradition, it is clear that in Inca times, highland and coastal Andeans were venturing into the jungles to acquire brightly colored feathers, hallucinogenic drugs, wood, fruit, and other products on a regular basis. Coca was grown at intermediate altitudes along the eastern slopes of the highlands, above the tropical forest biome and culture area, but its production and transportation created a zone of continuous interaction, from highland pastures to jungle river banks. Indeed, when pottery made its first appearance in the eastern Andean highlands, it had marked similarities to the oldest ceramics of the upper Amazonian tributaries (Lathrap 1970: 89, 106, 107). Could highland and tropical forest peoples already have been in close contact at such an early date? Could zonal complementarity of the kind ("verticality") described by Murra (1972) date back to the first or second millennium BC? If so, what should we conclude about the "over-all unit of culture history of an area within which the component cultures have been interrelated over a period of time" (Bennett's 1948b:1)?

How long cultural interactions have characterized the eastern Andes is yet to be determined, just as is the degree of influence these interactions had on peoples of the highlands and coast, as well as the tropical forest. Perhaps influences were not strong enough to today raise issues about relocating the boundary of the Central Andean co-tradition region along its eastern frontier, but there is at least reason to re-examine the long-accepted dogma.

Another, but somewhat different challenge to the cultural unity of the co-tradition is that launched by Stanish (2001). Rather than extend boundaries of the Central Andean co-tradition farther to the south, north or east, he argues for less emphasis on unity within this long-accepted sphere, asserting instead that we should recognize three independent traditions of pristine state formation. He places one on the traditional north coast, among the Moche or Mochica, and closely related peoples (discussed, in this volume by Ghezzi, Kaulicke, Swenson). Stanish places the second hearth of state formation in the south central highlands where little-known Huarpa culture developed into the powerful Huari capital (discussed,

in this volume, by Leoni; Isbell and Knobloch), and a third in the Lake Titicaca Basin, where Pucara and Tiwanaku flourished (discussed, in this volume, by Bandy, Plourde and Stanish, Whitehead, Haeberli, Isbell and Knobloch). This proposition deserves examination in any consideration of the regional concepts and processes that have characterized Central Andean archaeology, so we return to it below, in the context of a larger discussion.

A SINGLE PRECOCIOUS ORIGIN FOR CENTRAL ANDEAN CIVILIZATION

New discoveries play a key role in transforming thinking about the archaeological past, and the Central Andes is no exception. In our judgment, the most remarkable revision of the last decade in Central Andean archaeology comes from the fieldwork of Ruth Shady at Caral (this volume; see also Haas and Creamer 2004; Haas, Creamer and Ruiz 2004). In fact, this research is so current that its intellectual impact is yet to be determined. Shady's paper in this volume is the most detailed description of Caral and its contemporary settlement system to appear in English, and an outstanding summary of her results to date. What it makes clear is that this amazingly early culture may represent an ancient and precocious center of social complexity in which the subsequent high cultures of the Central Andes could have their roots. In brief, Caral and its related centers of the third millennium BC could be the original source of cultural complexity in the Central Andes, and from which high culture subsequently diffused to a significantly larger region. Indeed, the Supe Valley, and its adjacent highlands, where apparently related sites have been excavated at Huaricoto, Paruro, Kotosh, and Shillacoto, are remarkably centric to the region constituting the Central Andean co-tradition.

"Precocious early centers that became donors to surrounding societies through cultural diffusion" was thinking typical of anthropology in the late 19th and early 20th centuries. Tello's identification of highland Chavin as the source from which other Central Andean cultures descended clearly belongs to this kind of theoretical perspective. But beginning in the 1960s, evolutionary thinking increasingly replaced diffusion and culture history as the dominant approach motivating American archaeology. Scholars began to conceptualize the past in terms of evolutionary trajectories rather than circles of cultural diffusion. Rather than seeking the original "mother culture," such as Olmec and Chavin, scholars emphasized bounded regions where long autochthonous cultural sequences could be worked out, and in terms of which a more or less universal set of evolutionary social stages and transformational processes could be identified and tested against current theoretical expectations. This was a fundamental goal of classic processual archaeology.

In the last two decades, postprocessual interests have become increasingly popular in Central Andean archaeology, as in other world regions (although universal culture process, in terms of well-described evolutionary stages, is probably still the dominant dogma). This paradigm encompasses such issues as Marxist classes, the prehistoric experience of space and place, gender in ancient society,

the construction of identity, and much more. Diffusion has played a diminished role in recent investigations.

Thus, discovery of an unexpectedly early and complex culture at Caral confounds popular archaeological approaches, both evolutionary and postprocessual. If Caral is accepted as a precocious center responsible for much of the later complexity in Central Andean culture, via diffusion, evolutionary processes are marginalized in favor of an exceptional origin followed by diffusion—an idea that was rather thoroughly discarded forty years ago. Furthermore, if Shady is correct in classifying Caral as a city, and its settlement system as representing state government, current thinking about the succession of evolutionary social types, or stages, is dealt a devastating critique. If city and state could arise so early, seemingly out of simple hunting and gathering bands, the regularities of cultural evolution identified by half a century of research and theorizing, must be discarded, or at least seriously re-examined.

Of course, there are issues about Caral that must be reconciled before their implications can be adequately evaluated. For example, is the length of time indicated for the occupation so great that archaeologists should not assume a single cultural occupation? Does the archaeological record support Shady's classification of Caral as a "city" and "state?" The size of Caral and its neighbors is truly astonishing (Shady, this volume, Table 1). Since settlement size hierarchy is currently the most popular criteria for inferring complexity of political organization one could easily argue for a hierarchy of 4 or 5 levels in the Supe Valley in the third-millennium BC, with modes at approximately 75–80 hectares, 50–60 hectares, 20–40 hectares, 5–15 hectares, and 1–5 hectares. According to methods in use today, this more than qualifies for state status.

In a recent review of investigations of state origins in the Central Andes, however, Stanish (2001) disputes Shady's assignation, and instead affirms that Caral was a chiefdom. But he presents neither evidence and nor criteria that support of this alternative conclusion. It is interesting to note that on the altiplano, where Stanish (2003) has employed site size hierarchies to trace political evolution, it was only on the eve of state formation that centers achieved a size equal to the Supe sites, and only with state organization did so many size modes appear. Furthermore, there seems to be strong evidence for elite residences—that might well be called palaces—adjacent to Caral's major mounds. They significantly exceed the size and grandeur of normal residences, although the latter have been little described.

But we are not arguing for or against the state attribution of Caral, only playing devil's advocate. As we emphasized in our previous discussions, simply assigning an archaeological culture to an evolutionary stage is neither satisfying nor very meaningful. The key issues for interpreting Caral and assessing its significance are how complex it was and how this complexity emerged and was organized, based on the kinds of differentiation and specialization that can be documented by material remains.

Morever, Caral appears to have another important implication for the Central Andean co-tradition. During the 1970s and 1980s a great deal of discussion

revolved around the "Maritime Hypothesis" (Moseley 1975), the argument that exceedingly abundant marine resources were responsible for the initial steps toward/foundations of Andean civilization ("MFAC"), by underwriting the development of Peru's first large settlements, social differentiation, and corporate labor mechanisms. According to MFAC, the earliest big sedentary villages appeared on beaches behind sheltered bays ideal for fishing and shellfish collecting, and it was there that the first monuments were built, based on new principles for organizing labor corporately. Subsequently, corporate labor was deployed to irrigate desert valleys, so agriculture became an economic mainstay. In this scenario, the Peruvian co-tradition was virtually unique in having its origins not in an agricultural Neolithic, but in intensive exploitation of wild sea food.

Caral appears to decisively contradict this model. While marine food from the coast (some 20 kms from Caral) was important, farming as well as gathering wild plants seem to have provided a great deal of food as well. However, the stimulus to complexity (or perhaps heterarchy) was not simple abundance, but inter-zonal economic complementarily, between coast (with its sea foods), valley (with cotton for nets, wood and other materials for tools, vegetable foods, etc.) and distant highland basins (Huaricoto, Paruro, Kotosh). As we learn more about this Archaic lifestyle, we may even discover that interaction extended all the way to tropical forest—although without pottery it is difficult enough to document relations into the highlands, to say nothing of the tropical forest. However, regarding MFAC, there does not appear to be a temporal gradient between beach and valley sites that would imply initial development on the shore and later movement up the valleys. Furthermore, the biggest sites, where corporate labor was surely perfected, are in the valleys, not along the shore. Indeed, the beach-side pyramids complexes, such as the site of Aspero (e.g., Feldman 1987), that generated such excitement in the 1970s and 1980s are quite modest by comparison with Caral and its inland, valley neighbors.

MULTIPLE, INDEPENDENT EVOLUTIONARY TRAJECTORIES

Should the traditional unity of the Central Andes be deemphasized in favor of Stanish's (2001) provocative notion that there were three independent traditions of pristine state formation: north coast (Moche), south central highlands (Wari), and altiplano/Lake Titicaca Basin (Tiwanaku)? We offer a commentary below, but before considering how convincing each case is for three separate traditions, we want to point out some problems that must be resolved if a cogent evaluation of the approach is to be achieved.

As we emphasize in our introduction (Chapter 1), John Rowe struggled for much of his career to provide a single chronological system that could be employed throughout the area of the Central Andean co-tradition. Only by working with the same chronology would archaeologists investigating different sub-areas be able to communicate effectively and precisely about the timing of events within neighboring as well as more distant locations. And, of course, if the relevant feature

of a co-tradition is cultural interaction, then a prerequisite for inferring interaction from material remains is temporal synchrony.

Rowe designed his chronological system for, more or less, the area defined by Bennett (1948b)—the highlands reaching from Cajamarca to Lake Titicaca and northern Bolivia, and including a north, central and south coast. Today, however, many of the archaeologists working in the Titicaca Basin are employing site-specific, or sub-area specific chronologies that inter-digitate with the Rowe chronology in only the broadest fashion (see Bandy, Plourde and Stanish, Whitehead, this volume). While the development of a unique chronology is generally more sensitive to local issues than a chronology linked to a master sequence created elsewhere, the negatives of such an approach must be recognized.

Cultural events in the Lake Titicaca Basin appear much less integrated with the events in other Central Andean societies when the cultural chronology is specific to the sub-area rather than tied to the master sequence. For example, independent chronologies for Tiwanaku have led to its treatment as an Early Intermediate Period city contemporary with Moche and Nasca cultures (see Moseley 1992, 2001). But a critical reading of the radiocarbon dates shows that Tiwanaku's urban phase did not begin until the Middle Horizon (Isbell 2004a; Janusek 2003; Kolata 1993). Even the onset of agriculture in the Titicaca Basin is presented as more associated with autochthonous climate changes (Kolata 1993) than with events elsewhere in the Central Andes. However, the Central Andean Initial Period, spanning most of the second millennium BC, was a time when peoples from far northern Peru to eastern Bolivia adopted pottery, sedentary village life, farming technology, and a similar suite of new crops. We suspect that a far-reaching process of diffusion contributed more to the social and economic changes accompanying sedentary farming in the altiplano than local climate change. But by using the term "Formative" and avoiding the terminology of the master sequenc, contemporary similarities of macro-regional scale are deemphasized in favor of a local perspective.

Peru's remarkable Late Preceramic/Preceramic VI period is called "Late Archaic" ("Arcaíco Tardío") by Peruvian archaeologists who are more inclined to temporal frameworks based on developmental stages (see Shady, this volume). In deference to Peruvian colleagues, this terminology has been adopted by some North American scholars working on the same problems in the same region (see Haas and Creamer 2004). The cultural achievements of this time period—whatever it is called—and the subsequent Initial Period were followed (depending on which absolute chronology one uses: Burger 1981 or Kembel and Rick 2004) by Chavin influence (see Burger's [1988] nuanced discussion of Chavin's universalizing or heterogeneous character), giving the north a distinct cultural trajectory, upon which the Moche built an even more uniquely flavored cultural ethos.

There is a smaller but significant movement among colleagues for creating new chronological units on Peru's north coast. Associated with a well substantiated division of the Moche world into northern and southern spheres (see, especially, Castillo and Donnan 1994), the new chronology affects only the Early Intermediate Period and Middle Horizon of the master sequence. This revised chronology seems to more accurately reflect the internal complexities of Moche development as well

as sub-areawide culture changes, but the new phases must be correlated with the chronology of the larger Central Andean area in order to understand Moche society in its larger Andean context. For example, Haeberli (this volume) cites Proulx's (1994) suggestion that Moche influenced Nasca art, as seen in Nasca's adoption of running figures, among other features. Does cross-dating these sequences support this possibility, employing the new chronology? Another question relates to Moche IV at Huaca del Sol and Luna (Chapdelaine 2002), the newly defined Transitional Phase at San José de Moro (Rucabado and Castillo 2003), and their relationships to the end of the Early Intermediate Period and beginning of the Middle Horizon in the master sequence (see Swenson, this volume, for an intriguing discussion of exactly this time). But, of course, as Kaulicke (this volume) shows, a normative conceptualization of Moche culture has contributed confusion to the old north coast chronology for some time, so perhaps in the long run, a new chronology, albeit one that is correlated with the master sequence, will improve understandings of the Moche.

The point to be made is, however, that separate and unique chronologies create the appearance of distinct culture areas with independent evolutionary trajectories. At present, it may be impossible to accurately evaluate interaction between altiplano cultures and other Central Andean societies, at least in part because separate chronologies are being employed. Before the independence of the altiplano's Yaya-Mama, Pucara, and Tiwanaku cultural tradition(s) can be tested, archaeologists must establish how their developments cross-date with events elsewhere, and to do this accurately the master sequence is the ideal tool (see, e.g., Chávez and Chávez 1975). For example, Isbell and Knobloch (this volume) demonstrate how key artifacts with critical iconography cannot be dated by any technique other than style, so issues such as Chavin influence in the south are dependent on evaluations of style and their placement within the master sequence. Furthermore, the chronological malaise discussed by Plourde and Stanish (this volume) in their presentation of current archaeology in the altiplano is exacerbated by new chronological schemes that float independently of the master sequence.

To evaluate the degree to which Central Andean cultures interacted within a single co-tradition, or evolved essentially independently, we must control cultural chronology. John Rowe and his students developed a seriation-based relative chronology as a tool for precisely this. But there is another equally important issue to be resolved. If we are to evaluate the division of Central Andean cultures into separate evolutionary traditions, or trajectories, we must first be explicit about the goals of this approach, and then explain what constitutes a separate evolutionary trajectory. How much energy and information can be exchanged between cultural traditions with separate evolutionary trajectories before they become inexorably linked into a co-tradition? Without a deep consideration of the many parameters of this issue, treating Moche, Wari and Tiwanaku as one co-tradition, or as independent evolutionary trajectories, is simply a matter of taste, for there are no criteria for consistent judgment.

We encourage further discussion regarding Stanish's fascinating proposition of separate evolutionary trajectories within the Central Andes (as we also encourage

further discussion about the north, east and south boundaries of a Central Andean co-tradition). In anticipation of further debate, we want to comment on some relevant points emphasized by our contributing authors, as well as other colleagues.

WAS THE NORTH COAST A LOCUS OF INDEPENDENT CULTURAL EVOLUTION?

The idea of a Moche evolutionary trajectory and, perhaps, even a distinct North Andean tradition appears to have merit. As the papers by Lau and Kaulicke (this volume) show, interaction among the northern cultures went on for a long time and, if Shady (this volume) is correct, interaction may date back to 3000 BC. If there was an initial center for diffusion of Andean culture, as Shady suggests, the Supe Valley appears a likely candidate based on its extraordinary concentration of monumental sites and particular architectural patterns. Also, Supe and its adjacent highlands are ideally located to be such a center of cultural dispersion. If culture diffusing to the north took on a slightly different character than culture diffusing to the south, two related but distinguishable spheres could have resulted.

After the Late Preceramic the axis of innovation moved out of the Supe Valley to other parts of the north coast and adjacent highlands. The region appears to have experienced a dramatic distinctive generative stage during the Initial Period and Early Horizon, spanning the second and first millennia BC, including the Chavin phenomena (the dating of Chavin de Huantar's apogee is again in play, following new research by Silvia Kembel and John Rick [2004]; compare to Burger [1981]). Impressive configurations were reached in various coastal valleys north of Supe, including Casma, Moche, and Jequetepeque; some sites had major ceremonial architecture, sometimes surrounded by significant residential occupations. Closely related to some of the coastal centers are sites in the highlands, for instance, Cajamarca in terms of the Cupisnique culture and relationships with the Jequetepeque Valley (e.g., Elera 1993; Inokuchi 1998; Onuki 1995).

WAS THE TITICACA BASIN A LOCUS OF INDEPENDENT CULTURAL EVOLUTION?

Issues in the Late Preceramic, Initial Period and Early Horizon

Impressive sites in valleys south of Supe came to the fore in the terminal Preceramic and Initial periods. These sites are located in a sub-area that is more or less the grouping of valleys that Bennett (1948b) named the Rimac Group (and that included Supe). Interestingly, as we mentioned above, Supe itself lost its precocious edge in the Initial Period when other valleys along the coast became far more important with their own great concentrations of monumental architecture and, presumably, an accompanyingly comparable degree of social complexity. The Casma (Pozorski and Pozorski 1991, 1992, 1994 inter alia) and Lurin (Burger

and Gordon 1998; Burger and Salazar-Burger 1991, 1998 inter alia) valleys are key examples of this geographic shift out of Supe. Much of the rest of the Central Andes pales by comparison to these cultural developments along the central and north coast in the Late Preceramic and Initial Period; certainly the south coast lags behind (see Silverman 1996). What about the altiplano or Lake Titicaca Basin?

A southern sphere of interaction was taking shape a millennium or so later than the one in the north. In addition, despite the sunken temple ceremonial architecture of Chiripa sites in the altiplano and the iconographically complex sculptures of the Yaya-Mama religious tradition in which this architecture flourished, the scale of construction in the south (Lake Titicaca Basin) is not comparable to what characterized early centers of the central and north coast region. Moreover, the southern origin of rectangular sunken courts, perhaps with central monolith, which are considered to be diagnostically Yaya-Mama and Pucara, is questionable. Sunken courts with uncarved monoliths existed at Caral. The concept apparently diffused from Supe to other central and north coastal valleys where sunken circular courts are a hallmark of the Late Preceramic Period (Shady, this volume; Williams 1972). The earliest such courts were circular and, notably at Chavín de Huántar, evolved into the sunken rectangular form, probably about the same time that the first sunken courts appeared in the altiplano, to judge from the revisions in absolute chronology proposed by Kembel and Rick (2004). Furthermore, carved monoliths are well known in the north highlands in the Initial Period and Early Horizon, before, during and after the Chavín integration.

Moreover, thirty years ago Sergio and Karen Chávez used the Ica Valley master sequence to cross-date their Yaya-Mama style with the Central Andean trajectory of cultural evolution. They noted strong iconographic similarities between Yaya-Mama stela and features on Ocucaje 8, 9 and 10 and Nasca 1 textiles. Silverman (1996: 125) has suggested that there was actual contact between south coast peoples and those living around the Lake. She argues that the Yaya-Mama religious tradition was the donor of these religious icons, hypothesizing that the actual locus of contact may have been in the valleys of the far south coast (Silverman 1996: 126), a proposition that deserves another look considering Joerg Haeberli's arguments in this volume.

So is the image of a discrete southern cultural tradition, relatively free of outside influence, real or a chimera? Kembel and Rick (2004: 55) emphasize the interactivity of the Initial Period centers "through their common participation in a developing tradition of architectural design and the messaging on objects and buildings . . . different centers share identifiable design, features, and attributes, but the specific characteristics and combinations vary between center-based localities or regions. The resuilt is an identifiable regionality . . . For the better-known centers, however, there appears to be a long-term development of local traditions that draw strongly on the overall inventory of shared form and content . . . In the case of the IP/EH centers there is . . . the presence of many long-term localized traditions participating on a relatively equal basis in what can be best described as an interaction sphere of likely common function and meaning." We are back to Tello's and

Lathrap's related concepts of a foundational Andean culture from which branches of regional character developed, and to Bennett's co-tradition.

The Chavín Link and Wari-Tiwanaku Interaction

Of major importance for resolving the issue of evolutionary independence in the altiplano region is the obvious iconographic similarity between the Chavín Staff God and the principal icon on the Gateway of the Sun at Tiwanaku. Isbell and Knobloch wrestle with this issue in their chapter in this volume. Many years ago John Rowe attributed the Tiwanaku-style Staff God with profile attendants to Chavin origins, inferring that it represented some kind of religious revival, through archaism, in the southern highlands, that appropriated the prestige and perhaps the ideology, of earlier Chavin art (Rowe 1971). Isbell and Knobloch's re-examination of the data could not reject the possibility that northern influence was involved. However, they were able to track many exclusively southern features and developments that show that much the religious iconography of Wari and Tiwanaku was shaped by autochthonous southern cultural processes, even if an initial northern stimulus was implicated.

Certainly, there was a vast southern cultural region whose internal interactions were much greater (more intense, frequent, significant) than this region's communication with Andean societies farther north. This region encompassed the Lake Titicaca Basin and today's far south coast of Peru as far south as San Pedro de Atacama in Chile, beginning at least as early as the end of the Early Horizon and onset of the Early Intermediate Period (see Isbell and Knobloch, this volume). Woolen textiles in Pucara Provincial style from the Arequipa coast document exchange if not movement of altiplano people. Somewhat later, Nasca influences appear on the far south coast, also indicating trade, or perhaps revealing population movements (Haeberli, this volume). Subsequently, far south coast proliferous iconography gained popularity in Late Nasca society, through processes that demand further investigation. In addition, communication between the altiplano and other regions reached as far as the extreme South Andean llama caravan routes that apparently transited northwestern Argentina, southern Bolivia, and south central Chile for several millennia (Nielsen 2000).

Pucara influenced the far south coast and was also a key influence in the origins of Tiwanaku. So, too, pre-Tiwanaku cultures of Bolivia's Cochabamba Valley made important contributions to Tiwanaku origins, although this material is lesser known than Pucara.

WARI INDEPENDENCE AND PROFOUND INTERRELATIONSHIPS BETWEEN WARI AND TIWANAKU

In terms of Wari as an independent trajectory of cultural evolution, the Huarpa culture of the central highland Ayacucho Valley, described by Leoni (this volume), though still little-known, was a major contributor to subsequent developments

in Ayacucho. Interestingly, Leoni's new research reveals little if any relationship with the emerging southern sphere, discussed above, before its interaction with Nasca, late in the Early Intermediate Period. Perhaps earlier relations with the southern sphere may, or may not, be documented in the future, but it is clear that once relations with Nasca got underway, interaction intensified rapidly and spread quickly beyond the south coast. Rayed head and Staff God religious themes, surely with roots in Pucara and/or Pucara Provincial art, became key themes in both Tiwanaku and Wari. As Isbell and Knobloch show (this volume), in at least some cases, representational conventions were astonishingly similar. So interaction must have been quite direct, probably beginning about AD 600, shortly after the onset of the Middle Horizon.

We find the evidence convincing that after AD 600, the rise of Wari and Tiwanaku was so profoundly interrelated that one cannot be understood without considering the other. From that time, and probably throughout the remainder of the Middle Horizon, the two were probably no longer independent evolutionary trajectories, but part of a southern co-tradition of imperialism.

Wari and Tiwanaku came face-to-face in the Moquegua Valley, on the far south coast of Peru, where both foreign states established colonial settlements, the former in the upper valley, the latter in the middle sector. Paul Goldstein has consistently presented Moquegua as a Tiwanaku-colonized region, into which Wari subsequently intruded (see, e.g., Goldstein 2005). However, examination of the radiocarbon dates shows that the Wari center on the top of Cerro Baul is as early as (or slightly earlier than) the Tiwanaku towns (see Williams 2002: fig. 2). The absolute dates suggest the more or less simultaneous arrival of Wari and Tiwanaku colonists in Moquegua, so they surely must have been dealing with one another from the beginning (here we see the need for precise chronological control of the kind that Rowe intended with the Peruvian master sequence, where stylistic change can provide finer time control than radiocarbon dates alone). Indeed, more than a decade ago, Isbell (1991) argued that a megalithic sunken court in the Huari capital might have been constructed by experienced construction workers from Tiwanaku, perhaps brought to Huari as war captives. A confrontation in Moquegua would seem to be the most apparent place for an appropriate conflict to have erupted.

Perhaps the most interesting aspect of the Wari-Tiwanaku confrontation in Moquegua is that the Tiwanaku colonists constructed a planned architectural unit, more or less in Tiwanaku style, at the site of Omo M10. Goldstein (1993) interprets the building as a temple but Isbell (2004b) shows that it bears many similarities to Central Andean palaces, at least as they were described in later Inca times. Be that as it may, Omo M10 is the only case of Tiwanaku colonization outside the capital's heartland core (some 50–100 kms around the city) that involved demographic movement as well as the construction of a planned monumental structure that could have functioned as a state administrative complex. Wari provincial administrative buildings stand in sharp contrast. They were built as planned architectural compounds and were not limited to Moquegua. In fact, Wari's Moquegua capital at Cerro Baul is modest by comparison with the largest Wari provincial capitals,

Pikillacta in Cuzco (e.g., McEwan 2005), Viracochapampa in Huamachuco (Topic 1991), and apparently Huaro, only 10 kms south of Pikillacta (Glowacki 2002). Lesser Wari centers include Jincamocco (Schreiber 1991), Wari Willca (Shea 1969) and Sonay (Malpass 2001), to say nothing of great centers like Pachacamac, where strong influences are apparent in ceramics and textiles, but no diagnostic architecture has been identified.

So, Wari seems to have favored a strategy of expansion that was not the same as that preferred by Tiwanaku, usually involving the movement of colonists and the construction of a planned administrative compound. However, in Moquegua, the two empires employed the same strategy. One could argue that Wari introduced this strategy to Tiwanaku, perhaps making it the only way that Tiwanaku could hold onto territory in Moquegua. In this argument it would appear that Tiwanaku accommodated to competition with Wari by adopting Wari policy.

Alternatively, one could argue that colonial strategies documented in Moquegua were developed there by both Wari and Tiwanaku, simultaneously, under mutual conditions of face-to-face contact. Certainly, the encounter of the two most powerful expansionist polities in the Andes, at about AD 600, would have produced profound effects, promoting tumultuous contexts that would have stimulated innovations and changes in habitual practice. It certainly seems improbable that social identity could remain unchanged through the confrontation of two such different nations. And, transformations on the frontier would certainly create pressures for change in the distant capital cities as well. If we pursue this scenario we would have to argue that, subsequently, Huari employed the strategy developed in Moquegua almost universally in its imperial undertakings, while Tiwanaku used it sparingly if at all (it is possible that there was a Tiwanaku colony with a monumental compound of some sort on Isla Esteves in north Lake Titicaca's Puno Bay, but Tiwanaku architectural remains there were destroyed in the construction of a luxury hotel: see Núñez and Paredes 1978).

Understanding Wari and Tiwanaku colonial policies requires more research, but what is clear is that the two were not wholly separate traditions of imperialism, developed in isolation, but both influenced by one another, and not in religious iconography alone. At the least, Tiwanaku appears to have borrowed a Wari form of administration, employing it in a provincial territory they shared with Wari. Perhaps this policy will be discovered to have been used elsewhere in the area of Tiwanaku influence. At the most, the two polities together came up with a novel approach to direct rule of distant territories, forged in face-to-face contact. This policy was subsequently employed quite broadly by Wari, and much more sparingly by Tiwanaku. In either case, we cannot understand one empire without the other.

The nature of Tiwanaku intrusion in Moquegua seems reasonably apparent, although Goldstein (2005) has recently downplayed the role of state authority in favor of decisions by individual farmers. But the nature of Tiwanaku presence in other areas, where neither an intrusive altiplano population nor a Tiwanaku administrative complex can be found, is a subject of much current debate (see, e.g., Berenguer 1978, 1998, 2000; Rodman 1992; Uribe and Agüero 2002).

Fortunately, important new investigations of Tiwanaku expansion are in progress, for example, in the fertile Cochabamba Valley where fine Tiwanaku pottery occurs (Karen Anderson, personal communication). Champions of a timeless Andean past assume that Tiwanaku took control of Cochabamba for the same reason that the Incas did (to grow maize for chicha production), and in essentially the same way. However, an excellent field study by Alvaro Higueras (1996) concluded that there was no evidence for a Tiwanaku reorganization of Cochabamba, and that relations with Tiwanaku could not have been based on either colonization or direct political control. This important conclusion will have to be re-examined as new information becomes available (Anderson and Cespedes 1994), but we accept it as the best interpretation currently available. If correct, this shows how much Moquegua stands out as an exception in the sea of Tiwanaku expansionism. As suggested above, Moquegua seems to represent a unique case of actual colonization from Tiwanaku's heartland.

Wari constructed planned administrative centers as part of its expansion policies on a regular, although not universal, basis. Moreover, investigations have concluded that at least several were unfinished. Some scholars therefore argue that Wari failed to take control of these distant territories, establishing instead some sort of ideologically based alliance, perhaps retreating back to the heartland, or otherwise falling short of full imperial incorporation. This is an importantly problem that must be resolved by future research. And this leads us to yet another problem in terms of transareal interactions and independent or impacted cultural evolutionary trajectories.

HOW INDEPENDENT?: WARI AND THE NORTH COAST

Sometime after the beginning of Tiwanaku-Wari encounters in Moquegua, Wari influences appear among the north coast Moche and throughout the northern sphere. Interpretations of this (probably hostile?) encounter of cultures and polities are debated. But the question we want to ask is whether earlier Moche influence reached the Wari heartland, and the Huari capital at a somewhat earlier time, representing a degree of Moche influence in the rise of Wari politics and culture. The reason we raise this issue is because in Middle Horizon Epoch 1B, the spectacular Conchopata art style emphasized religions icons shared with Tiwanaku (the Staff God and profile attendants; see Isbell and Knobloch, this volume). However, another style of decoration that appears on giant ceramic pots in some of the same contexts is not rigid with stylized staff god images, but instead shows realistic human figures. This style (Isbell 2001; Isbell and Cook 2002; Ochatoma and Cabrera 2002), depicts men as well as women in dynamic poses, and sometimes even interacting with one another. No local antecedent for such anthropomorphic realism is known in Ayacucho, and the modest amount that appears in Nasca is generally attributed to Moche influence (Proulx 1994; see also Haeberli, this volume). Could Moche influence have reached late Huarpa potters, or artists of the Huarpa-Huari

transition? And, if so, what is the implication of this contact for independence in Andean evolutionary traditions?

A debate exists over the degree of impact and influence of Wari on the north coast of Peru in the Middle Horizon. Interpretations range from a total Wari conquest (Schaedel 1951; Willey 1953), to a Moche deterioration following climatic and political upheavals that made north coast people more receptive to foreign religious ideologies and perhaps political influences as well (Bawden 1996; Castillo 2001), to a veritable lack of the Middle Horizon (i.e., time span and Wari culture) on the north coast (Mackey 1982). Of course, a single normative explanation is almost sure to be wrong. And indeed, Swenson's (this volume) fascinating discussion of late Moche in the Jequetepeque Valley seems to document a process very different from what is represented by the elite burials at San José de Moro (Castillo 2001). Among these burials, a few contain ceramic furnishings of pure Wari-style, and obsidian points also conform to the Wari standard. Apparently, Wari objects commanded great prestige, and archaeologists must ask how and why they were acquired by Moche elites. Were Wari potentates gifting Moche lords with an occasional Wari object, as these traditional rulers maintained their uninterrupted authority, but now as secondary rulers to Wari overlords? We cannot answer this question and more fieldwork is certainly recommended.

SUMMARY

To summarize, the argument (Stanish 2001) for three independent centers of cultural evolution in the Andean region (north coast: Moche; south central highlands: Wari; Lake Titicaca Basin: Tiwanaku) can be questioned. The southern area of the Andes (south coast, south highlands, altiplano/Lake Titicaca Basin) appears to achieve later and in a smaller and significantly different configuration that which archaeologists generally recognize as complex society. Perhaps these differences are sufficient to qualify the Titicaca Basin as a distinct evolutionary trajectory. But an answer is neither simple or obvious, as we have shown above by considering the links between the altiplano and the far south coast of Peru prior to Tiwanaku and the competitive engagement between Wari and Tiwanaku in Moquegua. The north coast trajectory clearly has its origins in the Late Preceramic/Late Archaic precocious florescence on the near north coast (norte chico), and the north coast is strongly engaged with its adjacent highlands, as well as the central coast, south coast, and south central highlands in later times. Ultimately, we see the issue as one of degree. The north coast and the Lake Titicaca Basin definitely have a longue durée kind of cultural consistency and essentially unbroken trajectories of increasing social, political and cultural complexity. However, these regions did not develop in isolation from the other areas of the Central Andes in the sense of pristine processes of state formation as understood elsewhere in the world, such as in Mesoamerica and China. Wari in the south central highlands is a more difficult case to understand. It certainly has local antecedents (Huarpa), but it

seems to lack the cumulative time depth and cultural patterns of the other two areas.

Notwithstanding the strong regional configurations of north coast and altiplano societies over time, and of the Wari experiment, we nevertheless see fundamental Andean patterns whose origins may ultimately lie in the Supe Valley in the Late Preceramic/Late Archaic period, thereby meaningfully culturally linking these two geographical extremes of the Andean territory.

THE CENTRAL ANDES, NORTH AND SOUTH

Obviously, the Andean archaeological record is in need of a great deal more investigation. And of course, new information always brings unanticipated surprises. However, the spatial concepts currently used by archaeologists were shaped by the archaeological information available in the mid and late 1940s, when the *Handbook of South American Indians* was edited and the reappraisal of Peruvian archaeology conference took place. The Peruvian co-tradition, although now more often called by the name "Central Andes," has remained the virtually unquestioned unit of archaeological analysis employed by scholars investigating the most complex societies of western South America. While critical discussions of these spatial issues are few, unstated and unproblematized convictions concerning the validity of the Central Andean cultural unit are materialized in what is included, and what is excluded in popular introductions to Andean archaeology. These discriminations differ only slightly—in the locations of boundaries along the far north and the far south—from Bennett's (1948b) old Peruvian co-tradition.

In this book we have learned that the north borderlands Vicús culture was much more a part of the Peruvian cultural sphere than generally understood, and not simply brought into it by conquest. We also have learned that there was a sphere of interaction in the north that may be as real, or even more real, than the more popular unit, the Central Andes. While no papers in this volume addressed the issue of relations with cultures normally separated as "Ecuadorian," we have seen that there is significant reason to re-evaluate that issue.

We also have seen that there was a great deal of interaction in the south, including the Arequipa and Nasca regions, the Lake Titicaca basin, and almost certainly as far south as San Pedro de Atacama. Perhaps the southern sphere embraced northwestern Argentina, southern Bolivia, and south central Chile. In the centuries immediately preceding AD 600, Ayacucho was pulled into this sphere through contacts with Nasca. Wari culture soon emerged, but apparently marching in step with a related but different Tiwanaku, so much so that we doubt that Wari and Tiwanaku can be adequately understood in any broad explanatory model without considering them together.

The southern tradition informally identified here appears to significantly exceed the old area recognized as the Peruvian co-tradition. Although perhaps not so comfortably fitting in an evolutionary stage called "civilization," (remember, "The Andean Civilizations" was the title of Volume II of the *Handbook of South*

American Indians), cultures far to the south certainly seem to have participated in important ways in a sphere that included Lake Titicaca. Northern and north central Chile belong with these cultures, as demonstrated by iconography, but they, in turn, were in many respects trans-Andean, with relationships in southern Bolivia and northwestern Argentina (Stovel 2002). Perhaps these cultural interactions were not sufficient to represent the kind of co-tradition implied by Bennett (1948b), and still conceptualized by modern authors, but it seems counter-productive, in light of current information, to exclude places such as Cochabamba from the Central Andean area. A new reappraisal of Andean archaeology is called for, but one in which the definitions of "co-tradition," and of "independent evolutionary trajectory" must be resolved with sufficient rigor for consistent application.

In this volume we have been greatly influenced by Ruth Shady's presentation of an astonishingly early, astoundingly monumental, and remarkably complex culture at Caral. We believe that over the coming decades, discoveries relating to Caral will reshape thinking about the origins of Andean Civilization, perhaps including regional issues that impinge upon the concept "Central Andean." At present, there seems no reason to believe that the early developments at Caral are inconsistent with the identification of a north Peruvian culture area or interaction sphere or evolutionary trajectory—and possibly including cultures currently considered Ecuadorian, and a south Peruvian-Bolivian-north Chilean-northwest Argentine culture area or interaction sphere or evolutionary trajectory. But now it is time for us to be more explicit about the conceptual tools we employ when we define culture areas in precolumbian South America. It is also a good time to rethink the nature of cultural interactions, and of cultural boundaries themselves, to which we archaeologists attribute the stylistic similarities that we observe in the material remains we study.

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