The Archaeology of an Ancient Seaside Town:

Performance and Community at Samanco, Nepeña Valley, Peru

Volume 1

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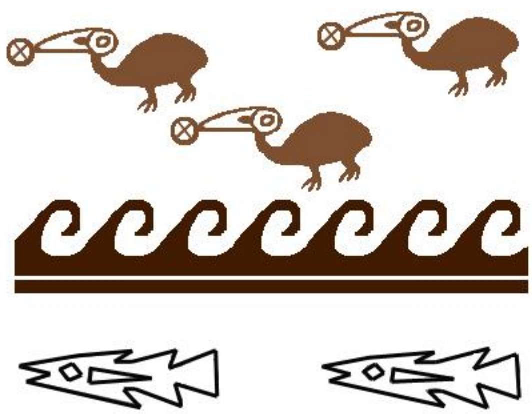
December 2014



Dissertation Submitted in Partial Fulfilment for the Degree of Doctor in Philosophy
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ABSTRACT

Studies of social complexity increasingly recognize the role of maritime communities in the development of large sociopolitical systems. The Central Andes present an ideal region for understanding maritime aspects of ancient social complexity, due to one of the most productive sea biomasses in the world. In this study I investigate Samanco, an ancient seaside town, and its contribution to urban transformations along the North-Central coast of Peru during the mid-1st millennium BCE. I consult a theoretical framework of performance and its influence on community organization as a framework for analyzing sociopolitical development.

Mapping and excavation at Samanco documented a densely occupied settlement. Materials recovered imply that ancient Samanco was a community of low status inhabitants focused on day-to-day subsistence and trade. The discovery of animal enclosures, diverse cultigens, primarily domestic ceramics, and most importantly a dense array of marine goods support the inference of an early urban town centered on food production. I argue that trade to inland residential centers of Samanco's vast food products, likely through the aid of camelid caravans, played an important part in early urban political economy and the overall success of the community.

Daily interactions, seen as culturally important performances, promoted subsistence industry as a site identity. Patios at the heart of neighborhood compounds served as venues for learning, socialization, and communal interactions which shaped and negotiated Samanco society. Neighborhood compounds were built and materialized in a way that emphasized exclusion and autonomy among various co-resident groups living in separate compounds. Limited social hierarchies were enacted through public performances inside monumental plazas. Results bring new insights into social complexity, arguing for non-state urban societies which challenge neo-evolutionary ideas of state formation. The results also advocate exploration of past experiences and communal interactions as a way of bringing humans back to the forefront of archaeological inquiry.

This thesis also advocates approaching sites as biographies by detailing various site performances at Samanco up to the present. One example includes site re-use for tombs during the 16th century CE ascribed to a performance of ancestor veneration associated with site ruins. The thesis also analyzes contemporary engagements with Samanco's archaeological heritage to understand how local Andean communities experience and perform with archaeological ruins. I argue that local communities conceive of sites as dangerous but also fortuitous places inseparable from the rural and mystical Andean landscape, commanding a performance of respect. Moreover, interactions with archaeological sites and the stories told about them are integral in the construction of rural mestizo identities. These results emphasize the importance of collaboration and the promotion of local knowledge in archaeological research.

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ACKNOWLEDGMENTS

This work would not have been possible without the generous support and guidance of countless friends, family, institutions, and colleagues. First, I would like to thank the Peruvian Ministry of Culture for their permission to conduct the Samanco fieldwork (Resolución Directoral Nacional 402-2013). I would especially like to thank Jeisen Navarro Vega, co-director of the project, for his hard work, support, and companionship throughout the course of fieldwork. In Peru, archaeologists Felipe Livora, Kyle Stich, Beatriz Viviano Obregon, Jackson Arías Falcón, Polay Maza Herrera, and Ruby Cuadros Benites were all instrumental in the success of the project. Specialists Amparo Gomez Diaz, Ali Altamirano, Victor Vasquez, Isabel Salvatierra, Carol Rojas, Willa Trask and Daniel Perez Bustamante aided in the identification of botanical, faunal, and human remains. The 2013 Samanco field school students brought great energy, enthusiasm, and were a wonderful contribution to the project.

In Samanco, I am indebted to the Mora family, who generously opened their house and treated us like family throughout our stay. I would also like to thank our local co-workers Justo Durand, Genaro Durand, Manuel Durand, Frank Escobar, and Jonny Durand for their tremendous work, friendship, and willingness to share local knowledge. I thank the entire Samanco community for their hospitality, enthusiasm in discussing *los antiguos* and *las huacas*, and interest in our work. Special thanks also go to the Samanco municipality and Mayor Huamanchumo for their support.

Numerous colleagues back home also contributed to this work. First and foremost, my advisor George Lau should be thanked for his tireless efforts in shaping this dissertation, as well as his companionship in welcoming me to Norwich. My former advisor David Chicoine gave inestimable help in the field and throughout my studies. He has been a great mentor and friend since beginning my career in the Andes. Akira Matsuda provided wonderful guidance in the applied research of the dissertation. I also thank my examiners Steven Hooper and Elizabeth DeMarrais for contributing their time and insights on the dissertation. I would like to thank Lynne Crossland for her logistical support and the staff at the Robert Sainsbury Library, especially Jeremy Bartholomew and Pat Hewitt for all of their help. Finally, I have benefitted from the wonderful community of PhD students in the Sainsbury Research Unit, especially Malorine Sykes, Laurie Martiarena, Lisa McDonald, Becky Sheppard, Nadia Khalaf, Carlos Rengifo, and Julia Burtenshaw.

Generous financial support for the project was provided by the Sainsbury Research Unit, the National Geographic/Waitt Foundation, the Brennan Foundation, the National Environmental Research Council, the Reckitt Trust, and the Stapley Trust. Louisiana State University graciously provided field equipment for the project.

Most of all, I would like to thank my family back home for their unfailing support throughout my academic endeavors. My wonderful fiancée Olivia Camayd has been with me throughout, and I cannot thank her enough for her love and support. To Kenneth and Linda Helmer, thanks mom and dad! Thanks to Andy Helmer, my younger brother and partner in crime. To all my family back home in Louisiana, you are always with me in spirit, wherever I might be. This work is dedicated to my late grandparents Loretta Helmer and Richard and Nancy Graalmann who passed during the course of this research; you will always be an inspiration to me.

CHAPTER 1
PRELUDE TO PERFORMANCE AND ARCHAEOLOGY AT SAMANCO

What caused humans to gravitate toward sedentary life? In the Central Andes, civilization, or complex society, emerged over three millennia in relative isolation. Because of one of the richest sea biomasses in the world, Andean civilization was built in large part on maritime societies and resources. Yet the relationship between maritime communities and urban transformations remains under-explored. My research addresses this situation through a case study at the archaeological complex of Samanco, a large residential complex located in the Nepeña river valley of North-Central Peru.

The archaeological site of Samanco dates to the mid-1st millennium BCE, and is comprised of a number of stone-walled multi-room enclosures associated with settlement nucleation and urban transformations. I approach the archaeology of Samanco through a performance standpoint, because socially constructed interactions and experiences were key to the formation, negotiation, and maintenance of early urban sociopolitical organization. This thesis is also dedicated to the exploration and analysis of contemporary engagement with Samanco's archaeological past.

1.1 Theoretical Framework

Two key terms which will recur throughout are performance and community. Each term has been approached in different ways, requiring a definition for their usage in my study. The melding of communal performance provides a critical avenue to understanding ancient Samanco society and rising social complexity. I first describe approaches to performance in the reconstruction and analysis of the ancient past, and then provide a theoretical framework for how performance can be used as a tool for investigating contemporary relationships with the archaeological past.

The first term I would like to expound upon is the concept of community as approached at the site-level in archaeology. Archaeologists have cautioned against viewing a “site”, that is, an aggregation of spatial and material artifacts, as being synonymous with “community”, a dynamic concept that entails specific types of social organization (Yaeger and Canuto 2000: 9). Early anthropological theories of community emphasize the organic, structural existence of community through common interactions and experiences by groups of individuals or households (Arensburg 1961; Murdock 1949). For instance, Murdock (1949: 7) defines the community simply as “the maximal group of persons who normally reside in face-to-face interaction”. Arensburg (1961: 248; see also Steward 1950) further specifies this definition by pluralizing community as multiple social units, or parts, of social organization and transmission within society and culture, the whole. In a similar vein, Wolf (1956) sees communities as parts of a broader whole, but emphasizes broader socio-historical events as having particular ramifications for community development and organization.

The significance these early concepts of community have for understanding performance and ancient life at Samanco are multi-fold. For instance, these studies emphasize co-presence and interaction, what I further conceptualize as performance, as lying at the heart of social make-up. While not all forms of community require physical co-presence (e.g., “the academic community”) or myriad forms of imagined communities, what I hypothesize to be an early urban form of social organization at Samanco would have been contingent upon frequent interactions among large numbers of individuals (see Ingold 2000).

Urbanism, contextualized for the Andes in Chapter 3, is preliminarily defined here as large habitations with permanent, multi-generational, and centrally planned residential precincts whose material remains suggest intense domestic use. In urban contexts, residential communities can be thought of as neighborhoods and / or districts (Smith 2010). While neighborhoods can be extant in almost any communal context, districts are more formal and specialized communities specific to urban contexts. At Samanco, urban co-presence is materialized in the site's six major compound sectors comprising hundreds of structures clustered into patio groups. The layout, central planning, and dense occupation of the settlement are clearly urban I would argue, and theorizations of Samanco community should be categorized as such. I position Samanco's urban scale as a town, as an intermediary between other scales of community organization such as village or city.

Community, once thought of as an omnipresent, unchanging element of social organization, is now seen as constantly in flux through agency and practice. Early definitions of community present some structural-functionalist related concerns raised through later theorizations. For instance, as Yaeger and Canuto (2000) point out, communities are socially constituted and therefore are not a static, precluded element of social organization. Rather, communities are constantly re-affirmed and transformed through individual action (Bourdieu 1977; Giddens 1984; Wernke 2007). I still see the most basic element of community as a biologically necessary component of humanity as social creatures (see also Isbell 2000: 243), which is therefore constantly extant in some form, most notably at the immediate kin level. However, the type of community I intend to investigate at Samanco is that of a complex society, exploring complicated aspects such as urbanization, neighborhood, district, and polity which are culturally (re)produced and transformed through communal promotion and display. These qualities are essential to the reification of social ties beyond the kin level (Inomata 2006a: 805). Eventually, community also becomes a contradictory way to legitimate power, social difference, and class asymmetries (DeMarrais *et al.* 1996: 31). I address community at Samanco through an interactional, practice-based (Bourdieu 1977) approach emphasizing the materialization of performance.

Performance is the key term which defines the framework employed in this dissertation. The central place wherein community is realized is the realm of culturally influenced interactions and experiences, or performances. The term performance is encountered in association with very different contexts, from referencing theatrical events to measures of productivity (e.g., s/he performed the task well). The ambiguous nature of "performance" has led to significant theorization of the term (e.g., Butler 1993; Geertz 1973; Goffman 1967; Hodder 2006; Houston 2006; Hymes 1975; Kaprow 1959; Inomata 2006; Inomata and Coben 2006; Kapchan 1995; Schechner 1988; Schieffelin 1985; Turner 1987). I choose a standpoint of performance which is defined by Kapchan (1995: 479) as "aesthetic practices-patterns of behavior, ways of speaking, manners of bodily comportment-whose repetitions situate actors in time and space, structuring individual and group identities". This is a broad definition of the term which accounts for the diverse usages of performance I explore in this dissertation.

1.2 Archaeologies of Performance and the Ancient Past

As Triadan (2006: 160) points out, ritual has long been at the focus of archaeological inquiry, but discussions of ritual have tended to overlook theatrical, or performative qualities of rituals and other social events. Recent advances in archaeological thought have sought to explain these important aspects of social life through an archaeology of performance. The most central point of debate within what performance is derives from a dichotomy between emphases of performance as daily life on one hand, and performance as heightened, "special" encounter on the other. Schechner (1988: 290) refers to the myriad contexts of performance as "magnitudes" which differ in regard to time, space, and event, and the degrees to which performances involve theatricality and narrativity. There has been a profound difficulty in reconciling the different magnitudes of performance. Turner (1980, 1982, 1987) attempted to unify the various magnitudes, or genres of performance throughout his career by focusing on the liminality, or transformative properties inherent to all types of performances. Yet, the transformative power of performance appears to be one of many, including discipline (Hodder 2006), technology (Skibo and Schiffer 2008), authority (Inomata 2006a, 2006b; Coben 2006; Swenson 2011), and entertainment (Houston 2006) among others.

Archaeologists have mainly considered ritual paraphernalia, public spaces, iconography, and other remains which directly link to public encounters. In my view, a similar approach can be taken to consider more domestic, or mundane remains and their ability to reflect varying patterns of social life. An archaeology of performance in daily life is applied in the Samanco case study.

Theorists focusing on daily theater see performance as a constant force within minds and bodies, and that human beings are constantly embedded within culturally defined "interaction rituals" (Goffman 1967: 3). Artist Allan Kaprow (1966, 2003) refers to these mundane, daily events as "Happenings" which, for him, are the most meaningful and important manifestations of culture and life. Archaeologically speaking, this type of performance would be materialized in domestic materials which in this case form the bulk of materials encountered. There are numerous potential types of happenings, or daily performances, which are possible. Namely, investigating where site inhabitants may have spent most of their time, as well as the levels of social control on daily life, are factors which are explored at Samanco. Cases of daily performance theorizations in archaeology are rare (e.g., Hodder 2006; Ingold 2000; Lightfoot *et al.*1998; Skibo and Schiffer 2008), but provide considerable utility for discussing daily life at Samanco.

Although not specifically discussed as "performance", Lightfoot *et al.* (1998) argue for a practice-based (Bourdieu 1977), contextual approach to the archaeology of daily life. They highlight the need for contextual analysis, such as spatial organization, the built environment, and provenience as opposed to what is seen as a bias toward artifact frequency-based approaches to household archaeological analysis (Lightfoot *et al.* 1998: 201-202). Moore (2005: 179, 210) points out a similar case in Andean household archaeology. He provides a review of household studies which have tended to neglect social aspects of the house, considering the house as a passive element reflective of economic production. Rather Moore has argued for the "house society" (Levi Strauss 1983) model of Andean social organization, especially on the North Coast of Peru (Moore 2005: 181). Samanco excavations, therefore, focused on the house (in this case the neighborhood compound) to evaluate the extent of its effect on sociopolitical life.

The house is often the nexus of daily activity. Ingold (2000) has proposed the concept of the taskscape, or the array of social activities, to archaeologists for understanding the highly social aspects of daily tasks. Ingold (2000: 323) suggests that non-western quotidian lifeways do not separate social life from work or production life. From this perspective, the workplace becomes the chief context where community is negotiated. Analyses of workplace performance, are a key theme of this study, and consider questions of specialization, knowledge, experience, and group make-up involved in Samanco's taskscapes.

Along similar lines, Skibo and Schiffer (2008) have established a "performance-as-technology" framework for understanding relationships between daily life and material culture. For them, recent agency-based frameworks, including performance, have allowed for a refinement of their seminal but oft-criticized (e.g., Dobres 2001; Hodder 1986; Hodder and Hutson 2003) "behavioral archaeology" (see Reid *et al.* 1975). Skibo and Schiffer (2008: 143) attempt to reconcile behavioral archaeology with contemporary theoretical concerns through the argument that technology and utilitarian activities are a choice-based performance which binds different members of a community together in culturally specific contexts. Quantifiable variables found in the archaeological record are referred to as performance characteristics used to map behavioral histories. As a result, technological performances form the foundations of society, and are materialized in the making, usage, and discard, or "life history" of objects (Skibo and Schiffer 2008: 22). Using the Samanco data, I investigate material life histories associated with daily life by first analyzing refuse provenience associated with discard, then correlating contexts of making and usage. This provides a basis for understanding daily life associated with subsistence and production-related activities, categorized later as communal performances of industry, as an integral type of performance involved with community organization at Samanco and in the ancient Andes more broadly.

Performance and archaeology has further developed through a co-edited volume put forth by Inomata and Coben (2006). In the volume, Hodder (2006: 85) theorizes important aspects of daily social life, arguing that performance is "a dimension of action that bridges to meaning and communication…both meaningful and practical, bodily and political". Hodder cites the absence of open monumental space at the dense, residential site of Çatalhöyük (7400-6000 BCE) in Anatolia as an indicator of the importance of daily performance-as-theater, or "microspectacle"

(Hodder 2006: 98) in complex societies. Hodder sees the spatial arrangement and material usage of residential structures at Çatalhöyük as reflecting a political, disciplining power used to create docile bodies in small residences. Houses and residential performances in this case are symbolically linked to ancestors, animals, and myths through powerful domestic interactions. Hodder's assertion of symbolic meaning underpinning performance goes against context-driven approaches which performance theory relies on (see Schieffelin 1985). For instance, meaning can be seen as fluid among different contexts, as well as the assertion that symbolic meaning lies beyond reach of archaeology's empirical repertoire (See Inomata and Coben 2006). I rely mainly on contextual data to reconstruct ancient performance at Samanco, with limited reference to possible symbolic meanings.

The perceived downplay of interactions in monumental space, or elevation of performance in daily life as socially equal to public encounters, is disputed by other archaeologists (Houston 2006; Inomata 2006a, 2006b; Inomata and Coben 2006). For instance, Inomata and Coben (2006: 21) see the focus on symbolic meaning behind performance as overlooking differences in the scale and form of events whose contexts are more important than underlying symbolism. In other words, public spectacles are self-evident as important events given their extraordinary properties when compared to mundane contexts. I am in general agreement with this standpoint, and emphasize the different forms and scales of performance at Samanco, namely residential versus public activities manifested in household patios and large plazas. However, I do recognize the potential blurring among contexts (Hodder 2006: 98), as marked dichotomies between domestic, or private, and monumental, or public archaeological contexts impose certain biases (Nash 2009: 206). In the case of Samanco in particular, communal patios served as dynamic spaces that could house extraordinary as well as mundane social events.

Another useful case study which shapes the study and overall methodology at Samanco is Inomata's (2006a, 2006b) analysis of Classic Maya (250-900 CE) public performance. He argues that loosely-aligned polities created, maintained, and transformed communal relations through large theatrical events such as festivals and feasts. The contextual importance of scale, such as bodily co-presence among large numbers of residents and their political rulers created an arena where political and social ties could be resisted and/or re-affirmed. For Inomata (2006b: 213) public events hosting suprahousehold communities previously divided at the kin level tied them together with Maya polity affiliation. I argue that a very similar situation is in effect at Samanco, where innovative ways of life associated with large residential compounds would have necessitated communal activities for negotiating a common identity. These events were based heavily on the exchange of food and drink. Commensality, or the politics of hosting and gift giving (see Dietler 1996), provide a theoretical framework for exploring public feasts and their sociopolitical outcomes. Based on the Samanco data, public encounters may have been one of the few times when limited hierarchies were vied for and / or materialized.

In a similar vein, Houston (2006), Smith (2006) and Moore (2006) highlight the analysis of emotional experiences as a heuristic tool for understanding public performance and ancient societies. Smith (2006) and Houston (2006) emphasize visual-based public events, or spectacles, which Houston (2006: 138-139) describes as "marked" behaviors salient in their rarity and scale from daily encounters (see also Beeman 1993). Houston (2006: 140-141) argues through epigraphic, ethnohistorical, and archaeological references that the ancient Maya culturally valued sight, and that other sensual interactions such as dance and music were framed around the visual experience through what could be seen as stagecraft. For him, markedness of Classic Maya spectacles created emotional connections between society and divine beings who were sculpted into surrounding architecture and embodied by performers. The true importance of these events is to entertain in Houston's (2006: 136) view, but also fall in with the notion that spectacles of high scale and energy negotiate different levels of society than do daily encounters. The connection of common experiences and emotions to performance forms the central methodological tool used to evaluate Samanco daily life in Chapter 6.

Andeanist Jerry Moore provides a large comparative source, and in many ways has pioneered the study of performance in the ancient Andes (1995, 1996a, 1996b, 2003, 2005, 2006). Like Houston (2006; see also Houston and Taube 2000), Moore (2005, 2006) has dealt with the issue of recreating ancient human experience involved with public performance. Moore (2005: 5, 2006: 47-48) recognizes the difficulty of empirically measuring experience, especially non-Western contexts devoid of writing systems such as the ancient Andes. However, he argues that partial answers and interpretations are better than ignoring the importance of ancient experience to archaeologists concerned with social life. For Moore (2005: 3-4), the built environment provides the best bridge in the material record to correlate ancient experiences with types of sociopolitical organization. Actions and experiences can be empirically recorded through "proxemics" (Hall 1959, 1966, 1968) which is the study of different levels of interactions reflected in the built environment. Moore has used proxemics involved with viewshed, sound, and motion to discuss different types of ancient Andean monumental architecture (Moore 1996a, 1996b, 2005). Moore (2005: 36-47) also illustrates how sound transference and spacing between households may be an indicator of social conflict or cohesion within different communities. In Chapter 6, a review of experience-based methodologies is given. I use experience-based variables especially sight, sound, taste, and motion to better understand the experience of Samanco daily life, which is then correlated to sociopolitical organization.

Because performance is ultimately a social phenomenon, recognizing performance in the archaeological record can be difficult. Archaeologies of phenomenology (see Tilley 1997) more recently developed into sensual archaeologies (see Skeates 2010, 2011; Day 2013) form the main analytical tools used to conceptualize performance at Samanco. By breaking down archaeological data into perceptual variables, a detailed picture of Samanco daily life is presented which characterizes the early urban maritime experience. Ultimately, I propose that residential activities at Samanco rely on the experience of communal exclusivity associated with distinct neighborhoods to maintain and reproduce proto-urban social identities. I also argue that the sea and a cultural association with industry are key aspects to Samanco society. However, as Moore and others (e.g., Classen 1997, 1999) point out, biases and limitations of the researcher need to be acknowledged when recreating past experiences. To this end, the following section problematizes modern performance with the archaeological past.

1.3 Performance Archaeology: Perceiving and Reconstructing the Past

"The past is no longer seen as a monolithic, undifferentiated mass within which meaning is self evident. Rather the past is a source of data which is gathered and interpreted according to the purpose of the archaeologist" (Pearson and Thomas 1994: 134).

If we are to accept that performance is a critical awareness of actions and perceptions that shape our lives, as the above quote suggests, then one could argue that doing archaeology is, in itself, a performance of sorts. Indeed, Kapchan (1995: 500) highlights the blurred genres between studier and studied: "Through the experience of heightened aesthetic expression, artists, actors, ethnographers, and analysts enter into dialogue with the past, *performing their parts in cultural scripts* wherein emergence tracks the future" (emphasis mine). Therefore, the ways in which we, as archaeologists, create our cultural scripts are clearly culturally embodied and deserve proper critical analysis (see Hodder 2000). These cultural scripts can be similar or quite different from other engagements with the archaeological past by different stakeholders. Pearson and Thomas (2000: 133-135) echo this notion, asserting that "theatre archaeologists" are critically aware of ways in which the past is represented and reconstructed.

As a study which deals with the myriad ways in which performance and archaeology are entangled, I explore reflexive ways archaeologists engage with the past, focusing on research at Samanco. I also engage members within the modern community of Samanco to complement my presentation of the ancient past with local perceptions of archaeological sites which litter the Peruvian landscape and are routinely experienced in everyday life. In Chapter 7, I provide more theoretical background on public archaeology and performance, especially as they pertain to Andean identities.

The types of information I evaluate look more at how archaeological sites are viewed in local people's daily lives, rather than concepts of cultural patrimony. Myth and folklore shape the ways in which local people perceive archaeology. I argue that archaeological sites around Samanco are viewed synonymously with the natural landscape, which dictates the way people interact with sites. Sites are viewed as places of powerful but unpredictable energies associated with ancient ancestors, which command offering and respect more so than conservation. Finally, sites like Samanco are integrally linked to rural *campesino* identities in opposition to those of cosmopolitan urbanites, because of their place in the natural landscape. The reflexive and anthropological analysis hopefully provides a more holistic presentation which advances the knowledge of heritage and Andean prehistory.

1.4 Outline of Dissertation

The current chapter has framed the theoretical focus of the thesis, an archaeology of performance, to investigate urbanization and maritime society at Samanco, coastal Peru. Chapter 2 provides a historical backdrop to the study, focusing on Formative events from the Initial Period (1600-800 BCE) leading up to urban transformations of the Andean coast during the Early Horizon (800-100 BCE). In Chapter 3, background information is provided on the Nepeña Valley, its history of research, and the placement of Samanco within Early Horizon Nepeña studies. Chapter 4 begins by providing the objectives of Samanco field research, followed by a presentation of mapping and excavation results. Chapter 5 follows by presenting material data results, such as ceramics, food remains, tools, and other aspects of daily material culture. The dataset created from Chapters 4 and 5 are contextualized in terms of group experiences in Chapter 6, used to create a picture of ancient performance and daily life. In Chapter 7, contemporary engagement with the Samanco ruins is discussed. Finally, Chapter 8 provides a summary of the dissertation and outlines conclusions made and future research to be undertaken.

1.5 Project Goals

To summarize, the aim of this dissertation is to explore coastal Andean life through an archaeology of performance. With the site of Samanco as my case study, this contribution sheds new light on three main topics. 1) The dissertation advances performance theory through archaeological case study, namely as it relates to the performance of daily life. 2) It refines current understandings of Andean prehistory and early urban maritime societies through the excavation of a Formative town. 3) The work critically assesses relationships between archaeology, archaeologists, and modern communities which contributes to a more inclusive and informed research process.

CHAPTER 2
THE COASTAL ANDES DURING THE FORMATIVE PERIOD (1600-1 BCE): FROM PILGRIMAGE MONUMENTS TO EARLY URBAN ENCLOSURES

The coastal Andes (Figure 2.1) are one of the most arid regions in the world, receiving negligible amounts of rainfall due to the cold Humboldt Current which sweeps northward from Antarctica along the Andean shoreline. However, millions of cubic meters of river debit descending from glacial lakes (see Robinson 1964; Sandweiss 2008; Vidal 1987; Wilson 1988) allows for extensive irrigation agriculture within valley oases such as Nepeña (Figure 2.2). More important to this study, given Samanco's seaside locale, is the rich sea biomass created by the Humboldt Current's upwelling of cold water, accounting for 10% of the world fish catch today (Chavez *et al.* 2008: 95). Unless disturbed via periodic disruptions in cold water upwelling (El Niño Southern Oscillation, or ENSO), coastal Andean conditions create a completely unique and bountiful biomass for humans to exploit. The fruitful relationship between fishing and agriculture facilitated the development of complex society throughout the Andean coast (Moseley 1975), resulting in monumental ceremonial centers and, by the the mid-1st millennium BCE, urban transformations and settlement nucleation associated with monumental enclosures seen at Samanco. In this study I focus on performance and community organization associated with the shift from temple complexes to dense proto-urban settlements.

Samanco dates to the mid-1st millennium BCE (Table 2.1), toward the end of what is referred to as the Formative epoch (Lumbreras 1974; Kaulicke 2010) encompassing the Initial Period (1600-800 BCE) and Early Horizon (800-200 BCE) in the Central Andes (Rowe 1962). The beginning of the Formative Period in the coastal Andes is generally associated with the introduction of ceramics to the region, coinciding with an intensification of agricultural practices and introduction of animal domesticates. By the end of the Formative Period, referred to here as the Early Horizon, coastal societies began to transition toward what I call enclosure-based societies within expansive stone-walled compounds. The complex spatial layout and innovative lifeways associated with these enclosure compounds form the archaeological basis for this study.

The region of focus is an area of coastal desert comprising numerous river valleys generally located between the modern cities of Lima, to the south, and Chiclayo, to the north, encompassing an approximate area of 600km. These river valleys are bordered by the Pacific Ocean to the west, and the base of the Andes Mountains to the east. Although I focus on coastal developments, frequent mention will be made to developments in the North-Central Andean highlands, namely the iconic Formative site Chavín de Huántar.

During the Early and Middle Formative, or Initial Period (1600-900 BC), coastal settlements throughout the North and Central Andean coast are characterized by massive ceremonial centers comprised of platform mounds fronting open plazas and circular sunken courts (Figure 2.3), with interior galleries on mound-tops (Figure 2.4). Antecedents of mound-plaza ceremonial centers can be traced back to the Late Archaic or Cotton Preceramic (2500-1600 BCE), where monumental architecture appears nearly a millennium before the proliferation of ceramic use. Initial Period coastal centers have received significant attention in Andean studies (e.g., Burger and Salazar-Burger 1991, 1998; Conklin 1982; Dillehay 2004; Elera 1998; Fuchs 2011; Fung-Pineda 1988; Grieder 1975; Ikehara and Shibata 2008; Larco Hoyle 1945; Moore 1996a; Nesbitt 2010; Pleasants 2009; Pozorski 1980; Pozorski and Pozorski 1979, 1987, 2005, 2006; Ravines 1985; Ravines and Isbell 1976; Shibata 2010; Tello 1943; Williams 1985). Meanwhile, coastal events of the first millennium BCE, during the Early Horizon (900-100 BCE), have remained a lower priority of research (exceptions include Brennan 1978, 1980, 1982;

Chicoine 2006a; 2006b, 2010a, 2010b, 2011a, 2011b; Chicoine and Ikehara 2010; Daggett 1984, 1987; Ikehara and Chicoine 2011; Pozorski and Pozorski 1987; Warner 2010; Wilson 1988). This situation is likely due, in part, to the less monumental quality of enclosure compounds in comparison to their earlier mound-plaza complex counterparts. In addition, Early Horizon enclosures bear an uncanny resemblance to much later enclosure centers associated with coastal societies from the 9th century CE onwards (see Moore 2003), leading to their frequent mistaken chronological placement (e.g., Proulx 1968; Warner 2010: 541). Because of the weight of Formative Period research toward earlier monumental centers, important comparative information exists to compare earlier performance and community patterns which shaped later developments seen at Samanco.

The Formative historical review leads up to a fundamental question which is addressed in the Samanco research: How did Andean maritime households transform into early urban communities, and what effect did this transformation have on social and political life? Moreover, how did household activities and daily performances contribute to this transformation?

2.1 Public Life, Pilgrimage, and Initial Period Ceremonial Centers

Social and political life during the Initial Period historically impacts what is seen at succeeding dense residential centers like Samanco. Most communities during the Initial Period are organized around dispersed, small hamlets, with corporate labor focused on monumental architecture utilized for periodic communal performances in a pilgrimage-like fashion. This dispersed, pilgrimage-like community arrangement differs from societies such as Samanco of the coming centuries, materialized through agglomerated enclosures replacing monumental temples. Most scholarly study on coastal Initial Period sites has focused on the aforementioned large, ceremonial architecture which typifies early Andean complex societies (see Burger 1992). Investigations have centered on construction sequences and labor input (e.g., Conklin 1982; Fuchs 2011; Patterson 1985; Pozorski 1980; Pozorski and Pozorski 2005), as well as trait similarities (e.g., Grieder 1975; Williams 1985) of mound-plaza complexes. Analyses are focused on chronology, degrees of sociopolitical centralization, and regional influence. There has also been an emphasis on the ways in which these monumental centers were used and experienced (Burger and Salazar-Burger 1998; Dillehay 2004; Ikehara and Shibata 2008; Moore 1996a, 2005) which directly influence the Samanco study.

Initial Period monumental centers share a number of common characteristics. The first includes a site nucleus comprising a large platform mound (ranging from 10 to more than 35 m in height), fronting an open space sometimes surrounded by lower platform wings in a general U-shape (Figure 2.3). The sites are located in open valley floors, and are generally laid out on a central axis facing northeast, or up-valley. The tops of the principal mounds are accessed by single, ornate staircases and contain varying numbers of finely crafted interior galleries (Figure 2.4). These interior galleries and mound facades are the focus of public art, containing variations of polychrome supernatural and anthropomorphic representations (Figure 2.5). Rarely does a single site dominate an entire region. Rather numerous centers are located throughout lower and middle valley margins.

Initial Period mound-plaza complexes are attributed to a number of different cultures or styles, including Manchay on the Central Coast surrounding Lima (e.g., Burger and Salazar-Burger 1991, 1998, 2008; Chevalier 2002; Ravines and Isbell 1976; Scheele 1970; Williams 1985), the Sechín in the Casma river valley vicinity (e.g., Fuchs *et al.* 2011; Fung and Williams 1977; Grieder 1975; Pozorski and Pozorski 1987, 2005, 2006; Samaniego *et al.* 1985), and the

Cupisnique on the North coast (e.g., Billman 1996, 2001; Burtenshaw-Zumstein 2013; Elera 1998; Larco Hoyle 1945, 1948; Nesbitt *et al.* 2010; Pleasants 2009; Pozorski 1980, 1983; Tellenbach 1986; Willey 1945). Manchay sites most clearly exhibit the U-shaped temple design. Burger and Salazar-Burger (1991: 294) suggest that communities utilizing these temples were likely autonomous and relatively non-stratified, with more of a religious than political function in society (see also Burger and Gordon 1998: 1104; Burger and Salazar-Burger 1998). In Casma, Sechín sites dwarfed other centers, some of which were the largest man-made constructions in the Americas during the 2nd millennium BCE. Here, ceremonial architecture emphasizes scale, with decorated platform mounds measuring up to 35 m high and plazas extending out nearly a kilometer in the case of Sechín Alto. Size and elaboration of Sechín sites have led to the hypothesis that Sechín represents a centralized state, which operated through administrative compounds located atop the platform mounds (Pozorski and Pozorski 1986: 385, 2006: 158-159). Fuchs *et al.* (2011) and Bischof (2011) posit a more complex sequence of varying occupations over a longer period of time based on excavations at smaller Sechín sites--thus arguing for a less centralized, state-like sociopolitical system.

Neither Manchay nor Sechín are associated with elaborate ceramics, which distinguish coeval developments associated with the early manifestations of Cupisnique (ca. 1300-900 BCE), to the north. Cupisnique is best known for its fine polished blackware pottery, depicting various plants, animals, and anthropomorphic beings (see Larco Hoyle 1945). Cupisnique temples are also notable for their extensive use of interior colonnades. Otherwise, Cupisnique public architecture is similar to the aforementioned cases, with central public plazas and courts fronted by decorated moundtops associated with graded access. As is the case with Sechín, debates over construction phases and labor investment have influenced discussions over degrees of social complexity involved with Cupisnique communities (Conklin 1982; Pozorski 1980, 1995). My study attempts to take less of a neo-evolutionary, labor-driven focus at Samanco. Instead, I intend to focus more on the context of space use as a proxy for understanding different types of community organizations.

Initial Period developments in Nepeña show elements of Manchay, Sechín, and especially Cupisnique (possibly Chavín) components. Pozorski and Pozorski (2008: 626) posit that Sechín's influence pulled populations from Nepeña, resulting in a sparse Nepeña valley population for most of the Initial Period. However, a significant late Initial Period presence, coeval with Manchay and Cupisnique, is seen at mound-plaza temples Cerro Blanco and Huaca Partida (e.g., Ikehara and Shibata 2008; Shibata 2010, 2011; Tello 1943; Vega-Centeno 2000). In fact, Cerro Blanco is one of the best known early ceremonial centers because of stunning fanged supernatural murals discovered by Tello (1943) and re-excavated by Shibata (2002, 2010).

Recent research by Shibata at Huaca Partida, a Formative temple neighboring Cerro Blanco, has resulted in a Nepeña-based sequence for the Initial Period and Early Horizon. Excavations indicate that Huaca Partida was mainly built and occupied during the Initial Period, and later re-occupied by Early Horizon squatters who built a megalithic structure on top. Shibata's chronology for Huaca Partida, extrapolated for all of Nepeña, has four main divisions: (1) Huambocayán Phase (1,500-1100 BC), associated with the first raising of the central mound at Cerro Blanco; (2) Cerro Blanco Phase (1,100-800 BC), which is roughly coeval with the Cupisnique and Manchay traditions and associated with the occupation height; (3) Nepeña Phase (800-450 BC), corresponding with the abandonment of entombment of Huaca Partida's friezes and original temple with a brief shift to megalithic construction; and (4) Samanco Phase (450-150 BC) corresponding with the complete abandonment of Cerro Blanco (Shibata 2010: 305-

306). Shibata's chronology will be the principal form of reference for the Early Horizon occupation at Samanco.

Shibata's work at nearby Cerro Blanco also provides comparative architectural and contextual data to assess the Initial Period-Early Horizon transition in Nepeña. The main mound at Cerro Blanco measures 15m high, with an area of 120 by 95m (Bischof 1997: 206; Daggett 1987: 118; Proulx 1985: 53; Shibata 2010; Vega-Centeno 2000: 141). On either side of the main mound are two smaller platform mounds, forming Cerro Blanco's U-shaped lateral wings. These encompass an open area approximately 90 by 90m between the main mound and surrounding wings, forming a large open plaza area oriented northeast up-river toward the Cordillera Negra. Atop one of the surrounding wings, Julio C. Tello (1943, 2005; Vega-Centeno 2000: 142-146, Figure 4) excavated a small (5 by 5m) interior gallery room with low walls and platforms, none measuring over one meter in height. These walls were elaborately decorated with polychrome murals, and the structure faces the open plaza area.

On the opposite wing of Cerro Blanco, Ikehara and Shibata (2008: 29, Figure 4) found high volumes of fine serving vessels, likely utilized for feasting along the U-shaped wing platform area. Ikehara and Shibata (2008: 151-152) interpret Cerro Blanco's social organization as being relatively de-centralized, with the exception of episodic public spectacles where members from neighboring communities came together in large numbers and elites displayed power through commensal politics (Dietler 2001; Hayden 1996, 2001). Cerro Blanco and Huaca Partida are the closest Initial Period temples to Samanco, located 15 km up-valley. As such, they provide direct comparative links built upon in my research.

Important studies involving the aforementioned mound-plaza complexes have been made on the nature of Initial Period public performances, which historically contextualize public life at enclosure-based centers such as Samanco. Moore (1996a, 2005) argues that Initial Period monuments not only emphasize scale, but also bi-lateral symmetry emphasizing movement. Moore (1996a: 160-167) also argues that these qualities lead to a display and procession-oriented society. All individuals could have participated at the observer level in these open spaces, but organizers and lead participants would have been organized within the exclusive mound-top atria (Moore 2005: 51). These moundtop atria, I argue, provided inspiration for Samanco's enclosure compounds. Moore's findings are corroborated archaeologically through Burger and Salazar-Burger's (1991, 1998) excavations at Manchay sites, which documented fragile, well preserved mound-top staircases indicating low flows of traffic (i.e. exclusivity), and a large (73 x 33 cm) decorated anthropomorphic effigy puppet ritually entombed alongside burials on the mound summit. Burger and Burger-Salazar (1998: 51) suggest that the object's portability could have allowed for mound-top display, as well as open plaza processions. Without extensive residential components, Moore (2005: 105) argues that the construction and hosting of Initial Period events likely involved several outlying communities which separated common, everyday experience from these rare, dynamic events. Ancestor veneration was also probably another key aspect to Initial Period public and religious life. This is indicated by a Cupisnique temple built upon a cemetery (Elera 1998), and burials in the vicinity of the effigy puppet ritually interred at the Manchay site of Cardal.

Along similar lines, key funerary data exist from La Galgada, a temple located in the mountainous hinterlands of the upper Santa valley neighboring Nepeña. There, archaeologists documented rare tombs built into ceremonial structures (Grieder 1982: 99). The proximity of the tombs to ceremonial architecture, as well as the existence of an open tomb entrance leads to an interpretation of ancestor veneration very early in Andean prehistory. As I will illustrate at

Samanco, this practice continues to permeate throughout performances with the dead. La Galgada's ritual structures revolved around circular rooms with platform benches and central hearths. Ceremonial hearths were ventilated by a series of shafts, and may have been used to burn chili peppers or other objects during religious ceremonies.

This pattern of ritualized community is commonplace throughout the early Andean highlands (Grieder *et al.* 1988; Izumi and Sono 1963; Onuki and Kato 1993), and is referred to as the Kotosh ritual tradition (Burger 1986). The Kotosh tradition was most concentrated in the Huánuco region of the Central Andes at sites such as Kotosh, Shillacoto, Sajara-Patac, Waira-Jirca, Piruru, and numerous others. Further north, at a site known as Kuntur Wasi in the Cajamarca region, the richest tombs from the Formative Period were discovered (Kato 1993; Onuki and Kato 1993), and remain as some of the only extant cases of social hierarchy for the time. The tombs are placed in ceremonial structures, similar to La Galgada, and contained gold objects and exotic ceremonial materials such as *Strombus galeatus* pututo horns used in musical ceremonies. Elsewhere in the Andean highlands, later developments associated with Chavín created new ceremonial community engagements, yet still centered on pilgrimage.

The best known Formative ceremonial center is Chavín de Huántar, located approximately 150 km southeast of Samanco in the Ancash highlands. It is important to contextualize Chavín, as the site is historically associated with wide-ranging influence during the Early Horizon. Chavín has been a center point of Andean research for nearly a century, having been first investigated by Tello in the 1920s and 1930s. Much like the aforementioned Initial Period temples, Chavín is organized as a U-shaped temple of platform mounds fronted by sunken plazas. The site probably gained inspiration from previous highland ritual traditions, such as Kotosh as well as coastal influence (Burger and Salazar-Burger 2008). Elaborate stone carvings portraying complex zoomorphs and anthropomorphs line Chavín's plazas and mounds. Expansive underground galleries contain the site's largest and most complex megalith, known as the Lanzón (See Rowe 1967; Cummins 2008). The Lanzón depicts a mythical being deep beneath the temple center, accessed via underground tunnels probably through procession. Another famous Chavín sculpture, the Tello Obelisk, depicts flora and fauna from the arid coast and surrounding highlands to the lowland Amazon, linking the network of Andean environments (Cummins 2008; Lathrap 1971, 1982). Caches of offerings have been found within the galleries (Lumbreras 1993), likely associated with the Lanzón. Additionally, recent finds include a cache of *Strombus galeatus* pututo horns probably involved with underground music emanating up to Chavín's plazas (Cooke *et al.* 2010).

Chavín has generally been divided between Old Temple and New Temple phases (Burger 1993; Rowe 1962). The Old Temple corresponds with a small mound, circular plaza, and the underground gallery surrounding the Lanzón. The Old Temple was superseded by a much larger U-shaped complex containing a large mound fronted by the Black and White Portal, a megalithic gateway which itself is fronted by a rectangular plaza. Recent work by Kembel (2001, 2008; Kembel and Haas 2013) refined the Old Temple-New Temple sequence by identifying five phases of renovations between the Lanzón Gallery's small mound at the earliest stages, and the Black and White Portal at the latest stages. Kembel's work is significant, as it identifies a long chronology of temple construction and use, rather than a massive corporate building event reflecting state level planning.

Because of Chavín's exquisite monumental and artistic qualities, the site was ascribed to the first major "horizon" of pan-regional influence in the Central Andes, the Chavín or Early Horizon (Rowe 1962; Tello 1943, 1960). Subsequent excavations at Chavín refined ideas of the

Early Horizon (Lumbreras 1970, 1971, 1972). Burger's work sampled the periphery of Chavín and suggests a large, permanent or proto-urban settlement (Burger 1993). Burger and his team suggest that Chavín was the center of a religious cult involved with pilgrimage and exchange of religious paraphernalia and exotic goods (Burger 2008; Burger and Matos 2002; Druc 1998, 2004). Later work by Rick (2005, 2008, 2014; see also Rick *et al.* 2010; Kembel and Rick 2004) suggests more of a coercive power scheme at Chavín, involving access to esoteric religious knowledge through pilgrimage at Chavín as a guise for early political subjugation. In my view, Chavín operated in a very similar fashion to the aforementioned coastal temples, albeit at a much larger scale which included more widespread pilgrimage. Insufficient data exist to compare Chavín's residential components, as work has focused on the site's monumental core.

Contextualization of Chavín is very important to the Samanco research, given Chavín's perceived widespread influence. Ongoing debate exists among scholars with regard to Chavín's chronological placement and time period of influence. Work by Burger (1984, 1993) pushed the influence of Chavín past its previous chronological association with similar Initial Period centers (Burger 1981). For him, Chavín's florescence occurred during the Janabarriu Phase of interaction associated with zoned stamped pottery and construction of the New Temple between 500 and 200 BCE. However, his limitation of excavations to the temple's perimeter have led to questions about the dating of Chavín's monumental interior (Kembel 2001, 2008; Kembel and Haas 2013; Rick *et al.* 2010). This recent work puts Chavín's influence back to an occupational and building peak between 1200 and 800 BCE which accounts for 13 of Chavín's 15 interpreted building stages (Kembel and Haas 2013: 63). Only a "support phase" and gradual abandonment occurred during Burger's Janabarriu Phase around the 500 BCE mark. In other words, the more recent dates align Chavín with the Initial Period coastal temples, rather than Samanco's occupation.

In sum, ritual performance shaped regional forms of community during the Initial Period. These performances relied on pilgrimage to monumental temples, exchange of religious objects, and collective worship of the Chavín pantheon and its predecessors. The ceremonial architecture described above contrasts with what I will be presenting from Samanco in the succeeding chapters. For these purposes, I emphasize the historical uniqueness of Initial Period public performance and community. As later chapters document, the coming epoch and emphasis on residential compounds transforms the monumental landscape away from mounds and toward replicated plazas located inside dense residential architecture. The next section shifts from public to residential Initial Period lifeways, focusing on daily life and subsistence of the communities behind these impressive ceremonial centers which foreshadow life at Samanco.

2.2 Coastal Hamlets and Initial Period Residential Life

Although a substantial amount is known about Initial Period monuments, comparatively little is known about residences and domestic life. With exception to a few notable sites (discussed below), there seems to be a consensus that monumental sites had relatively small populations, and were utilized by various outlying hamlets. Understanding the nature of earlier residential life is crucial to my emphasis on urban transformations occurring during the 1st millennium BCE at Samanco.

Within the aforementioned Manchay culture of the Central coast, small parts (ca. 10%) of the sites appear to be used for domestic activities, leading investigators to hypothesize periodic site usage by a number of outer-lying hamlets (Burger and Salazar-Burger 1991: 292-293; Ravines and Isbell 1976: 266-277). In the case of the Manchay site Cardal, Burger and Salazar-Burger write:

"The buildings appear to be dispersed, rather than agglomerated; and the houses are associated with fairly extensive patios, which probably were the focus of most domestic activities. It is unlikely, considering the utilization of the space, that the residential population in this sector of the site could have exceeded 300 people" (Burger and Salazar-Burger 1991: 278).

The monumental core of the site spans 20 ha, and extensive excavation and survey only yielded 2-3 ha of residential areas. Here, patio groups average 30 sq m in contrast to patios measuring hundreds of square meters in the case of Early Horizon Nepeña enclosures which are the focus of this thesis. The spatial layout of Initial Period houses bears similarities to later enclosures, most notably central patios and formal storage rooms. Cardal's residences lack the density, monumentality, permanency, and planned layout that define Early Horizon enclosures. Rather, closer patterns to Early Horizon spatial organization seem to be reflected in the high-walled, restrictively-accessed mound-top atria. Manchay sites are all located 6-15 km from the coastline, and are geared toward agricultural production supplemented with collected marine resources (Burger 1987; Burger and Salazar-Burger 1991; Cohen 1977; Chevalier 2002; Patterson and Moseley 1968; Ravines and Isbell 1976).

Contemporary developments with Cupisnique to the north show a similar pattern of small local populations in association with monumental centers (Pozorski 1980, 1983), hypothesized as pilgrimage center-like communities for outlying hamlets (Billman 1996: 184). The most extensively researched Cupisnique temples, the Caballo Muerto complex of 17 platform mounds and associated plazas, did not reveal any domestic architecture (Pozorski 1983: 108). A small seaside complex, Pampas Gramalote, yielded subsistence data indicating possible sea-inland economic exchange systems between middle valley temples and coastal villages (Pozorski 1979a; Pozorski and Pozorski 1979). However, recent investigations at Pampas Gramalote and Caballo Muerto dispute the direct polity exchange model put forth by Pozorski and Pozorski, claiming a more independent coastal-inland situation (Nesbitt 2010; Prieto 2013).

Another Cupisnique seaside village, Puemape, reveals important insights into Initial Period daily life (Elera 1998). At Puemape, Elera (1998: 93-94) documents sand pits which were used to preserve marine and botanical foods, in addition to prevalent camelid dung within a corral. This indicates a mix of animal husbandry, agriculture, and marine resource exploitation during the 2nd millennium BCE. However, Puemape was primarily linked to marine resource production. Unfortunately, details of the domestic built environment have not been fully published. Based on similarities with Gramalote, Puemape's built environment likely contained small numbers of simple multi-room complexes. Numerous burials at the site did not show significant differences in status or grave goods, highlighting my argument of a relative lack of social hierarchy affecting Initial Period communal ideologies.

Elera (1998; see also Pozorski and Pozorski 1979) posits that fisherfolk ways of life rapidly expanded through valley resource exchange systems, and were symbolically conveyed through Cupisnique art forms which permeated the North and Central coast, even influencing Chavín de Huántar. Later on, I suggest these early marine exchange systems became further specialized within Early Horizon networks needed to sustain larger populations. Puemape was continuously occupied during Early Horizon times. Elera (1998: 171) points out a possible El Niño event drastically altering subsistence during the Early Horizon, indicated by a proliferation of warm water marine artifacts recovered. Given its seaside locale and extensive data on climate and littoral subsistence, Puemape provides important comparative references to be used in the research at Samanco.

Closer to Nepeña, residential life associated with the Sechín phenomenon in the Casma river valley is more extensive than the aforementioned Manchay and Cupisnique examples. At the site of Pampa de las Llamas-Moxeke near to the aforementioned Sechín Alto temple, the site's 700 m long monumental precinct is one of the few which may have contained large populations (Pozorski and Pozorski 1986). Pozorski and Pozorski (1986: 393-395, 1987: 137) note a number of "lower status" residences around the periphery of Pampa de las Llamas-Moxeke's U-shaped monumental core. The structures are laid out in an irregular, semi-planned nature and only measure a few stones high, indicating that they were constructed of perishable materials. These structures again contrast with the permanent, planned layout of residential enclosures at Samanco. The discovery of rough boundary walls around various structures at Pampa de las Llamas-Moxeke, however, may indicate an early form of residential exclusivity which becomes more pronounced with the enclosure compound phenomenon of the Early Horizon.

Comparisons with Early Horizon residential architecture are seen from mound-top and lateral wing structures within Pampa de las Llamas-Moxeke's monumental U-shaped complex. These include high-walled (over 2m) architectural complexes with restricted access, interior colonnades, windows, and platform benches. A striking similarity is a bar lock system discovered within Pampa de las Llamas-Moxeke's enclosures (Pozorski and Pozorski 1979: Figure 6) encountered through excavations at Early Horizon enclosure Caylán (Helmer *et al.* 2012: Figure 6). A key difference, however, is the religious or possible administrative function of Sechín enclosures, termed "square room units" (Pozorski and Pozorski 2006). As such, Early

Horizon transformations in residential life may have built on earlier non-domestic, civic-ceremonial forms.

With regard to Sechín and daily life, Pozorski and Pozorski (2005, 2006) argue for a similar, but more competitive model of coast-inland exchange than the aforementioned situation ascribed to Cupisnique and Manchay. For them, a seaside polity centered at the Las Haldas U-shaped temple, and an inland polity centered at Sechín Alto competed with one another for valley dominance, while smaller seaside centers provided shellfish protein to the large inland sites. Although evidence for the conflict among proposed Sechín polities remains unconvincing, Las Haldas represents one of the largest and most complex seaside sites in all of the Central Andes during the Initial Period. Its proximity to Samanco suggests direct influence for the later maritime center, where very different maritime lifeways emerged.

2.3 Setting the Stage for the Early Horizon: Summary of Initial Period Developments

In sum, Initial Period sociopolitical developments provide key comparisons for framing the study at Early Horizon Samanco. Namely, the constructed landscape emphasizes ceremonial monuments rather than dense residential settlement. I do not intend to dichotomize urban versus ceremonial settlement. For instance, the Moche of the succeeding Early Intermediate Period often intertwined urban settlements with temples. Yet here, the evidence clearly suggests such a shift at least for the Initial Period and Early Horizon throughout the North-Central Coast. In the few cases where residential architecture has been documented in association with these monuments, populations appear small and dispersed. Compared with Early Horizon material records, Initial Period centers lack the density of domestic materials indicative of permanent, high occupancy settlement. Initial Period ceremonial atria atop mound platforms appear to be the closest antecedent to Early Horizon enclosures, sharing many architectural qualities including high walls, interior colonnades, encircling benches, and lock systems. Thus, it is likely that concepts of the Early Horizon enclosure landscape were inspired by these galleries, as well as a modification of earlier domestic patio concepts.

The most notable contrast in the communal landscape between Initial Period and Early Horizon coastal communities is the later de-emphasis of massive monumental cores. Dillehay (2004: 260-261) poses questions that arise from his research into Initial Period community organization which directly relate to my project goals; he asks:

"When did households evolve into a formal political community? When this occurred, were special places like the U-shaped structures abandoned? What factors conditioned the negotiated choices made about hierarchical, heterarchical, or horizontal models of organization? What are the specific triggering conditions of integration in multiple localities?"

Dillehay's questions arise from a critique in traditional modes of analysis into Andean complex societies, which over-emphasize the "origin of things" (Dillehay 2004: 261; see also Moore 2005: 53) and confinement of analyses to notions of "chiefdom" and "state" through the neo-evolutionary framework pioneered by Service (1975). Quilter (2010: 238) echoes this new turn in Andeanist inquiry, championing a turn away from "check list" style analyses in favor of understanding how complex Andean societies were "constructed by themselves…on the ground". In the case of Nepeña, traditional models of hierarchy and state control do not seem to fit the highly complex but still decentralized forms of government. Rather, habituated practice and interaction between different communities provides a more compelling frame of investigation into Early Horizon society. In societies lacking established hierarchies like those at Samanco, DeMarrais (2011, 2013) has shown the importance of crafts and daily activities in the negotiation of communal identities. My research at Samanco argues for a similar approach, under the premise that understanding performances which shaped society inform a new understanding of community and social complexity. I also investigate the the transition away from communities integrated through pilgrimage centers and toward early urban ways of life at Samanco.

2.4 Urban Transformations: Early Horizon Enclosure-Based Societies

By the mid-first millennium BCE, coastal populations abandoned the aforementioned mound-plaza complexes, embracing new forms of settlement planning. Early monuments eroded from the public landscape, and werear replaced by stone-walled, multi-room enclosures. The circumstances of this transition remain unclear. However, military conflicts (Pozorski & Pozorski 1987: 118-119, 121), internal political turmoil (Burger 1992: 189-190), and environmental forces (Daggett 1987: 70-71) have been cited as possible catalysts for the abandonment of previous mound-plaza temple traditions.

Perhaps the most puzzling aspect of the transition is the seemingly conscious disassociation with previous sites. Investigators have suggested that Early Horizon groups "squatted" on previous sacred centers by constructing residences and dumping refuse upon monuments, as is the case in aforementioned Sechín Alto and Las Haldas (Pozorski and Pozorski 2005: 140; Pozorski and Pozorski 2006). Additionally, abstract geometric art styles documented at Nepeña Early Horizon enclosures reveal a break from fanged, polychrome supernaturals which adorned coastal temples for nearly a millennium.

Coastal enclosure compounds of the first millennium BCE are broadly categorized as "Salinar", a cultural style associated with White-on-Red painted ceramics (Larco 1944; Willey 1945) and dense enclosures with stone-walled, demarcated compounds (Billman 1996; Brennan 1978; Daggett 1984; Pozorski and Pozorski 1987; Wilson 1988) spanning the central and northern Andean coasts. The White-on-Red transition also occurs in the Ancash highlands, probably associated with the dissolution of Chavín as part of the little understood Huarás cultural horizon (Lau 2013: 30). On the coast, recent research has shown considerable diversity in what is broadly termed Salinar, both in time-depth and in cultural style beyond these basic similarities, emphasizing the need for further study (Ikehara and Chicoine 2011). Below, I discuss the few excavated cases of Early Horizon enclosures and their implications to the Samanco study.

In the Cupisnique region, later developments associated with Salinar are documented at the site of Jatanca in the Jequetepeque valley (Swenson 2011; Warner 2010). Jatanca's existence as a Formative site came as a surprise to investigators (Warner 2010: 541) because the site closely resembled enclosure compound layouts of the Chimú (900-1200 CE). At Jatanca, there are five major compounds (Warner 2010: Figure 3.2), without a monumental, temple-like nucleus. Jatanca compounds are organized with a north-south axis, originating in a large, rectangular northern plaza with a series of adjoining rooms restrictively accessed to the south of the compound. Warner (2010: Chapter 9) likens the spatial arrangement of Jatanca compounds to much later Chimú *ciudadelas* at the urban capital of Chan Chan, seen as the pinnacle of North Coast urban life. Similar qualities include winding accesses, north-south compound axes, a central north entrance, and a trajectory of spatial hierarchy beginning with the largest plaza constricting through various sub-compound rooms.

Jatanca's compounds share general similarities with Nepeña enclosures such as Samanco, namely the pattern of horizontal agglutinated architecture, but utilize adobe and ramps more characteristic of North Coast urban traditions. Swenson (2011: 307-308) suggests that public performance and theatricality played a crucial role in establishing tenuous power relations at Jatanca in comparison to later northern Moche groups. Warner (2010: 604) argues that social memory, whether historical or imagined, led to Early Horizon enclosures becoming a source of influence for the Chimú urban empire. This was achieved through a rejection of Moche temples and adoption of much earlier architectural forms reminiscent of the Early Horizon. Warner provides a sound argument which accounts for the uncanny resemblance between architectural traditions spanning nearly two millennia. In contrast to Warner's "forward-to-back" historical comparison, my research at Samanco emphasizes a "back-to-forward" historical backdrop for understanding Early Horizon enclosure societies. However, I make frequent mention of later coastal developments because of the discovery of rich intrusive Chimú tombs at Samanco which I ascribe to social memory and ancestor veneration.

Further south in the Cupisnique region, more data exist which suggest dense residential occupations during the Early Horizon. Nearby to the aforementioned Caballo Muerto complex, Billman (1996) reports approximately 125 "Salinar-Phase" sites in the Moche Valley. Although high in number, only nine of these sites exceed 1-2ha in size, and were likely occupied over short periods. Hypothesized large Salinar-Phase sites are generally obscured by later Gallinazo, Moche, and Chimú occupations. One exception is the large site of Cerro Arena, where Brennan (1978, 1980, 1982) was the first to excavate an Early Horizon enclosure compound.

Covering an area of two square kilometers, Cerro Arena is comprised of at least 2,000 individual structures. These include at least nine compound areas included in what Brennan refers to as “finely finished structures” in comparison to sprawling areas of perishable and semi-permanent structures. Brennan’s (1980, 1982) investigations focused on the built environment and settlement pattern. For him, not only did the density of structures indicate an urban site component, but also a diverse range in residential architecture. Brennan arranges Cerro Arena’s structures into five classes, spanning roughly built common domestic and storage areas to finely crafted elite residences, administrative structures, and formal storage chambers. Small plazas exist at Cerro Arena, but are not a primary focus of the constructed landscape as is the case in Jatanca. Cerro Arena’s structures are clustered along a three kilometer long mountain ridge, nucleated around inter-montane passes and proposed ancient roadways (Brennan 1980: Figure 4). The majority of finely crafted structures occur at the inter-montane junctures and road passages, leading Brennan to propose an urban, administrative, and defensive site function. Brennan’s study emphasized the importance of Early Horizon economic intensification and political centralization, as well as conflict involved in the process of Andean urbanization. Brennan’s assertions are significant, as he suggests that Salinar-Phase processes of urbanization formed the foundation of and were a direct pre-cursor to later Moche and Chimú urban civilizations.

In the Casma valley region nearest Nepeña, investigations into Early Horizon societies have focused on their intrusion upon previous Sechín centers (Pozorski and Pozorski 1987, 2005, 2006). Pozorski and Pozorski (1987: 50-70) excavated two of the largest Early Horizon Casma centers, San Diego and Pampa Rosario. San Diego is the best preserved, and spans an area of 50 ha with a dense 32 ha core (Pozorski and Pozorski 1987: Figure 28). As with the aforementioned Early Horizon enclosures further north, these sites are comprised of densely packed rectangular rooms of various sizes, corridors, plazas, and courts. A noted difference is the frequency of low, narrow platform mounds associated with interior-colonnaded open courts. These bear a striking similarity to Early Horizon plazas in Nepeña. Compared to earlier Sechín centers, the Pozorskis (1987: 54) surmise that Early Horizon groups exhibited “sloppy worksmanship” reflected in crude plaster techniques.

In comparison to their extensive excavations at Sechín sites, the Pozorskis note a proliferation of land mammal materials and maize within the Early Horizon diet. In addition, a number of new artifacts appear which are enigmatic of the Early Horizon presence, namely ceramic panpipes, slate projectile points, and White-on-Red, Stamped Circle-Dot, and Fabric-Impressed ceramic designs. Ultimately, Pozorski and Pozorski (1987: 118-125) suggest that such marked differences in architecture and material culture, coupled with the “desecration” of previous sacred monuments, was the result of a highland invasion commemorated in a mural of decapitated warriors at the Cerro Sechín site. Such claims of invasion have yet to be corroborated elsewhere, but illustrate the social upheavals between Initial Period and Early Horizon groups which inform my study at Samanco.

One other Early Horizon study of note in Casma is the site of Chankillo, which provides the best known data relative to Salinar Period religious life. Chankillo is famous for its recently documented solar calendar monument (“The Thirteen Steps”), the first documented calendar in the western hemisphere (Ghezzi and Ruggles 2007, 2011). Chankillo is the only Early Horizon coastal site where a significant portion of the site is devoted to ceremonial monuments, in contrast to the other cases discussed. There is one finely crafted enclosure compound located at Chankillo, measuring slightly less than 4 ha (Ghezzi 2006: Figure 3.1). This compound is nearly identical to the compounds documented in Nepeña by Chicoine (2006a, 2006b). However, most of the published work about Chankillo has been dedicated to an adjacent ridge-top fortress. The fortress has massive 8m high concentric walls with locks and dead-end passages leading to a small (1000 sq m) compound, the “Temple of Pillars” (Ghezzi 2006: Fig. 3.7).

The spatial configuration of the fortress, in conjunction with numerous weapons and warrior figurines encountered at the site have led investigators to suggest a setting for ritual battles associated with a sun cult and warrior elite (Ghezzi 2006: 80). Ghezzi’s findings at Chankillo highlight an overall theme of increased conflict occurring in tandem with patterns of urbanism. Indeed, conflict has been interpreted as a primary factor in Early Horizon cultural transformations, due in part to hundreds of hilltop fortresses located in upper valley margins (Arkush 2013; Brown Vega 2009; Daggett 1984, 1987; Ikehara 2010; Wilson 1987, 1988). Samanco therefore emerged during a period of social conflict (perhaps as a by-product of population increase and resource competition), which influenced the ways in which communities interacted.

2.5 Summary: The Placement of Samanco within Formative Andean Studies

By 800 BCE, significant changes altered the socio-political landscape of the coastal Andes, moving away from religiously-based non-urban temples and hamlets to expansive residential enclosure compounds. Chavín de Huántar apparently had little direct influence in the region at this time. Therefore, new forms of community and leadership emerged out of what appears to be a conscious disassociation with earlier regimes. Here, I am concerned with methods of social cohesion associated with urbanization, especially the relationship between maritime communities and newly formed urban polities. As I illustrate in the following chapter, Nepeña is an important case study for investigation, due in large part to a surge in Formative

Period research over the past decade. The Samanco study fits within ongoing Nepeña research, and looks to enrich the understanding of coastal Andean societies.

CHAPTER 3
3,000 YEARS OF SEASIDE TOWN LIFE: SAMANCO AND THE NEPEÑA VALLEY

My research at Samanco involves an understanding of both the ancient archaeological site and eponymous modern town. Although separated from each other by nearly two millennia of history, there are a number of similarities between the two communities. Namely, the sea remains a key source of identity and livelihood for both the modern community of Samanco and the archaeological site from which the name is derived. In order to create a more holistic understanding of the ancient community of Samanco, I argue that the inclusion of the local community, bound by a similar attachment to place (Low and Altman 1992; Tuan 1977) in relation to the maritime landscape, can provide an important perspective on the archaeological research. Engaging with and learning from the modern community of Samanco provides a means for understanding how they interact with and experience their ancient past. Additionally, contextualizing the archaeology of the Nepeña valley situates the Samanco research within ongoing research on the urbanization of the valley.

3.1 A Foreword to Maritime Life in the Ancient Andes

Because humans are a fundamentally non-aquatic species, our adaptation to maritime environments is a perplexing and often overlooked question into our developmental history (Acheson 1981; Erlandson 2001, 2002; Yesner 1980). Erlandson (2001: 288-290) takes this idea to task, arguing that pervasive denials of the developmental importance of the sea to humans reflects widespread bias toward more masculine occupations. For instance, gathering shellfish, an activity often ethnographically tied to females, is not as attractive of a stance on human evolution as male-dominated big game hunting. Moreover, the sea is often the most reliable and bountiful source of protein for sustaining human populations, despite inherent risks to human life. Acheson (1981: 289) points to the importance of sea crew kinship and solidarity in mitigating the risks inherent to human-sea activities. As I illustrate later, such considerations played heavily in Samanco's communal interactions. Sandweiss (2008) notes that the history of fishing in the Americas is probably as long as the presence of humans on the continents. As such, ancient American maritime ways of life have enjoyed tens of thousands of years of development and change which historically shaped early urban lifeways at Samanco.

Two millennia before Samanco was occupied, monumental sites were built directly on the Pacific littoral, symbolic of maritime communal prosperity. Sandweiss (2008) details the 11,000-plus year history of Andean fisherfolk, which intensified around 5,000 years ago when climate conditions shifted to their current state on the Andean coast (see also Richardson 1981; Sandweiss and Richardson 2008; Sandweiss *et al.* 2009). In a landmark case study, Moseley (1975) proposed that coastal Andean complex societies, more so than any other early civilization in the world, relied on marine goods as much as agriculture. Since then scholars have debated the relative importance of maritime economies in the rise of social complexity in coastal Peru (e.g., Feldman 1983; Haas and Creamer 2006; Quilter 1992; Raymond 1981; Wilson 1981).

Studies of maritime adaptations have emphasized the emergence of early monumental architecture during the Late Preceramic (e.g., Benfer 1990; Bird and Hyslop 1985; Haas *et al.* 2004; Haas and Creamer 2006; Lanning 1967; Moseley and Willey 1973; Quilter and Stocker 1983; Quilter 1991; Richardson 1981; Sandweiss *et al.* 1990, 2009; Shady 2006; Shady *et al.* 2001). Meanwhile, less is known about succeeding maritime groups, especially those who developed during the Early Horizon. In this chapter, I address maritime complexity as it relates to Early Horizon and modern Nepeña, spanning some 3000 years of innovation in the region.

3.2 The Nepeña River Valley

Nepeña (Figure 2.2) is a relatively narrow, long river tributary of the North-Central coast located approximately 400 km north of Lima. Nepeña extends 73 km southwest-northeast, with a maximum width of 8 km in the lower portion of the valley. The valley is sourced with water from the Laguna Chaupicocha, located some 4,600 m asl in the Cordillera Negra mountain chain (ONERN 1972: 36). Nepeña is considered a second class river, flowing regularly for most of the year. The river discharges 74.7 million m^3 of water annually and is relatively small in comparison to its neighbors Santa (4593.9 m^3) and Casma (172.4 m^3). However, Nepeña's slow moving waters were likely more conducive to settlement than other larger rivers. For instance, the steep, fast moving Santa Valley drains the entire North-Central highlands via the Callejón de Huaylas which runs immediately north and east of Nepeña, but was more sparsely populated until the river reaches the coastal plain. Because of Nepeña's easy navigability, Tello (1943: 138) surmises the valley was a key coastal satellite of Chavín centered at the aforementioned sites Punkurí, Cerro Blanco, and Huaca Partida in the middle valley.

Here, I divide the valley into three main areas corresponding to Early Horizon spheres of influence. The lower portion corresponds to the delta less than 5 km from the coast including Samanco. Lower Nepeña feeds through two main water systems down to Samanco Bay in the north, and Los Chimús Bay to the south. Samanco Bay is almost completely enclosed, rendering the waters unusually calm and favorable for fishing. The river switches its trajectory periodically between the two bays, having most recently switched from Samanco to Los Chimús during the 1998 ENSO episode. Formerly, the river passed just south of the site in an area which is now a small tributary. Fresh and brackish marshland systems make the lower valley the wettest area of

Nepeña. The middle valley features a cluster of archaeological sites surrounding the modern town of Nepeña approximately 15 km inland. The middle valley is a central control point between the upper and lower margins, and thus served as capitals in both modern history and antiquity. It is characterized by the widest part of the valley outside of the delta, and was probably covered with mesquite forests throughout most of antiquity. The upper valley is located some 35 km inland around the Moro Pocket. At Moro, the Nepeña river divides into the Jimbe, Loco, and Salitre tributaries at the base of the Cordillera Negra. The confluence of the three tributaries creates a hilly pocket of especially fertile soil where hundreds of ancient settlements, and most Early Horizon sites, are located.

In terms of preservation and settlement, Nepeña's earliest coastal villages were likely erased during sea level rise ending during the Middle Pre-Ceramic, some 5,000 years ago (Richardson 1981; Richardson and Sandweiss 2008; Sandweiss 2008). Likewise, sites located on the valley floor, especially in the middle valley, have also been adversely affected due to millennia of cultivation. Nevertheless, most ancient settlements in the littoral, such as Samanco, were located on valley margins outside the range of cultivation. Ridgetop sites in the upper valley present the best scenario for site preservation, which may account for their high numbers. As I illustrate below, these three regions constitute the main cultural nodes of Early Horizon Nepeña society.

3.3 Early Horizon Nepeña

In the Nepeña valley, extensive work is being carried out on Early Horizon societies, which developed during Shibata's Nepeña Phase (800-450 BCE) and overtook previous Chavín-Cupisnique temples. By the Samanco Phase (450-100 BCE), previous temples had been completely abandoned in favor of urbanized enclosures in the lower-middle valley, and megalithic fortresses in the upper valley as two separate political systems (Ikehara and Chicoine 2011).

Current research in Nepeña has benefitted from previous survey studies by Proulx (1968, 1973) and Daggett (1984), which provide a rare, valley-wide description of Nepeña's archaeological sites. Their surveys were part of significant efforts in the mid-twentieth century to record entire valleys and their cultural developments, following Willey's (1953) seminal Virú Valley survey. Daggett (1984, 1987, 1999) focuses exclusively on the Early Horizon in Nepeña, due to the density of sites. Daggett identifies 132 Early Horizon Nepeña sites, the majority of which are small ridge-top settlements in the upper valley, with a handful of lower-middle valley sites (Daggett 1987: Figure 3, 5, 6). Daggett's work argues for similar cultural developments as the Pozorskis, emphasizing highland invasion and political upheaval resulting in the transformed Early Horizon sociopolitical landscape from the earlier temples (Daggett 1987: 78). Daggett (1984: 133), along with the Pozorskis, believe that Nepeña was largely uninhabited during the Initial Period, with populations drawn to the aforementioned Sechín centers in Casma. As such, Nepeña would have provided an open corridor for foreign intrusion (Pozorski and Pozorski 2008: 626). However, there is little evidence indicating highland invasion, and current interpretations point to localized Early Horizon political innovation (Chicoine 2010a).

Daggett and Proulx's research brings settlement pattern data coupled with surface observations and seriation to create a valley-wide chronology and culture history. They assign two major phases to the Early Horizon in Nepeña: An early phase comprising terraced house platforms and fieldstone structures, with Stamped Circle-Dot, White-on-Red, incised and punctated pottery, as well as slate points, ceramic panpipes, and ceramic discs; the late phase consists of megalithic fortresses and Post-fire Scratched / Pattern-Burnished ceramics. Current excavation-based research has illustrated the contemporaneity of Daggett and Proulx's Early Horizon phases (Ikehara and Chicoine 2011). Rather than two phases, the results suggest a decentralized and heterogenous political landscape during the Early Horizon after the collapse of Nepeña's earlier temples and the Chavín-Cupisnique religious system (Ikehara and Chicoine 2011). Daggett and Proulx's later phase of megalithic hilltop villages associated with Pattern-Burnished pottery actually corresponds to an upper valley Early Horizon cultural sphere which develops alongside the lower-middle valley enclosure compound tradition.

The upper valley tradition is characterized by large numbers of small hilltop villages likely competing for resources within the Moro Pocket, a fertile area where the Nepeña valley diverges into tributaries leading into the Cordillera Negra slopes. The only excavated upper valley Early Horizon site is Kushipampa, located on a ridgetop overlooking the Moro Pocket. Kushipampa contains a megalithic core (Figure 3.1) of a series of patios and plazas measuring thousands of square meters apiece (Ikehara 2010: Table 1). The megalithic core is characterized by massive, finely cut cornerstones and lintels (Figure 3.2). At Kushipampa, one lintel displays a Sechín-like warrior (Ikehara 2010: Figure 8). Behind the megalithic core are clusters of domestic areas. Ikehara (2010) believes the site's megalithic core served for feasts and commensal celebrations involved with agricultural rites in the Moro Pocket. Tiered access to different halls, patios, and plazas in the megalithic core is reminiscent of Initial Period pyramid atria. Other major upper valley centers are Huancarpón, San Juan, Paredones, Virahuanca, and Anta (Ikehara and Chicoine 2011; 173-174).

Population growth and resource competition probably resulted in warfare and political conflict among upper valley centers, reflected in their dispersed fortified hilltop locations

(Daggett 1987; Ikehara 2010). In contrast, lower-middle valley sites are less numerous and located in more expansive and less defensible settlements along the valley floor. The lower-middle valley tradition is characterized by quarried fieldstone walls set in mortar forming agglutinated, quadrilateral clusters of structures referred to as enclosure compounds. The lower-middle valley tradition appears to have early urban contexts.

The four principal lower-middle valley Early Horizon Nepeña enclosures are Samanco, Huambacho, Caylán, and Sute Bajo (Table 3.1). Huambacho was the focus of Chicoine's PhD dissertation work (Chicoine 2006a), where he focused on innovative forms of the built environment associated with enclosure compounds. Huambacho is the closest site in relation to Samanco, and is located 8km from the Pacific coastline near to the southern valley margin. Huambacho measures 12 ha, comprising two main compounds (Chicoine 2006a: Figure 3.4). One compound is poorly preserved; the better preserved compound comprises 80 rooms of four types: sunken plazas with surrounding platform benches, colonnaded patio rooms, back rooms and small storage rooms. Huambacho appears largely dedicated to public ritual settings (Chicoine 2006a, 2006b, 2011b) housed within its two sunken plazas and directed by high status individuals residing in the sub-compound area. The plazas are surrounded on all sides by a 2m high platform bench roofed with columns and accessed through corner entrances and staircases. They are embedded within the compound through winding corridors, and are decorated with stepped geometric friezes in addition to sculpted clay cones set into walls.

The exclusive setting and amount of festive paraphernalia (such as pan pipes, intoxicating beverages, foodstuffs) at Huambacho leads Chicoine (2006a, 2006b, 2011b) to argue that Huambacho functioned primarily as a venue for elite display and commensal hospitality for outlying communities. He writes that "experiences were conceived to create a feeling of community while, at the same time they reproduced the basis of religio-political authority (Chicoine 2006a: 211). Site focus on public display, rather than urban daily life, makes the Huambacho community a unique contrast to other, more urbanized lower-middle Nepeña sites, namely Caylán.

In contrast to Huambacho, the large center of Caylán resembles more of an ancient city (See Kosok 1965) with evidence of central planning including neighborhoods and streets. Chicoine and Ikehara follow Brennan (1978, 1980, 1982), focusing on urban dynamics involved in Early Horizon coastal society. The site is located 15 km from the coastline at the center of the valley, bordering the northern valley margin. Caylán's monumental core spans approximately 50ha, with a proposed total extent of over 100ha in the surrounding quebradas and hillsides (Figure 3.3). Chicoine and Ikehara (2009, 2011) have documented at least a dozen separate enclosure compounds at Caylán, each associated with a central plaza and surrounding rectangular rooms of varying sizes. Excavations revealed dense amounts of refuse, hearths, and coprolites, all of which point toward residentiality. Ortiz (2012) studied domestic architecture through the excavation of Caylán's Compound E, which confirmed that interior compounds were utilized intensively for domestic purposes. Other research (Clement 2012; Chicoine and Rojas 2012, 2013) has focused on Caylán's density of food resources which suggest close ties to Samanco and maritime products. Preliminary hypotheses at Caylán point toward a heterarchically organized complex chiefdom with enclosure compounds representing autonomous residential groups collaborating and competing with each other (Chicoine and Ikehara 2010).

Excavations at one of Caylán's monumental plazas investigated public performance and urbanization which directly inform the trajectory of this study (Helmer 2011; Helmer *et al.* 2012;

Helmer and Chicoine 2013). This research focused on one of Caylán's best preserved compounds (Compound A) and its respective plaza, Plaza-A (Figure 3.4). Plaza-A measures 45 x 45 meters, and is bounded on all sides by tiers of geometrically decorated platform benches (Figure 3.5) enclosed by an estimated 5-6m high wall (Helmer 2011: 43). Other plaza features include rows of "S"-shaped geometric columns, a lock mechanism, paired staircases, and a window. The plaza is immediately surrounded by 21 interior compound rooms of sizes ranging from 36-400 sq m which share a common orientation with Plaza-A. Excavations at Plaza-A focused on the built environment. Operations revealed complex accesses, visual arts, a series of plaza renovations, and both festive and more domestic material assemblages. Sensual qualities of Plaza-A, were analyzed including visual fields, bodily movement, soundscapes (Helmer and Chicoine 2013), and foodways which are built upon in this study.

Caylán public performances focused on compound exclusivity and extraordinary public events fragmented into each residential group's respective plaza. Public performance at Caylán represents an innovative form of community organization, centered on exclusive, neighborhood-based public activities which served to maintain independent co-resident group identities in a new urban environment (Helmer 2011: 126-127; Helmer *et al.* 2012: 39). The framework utilized for the small study on public performance at Caylán forms the basis of my inquiry into daily performance at nearby Samanco. Namely, I intend to use traditional ways of evaluating extraordinary public or monumental contexts as a proxy for an investigation into early urban daily life.

3.4 Conceptualizing Early Horizon Urbanism

My dissertation work at Samanco seeks to broaden the body of knowledge relative to the Early Horizon Nepeña sociopolitical landscape by focusing on maritime adaptations and their impact on urban transformations. Samanco could be considered a transitional or "semi-urban" settlement which was a formal, permanently occupied site divided into heterogenous units, yet lacked the scalar qualities, social stratification, and widespread influence one encounters with cities. Transitional urban settlements have only recently come under significant archaeological inquiry (see Smith 2010). Yet, their qualities are similar enough to larger urban settlements that they can be conceptualized and then compared within the long tradition of urban archaeological studies.

Urbanism was brought to the forefront of archaeology from Childe's (1950) concept of the Urban Revolution, which emphasized urban transformations as the key factor in the evolution of complex societies. Historical concepts of urbanism are mostly built from Wirth's (1938) definition of cities as a large permanent settlement containing heterogenous social units, referred to as axiomatic types of urbanism. Functional cities, the second major type, fulfill a specific function to outlier communities (Makowski 2008; Trigger 1985). As Cowgill (2004: 526) notes, cross-cultural definitions of "city" can be notoriously difficult, so I prefer to use concepts of urbanism as a scalar descriptor of permanent residential density. Indeed, I do not argue that Samanco was a city at all, rather that the settlement was more akin to a town. I adopt a position of urbanism which could be seen as lying between "axiomatic" and "functional" categories (Makowski 2008; Trigger 1985). That is, the axiomatic or spatial characteristics of Early Horizon Nepeña enclosures reflect large, centrally planned communities. The function of these presumed proto-urban centers must be systematically evaluated through excavation. As I argue throughout, a culture of industry, namely large scale food processing, permeated the functional qualities of Samanco's nascent urban landscape.

In terms of political operation, Samanco's larger inland neighbor Caylán appears to be "synchoritic" (Rowe 1962: 3) in nature. This means that the urban center was closely linked to other communities, rather than being an isolated, autonomous entity such as a city-state. As Smith (2010, 2014) highlights, semi-urban or proto-urban settlement archaeological studies are rare and can bring important insights into the wide range of urban concepts. Understanding sociopolitical dynamics, including urbanism, is contingent upon an understanding of smaller peripheral communities (see Lau 2002, 2005). One such satellite, Huambacho, appears to be a small elite center focused on public events and administration of southern Nepeña. In contrast, Samanco appears to have a dense residential occupation akin to a maritime-oriented variant of Caylán.

In light of the previous examples such as Caylán, spheres of exchange certainly developed alongside urbanization to provide subsistence goods for densely occupied settlements. I propose that Samanco is an early urban town, whose function outside of local concerns is to provide other lower-middle Nepeña communities with marine and delta resources. The term industry is preferred to economic intensification, production or exchange, because industry more accurately defines the specialized, technical aspects of complex production systems. Moreover, industry connotes a certain cultural quality which often is attributed to the social identities of groups involved with resource production. Indeed, urban communities worldwide rely on specialized industries, and the varying cultures of these industries necessitates investigation.

Archaeologically, industry was first used to refer to early stone tool making (e.g., Childe 1952; Clark 1959). Recently, industry is most often used as a descriptor in investigations on

Industrial Revolution era sites. This spawned the sub-field of Industrial Archaeology (See Hudson 1979; Palmer and Neaverson 1998). Industrial archaeological case studies reveal the importance of industry in the culture of daily life and community organization. I emphasize the importance of industry as it relates to performance and community throughout the dissertation. Ultimately, I argue that industry pervaded the performance of daily life at Samanco as a force which shaped its early urban identity. In Chapter 6, I contrast early decentralized industry at Samanco with later artisan communities associated with socially stratified societies. Today, the small town of Samanco is based in a very similar urban-industrial identity as a small seaside center linked to larger socio-economic systems. The modern Samanco town is introduced below, focusing on its maritime history.

3.5 Samanco, a Modern Andean Fishing Community

The modern town of Samanco provides a number of comparative avenues of research with its ancient counterpart. In the latter parts of the dissertation, I address questions about modern Samanco's attachment to its ancient heritage, as well as ethnoarchaeological comparisons between the similar maritime industrial communities. Samanco is one of four major town districts in Nepeña: Samanco, Nepeña, Moro, and Jimbe (excluding the town of San Jacinto which functioned as a sugarcane hacienda). Interestingly, the location of these modern towns corresponds directly with the location of Early Horizon centers. The modern town of Samanco (Figure 3.6a, 3.6b) is located 2 km from the archaeological site, both of which enjoy a particular attachment to seaside ways of life. Nepeña sits in the middle of the valley and is the district capital, in much the same way that nearby Caylán functioned thousands of years earlier.

The modern Samanco town is located directly on the fertile fishing grounds of Samanco Bay. The town's name may derive from the extinct coastal language term *Samancuj*, which refers to a person resting (Moore 1995: 173, cf. Espinoza Galarza 1973: 340). The town is easily accessible by the Panamerican highway which extends north-south approximately five kilometers east of Samanco. Samanco is the capital of the small Samanco district comprising other river delta settlements La Capilla, Huambacho, and Los Chimús, totaling approximately 4,300 residents based on 2010 census data. The closest major city, Chimbote, is approximately 20 km north along the Pan-American Highway. Proulx (1968: 1) reports a population of 2,000 in Samanco during the 1960s. One of the most devastating earthquakes on record occurred in the region in 1970, and brought many highland refugees into the coastal area.

Significant data exist with regard to late Prehispanic political organizations in the Nepeña area, the roots of which can be traced to ancient Samanco. Ethnohistorical records and colonial accounts suggest a very hierarchical but fragmented power structure utilized in the area. Power was always shared, although unequally, through dual organizational means and various tiers of sub-divisions extended throughout ancient Andean communities. These communities were linked through extended kinship moieties, often referred to as *ayllus* in the Andes. Netherly (1977) refers to the colonial organization of coastal moieties as *parcialidades*. Although kinship played a large role in moiety formations, economic occupation was also a primary factor, especially in the first level of parcialidad organization. Netherly (1990: 231) notes that fishermen were the second most numerous parcialidad behind farmers, but were always organized into larger parcialidades to insure integration and exchange in the complex polity systems. Rostworowski (1977) refers to parcialidades as *señoríos* or lordships which she argues had a longstanding history before Inca and Spanish conquest. In Chincha of southern Peru, it was recorded that

10,000 out of 30,000 taxpayers were categorized as fishermen (Rostworowski 1977: 169). Rostworowski goes on to describe the striking number of fishermen along the coast during the contact period and their integral place as subsistence providers to the lordships and colonies.

Sandweiss (1992: 148) excavated some of the Chincha fishing villages, and notes that fishing groups were specialized and hierarchically ordered, with their own leaders, before Inka conquest. These leaders apparently were allowed to continue governance of fishing throughout Inka imperial rule. I argue for similar patterns of maritime autonomy here much earlier in time, yet as groups who are still tied in with larger political systems. Important to this study, Rostworowski (1977) provides evidence for barter-based mercantile exchange systems. These little-understood commercial exchange systems may have existed alongside the well-known non-market, redistributive economies proposed for the Andes based on highland Inca models (e.g., Murra 1961, 1975).

Rostworowski (1977) also documents a uniquely coastal religious pantheon involving fishermen which was recorded in the Spanish colonial records on idolatries. A goddess named Urpay Huachac presided as mother of all fishes, and a detailed account of her creation story and myth are told as the legend of Cavillaca (Avila 1966). The goddess had children who were also revered as sea deities. All the deities commanded tribute. Pools were made for fish offerings, and nets were often loaded with tokens of good fortune associated with the goddess. As I discuss later, images possibly rendering this goddess were found at Samanco, associated with intrusive Chimú-Inka burial chambers.

In Nepeña, Moore (1995) provides a rare account of Nepeña's parcialidades during early colonial times of the mid-16th century. Nepeña's moieties were governed by *caciques principales* and their *segundas personas* in shared, unequal, and dual modes. At this time, the valley was divided into three areas which roughly correspond to the lower-middle-upper regions of the Early Horizon. The lower valley area around Samanco may have been called *Uruguanca*, and the area was governed at *Guambacho* (Moore 1995: 173), now called Huambacho where the eponymous Early Horizon site is located.

Moore (1995: 173) provides the earliest record of a Samanco inhabitant by name, an indigenous tavern keeper or *tavernero* of Uruguanca by the name of Alonso Pingo. The tavern was so important, in fact, that it was governed by various caciques and moieties in shared administration. The relation of the tavern to the Samanco area is interesting. Rostworowski (1977: 169) recounts via chronicles that fisherfolk in the contact period had considerable free time, used mostly for drinking and dancing. As I discuss later, the importance of alcohol (its production, control, usage, distribution) to Andean community relations is crucial. Nevertheless, the parcialidad colonial pattern of rule by *encomiendas*, or rights to indigenous labor via servitude, likely eroded the relative autonomous nature of Andean fisherfolk ways of life, and continued for centuries.

Fishing communities of the early 20th century continued to be relatively autonomous, as described by Gillin (1947) in the Trujillo area of the lower Moche valley. There, Gillin (1947: 32) documents hierarchies within fishing communities based on experience and respect. Fishing leaders were in charge of fleets, chose sub-crews, where and when to fish, and the allotment of the catch among crew members. The practice was highly ritualized; nets and boats were blessed, given godparents (*padrinos*), and person-like qualities.

During the 19th century, Samanco was one of the premier Pacific fishing ports. American diplomat and antiquarian Squier (1877: 195-198) spent a considerable amount of time there and remarked that the bay was one of the calmest and most beautiful he had encountered in his travels. A major flood in 1925 deposited massive amounts of silt between the former coastline and the sea, and destroyed the entire town (Johnson 1930; Proulx 1968). Afterward, Samanco never regained its former prominence, and focus shifted toward Chimbote, which is now the largest fish port in Peru and has a population of nearly a million inhabitants (see Roemer 1970). The delicate balance of seaside life is still evident today, as overfishing and El Niño events have had catastrophic effects on fishing livelihoods, seen most vividly from Chimbote during Niño and overfishing events in the 1970s and late 1990s which crippled the city (Broad *et al.* 2002; Caviedes 1975; Idyll 1973; Pfaff *et al.* 1999). Despite this, maritime resources account for over $1 billion in annual revenue for Peru, and employ over 200,000 individuals (Broad *et al.* 2002: 419).

In Samanco, commercial fishing for mollusks and vertebrate fish is practiced throughout the Bahía de Samanco area. Today, as in ancient times, the primary fish vertebrates collected are the cold water thriving anchovies (*Engraulis ringens*) or sardines (*Sardinops sajax*), 90% of which is currently used for fishmeal production (Broad *et al.* 2002: 419). There is also a fishmeal plant in Samanco which has been in operation for many decades (Proulx 1968: 2). Recent advances in agricultural practices have allowed for cultivation in the immediate vicinity of archaeological Samanco, some of which have partially destroyed the site. Most of these fields are run by large industrial companies, namely the San Jacinto sugarcane company (and former Hacienda), and the CHINECAS irrigation expansion project who have recently taken over most family plots in favor of corporate farming. While the majority of Samanqueños work as fishermen, many of La Capilla and Huambacho's inhabitants work in these fields as day laborers. Other community members, looking for outside opportunities, commute to the larger city of Chimbote for employment.

Despite its small size, Samanco holds particular influence in the province because of its marine resource wealth, and Samanqueños are comparatively better off than many other rural Peruvian communities. Samanqueños take pride in their identity as one of the rare surviving artisan fishing towns in Peru, and public murals as well as festivals all emphasize maritime themes. Archaeological sites like ancient Samanco litter the landscape around the modern town, and play an important part in local identities. In Chapter 7, I provide additional information about Samanco's modern community, focusing on their relationship with the region's archaeological heritage. Ethnoarchaeological data are also presented which inform the ancient Samanco study, namely with regard to group interactions and sociopolitical organization.

3.6 Samanco, an Ancient Seaside Town

The ancient site of Samanco is located 2 km from the Pacific coast on the northern margin of the Nepeña river valley, nestled between the slopes of Cerro Samanco's hillsides (Figure 3.7). The Samanco archaeological site was first noted in archaeological literature by Squier (1877: 198) who briefly mentions the presence of expansive stone ruins on his route to San Jacinto. He notes that a sacred mountain formation, or huaca, was located in the vicinity of the Samanco site, where residents still made offerings to Huari, the god of strength. The huaca described by Squier may be La Capilla just south of Samanco, a unique granite rock formation where a chapel was later built. Later on, the Samanco ruins were visited by Horkheimer (1965: 29) and Kosok (1965: 209).The site has been analyzed by Proulx (1968) and Daggett (1984) who included it in their survey of the entire Nepeña valley (site PV 31-4). They provide a brief description of Samanco based on surface data (Proulx 1968: 46-50, Daggett 1984: 218, 1987: 74, 1999: 3-4) and a sketch map of prominent walls visible from the surface (Daggett 1999: Figure

8). Daggett (1984: 218) was the first to date Samanco to the Early Horizon; other previous investigations mistook the site for Middle Horizon or Late Intermediate Period because of its urban layout reminiscent of late coastal centers. Daggett (1999) suggests that the western extent of Samanco dates to an earlier period in the Early Horizon than the eastern extent, based on a three-phase ceramic scheme he put forth from surface data. Here, I propose that Samanco was occupied contemporaneously across the entire site extent based on excavation data showing the same ceramic sequence from all sectors. The contemporaneity of all compound sectors is one of many lines of evidence suggesting a large residential, nascent urban population.

3.7 The Placement of the Samanco Study within Early Horizon Nepeña

The Early Horizon, and the Formative Period more broadly, have been the primary focus of Nepeña research over the past decade. As a result, the Samanco study fits within ongoing syntheses of Nepeña research among numerous colleagues. The Samanco research is primarily focused on the proposed lower-middle valley sociopolitical network centred at Caylán. Samanco provides crucial information into the extent and relative importance of maritime communities to regionally-dependent urbanized polities. As I illustrate below, Samanco was not just a small satellite funneling marine resources inland, but rather a fully functioning town flourishing on marine resources supplemented with complex agricultural products and animal husbandry. I propose that Samanco society was predicated on industry which heavily contributed to the overall sustainability of early urban economic systems. The structuration (Giddens 1984), or connections between structures and agents, of daily practice within the maritime industrial town forms this dissertation's analysis into performance and community. In the following chapter, the Samanco archaeology project is presented in association with excavation results.

CHAPTER 4
FIELD RESEARCH AT EARLY HORIZON SAMANCO: EXCAVATION RESULTS

Two field seasons of mapping and excavations were conducted at the archaeological site of Samanco. Excavations totaled 16 weeks of fieldwork in 2012 and 2013 and a total of one year spent in Peru between fieldwork and laboratory analysis. The primary goals of fieldwork were to: 1) Assess the occupational history of Samanco through excavation, building on previous surveys by Proulx (1968: 46-50) and Daggett (1984: 218, 1987: 74, 1999: 3-4); 2) Gain spatial and material data that correlate with daily performance and community organization; 3) Investigate and collaborate with the local Samanco community in terms of archaeological heritage; and 4) Declare Samanco cultural patrimony of Peru and protect the site from further destruction. The following chapter details fieldwork results at Samanco with regard to site chronology and culture history. Field data are analyzed in terms of performance and daily practice in Chapter 6.

4.1 Mapping results and Samanco's spatial layout

Mapping at Samanco was conducted using a Topcon Total station provided by Louisiana State University. The methodology consisted of systematically clearing surficial windblown sand and rocks to outline structures and access-ways visible on the surface. Topography was mapped by traversing the site in roughly 5 m altitudinal intervals and 10 m distance intervals to produce contours for Samanco as well as the surrounding hillsides. The information was processed by establishing data points with Global Positioning Systems equipment used to geo-reference the site map in the Universal Transverse Mercator coordinate system. Data from the Total Station were exported using the Surfer conversion software then imported into the AutoCAD

Geographic Information Systems program. Within AutoCAD, points were traced over with lines to create the map.

In terms of geography, Samanco is nestled within hillsides along the northern Nepeña valley margin (Figure 4.1). To the west, hillsides lead down toward Samanco Bay where several ancient roads were recorded. Arid mountainous desert extends to the north, while the south is covered with wetlands associated with a small water system (Figure 4.2). The latter previously formed the Nepeña River until its displacement following the 1997-1998 El Niño-Southern Oscillation (ENSO). Samanco's architecture occupies a series of terraced ridge platforms between 55 and 70 m asl in addition to hilltop defensive walls and stone structures. A vast pampa area drops from the ridge area, between 40 and 55 m asl where further enclosures are located. Farther south, the area below 40 m asl has been bulldozed and refuse is visible from ancient occupations, likely terraced gardens and trash dumps leading down to marshlands. Mapping data revealed a 40 ha site extent and 20 ha dense architectural core made up of agglutinated stone, mud brick (adobe), pole/thatch, and cane architecture (Figure 4.3). The general pattern of architecture consists of central patios surrounded by smaller agglutinated rooms; I refer to these as patio groups. By analyzing common structure orientations and architectural clusters, at least six distinct compound sectors exist at Samanco (Table 4.1).

4.1.1 East Samanco

East Samanco (12 ha) follows the natural topography of the Cerro Partido and Cerro Botella hillsides (Figure 4.4). The area comprises two compounds (Compound 1 and Compound 2) separated by 20 meters of terracing and natural slope. Ruins of a large defensive wall (Figure

4.5) line the east and southern boundaries of East Samanco. East Samanco also includes a monumental plaza (Plaza Mayor), defensive walls and small structures throughout the hillsides, and a destroyed area toward the southeast where a looted Middle Horizon cemetery is located. Compound 1(21000 sq m) is oriented approximately 45 degrees northeast, organized as a series of patios and smaller rooms fronted by terraces separating it from Compound 2. Structures correspond to at least 10 patio groups. Compound 1's extensive terraces build up an artificial platform approximately 20m high, with an 80m long avenue leading up to the summit (Figure 4.6). There are four colonnaded patios on either side of the mound base and avenue. At the summit of the terraced platform are the Plaza Mayor (Proulx's Building A) and Compound 2.

Compound 2 and the Plaza Mayor are oriented 20 degrees northwest, and collectively cover an area of 8000 square meters. The Plaza Mayor (1600 sq m, 53 x 30 m) comprises two open areas and five platform benches 2.5-6 m wide and 1-2 m high lining the north and west plaza walls (Figure 4.7). The plaza perimeter is bounded by a large retaining wall originally estimated at 4m high. The Plaza Mayor's total surface area is divided equally between benched and open areas. The two open areas are separated by 5 m of natural slope and two terraced benches located in the center of the plaza, and measure 17 x 22 and 18 x 23 m respectively. The core of Compound 2 (Figure 4.8a, 4.8b) consists of four patio groups (3000 sq m collectively). The northeastern patio group from Compound 2 was chosen for area excavation, discussed below. East and south of Compound 2 are terraces and sloped open areas containing dense refuse as well as the aforementioned looted Middle Horizon cemetery. The compound was accessed via a series of zig-zagging corridors along the north and eastern borders.

4.1.2 Central Samanco

Central Samanco (9.2 ha) is located at the heart of the site and is associated with Samanco's largest compound, Sector 3 (Figure 4.9). Central Samanco's structures share a common orientation between 15-30 degrees northeast. East Samanco and Central Samanco are separated from one another by a 100 meter space void of dense architecture, although a few walls connect the two areas. Another looted Middle Horizon cemetery is located in this expanse.

Compound 3 covers a general area of 35000 sq m, encompassing a well preserved compound core (Proulx's Building B), a monumental corral (Proulx's Building C), and surrounding features. Compound 3, like Compound 2 in East Samanco, is located in the upper terraced portion of Samanco (55-70 m asl) along Cerro Botella hillsides overlooking the valley floor. Compound 3's core (Figure 4.10a) measures approximately 8000 sq m, comprising at least 30 separate rooms ranging from 12 to 625 sq m visible on the surface. Rooms are associated with approximately 12 patio groups. Compound 3's core is located along a ridge built up with terracing, bounded on either side by steep 5m drainages. The compound gradually terraces up 15 meters from the base of the compound to the south toward the top of the compound at the base of Cerro Botella. The uppermost patio group (Figure 4.10b) was extensively excavated for comparison with Compound 2. Four 1m wide zig-zagging corridors were documented along the eastern side of the compound core.

Across the ravine to the west of the Compound 3 core is a monumental corral (1500 sq m) with 10 symmetrical rooms averaging 60 sq m surrounding a 240 sq m space (Figure 4.11a, 4.11b). Immediately east of the corral are a number of partially preserved rooms and a massive colonnaded patio located along a 50m long avenue (Figure 4.12). This patio forms a verandah looking across the ravine toward the Compound 3 core. North of the corral is a dense refuse area with scattered portions of walls, likely used as a place for perishable housing and trash dumping. There are also four circular adobe pits (8+ m in diameter) in the open refuse areas and on top of earlier stone structures (Figure 4.13). These are looted tombs dating to the Late Horizon.

A modern road built to mine construction materials from surrounding hillsides bisects the site below Compounds 1 and 3. Below the road are a series of basic single stone terraces extending as much as 100 m across the pampa just above the marshlands zone (Figure 4.11b). These extend from the western portion of Compound 1 all the way to Compound 4 throughout a 1.5 ha area, and may have extended much further below Compounds 5 and 6 where industrial sugarcane cultivation recently destroyed the area. Discussed below, abundant remains of cultigens suggest terraced gardens throughout this area.

4.1.3 West Samanco

West Samanco (Figure 4.14) pertains to nearly half of the entire site extent (18.6 ha), comprising compound areas 4, 5, 6, and a massive trash dumping area between the site core and hillsides. Remnants of a large stone defensive wall run beneath West Samanco, which may have originally connected with the wall extending beneath Compound 1. All architecture is also aligned between 15-30 degrees northeast, suggesting close ties and central planning with Central Samanco. Compound 4 is badly preserved, and consists of mixed stone, adobe, and cane structures with a 3250 sq m extent. Compound 4 is surrounded by a cane perimeter wall, with a similar patio-style layout of structures. This is the only compound made up of majority cane and adobe architecture. At the core of Compound 4 is a high walled 22 sq m adobe structure surrounded by destroyed and heavily looted cane and adobe architecture intermixed with Middle

Horizon burials. Compound 4 appears closely associated with the aforementioned terraced pampa area to the east.

Compound 5 covers 7500 sq m of large stone rooms and long perimeter walls measuring as much as 75 meters. The interior of Compound 5 is poorly preserved, with only 15 rooms visible on the surface. To the north of Compound 5 are a number of terraces and partially preserved walls that may have been associated with the compound. To the south of Compound 5 are a series of cane walls and open areas where more ancient cultivated terraces may be located, leading down to the southern defensive wall.

Compound 6 (Figure 4.15) is the most clearly defined of the three West Samanco compounds located on the valley floor, and measures 6750 sq m approximately. Around 30 rooms are visible inside Compound 6 from the surface, ranging from 4.5 sq m up to 340 square meters divided into at least eight patio groups. Compound 6 may have extended further in area, but a large portion was destroyed by modern cultivation in the southern extent of the site. To the north of Compound 6 is the largest refuse dump area on-site (Figure 4.16), comprising over 5.5 ha of very dense refuse and partial walls possibly associated with perishable housing. A similar dense refuse area was probably located beneath Compound 6 as well, destroyed by the recent advancement of industrial sugarcane fields.

4.1.4 Summary of Mapping Results

The results of mapping at Samanco reveal a large, centrally planned settlement. More monumental portions of the site are located on terraces built up into the sloping hillsides, such as the Plaza Mayor, Compound 3, and corral. The bulk of the architecture is organized as patio groups with large open areas surrounded by smaller agglutinated structures, accessed via winding corridors and avenues. These patio groups were placed into six compound sectors based on common orientations and geographic location. Further research will aim to break the six compound sectors into various sub-compound patio groups. As will be demonstrated in the performance analysis, these patio groups formed the nexus of daily life at Samanco. The large, centrally planned nature of Samanco's architecture, including large avenues, common structure orientations, low ratios of ceremonial architecture, and the density of refuse indicate a residential environment analogous to an early urban town. In the subsequent section, I describe the results of excavations which provide further evidence on Samanco's urbanized communal layout.

4.2 Excavation Results

After completing mapping operations, sufficient spatial data were available to divide excavations into the six interpreted sectors on-site. Approximately 500 sq m were excavated sampling each compound sector with at least 4 sq m of test excavations. Overall, excavations focused on comparing Compound Sectors 2 and 3. Area excavations from these sectors provided comparative data on usage patterns which were found to be nearly identical, focused on daily subsistence. Excavations across the site revealed that all of the compounds were probably occupied at the same time through two major construction phases.

Early Horizon lower Nepeña structures are most commonly built with quarried stones set in mortar. Walls were often built utilizing the orthostatic technique of large vertical slabs (locally known as wankas) placed as supports at wall bases. Wall faces are created with rows of flat stones on either side, with smaller quarried stones and mortar used as fill between the faces. Stratigraphic sequences generally comprise an initial layer of windblown sand and wall collapse above an abandonment level surface or plastered floor. Below the abandonment surface is a variable sequence of floors and building renovations created by layers of sand and gravel packed with dense amounts of secondary refuse, and occasionally remnants of previous structures. These construction fill layers comprise the bulk of excavation materials recovered. Excavations followed the natural layer divisions. All materials from the excavations were collected utilizing 3 mm mesh screens and registered in a project database. Excavations were usually placed near to walls and in corners where contexts were better protected under wall collapse. The following is a general description of excavations focusing on features and construction phases (for stratum by stratum information, see Navarro and Helmer 2013, 2014). Walls and architectural features are referred to by geographic or descriptive indicators from associated drawings and photographs.

4.2.1 East Samanco Excavation Results

East Samanco excavations (Figure 4.4) totaled 198 sq m and focused on Compound 2 (UE-7) and the Plaza Mayor (UE-1) in the upper terraced portion of East Samanco, with a test pit (HP-1) located in Compound 1 on the lower terraced level.

Compound 1: HP-1 (4 sq m)

HP-1 (Figure 4.17a, 4.17b) was a 2 x 2 m test pit located on a 50 cm wide boundary wall between 300 sq m and 900 sq m patios inside Compound 1. The north end of HP-1 located in the plaza was excavated approximately 30 cm down, where a second 50 cm wide wall was located which stopped further excavation on this end. This wall appears to have been added later in time, separated from the initial wall with a 10 cm layer of fill. Notable features from HP-1 (north) include two dense shell deposits (mainly *Semimytulus algosus, Perimytulus purpuratus*) approximately 10 cm below surface comprising 4800 MNI. The south end of HP-1 extended much further down (1.7 m in depth), comprising dense layers of rubble and refuse fill down to the Early Horizon floor located above sterile sub-soil. On this end, the shell concentration extended over a half meter through construction fill. HP-1 also revealed a fine, smooth plastered face of the original wall with remnants of white paint. HP-1 contained dense artifact assemblages mixed with boulders measuring up to 50 cm on a side. Features from HP-1 (south) were similar and included a 50 cm dense shell deposit of various species slightly over a meter below the surface, inside the layers of rubble. A Graffito resembling a large eye and abstract body was discovered 50 cm below surface level (Figure 4.18), at eye level from the Early Horizon floor on the plastered wall. Atop the floor, light amounts of shells, botanics, and coarse-ware ceramics including neckless olla rims are associated with direct usage of the patio space.

The HP-1 area appears to have been very enclosed, with the double wall probably measuring well over 2 meters between the patios. The upper and lower patios appear to have been separated through the double wall forming a terrace. The lower patio was likely abandoned during the Early Horizon occupation of Samanco, given the rubble fill pattern. For instance, dense artifact assemblages including the shell lens were located inside rubble layers, and boulders were carefully placed next to the wall face entombing architecture after patio usage discontinued. Therefore, two Early Horizon occupation events are evident from Compound 1.

The Plaza Mayor: UE-1 (36 sq m), UE-7F (8 sq m)

Proulx’s Building A, renamed the Plaza Mayor, was a major point of excavation from East Samanco. UE-1 (Figure 4.19a-d) was excavated along the northeastern perimeter wall of the Plaza Mayor as an 11 x 3 m trench with a 1.5 x 1.5 m extension. The goal of UE-1 was to gain plaza materials and diachronic site data under the premise that monumental sectors generally see the longest occupations and most renovation phases. On the contrary, we discovered that the Plaza Mayor was constructed late in Samanco's occupation as a single event above earlier patio architecture.

UE-1 covered three spaces: The uppermost bench platform of the Plaza Mayor (Plaza Platform); an elongated patio on the outside perimeter of the plaza (Patio); and open space where the patio and outside architecture join the Cerro Botella slopes (Exterior). UE-1's walls averaged 50 cm in width, with the exception of the Plaza Mayor perimeter wall (Wide Wall) measuring over 1.5 m wide, all of which showed remnants of smoothed plaster with white paint.

In the Plaza Mayor bench section (UE-1 (plaza platform), a thin (15 cm) layer of windblown sand was located atop a well preserved plaster floor, where Early Horizon ceramics, camelid dung, and over 50 cobs were located atop the floor (Figure 4.20). Below the floor, large boulders were used as fill to build the plaza, with maize cobs and grass ropes in the construction fill. The bases of three walls originating in the patio (North Wall, Thin Wall 1, 2) pass underneath the Plaza Mayor wall. Sterile sub-soil was hit 2.8 m below the surface.

In the UE-1 (patio) section, four construction events and three floors were uncovered. The surficial occupation layer consisted of dense domestic materials including camelid dung, and a circular ashy layer, possibly a hearth, located at the base of the North Wall. In the subsequent layer, a series of architectural features were located inside the patio, including three partitioning walls (Thin Wall 1, 2, 3), three white plastered columns (55 x 45 cm), and remnants of a cane wall and posts associated with the final phase of use (Figure 4.21). A sequence of three plastered floors separated by dense layers of refuse was documented in the UE-1 patio. Floor contexts were difficult to interpret because of these dense layers of refuse laid between the successive floor levels. Notable artefacts include dense marine and botanic food remains, fishing nets, grindstones, large mammal bones (canine, camelid, sea lion) associated with stone cutting tools, high numbers of blue and red decorated textiles, fine ceramics, panpipes, polished slate projectile points, shell necklaces, and an obsidian flake. Additionally, large fragments of *tinaja* jars probably utilized for beer fermentation and storage were recovered. Finally, a child burial (Burial 1) was located immediately above sterile soil 2.8 m from surface level. In the UE-1 (exterior) section, the same sequence of floors and density of materials as the UE-1 (patio) were discovered. This area likely functioned as a refuse fill chamber to retain the patio and Plaza Mayor on the Cerro Botella slopes.

In order to check for conformities between both sides of the plaza, a 4x2 m trench (UE-7F) was placed on an eastern plaza platform bench leading down to the open plaza floor (Figure 4.22). Patterns were identical to the plaza section of UE-1 with camelid hair, dung, and maize located on the surface (Figure 4.23). A floor reparation event was documented with hundreds of maize cobs located in the 10-15 cm layer of fill. Musical instruments, decorated spindle-whorls, polished projectile points, and tinaja jar fragments were also recovered from here. The overall sequence showed a single building event confirming the entire plaza was likely built at one time.

In sum, plaza excavations provided great material and architectural data about Samanco. Artefacts were generally finer than what was encountered elsewhere, reflecting the higher status and likely more specialized usage context of the monumental area. In addition, five clear architectural sequences were documented: 1) a colonnaded patio possibly as long as 50m associated with the West Wall 2) an enclosing of the colonnaded patio with the North Wall; 3) the addition of the Thin Walls possibly used as planning and retaining walls for the Plaza Mayor construction; and 5) the construction of the Plaza Mayor on top of the North Wall and Thin Walls and usage of pole and thatch architecture.

Compound 2: UE-7 (150 sq m)

UE-7 (Figure 4.24) was excavated as six area excavations (UE-7A-G, excluding aforementioned UE-7F) located throughout the northeast quadrant of Compound 2. Excavations focused on one particular patio group whose upper and lower patios measured 300 and 500 sq m respectively. East of the patio group is a steep ravine with extensive ancient trash dumping likely from the compound. Less preserved architecture lies north of the compound lining the lower Cerro Botella hillsides. Another patio group lies to the west. Stone walls measured 50 cm in width, the size prototype for non-monumental construction on-site. Walls inside the patios showed fine plaster with white paint. Meanwhile, outer structures and later phases of interior patio walls were unplastered.

In the upper patio section, UE-7A (Figure 4.25a-c) and UE-7E (Figure 4.26a, 4.26b) excavations revealed a 5x15 m low platform room attached to the upper patio area. The patio was accessed via two zig-zagging corridors located in the northwest and southeast corners. The upper patio was attached to the platform via two small meter wide ramps. This platform provided some of the best data from Samanco with regard to domestic patio use and renovation. Excavations on each end of the platform revealed five stone lined hearths associated with dense plant, animal, fish, and pottery refuse (Figure 4.27a, 4.27b). Food remains found in the platform kitchen spanned all of the edible flora and fauna found throughout the site. Ten grinding stones were also found throughout the area and grater bowls indicating food processing. Five kilograms of carbon were recovered from a single hearth. The stone hearths extended over half a meter down, indicating prolonged use. Some were plastered over, possibly as a form of ritual sealing or re-utilization. Adjacent to three of the hearths on the southern platform a concentration of carbon was located beneath a small stone, perhaps embers guarded just before abandonment. Shell concentrations were also located next to the hearths as possible food features.

The kitchen platform also showed a dynamic four phase sequence of renovation (Figure 4.28a, 4.28b). During the earliest phase of use, 1) columns were placed over two meters below modern surface, probably associated with the platform's North and West Walls. One column showed small canes used as measurements for the column dimensions. Next 2) this room was renovated with a wall creating a smaller enclosed space; 3) the entire structure was raised and a second colonnaded bench was built. The small platform ramps were likely added at this time. Finally, 4) the second colonnaded bench was leveled and replaced with pole, thatch, and the hearths visible. A large trunk measuring 25 cm wide was placed directly on top of a leveled column. In this final fill layer, a massive deposit of maize, cotton, and mainly sweet potato leaves and beanstalks was placed inside the leveled columns indicating nearby cultivation and plant processing (Figure 4.29). To the north, a 10 m long zig-zagging corridor ramp with three 90 degree turns provided access to the platform before being blocked off and filled with large boulders creating a 1.5 m high platform mound (Figure 4.30). When walls were raised during this phase, they were unplastered and show cruder workmanship. The small platform ramps were also sealed off. On either side of the southern platform ramp, two burials of an elderly woman (Burial 3) and young child (Burial 4) were placed flexed on either side of the entrance. A dog burial was placed next to the northern platform ramp (Figure 4.31a). An offering of a gourd packed with avocado *(Persea americana)* leaves was placed at the base of the north kitchen platform entrance associated with the first phase (Figure 4.31b).

Inside the open upper patio areas attached to the kitchen platform, spaces were clearer of features and refuse. One notable feature was a 4 sq m finely plastered structure located just outside the kitchen platform, adjacent to the north entrance. This structure may have been a store room which was emptied and filled in with sand associated with the later renovation phases. Camelid dung, shell necklace beads, and a canine long bone were recovered. Remains of shell bead pre-forms were located here which may indicate craft production. Fragments of worked human crania from the patio fill appear to be shaped into food/drink vessels.

The southeast corner of the patio group bordering the upper and lower patios was excavated (UE-7D, Figure 4.32a-c) detailing a zig-zagging meter wide corridor leading down to the larger lower patio area. Immediately outside the entrance, outer portions of patio walls served as small habitation and bathroom areas. The area contained dense organic trash and coprolites, in addition to two smaller stone lined hearths. Shell concentrations were also evident (Figure 4.33a), namely a deposit of 452 small *Tegula atra* shells used for fish baiting (Figure 4.33b). Refuse deposits extended 1.6 m down with various occupational surfaces noted, indicating intense and prolonged domestic use of the patio. Identical patterns were noted in excavations outside the northeast entrance from UE-7G (Figure 4.34a, 4.34b). UE-7G also showed the best evidence of the late phase wall style of unplastered walls with larger boulders (Figure 4.35).

UE-7B (Figure 4.36a, 4.36b) sampled the lower patio’s southwest corner, and was excavated to compare with results from the upper patio. Overall, the area was poorly reserved because of wash coming down and pooling in the lower patio area over time. Surficial pole and thatch architecture was documented similar to the kitchen platform of the upper patio. The pole and thatch architecture was associated with concentrations of beans, maize, shells, and ashy lenses. A fishing weight was also uncovered on the final floor. A 3 sq m emptied out stone storage room was also found built on top of previous patio walls. The stone storage room was hastily constructed with piles of stoned laid without mortar or orthostats. Below the storage room, we identified a white plastered wall destroyed during the final renovation phase (Figure 4.37). In the fill, there were large fragments of fishing nets and high volumes of fish bones. Renovation sequences were less clear than the upper patio, but indicate the same early phase of finely plastered orthostatic architecture followed by the use of cane, pole, and thatch.

The final area excavated in Compound 2 was a 16 sq m unit placed in an open area inside compound perimeter walls not associated with rooms or patios (UE-7C, Figures 4.38a-c). In this area we documented fluid use of open space for hearths, trash dumps, and semi-permanent stone architecture similar to the aforementioned storage room from the lower patio. One particular feature was a concentration of 376 MNI large *(Mesodesma donacium)* shells inside an ashy matrix. This may indicate that shellfish were processed through low heat fires utilized to open clam shells. The process may have occurred in open areas outside patio groups but still inside the compound perimeter.

To summarize the Compound 2 data, patios and surrounding architecture appear to be nuclei for residential activities including food processing, storage, and serving. Manufacturing is also evident, namely through the discovery of weaving tools and shell jewelry pre-forms. Domestic activities appear centered on rooms connected to patios, while patios were probably cleaned and maintained. Burials and offerings placed in construction fill indicate ritual significance to domestic spaces. A dynamic sequence of renovations between two and three phases suggests long term use of domestic spaces rather than abandonment and new construction. The multi-phase sequence of architecture thus strengthens an idea of prolonged urban site use. Finally, the shift from ornate residential architecture with plastered walls and colonnades replaced by pole and thatch suggests that Compound 2 groups may have faced hardships just before site abandonment. Excavations at Compound 3 in Central Samanco provide comparative perspective for Samanco's residential trends.

4.2.2 Central Samanco Excavation Results

Central Samanco excavations (Figure 4.9) totaled 180.5 sq m from Compound 3 (UE-2 and UE-3), 20 sq m from the Corral (UE-4), and 4 sq m from a test pit (HP-10) located in the terraced southern pampa area bordering the marshlands. Central Samanco excavations also targeted two post Early Horizon looted tomb structures (UE-5 and UE-6, 99 sq m of excavation collectively) from Chimú-Inca reoccupation (15^{th}-16^{th} centuries AD).

Compound 3: UE-2 (36 sq m), HP-3 (4 sq m) UE-3 (140.5 sq m)

Compound 3 investigations centered on Proulx's Building B, renamed the Compound 3 core. Excavations began in 2012 with UE-2 placed in the northernmost patio group of the Compound 3 core (Figure 4.10a, 4.10b) abutting the Cerro Botella hillsides. UE-3 expanded UE-2 and also sampled other areas of Compound 3. The patio group is bounded by steep slopes on either side and terraces down to the various Compound 3 core structures. Walls measured between 50 and 60 cm thick. The excavated patio group contained a 150 sq m upper patio attached to 81 and 33 sq m backrooms to the west and an entrance in the southeast corner. The large lower patio measured approximately 450 sq m bounded on the west by zig-zagging corridors and the east by long rectangular rooms of indefinite size.

2012 excavations from UE-2 focused on the 33 sq m rectangular room associated with the upper patio in the southwest corner (Figure 4.39a-c). Excavations revealed an early phase characterized by an interior colonnaded bench running a meter out from the north wall, which probably supported a roof completely shading the space. A well plastered floor associated with this early phase had maize cobs, domestic ceramic body sherds, and gourd fragments littered across the surface. Between the colonnades and north wall, this floor was broken and a burial of an adult male (Burial 2) in a contorted position was placed inside associated with the second phase of use. During the renovation event the room was raised 50 cm with construction fill, columns were leveled, and pole and thatch architecture was utilized in the room. The room was made smaller through the placement of a double wall on top of leveled columns on the east side. Post holes formed a semi-circular structure on the north end of the room. On the south end, the second phase occupation surface contained a small hearth next to a bundle of botanics (Figure 4.40) including chili pepper *(Capsicum* sp.*)* lucuma, *(Pouteria lucuma)*; beans, *(Phaseolus* sp.*)*; maize, (*Zea mays)*; peanuts *(Arachis hypogea)*; cotton *(Gossypium* sp.*)*, avocado *(Persea americana)*, yucca *(Manihot esculenta)*, and squash *(Cucurbita moschata).* Adjacent to the botanical bundle was a pocket of 40 large conch shells *(Thais chocolata)* and a butchered pelican *(Pelecanus occidentalis)*. These data are conducive to food preparation. Notably, this smaller backroom does not have an entrance to the patios and may be a dormitory space.

Just north of the rectangular room, an 81 sq m backroom was also partially excavated as an expansion of UE-2 in 2013 (UE-3A, Figures 4.41a-c). A colonnaded bench extended across the southern end of the room, which was leveled during the final phase of use. A zig-zagging corridor with three turns attaches this backroom to the upper patio. The corridor was blocked with two seals during the final renovation phase and packed with boulders creating a 1.2 m high platform mound. Inside the boulders a complete fine neck jar was recovered as an offering. The first phase floor of this room is at the same level as the floor identified from the aforementioned UE-2 south room. Small single stone thick retaining walls reminiscent of the Plaza Mayor retaining walls were encountered as construction chambers associated with the final renovation. The tops of leveled columns were used as levels for plastering final phase floors. The original floor was cleaned before the final renovation. In contrast, the final floor level contained a number of features. These include three massive shell deposits. One deposit from the southeast corner contained over 800 MNI *Mesodesma donacium* clams. Two other deposits (Figure 4.42) surrounding the blocked entryway totaled 59 kilos of mostly *Semimytulus algosus* and *Perimytulus purpuratus* shells. Another small deposit of six *Concholepas concholepas* shells, the largest and meatiest shellfish at Samanco, was discovered. A semi-circular hearth lens was next to the shell features, with burned plaster on the wall indicating previous fires associated with the earlier phase. Finally, a wooden paddle (Figure 4.43) possibly used in the production of ceramics was found associated with the final floor phase. Other notable finds from backroom fill included fragments of anthracite, polished projectile points, and a possible coca *(Erythroxylon* sp.*)* leaf. Sterile soil from both of the upper patio backrooms occurred approximately 1.5 m below surface.

The large lower patio was also investigated. An 8x3 trench (UE-3B) placed in the northwest corner of the lower patio was made to compare with data from the upper patio. Here, excavations (Figures 4.44a-d) documented a 5 m wide colonnaded platform bench which extends across the entire north wall of the lower patio. The platform stood slightly over a meter high above the lower patio's open courtyard. In this way, the patio could be viewed as a small-scale version of the Plaza Mayor. The platform is accessed via a long zig-zagging corridor over 20 m long which runs outside the east perimeter of the lower patio. The corridor runs adjacent to an identical corridor which provides access to the upper patio. The original floor did not show any features, but at the base of the architecture a neckless jar was placed as an offering (Figure 4.44d). Inside the later construction fill, a massive deposit of maize roots and shucks was discovered including over 100 roots and stalks and 66 complete cobs (Figure 4.45). Following the general trend, platform columns were toppled over, leveled, and their tops used in the subsequent floor. Parts of the colonnade foundation showed deep cracks perhaps indicative of earthquake damage (Figure 4.44c). Remnants of pole and thatch architecture are associated with the final phase. Near to the pole and thatch structure on the platform, a complete *Argopecten* sp. scallop was located which may have served as a spoon. A concentration of 20 *Cucurbita* sp. squash seeds was also located next to the pole and thatch structure. Below the platform in the open area, a complete sardine (*Sardinops sajax*) skeleton and fragment of a fine red bottle spout were embedded in the final phase floor.

In the southeast corner of the lower patio a comparative 25 sq m excavation (UE-3D) provided more information on lower patio use associated with lower patio backrooms (Figures 4.46a-c). This excavation detailed another three turn zig-zagging patio entrance which was blocked with a seal extending a meter down. Just north of the sealed entrance, we documented an elongated rectangular room 5 m wide with indeterminate length. Both the sealed entrance and backroom contained extensive trash dumping extending over 2 m below surface. The original floor of the backroom was located 1.5 m below surface, but de facto contexts were difficult to interpret due to the amount of refuse dumped on top and below it. The refuse contained mostly plant and animal refuse, including the spinal column of a canine, mixed with Early Horizon domestic ceramics. In the final renovation fill, an infant or neonate burial was placed inside willow tree *(Salix sp.)* branches. Remnants of fine, white painted plaster architecture were inside the fill, some of which had cross-hatched designs (Figure 4.47). A polished projectile point reworked into a pendant was also discovered in the fill. On top of the late phase floor several more shell deposits were discovered. These include a concentration of over 100 large *Thais* *chocolata* conch shells on top of a massive deposit of *Semimytulus algosus* and *Perimytulus purpuratus* mussels (Figure 4.48). An adjacent concentration of over 1500 MNI *Mesodesma donacium* clams was also located. Both shell deposits were placed on the wall bordering the lower patio.

Another 5 m wide rectangular backroom was partially excavated (UE-3E) in the center of the Compound 3 core to sample contexts south of the excavated patio group presented above for comparative analysis (Figure 4.49 a-c). The backroom revealed similar characteristics to what was found in the patio group. The discovery of the third 5 m wide rectangular backroom suggests size prototypes particular to this type of space. A meter wide entrance was documented in the northwest corner of the structure. The center of the compound may have seen more prolonged occupation evidenced by a sequence of three floors. However, the same general pattern was noted with an early colonnaded structure later leveled. This particular backroom yielded more burials than any other area. A burial of a sub-adult was associated with the first renovation phase, and a burial of a large adult male and infant were associated with the final renovation phase. Two complete gourds were recovered on top of the final floor (Figure 4.50), suggesting domestic serving contexts for back room usage along similar lines to what was documented from UE-2. Notable artefacts from the area include an elaborately decorated gourd with pyro-engraved designs and relatively high numbers of decorated ceramics.

Across the ravine from the Compound 3 core, connected structures make up the western quadrant of Compound 3 between the Compound 3 core and monumental corral. Lining the western edge of the ravine, an open 35x6 m long colonnaded patio (Figure 4.12) forms a verandah overlooking the ravine toward the Compound 3 core. Just outside of the verandah a 50+ m long avenue controls access throughout the western Compound 3 area.

A 7x5 m unit (UE-3C, Figures 4.51a-d) was placed on the north end of the long patio and included part of the avenue. Excavations documented a 1 m wide blocked zig-zag entrance in the northwest corner of the patio. A four phase sequence of renovations was documented suggesting long occupation. Original construction involved the bases of the avenue and north patio perimeter walls which extended nearly three meters below surface level, the deepest walls encountered outside of the Plaza Mayor exterior patio areas. This initial construction phase contains a destroyed colonnade. One of the columns showed cross-hatch graffiti designs. This colonnade was leveled and raised, with a second colonnade and floor built on top. This is the only instance where successive colonnades were built on top of one another. A third phase of occupation further raised the patio terrace and likely covered the second leveled colonnade. A 15 cm reparation event created the fourth and final floor of the structure. In the fill of the reparation, three articulated human fingers were discovered (Figure 4.52). Other disarticulated human bones were found throughout the fill. Inside the avenue area, the same sequence of floors was documented. A seal was placed in the avenue during the early phases which blocked access to the patio, funneling access to a separate corridor further north. On top of the early avenue floor, we documented a complete camelid foot and leg (Figure 4.53). Large animal bones, namely camelid, were prevalent throughout the unit suggesting close ties to the nearby corral. A concentration of 43 *Thais chocolata* conch shells and pocket of pacae *Inga feuillei* leaves and seeds were also found inside the avenue. During the last phase of use, the area was used as a lavatory with a human coprolite lens discovered.

Further west, a series of poorly preserved square and rectangular rooms lie between the avenue and the monumental corral. A test pit (HP-3) examined the area and found poorly preserved structures but a deep stratigraphic sequence similar to the large UE-3C patio.

The test pit was bounded on two sides (south and east) by 75 cm wide, crudely plastered walls with finger marks visible. The initial layer consisted of dense animal dung and Early Horizon materials mixed with wall collapse, with a stone-lined hearth documented 35 cm from surface. Floors below this final occupation level were difficult to interpret, but the unit extended nearly 2 m down. Single stone wide retaining walls were found toward the bottom of the unit, similar to the retainment fill walls documented from UE-3A and the Plaza Mayor. The retaining wall extended below the base of the room walls. During the final phase of use, the area appears to be used fluidly as a domestic space, with animals moving freely throughout the area including camelids and guinea pigs.

Compound 3: Monumental Corral (HP-4, UE-4; 20 sq m)

Excavations from Proulx's Building C revealed a monumental structure used to house camelids. As mentioned earlier, the corral contains ten symmetrical rooms lining a courtyard in the southwest quadrant. Walls stand nearly a meter thick, with large stones 75 cm or more on a side, analogous to the Plaza Mayor. Two of the northwestern symmetrical rooms were excavated through a test pit (HP-4) and the central courtyard was also excavated (UE-4) (Figure 4.56a, b). Throughout the unit, one occupation phase was documented of a floor with evidence of reparations approximately 20 cm below surface. On top of the floor 22 kg of caked camelid feces and hair was intermixed with Early Horizon ceramics, shellfish, botanicals, and high amounts of fish bones (Figure 4.57). In the central courtyard area, there is evidence for cane, pole and thatch architecture. Wooden posts were found in the entrances of the symmetrical rooms which may have once supported gates. Obviously, finer architectural features like plastered walls and columns were not documented inside the corral. Below the dung and destroyed floor was a layer of dense refuse construction fill associated with the base of the wall. Within an ashy layer in the fill, over 300 bean pods were discovered in addition to large portions of the most elaborately decorated ceramic bottle discovered at Samanco (discussed in the ceramics section below). Approximately 120 cm below the surface, artefacts from the fill became sparser, with dense concentrations of camelid dung (1 kg) appearing again just before sterile sub-soil below the base of the walls. Inside the corral dung, it appears that the animals were mainly fed reeds and grasses from the marshlands. The corral appears to have been utilized during a single phase of construction in an area already utilized for pastoral activities. The structure's alignment suggests close ties with Compound 3, especially in light of the animal remains found in UE-3C.

Central Samanco Re-Occupation: Elite Subterranean Tombs (UE-5 (84 sq m), UE-6 (15 sq m)

In 2013, two 10 m wide mud brick pits in the Early Horizon trash dump areas outside of compound areas were excavated. At least four of these features exist on-site scattered between Central and West Samanco. UE-5 was the main pit feature excavated (Figure 4.58 a, b). Architecture from these features is markedly different from what is documented elsewhere in Samanco. Rather than being constructed of stone, the pits contained mold-made mud bricks (adobes) with makers marks (Figure 4.59) and bricks of various size prototypes (Figure 4.60): 1) A slender rectangular adobe 50 x 10 x 10 cm; 2) a medium rectangular adobe 50 x 25 x 10 cm; and 3) a large rectangular adobe 60 x 40 x 20 cm approximately. The adobes were likely made in casts around the sides, while the centers show finger marks from hand molding. There are no cane imprints indicative of Early Intermediate Period Gallinazo culture, rather the bricks suggest much later usage associated with the Chimú.

UE-5 investigated the largest circular adobe pit in the far north sector of Samanco, bordering the Cerro Botella hillsides just west of the ravine separating the Compound 3 core. Excavations revealed a destroyed 6 x 4 m adobe platform above the 5 m deep pit. Walls were 50-75 cm thick with plastered white paint in some areas. A 1.25 m entrance was documented on the east end of the platform. Just outside the entrance, remnants of a cane roof and large wooden posts were documented, likely associated with collapsed platform roof structures. Materials were mixed between Early Horizon and re-occupation objects from the Middle Horizon and later. A well preserved floor was found 50 cm below surface clean of artefacts. One exception was remnants of *Guayaquil* bamboo posts diagnostic to later periods.

In the pit below the platform, a 25 cm layer of sand sat above desert shrubs indicative of prolonged exposure and rain. Below the shrub layer, remnants of broken Algarrobo (*Prosopis alba*), Pacae (*Inga feuillei*), and Avocado (*Persea americana*) posts were documented with rich artefacts and disarticulated human remains. The posts formed a broken roof structure of a 2.25 x 3.5 m adobe subterranean tomb structure which had been disturbed. A 50 cm wide entrance was located on the north end, facing the platform. The entrance was sealed with adobes, one of which had a crescent-shaped maker's mark (Figure 4.59). Walls were finely plastered with remnants of white paint and cloth impressions. The structure was 1.7 m deep, built over 5 m below surface level. Excavations in the disturbed chamber (Figure 4.61a-c) documented at least four interred individuals and rich grave goods including over 25 black fineware ceramics (Figure 4.62) dating to the Chimú-Inca period (1470-1532 CE). Large decorated textiles recovered likely wrapped tomb inhabitants. Hundreds of stone, shell, and metal beads were recovered in addition to a broken wooden scepter. Two 60 cm tall wooden sculptures with copper, cinnabar, and white painted, wrinkled faces were sculpted into flute players (Figure 4.63). They were wrapped with plainweave textile, like most of the tomb features. The sculptures resemble stakes and were likely placed in the tomb's entrance. Grave goods also included 16 cane flutes and fine weaving tools leading to the interpretation that the tomb's occupants were noble weavers and musicians. A 2 m long megalithic stone was placed in the center of the chamber. The megalith had faded red geometric drawings on top of a thin layer of plaster, some of which resembled stylized waves. Three wooden posts were placed on the east side of the floor as possible roof supports. Outside the north end of the entrance facing the platform, a smaller wooden sculpture with similar wrinkled face was discovered.

Two undisturbed side chambers on each side of the main tomb chamber were also excavated (Tombs 2 and 3). The side chambers each measured 2 x 4 m with similar 50 cm wide entrances to the main chamber. Each was completely roofed with wooden posts, some of which had collapsed from the weight of the overlying sand. The roof was formed by placing the posts vertically across the chambers with a layer of gravel and river cobbles immediately beneath. The chambers were filled with clean sand. In the west chamber (Figure 4.64), two complete llamas appear to have been sacrificed in the entrance. Each llama was tied to a wooden post set into the floor (Figure 4.65). Behind the llamas, a cache of over 50 complete ceramic jars and gourd plates filled with food and drink, then wrapped in plainweave textile were discovered on top of the floor (Figure 4.66). Large chunks of camelid meat were in various jars, again wrapped in plainweave textile in some cases. Residue analysis indicated that some of the gourds contained maize residue, perhaps as fermented beverage. Inside the cache of offerings another small wooden sculpture with similar wrinkled face was documented.

In the east chamber (Figure 4.67), two possible human sacrifices were placed in contorted extended positions inside the entrance analogous to the llamas from the west chamber. The burials were in front of a poorly preserved carrying litter made of two wooden posts with cotton packed inside. Red and yellow textile probably contained the litter. Spikes from the Huarango (*Prosopis pallida*) tree were set in parts of the litter, perhaps as a form of sacrifice for the carriers (possibly the two interred individuals). Inside the cotton filling, nearly one hundred small sticks wrapped with yarns were recovered further highlighting a weaver focus. A complete Stirrup-spout bottle with molded fish designs sat in the center of the litter wrapped in red and yellow textile, along with a small Inca style *aribalo* jar and another small handled jar resembling an ibis (Threskiornithinae). Between the litter and burials, four jars and gourds, a decorated bag containing small wooden sculptures, headbands, and two copper ceremonial knives (Figure 4.68) were recovered.

A smaller circular adobe pit southwest of the aforementioned tomb structure was partially excavated to compare. Here, we documented a similar architectural pattern of an unknown destroyed adobe structure with Guayaquil bamboo posts, some measuring as large as 2 m tall. Because of the depth of the deposits, the unit was terminated before getting down to possible tomb contexts, but confirms the likely existence of similar elite tomb structures in the area.

In sum, the adobe construction from Central Samanco shows a rich history of site reuse dedicated to mortuary practice. In addition to Middle Horizon commoner burials encountered throughout the site, elite Late Horizon individuals chose the site as their final resting place. The size and scope of the tombs illustrate the vast differences in hierarchy between Early Horizon and Late Horizon Nepeña. This rich aspect of site reuse is contextualized in terms of performance and ancestor veneration in Chapter 6, but more in-depth analysis of tomb contents and site re-occupation will be an avenue of further research.

Southern Pampa: Stone Terraced Gardens (HP-10; 2 sq m)

HP-10 (Figure 4.69a-c) was excavated along the north side of a stone terrace, part of the series of single stone terraces lining the southern portion of Samanco above the marshlands. Beneath an initial 30 cm layer of windblown sand containing a few intrusive Middle Horizon ceramics, a 20 cm layer of pure maize remains intermixed with Early Horizon materials and camelid dung was discovered. These remains included 30 maize roots, 46 maize flowers, and stalk fragments and shucks so numerous that only stalks containing roots were collected. Interspersed with the maize remains were 336 g of camelid dung. Inside the dung were maize remains, indicating that the animals were passed through the cultivation area. The unit extended another 25 cm down into sparse material remains including shellfish and a few Early Horizon body sherds. The unit was terminated approximately 55 cm below the surface because of the loose sandy matrix in this area, although it is believed that the occupational sequence was documented.

To conclude, the data from HP-10 compare well with construction fill contexts showing primary crop production. Maize appears to be the most common cultivated plant in the area, although there are likely other fields and gardens containing other plants on the various terraces.

4.2.3 West Samanco Excavation Results

West Samanco excavations totaled 18.5 sq m focused on Compound 4 (HP-8, HP-9), Compound 5 (HP-5), Compound 6 (HP-6), and the northwest expanse of dense refuse (HP-7). Due to the large size of the site, West Samanco was only sampled to corroborate chronological placement with the rest of the site and gain preliminary inferences on space use. Excavations documented all Early Horizon material similar to the other sectors, confirming the 40 ha extent of the site was contemporaneously occupied.

Compound 4: Cane and Adobe Sector (HP-8, HP-9; 6.5 sq m)

HP-8 (Figure 4.70a, b) cleared a looted area on the west periphery wall of the central adobe structure (220 sq m) of Compound 4. The adobes making up the structure are irregular in form and size from 20-50 cm in width, some rectangular and others trapezoidal. Originally presumed to be intrusive structures, HP-8 (as well as HP-9 below) suggest an Early Horizon context of the Compound 4 cane and adobe architecture, although their possible late occupation cannot be ruled out.

The initial layer of HP-8 consisted of 75 cm of adobe wall collapse refuse nearly clean of material refuse above a well preserved plaster floor. On top of the plaster floor were minimum nine maize cobs with 27 maize shuck and flower fragments, large pieces of cane, two fragments of rope *(Junco sp.)*, six squash *(Cucurbita sp.)* seeds, 18 cotton seeds and a boll fragment, a leaf of achira *(Canna sp.)*, two beans *(Phaseolus vulgaris)*, a guajaba fruit *(Psidium guajaba)*, a chirimoya leaf *(Annona cherimola)*, and two gourd seeds *(Lagenaria siceraria)*. These plants were intermixed with moderate amounts of Early Horizon domestic ceramics, including neckless jars. Immediately below this floor a second floor was discovered with a similar material signature of numerous cultivated plants on top of the floor and limited numbers of shells. Notably, this floor contained very dense remains of cotton including 60 seeds and 27 boll fragments, in addition to 86 g of camelid dung. This floor joined the base of the adobe wall which is constructed of quarried stone and mortar similar to the rest of Samanco’s structures. Together, the two floors covered approximately 20 cm of depth. Below the two floors is a construction fill layer leading down to the base of the wall and what may have been an original floor which was destroyed. A notable find in the fill was a naturally mummified young guinea pig. The unit extended down 1.6 m to sterile sub-soil, where another layer of burned sand and clay was recorded analogous to the ones discovered in HP-6 and HP-7 suggesting widespread pre-occupation burning. Perhaps the site was covered in marshlands which were cleared prior to initial construction and occupation.

To conclude on HP-8, the area appears to be intensively occupied through three phases, the latter two of which contained well documented de facto refuse indicating intensive agriculture. The number and diversity of plant species discovered hints at the fact that Compound 4 may have been an area dedicated to plant harvesting and production. Thousands of maize cobs are visible on the surface throughout Compound 4. Camelids were likely utilized in the cultivation process, reflected in the density of dung atop the floor.

HP-9 (Figure 4.71a, b) was also located in Compound 4, just outside the southeast corner of the central adobe structure where its entrance may have been located. HP-9 was placed along a cane wall which runs parallel to the south wall of the central adobe structure. The cane wall is made of two rows of strong canes tied together with junco rope reinforced with horizontal canes. The remains of the cane wall stand at approximately 1 m tall. Initial layers included cane, adobe, and stone wall collapse mixed with Early Horizon artefacts, including dense botanicals similar to HP-8. This layer is made of compact gray sand similar to fill layers, and may be the fill of a surficial occupation layer which was destroyed indicated by chunks of plaster found near to the surface. On the north end of the cane wall, a plastered floor was discovered 46 cm below surface. On top of this floor were dense botanical remains, including at least 100 individual maize cobs from over 200 fragments, at least 46 maize stalks from 86 fragments 28 chili pepper stems

(Capsicum sp.), a cotton boll and four cotton flowers, a fragment of yucca, a peanut, and an achira leaf. Other objects on the floor include a Stamped Circle-Dot neckless jar rim and a patch of camelid hair. On the south end of the HP-8 wall, no intact floors were discovered, and the base of the cane wall was encountered approximately 1 m below the surface where artefacts became scarcer. The unit was terminated here because of the very loose sandy matrix inducing unit collapse.

To conclude, the cane and adobe sector shows a clear focus on plant processing. The area's close proximity to the terraced gardens of Central Samanco suggests possible harvesting of the terraces at Compound 4. Due to disturbed burials littering the area around Compound 4, much of the architecture is difficult to discern. It is unclear whether the cane and adobe structures were built atop stone structures during reoccupation, or if they are contemporary with Early Horizon developments. The floor and material signature, however, is distinctly Early Horizon as seen from HP-8. The overall pattern of plant production is consistent with other sectors.

Compound 5 Sample (HP-5; 4 sq m)

HP-5 (Figure 4.72) was located on a 20 m sloped open terraced area north of Compound 5 and west of the Corral and Compound 3.The unit bordered a 30 sq m structure, with a 1x2 m sample inside the room and 1x2 m outside in the open terraced area. The initial layers of HP-5 consisted of dense animal dung (200 g), likely camelid and guinea pig, mixed with Early Horizon materials including heavy amounts of botanicals. Approximately 40 cm below, a very destroyed plastered floor was encountered with ashy lenses interpreted as the initial occupation level. The base of the HP-5 structure wall was located just below the floor, with the wall only measuring a few stones high. Unmolded adobes (approximately 25x10 cm) were also noted in the wall that appear to be reparations to the stone wall. Below the occupation layer, a brief layer of fill and sparser artefacts located in loose aeolic sand were interpreted to be the earliest layers of occupation extending down 1 m from surface level. To sum up, HP-5 and the northwest Compound 5 area of terraces appears to be a more lightly occupied area used for animal grazing and trash dumping.

Compound 6 and Surrounding Refuse Area (HP-6, HP-7; 8 sq m)

HP-6 (figure 4.73 a, b) was located at the north end of Compound 6 in a dense refuse pile located on terraced slopes above the compound. Compound 6 is the lowest of the six compound areas and located furthest west away from the site core, but contains complex, dense architecture. The unit bordered a destroyed 200 sq m patio room with 2 sq m of excavation in the open area, and 2 sq m inside the patio area exposing the center 50 cm wide wall made up of stone and mortar with rough plaster facing the patio. Initial stratigraphy included numerous layers of different trash depositions mixed with wall collapse on either side of the unit. Slight color differences in the trash layers enabled the recognition of at least 10 separate deposition events. Numerous artefacts were recovered from these trash depositions, most notably several large fragments of panpipes. Sterile sub-soil was encountered in the open space outside the patio approximately 80 cm below the surface. Inside the patio, two plastered floors were located at 75 cm and 85 cm below the surface, respectively. Floor contexts were difficult to interpret, due to the successive trash dumping immediately above them. The lower floor aligned with the base of the wall. Below the floors was a sterile sub-soil, with a pinkish burned sand layer possibly indicating a prolonged fire in the area prior to occupation.

To conclude, the north Compound 6 patio excavated in HP-6 was likely extensively used early in Samanco's occupation, evidenced by the remodeled floor. Later on, the area appears to be used primarily as a refuse dump over long periods of time, with distinct dumping events visible over 75 cm deep. This refuse was likely associated with Compound 6 usage and discard, as the HP-6 area is located immediately outside the north periphery wall of Compound 6. The materials all indicate contemporaneity with Central and East Samanco.

HP-7 (Figure 4.74a, b), like HP-6, was located in an area of dense refuse to gain the best material data about the far western extent of Samanco. HP-7, however, was not associated with any particular compound. The unit was located in the 5.5 ha expanse of dense surface refuse in the northwest corner of Samanco, bordered by Cerro La Capilla and Cerro Botella hillsides in the upper terraced portion of the site. Initial layers in HP-7 uncovered a row of single stoned on the east side of the unit, and a row of wooden huarango tree posts and thorny bushes *(Prosopis sp.)*. Surface clearing revealed that the huarango posts extend from the Cerro Botella hillsides southward all the way past HP-6 and into the Cerro La Capilla hillsides, approximately 400 m long. HP-7 revealed numerous separate layers of Early Horizon trash deposition analogous to HP-6, but no plastered floors. The layers of refuse extended down 1.5 m to sandy sterile sub-soil. Near the top of the sterile sub-soil, a layer of burned sand was uncovered similar to the one discovered in HP-6. Notable HP-7 finds include a bundle of maize roots, shucks, and stalks in the layers of discard with 91 roots bundled together, and butchered animal carcasses. Ritual items were also recovered that included decorated bone spatulas.

HP-7 was an area dedicated to secondary trash deposition over long periods of time, likely most of Samanco's occupation. Being located outside of the site's architectural core, the area probably saw diverse refuse deposits from all of West Samanco. This is reflected in the diversity of materials recovered, including cultivated, domestic, and ritual artefacts. Temporary settlements may have been constructed in the area, as the row of stones documented in the surficial layer indicated. The huarango fence may have been a site boundary constructed later in time. The tree's thorny properties would have formed an effective fence for protecting the site core from invasions over the western hillsides, or for corralling animals as huarango fences are frequently used today.

4.2.4 Early Horizon Burials

Eight Early Horizon burials were documented from excavations inside Compounds 2, 3, and the Plaza Mayor (Table 4.2). The burials have only been preliminarily analyzed. Analysis of the burials was done by bio-archaeologist Willa Trask. All burials were located in construction fill layers in sub-floor deposits beneath architecture.

Burial 1

Burial 1 (Figure 4.75) was located 2.8 m from surface level in the Early Phase fill layers above sterile sub-soil. The burial is of a flexed child approximately 3-5 years old wrapped in plainweave cloth, with ten *Argopecten* sp. shells placed as offerings. Bones were deteriorated so pathologies were not noted. A second individual was represented in the burial feature by four right hand bones and two rib heads of a single adult. Burial 1 appears to have been placed during early renovations of a colonnaded patio which would eventually be built over with the Plaza Mayor.

Burial 2

Burial 2 (Figure 4.76) was located 1.35 m from surface level in the Late Phase fill layer of the UE-2 back room. Burial 2 was placed between the leveled colonnaded bench and north wall during the final renovation of Compound 3 when columns were replaced with pole and thatch architecture. The burial is an adult male 20-25 years old with peri-mortem blunt force trauma to the left zygomatic arch probably from a blow to the cheek, and peri/post mortem cut marks along the hair line, as well as an antemortem healed blunt fracture in the back of the cranium. The burial was placed naked in a contorted position. Evidence suggests a violent demise for the Burial 2 individual.

Burials 3 and 4

Burials 3 and 4 (Figure 4.77) were located 50 cm below surface in the Late Phase fill layer of the UE-7A platform kitchen. They were placed flexed on either side of a sealed entrance. On the south end, Burial 3 was an elderly female 50-60 years old placed nude without offerings. This individual suffered from osteoporosis and had healed fractures on the radius and ulna as well as the sacrum, perhaps from falling. The individual displayed very well developed arm, forearm, and hand muscle attachments, potentially suggesting a significant amount of biomechanical stress to the upper limb bones. On the north end of the sealed entrance, Burial 4 was a child 2-4 years old placed with a large gourd cup which probably once held liquid offerings for the deceased. Deciduous dentitions and lytic lesions suggest the individual suffered from illness. Across from these burials on the opposite end of the kitchen, a canine burial was placed adjacent to the dual entryway in symmetry with Burials 3 and 4. The canine was young with an unfused cranium, and was exceptionally preserved displaying an orange brown medium length coat. This may represent an unknown Pre-Hispanic breed of dog.

Burial 5

A neonate burial (Figure 4.78) was located in a back room along the western perimeter of one of Compound 3’s north patios (UE-3D) just south of Burial 2. Burial 5 was placed 1.8 m below surface in the Early Phase fill layers. The burial was nestled in a bundle of willow (*Salix* sp.) branches without offerings. Proliferative periostitis throughout the skeleton suggests the infant may have died from meningitis.

Burials 6, 7, 8

In the center of Compound 3 (UE-3E), three burials were placed in the elongated back room. Burial 6 (Figure 4.79) is another infant placed in *Salix* sp. branches and disintegrated fishing net located just west of Burial 7 in the same Late Phase layer above Floor 2. Fragments of crania from Burial 6 show evidence of paint, either cinnabar or achiote (*Bixa orellana*). In the center of the bundle, a crude copper bead was located and is the only prestige grave good recovered from Samanco. Burial 7 (Figure 4.80) was a large, contorted male aged 35-45 years. The individual was over six feet tall and placed without offerings in the Late Phase construction fill 60 cm below surface between colonnades and the north wall. He appears to have been a healthy, robust male, although numerous healed and healing fractures around the elbows and knees suggest falling and numerous accidents. Burial 8 (Figure 4.81) was a flexed sub-adult located between two columns during an earlier phase of construction, 40 cm below burials 6 and 7. The face of Burial 8 was wrapped in plainweave cloth, then covered over with a broken piece of a neckless jar.

Samanco's burials provide a rare glimpse into Formative mortuary practices, before widespread use of cemeteries in the area. The burials are similar to brief descriptions of burials encountered at Sute Bajo in Nepeña (Cotrina *et al.* 2003) and San Diego in Casma (Ghezzi 2000; Pozorski and Pozorski 1987: 56). In these cases, the burials are also placed in construction fill layers beneath compounds with minimal or no grave goods. The investigators suggest a possible offering context of the burials associated with renovations. I would argue, however, that such a widespread practice may be a sustained mortuary practice in lieu of cemetery use. Placement beneath domestic structures suggests a close association with the dead and residential life. House burials were probably a long standing tradition spanning back millennia before Samanco, based on similar discoveries at Late Archaic and Early Formative sites (e.g., Donnan 1964; Grieder 1988). At Huambacho, two graves were found which immediately post-date the Early Horizon (Chicoine 2011: 533) of two flexed females which are reminiscent of what we documented at Samanco, suggesting a continuation of burial practices. Later on, Moche burials at Huambacho preferred extended positions face down.

Secondary human remains were also located in construction fill layers, including remnants of articulated fingers and a foot in UE-3C and dispersed disarticulated remains in addition to the aforementioned worked human crania. Some of the disarticulated remains may come from secondary contexts of burials from middens, while the articulated body parts suggest ritual interment. Similar contexts have been documented at Chavín de Huántar (Burger 1984) and throughout the early Andes (e.g., Lumbreras 1989; Rossen and Dillehay 2001). In sum, the Samanco burials indicate diverse/heterogenous mortuary practices which necessitate further investigation. As it stands, a dearth of prestige grave goods supports Burger's (2008) claim of a lack of social differentiation throughout the Formative and Early Horizon. This is a significant component of understanding community at Samanco as more of a shared and non-linear, or hierarchical social order which preceded the vast differences in wealth seen through later Andean mortuary practices.

4.2.5 Dating Samanco's Primary Occupation

Nine radiocarbon samples were processed by the OxCal Radiocarbon Facility (Table 4.3), and results confirm site occupation between 500 and 50 BCE, during the latter half of the Early Horizon, or Final Formative Period. This places Samanco within Shibata's Samanco Phase for the valley associated with complete abandonment of mound-plaza complexes and the fluorescence of lower valley enclosures and upper valley megalithic construction. Dates cluster between 400-100 BCE across all sectors, confirming contemporary occupation among the residential compounds. This is an important point in support of a large residential population, which suggests large scale occupation, rapid expansion, and central planning, rather than an organic accumulation of structures over time. One date from the Plaza Mayor sterile layer yielded a 6000 BCE date, but is believed to be a processing error or statistical anomaly. Dates between upper and lower layers indicate that site renovations occurred within a few hundred years of each other. Based on upper level radiocarbon dates, the site-wide renovation where columns were destroyed in favor of pole and thatch architecture probably happened around or just after 200 BCE. This renovation may have been associated with limited adobe construction in the southern portions of Compound 4.

Comparative dating is possible due to radiocarbon assays from Caylán and Huambacho. Both sites share identical diagnostic characteristics to Samanco, including site layout, architectural design, ceramic styles, and other diagnostics including slate points, ceramic panpipes, and other Early Horizon materials presented in the following chapter. Fifteen radiocarbon dates from Caylán date between 700-100 BCE, with an occupational peak between 500-200 BCE (Chicoine and Ikehara 2014: Table 1). As the likely center of Nepeña's Early Horizon enclosure network, it is probable that Caylán was built before Samanco, then Samanco developed in concert with Caylán's occupational peak. Twelve dates from Huambacho indicate contemporary settlement with the 700-200 BCE range (Chicoine 2006a: Table 3.1), although large standard deviations from these dates make it difficult to fine tune Huambacho within the sequence.

More broadly, Samanco's occupation sits within a juncture in Andean prehistory characterized by diversity, decentralization, and transition after the decline of the Chavín religious phenomenon. Radiocarbon dates fit the time period corresponding with the collapse of Chavín de Huántar around 500 BCE, during the Support and Postmonumental Phases (Kembel and Haas 2013). Samanco's radiocarbon dates from upper layers immediately predate some of the earliest recorded dates at Grupo Gallinazo, an Early Intermediate Period large urban complex in the Virú valley (Millaire 2010: 6190; Millaire and Eastaugh 2014). There is an approximate 100 year timegap between the Gallinazo dates and the latest Samanco dates, suggesting fairly rapid abandonment and transition to Early Intermediate Period cultural traditions associated with Gallinazo and Moche. Very limited material culture from this time period recovered through excavations (discussed in Chapter 5) suggests complete disassociation with Samanco and the Early Horizon stone-walled enclosure tradition. The Samanco dates bring us closer to understanding a time of significant sociopolitical upheaval and innovation between Formative temples and centralized, urban kingdoms of the 1st millennium CE.

4.3 Summary of Samanco Excavation Results

Excavation and mapping results from Samanco confirm a densely populated settlement built on residential lifeways. This is reflected in the level of central planning, density of domestic refuse, as well as site-wide contemporaneity. All six sectors show deep sequences of floor remodeling and intense use indicating long-term permanent occupation conducive to residential life. Principal remodeling episodes correspond with a two-phase sequence. The sequence begins with an early phase utilizing finely plastered columns which were later leveled and built over with pole and thatch architecture. During this time, most of the burials documented were interred beneath buildings, and entrances were sealed.

Samanco was a dynamic settlement, with numerous usage contexts. Inside enclosure compounds, excavations revealed data on day-to-day living, which was largely ubiquitous across the settlement reflecting limited social inequalities. The Plaza Mayor revealed slightly finer contexts probably associated with more public contexts. The monumental corral, density of sea resources, and terraced gardens suggest a site theme of industry. A millennium after abandonment, Samanco was reutilized as a cemetery for Casma culture commoners who placed their dead in open areas and within Samanco's ruins, especially patios and plazas. Later, just before European contact, the ruins shifted to usage as an elite cemetery for Chimú-Inca nobility who built subterranean adobe tombs. The following chapter focuses on material results from Samanco's Early Horizon occupation.

CHAPTER 5
FIELD RESEARCH AT EARLY HORIZON SAMANCO: MATERIAL RESULTS

In addition to the extensive architectural and stratigraphic data gained from excavations discussed in Chapter 4, a variety of materials were recovered which shed light on Samanco's occupation. All soil was screened and all remains were collected and cataloged. The bulk of materials bring further evidence to the residential, subsistence-based character of Samanco society. Ubiquity of materials across site sectors indicate a lack of hierarchy, meaning that access to goods was relatively equal. One exception is the Plaza Mayor, where slightly higher ratios of fine goods and festive materials were recovered. Below, ceramics, food remains, and other artefacts are described with regard to occupation history and site function.

5.1 Samanco's Early Horizon Ceramic Assemblage

Over 27,000 Early Horizon ceramic sherds were recovered from excavations. Decoration styles and vessel shapes were consistent throughout the six sectors. In total, 1,457 diagnostic rim sherds or decorated sherds were analyzed. Ceramics are sequenced based on local and regional chronologies. Ceramics were analyzed under my supervision. A typology of vessel shapes was taken from Ortiz (2012: 99), who analyzed a similar assemblage at contemporary Caylán. Ortiz's typology was used for ease of reference when comparing with Nepeña's lower valley network. Proulx (1968, 1973, 1985) and Daggett (1984, 1987) were the first to put together local ceramic sequences for Nepeña based on decoration. They developed a multi-phase sequence for the Early Horizon which has since been reworked by Shibata (2010, 2011) and Chicoine (2010). Sequences consulted also reference broader coastal typologies (Billman 1996; Collier 1955, 1960; Larco 1944, 1948; Strong and Evans 1952; Thompson 1962; Willey 1945, 1953) and

Chavín-related research (Burger 1984, 1993, 2008; Lumbreras 1989; Kembel 2001; Mesía 2007; Rick *et al.* 2010). Vessel shapes and decorations at Samanco favor domestic use, with a lesser emphasis on ceremonial wares. Vessel shapes are presented first, followed by decoration.

5.1.1 Vessel Shapes

Neckless jars

Vessel shapes at Samanco are overwhelmingly dominated by the domestic multi-purpose neckless jar (n=993; 68.15%) (Figure 5.1, Table 5.1). The neckless jar is the earliest ceramic form of the Central Andes and was probably made to model gourds (Burger 1993: 59). At Samanco, neckless jars appear ubiquitously in all contexts suggesting widespread and dynamic use (Table 5.2). Neckless jars were encountered in floor contexts from the compounds but mainly in refuse and fill contexts. The curvature of their opening makes the vessel unsuitable for eating and drinking. Therefore, the most obvious use is cooking, storage, or transport. This is reflected by many of Samanco's neckless jars showing evidence of exterior charring and interior caked residue (n=239). Exteriors of neckless jars are generally unpolished and have un-patterned burnished lines across the body. Exteriors are mottled red/orange/gray brown from uncontrolled firing.

Neckless jars were grouped into three sizes based on the angles of rim openings which roughly correspond to rim diameters and overall vessel size. Four O1-O2 neckless jar rim sherds had holes or handles indicating the vessels could be used for transport. Larger O3 vessels may have been more dedicated to storage. There are no stratigraphic differences seen between neckless jars. Many of the neckless jars (n=243) have exterior beveled rims and interior flanges, a quality diagnostic to the Early Horizon (Burger 1993: 170, Shibata in press: Figure 11). A complete neckless jar was documented in UE-3B (Figure 5.2a), as an offering beneath a central patio. Finally, one interesting form discovered is a variation of the neckless jar with an attached spout (n=4, Figure 5.2b). These are also diagnostic to Early Horizon and specifically lower valley enclosures (Chicoine 2006: 68; Pozorski and Pozorski 1987: Figure 33). Their prevalence is likely very under represented because of the need of a large fragment to see the spout attached to the neckless jar, much like the handles and holes. Therefore, some of the neck jar rims classified may have been associated with these spouts.

Of the nearly 1000 neckless jar rims recovered, only 28 were decorated (Table 5.3). Decoration styles include most of Samanco's typical styles, although the absence of Textile Impressed neckless jars is interesting. No neckless jars were decorated with finer painted designs, emphasizing their primary domestic use. One exception is a fine, black polished neckless jar recovered from UE-3E with both Zoned Punctate and Stamped-Circle-Dot designs painted in white, presented below along with the decorated typologies.

Neck jars

Neck jars were much more varied, have a more detailed typology, and are the second most prevalent vessel on-site (n=214; 14.69%). Exteriors of neck jars are generally unpolished, with mottled red/orange/gray brown exteriors from uncontrolled firing. Most have un-patterned burnished lines across the body. Exterior charred residue on some also suggests cooking (n=22), although less so than neckless jars.

Small neck jars (Figure 5.3) constitute nearly half of the entire neck jar assemblage (n=100; 6.86%) and have openings less than 10 cm in diameter. They differ from bottles because their concave openings make them difficult to drink from, as well as globular bodies similar to neckless jars. Small and medium neck jar functions were likely quite similar to neckless jars. Medium neck jars (Figure 5.4) are slightly larger than 10 cm in diameter and followed the same pattern as small neck jars, reflecting similar use. Small-medium neck jars generally have short necks with divergent sides and concave openings, some of which have vertical sides forming a taller neck. The taller necked style is more popular on medium jars, probably conducive to increased liquid volume and jar size. Concave divergent neck jars are diagnostic to periods post-dating 800 BCE in Nepeña (Shibata 2011: 124-125). Only three jars from Samanco had a convex, conical neck which Shibata (2011: Figure 14) dates to pre-800 BCE Nepeña. Eight small-medium neck jars were decorated. Decorations, much like neckless jars, were basic zoned designs typical to the area and time period, although textile impression may have been more favored on these. Some small-medium neck jars (n=12) had exterior flanges created with extra ridges of clay similar to the interior flanges of neckless jars. There was not any stratigraphic difference in the deposition of necked and neckless jars, suggesting contemporary usage. Both neckless jars and small-medium neck jars from Samanco fit within Chicoine's (2006a: 121, 2010) Ware A of coarseware ceramics.

Large neck jars (Figure 5.5) were quite numerous (n=40; 2.69%) given the sizes of the vessels. Thirty of Samanco's large neck jars are classified as *tinajas* (Figure 5.6a, 5.6b), the largest Prehispanic Andean vessels. Samanco's tinajas have rim diameters between 30 and 50 cm and very concave, flared necks creating an interior surface which is visible. Two of these interior surfaces were decorated with a combination of large Stamped Circle-Dot and Zoned Punctate designs. Tinaja rims have the external flange similar to smaller neck jars. Large neck jars which do not have the characteristic tinaja flared necks are slightly smaller. Exteriors were mixed orange, brown, and black, the same irregular firing pattern seen with coarseware Samanco ceramics. The ability to produce such large vessels, however, indicates a certain level of technology in Samanco's ceramic production process. Large neck jars and tinajas were recovered throughout Samanco. However, six largely complete tinajas were recovered from the UE-1 Plaza Mayor fill (Figure 5.6b) suggesting their use in public contexts as well as within the compounds. Their prevalence around Sector 4's corral and terraced maize gardens supports the inference that this area was utilized for large-scale production and trade. Tinajas were used for storage, and as will be discussed later, for fermentation and storage of Andean beer *(chicha)*.

Shibata (2010, 2011) argues that the presence of large neck jars and tinajas like those seen at Samanco only begin to appear after 500 BCE, associated with his Samanco Phase. Their appearance likely corresponds with centralized storage and production one would expect in urban contexts. Interestingly, no large neck jars from Chicoine's (2006a: 123) storage Ware C were recovered. Huambacho's Ware C large jars have short necks conjoined to the rims and lack characteristic tinaja features of Shibata's Samanco Phase. The lack of tinajas at nearby Huambacho reinforces the site's non-domestic functions in comparison to Samanco.

Bowls

Bowls were the third most prevalent ceramic shape on-site (n=174, 11.66%). Bowls appear to be Samanco's favored serving vessel, but vary in their morphologies. In general, their concave, slightly incurved shape models gourd bowls (Ortiz 2012: 102). Unlike jars, some bowls may have had domestic functions while others served more ceremonially. Exterior surfaces were also burnished (n=26), but all interiors were polished or burnished. Bowls have mottled red/orange/gray brown exteriors from uncontrolled firing. A lack of exterior residue and charring indicates specific serving functions rather than cooking directly inside the vessel.

Small bowls (Figure 5.7) were common (n=60). These were individual serving vessels. Other than bottles, small bowls were the principal fineware vessel on-site with 30 small bowls showing fine or decorated rims. Stamped Circle-Dot is the most common decoration, followed by the Banded Lozenge technique. Of note, the Textile Impressed style does not appear to be favored on bowls. From the 30 decorated small bowls, 23 have carinations in the center of the bowl sides creating divergent sides with convex openings, and six are polished. Bowls were either convex divergent (open bowls) or convex vertical (incurved bowls).

Medium bowls (rim diameters between 15 and 30 cm) are the most common of Samanco's bowls (Figure 5.8). Medium bowls were likely used for larger meals between an individual or small group. Their surface treatment is identical to non-decorated small bowls. One bowl had modeled handles and another had a hole, indicating these again may have been transported around. Eleven medium bowl rims were decorated in identical fashion to small bowls, highlighting their close association. Much like small bowls, the majority of the decorated medium bowls are carinated (n=8) and some are polished (n=4). Most medium bowls are open (convex divergent), similar to small bowls, while others were deeper incurved bowls (convex vertical). Another type of open medium bowl with straight, divergent walls was also noted.

Large bowls (rim diameters 30-40 cm) make up a smaller ratio of the total bowl assemblage (Figure 5.9). These were likely communal serving platters for groups. Because of the small sample, it is difficult to ascertain which type of bowl was most favored. Incurved (convex vertical) and open (convex divergent) bowls are again the favored shapes, much like small and medium bowls. Two have the open basin (straight divergent) walls described for medium bowls. Only one large bowl was decorated with a very rare design for Samanco's assemblage, negative black lines reminiscent of the succeeding Gallinazo culture. This fragment was recovered from the surface near the central causeway from Compound 1 and may be an abandonment period style. With the exception of this large bowl fragment, all others were located in Compounds 2 and 3 suggesting communal meals inside patios.

A final type of bowl discovered at Samanco is a square based, open vessel (tazón). Tazones (Figure 5.10) have concave divergent, vertical, and straight divergent sides creating a large rectangular open vessel. Concave tazones are slightly smaller than vertical and straight divergent walled tazones but all were probably communal serving platters. Two mis-shapen bowl fragments were found that are evidence of ceramic production from Compound 3 and Compound 2 patio fill.

Bottles

Bottles (Figure 5.11) are the principal fineware documented at Samanco and are rare (n=58, 3.90%). There are three shapes of bottles: Stirrup-spouts (n=48); a convex walled vertical rim style resembling a gourd bottle (n=5); a more restricted version of concave divergent neck jars (n=4), and a tall-necked straight wall divergent rim bottle (n=1). All bottles have restricted openings less than 6 cm wide. Exteriors are polished and attempts were made to control firing for more solid colors including orange brown (n=21), complete oxidized black (n=17), red (n=13), and the typical mottled orange/red/black (n=7).

Stirrup-spout bottles are one of the finest Andean ceramic vessels and enjoyed millennia of use, presumably in ceremonial contexts. Stirrup-spout bottles have a dual chambered, curved neck which converges together forming a single neck and rim. Samanco’s Stirrup-spouts have a thick exterior flange lip formed with excess clay onto the vessel, a quality typical to Early Horizon Stirrup-spouts (Burger 1993: 170). Nearly half of Stirrup-spout bottles at Samanco are decorated (n=20). Stirrup-spout designs are mainly Painted Incised. A Painted Incised bottle base was found in the fill adjacent to Burial 2 in UE2, associated with Compound 3's final renovation. An appliqué bottle, largely complete, was located in the construction fill of the corral in the HP4 back stall room. This bottle was the finest Early Horizon vessel recovered from excavations.

The less common gourd-shaped bottles were probably a smaller fineware bottle with diameters less than 4 cm wide. Two (n=2) of these were decorated with Zoned Incised Lines on a polished black slip which were located on the floor of UE3A's blocked entrance, probably associated to the final Compound 3 renovation. The tall neck bottle has impressions at the base of the neck indicating a probable missing handle. Although seemingly anomalous, this bottle is from deep construction fill of the Plaza Mayor and documented at Caylán (Ortiz 2012: 233) indicating its contemporaneity with the site. None of the concave divergent bottles were decorated.

5.1.2 Decorated Ceramics

Out of Samanco's entire diagnostic assemblage, 279 ceramic sherds were decorated (Table 5.4). Decorated sherds account for 19% of diagnostics, and only 1% of the total ceramic assemblage, which attest to the subsistence-based character of the settlement. Styles fall squarely within first millennium BCE sequences, mainly from the coastal Early Horizon. As with vessel shapes, there was not a clear seriation among decorated styles over space and time (Table 5.5). This reinforces the contemporaneity and similar functions across Samanco's six sectors. Decoration terminology is modified from Proulx's (1985: 185-215) Nepeña typology.

All of Samanco's ceramics were fired in irregular, oxidized atmospheres creating mottled reddish brown / black exteriors, with exception to certain reduced polished black fineware neckless jars and bottles. Other finewares were made in oxidized atmospheres with particular concern shown in creating red exteriors for polishing. While fine blackware ceramics are typically associated with pre-dating Cupisnique and Chavín cultures, the fine redware tradition starts during the Salinar phenomenon associated with Samanco.

Textile Impressed

The Textile Impressed style dominates Samanco's assemblage (Figure 5.12). This technique utilizes varying textile fabrics and nets pressed into the vessel to create a texture. The designs frequently occur in incised zones. While this style was once attributed to the Early Intermediate Period (Proulx 1985: 214), more recent research places the technique within the Early Horizon (Chicoine 2010b), namely Shibata's Samanco Phase of Nepeña (Shibata 2011: Figure 13). At Samanco, the technique appears to have been used on fine and coarseware vessels, namely neck jars and probably bottles. Unlike other ceramics at Samanco which are generally red or brown, Textile Impressed vessels are often completely reduced creating a black exterior.

Stamped Circle-Dot

The second-most common decoration style is Stamped Circle-Dot (Figure 5.13), although the following category, Painted Incised, shares the same frequency. The Stamped Circle-Dot style consists of variations of stamped circles with dots placed inside. Stamped Circle-Dot is most commonly attributed to the oft-debated Janabarriu phase of Chavín de Huántar (Burger 1993: 170; Rick *et al.* 2010: 102). While Burger (1984, 1993) attributes the style to Chavín's sphere of influence around 400 BCE, Rick (Rick *et al.* 2010) and others (Kembel and Haas 2013; Mesía 2007) attribute Janabarriu to an earlier time between 800 and 500 BCE. In Nepeña, the technique is associated with Shibata's Samanco Phase around the same time period, associated with the abandonment phase of Nepeña's earlier Chavín-Cupisnique religious temples. Five ceramics at Samanco have large stamped concentric circles reminiscent of earlier ceramic styles. Stamped Circle-Dot ceramics occur on both fine and coarsewares, much like Textile Impressed. However, Stamped Circle-Dot appears to be favored on neckless jars and bowls, rather than neck jars and bottles. One exception is a Stamped Circle-Dot combination vessel from the Painted Incised fineware style, discussed below.

Painted Incised

The third major decoration type at Samanco is the Painted Incised style of zoned painted areas inside incisions (Figure 5.14). Most Painted Incised sherds exhibit a white or gray paint within the zones, with polished red exteriors outside the zones. In one case a zoned black paint was used instead of the typical white or gray on red. Zones are made with horizontal bands, steps, diamonds, chevrons, and other rectilinear motifs. In some cases, the Stamped Circle-Dot is used as a white painted zone. Unlike the previous decoration types presented which occur on utilitarian and fine vessels, the Painted Incised technique is exclusive to red fineware bottles. Nepeña's Painted Incised technique is broadly associated with the Salinar phenomenon post-dating Chavín and Cupisnique on the North Coast (Larco 1945). North of Nepeña the style is referred to as Late Guañape or Salinar in the Moche valley (Billman 1996: 185; Brennan 1978), and Puerto Moorin in the Virú valley (Collier 1955: 211). In Casma just to the south, it is referred to as Patazca (Collier 1960: 413; Pozorski and Pozorski 1987: 61). The style is generally assumed to date to the latter half of the Early Horizon, between 500 BCE and the turn of the 1st millennium CE (See Billman 1996: 189). It is generally assumed that Salinar style painted vessels paved the way for early Moche vessels which replaced the white paint on red exterior technique to white slip on orange exterior.

Banded Lozenge

The Banded Lozenge decorative technique consists of repeating horizontal “S”-shaped designs with punctations or circle-dots located inside the broad “S” zone (Figure 5.15). This is another fine or coarseware decorative variety which only occurs on neckless jars and bowls at Samanco. Proulx (1985: 193-194) suggests close functional and chronological ties with Banded Lozenge to Stamped Circle-Dot. He further suggests that the rarity of Banded Lozenge outside of Nepeña may indicate a local style, although there are some basic similarities to stamped and sealed Janabarriu Chavín ceramics (Burger 1984: Fig. 303, 1993: 170). The Sinuous Zoned Punctate technique is very similar to Banded Lozenge, but located in parallel waving lines. This technique was only evident in from one sherd at Samanco.

Triangular Zoned Punctate

Triangular Zoned Punctate ceramics at Samanco are made of triangular incised zones with small punctations set inside (Figure 5.16). The technique is used broadly throughout the North-Central coast and highlands during the late Initial Period and Early Horizon (e.g., Fung and Williams 1977; Izumi and Sono 1963; Larco 1941: Fig. 84), making it difficult to use for specific chronological placement. At Samanco, the technique is generally applied on finer neckless and neck jars. A variation includes longer incised lines in place of punctations (Triangular Zoned Incised), with one example made on a polished black gourd-shaped bottle. Miscellaneous Zoned Punctate placed in non-triangular zones is favored on bottles. Here, the incised zones resemble horizontal bands and steps seen in the aforementioned zoned varieties. Miscellaneous Punctate consists of non-zoned punctations.

Samanco Modeled

One interesting ceramic type at Samanco not documented by Proulx or Daggett's surveys is a fine modeled technique discovered at Samanco (Figure 5.17). Samanco's Modeled is made up of thick appliqué bands modeled in curvilinear designs reminiscent of fine Cupisnique incised bottles. The best example of Modeled at Samanco is an elaborate Stirrup-spout bottle found in the fill of the monumental corral. This bottle showed evidence of white paint, suggesting connections to the Painted Incised ceramic varieties. Another Modeled ceramic at Samanco shows a modeled hand on the neck of a Stirrup-spout. The hand is painted with white slip on an orange exterior, much like Early Moche ceramics from the succeeding Early Intermediate Period. Four ceramics with broad negative lines reminiscent of the Gallinazo Early Intermediate Period Culture (Strong and Evans 1952) were also recovered from Samanco as a possible transition era.

Miscellaneous and Uncommon Styles

Handles (Figure 5.18) featured more prominently in the Samanco assemblage than one normally encounters in Formative Period contexts. A variety of types were documented on coarse and fineware vessels. There are also a variety of miscellaneous decorated ceramics (Figure 5.19) with incised lines (Misc. Incised Lines, Broad Line Incised). In some cases, these may have been parts of larger designs not visible on the sherd fragment or even parts of figurines. Others are designs which do not fit particular typologies, such as incised fish-like designs. Broad Line Incised ceramics are made of wider lines generally forming horizontal bands.

Uncommon decorative techniques at Samanco that may pre-date the Early Horizon are Appliqué Nubbin, Ridged Appliqué, and Serrated Edge designs. Appliqué Nubbin is described by Proulx (1985: 200) as resembling tree bark, and is attributed to the Initial Period in Casma (Fung and Williams 1977) and the earliest phases of Chavín (Burger 1984: Fig. 133). However, Appliqué Nubbin sherds were found in Samanco's later strata with mainly Early Horizon materials. The Ridged Appliqué technique resembles a potato's depressions and is also suggested to have early components. The Serrated Edge style also shows Initial Period precedent on the coast in Casma (Pozorski and Pozorski 1987: Fig. 17).

The Pattern Burnished technique of cross-hatched, thick burnished lines attributed to Shibata's Nepeña Phase and megalithic upper valley sites is absent at Samanco, emphasizing relative independence from upper valley cultural spheres. Another technique of more irregular Pattern Burnishing documented at Huambacho (Chicoine 2010b: Fig. 7) is only exhibited twice at Samanco, although irregular burnishing occurs on nearly all of Samanco's vessel exteriors. Decorations are discussed further as they relate to vessel shapes below.

5.1.3 Ceramic Pastes

A very basic paste analysis was done on Samanco's diagnostic rim and decorated sherds for general reference (Table 5.6). With exception to tinajas, large neck jars, and O3 neckless jars, all vessel thicknesses measured less than 10 mm wide. A general paste analysis was made based on visible traits, along with example photos taken from a microscope camera. Paste types at Samanco (Figure 5.20) are homogenous and coarse, analogous to the irregular firing seen on the exteriors of vessels. However, in contrast to vessel shapes and decoration types, there does appear to be some diachronic variation in paste type.

Paste 1

The most common paste type (Paste 1) at Samanco is a fine-grained sand temper with grains less than 1 mm wide set in reddish brown clay (n=1264; 75.96%). In some cases (n=307) the paste is gray-black in the middle and oxidized reddish brown on the interior and exterior producing a "sandwich" effect ascribed to the Early Horizon (Proulx 1985: 191). Others have a similar dual coloring with irregular gray-black and reddish brown portions emphasizing the lack of controlled firing; these are included in the sandwich category. Others of Paste 1 (n=331) are completely blackened. Paste 1 was used on all of Samanco's vessels in both fine and coarse contexts. Tinajas utilized the same basic technique with larger sand grains (n=13), while some bottles had finer inclusions (n=36). This paste occurred ubiquitously throughout all strata.

Paste 2

The second type of paste documented at Samanco is a rare type of fine gray black paste with few inclusions visible (Paste 2). This type of paste is documented on earlier finewares (Shibata 2011: Fig. 9). Only 14 examples (n=14; 0.78%) of Paste 2 were documented associated with polished red, brown, and black fineware vessels.

Paste 3

The last paste type (Paste 3) documented at Samanco is a lighter, yellowish orange chunky clay with mixed small pebble and sand inclusions, some measuring larger than 1 mm wide (n=387; 23.26%). This paste, again, is documented in association with all vessel shapes as well as Samanco's main decoration types. The lighter, chunkier clay sometimes makes a pinkish color when fired (n=143). The similar partially reduced, partially oxidized irregular firing technique is also evident from the light paste type (n=114). Less fire clouds suggest a higher firing technology. The most interesting information from Paste 3 comes from its stratigraphic location, mainly in Samanco's final layers of occupation (n=266; 68.73%) and only 43 Paste 3 sherds in Level 4 and below. Paste 3 ceramics may indicate a transitional style gradually coming into use during Samanco's occupation.

5.1.4 Non-Vessel Ceramics

Ceramic artefacts were not limited to vessels. Non-vessel ceramics at Samanco include panpipes, spindle-whorls, figurines, grater bowls, and discs (Table 5.7). Pastes and surface treatment of non-vessel ceramics were identical to ceramic vessels.

Panpipes

Panpipes (Figure 5.21) were the most numerous non-vessel ceramic artefact, with over 1000 fragments recovered. Panpipes like those discovered at Samanco are widely documented at nearby contemporary sites, and are seen as one of the main diagnostic objects for the Early Horizon in the region (Pozorski and Pozorski 1987: 119). These are some of the earliest clay panpipes in the Central Andes (Proulx 1985: 245). They are made up of numerous independent tubes set into an exterior ceramic body in a stepped size arrangement. No complete specimens were recovered but the longest tubes appear to be at least 15 cm long tapering down to just a few cm long on the opposite end. Samanco's panpipes have the same paste as the Paste 1 described for vessels above. Exteriors are reddish brown with fire clouds visible, and frequently polished although undecorated.

Fragments were pieced into 306 individual tubes corresponding to various panpipes. Tubes were probably made utilizing the slip cast technique (Dawson 1964: 108; Proulx 1985: 245). Therefore, the panpipes were likely built to size prototypes indicating centralized production (See Helmer and Chicoine 2013). 225 tube fragments from the 2012 excavation season were measured for a comparative sample of sizes. Tubes averaged 9 mm in diameter, and ranged from 4-21 mm wide. At least seven tubes were conjoined based on more complete specimens recovered, with tube diameters gradually increasing 1-2 mm across the instrument. There appear to be at least three general size prototypes for Samanco's panpipes: 1) a small, perhaps toy-like (See Proulx 1985: 244) panpipe with tubes less than 6 mm in diameter; 2) a medium sized instrument with the typical 6-12 mm tubes; 3) a large tubed instrument with tubes 12-21 mm wide. The large tubes may be a variant of the medium panpipe type with a bulging middle section which becomes more restricted at the ends. The medium sized panpipe is identical to size prototypes reported at Huambacho (Chicoine 2006a: 135) and Caylán (Helmer and Chicoine 2013: 99).

Panpipes occurred ubiquitously throughout Samanco, meaning that panpipe music was not relegated to public or ritual events. However, the high incidence of panpipes discovered at the Plaza Mayor, despite the excavation accounting for less than 10% of total excavations, suggests additional panpipe popularity in public contexts. In addition to ceramic panpipes, a ceramic ocarina in the shape of a squash (*Cucurbita* sp.) was discovered in the Plaza Mayor construction fill. In the next chapter I provide analysis on sonic properties of Samanco's panpipes to discuss musical performance.

Discs

Along the same lines as panpipes, reshaped pot sherds formed into small discs are also characteristic of Early Horizon coastal Ancash, 45 of which were recovered from excavations (Figure 5.22). Discs range from 2-10 mm in diameter. Some of these have side perforations possibly used to hold yarns, while others have center holes or perforations possibly used for heavy wool spinning or as bottle lids (Chicoine 2006a: 137). Again, a high incidence of discs was discovered in the Plaza Mayor fill possibly indicating higher usage of bottle lids or weaving. Gourd shaped discs were also recovered probably lending weight to their use as bottle tops. Similar high ratios of discs were noted around one of Caylán's central plazas (Helmer *et al.* 2012: 100). Another more speculative use of ceramic discs is for an ancient game called *tejos* across the coast of Peru (Gillin 1945: 85). Today, the game is still played in a newer rendition called *sapo*, where the object is to toss coins similar in size to the ceramic discs at the mouth of a toad. However, direct connections between these games cannot be assessed.

Figurines

Conversely, 33 fragments of ceramic figurines were recovered mainly from Samanco's domestic patio areas (Figure 5.23). Unfortunately, figurines were very fragmented making it difficult to discuss specific stylistic ties. However, two fragments of faces both excavated from Compound 3's core show varying styles. One sample recovered from UE-2 has almond-shaped eyes, broad incised lines forming hair, and a headband resembling Cupisnique style Tembladera figurines (Burtenshaw-Zumstein 2013). Proulx (1985: 253) notes a similar figurine head at the middle valley site of San Juan which he ascribes to the Initial Period. The other, recovered from

UE-3A just behind UE-2 in the same stratigraphic layer resembles more Virú or Gallinazo designs typically seen from the succeeding Early Intermediate Period (Collier 1955: 91). The former example was made from Type 1 red brown paste and polished, while the latter example from Type 3 probably associated with later techniques. Other figurine pieces recovered are various fragments of hands, feet, hair, and cylindrical body fragments. The high incidence of figurines inside compounds may indicate their association more so with residential areas than the Plaza Mayor.

Spindle-whorls

A total of 23 spherical spindle-whorls were recovered through Samanco excavations (Figure 5.24), concentrated mainly in residential compounds but found throughout the site. Samanco spindle-whorls are generally a polished red or black. Despite their small size of only a few cm wide, many are richly decorated with incised geometric designs. Proulx (1985: 243) dates Nepeña's spherical spindle-whorls to the Early Horizon, which are later replaced by disc and conical shaped whorls of succeeding groups. Samanco's spindle-whorls are decorated with similar motifs from ceramics, including Stamped Circle-Dot and Triangular Zoned Punctate. Others have unique geometric designs sometimes filled with red pigment. Stone spindle-whorls of similar size and style were also recovered. Interestingly, one spindle-whorl was shaped in the form of the concave divergent short neck jar with Triangular Zoned Punctate designs in the Plaza Mayor fill. The discovery emphasizes the interplay between Samanco's material ideologies.

Grater bowls

Finally, nine ceramic "grater bowl" fragments were recovered (Figure 5.25), another ceramic object usually found in the Early Horizon coastal Ancash repertoire. These are thick walled open basin bowls at least 30 cm in diameter probably utilized for the processing of comestible plants. Deep ceramic grooves line the inside of the object, and exteriors are reddish brown/black with fire marks made from the Type 1 paste. These were located in residential compound areas, namely surrounding hearths and the kitchen area in UE-7. Chicoine (2006a: 140) suggests a close association with the appearance of grater bowls and the fluorescence of maize in Early Horizon Nepeña.

5.1.5 Summary of Samanco's Ceramic Assemblage

To conclude on ceramic vessels and objects from Samanco, there are multiple lines of evidence placing Samanco within a time bracket of 500 and 100 BCE, squarely within Shibata's Samanco Phase. These results confirm Daggett's general placement of Samanco within the Early Horizon, but do not align with his proposed multi-phase sequence for Early Horizon Samanco use. Rather, our excavations show ubiquitous, coeval site use throughout its entirety. The only possible diachronic change noted was a gradual shift in paste types from Type 1 to Type 3, although further ceramic work will be needed to confirm this. Ceramic frequencies of utilitarian wares and shapes echo the residential nature of site function. Limited fineware artefacts indicate the presence, but lesser emphasis of public ceremonial site use.

Ceramic types and ratios of vessel and decoration frequencies are nearly identical to what has been reported at the other main lower-middle Nepeña residential center, Caylán (Helmer and Chicoine 2012: Table 2; Ortiz 2012: 101). Meanwhile, at Huambacho identical ceramic types were documented, but with different ratios. For instance, higher numbers of decorated and serving vessels were found in relation to cooking / storage vessels, suggesting closer ties to ceremonial site use (Chicoine 2006a: 133, Chicoine 2010). This indicates similar behavioral phenomena across lower-middle Nepeña and suggests a certain level of centralization, probably in the form of a lower-middle valley network, although site functions differed. In contrast, the lack of Pattern Burnished and Postfire Scratched ceramics typical to the upper valley (See Ikehara 2010; Proulx 1985) suggests a lesser connection with groups further inland.

Regional ties, evidenced here through ceramics, becomes important in subsequent analysis on performance and community site dynamics. However, the degree of ceramic-based centralization is less than what one typically finds with ancient Andean societies. No kilns were documented at Samanco, although it is presumed that the bulk of the site's utilitarian ceramics were locally produced. Rudimentary earth kilns were probably used (see Shimada *et al.* 2003; Wagner *et al.* 1997), based on evidence for the irregular firing of vessels. These types of kiln are more difficult to document in the material record. The results emphasize the decentralized nature of Samanco's community organization, as opposed to later coastal ceramic workshops where artisans were key to the dissemination of specific political symbols. For instance, Rengifo (2014: 291) documents the usage of house compound kilns at Pañamarca, the Nepeña Moche stronghold. In the following section, important comparative data will be seen in Samanco's food remains assemblage, namely a focus on production.

5.2 Food Remains

Food remains are the most common material remains recovered from Samanco. As was made evident in the preceding excavation chapter, ancient Samanqueños relied on a complex collection of seafood, cultigens, wild, and domesticated animals to support sustained residential life. The following section provides a detailed description of Samanco's foodscape, broken into the major food types discovered.

Shell remains were analyzed under the guidance of Lic. Carol Rojas Vega. Animal vertebrates were analyzed by Lic. Ali Altamirano, and ichthyological remains by Lic. Isabel Salvatierra Berrocal in consultation with Dr. Phillippe Bearez. Finally, botanical analysis was done by Lic. Amparo Gomez Diaz and Kyle Stich. I assisted in all analyses and methodological decision-making. Special botanical features were sent to Dr. Victor Vasquez and Arqueobios laboratory for microscopic analysis.

5.2.1 Shellfish Remains

Shells were by far the most numerous foodstuffs recovered from Samanco excavations, with 467 kg of well over 250,000 individual specimens recorded. Because shells survive well in the archaeological record, high numbers likely over-represent their ratio in Samanco's diet. However, it is clear that shellfish fulfilled a vital subsistence role. All shells from the 2012 excavations were analyzed down to Minimum Number of Individuals (MNI) values (Table 5.8). MNI were recorded by counting left / right hinges of bivalves and taking the larger number, and by counting complete or nearly complete gastropods. Due to the large size of the sample, only larger, meatier shellfish varieties and worked shell artefacts were recorded from both seasons (Tables 5.9, 5.10).

From the 2012 representative sample of all species recovered, over 70,000 MNI were recorded. As is the case with the rest of Samanco's material assemblage, distribution patterns are largely ubiquitous across the site. The sample is overwhelmingly dominated by two cold water rock perching mussels *Semimytulus algosus* and *Perimytulus purpuratus* which account for approximately 80% of the representative sample with 54,771 MNI (Figure 5.26). They are small-medium sized mollusks ranging from 2-6 cm long and are exploitable from massive colonies along Samanco Bay's rocky shoreline. The small-medium sand dwelling bivalve *Donax obesulus* accounts for approximately 11% of the representative assemblage. Donax clams are an intertidal species easily exploited from sandy beaches and average 2-3 cm wide. From the same sandy intertidal zone, medium-large (5-7 cm average width) *Mesodesma donacium* clams account for approximately 4% of the 2012 representative sample. All other bivalves account for less than 1% of the sample.

Gastropods were exploited to a lesser extent as a Samanco food source. The most common gastropod at Samanco is the *Tegula atra* sandy intertidal mollusk (n= 2,486; 3.48%). The small size of tegula mollusks averaging 2 cm with little meat weight, however, likely discounts their significant use as a food source. Rather, these were probably by-products of bulk harvesting and also utilized for fish baiting. Other gastropod by-products further indicate bulk harvesting and primary production, including *Scurria parasitica* (n= 278; 0.39%) and *Littorina peruviana* (n= 154; 0.22%). In contrast, the large, meaty rock-dwelling *Thais chocolata* (avg. 6-8 cm wide) conch shell probably formed the mainstay of gastropod-based food sources, alongside *Fissurella sp.* (avg. 4-6 cm wide) limpets.

Table 5.9 shows larger, meatier mollusks recorded from both seasons (Figure 5.27). The mesodesma clam clearly dominates meatier species (n=9546; 67.59%), followed by gastropods *Thais chocolata* (n=1,803; 12.77%) and *Fissurella* sp. (1677; 11.87%). The large concentration of Mesodesma in Compound 3 (n=5,886) suggests these residents had privileged access to meatier shellfish than other areas such as Compound 2. All other meat species show a more or less equal distribution relative to excavation size. Larger rare or difficult to harvest clams such as

Argopecten sp. (n=212; 1.50%), *Trachycardium procerum* (n= 50; 0.35%), and the *Concholepas concholepas* (n= 69; 0.49%) gastropod may have been prestige foods. Argopecten scallops (avg. 8-10 cm) are an infra-littoral species which would have required sea craft and sophisticated diving techniques to depths of 10m to collect. Their symbolic importance to Samanco is reflected in the cache of nine argopecten shells buried with the child burial (Burial 1) underneath the Plaza Mayor.

Shells were also utilized as body adornments (Table X, Figure 5.28). The small (2-3 cm) *Prunum curtum* conch shell was the most popular adornment (n= 103; 70.40%). Prunum shells and the similar *Oliva peruvianus* are naturally polished, and were either cut on top or perforated to form necklaces. These are warm water species and may have been rare to obtain from Samanco's cold water shore during typical non-ENSO times. They may have been seen as miniature versions of the emblematic pututu (*Strombus galeatus*) conch horns central to Formative ideology (See Abel *et al.* 2008; Herrera 2010; Paulsen 1974). Along similar lines, the discovery of warm water *Spondylus princeps* beads (n=2; 1.32%) further reflects Samanco's attachment to Andean symbolic shells. The relatively low density of spondylus, however, suggests difficulty in acquiring the shell from its home hundreds of kilometers to the north. Argopecten scallops may have served as a local substitute for Spondylus adornments. This is evidenced by 10 bead pre-forms found in Compound 2. The *Choromytilus chorus*, or giant mussel, also appears to have been a locally produced adornment source used for pendants and beads. Choromytilus' rich purple color and rarity likely made it a prized choice for adornment. Two of the more intricate beads or pendants found come from the Plaza Mayor, one of which is made from *Tegula atra* and sculpted in curvilinear designs similar to the Banded Lozenge ceramic style, and the other with a string still attached. Clams were also used for beads, including *Semele corrugata*, *Glycymeris lintea, Spisula adamsi,* and *Chione subrugosa*. Pendants or plaques to be applied to clothing were made of Nacre, or Mother of Pearl. Six polished black stone beads were made in similar fashion to shell bead adornments. Mesodesma shells were sometimes painted with red pigment, probably cinnabar, associated with ceremonies or painting.

Samanco's shell assemblage compare well with contemporary lower-middle Nepeña centers where data are available, namely Huambacho (Chicoine and Rojas 12) and Caylán (Chicoine and Rojas 2013) and Pampa Rosario/San Diego in Casma (Pozorski and Pozorski 1987: 62-63). Ratios at Huambacho show similar selection strategies to Samanco with preference for *Semimytulus algosus* and *Perimytulus purpuratus*, although the Samanco sample has more than ten times the amount of shells by both number and weight. The values reflect shellfish as more of a subsistence-based food found in residential contexts, and coincide with the assertion that Huambacho represents more of an elite center for public events. Despite Caylán's inland location, the urban center relied heavily on seafood evidenced by the recovery of more than 100,000 MNI. Interestingly, Caylán's shellfish assemblage indicates a reliance much more on sand-dwelling *Donax obesulus* (n=63,732; 61.6%) compared with semimytulus and perimytulus mussels (collectively n=29,711; 28.72%). This has led Chicoine (2013: 356) to propose a de-centralized system of marine resource exchange based more on geographical proximity than reliance on specific producers.

The Samanco dataset may indicate more of a centralized marine exchange system than previously thought. Despite Samanco's location nearby long sandy beaches where donax clams flourish, they only make up 11% of the representative assemblage. Their conspicuous absence suggests export to Caylán. Etayo-Cadavid (2010: 26) documents that donax clams are resilient, move with the tides, and can live up to three years. Perhaps differences in survivability led to a preference of clam export. More importantly, Samanco shows a marked increase of large, meaty species in comparison to Caylán. In the case of *Mesodesma donacium* clams, 1,378 MNI were documented at Caylán in comparison to nearly 10,000 at Samanco from similar volumes of excavation. Prized *Argopecten* sp. scallops from deep waters are almost non-existent at Caylán. Samanco has five times the amount of meaty *Thais chocolata* and *Concholepas concholepas* gastropods. Therefore, it seems plausible that Samanco residents enjoyed privileged access and control of shellfish resources while more marginal species made it up-valley, probably aided by camelid caravans. Rosello *et al.* (2001) note a similar focus on Donax clams to the urban capital of Huacas de Moche during the Early Intermediate Period. Bearez *et al.* (2003) also document high frequencies of donax clams at the temple of Pachacamac near Lima during the Late Intermediate Period. Indeed, donax appear to be a staple in terms of shellfish preference at large coastal capitals. Therefore, similar and long-lasting exchange networks may have been in place between coastal providers and urban consumers.

5.2.2 Fish Remains

Fish remains at Samanco are abundant and varied (Figure 5.29, Tables 5.11, 5.12), with nearly 30,000 NISP and 1,500 MNI recovered from 30 different species. Given their fragility and difficult preservation, the high density of fish remains confirms Samanco's maritime identity and brings significant ancient marine diet to light. Samanco's fish dataset is especially important given the dearth of published archaeological fish data on the Peruvian coast after the Late Archaic or Preceramic (Reitz *et al.* 2008). Fish specimens were counted based on Minimum Number of Individuals (MNI) as well as Number of Individual Specimens Present (NISP). MNI values were calculated by counting diagnostic bones per sample, i.e. first and last vertebrae, crania, otoliths, base-occipitals, maxilars, and teeth, among others. Size estimates were not calculated due to time constraints, leading to slightly under-represented MNI values. However, basic analysis of bone hyperostosis and size ranges indicate generalized exploitation of juveniles and adults rather than selective strategies. The study has thus far not identified production / storage areas for fish (e.g., sand curing pits, see Marcus *et al.* 1999). Rather, convincing evidence exists that fish processing was performed at the neighborhood compound level. For instance, large deposits of shells discussed earlier, as well as fish bones spread mainly throughout compound floors and fill indicate direct production and consumption. This suggests that production, although done on a large scale, had not yet been centralized into distinct precincts with large-scale storage as is the case with later fishing centers in the Andes (e.g., Sandweiss 1992; Marcus *et al.* 1999).

Sardines (*Sardinops sajax*) were by far the most common fish exploited at Samanco, accounting for approximately 30% of the total MNI and 50% of total NISP values. Sardines are pelagic and feed in massive schools near to Samanco's shoreline, easily harvestable with large curtain nets. In fact, most of the fish recovered are pelagic or demersal, meaning that top water fish were exploited over bottom-feeders. The dominance of sardines over anchovies is striking. Recent research has suggested that anchovies are susceptible to climate change, namely ENSO events, and are often replaced by higher numbers of sardines (Chavez *et al.* 2003; Jacobson *et al.* 2001). Sandweiss *et al.* (2004) have corroborated this phenomenon in archaeological and historical records. Such high densities of sardines at Samanco throughout all strata may suggest long term climactic upheaval during the Early Horizon. High densities of sardines inside domestic areas of Compounds 2 and 3 indicates their usage as a food source. Near identical fish frequencies between the two investigated compounds indicates contemporaneity and ubiquity of production and subsistence among Samanco's various co-residences. Significant numbers of sardines, as well as other fish, were recorded from the corral suggesting possible export. Mass harvesting of small pelagic species lends weight to the idea of sophisticated maritime trade networks. This contrasts with what Prieto (2013) has recently posited for earlier maritime groups at Pampas Gramalote in the Moche Valley, where larger species such as shark predominate and suggest local specialized consumption rather than mass production. Elera (1998: 423) records similar densities of sharks at the early fishing village of Puemape in Jequetepeque.

The Peruvian croaker (*Paralonchurus peruanus*), a medium sized demersal fish inhabiting sandy substrates was the next most common fish exploited. Seven cases of hyperostosis were noted on croaker vertebrae which suggest a healthy population of adults. The frequency of croaker at Samanco is interesting. Today, croakers in the area are rare and command decent prices at market (see also Rosello *et al.* 2001), and may indicate high social status or preference for tasty fish. However, bonier less desirable fish such as *Sciaena deliciosa* were also consumed in high numbers. Until as recently as the 1970s, modern Samanqueños had the ability to select only prized fish for consumption while others were discarded (Benito Mora, personal communication, 2013). Comparative analyses of fish remains at neighboring centers, especially Caylán, are needed to better understand import / export patterns and fish desirability in Early Horizon Nepeña. Croakers and most of the common medium sized (average 20-50 cm.) demersal and pelagic fish harvested at Samanco were likely exploited via curtain nets placed throughout sandy areas of Samanco Bay either directly on shore or via boats and rafts.

Benthonic species lying primarily on the seafloor were exploited, although not as extensively as upper water species. The same can be said of rock dwelling species such as *Anisotremus scapularis* (MNI=33; 2.95%) and *Labrisomus philippi* (MNI=13; 1.16%). In the case of rocky bottom dwellers such as *L. philippi*, hand lines and cast nets are often cast out into small pools and reeled in. A number of cast nets were recovered from excavations, although curtain net fragments were much more prevalent. This would further indicate a preference for exploitation of sandy, shallow areas. One sub-type of *L. philippi*, known locally as “borracho” or drunken one, is known for its psychoactive properties which can render the consumer dizzy and motionless. Borracho fish are common in Moche iconography (Bourget 2008: 279), and may have played a role in Samanco rituals.

Sharks appear to have been exploited primarily as a food source, as no ornamentation such as worked teeth were documented which are common at other coastal centers (Altamirano and Vargas-Nalvarte 2014). However, shark and stingray vertebrae were shaped into beads, probably due to their aesthetic disk shape. Other large fish were not extensively exploited, such as *Robaloscion wieneri* (MNI=4, 0.36%) and *Coryphaena hippurus* (MNI=1; 0.09%).

Finally, deep water species were not extensively exploited, suggesting that boating was probably limited to the immediate vicinity of Samanco Bay. Only two deep water species were documented, hake (*Merluccius gayi peruanus*; MNI=15; 1.34%) and eel (*Genypterus maculatus*; MNI=2; 0.18%). Hake played a much larger role in later urbanized diets at Huacas de Moche (Rosello *et al.* 2001: 77), and may indicate more advanced boating technologies associated with Moche.

To sum up, Samanco’s diet was heavily oriented toward fish, and goes against assertions of terrestrial-based coastal urban diets as Rosello *et al.* (2001) and others (Carmichael *et al.* 2014) have suggested for later coastal societies. Samanco’s maritime groups appear more geared toward mass fish procurement and processing in regional economies, which differs from localized specialization of earlier North Coast groups (Prieto 2013). Results also suggest that

Early Horizon coastal and inland groups were more tightly connected than these earlier Initial Period groups who may have competed more than collaborated (Pozorski and Pozorski 2005, 2006).

Exploitation of large schools of small pelagic fish flourishing under the Humboldt system undoubtedly played a part in the advancement of Andean social complexity, as Moseley (1975) posited decades ago. Research by Bearez *et al.* (2012) and Reitz *et al.* (2008: Table 6.1) echo the marine-centric nature of early coastal sites. In the Samanco case, the preponderance of sardines over anchovies may indicate warmer coastal climates during the Early Horizon. Mass procurement of small fish are conducive to trade, and sardines have been recorded in high numbers at Caylán (David Chicoine, personal communication 2013) although further research is needed. Aside from sardines, diverse medium sized demersal and pelagic fish averaging 20-50 cm long contributed to the majority of Samanco's fish diet. Biodiversity located close to the coast likely limited the need for deep water harvesting and technology which may have developed during Moche times. High densities of fish remains recorded in the sand of the corral further alludes to trade and export, with consumption-based evidence coming especially from Compounds 2 and 3.

The ubiquity of fish species across the site imply similar diets and a lack of social differentiation, significant when theorizing communal organization. This contrasts with later fishing centers where clear differences in status were reflected in fish assemblages from different residential sectors (e.g., Sandweiss 1992: 115; Marcus *et al.* 1999). Additionally, little to no stratigraphic difference of fish densities implies long term stability of fisheries despite possible climactic events. In other words, large populations appear to have been able to reliably and permanently exploit fisheries, as has been suggested elsewhere (Reitz *et al.* 2008: 135-136). The evidence indicates that Nepeña's urban transformations certainly relied on fish production.

5.2.3 Botanical Remains

Along with the aforementioned density of seafood, Samanco's populace produced and consumed a vast array of cultivated plants (Figure 5.30). Plant specimens were counted based on Minimum Number of Elements (MNE) as well as NISP (Tables 5.13, 5.14). MNE values are derived from minimum numbers of complete or nearly complete plant elements, i.e. roots, fruits, flowers etcetera. In total, 36,860 NISP illustrate the intensity of plant exploitation. Identified edible plants account for 10,506 MNE and 21,286 NISP from an array of 27 different cultigens.

Maize (*Zea mays*) dominates the assemblage with over 40% (n=4262) of the MNE total and 8,419 NISP. Complete elements correspond to cobs (n=2,913), stalks (n=795), kernels (n=366), shucks (n=198), roots (n=32), and flowers (n=13). Cobs are roughly 10 cm on average, and preliminary morphological analysis indicates the existence of a variety of sub-types. Of note, maize was the most prevalent from the Plaza Mayor in the form of cobs and kernels. This is consistent with the earlier assumption from floor contexts and tinaja jars that *chicha* was produced and served here. Maize starch was discovered in micro-remains from gourd cups in Compounds 2 and 3 lending further weight to consumption as fermented beverage. As mentioned earlier, convincing evidence exists that maize was cultivated on terraces lining the site's southern extent where pre-processed elements are more prevalent.

The other plant staples to Samanco's diet are sweet potato (*Ipomoea batatas*; n=1575; 14.99%), lima and snap beans (*Phaseolus* sp.; n=1989; 18.92%), peanut (*Arachis hypogaea*;

n=714; 6.80%), chili pepper (*Capsicum* sp.; n=314; 2.99%), and squash (*Cucurbita* sp.; n=249; 2.36%). These were mainly recovered from the interiors of Compounds 2 and 3. Evidence for primary production of sweet potato and beans comes from the massive plant deposit in the fill of the UE-7 kitchen. The bundle revealed that sweet potatoes, maize, and beans were likely grown in close proximity to one another and not in mono-crop fashion. Peanuts would have provided supplemental protein to Samanco's rich animal diet. Squash is probably under-represented because of the only surviving record generally being seeds. Along the same lines, manioc (*Manihot esculenta*; n=9; 0.09%), potato (*Solanum tuberosum*), and tomato (*Solanum lycopersicum*) are also under-represented given their poor preservation. Both potato and manioc were discovered in starch grain/phytolith analysis confirming their presence. Potato starch residue was found in gourds, probably served as liquid chuño soup evidenced by gelatinous starch residue (Vasquez personal communication: 2013).

Fruits were also popular at Samanco, mainly pacae (*Inga feuillei*; n=554; 5.27%), lúcuma (*Pouteria lucuma*; n=246; 2.34%), palillo (*Campomanesia lineatifolia*; n= 220; 2.09%), avocado (*Persea americanis*; n=115; 1.09%), cansa-boca (*Bunchosia armeniaca*; n= 80; 0.76%), chirimoya (*Annona cherimola*; n= 35; 0.33%) and to a lesser extent guava (*Psidium guajaba*; n=4; 0.04%) and pajuro (*Erythrina edulis*; n= 4; 0.04%). Fruits are most prevalent from Compound 3, again suggesting the possible higher status of this large residential group, while subsistence-based crops like beans and sweet potatoes are more abundant from Compound 2.

There is also evidence for medicinal/psychotropic plant consumption. Achiote (*Bixa Orellana*; n=12; 0.11%) is used for its vibrant red/orange paint in traditional Amazonian societies, as well as an anti-inflammatory, anti-parasite, and insect repellant (Giorgi *et al.* 2013; Ulbricht *et al.* 2012). Moreover, there is convincing evidence of achiote's ritual importance through the discovery of paint residue on the cranium of Burial 7. The tara bean (*Caesalpinia spinosa*; n=4; 0.04%) is also a multi-use medicinal plant (Duke and Reed 1981: 32-33) mainly as an antibiotic and eye remedy. Recent chemical analysis confirmed tara's strong antimicrobial properties (Kloucek *et al.* 2005: 311). The high consumption of fish, perhaps raw, may have necessitated the use of anti-parasitic remedies (Clement 2012: 65). Ongoing research is being carried out on coprolites from Samanco to document parasites.

There is also evidence of horsetail grass use (*Equisetum* sp.; n=2; 0.02%), a multi-purpose remedy ranging from astringent to anti-diarrheal and emmenagogue (Schultes and Raffauaf 1990). Kloucek *et al.* (2005: 311) have documented horsetail grass's antimicrobial properties. Today, horsetail grass is served as a tea for cold remedy in the Samanco area. Bundles of grasses were often found at Samanco, especially around the Plaza Mayor, which may have been dedicatory offerings of medicinal plants.

The single coca (*Erythroxylum* sp.) leaf discovered suggests usage of mild stimulants. Coca grows at higher altitudes so may have been a prized commodity which was traded for. Moche burials from Huambacho (Chicoine 2011b: 537) contained coca bags confirming early coastal Nepeña use. Psychotropic plant use may also be evident from the discovery of spiny acacia (*Acacia* sp.; n=8; 0.09%). Certain acacias contain hallucinogenic tryptamines (Clement *et al.* 1998; Rovelli and Vaughan 1967) which are activated when combined with MAO inhibiting plants. Another possible hallucinogen used in Samanco's ritual is *ulluchu*, an unknown coastal plant seen as a symbol of psychotropic activities in Moche iconography (see Bussman and Sharon 2009; McClelland 2008). Ogalde *et al.* (2009) provide direct evidence of hallucinogenic use in antiquity via hair analysis on Middle Horizon burials from the Atacama Desert. The individuals were also associated with snuff trays, and Amazonian (*Banisteriopsis* sp.) vines known as ayahuasca, one of the most powerful hallucinogens in the world. Snuff tray artefacts, presented in the miscellaneous artefact section, also indicate psychotropic use at Samanco. Therefore, it is important to consider altered states of consciousness and transcendental experiences associated with Samanco ritual performances as essential to communal ideologies.

Finally, industrial plants make up a sizeable portion of the plant assemblage (Table 5.14). Gourd (*Lagenaria siceraria*; n= 5279; 60.14%) is the most numerous. As mentioned earlier, gourds were used for the consumption of liquids, and more complete specimens suggest cup and jug-like forms. In rare cases, gourds were pyro-engraved with Chavín-like designs (Figure 5.31). Others have perforations for hanging, usage as tops, as well as discoid gourd fragments similar to the aforementioned ceramic discs. Gourd usage in offerings and as burial goods reflects their symbolic importance. Gourds were probably also used as fishing floats. Cotton (*Gossypium barbadense*; n= 2191; 24.96%) was also used in the fishing process for net production, in addition to obvious use for clothing. The density of reeds, rushes, sedges, and bamboos confirms that the surrounding area was marshy, similar to modern conditions. These were used for bedding and roofing, as well as the famous *Caballito de Totora* small coastal boats. Microscopic evidence also revealed the usage of reeds and grasses for feeding camelids.

In sum, plant data enhance our picture of the role of Samanco as an economic center and residential community. The types of plants cultivated are in line with neighboring Formative sites from Casma (Pozorski and Pozorski 1987: 64) and Nepeña (Chicoine 2006a: 170; Clement 2012), as well as further north (Elera 1998: 151-160) and south (Chevalier 2002). The low density of manioc supports a hypothesized shift in coastal cultivation strategies away from certain tubers and toward maize (Piperno and Pearsall 1998: 279). Pozorski and Pozorski (1987: 119) relate the shift to an explosion of *chicha* production (see also Chicoine 2011a). In Nepeña, Samanco exhibits more than 20 times the plant density recorded at the much larger Caylán (Clement 2012) despite a smaller excavation area. I attribute this to the aforementioned situation with seafood, that is, a site focus based on industry and production at Samanco, and consumption at the inland capital. Again, there are clear parallels with data reported from the urban Moche capital Huacas de Moche, where there is no evidence of primary crop production, rather consumption (Vasquez and Rosales 2003: 183).

Plant data bring significant insights into Samanco's communal organization, suggesting that the settlement was not maritime-only, as may have been the case with later coastal groups who relied primarily on inland cultigens (see Sandweiss 1992). Rather, the community may have been more autonomous in terms of its food resources, relying on exportation more than importation.

5.2.4 Vertebrate Animal Remains

Vertebrate animal remains make up a smaller but significant portion of the Samanco food dataset (Tables 5.15, 5.16). Combined, birds and animals account for 3,023 NISP and 788 MNI, 463 MNI and 1,329 NISP of which were able to be identified down to general food animal categories.

Birds make up the largest MNI count (n=252; 55.69%). The majority of these are sea birds such as seagulls, cormorants, pelicans, terns, petrels, and boobies (Figure 5.32). Sea birds are exploitable from the large estuary system directly west of the site where Nepeña tributaries dump into the northern edge of Samanco Bay. They may have also been trapped on island habitats. Their use as food is confirmed by 55 burned or cut samples. No one species dominates the assemblage, but the guanay cormorant (*Phalacrocrorax bougainvilii*; n=48; 19.05%) is the most common. They have been common fodder for coastal Andeans for at least the last 10,000 years (see Keefer *et al.* 1998) and rely heavily on anchoveta making the species a good indicator of environmental conditions. The most common continental bird exploited is the croaking ground dove (n=37; 14.68%) which are trapped with nets on modern farms. There is an interesting absence of Muscovy (*Cairina moschata*) and wild ducks which were common in the ancient Andean diet. Some long bones (n=2) are polished and worked indicating usage as artefacts. The presence of the Andean condor (*Vultur gryphus*; n= 3; 1.19%) as four phalanges from sectors 2 and 3 suggest ritual significance, perhaps specifically with the feet which are common elements on Chavín iconography.

Mammals (Figure 5.33) are more or less evenly distributed in terms of numbers among canines (*Canis familiaris*; MNI=45; 11.81%), camelids (*Lama glama*; MNI=40; 10.50%), and guinea pigs (*Cavia porcellus*; MNI=35; 9.19%). However, camelids would have dominated in terms of meat weight. Of these, 43 camelid bones show cut marks or burning indicating food usage and 24 come from juveniles suggesting local husbandry. Canines, often under-emphasized in the Andean diet, appear to have been a Samanco food mainstay, with 69 bones showing butchering. Canine coprolites found inside residential compounds and open middens indicate the animals roamed freely throughout the site. Canines were probably important as a festive meat earlier in Nepeña's prehistory (Ikehara and Shibata 2008: 144). The Samanco dataset suggests a continuation in canines as a dietary staple. In contrast, later urban centers show less of a preference for canine meat (Vasquez and Rosales 2003: 182). The dog burial from UE-7E also highlights the symbolic attachment ancient Samanqueños had for dogs. Guinea pigs may be under-represented due to difficulty in discernment from other rodents, but are a common element of the Andean diet and cosmology (see Andrews 1972; Morales 1995; Sandweiss 1997). An abundance of food trash probably accounts for the high numbers of small rodents discovered (n=159).

On-site breeding for consumption emphasizes centralized food production over opportunistic hunting. There was limited game hunting, as seen with remains from sea lions, (*Otaria flavescens*; n=6; 1.57%) sea otters (Mustelidae; n=1; 0.26%), and deer (Cervidae; n=2; 0.52%). Game animals may have served primarily for trophies or tools, indicated by the discovery of worked sea lion teeth and a deer antler in addition to butchered long bones. Sport hunting was popular among the Moche (Custred 1979). The situation contrasts with Initial Period maritime groups who relied heavily on sea lion meat (Elera 1998: 169; Pozorski 1979a: 425). Camelids were consumed on-site but also probably traded inland to Huambacho, where dense camelid remains were discovered but no evidence of local breeding or herding (Chicoine 2006a: 164). Meanwhile, consumption of birds inland at Caylán and Huambacho appears to be much more limited.

Data from Samanco confirm earlier suspicions that coastal camelid husbandry began in the Early Horizon based on studies at later period sites (Pozorski 1979; Shimada and Shimada 1985). The data also align with expanding camelid meat exchange networks associated with Chavín in the highlands (Burger and Miller 1995). As Bonavia (1997) notes, camelid domestication was likely a long and difficult process which necessitates clear identification. However, coastal use of camelids was probably much more widespread than thought (Bonavia 2009). The camelid dataset fits numerous criteria laid out by Mengoni Goñalons (2008: Table 1) for identifying the presence of domesticated camelids in archaeological contexts: 1) Osteometry of individuals from a range of ages; 2) the existence of animal pens and enclosures; 3) tools such as ropes; and 4) taxonomic abundance. Butchering of juveniles suggests a surplus of camelids available for exploitation, and possible selection between food-based and caravan-based animals. A similar pattern was noted at Huacas de Moche where camelid bones are much denser (Pozorski 1979b: 150; Vasquez and Rosales 2003: 177). As with the plant remains, the vertebrate fauna data from Samanco bring crucial insights into diverse communal organization, involving different but complementary spheres of subsistence.

5.2.5 Summary of Food Remains

The density and variety of food remains at Samanco support the urban model of site occupation and community organization. Results suggest a varied, complementary diet including marine protein-rich resources, terrestrial domesticated fauna, and diverse agricultural produce. In other words, a tri-partite food system supported early urban innovations, with marine-based protein likely factoring in more than many other areas of the world. Additionally, surpluses lend weight to the idea of site industry based in food production and exchange, most likely with peer centers such as Caylán. I argue that coastal communities at this time were considerably more autonomous and less specialized than later groups with stricter hierarchies. Such an arrangement creates an important setting for understanding the maintenance of daily life.

5.3 Other Remains: Lithics, Textiles, Miscellaneous Artefacts, Burials

Non-ceramic, non-food based artefacts fulfilled a variety of functions at Samanco including production, adornment, manufacture, ritual, and defense. Here, they are grouped to provide basic information utilized later on to discuss daily life and social organization.

5.3.1 Textiles

Samanco has a rich assortment of textile remains which have been preliminarily analyzed. From the 2012 field season, 260 individual textile fragments with diagnostic weave patterns were documented (Figure 5.34). Diverse weaving techniques are evident from microscopic photos which await further analysis. Cotton appears to be the favored choice for materials, although pre-processed fine wool, possibly alpaca or vicuña, was recovered from the Plaza Mayor fill. From this sample, 53 were decorated with vermillion red and/or indigo blue into striped, checkered, stepped, and solid designs. The indigo style is documented both at nearby Huambacho (Chicoine 2006a: 158) and Pampa Rosario/San Diego in Casma (Pozorski and Pozorski 1987: 62, 69). Interestingly, Samanco is the only case which utilizes red pigment in the same fashion as the indigo. The red pigment may have come from achiote or a mineral. Other more uncommon designs include embroidery into tassels, woven geometric designs, and decorations with alternating weaving techniques. In one case, a stingray image is woven into a laced textile. Five wooden *huso* rod fragments were found with attached fibers for spinning yarn further indicating local production.

At least three types of cotton nets (Figure 5.35) are evident at Samanco, with 62 total net fragments recorded. The first type is a thin, tightly woven net with approximately 5 cm wide openings. These are known as curtain or seine nets, which could be stretched between two individuals in the surf or between two boats (Marcus *et al.* 1999: 6568). These resemble tennis nets, and their antiquity is documented by Gillin (1945: 29) where they are referred to as *chinchorros* along the North Coast. Curtain nets would have been used to catch schools of small pelagic fish such as sardines, as well as larger pelagic and demersal species. Their large size leads to tangles, so usage is preferred in open or sandy areas. This net style may have also been used as gillnets, tied up for long periods of time while gills of fish get trapped inside.

The second type of net is a smaller bast knotless net with larger thread woven into openings approximately 1 cm wide, known as a cast net. Gillin (1945: 29) also documents their early use, known locally as *atarrayas*. This is a smaller circular net suitable for one person. More complete samples show a small circular opening where a rope or weights could be attached. Cast nets are more easily navigable in rocky pools and outcrops (see Marcus *et al.* 1999: 6568). A third type is similar to the bast knotless cast net but utilizes knotting. Again emphasizing the interplay among materials, cast nets are utilized to decorate ceramics. Cast nets are rarer at Samanco, and may have seen more limited use in comparison to curtain nets, evidenced by the types of fish recovered from excavation. For instance, cast nets are more conducive to deeper water fishing, as well as rocky species, both of which are less common in the site assemblage. The lack of nets at Huambacho (Chicoine 2006a: 158) and Caylán suggests that Nepeña's Early Horizon fishermen were concentrated at Samanco. Pozorski and Pozorski (1987: 62) have documented bast knotless nets at San Diego, the Early Horizon seaside equivalent of Samanco in Casma. Excavations by Marcus *et al.* (1999: Fig. 5) illustrate identical nets used during Inca times on the South Coast, indicating long-lived Andean fishing traditions linking the early ethnographic cases from Trujillo (Gillin 1945). In the subsequent chapter, nets are analyzed extensively with regard to their production and maintenance as a type of daily performance influencing community organization at Samanco.

5.3.2 Lithic Artefacts

The most abundant stone tools recovered are groundstones (Figure 5.36), with 40 recorded on-site. These lithics were used primarily for the grinding and processing of plants and possibly fish into meal. Groundstones at Samanco are made from river cobbles, and to a lesser extent quarry stones, ranging from single handed 10 cm specimens to two handed grinders up to 50 cm long. These were utilized to grind plants down into pastes in a rocking motion on top of large boulders with concave surfaces called *batanes*, six of which were recorded in sectors 2 and 3. The density of groundstones is consistent with high amounts of plants on-site and further emphasizes the residential site nature. Other stone tools discovered (Figure 5.37) include two butchering knives made from crude quarry stone. One was located in a context heavy with large mammal bones in the Plaza Mayor construction fill, and the other was located at the feet of Burial 1. Various flakes were documented which were probably used to scale fish (Donnan and Moseley 1968). Ten stone sinkers were identified from excavations. Their shapes include circular stones with long side grooves or center perforations suitable for attachment to nets. Three doughnut shaped stones could have been used for larger nets or as club heads. Finally, a variety of small pebbles with smoothed ends were probably used as polishers to finish finer ceramics and stone blades.

Weaponry includes 12 polished stone blades which are key diagnostics to Early Horizon Nepeña (Daggett 1984; Proulx 1985: 240-241). These are thin bi-faced points hexagonal in cross-section, and often made of polished slate. The lack of evidence for hunting on-site hints toward usage of these points in human, probably ritual combat. The fragility of the points and attention to aesthetics also suggests ceremonial rather than repetitive use. Certain specimens have resin still attached to the base for usage as spears. Two cases show blades which were reshaped into pendants. Simpler weapons on-site include six slingstones. Weaponry is not surprising and, along with the massive defensive wall which lines the eastern and southern perimeters of Samanco, highlights the warlike elements of Early Horizon society (see Daggett 1987; Ikehara 2010; Pozorski and Pozorski 1987; Wilson 1987).

Rare exotic lithics show a certain level of continuity in earlier Chavín-Cupisnique religious practices. Green basalt and andesite artefacts common to earlier religious systems are evident at Samanco through the discovery of a basalt bowl (probably a mortar) and two polished green pebbles. The stone was probably imported from faraway mountain ranges, and its aesthetic qualities probably imbued a special significance. Along similar lines, two fragments of anthracite jet mirrors and two flakes of obsidian indicate long distance exchange of exotics, although probably in lesser quantities than Chavín times. The two obsidian flakes are identical to obsidian found at Cerro Blanco (Ikehara and Shibata 2008: Fig. 30) which show local shaping of the raw material and *a posteriori* use.

5.3.3 Miscellaneous Artefacts

Bone artefacts (Figure 5.38), like lithics, fulfilled both utilitarian and ceremonial uses. Twelve spatula fragments were recovered. Plain, flat spatulas were likely used in the net weaving process as spacers, or *malleros* (Marcus *et al.* 1999: 6568), while finer specimens with hollowed portions probably served for the ingestion of ceremonial substances (Burger 1992: 200). They appear to be made from long bones of large mammals. One example from the Sector 6 midden has rich geometric engravings and may be made from a human radius, ulna, or humerus. Similarly, two fragments of worked human crania were found in the UE-7 construction fill, probably involved in consumption of psychotropic substances described in the botanicals section.

Eleven awl/perforator artefacts are similar to the utilitarian spatulas, and were probably used in weaving and for incisions. Some of these resemble textile manufacturing tools known as *ruqqui* documented by Sandweiss (1992: 96) at Lo Demás, the Inca fishing center near Lima. These tools bring further direct evidence to site-level production, ascribed to an industrial communal identity.

Miscellaneous wooden artefacts include a small ear spool, a comb, four wooden corks used as bottle tops or fishing bobbers/floats, and a wooden paddle from UE-3A. This paddle is very similar to those Ramón (2008: 397-399) documented from ethnographic cases on the North Coast and highland Ancash. Paddles are used for shaping vessels in non-mold made ceramics. The paddle is a rare archaeological find and brings to light local ceramic production practices inside Samanco's compounds in lieu of kilns.

Only one metal artefact from Samanco's Early Horizon occupation was documented in association with the Burial 7 infant. This was a crude copper cylinder with a hollowed out center, probably indicating usage as a bead. The bead may be evidence of early significance of placing copper with burials, a common practice with later coastal groups, such as the Casma, who placed copper inside the mouths of the dead. A lack of metals emphasizes the more non-stratified nature of Samanco society, as metals were often the most important indicator of status with later coastal groups.

5.4 Summary of Material Remains

Samanco's dense and vast assortment of material remains evidence sustained residential occupation at the seaside settlement suggesting a large population. Ceramics are overwhelmingly utilitarian and dedicated to day-to-day activities. Limited fine vessels are associated with the

Plaza Mayor and larger interior patios. Neckless jars predominate, and large tinaja jars suggest *chicha* production. Decorated styles are primarily local, with regional influences from Janabarriu Chavín and Salinar White-on-Red styles. Plant assemblages further suggest strong emphasis on maize harvesting and production, probably as *chicha* for festivals. Other staple crops such as sweet potato, beans, and cotton were also produced on-site in the marshy areas south of Samanco, and perhaps in terraced gardens. There is also evidence for ritual plant consumption. Shellfish were intensely exploited from rocky and sandy outcrops, along with a variety of fish. Localized rearing of camelids, canines, and guinea pigs was preferred over hunting. Weaponry suggests conflict was a factor in site occupation, and limited exotics, such as obsidian, anthracite, and imported ceramics, show a decline in the Chavín sphere of influence. Burials with basic offerings and the general conformity of materials across Samanco hint at a lack of social differentiation which is significant when conceptualizing socio-political organization of early urban groups.

5.5 Conclusions from Field Data

Field research at Samanco was successful in documenting the site's occupational history. Stratigraphy and diagnostics refute Daggett's (1987, 1999) proposal of Samanco's western half being occupied earlier than the eastern half, but confirm his general Early Horizon placement of the primary occupation. Rather, east and west Samanco fit into six coeval and connected residential compound sectors dedicated to all facets of ancient residential life. Materials and construction styles correspond to Shibata's (2011) Samanco Phase dated from 500-100 BCE. This places the site within the Salinar phenomenon associated with a decentralization of sociopolitical practices between Chavín-Cupisnique and Moche (Ikehara and Chicoine 2011), as well as North Coast urbanization (Brennan 1978, 1980, 1982).

Elsewhere in the North-Central Andes, societies were dealing with the decline of Chavín in similar and different ways. In the highlands, remnants of Chavín lingered on (Burger and Matos 2002; Matsumoto 2010; Rick *et al.* 2010) while the Huaraz cultural style emerged. In upper valleys, dispersed megalithic hilltop villages and fortifications suggest social tumult (Arkush and Tung 2013; Ikehara 2010; Brown Vega 2009; Wilson 1988). Around the North Coast, very similar scenarios to Nepeña developed in Santa (Wilson 1987, 1988), Casma (Ghezzi 2006; Pozorski and Pozorski 1987), Virú (Collier 1955; Strong and Williams 1952), Moche (Billman 1996; Brennan 1978, 1980, 1982), Culebras-Huarmey (Giersz and Przadka 2009) and Jequetepeque (Swenson 2011; Warner 2010). Indeed, inter-valley influence is certainly evident during Salinar times. The Nepeña data, however, provide excavation data from a variety of sites and Samanco provides the largest dataset relative to Salinar maritime life.

Samanco's characteristics situate the site within the proposed lower-middle valley Early Horizon sociopolitical network comprising satellite centers Huambacho and Sute Bajo, and the large urban center Caylán (Chicoine and Ikehara 2010; Ikehara and Chicoine 2011b). Samanco excavations indicate dense enclosure compounds which characterize the residences essential to the lower-middle valley network system. Architectural details of Samanco's enclosure compounds include colonnaded patios, monumental benched plazas, avenues, and adjoining agglutinated rooms forming compound nuclei accessed through long winding corridors and small (average 1 m) corner entrances. During the final phases of Early Horizon use, columns were leveled in favor of more basic pole and thatch architecture. Our excavations indicate enclosures were foci for dynamic residential activities at Samanco, including resource and craft production, cooking, serving, storage, and periodic events in open patios. Enclosures were also used for mortuary practices by placing individuals underneath private back rooms.

The dynamic, residential qualities of Samanco's enclosures align best with what has been documented at Caylán. In contrast, Huambacho's compounds appear more dedicated to ceremonial events (Chicoine 2011b). Therefore, each node in the peer network likely fulfilled different regional needs while also remaining autonomous. Samanco more than any other lower Nepeña site appears dedicated to industry, seen here as economic production of marine resources and agricultural products probably circulated via camelid caravans. Evidence from other sites in the network, meanwhile, appear to have relied on Samanco for food resources. At Caylán, the power to import goods to the urban center entails a certain level of status, perhaps enacted through alliance-building, protection, and public events at the site's dozen monumental plazas. Public events at the small, elite center of Huambacho may have garnered similar tribute. In contrast, the lack of monumentality at Samanco and general spatial and material homogeneity of the various sectors suggest a large population of average status inhabitants engaged in day-to-day activities with loose leadership. From that standpoint, the site brings significant insights into the life and production activities of various social segments, including farmers, herders, fisherfolks, artisans, and merchants. The addition of the Plaza Mayor may have been a late effort to promote the site, but Samanqueños appear geared toward internal affairs and general subsistence.

Leadership was probably shared among compound groups and founded in dual modes of organization familiar to the Andean world (Anders 1986; Moore 1995). Leadership was likely divided into more than the typical *ayllu* style of upper and lower moieties common to the Andean highlands (Rowe 1946). Rather, I propose that Samanco leadership was shared and probably contested among fragmented political units which have been postulated for later North Coast groups (Moore 1995; Netherly 1990). This is reflected in the fragmentation and replication of similar residential compounds and multiplied communal spaces. Samanco lacks administrative temples or palaces which characterize later, more hierarchically organized groups. Additionally, a lack of prestige goods, and equal distribution of subsistence materials further imply a lack of pervasive social hierarchy. Positive signs of local, rather than administrative community networks come from the evidence of daily work and consumption practices which were carried out on a decentralized scale within the various compound patio groups. As will be illustrated in the following chapter, evidence for social division only exists through the desire to create neighborhood compound exclusivity.

Based on the excavation results, I posit Samanco as an ancient town centered on industry. Yet, the character of Samanco's social organization requires contextualization. In the following chapter, I provide a window into ancient Andean seaside life through performance, common experience, and daily practice as a way for understanding non-state early urban societies.

CHAPTER 6
PERFORMANCE AND COMMUNITY AT ANCIENT SAMANCO

This chapter examines Samanco's rich archaeological data under a performance theoretical lens. The analysis emphasizes materializations of interactions and experiences in daily life. The last chapter demonstrated Samanco's urban patterns as a dense, permanently populated settlement within multiple co-resident sectors. Compounds are built in a way that facilitates group encounters and de-centralized performance of daily tasks within exclusive neighborhoods. These neighborhood-based activities provide crucial clues into communal organization. The ways in which neighborhoods were structured and experienced are analyzed here. I argue that a culture of industry permeated the ways in which ancient Samanqueños constructed, perceived, and interacted with their world. This chapter reviews evidence which points to local (autonomous) groups organizing themselves heterarchically during an early process of urbanization along the Peruvian coast. The data suggest that the extended household was a more central organizational element than religious canonists from previous eras, and divine rulers of subsequent eras. After presenting Samanco's sensory landscape, comparative analysis is made with subsequent cultures that developed after Samanco's decline. Results bring to light significant insights on social complexity and urban transformations in non-state complex societies.

6.1 Reflections of Community: Experiencing Samanco Daily Life

Samanco's wealth of archaeological data provide a fertile platform to reconstruct past experiences which ultimately shaped the ways in which past groups organized their communities. Analyzing separate realms of the senses provides building blocks for representing these past cultural practices (Skeates 2010). In response to reading cultures as texts through a limited visual-based framework, sensual culture analysis developed (Classen 1990: 723).

Breaking down material and spatial analyses into perceptive realms help to contextualize performative encounters, as individuals would have sensed and acted accordingly to particular social, built, and natural surroundings. Indeed, much of the performance-related archaeological work has built from reconstructing human experiences (e.g., Houston 2006; Inomata 2006; Insoll 2009; Moore 2005, 2006). I focus primarily on reconstructing experiences that relate to the group (DeMarrais 2011, 2013), keeping in mind that experiences often vary at the individual level (Van Dyke 2013).

Beyond the analytical goals of the dissertation, presentations of experiences aid in bringing the past to life in ways that technical descriptions of site traits lack. Below, data are broken into sub-categories of sensual experiences for clarity of presentation. Certain senses which are inter-related, such as smell and taste, or movement and touch, are combined. Obviously, ancient Samanqueños would have experienced a combination of some of these sensual encounters (Synesthesia), which is how the results are synthesized in a comparative socio-historical framework of the coastal Andes, presented at the end of the chapter.

6.1.1 Experiencing Samanco Daily Life: Sight

Sight is the most privileged of the senses in western thought (Classen 1997), and is also the most common perceptive data used by archaeologists to interpret the past. Viewshed analysis, geographic information systems, landscape archaeologies, and other visual analyses underscore archaeologists' preference for perceiving sites and cultures in terms of sight. Visual perceptions of the landscape were obviously a significant aspect of ancient life (Ashmore 1999;

Tilley 1997). At Samanco, sight-based experiences were varied, mostly emphasizing a performance of exclusivity among different neighboring communities.

Seeing the landscape

The most apparent visual experience which impacts the senses of anyone on the coast of Peru is the stark contrast between green, fertile valleys and the desolate valley margins and hillsides. At Samanco, the settlement was built in the arid northern valley margin just above lush marshlands. The site is bounded on three sides by mountains which tunnel the viewing of the landscape southward, toward the green oasis and the southern portion of Samanco Bay. This makes Samanco clearly visible from the southern portions of the littoral, likely under jurisdiction of the settlement, but invisible further inland, north, or immediately west alongside the ocean. Thus, it was not a priority for Samanqueños to be clearly seen or impose upon the visual landscape from outside areas. This contrasts with Nepeña's Chavín-Cupisnique and Moche temples which were centrally placed and built to achieve maximum visibility (Chicoine *et al.* in press). Samanqueños' preference to be visually inaccessible may have been a pragmatic response to hypothesized widespread warfare during the Early Horizon (Ikehara 2010; Wilson 1987, 1988; Daggett 1987, 1999; Brown Vega 2009).

Knowledge and learning are also crucial parts of Andean cultural experiences (Stobart and Howard 2002) which shaped Samanco's maritime community. For instance, learning to visually interpret the moon and tide cycles would have been very important to the visual knowledge of communities like Samanco. Low tides would have been optimal times to harvest sandy mollusks and rock-perching mussels, and higher tides with calm water would have been more conducive to fishing. Full moons provide maximum tide variation as well as increased visibility for night fishing, and are a prime time for sea outings in modern Samanco. During later time periods, sea deities appear associated with females and the moon (Moore and Mackey 2008; Mackey 2002; Rostworowski 1977; Quilter 1990, 1997) whose legends may have been borne out of Formative traditions. Rather than visually experiencing vast corporate fields as was the case with the Moche and Chimú (see Pozorski *et al.* 1983), the agricultural landscape around Samanco was probably divided into smaller garden plots containing a variety of plants. This is reflected in the plant deposit containing mixed roots below Compound 2. Maize terraces which lined the southern boundary of the site would have further obscured it from view. Plants such as chili pepper, squash, tomatoes, and avocados would have brought a variety of colors to the arid landscape, yet visual expressions of power. Yet, visual expressions of power over land and subsistence, often reflected through the massive industrial fields of subsequent generations is absent. Rather, Samanqueños visualized diverse garden crops perhaps broken into sub-plots in similar ways to the compounds on-site, a visual expression of decentralized community.

Sight and the built environment

Samanco's dense, horizontally extended enclosure compounds would have been visually unimpressive from the ground. However, when viewed atop the surrounding hillsides, the complexity and extent of compounds would have clearly affected the viewer as an expression of newly urbanized and permanent communal spaces. Although mound building indicates a clear fixation with Andeans on architectural impact (See Moore 1996), expansive geoglyphs such as the famous Nasca Lines show that groups paid attention to aerial perceptions of built landscapes. Geoglyphs neighboring Nepeña and possibly dated to Salinar times in Santa also show clear concerns with aerial presentations of built landscapes (Wilson 1988b). The geoglyphs from Santa depict camelids, which Wilson (1988b) attributes to intensive trade and camelid caravans during the time period. Looking across Samanco east-west, the kilometer-long extent of the compounds would have created a perception of a vast town with clear boundaries.

Perhaps as a response to such a dense settlement, most of the internal compound architecture would have been invisible to the outside while standing at ground level (Figure 6.1). Normally, the open, arid area of Samanco affords large viewsheds unobstructed by vegetation. Special efforts were made to build substantial stone perimeter walls to preserve inside-outside integrity, rather than easily constructible but more sensually porous cane or adobe. Larger spaces such as patios were even more visually segregated through their inner location at the heart of the compounds (Figure 6.2). Once inside, however, patios are the most spacious areas hospitable for visual interactions with people and objects. The most visually exclusive spaces would have been beneath shaded colonnaded spaces in patios, and especially back rooms (Figure 6.3). Many of the back rooms may have been completely roofed by central colonnades.

Convincing visual data exist to suggest a preference for private daily social encounters at Samanco, divided among different sub-compound patio groups and various compound sectors. Separation between compounds likely emphasized visual interaction among individuals of particular compound units in their daily lives. The tiered separation of lower areas and raised platform benches also created visual priority of individuals located on platforms (Figure 6.4). Such a visual hierarchy is reflected throughout Moche iconography between seated lords treating with subjects, often seen in the Presentation and Revolt of Objects themes (Donnan 1975).

Conversely, the general outline of Compound 3’s core, the corral, and the Plaza Mayor are the most visually dominant parts of Samanco’s architecture leading to their identification by Proulx during his brief survey of the site. These spaces were meant to visually impress visitors and residents alike. Habitual viewing of prominent site sectors in daily life likely imprinted their special status in the memory of Samanqueños. This should come as no surprise in the case of the Plaza Mayor, as public monuments are often meant to impress communities and visitors alike. The visual prominence of a camelid corral, however, is striking. As aforementioned, camelids were a relatively new addition to coastal Andean daily life, having previously been relegated to ritual use (Pozorski 1979b). The visual prominence of a monumental corral was likely a clear message of prestige through the (relatively new) ability to own a large herd of camelids. Aforementioned connections with nearby camelid-based geoglyphs in Santa reinforce the importance of visually perceiving their presence on the coast. Along similar lines, the defensive wall, originally measuring over 3m, lining the southern site border may have conveyed a clear message of site defense and probably a marker of fear within the community. Furthermore, because the site is hidden away rather than being visually prominent, it is likely that a defensive rather than aggressive attitude was taken by the Samanco community in regard to outsiders.

Light and shadows were the main symbolic realm of sight at Samanco, similar to other lower Nepeña Early Horizon polities (Chicoine 2006; Chicoine and Ikehara 2010; Helmer *et al.* 2012). The bright desert environment provides a backdrop for modifying light. Early Horizon religious monuments relied heavily on visual plays with light and the sun, such as solstice tracking at Chankillo in nearby Casma (Ghezzi 2006; Ghezzi and Ruggles 2007, 2011). Inside patios and residences, colonnaded areas produce shadows which contrasted with white painted architecture and sunny, unroofed areas. At the other Nepeña centers, this interplay of light and shadows was manifested in public art through the creation of stepped geometric murals set on platform benches and clay cones mounted into walls. At Samanco, light manipulation was limited to general architecture, but still played a major role in how the site was perceived. Shady areas would have been most conducive to long term interactions and activities due to the intensity of the sun, while sunny open spaces such as patio centers would have been more suitable for face to face interaction of groups or discernment of clear visual details.

Visual association with light and dark, meanwhile, probably developed at least during Chavín-Cupisnique times at ritual centers but became incorporated into residences and daily life at Samanco. At Chavín de Huántar, the gate structure above the site's galleries, the Black and White Portal, was built with white granite on one side and black limestone on the other, reinforcing the duality of light and dark. Otherwise, clear separation was made in regard to previous visual symbols, including a lack of polychrome fanged supernatural murals. Significantly with regard to sight, there is no evidence of any public representations of beings with eyes who could both perceive and be perceived by the populace, such as the figures which line Cerro Sechín's dual staircase.

As Weismantel (2014) points out, reciprocal visual interactions were a central performance with pilgrimage centers like Chavín de Huántar; indeed reciprocal visual interactions were commonplace to Andean encounters (Lau 2013). At Samanco, society was not under the watchful eyes of deity-like beings who were omnipresent at earlier ritual centers. Rather, patios were built to amplify light and push for face-to-face interactions between patios and encircling platforms. An important anomaly comes from the backroom graffito excavated in HP-1 (Figure 4.18), which depicts what appears to be the eye of a supernatural being in line with previous public arts, especially Sechín sculpture. Rather than being of size and scale for public perception, the eye is only 5 cm wide. A body is barely visible outside from basic stick figure lines, perhaps a reflection on the emphasis of the eye itself and seeing. This line of evidence suggests that activities associated with previous religious emblems may have been carried out in secrecy within the most private places of the household, and that they lived on in memory.

Sight and the Material Record

The built environment and desolate landscape immediately surrounding Samanco was largely void of color, but materials imbued the site with colored vibrance. Rich blue and red textiles brought color to visual personal encounters. Designs emphasized stepped geometric patterns seen in textiles, zoned ceramics and elsewhere in public art. Again, a preference for the color white is seen as the only color employed in ceramic decoration. Meanwhile, preference for indigo textiles may have been involved with connections to the sea. The blue pigment may have been derived from gastropods such as *Concholepas concholepas* and *Thais chocolata*. Red-painted textiles, shells, spindle-whorls, lithics, and even burial faces suggest a symbolic attachment to red, extant through millennia in the Central Andes (See Cooke *et al.* 2013) and especially Chavín times (Burger and Matos 2002). It is unclear whether Samanqueños would have had access to highly valuable cinnabar, although the discovery of obsidian confirms their ability to procure highland exotics. Samanqueños may have also replicated the rich vermillion color of cinnabar with safer and more readily available achiote extract, especially on clothing. Red pigment located on shells, especially *Mesodesma donacium* clams, and lithics, remains a mystery. Abstract circle-dot eyes were placed on many ceramics, suggesting symbolic connections between sight and ceramic vessels. An artistic canon of placing designs within stepped geometric patterns and zones mirrors the architectural emphasis of zig-zags and separations with inside and outside.

Mass quantities of brightly colored shells would have brought to life desolate sandy middens. Today, these middens are still richly colored with sun bleached shells some 2,500 years after their deposition. Deposits of shells in corner piles suggest domestic rituals involving the visual presence of sea materials. Based on available evidence, shells were the primary media of personal adornment, again suggesting a communal identity tied in with the sea. Particularly lustrous or colored shells such as *Argopecten* sp. scallops and *Prunum curtum* mini conch shells were worked into the most common body adornments. These pendants, I believe, served as visual markers associated with the much larger and symbolically important *Strombus galeatus* pututu horns. Pututus are depicted throughout Chavín iconography, and have been found in galleries throughout Chavín de Huántar's ceremonial precinct (Cooke *et al.* 2010). They were used throughout Andean history and prehistory in a variety of rituals, including the aforementioned temple ceremonies as well as fertility performances (see Herrera 2010). The difficulty in procuring such rare exotic shells created a need to make ceramic replicas later in time. At Samanco, *Prunum curtum* shells may have served as small, personal reminders of pututu symbolism in daily life. Here, the importance was not as much the ability to play the shell, but for it to serve as a visual reminder of Andean sea cosmologies.

Additional symbolic animals employed in the Samanco repertoire are Andean condor (*Vultur gryphus*) talons, the remains of which were found in Compound 2. The main habitat of the impressive condor, with wingspans over 3 m, is in the highlands and thus may have been an exotic import. Condor elements, especially feet, are portrayed on earlier zoomorphic figures. Thus, it seems likely that condor talons played a part in religious interactions inside the compounds. Along similar lines, the importation of anthracite jet mirrors, obsidian, and *Spondylus* sp. show links with earlier Formative ritual practices involving the procurement of exotic paraphernalia (see Burger 2008; Burger and Matos 2002). Visual spectacles may have also incorporated human remains. This is suggested from the worked human crania resembling polished bowls recovered from the Compound 2 patio fill. Disarticulated human remains such as fingers and feet may indicate decapitation. Furthermore, Burial 1 from the UE-2 back room showed evidence of cranial defleshing, perhaps as scalping. Therefore, Samanco likely ties in with the pan-Andean tradition of sacrificial spectacles involving violent visual experiences for audiences (see Benson and Cook 2001). Therefore, materials suggest that ritual aspects of Samanco's communal life was very much a part of widespread Andean religious traditions.

Most of the materials at Samanco were small, portable items which would not significantly impact the visual landscape. Therefore, the few large objects that did exist on-site likely held particular visual importance. Most notably, this would have included large tinaja jars used in beer fermentation. As discussed earlier, the production of beer and mobilization of festivals heavily influenced Early Horizon Nepeña society (Chicoine 2011b), and Samanco is no exception. The discovery of tinaja jars surrounding the Plaza Mayor suggests their visual connection to the actual areas where festivals were hosted. Rows of large cauldrons probably served as visual emblems for corporate-sponsored feasts at the Plaza Mayor, or near large patios inside compounds.

For the most part, visually experiencing Samanco's material world was a more intimate affair. To make sense of richly decorated items such as spatulas, jewelry, or fine ceramics, one needed to be in the immediate vicinity of the object. As Mills (2007) has noted in the case of the Puebloan Southwest, size and visibility of ceramic designs can correlate with scales of exclusivity. In some cases, such as spindle-whorls only a few cm wide (Figure 5.24), significant efforts went into decorating tiny surfaces with abstract geometric visual meaning. Many adornments visually elevate seemingly mundane items such as fish bones, shells, an ocarina pendant in the shape of squash, and a spindle-whorl in the shape of a neck jar.

Such artistic detail put into domestic objects suggests that they were not passively used and discarded, but were actively perceived and integrated into the visual landscape. Some were even ritually interred as offerings, such as the cooking pot beneath Compound 3's patio and the gourd filled with avocado leaves below the Compound 2 patio. These are examples of domestic rituals which tied the community in with the world of food. Looking closer at Moche iconography, mundane objects also play an important role in community maintenance. Namely, this occurs in the famous Revolt of the Objects scene where objects may even rebel against society during upheaval (Quilter 1990, 1997). Household rituals involving food offerings in domestic spaces were also probably a part of longstanding Andean ritual performances (see Cutright 2013). As a town of industry, maintaining the symbolic balance between society, sustenance, and the earth was a key part of Samanqueños' performance with household space.

The only representations of humans come from fragmentary evidence of ceramic figurines (Figure 5.23), although these may have been more widespread than the material record implies. A lack of human representation in art comes during a time when coastal Andeans were transitioning from abstract representations of anthropomorphs in Chavín-Cupisnique to more explicitly human representations associated with Moche. Prevalence of figurines within house compounds may be intentional, as evidence from Moche houses suggests (Bawden 1996; Hubert 2010; Ringberg 2008). Bawden (1996: 82) attributes household figurines to domestic religious practices. Some of the figurines may have also visually commemorated warriors, as figurine faces at Samanco resemble combat figures recovered at Chankillo (Ghezzi 2006: Fig. 3.4). Therefore, representations of humans by Samanqueños was limited to house compounds and may have been associated with widespread rituals in coastal Andean urban contexts. Communities may have especially valued symbolic representations of warriorship reflected in figurines, as well as other human figures linked to the household.

<u>6.1.2 Experiencing Samanco Daily Life: Sound</u>

Sound has recently become a significant pursuit for archaeologists (e.g., Aaron 2001; Abel *et al.* 2008; Boivin *et al.* 2007; Mills 2014; Moore 2005; Rifkin 2009; Watson 2001; Watson and Keating 1999). In oral societies, including our own before widespread literacy and technology, sound may very well have been the most privileged sense (see Classen 1999: 271). Classen (1990) argues for the intensely oral / aural nature of traditional Andean cultures, through the ability to listen to and therefore understand messages from each other, the landscape, and deities. The study of fields of sonic discourse, or soundscapes (Schafer 1977) provide pathways for tracking archaeologies of sound. For the purposes of this project, soundscapes reveal important information on the cultural ideologies of sound particular to a community. These can include patterns of sound projection, sound intensity, sound control, and even the absence of sound. Samanco's aural landscape, again, reflects a desire for sonic exclusivity. Indeed, clear boundaries placed in sight as well as sound within the Samanco compounds were key aspects of communal ideology. Below, a detailed presentation of soundscapes brings to life the daily sensory experience of the urban seaside town.

Hearing the landscape

The enclosed, hilly landscape surrounding Samanco creates a natural buffer which stymies the transference of sound from any direction except southward out to the open valley. As a result, the area can be remarkably quiet, almost completely silent as if in a vacuum, when sounds are not being projected. The desolate landscape means that limited floral and faunal ambiance is heard. However, the enclosed and almost pristine acoustic arena amplifies sound coming from the valley below, as well as sound emanating from the site itself. Under pristine conditions, sound can travel a kilometer or more. During the afternoons, heavy winds coming in from the sea distort the soundscape. As I illustrate below, such a sonic arena provides a backdrop conducive to sound manipulation at Samanco.

Outside of the site in areas where ancient Samanqueños frequented, a few sounds would have characterized daily life. Despite close proximity to the sea, the mountains form a sonic buffer blocking out any potential noise of the waves on-site. Therefore sonic connections to the sea were more limited to fishing trips. The estuaries formed where Nepeña and its tributaries dump are filled with rich sounds of the variety of sea birds recovered on-site. Some, such as cormorants, have a characteristic grunt which when combined with large flocks creates prominent noise across the shore. Inside the valley, sound is much more limited and mostly stifled by marshy vegetation. One exception is the rushing of water inside irrigation canals. Another is during earthquakes; the valley becomes alive with sound and is often the first sign of danger more so than shaking based on personal experience. Overall, the quiet natural soundscape provides an open arena conducive to human-made sounds.

Sound and the built environment

The built environment is the key arena where sounds, such as the spoken word and music, permeated Samanco’s communal interactions. As mentioned previously, labor investment into large stone and mortar walls rather than cane or adobe created clearer acoustic environment which preserved interior sound integrity while also buffering sound intelligibility to the outside. However, partially roofed structures allowed some sounds to escape. In order to quantify sound's effect on the built environment, sonic experiments were conducted. The study relied on a methodological framework pioneered by Hall (1966, 1968) and utilized by Moore (1996, 2005) with regard to ancient Andean acoustics. I focus on the concept of proxemics (Hall 1966: 107-22), where different types of interactions are reflected through distances of comprehension on a scale from intimate-personal experience on one end, to public at the other (Table 6.1). Cross and Watson (2006: 109) identify three sound variables which archaeologists can trace: sound intensity, sound duration, and spatial impression. My study focused on sound intensity as a means for tracking sound intelligibility and possible extrapolations for social organization.

Sound intensity was measured at three levels of audibility, following Moore (2005). The first level tested the audibility of personal interactions (estimated at 30-40Db) at a volume at which one would speak to another person in immediate proximity (2-5m). The second volume tested audibility at a slightly higher decibel level labelled as social interaction (50-60Db), at which one might speak to another in louder or more social settings, and a third volume labelled public interaction tested the audibility of panpipes (80-100Db), the inferred volume of public activities. Audibility levels were graded on a three-tier scale of comprehension: 1) hearing and understanding what was spoken; 2) hearing the sound but not understanding what was spoken; 3) neither hearing nor understanding what was spoken. Comparative sound tests were conducted from the center of the Plaza Mayor, and from the center of a patio from Compound 3's nucleus.

Tests were conducted with a speaker, a listener, and a recorder. The speaker (myself) orated random words or phrases which were then marked on a scale of intelligibility by the recorder on a scale of 1) hear and understand; 2) hear but not understand and 3) hear nothing at each of the three volume levels. The listener moved in transects in each cardinal direction, stopping at 10 m intervals for each test until sounds disappeared. The speaker kept each interaction level within decibel ranges by using a handheld decibel reader. Tests were conducted in the mornings before winds distorted the soundscape. Obviously, empty ruins bring some difficulties into recreating past sound patterns. A large settlement of probably a few thousand people would have created much louder ambiance than what tests recorded. Additionally, higher original wall heights would have muffled sounds more than tests show. However, tracking of sounds under pristine conditions provide a conservative baseline for further inferences on sound control. Results were plotted in contours (Figures 6.5, 6.6, Table 6.2).

Within the Plaza Mayor, personal interactions (Figure 6.5) were confined by high walls and platform benches, nearly identical to what has been reported at nearby Caylán (Helmer and Chicoine 2013). Intimate messages would have only been understandable within the confines of the plaza walls, and generally audible throughout the Plaza Mayor and neighboring Compound 2. Similarly, social interactions were understandable throughout the Plaza Mayor and Compound 2, but were still only audible to the upper terraced level of the site. For instance, Compound 1, despite close proximity to the plaza, was excluded from both visual and sonic private encounters emanating from the plaza. The panpipe test reflecting public events shows a much different picture, where musical performances were amplified. Sounds were funneled southward and audible up to a half kilometer down valley from a single panpipe. Combined with numerous panpipe players, festivals inside the Plaza Mayor would have permeated large parts of the valley.

Sounds from Compound 3 (Figure 6.6), meanwhile, permeated approximately double the area of the Plaza Mayor at the personal and social levels. As with the Plaza Mayor, sound contours align nicely with the limits of compound architecture, emphasizing the importance of constructed boundaries. The terraces leading down from Compound 3 form an acoustic buffer which limits the transference of sound southward. The Cerro Botella hillsides between Compound 3 and the Plaza Mayor block sounds as well as viewshed. The social distances and sensual boundaries between the two areas can be interpreted as intentional efforts at inter-communal exclusivity. Finally, as with the Plaza Mayor, panpipe performances and public interactions were much more permeable but were again stifled by Cerro Botella between Compounds 2 and 3. Overall, musical performances from Compound 3 did not have the ability to broadcast as well as the Plaza Mayor which is oriented down-valley more conducive to southward projection.

In sum, the built environment emphasized creating and maintaining social boundaries through sound. Plazas could actually be venues for private rituals. In other cases, they could broadcast and bring in participants analogous to Initial Period mound-plaza pilgrimage centers. Spoken sounds were confined to associated compound areas, and did not permeate to other compounds. As Moore (2005: 22-36) states, soundscapes correlate with social distances, particularly with regard to households in mobile societies. Moore (2005: 36-46) has illustrated the mobility of the house and fluid soundscapes from earlier Formative groups. In the Samanco case, clear differences are seen. Namely, established social boundaries within permanent compounds promote communal solidarity within the compound on one hand, while creating exclusivity between compounds on the other.

Sound and the material record

The material record further illustrates how sound permeated ancient Samanco life. The most sound-pertinent artifacts from Samanco are the clay panpipes which are found in high densities across the site (Table 5.7). Panpipe music likely accompanied daily activities, as evidenced by their high numbers in residential compound fill in addition to more formalized public events. Evidence for more intense public use comes from the disproportionately high number of panpipe fragments coming from the Plaza Mayor. These panpipes create a loud, spectral wind sound which was probably the preferred musical presence although other musical instruments that did not survive the archaeological record surely existed. Decibel meter tests showed that a single panpipe creates around 100 Db of noise within a 1 m range of the player. The sound is so loud, in fact, that prolonged playing creates a ringing in the ears. These characteristic clay panpipes appear to be much stronger acoustically than typical cane pipes. Inside the Plaza Mayor and interior compound patios, a single panpipe maintained around 80 Db of noise inside the structure. Conformity to size prototypes suggests specific ranges of sound were preferred, probably corresponding to octave ranges.

In a study of Nasca panpipes, Gruszczynska-Ziolkowska (2009) notes a correlation with octave ranges and tube sizes, and argues for a cognitive dissonant effect of grouped panpipe performances, rather than harmonization (see also Bolaños 1988). Moche iconography further suggests paired and grouped panpipe performance, with players often portrayed in pairs or even tied together (Donnan 1982: Figure 4). The level of breath required to play the panpipes almost necessitates group playing with interlocking notes. In contemporary ethnographic cases from the southern highlands, interlocking panpipe performances are common (Stobart 2002: 94-100).Therefore, panpipes were most likely the loudest sound experience at Samanco and a key part of group interactions and festivals. Their aforementioned omnipresence throughout Early Horizon coastal contexts further suggests a formalized musical culture particular to the time period.

Other characteristic city sounds would have included the barking of dogs, high-pitched humming and huffing of camelids, and guinea pig squeaks. Evidence for animals inside compounds, e.g. droppings, indicates that these noises were tolerated and formed daily occurrences not just in pens and corrals but throughout residences. The crackling of fires, especially at night, would have emanated out from the compounds. Residential sounds would have also included the chopping of wood, chipping of stone tools, meat butchering, and grinding of plants into meal on groundstones. Other activities, such as weaving and ceramic production would have been quieter. Ceramic firing may have occurred outside of compounds in makeshift subterranean earth ovens closer to the clay rich river beds like those documented by Shimada (2003) in Formative Period La Leche to the north. Noisier crafts such as metallurgy were absent. Mixed sounds of daily activities would have been heard around the compounds at the social scale of interaction graphed above. These daily activities in large, permanent residential patios, I argue, formed the primary basis of early urban social organization at Samanco.

6.1.3 Experiencing Samanco Daily Life: Taste and Olfaction

Smell, or olfaction, and taste are linked senses which allow us to ingest the outside world. The difficulty of tracking smell in the archaeological record has led to limited studies outside of obvious cases, such as incense and ritual (see Skeates 2010: 15). Scent-based archaeologies have recently become more common (e.g., Day 2013; Hopwood 2013; Jones 2001; Murphy 2013; Skeates 2010; Thomas 2013) and have emphasized the linkages between smell, identity, and memory. Here, I focus on similar concerns framed within the smells of daily practice. Archaeologies of foodways, meanwhile, are much more developed (see Bray 2003a, 2003b), especially in terms of political economy in the form of feasting (Hayden 1996; Dietler 2001).

Foodways associated with daily communal life, as well as more formalized feasting episodes, are discussed here as they relate to performance. Analyses of foodways reiterate the importance of subsistence and neighborhood commensality to Samanco's social organization.

Smells of the landscape

The smells around Samanco are very limited because of the desolate landscape. The windy, sandy environment leads to dusty experiences which clog the nose, something familiar to most archaeologists. Ancient Samanqueños decision to live in the dusty valley margins reveals an interesting community decision with regard to personal comfort, perhaps necessitated by defensive concerns. Just below the site, the smells of marshlands, flora and fauna bring the natural world to the nose. No plants of the valley bottom or crops documented produce particularly potent smells. The smell of the ocean permeates up to about a kilometer before the site. When visiting the upper valley, Samanqueños would have experienced a distinctive sensory experience of the much higher variety of flora, especially around the Moro pocket.

Remains of smells and tastes in the material record and built environment

With regards to the material record and built environment, smells and tastes are tied together. Smells of seafood were likely key sources of identity which distinguished Samanco from other communities. For instance, Almagor (1987) illustrates ethnographically that fisherfolk smell unpleasant to herders and other outsiders unaccustomed to pungent sea smells. Indeed, tolerances and prejudices of smell are often culturally associated, especially as they relate to vocation. Seemingly unpleasant smells of decaying sea matter are a part of daily life for maritime societies. In modern Chimbote, for instance, the massive amount of locally-produced fish and fish-based products creates a smell so strong that most outsiders, including archaeologists, identify the town distinctly for its smell. Meanwhile, local Chimbotanos almost take pride in the smells, and have a metaphor that the seafood odor is the smell of money. As the principal seafood producers in the area during the Early Horizon, Samanqueños probably associated with scents of the sea at a communal level.

Smells are often associated with class or status (Murphy 2013). In recent times, for instance, class divides in the Andes are often perceived by way of smells among rural farmers who smell of the earth, and perfumed cosmopolitans (Orlove 1998). Without evidence of established elites probably divorced from daily activities, most Samanqueños probably smelled of earth and sea scents associated with their subsistence practices.

An exception to the daily sensorium of smells at Samanco involves ritual specialists who certainly existed even after the decline of Chavín-related religious leaders. The snuff trays and stone mortars discovered on-site confirm hallucinogenic use. Inhalable psychotropics attach a supernatural aspect to the olfaction experience. The tenoned heads from Chavín de Huántar, for instance, show mucus running from the noses of anthropomorphic figures transforming from human to feline-like forms (see Burger 1992). By explicitly showing mucus, artists highlighted the importance of the olfaction process in the recognition of supernatural transformations. The burning of chili peppers and smoke chambers, as evidenced at nearby sites like La Galgada (Grieder 1988), further highlights the placement of smell in ritual encounters. Indeed, the nose may have been a vehicle for passing into the spiritual world.

Realms of food and taste were a key arena of Samanco's sensorium. The diversity of food stuffs recovered indicate a rich and varied food performance. This diversity likely afforded the commonfolk with comparative flexibility in their diet when compared to more socially differentiated groups. At the same time, food surpluses likely paved the way for gradually increased inequalities. Nearly identical food statistics from Compound 2 and Compound 3 indicate uniformity in the diet and reinforce a lack of social differentiation. Daily meals were served in small backrooms and especially patios which were linked to food preparation areas. Patios were probably the main venues for communal meals, and their size suggests large suprahousehold gatherings in the daily performance of eating. Taste experiences were not limited to certain members of society, although certain taste experiences would have been reserved for special events, such as the consumption of *chicha*.

Over 80% of vessels at Samanco were cooking, storage, or multi-function vessels which speak to the domestic component of site use rather than public ritual venues where serving vessels often pre-dominate (see Roddick 2002). The charred characteristics of neckless jars suggest they were primarily used for cooking. Their restricted mouths would have contained heat and minimized food spillage or contamination in a form conducive to stew cooking. Gourds and small-medium bowls were the preferred serving vessels for individual meals. Meanwhile, large bowls and deep platters or tazones with diameters up to 38 cm indicate preparation/serving of larger portions, likely for more communal consumption.

Seafood and starchy plants such as potato, sweet potato, squash, and beans probably accounted for the majority of the daily food experience. The micro-analysis indicates that starchy substances, namely potato, were served in liquid form inside gourds. These may have been starchy stews similar to *chuño*, a dried and rehydrated potato staple of the Andean highlands which smells quite pungent. Lau (2013: 146) has described the unique properties of chuño, where patterns of preparation and drying are culturally tied in with mummification practices. This dietary staple would have been a lifeline for ancient Samanqueños.

Starchy stews would have mixed well with shellfish and small fish such as sardines, as well as mixed vegetables and sea birds. Larger fish may have been grilled directly, or perhaps served in an archaic form of ceviche utilizing acidic fruits such as cherimoya. Some evidence for raw fish consumption comes from comparative parasite evidence from Caylán (Clement 2012), while we await parasite analysis at Samanco. Breakage patterns on caracol shells suggest they were eaten raw (see also Chicoine and Rojas 2012). The high incidence of chili peppers indicates a concern with taste and flavoring beyond basic food experience as sustenance. Evidence from Samanco suggests they became part of daily meals at least by the Early Horizon. At Caylán, for instance, chili pepper was found in 68% of coprolites analyzed (Clement 2012: 61) and may have been paired with seafood, which was evident in 100% of the samples.

The formal patio hearths suggest that Samanqueños ate in communal compound groups rather than small fragmented families, and that spaces were clearly delineated for eating. Patio meals were probably key times of socialization when different segments of the intra-compound community gathered and ate together. The elderly individual (Burial 2) buried beneath the kitchen may have even taken part in the preparation of many of these meals. Food procurement, preparation, and consumption likely shifted to these more extended early urban neighborhoods from smaller non-urban household groups. Daily meals may have been akin to small-scale, exclusive feasting events where food-based interactions enacted and transformed neighborhood identities. These patio food events could be likened to Dietler's (2001: 85) diacritical feasts which emphasize exclusion. However, patios were of sufficient size to also invite outside community members.

The scale of communal patio meals was amplified during episodic feasting events in central benched patios and plazas. In these cases, more extraordinary culinary experiences accompanied special events which served to (re)produce more regional ties and negotiate limited power structures. Feasts in Early Horizon Nepeña shifted from commensal events at earlier temples to more diacritical events associated with exclusivity and power (Chicoine 2011b; Ikehara and Shibata 2008). The slaughtering of large animals such as camelids and canines was probably a key part of extraordinary food experiences associated with feasts alongside consumption of *chicha*.

The importance of maize to the Early Horizon social landscape cannot be understated. This was an innovative, urbanized food experience for the time. Chicoine (2011b) suggests that neckless jars predominated over previous open buckets in the fermentation process as Nepeña groups shifted from manioc to maize-based beer consumption. At Samanco, large tinaja jars also served as *chicha* containers. The processing of *chicha* would have involved a grinding of the grains via the grater-bowls and grinding stones, then malted and fermented over a period of days. Beer and other liquids could have been served via spouted neckless jars typical to the time period. Samanco's chief prestige ceramic, the Stirrup-spout bottle, was probably a key part of *chicha* consumption. Malting of beer is more conducive to large-scale production and therefore a significant social activity. Samanco's compounds could have hosted relatively large events in their 1000+ sq m central patios, with participants funneling in via the long, winding, narrow corridors in procession-like fashion. During the last phase of Early Horizon occupation, the Plaza Mayor became the most monumental arena for festive occasions. The sweet/sour smells and tastes of *chicha* would have permeated the memory and identity of Early Horizon feasts. Evidence from the Plaza Mayor suggests maize played more of a role in public consumption than daily meals. Preparing *chicha* was probably based inside compounds and especially around the plaza. Eventually, *chicha* production in the Andes became so specialized that Inca female artisan compounds, or *acllawasi*, produced vast amounts of *chicha* for state-sponsored events.

6.1.4 Experiencing Samanco Daily Life: Movement and Touch

Movement and touch are haptic qualities of the senses which connect people and the outside world. Movement has received considerable attention in archaeology and social sciences more broadly as space syntax (Hillier and Hanson 1984; Penn 2003; Turner *et al.* 2001). Here, I also consider the experiential qualities of movement throughout Samanco's natural and built landscapes. Touch, meanwhile, is considered in terms of taskscapes (Ingold 2000), or bodily interactions with objects and people throughout daily activities (Tringham 2013; see also Skibo and Schiffer 2008). For Ingold (2000), the aforementioned taskscapes help to break down dichotomies between technical and social categories of analysis because daily activities are intensely inter-related and social. I consider touch (physical and social) as well as movement to be the prime senses involved in daily tasks. Samanco's flow of daily activities likely afforded much more mobility than later, more formalized urban-industrial communities but also contrasted with previous non-urban traditions in the area.

Taskscapes and the natural landscape

Moving about lower valleys and river deltas in coastal Peru is considerably easier than steep, narrow valleys and hilltops of the Andean highlands. As such, different patterns of movements dictated the lives of inter-related Andean groups. Movement across hilltops still would have required a command of climbing. Around the site, the main indicators of hilltop activity come from extensive defensive walls and isolated hilltop structures. Hillsides were also the primary building source, where stones were quarried out and hauled down to the site. The process may have been aided by pack animals, evidenced by thick ropes found associated with boulder fill inside the Plaza Mayor. The series of defensive walls around the hills at Samanco and elsewhere suggest that fighting and raiding may have mainly taken place in the hilly hinterlands. These are also dangerous places where venomous sand vipers (*Bothrops pictus*) frequent in comparison to the safer valley floor.

At Samanco the main inhibitors to movement in the natural landscape are the marshy, overgrown areas of reeds and sedges which can be difficult to traverse. However, the marshes would have been visited frequently in order to harvest reeds for making *caballito de totora* boats and for rope. The least cost path down to the sea leads through passes in the hilly northern valley margins. In these northern reaches, our team documented a number of Pre-Hispanic roads carved into the hillsides leading to different beaches and outcrops along northeastern Samanco Bay (Figure 6.7). This particularly calm area of the bay is where the modern Samanco port sits. Harvesting sandy shellfish would not have been overly problematic. However, exploiting rocky mussels (Figure 6.8) would have required high levels of agility to navigate the steep and slippery outcrops. In her forensic analysis, Trask noted healed wrist fractures in Burial 2 which may have been a result of falling, quite possibly from a similar scenario. Likewise, diving for deep water species such as *Argopecten* sp. scallops would have required a command of swimming and ability to brave the cold waters. Today, highly specialized divers farm Argopecten gardens in Samanco which are more than 10 m deep. Results refute the notion that shellfish collecting is necessarily a non-specialized and therefore ‘easy’ task which declines during increasing economic specialization. Because of Samanco’s orientation toward Los Chimús, it is also likely that Samanqueños took the longer trip toward the more southerly valley margins to harvest seafood.

They preferred to exploit sandier and less dangerous areas, evidenced by the types of fish recovered. The size of two-plus person curtain nets necessitates that fishing was a group-based, and therefore social activity. Today, Samanco's fishermen also fish in groups of family or close friends which form some of the tightest social bonds in the community. One can imagine that Samanco's compound groups may have organized fishing regiments in a similar way.

Complex seafaring was probably not a part of the sea-based taskscape. This is reflected at least in part by the lack of deep water fish recovered. This would have contrasted with the Moche at their urban capital Huacas de Moche, who preferred deep water hake (Rosello *et al.* 2012). Sea life at Samanco was especially different from the later Lambayeque, Chimú and Chancay coastal cultures who utilized large boats known as balsas to traverse most of the Andean coast (Emanuel 2012; Heyerdahl 1955; Lothrop 1932). Therefore, seafaring was much more limited. However, rudimentary totora boats could have been used to navigate from Samanco and Los Chimús Bays north to Vesique Bay near Chimbote and south to Tortugas Bay near Casma. In fact, navigation via sea would have been the easiest and most direct route to Casma because of massive dunes which separate it from Nepeña. Indeed, close material ties such as architecture, ceramic styles, and food materials between Samanco and Early Horizon Casma sites such as San Diego suggest direct contact on a regular basis.

The site's location some 2 km from the coast means that significant labor was required to carry heavy fish products, especially shellfish, up to the site. The usage of camelids would have provided the least cost method of transporting marine products up to Samanco and eventually to peer centers inland who relied heavily on sea-based products. The distance to the sea means that certain members of the Samanco community may not have made regular trips down to the shoreline, while it would have been a regular occurrence for specialists. The journey to the sea is made even more complicated by the fact that fishing may have been most productive at night. Today, the most prosperous fishing times are the pre-dawn hours when waters are calmest. Often times, fishermen will tie out nets for extended periods of time before returning home. Samanqueños may have even set up temporary shore camps to maximize fishing trips. In contrast, movement to and from agricultural areas was much easier, and probably more frequent for most of Samanco's populace. Groups probably moved to and from family plots or gardens like the one described from HP-10, rather than tending large corporate plots. However, plots were likely quite similar between compounds given the conformity of plant use among different compound sectors. Production of maize may have been more centralized and controlled than other crops to support *chicha* production.

Finally, one must consider the experience of movement inland, which was almost certainly predicated on the trade of Samanco's rich food base. I suggest this involved camelid caravans which may have met in the patios and plazas throughout the lower-middle valley enclosure compounds. Some evidence for this comes from the discovery of camelid droppings inside the Plaza Mayor and compound patios. Precise routes or ancient roads securely dated to the Early Horizon are still unclear. However, northern mountain ridge passes would have provided the least obstructed view to central Caylán, while Huambacho is much closer and easily accessed. Given a lack of evidence for production at Caylán and Huambacho, goods could have been provided in exchange for participation in commensal festivals and protection from raiders. Festive-based reciprocity was likely part of Nepeña's mobile social landscape throughout the Formative Period (Chicoine 2011; Helmer *et al.* 2012; Ikehara and Shibata 2008).

Samanco's relationship with more distant upper valley and highland communities is less clear. However, several lines of evidence suggest some type of contact, including shellfish resources found at Nepeña's upper valley sites and the faraway exotics at Samanco such as jet mirrors, stone bowls, and obsidian. Samanqueños probably also traveled to the solar observatory and ritual combat arena of Chankillo (Ghezzi 2006; Ghezzi and Ruggles 2008, 2011) for pilgrimage festivals possibly associated with the solstices. Close similarities to Pampa Rosario and especially San Diego also suggest direct contact between Casma and Samanco. However, the network of movement is primarily concentrated between Samanco, the valley bottom and sea, and the middle reaches of the valley up to 15 km inland.

In sum, movement about the landscape is indicative of localized networks among different communities, probably based on subsistence exchange.

Taskscapes and the built environment

Within the built environment, movement was much more culturally dictated than the natural landscape. Space syntax studies rely on the premise that built spaces are consciously modified to reflect particular ideologies. From the reverse end, space syntax can also be used to predictively model pedestrian traffic and modify the built world accordingly (Penn 2003). In fact, much of spatial analysis has dealt with both contemporary and ancient concepts of the urban environment (see Rapoport 1977). In archaeological studies, space syntax has mostly been used as an indicator of social control, spatial function, and the relative accessibility of connected structures (e.g., Chicoine 2006a; Cutting 2003; Cooper 1995; Dawson 2002; Ferguson 1996; Pearson and Richards 1994; Van Dyke 1999). Cutting (2003) has cautioned against over quantification of spatial data and taking their meaning as self-evident. Furthermore, the often fragmentary record of built structures can lead to flawed analysis (Cutting 2003: 5). Rather, more fruitful analyses come from utilizing visual aids for qualitative inferences. In this case, incomplete architectural data from the compounds have led me to take a more generalized approach to reconstructing Samanco's proxemics of movement. I utilize the isometric reconstruction of the excavated patio groups from Compounds 2 and 3 to illustrate spatial ideologies in the way Samanco co-resident communities were built and experienced (Figures 6.9; 6.10).

The figures show clear concerns with dictating and extending movement throughout the compounds in maze-like, zig-zag motion. Samanqueño architects confined movement to single file through narrow corridors and avenues. Access was graded on a scale of central patios forming access nuclei to smaller patios, which then funnel into smaller back rooms as the most exclusive (Table 6.3). These access patterns differ from the axial, two way motion of previous mound-plaza complexes which have a single pathway and focal point (see Moore 1996, 2005). Both north patios from Compounds 2 and 3 are separated by at least 25 m of corridors and four 90 degree turns between their respective central patios, despite being located just a few meters of actual distance away. In the case of Compound 3, a dual corridor creates 55 m of distance between the agglutinated north and central patios, extending and confusing the movement experience. Viewshed inside patios was enclosed by high walls and roofed colonnades creating a confused sense of direction. I believe this system was utilized to emphasize a liminal passageway between more elaborate central patios as spaces of presentation and interior rooms as spaces of seclusion and privacy. In this system, central patios could have been used for group-based activities including crafts, meetings, and festivals as semi-public courtyards. Peripheral patios may have been used primarily for communal meals, for instance the Compound 2 kitchen with formal hearths.

Patios utilize an “opposite entryway” technique, documented by Chicoine (2006a: 107) at Huambacho, which requires the user to pass through an entire patio to access rooms on the opposite end. Opposite entryway access systems were also documented at Caylán (Ortiz 2012: 188) and San Diego (Ghezzi 2000: 20) which highlight regional conformities in built spatial experiences. Avenues which dictate access throughout compounds are located on lateral sides of patios and measure at least 25 m long. Compound 3’s motion experience is further complicated by various levels of terracing leading 25 m from lower to upper patio groups, as well as the two 5 m deep ravines which border the compound’s center. All areas appear to have been used on a daily basis, and the interior location of the central patios necessitates traffic flow to get from one end of the compound to another, or to go in and out.

The intimate nature of backrooms probably accounts for their more prevalent usage in sub-floor burials. In the case of Compound 3, backrooms are extremely limited in terms of movement characterized by long, narrow rooms (avg. 4 x 10 m) bisected by colonnades which restrict open movement. These would be the most plausible locations where smaller subsets of families may have resided or rested. Unfortunately, the fragmented record of Compound 2 provides less spatial information on backrooms. Nevertheless, a clear spatial hierarchy is seen where outer compound areas such as ravines provide the most immediate compound access, followed by central patios, peripheral patios, and back rooms (Table 6.3).

I believe the Plaza Mayor operated as a more formal variant of the central benched patios inside the compounds. Our team was unable to document any intact entrances to the Plaza Mayor. Therefore, it is likely the Plaza Mayor had small opposite entryways analogous to the plazas at Huambacho and Caylán (Helmer *et al.* 2012). Unless one was residing in Compound 2, moving to the Plaza Mayor involved navigating across ravines and up and down terraces. If one were accessing the Plaza Mayor from the south in the vicinity of Compound 1, an 80 m zig-zagging avenue had to be taken up the 25 m of terraces. Inside the plaza, movement was further ordered by five surface levels divided between platform benches and the two open plaza floors. As discussed earlier, this leads to a performance of presentation.

Motion became further complicated through time. During the late phase of construction, many accesses were sealed. The outlines of previous entrances were left clearly visible with un-plastered seals. The north entrances of both Compound 2 and Compound 3's excavated patios were sealed and built up into small platforms which could have served as lookout points down to other compound rooms and out into the valley floor. Ghezzi noted a similar platform-building trend associated with later phases of San Diego occupation (Ghezzi 2000: 25-26). At Caylán, I documented architecture entombment associated with the access-blocking process (Helmer *et al.* 2013: Figure 11). Some seals may have been placed just before abandonment to symbolically close the settlement.

Overall, the spatial data of the built environment suggest a clear concern with exclusivity and graded access through extending and confusing the experience of motion. The inspiration for imbuing residences with complex motions probably came from earlier ceremonial mound top atria which tiered from open galleries through smaller and more exclusive ones (Moore 2005: 116). A key difference is the lack of axial, uni-directional movement. Rather, compounds are more akin to mazes with various pathways creating different outcomes.

The way these compounds would have been habitually navigated for compound residents familiar with building layouts is perplexing, and brings to light a number of inferences. This is not a pragmatic way of constructing a house, for instance, as it separates rooms requiring extra effort to pass through them. The fact that Samanqueños experienced such complex pathways in their daily lives certainly influenced behaviors, perhaps akin to disciplining the body in urban settings as Hodder (2006) has suggested at proto-urban Çatalhöyük in Anatolia. In other words, movement was not improvised and fluid as one might encounter in villages where houses are semi-permanent and dispersed. The permanence and repetition of this spatial ideology reflect urban qualities of formal neighborhoods, and emphasize the symbolic importance of the household community and the creation of social boundaries even at the cost of convenience. The level of attention paid to common residences is in many ways novel to this time period, whereas later in time formal compound residences were often reserved for the upper echelons of society.

Taskscapes and the material record

The material world brings further insight into taskscapes and communal organization. At Samanco, object worlds were often linked. For instance, nets were used to create textures on ceramics, and ceramic forms were replicated on spindle-whorls. I will illustrate an example of taskscapes involving movement and touch which linked various materials in terms of social life. A fruitful example is the flow of nets. Cotton, which was grown on-site rather than traded for, was first harvested in fields south of Samanco, where it began its long life history of use. Fibers would have been prepared for spinning and weaving which took place in the communal patios based on excavation evidence. Processes of learning are reflected by small twigs with spun fibers, possibly from children imitating weavers. Weaving of textiles and nets would have been a highly social activity inside compounds where communal relations were re-affirmed. Nets were then taken by fisherfolk down to the coastline and used, where they continued the long life history of use and repair before discard.

Curtain nets like those documented on-site require frequent upkeep. Fins, stones, and other sea refuse often cut the thin fibers. Today in Samanco, nets are repaired almost daily by groups of associated fishermen and families. Because of their size and smell, nets are made and repaired in open areas outside, including semi-public plaza areas (Figure 6.11). In fact, the only place where nets are not maintained is in the main plaza square area fronting the town church. Afternoon net upkeep is one of the main times for social interactions outside of the household, and is integrally linked to communal negotiations.

Ancient Samanco's patios were probably optimal locations for group-based netting. This is one example of many object cycles which engaged different artisans, community members, and landscapes through work. As Tringham (2013: 188) notes, "each step in the task had to be learned by observation, discovery, imitation, and demonstration, each of which is an important social practice contributing to a multitude of experiences in an endless process of learning". For me, these experiences are culturally embedded daily performances which were the primary forces behind early urban social organization at Samanco. These could be both intentional and unconsciously executed performances at different times, shaped by group experiences and the compound style residential environment.

6.2 Synesthesia: The Performance of Daily Life at Samanco

Through the preceding breakdown of sensual characteristics from excavation data, I have attempted to present a "thick description" (Geertz 1973; Ryle 1949) which contextualizes daily encounters and their place in early urban community organization Samanco. In many ways, the analysis brings to light taskscapes (Ingold 2000), or patterns of residential activities, which contributed to the habitus of early urban Samanco lifeways. Ingold (2000: 325) explains

"The tasks you do depend on who you are, and in a sense the performance of certain tasks *makes* you the person who you are. And finally, tasks are never accomplished in isolation, but always within a setting that is itself constituted by the co-presence of others whose own performances necessarily have a bearing on one's own" (emphasis original).

At Samanco, the performance of compound-based group activities, I argue, were the main arenas where early urban social ties were negotiated. These activities were culturally embedded through the sights, sounds, tastes, smells, and movements of daily life throughout the town and surrounding landscape. Physical and symbolic boundaries were made between inside and outside, with compounds built to achieve exclusivity and an overall disciplining of the body inside formal residential spaces. In terms of community organization, the neighborhood compound layout promoted innovative life forms which extended daily encounters to formal, multi-generational, and architecturally permanent suprahousehold groups living side by side.

Daily socialization at Samanco probably involved larger groups than previous non-urban settlements which allowed for more intensive modes of production involving industrial exploitation of marine and agricultural resources. In this way, site and personal identity were tied with subsistence industry. Samanco's compound-based neighborhoods could be thought of as archaic districts (Smith 2010) which were large, autonomous co-resident groups on the one hand, but not yet economically or socially specialized. Results suggest that households did indeed become formal political communities after the dissolution of mound-plaza centers, to re-address

Dillehay's (2004) questions from Chapter 2. Below, I comparatively place Samanco daily life into broader regional and socio-historical frameworks, illustrating innovations, continuities, and disjunctures from other coastal Andean eras.

6.3 The Performance of Daily Life at Samanco: Broader Socio-Historical Implications

Despite clear differences in scales of domestic settlement, religion, and socio-political systems, Early Horizon lifeways were inspired by Initial Period patterns. Namely, results from Samanco suggest that colonnaded atria on earlier mound tops and graded access inspired Early Horizon residential compound architects. While Initial Period mound tops focused on axial movement and direct procession, multiple corridors and passages encouraged more maze-like movement within later compounds. Previous patio group housing which measured less than 100 sq m per patio group expanded drastically into sprawling, high-walled residential complexes measuring thousands of square meters. Sensing thousands of co-residents on-site created new residential worlds which were navigated by creating spatially, visually, and acoustically exclusive neighborhoods.

The visual world, meanwhile, was much different with previous pyramids and Chavín-Cupisnique sculptures now in ruin or re-utilized as megalithic structures or squatter settlements. In contrast, the majority of residences became architecturally permanent, ubiquitous, and multi-generational, all criteria which Moore (1996, 2005) lays out for monumental, socially important, and in this case urban settlement. For instance, residences were built from non-perishable material and are still visible today, sequences of floor renovations suggest their usage over many years, and the way in which the compounds are built is replicated on a standardized level. Maritime taskscapes probably built on Initial Period fishing villages. Pampas Gramalote and

Puemape data from the north indicate that fishing communities probably produced surpluses promoting interaction with inland temple centers (Elera 1998; Pozorski 1979b; Prieto 2013). In the case of Casma, interactions between the seaside temple of Las Haldas and inland Sechín centers may have promoted coast-inland competition, rather than exchange (Pozorski and Pozorski 2006). However, Initial Period case studies stress the maritime-centric aspect of these settlements, reflected in their location away from valley bottoms and ideal agricultural areas. Samanco's movement to the river delta, meanwhile, suggests a shift in fishing lifeways to better accommodate agriculture and interaction with inland centers.

6.3.1 Political Economy and the role of Samanco as a Subsistence Industrial Community

Throughout the dissertation, I have been primarily concerned with internal social organization at Samanco. However, I have argued that Samanco's internal organization was built on subsistence industry which necessitates some preliminary considerations into cultural and economic exchange. Economic exchange in the Andean world is a perplexing topic because of the weight of available information on highland, Inka-based redistributive economies. Institutional economies are better understood, whereas household economies are less documented (Hirth and Pillsbury 2013: 7). This has led to a conflation of the two spheres of economy, and a downplay of possible market factors in everyday Andean exchange.

A recent study by Stanish and Coben (2013) brings significant new information suggesting the importance of barter markets in the Pre-Columbian Andes, whose roots may be traced to Samanco. Colonial documents mention the existence of a merchant class during Inka times who utilized vast road systems (Rostworowski 1977: 178; see also Mayer 2002), even though institutional economies were largely redistributive based on down the line reciprocal exchange. The coastal imperial Chimú, discussed later, were adept at garnering vast quantities of tribute, and the layout of their cities may have been primarily governed by bureaucratic and economic concerns (Topic 2003). Yet, the absence of formal hierarchies and specialization at Samanco suggest an economy more formulated around the household. During Chavín times, Burger (2013: 325) has speculatively argued for barter exchanges which occurred in tandem with more institutional distribution of exotics associated with pilgrimages and the Chavín interactional sphere. It is possible that during the decline of the Chavín sphere, these barter exchanges came to the forefront of economic interactions, especially with regard to early urban political economies like Early Horizon Nepeña.

During the Early Horizon, the decline of Chavín-Cupisnique created a number of different regional styles reflecting decentralized political systems (Ikehara and Chicoine 2011; Millaire 2012; Warner 2010). Around Nepeña, different types of sites developed within what I have referred to as the upper and lower-middle valley traditions. Due to a lack of excavation at upper valley sites, their relationship to valley politics remains unclear. However, numerous sites and fortifications imply high populations clustered into villages with megalithic multi-room monuments (Ikehara 2010; Ikehara and Chicoine 2011). Here, I am concerned primarily with the lower-middle valley urban enclosure tradition which manifested in similar forms from the Casma to at least Moche valleys. I identify at least three different types of lower-middle valley sites: 1) sprawling urban centers over 50 ha that probably served as capitals or primary centers, i.e. Caylán, Cerro Arena, San Diego; 2) secondary residential complexes such as Samanco and Pampa Rosario; and 3) elite residential and ceremonial sites including Huambacho, Chankillo, and Sute Bajo.

In Nepeña, Samanco's regional role beyond autonomous sustainability as a small town was predicated on the control and flow of marine and river delta resources primarily traded inland to Caylán. An important decline in the Early Horizon Nepeña political economy is the flow of exotics and prestige goods which typically sustain Andean leadership, such as ritual paraphernalia with Chavín or elaborate ceramics with Gallinazo, Moche, Nasca, among others. Therefore, I argue that the flow of domestic goods played a primary factor in Early Horizon Nepeña's political economy and regional organization, probably based on barter.

At Caylán, daily meals inside the urban center were based on seafood consumption (Chicoine and Rojas 2013). Supply routes between Caylán and Samanco probably spanned the northern reaches of the valley which were intensified through newly implemented camelid caravans. It remains unclear what goods or services Samanqueños may have received in return, although I have hypothesized that alliance building, regional sustainability, and defense played considerable non-market roles. Preliminary evidence suggests that higher quality seafood items stayed in Samanco, while more marginal sea goods were sent inland. This observation indicates a lack of centralization during the time period, despite intensified economic exchange. Future work will need to focus on clarifying early urban political economies between urban centers like Caylán and maritime satellites like Samanco through in-depth comparison of materials. Public events in plazas and communal patios may have been key times when communities gathered together in celebration but also to exchange subsistence goods, garner tribute, and negotiate power relations.

Although I have emphasized daily interactions and their role in negotiating early urban community organization, emerging leadership was probably more tied in with these extraordinary public events. As previously argued (Chicoine 2010, 2011; Helmer *et al.* 2012;

Helmer and Chicoine 2013), festivals probably became more diacritic, or exclusive, in comparison to earlier Nepeña public ritual gatherings at Cerro Blanco, Huaca Partida, and probably Punkurí. Samanqueños probably had a number of choices where to visit for public events and secure alliances through provisions of food. The Plaza Mayor eventually became a major public venue to promote Samanco leadership. Close similarities in architectural form, materials, and even renovation phases, suggest direct ties with Casma sites, especially San Diego. Wilson (1987: 64), based on Santa survey data, suggests that Nepeña was more closely tied with Casma than its Santa counterparts.

In sum, at least two new modes of social relations came to prominence during Early Horizon Nepeña: 1) The solidification and negotiation of communal ties through daily tasks based in enclosure compounds, and 2) Extraordinary public events of an exclusionary nature where emergent elites celebrated community prosperity through lavish festivals which bolstered their political clout. Economic exchange, I argue, was involved in both spheres of community interactions. In both cases, bottom-up methods of political cohesion were utilized where people ultimately voted with their feet. The latter case of elite hosted events may have paved the way for more formalized inequalities of the coming epochs in Andean prehistory.

6.3.2 Samanco's Legacy: Coastal Urban Life of the 1st Millennium CE

During the decline and abandonment of Salinar-related enclosures at the turn of the first millennium BCE, the legacy of proto-urban centers like Samanco influenced expansive kingdoms associated with Moche and Gallinazo, and eventually the Chimú Empire. However, it is important to emphasize the heterogeneity and non-linear development of Andean complex societies (see Dillehay 2014). Here, I focus on Salinar inspirations for these kingdoms and key differences which historically contextualize the Samanco study.

It is still unclear what caused the abandonment of Samanco and similar Early Horizon enclosure compounds around 100-1 BCE. To date, there is no stratigraphic evidence of environmental collapse associated with ENSO, as is the case with other coastal declines such as Moche (Bawden 1996: 265; Moseley *et al.* 2008; Uceda 1992). Samanco's major renovation phase occurred across the site, with clear parallels at Caylán and San Diego. More rudimentary pole and thatch architecture used atop leveled columns suggests tumultuous existence after early phases of occupation. At Chavín de Huántar, a ca. 500 BCE earthquake has been documented which could have accounted for late renovations (Kembel and Haas 2013: 37). Nevertheless, occupation persisted and suggests gradual abandonment.

Disassociation with Samanco was complete, with no evidence of intrusion by Moche or Gallinazo. Recent evidence suggests that Gallinazo and Moche were developing at least during the last phases of Samanco occupation around 100 BCE (Millaire 2012). This would seem to indicate completely new settlement and political forms which developed at the turn of the millennium coinciding with the abandonment of Early Horizon enclosures. A dearth of Early Intermediate Period sites in Nepeña brings to light a number of scenarios for settlement transformation: 1) a regression for some to village life in smaller, semi-permanent settlements less visible in the archaeological record; 2) significant migration to more populated EIP areas such as the Santa, Virú, or Moche valleys; and 3) population agglomeration in middle valley at the Moche stronghold Pañamarca and un-researched Gallinazo site Tres Marías. Indeed, the development of Gallinazo and Moche may have drawn Samanco residents to powerful divine lords and their temple-based cities and palaces.

The urban form of Early Horizon enclosures clearly influenced the dense, agglutinated layouts of EIP capitals such as Huacas de Moche (Uceda *et al.* 2002), Grupo Gallinazo (Millaire 2009, 2012), and the later Moche capitals Galindo (Bawden 1982a, 1982b), Pampa Grande (Shimada 1978, 1994), and others. Unfortunately, research priorities on elite mortuary contexts has overwritten systematic analysis of Moche domestic life. Limited residential data suggest increased social stratification at the household level. Elite urban residences are associated with centralized storage, specialized craft artisans, and access to camelid caravans (e.g., Bawden 1996: 85; Johnson 2010; Shimada 2001; Uceda 2010). Internal layouts of urban structures contain more rooms but smaller room areas with the disappearance of internal compound monumental patios and plazas. Ceremonial architecture becomes divorced from residences once again and is found in distinct pyramid-patio-plaza precincts associated with ceremonial leaders. Moche cities became "regal-ritual cities" (Boytner 1998) through sensing the presentation of divine lordship. Therefore, the experience of the Moche cityscape became distinct from earlier proto-urban contexts, characterized by daily reminders of religio-political authority. These included settlements under the watchful eye of elite temple palaces and distribution of materials associated with Moche identity, namely mass produced molded ceramics.

In terms of taskscapes, burdens of labor and tribute likely influenced the rhythms of Moche daily lives much more than their previous counterparts in places like Samanco. This is important for historically referencing the unique early urban situation associated with Salinar groups. The advent of the workshop would have fundamentally changed daily social identities to emphasize socialization of specialists over homogenized neighborhood production seen at Samanco. The permanence of centralized storage units re-affirmed the centralization of production to socially extended state-like apparatuses beyond the community level, at least at large urban Moche centers.

Surprisingly, Moche cities may not have relied as extensively on maritime satellites (Rosello *et al.* 2001; White *et al.* 2009), probably as a result of more expansive corporate fields and distribution (Billman 2002) than what likely existed during the Early Horizon. Seafood in urban capitals like Huacas de Moche may have targeted deep water delicacies such as hake coupled with a decline in interest over more readily available seafood such as sardines/anchovies and shellfish which primarily sustained earlier urban centers like Samanco and its inland peers. Therefore, urban diets probably shifted in terms of daily subsistence, as well as differential access to sea resources. However, the centrality of the sea to social identities remained unchanged, as boat scenes and sea creatures were key elements in the Moche iconographic repertoire (see Donnan and McLelland 1999).

The experience of the Moche world involved an increased number of elite religious pyramid complexes which dominated the visual landscape in both urban and peripheral settings. . At this time, art and visual experiences became less abstract and easier to digest by common members of society necessary for the successful implementation of Moche ideology (Quilter 2001: 41). Moche provincial palaces were key arenas where political subjectivities were negotiated (Swenson 2010, 2011) over much larger inter-valley areas than Early Horizon ceremonial centers. In other words, the scale of public life was probably much larger, socially stratified, and controlled via corporate religious ideologies.

Meanwhile, outlying hamlets continued a largely autonomous kin-based existence in low status dwellings still centered on communal patios (Bawden 1996: 83) where the majority of Moche populations probably lived. These residences, however, are less monumental and permanent than one encounters with Early Horizon enclosure compounds. Elaborate residences were reserved for the upper echelons of Moche society. The largest known Moche residential site in Nepeña, Cerro Castillo, is only estimated at 10 hectares (Rengifo 2014: 222), which is located in the foothills below the massive Pañamarca temple. Rengifo's excavations documented a continuation in patio lifestyles, but residences are built in less monumental forms. This emphasizes the point of non-linearity in ancient Andean societies. As a result, performances of daily life continued to permeate meaningful aspects of Andean communal identities bounded by more coercive and sometimes violent authoritative strategies enacted by divine leaders.

As mentioned earlier, Early Horizon enclosures bear much more direct resemblance to later Chimú urban settlements of the Late Intermediate Period post-dating Moche. Chimú enclosures are highly reminiscent of Early Horizon sites like Samanco, with high-walled compounds known as *ciudadelas* containing interior benched plazas surrounded by dense agglomerations of smaller rooms and patios. Around Samanco and centered in the Casma valley, a local variant of Chimú culture developed known as the Casma who built in similar forms with patio-based compounds. Vogel and Pacifico (2011) note similar organizations of patio groups at the Casma urban capital of El Purgatorio, set in much larger urban contexts pertaining to various levels of urban classes when compared to Samanco. Similarly, the Chimú's vast capital Chan Chan spans multiple square kilometers with an estimated population over 30,000 (Topic and Moseley 1985: 182). A key difference here is the further segmentation of multiple classes of individuals. Leaders lived in the most ornate compounds which became monumental palaces housing royalty and retainers. Mid-tier compound districts housed artisans and administrators, and lower tier "small irregular agglutinated structures" (SIAR) housed the lowest segments of urban society (Topic 1982). Thus, the urban community became divided into a series of subclasses which translated into radically different social organizations reflected in the roles and rhythms of daily life.

Taskscapes became increasingly oriented by tribute and taxation which reduced control in the mobility of daily life. Taxation became materialized through u-shaped administration complexes, or *audiencias*, inside monumental ciudadelas (Andrews 1974; Keatinge and Day 1973; Moore 1992; Topic 2003). Entering the ciudadelas, one would have sensed the bureaucratic power of the state. Meanwhile, secondary stewards operated in neighborhood districts by directly controlling the production of artisan goods on a daily basis (Topic 2003). The urban class became further confined socially to state-monitored industry. The innovation of Chimú raised field agriculture (Moore 1988; Pozorski 1987) morphed the sensory landscape into corporate plantations where the majority of their subjects probably spent their lives. Indeed, the ability to dictate and control daily encounters may have been key to Chimú success in consolidating their empire. In terms of public performance, the active presentation of leaders may have become masked through exclusivity. Samanco-reminiscent interior residential plazas in Chimú ciudadelas were geared toward private events such as funerary celebrations linking leaders and the dead, put on by specialized attendants and performers (Moore 1996b, 2004).

The exclusive nature of Chimú walled compounds and abandonment of pyramid-based regal-ritual cities of Moche is curious, and almost suggests a cycle between the two types of settlements. As illustrated earlier, a similar shift occurred between the Initial Period and Early Horizon, which manifested itself again through Moche and Chimú. Warner (2010: 548) suggests social memory involved with the inspiration of Early Horizon enclosure societies to Chimú societies. It is entirely possible that, after disillusionment with statecraft of the Moche, emergent Chimú leaders encountered the ruins of mythical ancestors spread throughout the landscape which provided a basis for their new ideology. While Warner had to rely on speculative spatial similarities, the discovery of Chimú tombs at Samanco makes the social memory scenario of enclosure compound inspiration more plausible. The Chimú built a provincial stronghold in Nepeña at Huacatambo, a small Chimú ciudadela located a few kilometers inland from Samanco. Given the centrality of ancestors to the Andean world (see Lau 2002; Rowe 1946), I would take the social memory assertion further with regard to Nepeña's Chimú. I suggest what could be called "deep" ancestor veneration associated with apical ancestors and forgotten ruins played a key part in linking Chimú urban structures to millennium old lost traditions. In this way, the site became imbued with an entirely new sensorium which played into the organizational practices of later Andean communities.

Finally, it should be noted that in many cases maritime villages were exempt from the subjugating practices of later kingdoms and empires. In particular, the Inka seemed less interested in asserting direct control over coastal fishing communities (Marcus *et al.* 1999; Sandweiss 1992, 1996) who as a result played a lesser role in their coastal expansion. A similar situation is noted from colonial times (Rostworowski 1977). In fact, contact period fishing communities spoke a distinct dialect known as *Pescadora* in the North-Central coast region which differed from the *Muchic* and *Quingnam* languages of valley farmers (Bawden 1996: 79; see also Torero 2002). The Chimú Empire, meanwhile, seems to have asserted more direct control over maritime communities. Evidence from Casma at the seaside site of Puerto Pobre, in particular, suggests state control over maritime production and delta cultivation (Koschmieder 2002). Chimú control probably extended to Samanco and Los Chimús Bays as well, where the latter may have even received its namesake. The Chimú leaders interred at Samanco may have been in control of the bays and corporate fields of the Nepeña delta.

To conclude, these socio-historical comparisons highlight the dynamic nature of Andean maritime communities and their relationship to urban infrastructures. In this summary, I have provided a brief and generalized view of daily practice in maritime and urban communities in the study region over millennia of successive complex societies. At the end of the Formative Period, cultural changes and patterns over time included increased economic specialization associated with settlement nucleation, which overtook religious pilgrimage-based temples in favor of early urban societies. Yet, communities remained autonomous and governed mainly through daily affairs by the extended household.

Much more information is needed on coastal Andean daily practices, especially with Moche, to adequately characterize how social and political life changed after the decline of Samanco and other Salinar-related enclosure centers. Additionally, better dichotomies need to be made within the broad “coastal” category which often clumps together seaside and delta groups with middle valley sites. Such divisions will aid in specifically identifying maritime communities and their placement within the lowland Andean world. In the Samanco case, coastal groups were not maritime-only specialists, but independent communities capable of providing their own cultigens and land mammals not exclusively bound by vertical archipelago models. It is important not to view maritime groups as inherently involved in urban sustainability, or fundamentally independent. Rather, case specific scenarios emerge through time which highlight variability in Andean complex societies. A performance and sensual approach has provided an important analytical framework to study social and political arrangements from the bottom-up, as daily life was experienced and negotiated by the majority of the community. The next chapter shifts themes to discuss modern Samanco’s connection to the ancient past.

CHAPTER 7
SAMANCO TODAY: ARCHAEOLOGY, PERFORMANCE, AND ANDEAN HERITAGE

The preceding Chapters 4 and 5 have presented and analyzed the Samanco dataset by contextualizing the Early Horizon site component in terms of daily performance. As discussed in Chapter 1, a more holistic understanding of Samanco considers modern perceptions and engagements, or performances, with local heritage. This chapter discusses local heritage in terms of modern performance with the ancient past. I begin by providing some reflexive analysis of my engagement with the ancient past as foreign researcher and member of the academic community and how this background shapes my performance with the ancient past which influenced the trajectory of the study. Then, I present local understandings of and engagements with the past by briefly presenting aspects of Andean identity and cultural patrimony.

I argue that engagements with archaeological sites are primarily governed by myth and folklore, which in turn effect the ways in which people interact with archaeological sites. These interactions are categorized here as ritual performance with archaeological ruins. Even when not specifically conducting rituals, local groups behave in particular cultural ways at archaeological ruins, influenced primarily by myths about spirits and the landscape. Local heritage is discussed focusing primarily on the site of Samanco which fits into broader Andean patterns. I argue that coastal engagements with the ancient past at Samanco are complex and involve contested arenas of heritage, fortune, danger, myth, and ultimately respect for *Los Antiguos*, the ancient ones.

7.1 The Archaeologist's Perspective: Reflexive Considerations in the Samanco Study

As Hodder (2003) points out, it is now imperative for archaeologists to recognize their positionality in research to reach a more informed and inclusive research product (see also Trigger 1984). In this case, my position as foreign researcher in Latin America has played perhaps the most significant role in my performance with this "cultural script", as Kapchan (1994) puts it. Reflexive analysis is especially important in archaeological study areas where indigenous traditions are still alive (Layton 1994), such as Latin America (Gnecco and Ayala 2011). Euro-American archaeologists, for better or worse, have used Latin American archaeological sites as "imaginary laboratories of social processes with which to back up Euro-American archaeological theories or political agendas" (Politis and Alberti 1999: 10). Undoubtedly, this study is heavily steeped in current theoretical trends on social complexity which must be acknowledged, but are nonetheless important avenues of thought on past lifeways which deserve their place in the research process. Asymmetrical power relations have unfortunately arisen in Peruvian archaeology, as financial difficulties have created a situation where project directors are more often than not foreign researchers (Higueras 1995: 398; Matos Mendieta 1994). Therefore, it is important not to see Euro-American theoretical interpretations of the archaeological past as singular truths, but as one of many voices in the construction of a multivocal past.

To invoke similar analytical strategies from Chapter 6, my experience of the archaeological site is based in the aforementioned Euro-American academic training. When excavating, I am generally looking for diagnostic traits of social processes such as communal spaces, monuments, neighborhoods, production areas, and other features which fulfill post-processualist research objectives and color my perception of the site. Meanwhile, Latin

American archaeologists are generally trained in more empirical and culture historical driven research objectives (Oyuela-Caycedo 1994; Politis and Alberti 1999: 9; Politis 2003), which create a different positionality. Obviously, these are general categories where there is overlap between the two archaeological stakeholders, especially with the recent influx of Latin American archaeologists who now have access to education abroad. Additionally, new and unique theoretical trends are developing in Latin America on their own terms (Politis 2003: 258). In the general scenario, Latin American trained archaeologists including project colleagues tend to experience Samanco more in terms of chronological or cultural diagnostic traits, such as ceramic typologies and construction techniques which reflect spheres of cultural influence. This is evident in conversations about the site and what colleagues mentioned in excavation notes. Such a dual positionality leads to two presentations of our work at Samanco, 1) in the form of social archaeological dissertation performed here; and 2) in the form of technical reports submitted to the Peruvian Ministry of Culture (Navarro and Helmer 2013, 2014). Both forms are often blurred, and are legitimate and complementary ways of (re)presenting the past. Understanding different archaeological points of view in Peru is important, as conflicts have often arisen between foreign and local ideologies (Burger 1989: 39).

My personal background also shapes the study in particular ways. Growing up with a Cajun background in Louisiana, performance played a crucial part in communal identity. Different festivals, most notably Mardi Gras, shaped my experiences and perceptions of human behavior. This background cultivated my interest in performance and the belief that culturally influenced interactions lie at the heart of social make-up. Other personal and group histories influence the trajectories of scholarship and experiences with the ancient past. For instance, the political realities of colonialism, social inequality, revolution, and civil unrest have shaped Latin

American archaeologists toward Marxist interpretations of the archaeological record (see Tantaleán 2013; Vargas Arenas and Sanojas 1997). As will be discussed below, indigenous movements, nationalism, and class structures continue to shape the perception, presentation, and performance of the Andean past.

7.2 Archaeology and Andean Identity: Performing with the Ancient Past

Lane and Herrera (2005: 122) sum up the need for archaeologists' understanding of local positionalities nicely, declaring in performance terms that "If it is well nigh impossible for us to adequately interpret the present indigenous phenomenology of landscape how can we propose to do this for the past?" This section is dedicated to those local positionalities as a way of framing local and often disenfranchised voices of the Andean past. Such a venture, I argue, provides a more holistic vision of Samanco's history in addition to the archaeological voice previously presented.

Contemporary interactions with the archaeological past in the Andes are heavily steeped in the aforementioned issues of colonialism, nationalism, and race which most often affect the top-down view and presentation of the past in public media. Before continuing, it is important to briefly outline basic concepts of ethnicity in modern Peru. In general, there is a cultural difference between coastal communities who have been more Hispanicized, cosmopolitan, and historically held more power through the capital of Lima, and rural highland indigenously charged highlands. Historically, the two regions have been diametrically opposed (Mendoza 2000) although recent migrations over the last few decades have blurred the boundaries of highland-coastal identities. Understanding class and cultural boundaries are key to the recognition of the various communities involved in archaeological practices.

At the top of the racial power hierarchy are *criollos* or white Spanish descendents who mainly reside in Lima and Trujillo; in the middle are *mestizos* or mixed blood Peruvians who hold more fluid identities; and at the bottom of the social hierarchy are indigenous Quechua-speaking groups pejoratively referred to as *indios* (Mendoza 2000: 16). Mestizos are difficult to define, have fluid identities, and do not conform conceptually to Western race categories (see De la Cadena 2005; Espinosa-Dularto 2004; Hale 1996). Rural coastal mestizos, or *campesinos*, are the focus of this study, because they are the majority of Samanco's populace. Archaeological dialogues in Peru, discussed below, are controlled by urban class criollos and mestizos and indigenous archaeologies are largely absent (Herrera 2011; Mamani Condori 1994).

Because of Peru's rich ancient past and colonial / indigenous present, archaeology plays a much larger role in public perceptions, debates, and national identities than in other places like the United States. Archaeology has played a key role in legitimating indigenous pride and identity through investigation, conservation, and public exhibition, most notably through the works of Tello (see Burger 2009). The *indigenismo* intellectual movement of national and indigenous pride started in the early 20th century and aimed to promote pre-Colonial Andean heritage as linked to contemporary identity (e.g., Mariátegui 1927; Valcárcel 1961). The movement used heritage to combat Colonial prejudices and improve the lives of peasants in Peru, although a disconnect between indigenous and academic voices and emphasis on modernization hindered the movement (Coronado 2009; Mamami Condori 1994).

Critiques of indigenismo have seen the state as trying to reclaim and synthesize the ancient past as national patrimony, which often excludes local participation and supports colonial hegemony. Indeed, because of the politicization of indigeneity, many communities in the Andes prefer to be defined in terms of a poor, rural *campesino* class rather than indigenous ethnicity

(Herrera 2011: 68; Mendoza 2000: 14). Nevertheless, indigenous pride is still widely invoked in the highlands. The most salient expression of indigenous identity is through *Tawantinsuyo*, the sacred, unified Andean realm of the Inca Empire now symbolized through a rainbow flag one can encounter in contexts as varied from governmental buildings in Cusco to automobile decorations.

Today, it is common for presidential and other political candidates to invoke populist appeal through connections with indigenous identity and the archaeological past. Most notably, ex-president Alejandro Toledo, from humble beginnings in the highlands of Ancash, held a highly politicized presidential inauguration at Machu Picchu in 2001 as a symbol of modern Peru's connection to its Pre-Colonial past. Within the last decade, political stability, economic development, and a series of archaeological discoveries have paved a new road of Andean heritage through commodification and tourism. Unfortunately, the burgeoning tourism industry has oftentimes created further disconnect and even resentment among local indigenous populations and their archaeological past through access restriction and a focus on international tourists (e.g., Ladkin 2002; Mitchell 2001).

Resentment toward the archaeological past is especially present on the coast, where local ties to the past are more complex and difficult to define. As a result, coastal relationships to the past have been a lesser concern of research than the more indigenous-associated highland areas. Silverman (2002: 894) argues that the archaeological past is in large part irrelevant to the identity of coastal peoples who are more disconnected from the indigenous past. For her, Nasca's past is being reclaimed and reinvented as a result of tourism. At Samanco, I found that although varied and hard to identify, there are certainly long-lasting traditions with the ancient past which play a key part in the lives of local communities. Before getting into the Samanco case study, below I describe the uniquely Andean ritualized practice of subsistence looting, an important part of the performance with today's archaeology.

7.2.1 *Huacas*, *Huaqueros*, and the Andean *Campesino* Identity

The understanding of local heritage and archaeological sites is inseparable from the indigenous concept of *wak'a*, or *huaca*, which refers to powerful energies embodied in natural features, buildings, special persons, as well as archaeological ruins (see Cobo 1964; Kemper Columbus 2004: 158). On the coast, huaca is largely forgotten in the Quechua sense referring to various locales in the landscape, and is synonymous with what we call archaeological sites. When one describes huacas in Peru, the first thing that comes to mind for local populations is *huaqueros*, or looters of archaeological remains better understood as subsistence diggers (Lange 1976; Matsuda 1994). Indeed, an entire lexicon exists for referring to the ritualized looting practice revolving around the huaca concept.

Systematic looting has gone on for centuries in Peru, starting with the arrival of Spanish conquerors led by Francisco Pizarro and establishment of the Viceroyalty of Peru. They literally mined archaeological remains through forced labor to exploit precious metals (see Zevallos Quiñones 1994; Talaván 2012). Indeed, strict regulations existed at the time which governed how looting could take place, and by whom (Zevallos Quiñones 1994: 10). The process was often debated on ethical grounds, even in the 15th and 16th centuries by members of the clergy. The Chimú-Inka tomb from UE-5 is believed to have been looted from this era of colonial exploitation. At this time, perceptions of the ancient past were tumultuous and characterized by genocide and forced dismissal of ancient memory. Indeed, presence at a huaca may have been faced with religious persecution of idolatries and thus archaeological sites were probably actively avoided (see Herrera 2011: 70).

Experiencing the Samanco site today, much like nearly all coastal Andean archaeological ruins, is characterized by hundreds or even thousands of small craters dug into the sand by subsistence looters over the last century. Today, there are two distinct types of huaqueros (almost exclusively male): 1) highly organized industrial huaqueros who come from other regions, often employed by clandestine dealers; and 2) local men who engage in subsistence digging in their free time (Pimentel 2000; Gunduz 2001: 14; Smith 2005). There is no denying the destructive practices of both types of huaquero; however, the traditional huaquero's direct connection with archaeological sites is important for understanding Andean relationships to the ancient past as another stakeholder. Smith (2005: 151) sums up the experiential qualities of the local huaquero with archaeological site as follows:

"Traditional *huaqueros* collect various kinds of knowledge about the past— sensory (tactile familiarity with excavation techniques and artifact types; visual recognition of typical site arrangements and earth stains indicating sites; olfactory knowledge of when a site contains undisturbed human remains and when it does not), abstract (a broader familiarity with the area and with theories of cultural sequences), and concrete (the artifacts themselves)."

Smith's observations re-emphasize the importance of understanding how the archaeological site is viewed through collective experience, learning, and performance by local people today. She has attempted to sympathize with the traditional huaquero by contrasting him with the industrial huaquero (see also Gunduz 2001), the two of whom archaeologists often conflate in widespread condemnation of the practice. Smith (2005: 156) sees a "de-legitimization of local knowledge" which devalues the expertise and point of view of traditional huaqueros who are often willing to participate in archaeological research. They have legitimate knowledge of archaeological contexts through systematic learning and pride in their work. Huaqueros are known throughout most of Peru and have even been popularized in the media through folk songs (Herrera 2011; Smith 2005).

At Samanco, huaqueros are also a key element in the perception of the archaeological site. As Smith (2005) notes, persecution of huaqueros has caused many of them to be secretive. While at first hesitant to identify themselves, our frequent presence throughout Nepeña over the years has created a familiarity conducive to dialogue. Often times weekend respites at local gatherings provided venues for exchanges of archaeological and huaquero knowledge. Many huaqueros were curious about our work, which I did my best to describe in terms of historical knowledge and preservation through promoting Peru's rich past. Some huaqueros voiced skepticism about our motives, while most have a general familiarity of archaeology through decades of archaeological work done in the valley. On multiple occasions, huaqueros have invited me to participate in a *huaqueo*, or looting trip, which I declined because of legality and ethical issues.

The defining experience of the huaquero and other local coastal populations with archaeological sites, I argue, is danger juxtaposed with potential fortune. Huaqueros must go out under cover of darkness, with threat of police persecution, and disturb the huacas which have mythical and supernatural powers. In reality, huaqueros are a small percentage of local rural populations who are willing to undertake the dangerous enterprise. This was illustrated through a conversation with a huaquero in Nepeña, where his non-huaquero friends jokingly referred that he was crazy for disturbing the huaca and would surely be cursed. Stories are often told about careless or greedy huaqueros being buried alive, a very real problem when tunneling into the loose coastal sands. To alleviate possible dangers, traditional huaqueros take part in *pago a la huaca*, or literally payment to the huaca offering ceremonies before and throughout each *huaqueo* or looting session.

The pago involves ritual communion of food and drink with the dead. A hole is dug into the huaca, also seen as *pachamama* or mother earth. Pachamama is a general aspect of the Andean ritual landscape which has been widely appropriated (Howard-Malverde 1997). The most common elements of the pago are coca leaves, alcohol (often homemade *cañazo* cane liquor in Nepeña), cigarettes, and candy (Figure 7.1). Offerings are made communally between participants, Pachamama, and the dead, before closing the hole and commencing excavation. Pagos are not limited to archaeological contexts; in the Andean highlands pagos are made to ancestral mountains, stones, and other special features for various outcomes (see Contreras 1985; Garcia and Juarez 2008). The pago has also been appropriated by modern day archaeologists (Herrera 2011: 80) including our own crew (Figure 7.2). Pagos provide appeasement with the landscape and the dead, as well as good fortune (Lane and Herrera 2005). More importantly to this study, pagos illustrate the communal aspects of interactions with the landscape and the dead.

In the case of huaqueros, I do not believe looting is seen as desecrating the dead, which often perplexes archaeologists, but a complex way of engaging with the past as a way of gift giving. Matsuda (1994) illustrated a similar case in Mesoamerica. There, huaqueros referred to artefacts as seeds or gifts from the ancestors. The state in which Peruvian huaqueros leave sites can be misleading. Huaqueros often leave human remains strewn across the surface and uncovered, which can be disconcerting to western concepts of corporeality and treatment of the dead. It would appear, however, that the significance of disturbing the body is not as important for Andeans. Rather, the symbolic act of offering and permission is more important than the physical destruction of ancient remains. In many ways, the traditional huaquero has become a steward of ancient cultural heritage in local villages, carrying on the age old tradition of appeasement to the huaca and communion with the ancestors (Gunduz 2001: 170). In sum, huaqueros can be neither condoned nor condemned, but are a mainstay in the modern day poetics of archaeological practice in Peru.

Although not documented specifically at Samanco, shamanic activities via witchcraft (*brujeria*) and healing (*curandera*) feature prominently in ritual performances with archaeological sites on the North Coast and elsewhere (Glass-Coffin 1991; Glass-Coffin *et al.* 2004; Seki 1996). Usage of archaeological sites for witchcraft was documented by Chicoine (2011; Personal Communication) at Huambacho. There, while the team was excavating, they uncovered a bundle of items which are used to curse an individual. The items included hair collected from the individual bundled with their photo and personal belongings. A person's hair is believed to hold parts of their essence which can be manipulated in addition to belongings. These are used to curse one's soul and cause *susto* or fright leading to death (Polia 2012: 197). These powerful bundles are buried at archaeological sites because of their supernatural qualities as huacas, used to inflict the individual. Chicoine noted that local co-workers were extremely distressed by the bundle upon being discovered because the curse could pass to them. This is yet another aspect of archaeological sites seen as venues of dread and danger.

In other cases, archaeological objects recovered via huaquería are used in shamanic rituals. Chief among these are *silbadores*, or bridge spout bottles made to create sounds and music. Three silbadores were recovered from the UE-5 tomb at Samanco, one of which was located in an upper layer suggesting it was taken out and interacted with during the looting of the tomb. Silbadores are often used to directly communicate with the ancestors, or *antepasados* through their unique whistling sound. They can also bring about blessings or curses, and are used by ritual specialists in incantations (Gunduz 2001: 60). Local legends dictate that these vessels can play on their own, bringing special messages from the dead. Therefore, ritual performance with archaeological remains is not limited to the site, but also incorporates objects found and associated with the dead.

Archaeological sites also feature in the broader campesino vernacular through public media. Public performance, such as dance and music, remain a chief arena for Andeans to negotiate contemporary identities (e.g., Corr 2003; Howard Malverde 2009; Mendoza 2000; Rogers 1998). There are two types of popular music in Peru which are mainly supported by campesinos and the urban underclass, known as *cumbia* and *huayno*. Huayno draws primarily on indigenous sounds mixed with harp, bass guitar, and keyboard made to contemporary pop music parameters (see Tucker 2013). Peruvian cumbia, or *chicha*, shares common elements of Latin American cumbia mixed with indigenous highland and Amazonian elements. Major archaeological sites serve as primary locations for cumbia and huayno videos to be shot, in addition to famous parts of the campesino landscape such as mountains and rivers. The usage of archaeological sites as venues for music videos of the mestizo and indigenous underclass reinforces the importance of huacas to the campesino identity.

In sum archaeological sites, seen as huacas, are primarily tied in with rural underclass identities. This includes huaqueros and through their omnipresence in the rural Andean landscape, as well as public performances and rituals which bind local communities to their ancient heritage. Below, I delve into the case study of Samanco's relationship with the archaeological past which shares the aforementioned elements, as well as interesting juxtapositions of myth, the supernatural, and reality as they relate to sensing the dead and the animated landscape.

7.3 Performance with *Huacas* and Archaeological Heritage at Samanco

Our work at Samanco provides a rare glimpse into performances with the ancient past as viewed through dialogues between foreign excavator and local community. The main informants for this study were Samanqueños who were either friends or co-workers I interacted with on a daily basis, or other locals who were engaged at public gatherings. Information was collected through informal conversations. I suggest that archaeological sites like Samanco are part of the daily experience of the rural Andean landscape that encompasses myth, nature, fortune, history, and danger realized through indirect and cautious reverence of the dead. This positionality needs to be acknowledged by Andeanists looking to better understand local perceptions of heritage, and to elevate local knowledge in our own presentations of the past.

Samanco's populace today is a mix of majority indigenous Andean, Spanish, and to a lesser extent African, Chinese, and Japanese migrant populations. Most of the population are recent immigrants from diverse areas of Peru, rather than long lineages of mestizo families which has created more of an non-stratified character to town politics. As a result, there is a plurality and fragmented nature of the town which is actually reminiscent of ancient Samanco's early urban organization. Neighborhoods are organized by families which were originally dispersed but have now expanded into permanent family districts. Family districts include migrants from the highland cities of Huaraz, Caraz, and Cajamarca, central coastal towns Huarmey and Callao, and north coastal towns Trujillo and Piura. Most families have houses in town as well as temporary houses on family farm plots in the delta where interaction with huacas takes place. We lived with the Mora family from Cajamarca, who migrated from the highlands after the agrarian reform of a military dictatorship in 1969 which was influenced by the aforementioned indigenista movement. Samanco's migrants have assimilated into a collective identity as artisan fishermen who take great pride in their vocational abilities and maritime connection. Maritime identities are enacted on a daily basis through socialization in the plazas and streets while nets, boats, and fishing gear are being maintained. Since most fishing takes place at night, there is a significant amount of daytime interaction when compared with farming groups.

The largest folk holiday is for San Pedro, the patron saint of fishermen. During San Pedro celebrations, a procession takes place throughout town and down to the seaside where bundles of offerings are set out to sea (Figure 7.3). At other times, neighborhood specific festivals occur when patron saints from migrant regions are celebrated and different districts demonstrate their hospitality by inviting the rest of the community. Political-hosted rallies and festivals also occur where politicians vied for influence through the age old Andean practice of demonstrating power through the ability to host lavish celebrations. The festivals provided ideal times to converse with Samanqueños about their identity and relationship with archaeological heritage.

In 2012, we distributed brochures with basic information about the archaeological history of the valley and what our goals were at the archaeological site. We distributed over a hundred brochures which were a massive hit with Samanqueños who often came to our house to ask for more brochures to give to other family members. The brochures also helped to stimulate discussions about Andean heritage. Many locals expressed a scientific interest in the archaeology of Samanco. Most concern was put on educating and creating dialogue with children. In

Samanco, as with other Andean towns, children are the pride of the town and some of the largest town celebrations are held for school anniversaries and graduations where children perform for the community. During school celebrations, children act out dances and costumed scenes from Peru's multiple ethnic identities, including coastal Hispanic *marinera* dances, Afro-Peruvian *criolla* dances, and indigenous highland dances specific to Samanco's migrant communities from Huaraz and Cajamarca.

The discovery of the Lord of Sipán on the North Coast (Alva 1988, 2001) featured as a key point where locals were familiar with scientific archaeological research. Most archaeological contexts have been collectively referred to by locals as *los Inkas*. Nowadays, massive finds like Sipán and the popularization of the Moche have led to familiarity with coastal cultures and a revitalization of the Muchic identity further north (Silverman 2005). Locals also refer to archaeological remains in terms of *los antiguos*, or the ancient ones, but references specifically in terms of ancestry are rare. The lone example in the area is a cluster of archaeological sites on the northern margins of Nepeña, where the area is referred to as *Valle de los Gentiles*, or valley of the ancestors. Rather, while most coastal peoples know they are descended from Andean groups, they prefer to recall specific archaeological contexts in terms of antiquity.

The ruined state of archaeological sites have caused them to blend seamlessly into the natural landscape. They are experienced in concert with the fields, mountains, and rivers of the coast. As such, it is difficult to refer to huacas as being anything different than an element of the sacred Andean landscape (Herrera 2011). While some sites are located in direct contact with settlements, most are located in valley hinterlands in areas steeped in myth. There are a number of myths pertaining directly to Samanco and others to the wider Nepeña area which highlight the cautious reverence of coastal Andeans to the power of archaeological sites, ancestors, and the natural landscape.

7.3.1 Samanco Myths: Clues into Archaeological Perceptions

Myths are one of the main topics which come up in conversations about Samanco and other ruins, which provide important insights into archaeological perceptions. Indeed, for most people the relationship to huacas is made more through the performance of storytelling than actual interaction with ruins, as is the case with huaqueros. The myths told about huacas and surrounding natural features in Samanco and Nepeña are not told as legends, but as cautionary tales about real events. The most widespread story told about the Samanco site is about a dangerous apparition called *La Gringa*, or white woman. She is said to reside primarily around Cerro Partido on the eastern edge of the site. She comes out primarily at midnight as a nude blonde or red-haired woman to seduce men who later become cursed and die. Policemen and taxi drivers are said to encounter La Gringa most frequently since they are on the roads at night. She appears as a bright light along the hillsides and chases her victims along the single road leading from the ruins to town. One of our co-workers on-site knew personally a policeman who is said to have come into contact with La Gringa. The policeman rushed home, slammed his door, but fell ill and died within the next three days. There was legitimate concern for us working at the ruins at times, because of La Gringa. Members of the community would often ask if we had encountered La Gringa, as she can also come out at mid-day.

The Samanco case of La Gringa corresponds with Lane and Herrera's (2005) findings from highland Ancash. There as well, legends are tied more closely to the landscape than to direct ancestors. The story of La Gringa is somewhat reminiscent of a famous (or infamous) myth from the Ancash highlands which tells of the Pishtaku. The Pishtaku is a white skinned demon who preys on human fat to sell, and his exploitative nature is probably linked to centuries of colonial domination (Herrera and Lane 2006; Lane and Herrera 2005; Weismantel 2001). La Gringa may share the same Pishtaku roots mixed in with the malevolent and siren-like qualities of huaca apparitions.

Cerro Partido and the Samanco ruins are home to other supernatural encounters with humans. During a trip at night to a festival in Moro up-valley, we encountered a car wreck at the base of Cerro Partido. Our driver explained that the wreck was probably a result of *La Viuda*, a widow dressed in black who roams the road below the Samanco ruins causing car wrecks. La Viuda may be a variant of La Gringa. In another case, two senior fishermen told of repeatedly seeing a massive *indio* wearing a poncho walking around the base of the Samanco ruins, who stared at them with completely jet black eyes before they retreated back to town. They were adamant about this not being a legend, but an encounter with a real ancient man they believed to be connected with the ruins. Indeed, interactions with human-like apparitions are commonplace at Samanco.

Another instance of human encounters at Samanco was told by another co-worker from Huambacho, who walked out to the site as a boy after seeing hundreds of lights in the area. He believed the lights to be from a town and went home to tell his father, who told him never to return to that area at night. The malevolent nature of spirits surrounding archaeological sites and remote landscapes at night may indirectly descend from a traditional Andean belief in a race of ancestral pagans who reclaim the landscape at night (Allen 2002; Lane and Herrera 2005: 116). These spirits can grant fortune through archaeological riches, but are volatile.

Legends are most often associated with powerful mountains and archaeological ruins or huacas, but also involve other natural features. A common sea legend in Samanco and throughout Chimbote tells of *El Ahogado* or the Drowned Man, a fishermen who was lost in times unknown that still cries out for help. Our team would frequently go on fishing trips in Samanco Bay on weekend evenings. One of our local co-workers was cautious to go because of a past close encounter with El Ahogado. He was new to the valley, having recently married into a Huambacho family and was unfamiliar with the legend. He recounted his first trip fishing with his in-laws who also work with us on-site. He encountered a man drowning at the base of the northern outcrops of the Costa Mal Brava while laying out the fishing net. As he was about to jump into the water to help the man, his in-laws shouted not to jump into the water, knowing it was an apparition of El Ahogado. This example illustrates that legends involving archaeological sites are similar to legends involving the natural landscape, and that the two are not necessarily dichotomized in rural Andean perceptions.

Although human apparitions are the most discussed supernatural forces within archaeological sites, certain animals also feature in the huaca landscape. A particularly famous Nepeña legend involves a dragon-like creature known as *Cacarama*. The name derives from the sound the creature makes as it moves throughout the northern hillsides of Nepeña between the middle valley and the sea. The legend states that a devious boy around the town of Capellania in the middle valley was very mischievous, and was punished by being turned into an algarrobo (*Prosopis alba*) tree. The tree occasionally animates into a dragon with algarrobo wings and preys on children in the remote hillsides. The legend of Cacarama is even featured in children's texts on the history of Samanco in primary school. Unlike apparitions, Cacarama is told more as myth than fact. Our local co-workers would frequently mention cacarama during excavation on foggy mornings, although reference was also made more humorously than with human site apparitions.

Other animistic tales more huaca-specific include animals who either guard or lead to archaeological riches. At the aforementioned Huaca Partida, a massive golden bull is said to guard the main mound of the site's archaeological riches. The story of the Huaca Partida bull has actually deterred site looting because of the danger. Many people speak of encountering animal presences associated with huacas. Members of our host family once recalled seeing an owl while playing near a huaca, just as they discovered a complete pot or huaco. The appearance of animals upon moments of archaeological discovery appears widespread, and is tied in with the connection of archaeology to the animated landscape (Lane and Herrera 2005: 125).

In other cases, gold or silver ducks are said to appear at huacas and lead to archaeological riches. In one particular incident on-site in 2012, a huaquero came up to the ruins and told us he had seen the duck leading him to the ruins. The man was distressed and incoherent. Many of our co-workers were leery of the man, who they recognized as being from a notorious family of huaqueros from Chimbote. His delusional state was explained by the fact that he suffered from *mal aire*, or literally bad air, from coming into contact with archaeological remains through incessant huaqueo. One of our archaeology students from the Ancash highlands stayed away from the man, believing the mal aire could pass to him. The man noticed and mentioned that the huaca and the power of the devil had corrupted his mind, causing him to perpetually seek riches from the ruins. Because of his erratic state, one of our local co-workers called the police to take the man away from the site. This very real encounter with a huaquero affected by mal aire really brought to reality the Andean perspective of huacas to skeptical outsiders such as myself. Lane and Herrera (2005) admitted to a similar situation through their fieldwork in highland Ancash. A series of unfortunate events caused them to reluctantly participate in pagos for permission which alleviated their bad luck and allowed them to continue their work more in harmony with the views of the local community, the landscape, and the ancestors. The experience led them to reconsider their science-only view of Andean archaeological practice, and is another example of legitimizing local knowledge within research.

Mal aire was an ongoing concern of co-workers and locals alike throughout fieldwork. In one case, a new co-worker in 2013 believed he caught mal aire by trying to work too quickly and not properly giving his offering and reverence to the huaca. He suddenly became ill and was unable to work for the rest of the week, which necessitated subsequent offering and respect. Mal aire is considered especially powerful around burials and valuable objects. Special pagos were conducted by one of our archaeology students from the Ancash highlands, whose grandfather is a *chamán* ritual specialist, at the field house to ward off mal aire. While excavating the tomb, one of our local co-workers mediated when additional pagos were needed, especially when strong winds picked up and the loose sand walls would blow into the excavation unit. He would spray cane liquor with his breath across the area, along with tobacco smoke (Figure 7.4). The act of blowing tobacco smoke features prominently in pago rituals (and more widely in most Andean and Amazonian rituals), and emphasizes the importance of breath as a vehicle for supernatural forces. From at least Inka times, breath was seen as *kamay* or a travelling element of one's soul as a "transubstantial essence" (Dean 2010: 35). As mentioned earlier, many of the Casma period looted burials at Samanco had copper placed in the mouth, probably to protect the soul's essence. In the mal aire sense, breath may be conceptualized as the transubstantial essence of malevolent spirits, and illustrates connections to the Pre-Columbian past.

Lane and Herrera (2005: 115) again note close similarities with mal aire in the Ancash highlands, illustrating a widespread and important cultural belief associated with archaeological sites. There, mal aire invoked fear of ruins and was contracted especially when metals were encountered and could even cause death. Metals, as the most commercially and symbolically valuable artefact, carry the most power and are therefore the most dangerous and costly offerings from the huaca. In some cases, mal aire can also bring mischievous consequences. One shop keeper in Samanco humorously recounted to her friends and myself the story of her friend who was showing off her earrings made from *chaquiras* or bead jewelry from archaeological sites. Her flaunting of the artefacts, they told me, caused her to become pregnant with twins via the effect of mal aire.

Throughout the narratives of archaeology and the supernatural, there are elements of temptation mixed with danger, which ultimately shape the way communities interact with archaeological sites. Often, the temptation is associated with riches put forth not just by the spirits, but by what people refer to as the devil. During Semana Santa, or Holy Week, preceding Easter is a popular time for huaqueo to occur, as archaeological riches are believed to be increasingly abundant during this time (Smith 2005: 151). In Samanco, one elderly evangelical man who was a longtime huaquero told me that elaborate pots, known as *huacos*, would appear out of the ground at the huacas during Semana Santa. According to him, the devil would place them there as temptation, and the pots would literally come up out of the ground or be just below the surface, as opposed to having to dig down for them. Semana Santa is often the main time when people directly interact with archaeological sites, as it is a work holiday and an occasion for families to go out and engage in half-hearted looting more for entertainment than actual commercial gain. This is often the time when local people who are not huaqueros develop a mythical connection with archaeological ruins, such as members of a neighboring family who encountered a foreboding owl on a casual Semana Santa trip to a looted cemetery. Yet, during other holy ceremonies, more benevolent spirits can appear at archaeological sites, such as sightings of San Isidro at Huacas de Moche during patron saint celebrations. Again, the juxtaposition of danger, fortune, and the supernatural permeate the experience of the local Andean past.

Dreams also feature prominently in Samanqueños' interaction with archaeological sites. In the Andean world, dreams are invoked in the construction of reality (e.g., Cecconi 2011; Cobo 1964; MacCormack 1991; Mannheim 1987). Historically, dreams have been most important through their use in divining, perhaps most famously at the ancient pilgrimage center of Pachacamac. Today, dreams are still important divining tools which involve premonitions about the future. Cecconi (2011) notes that traditional highland populations in Ayacucho mention dreams involving the *apus* and *gentiles*, or ancestors, in onerous contexts similar to what has been described here through the waking experiences of apparitions. In highland Ancash, local dreams documented by Lane and Herrera (2005) also involve ancestors, or *awilus* (Walter 2003), commanding offering, respect, and predicting fortune or misfortune relating to archaeological finds. The ancestors appear in complex ways that are foreboding and controlling, yet yielding the potential for good luck. At Samanco, co-workers and team members frequently had dreams where they claimed to predict events in the field. Some of these would relate to mundane finds, while others to very important events. In the most prominent example, numerous project members said they had dreamt about us finding a massive cache of riches. Toward the end of the project, the large Chimú-Inka tomb was discovered which local co-workers as well as Peruvian archaeologists on the project concurred with their dreams, claiming that the tomb was a sign of the huaca being pleased with our pagos and overall presence.

Finally, archaeological sites in Samanco are venues for reverence, wonder, and inspiration by local communities just as they are for archaeologists. The grandeur of Peru's ancient monuments is a continuous source of reverence for people the world around. In Samanco, locals would frequently remark about the craftsmanship of *Los Inkas* or *Los Antiguos* seen through the monumental constructions of huacas and their remains. In one particularly interesting story, the two elderly fishermen previously mentioned described a tale passed down through fishermen about inspiration from the huacas. The two recounted that the oldest fishermen they knew growing up told the men that the first modern fishermen, upon arriving to Samanco from the north, were struggling to catch fish. The early fishermen went out to the nearby huacas and found remnants of ancient fishing nets. According to them, the fishermen copied the clever designs of the ancient fishing nets and bone net-making mallero tools found at the huacas. This story demonstrates the symbolic importance of nets, touched upon throughout the study, but also the connection between modern fishermen and the ancient past. The two men also expressed disdain toward the colonial era for erasing the great knowledge of *Los Inkas.* This story bridges the gap of ancient and modern maritime specialists via social memory and tangible inspiration between modern communities and ancestral huacas.

7.4 Multiple Voices and Pasts Create a Sustainable Future: Performing Samanco

What becomes clear from the Samanco study is that today's coastal Andeans from rural areas are not divorced from their archaeological heritage. Rather, sites are often spiritually charged locations commanding a performance of fear, balance, and respect played out through myth, storytelling, subsistence looting, and popular culture. I have referred to this positionality above as a cautious reverence of the past. Archaeological sites are one with the broader notion of the rural Andean landscape, which blends mythical powers of the mountains, rivers, and seas with archaeological ruins. This landscape features prominently in the vernacular of today's campesino identity as distinguished from cosmopolitan hegemony. As has been noted elsewhere (Herrera 2011; Lane and Herrera 2005), the supernatural qualities of the Andean heritage performance is often incongruous with positivist archaeologists' conceptions of the past. Such conflicts of positionality lead to issues which have often precluded mutual understandings among stakeholders of the Andean past.

I have advocated for the legitimization of local knowledge and archaeologists' participation with that knowledge in creating a more holistic research product. Public archaeologies have only recently started to develop in Peru (see Higueras 2008; Saucedo-Segami 2011; Vogel and Pacifico 2004) which have taken different paths to local empowerment. Recent projects include the Sustainable Preservation Initiative headed by Larry Coben empowering local artisans through archaeological eco-tourism, as well as public works projects in conjunction with archaeological conservation projects such as Save the Moche by Brian Billman.

In addition to these Andean public archaeologies, calls have been made for empowering local communities through indigenous archaeology (Herrera 2011; Mamani Condori 1994; Smith 2005), something which has been emphasized here in the Samanco study. Herrera (2011) has pushed for archaeologists to participate in the Andean sacred landscape via pagos and other activities which demonstrate our respect and understanding of the Andean past. Ultimately, the goal of indigenous archaeologies will hopefully re-legitimate local knowledge of the Andean past (Smith 2005) and foster multi-lateral conservation awareness. In our case, opportunities were provided to three local Ancashino students who were part of the first archaeology graduating class of the local university in Huaraz (Universidad Nacional Santiago Antúnez de Mayolo). Their expertise and connection to local perceptions really strengthened our project, which has in turn provided them with opportunities to complete their professional licenses from the Samanco research. Furthermore, I advocate a much closer and more bilateral relationship with hired excavators who are often muted in the archaeological process. Often times, "workers" are segregated from researchers and students and are distanced in terms of knowledge and participation of research goals.

Our project involved the input of excavators as co-workers and integrated them into every aspect of the research. Aside from the aforementioned examples where huacas were tied in with the supernatural, local co-workers were especially interested in taking part in the scientific processes of excavation. Open dialogue allowed for them to participate as researchers to make contextual inferences throughout excavation. This involved bi-lateral discussions of where and how to excavate, where we benefitted immensely from their familiarity with the landscape. Such integration built trust and awareness in the community, strengthened the excavation process, and provided for the rich understanding of local engagements with huacas described here.

Accommodating for more public and participatory archaeology is not without its difficulties, especially in developing countries like Peru, which may be partly why such approaches have only recently taken up steam. In our particular case, government bureaucracies, a lack of funding for the Ministry of Culture, and political corruption have hindered the ability to conduct ongoing applied projects. We have been working toward building a community museum to house artifacts from the Samanco excavations in town, as well as some of the rich folklore presented here. In the current situation, the closest nearby storehouse is in Casma some 30 km south, which keeps Nepeña communities divorced from access to their archaeological heritage.

Our goal is to setup a small, locally sustainable museum which can exhibit our findings primarily to residents within the Samanco district. The museum will be supplemented by municipal funds and the flow of summertime beach visitors. Through collaboration with Samanco's most recent mayor and the local ministry office, we were able to secure a museum location and committee to oversee development. However, a recent political scandal involving corruption from Ancash's ruling party has ousted the mayor, and the future of the museum is uncertain. From our experience, long term strategies must be in place to account for the unforeseen consequences of applied projects. Other small scale resources were more immediately effective, including a project donation of archaeological books to the local school, geared toward children and young audiences. Such projects are necessary for the dissemination of archaeological knowledge to the local public which is ultimately the most vital tool today for preserving archaeological sites.

The single largest threat archaeological sites face today in the coastal Andes are new, expansive agricultural corporations who are purchasing vast swaths of coastal valleys. These corporations have shown to place no value on archaeological and local heritage, and their wealth has created little accountability. As a result, archaeological sites in Peru today face their greatest threat in centuries and perhaps ever, due to the mechanical capabilities of these companies being able to completely erase sites. Our project was involved with corporations on two fronts: a mining company which recently built a road through the center of the site; and a sugarcane corporation who destroyed a large portion of the southern site extent. We were able to gain support from the mining company, but the sugarcane company has destroyed countless Nepeña sites in recent years and faces little responsibility due to their parent company holding large influence in politics. The situation of corporate destruction recently reached a head last year when a company destroyed parts of El Paraíso, one of the oldest monumental structures in the Andes and all of the Americas. Archaeologists cannot hope to save sites without the awareness and support of local communities. Andeanists must empower local voices in creating awareness and a multi-lateral front for both expanding ancient Andean knowledge and combating the unprecedented destruction of the sacred huaca landscape.

CHAPTER 8
CONCLUDING FRAME: SUMMARY AND IMPACTS OF THE SAMANCO RESEARCH

The preceding thesis has elucidated the life history of Samanco, an ancient seaside town on the coast of Peru. I developed a framework of performance and community to analyze ancient Andean society and change. The research resulted in significant observations, conclusions, and avenues of future study. Foremost contributions pertain to ancient structures of everyday social experiences, seen as culturally dictated performances. In the Samanco case, everyday tasks and learning became parts of formal political units which transformed households into early urban communities at the neighborhood level. These daily performances played a major part, if not *the* major part, in negotiating Samanco's early urban transformations. Results bring forth new perspectives on social organization, suggesting that certain types of urban communities could thrive without authoritative or centralized political structures.

Results, summarized below, corroborate Hodder's (2006) position that performance of daily life is important and meaningful, and further our understanding of sociopolitical (re)production in complex societies. The last section of this dissertation has been concerned with reflexive considerations involving today's performances with archaeological heritage at Samanco. Contemporary performances with archaeological sites in the coastal Andes influence both the academic community and local campesino communities who live alongside sites. Archaeological sites, or huacas, are integral parts of rural communal identities, and are intertwined with the supernatural Andean landscapes. These conclusions, also summarized below, have attempted to present and legitimate local views and knowledge of the past which holistically inform our knowledge of Samanco and other sites like it.

8.1 Samanco: An Early Horizon Seaside Town

Samanco was essentially an early seaside town, dating to the Early Horizon from 500-1 BCE. While early surveys (Daggett 1984: 218, 1987: 74, 1999: 3-4) provided a general temporal framework for the site, our project was the first to categorize the nature of its occupation and refine its occupational sequence through excavations. The work furnished, for the first time, systematic new data on Early Horizon maritime economies and residential lifeways of incipient urban groups of Peru's North Central coast.

The study enhances current research dedicated to the investigation of Formative Nepeña life (e.g., Chicoine 2006a, 2006b; Chicoine and Ikehara 2010; Ikehara 2010; Ikehara and Chicoine 2011; Shibata 2010, 2011) and coastal urbanization during the Salinar phenomenon (Brennan 1978, 1980, 1982). Samanco has provided new and crucial data for reconstructing the roles of maritime satellite communities in early urban polities. Subsistence industrial exchange systems, governed at the neighborhood level, supported large residential populations. This pattern of early urban political economy appears to have taken precedence over previous exotic exchange systems associated with Chavín-Cupisnique. The transformation coincided with a general shift away from pilgrimage temples and toward monumental enclosure compounds and settlement nucleation.

8.1.1 Summary of Archaeological Data Recovered

The project relied on systematic mapping of standing walls and topography to reconstruct site sectors, density, and layout, followed by a combination of test and area excavations. Samanco's 40 hectare extent and 20 hectare dense architectural core is interpreted as six compound sectors of high-walled agglutinated stone structures. The compound sectors share common orientations/accesses, and are built around a series of patio groups comprising central patios surrounded by narrow corridors and multi-functional rooms. Compound sectors are divided by terracing, natural slope, and expanses in the desert. Test excavations from the six sectors, combined with material/spatial correlations and radiocarbon assays confirm the contemporaneity of all six sectors during the Early Horizon. Results suggest a large residential settlement probably numbering in the low thousands. Evidence indicated that this was a society with limited hierarchy, which probably shared power enacted during public gatherings.

On the spectrum of settlement complexity, Samanco could be seen as lying between the categories of “village” or “city”, which I have defined here as a town because of evidence for: settlement nucleation; central planning (neighborhoods, streets); long occupational histories; and high ratios of domestic materials and architecture. The site lacks scalar qualities of a city, as well as divisions of labor into districts and elite residences. As such, questions of early urban social life were most profitably explored through an investigation into the neighborhood household.

Limited time and resources combined with a large 40 ha site extent necessitated sampling of Samanco’s archaeological data. Compounds 2 and 3 were chosen to provide comparative insights among residences. Understanding conformity among compound sectors was key to establishing contemporaneity, variable spatial functions, and especially preferential access to materials reflecting hierarchy among sectors. Each compound was sampled through similar excavation areas of approximately 150 sq m, focused on patio groups. Compounds were built in identical forms suggesting formal spatial ideologies and probably architects operating throughout the area (See Chicoine 2006a: 114). Excavations documented multiple renovation phases suggesting long term occupation in line with urban settings.

A monumental plaza and camelid corral were also excavated. The Plaza Mayor served as the site's largest central gathering space for the entire community, built later in the site's occupation. The plaza was built as an amphitheater utilizing encircling platform benches around open spaces specific to the Early Horizon enclosure tradition (see Chicoine 2011b; Helmer *et al.* 2012). The monumental corral, meanwhile, is unique as possibly one of the earliest coastal Andean corrals documented. Its usage indicates the intensive management of camelids early in coastal Andean prehistory. I have argued for their usage as caravans, a longstanding Andean tradition, for transporting Samanco's marine wealth to inland population centers.

Two main phases crosscut the sectors and are interpreted as a site-wide phenomenon: 1) A large, centrally planned building event of colonnaded patio groups associated with variable floor renovations followed by 2) Leveling of columns, raising of structures, and blockage of certain accessways associated with more basic pole and thatch interior spaces. Many of Samanco's burials are documented from this renovation phase. The renovation is evidence of a community-wide restructuring some time before abandonment. There are no telling lines of evidence about Samanco's abandonment, other than the possible ritual sealing of entrances closing off the settlement.

Materially, dense deposits of primarily domestic artefacts attest to Samanco's lived in qualities and residential nature. The vast majority of materials pertain to foodstuffs and utilitarian ceramics, which contrasts with many earlier monumental sites where exotics and festive materials predominate (e.g., Cerro Blanco and Huaca Partida in Nepeña). Ceramic styles correspond with long Formative traditions, including neckless jars and zoned designs. Decorations derive primarily from local canons, such as Textile Impressed, Triangular Zoned Punctate, and Banded Lozenge techniques particular to Early Horizon Nepeña and the surrounding areas (Chicoine 2010a; Daggett 1984, 1987; Proulx 1968, 1973). These ceramic types are concomitant with other diagnostic local Early Horizon objects including ceramic panpipes, sherd discs, grater bowls, indigo-beige textiles, and polished slate projectile points. These objects and their styles suggest Samanco's place in Early Horizon networks which operated either outside of or after the decline of Chavín religious influence (see Ikehara and Chicoine 2011). Materials diagnostic to broader Andean spheres are Stamped Circle-Dot ceramics dated to late-terminal Chavín de Huántar (Burger 1993; Mesía 2007; Rick *et al.* 2010) and White-on-Red (Painted Incised) fineware bottles and bowls diagnostic to the Salinar coastal epoch post-dating Cupisnique (Larco 1944; Billman 1996; Collier 1955, 1960; Strong and Evans 1952).

Samanco's most telling material dataset came from the diverse array of food remains recovered, which were interpreted here as the site's lifeblood at both the local and broader sociopolitical levels. The settlement produced an extraordinary cornucopia of seafood, cultigens, and wild and domesticated fauna. The most important seafood resources consisted of sardines supplemented with other easily harvestable near-shore fish, as well as mussels, clams, and cockles. Seafood acquired locally helped maintain the town's population and also appears to have sustained inland populations such as peer city Caylán (Chicoine and Rojas 2013; Clement 2012).

Beyond marine subsistence, the project recovered dense remains of over 30 domesticated plants. The assemblage indicates complex agriculture at Samanco by the Early Horizon, and that seaside communities were not always maritime-only specialists who had to trade inland for fruits and vegetables. Maize was the most important and numerous cultigen, with evidence of terraced gardens on-site. Maize production was essential for Early Horizon public events through its use as fermented *chicha* (Chicoine 2011), and Samanco appears to have been a *chicha* producing and consuming center, mainly evidenced at the Plaza Mayor.

Canines, camelids, guinea pigs, and sea birds were the main sources of terrestrial meat which were also locally derived. Canines and camelids were probably luxury foods, given their rarity and necessity for other functions. The fact that all three food biotopes were provided locally (fishing, agriculture, animal husbandry) contrasts with Inka-based vertical archipelago models (Murra 1961, 1975) as necessarily extant for all eras of Andean prehistory. Rather, the Samanco data exemplify producer-consumer economies between large centers and smaller satellite towns in Early Horizon Nepeña.

In sum, Samanco excavations helped to build the culture historical record of Early Horizon Nepeña, refine sequences, and emphasize the importance of maritime satellites to sociopolitical development which have often come under fire (e.g., Haas and Creamer 2006; Raymond 1981; Wilson 1981). Critiques of maritime centric Andean hypotheses are important in considering coastal variability, but have created a situation where the uniquely rich Andean sea biomass has been overlooked in favor of generalized concepts of sociopolitical development centered on agropastoralism. The Samanco study has shown that early urban Andean polities did in fact rely heavily on marine resources to develop large residential communities, and such development did not lie with agriculture alone but a combination of different economic spheres (see Sandweiss *et al.* 2009). Nevertheless, marine communities and resources have varying levels of influence and roles for different coastal societies, such as Moche and Nasca (Carmichael *et al.* 2014; Rosello *et al.* 2001). Further research is needed which considers maritime communities not in general neo-evolutionary terms, but as agents in a diverse Andean prehistory. This study, meanwhile, has considered a maritime community on its own terms to outline a bottom-up approach for understanding urbanization through performance, the results of which are concluded upon below.

8.1.2 Ancient Performance at Samanco

I have been concerned throughout the Samanco research with tracking materialities of performance in archaeological contexts. I focused mainly on daily performance because of the site's residential character. Data were assembled into perceptual variables of sight, sound, movement, and smell/taste within Samanco's natural landscape, built environment, and material record. Both daily and public performances often centered on exclusivity. Samanco was consciously built into a ravine, most likely for protection in response to increased Early Horizon conflict (Brown Vega 2009; Daggett 1987; Ikehara 2010; Wilson 1987, 1988a) which influenced the way the settlement was perceived. Sights, sounds, and movements were restricted inside residential compounds by high walls, baffled entryways, roofs, and terraces. Light and shadows were manipulated through white painted compounds and contrasting roofed areas in the sunny desert setting, a marked shift from more elaborate supernatural public art of the preceding Chavín-Cupisnique era. Material representations of the self were muted, and were perceived through limited media via hand held figurines associated with household spaces. Smells and tastes imparted a maritime sense of place which contrasted with the inland sensory landscape.

Samanco's compounds could be thought of as neighborhoods which housed extended kin groups in permanent, multi-generational buildings. The perception of permanent residential structures marks a new and profound juncture in coastal Andean prehistory away from pilgrimage monuments associated with non-urban hamlets. Groups now pronounced their formal political identities through permanent, multi-generational residences. Yet, the experience of these neighborhoods relied on communal exclusivity as people navigated the newly congested residential settings. Rather than state-controlled enculturation in workshops or institutions, learning and socialization at Samanco built around the formal extended household units within individual compounds. Here, daily practice was predicated on subsistence activities which took place in central patios. Despite their subsistence role, these were highly social activities, where early urban communal identities were enacted, negotiated, and transformed through the performance of daily life.

Some examples of Samanco's daily performances put forth in Chapter 6 include weaving, net making, tool maintenance, food procurement and pre-processing, and communal meals among others. These activities extended beyond previous non-urban kinship groups, materialized inside the expansive compounds which facilitated new urban industrial ideals, yet remained decentralized when compared with later groups. Overall site conformity in layout and materials indicates similar group experiences and a relative lack of hierarchy. Leadership guiding daily activities was still centered on the now more extended household, which would eventually morph into the institutionalized practices of hegemony seen with Moche and Chimú.

I argue that leadership was fragmented and relied for the most part on limited permanent inequalities. Authority needed to be regularly negotiated through public and semi-public events. The multi-faceted patios at Samanco also likely served for episodic public gatherings involving food, music, dance, and procession. These activities were replicated on a larger scale at monumental plazas which mirror the patio design (see Helmer *et al.* 2012). Divided public spaces emphasize the decentralized nature of Samanco society. Meanwhile, public festivals and rituals also involved some continuation in pilgrimage. Sites such as Huambacho, Caylán, and Chankillo hosted public events where more regional communal ideologies were negotiated.

Overall, Samanco offers a double picture of performance: daily interactions on the one hand, and episodic elite-hosted events on the other.

Samanco's system of governance was successful, given the longevity of the site and others like it. Generations of ancient Samanqueños experienced this innovative pattern of enclosed lifeways over hundreds of years. Urban life was able to flourish without formal state apparatuses, largely due to the success of co-resident compound groups negotiating sociopolitical needs in daily life. The site was so successful, in fact, that no other site in the delta area surpassed it in size, despite more developed and urbanized political structures associated with later groups. The Casma and Chimú appear to have been especially inspired by the ruins of Early Horizon compounds. These groups built their sites through strikingly similar designs and possibly commemorated the ruins through social memory, as evidenced by the discovery of a Chimú-Inka tomb at Samanco. Further research will shed additional light on the intriguing post-abandonment usage of the Samanco ruins after centuries of hiatus during Moche times.

8.2 Samanco Today: A Spirited Landscape and Haven for Heritage

The analyses concluded upon above are but one of many stories which inform upon modern perceptions of archaeology, patrimony, and cultural knowledge at Samanco. As outlined in Chapter 7, the positionality of local communities and the researcher need to be acknowledged in today's archaeological projects. I have argued that the international, scientific archaeological voice of the Andean past is important, but has overridden that of other stakeholders. Ethnographic research conducted through informal interviews provided a wealth of data about modern Samanqueños' engagement with archaeological heritage and its relative influence on communities. Modern archaeological heritage is inextricably linked to the concept of huacas, magical energies/beings, and the sacred Andean landscape. Sites feature prominently in the coastal campesino vernacular because of their ties with rural areas in opposition to cosmopolitan identities.

Archaeological sites, or huacas, are venues for public performances, subsistence digging or huaqueo (although huaqueo is slowly dying out in Nepeña), and interactions with the supernatural. Supernatural encounters with huacas emphasize the cautious reverence Andeans have for the dead. Offerings are required to appease unpredictable and dangerous spirits, who if appeased, can grant gifts and good fortune. At Samanco, huaca legends such as La Gringa, La Viuda, El Ahogado, and Cacarama all illustrate the volatile, powerful human attributes given to the intertwined landscape of the mountains, sea, and the dead. By participating in the huaca tradition and recognizing the legitimacy of local knowledge, archaeologists can foster more collaborative goals with local communities who are also interested in the scientific aspects of archaeological research. Our work in this regard is aimed toward the long term goal of establishing a community museum at Samanco. The museum will showcase archaeological finds from our excavations, house a space for community workshops, and include the rich huaca mythology from the area.

8.3 Avenues for Further Research

Further research on Samanco would include a greater and more comprehensive analysis of Early Horizon Nepeña political economy. This involves a more in-depth comparison among site material datasets to better understand trade network dynamics between Samanco and its inland counterparts, most importantly the proposed centre Caylán. This research will contribute to newly invigorated debates about possible Andean markets, and the comparative analysis between institutional and household economies (see Hirth and Pillsbury 2013). In the future, other sectors would be excavated to develop a larger comparative database among co-resident communities. Theories of performance elaborated upon here would be enhanced with the data on political economy to remark on the archaeology of work and contexts of making in early urban coastal societies.

I also aim to explore the aforementioned idea of social memory and possible ancestor veneration at site ruins through detailed analysis of the UE-5 tomb dataset, and excavation of other tomb-like craters on-site. This work will lead in to a diachronic study of the Nepeña delta and Samanco Bay area by investigating nearby Chimú-Inka settlements. Finally, we hope to complete the community museum and conduct research into how the museum is received, how people interact with it, and how to better conduct public outreach projects. In sum, the study/thesis has laid the groundwork for sustained long term research in the Samanco Bay area.

In closing, I would like to turn to general impacts of this dissertation research. As Lau (2013: 2) has stated, archaeological inquiry ultimately begins and ends with a consideration of ourselves and others even more so than the objects and sites we study. I would add to this that we are foundationally interested in the human experience (Van Dyke 2013: 394). What then, does the Samanco study say about us? Broadly, the study is one which hopes to bring humans back to the forefront of archaeological inquiry to refine often de-humanizing reductionist and neo-evolutionary studies on social complexity. I have attempted to partially reconstruct the experience of daily life in an early urban seaside town, based on all of the available material evidence. The results provide encouraging evidence that complex, urbanized sociopolitical structures could be negotiated without state-level coercive and authoritative force. Moreover, delving into rarely considered experiential and performative qualities of the archaeological record brings us closer to the ancient others we strive to understand. The study encourages other archaeological ventures into past experiences to further enrich our connection with those before us.

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The Archaeology of an Ancient Seaside Town:

Performance and Community at Samanco, Nepeña Valley, Peru

Volume 2

Figures and Tables

Matthew Helmer

December 2014

Figure 2.1 Map showing primary river valleys and major sites from Peru mentioned in text.

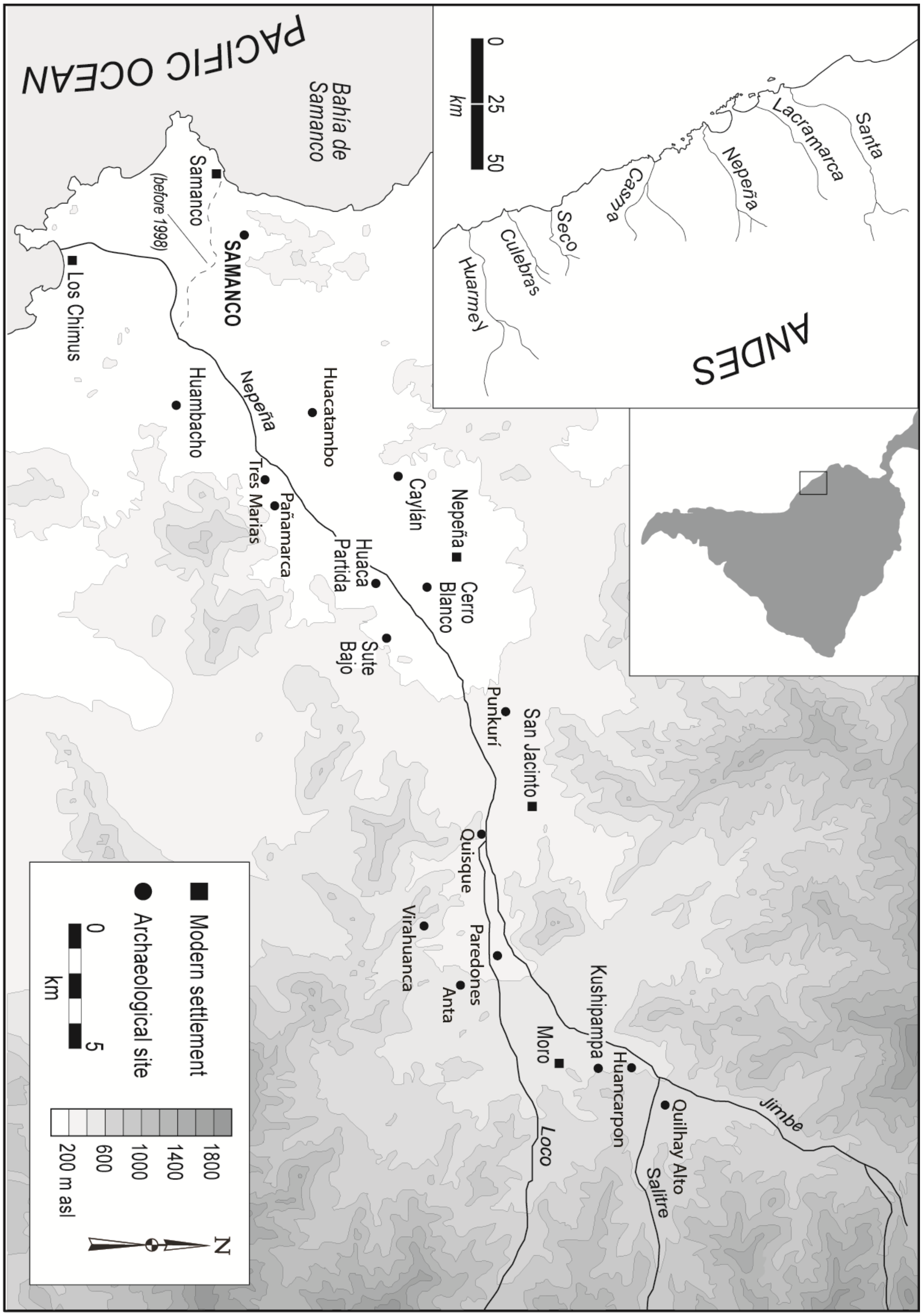


Figure 2.2 Map of the Nepeña Valley displaying geography alongside modern and ancient habitations.

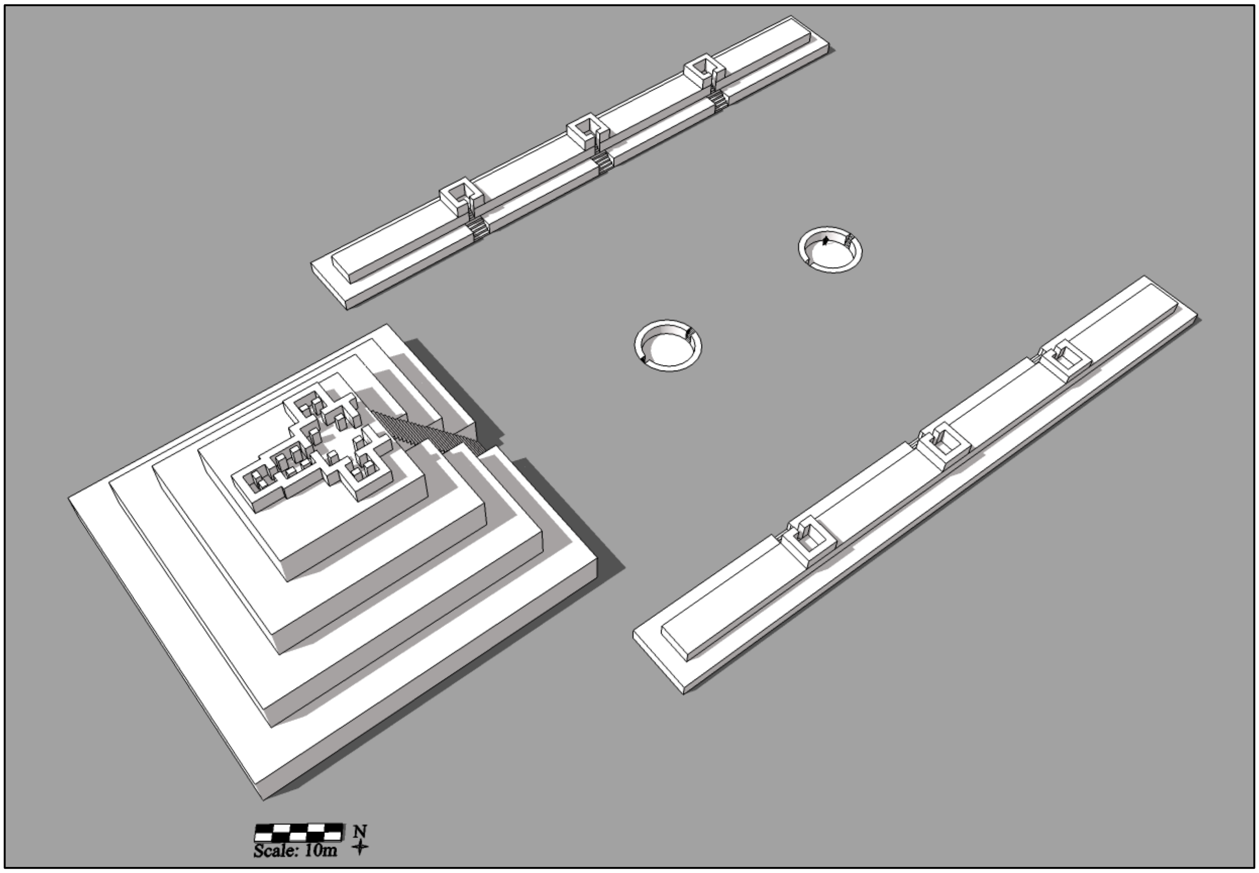


Figure 2.3 Isometric reconstruction of a generalized Initial Period mound-plaza complex.

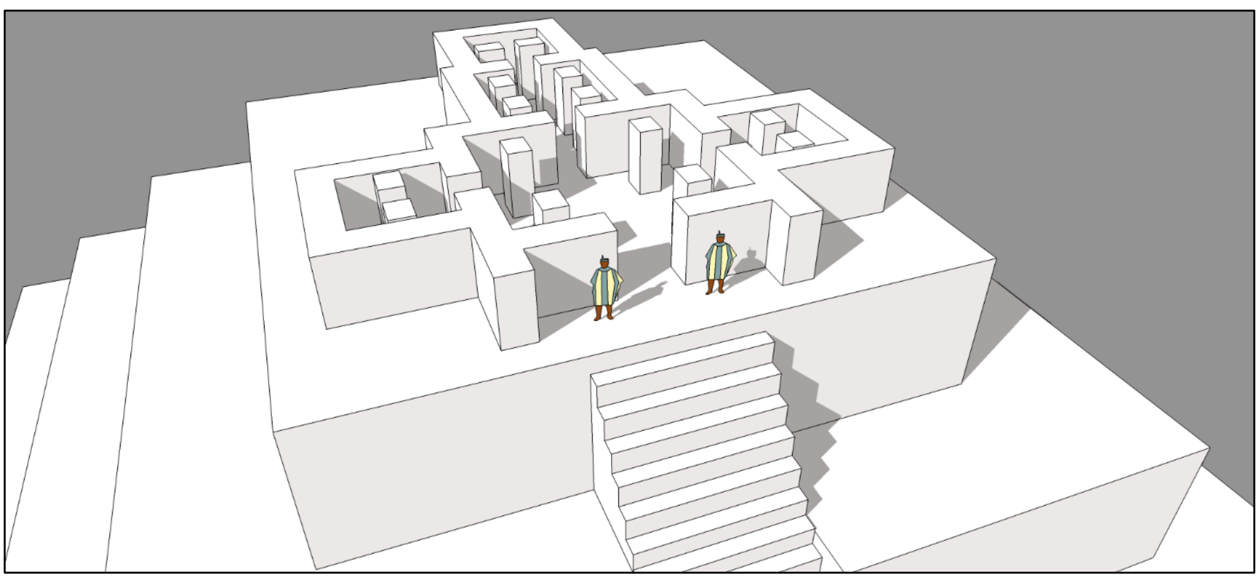


Figure 2.4 Isometric reconstruction of a generalized Initial Period moundtop atria.

Figure 2.5 Example of Initial Period Chavín-Cupisnique public art from Huaca Partida in middle Nepeña (Reproduced with permission from Koichiro Shibata).

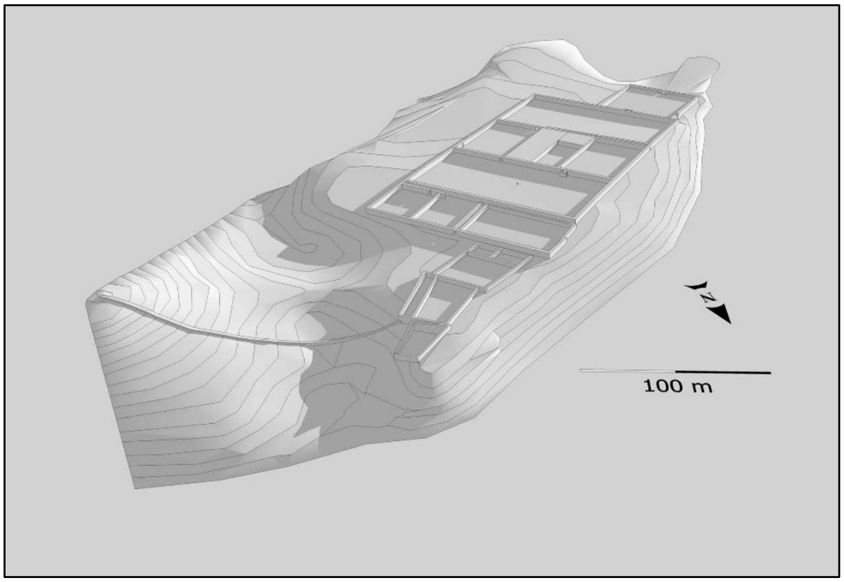


Figure 3.1 Isometric reconstruction of Early Horizon upper Nepeña site Kushipampa’s megalithic core (Courtesy Hugo Ikehara).

Figure 3.2 Example of Early Horizon upper Nepeña tradition megalithic architecture; corner stands approximately 4 m high.

Figure 3.3 Map of Early Horizon middle Nepeña site Caylán with Plaza A area shaded (Courtesy David Chicoine).

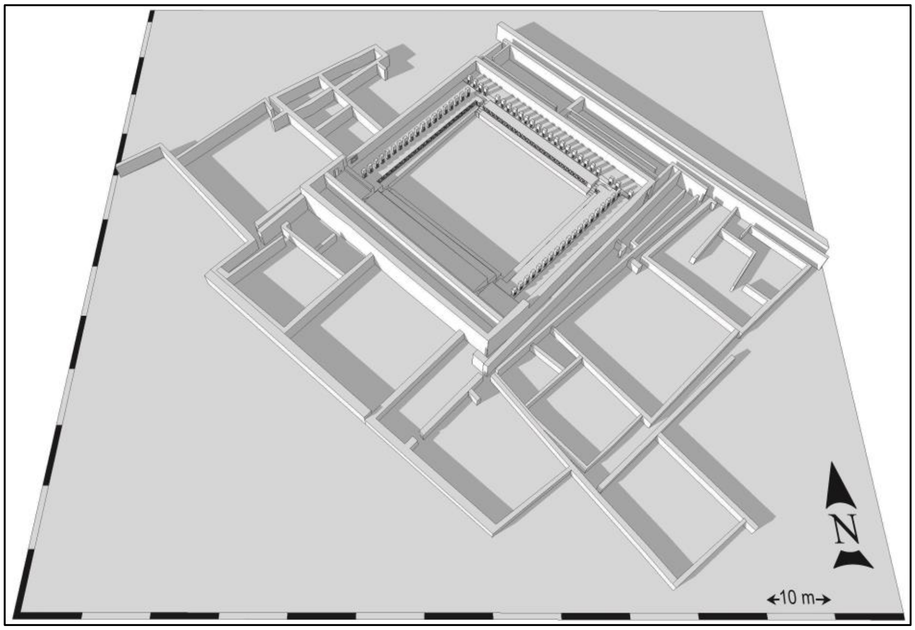


Figure 3.4 Isometric reconstruction of Caylán's Plaza A and surrounding compound architecture.

Figure 3.5 Stepped geometric friezes along Plaza A's platform bench faces.

Figure 3.6a Samanco's main port for the Bahía de Samanco, in the center of town.

Figure 3.6b Local fishermen and artisan boats in one of the town's plazas.

Figure 3.7 Satellite imagery of the Samanco ruins (Courtesy Google Earth, Digital Globe).

Figure 4.1 General photo of Samanco looking west.

Figure 4.2 Marsh systems along the southern site perimeter leading down to the sandy beaches and dunes of southern Samanco Bay.

Figure 4.3 Map of Samanco. Sectors, prominent architecture, and defensive walls bolded.

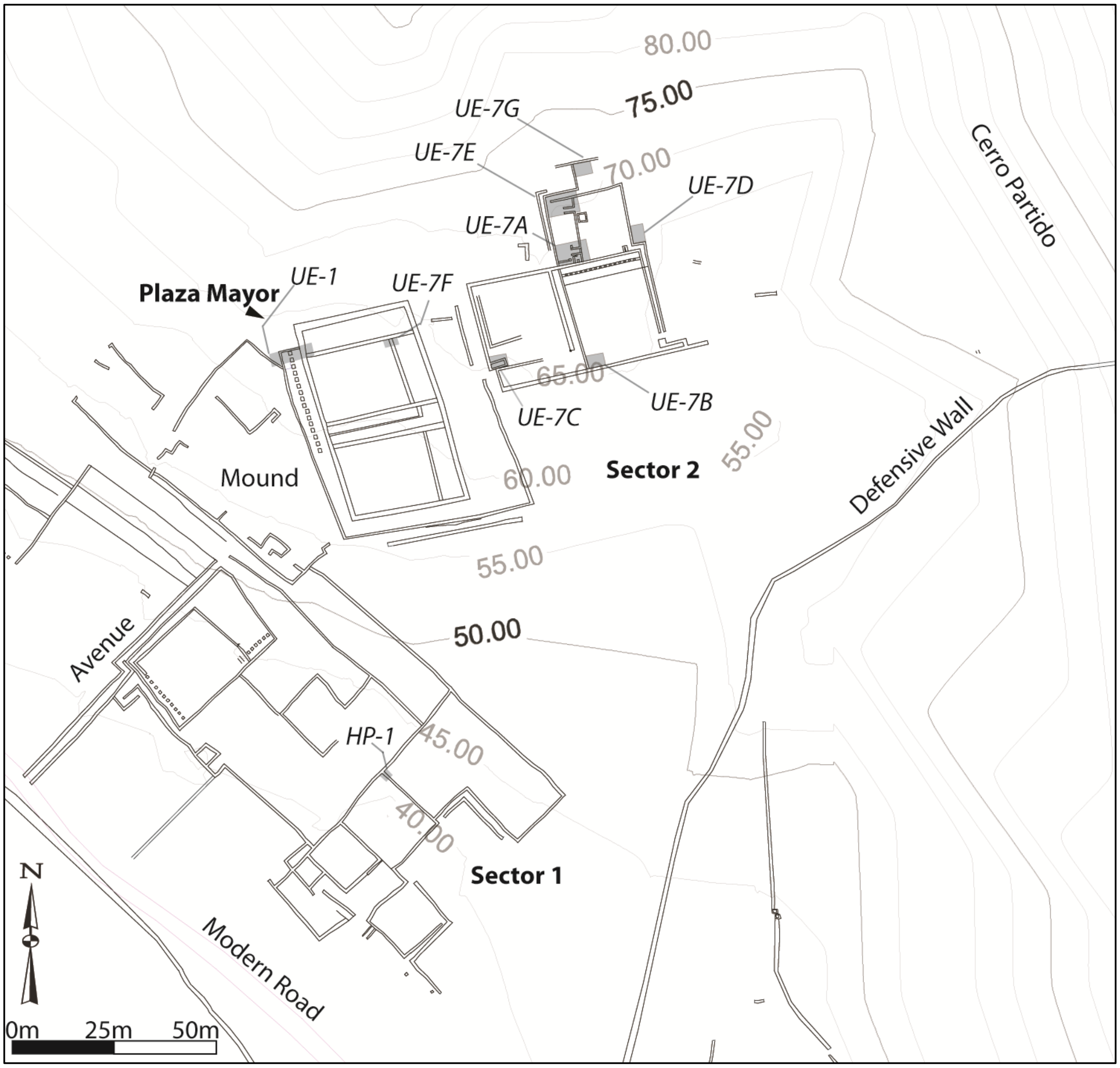


Figure 4.4 East Samanco architecture and excavation areas.

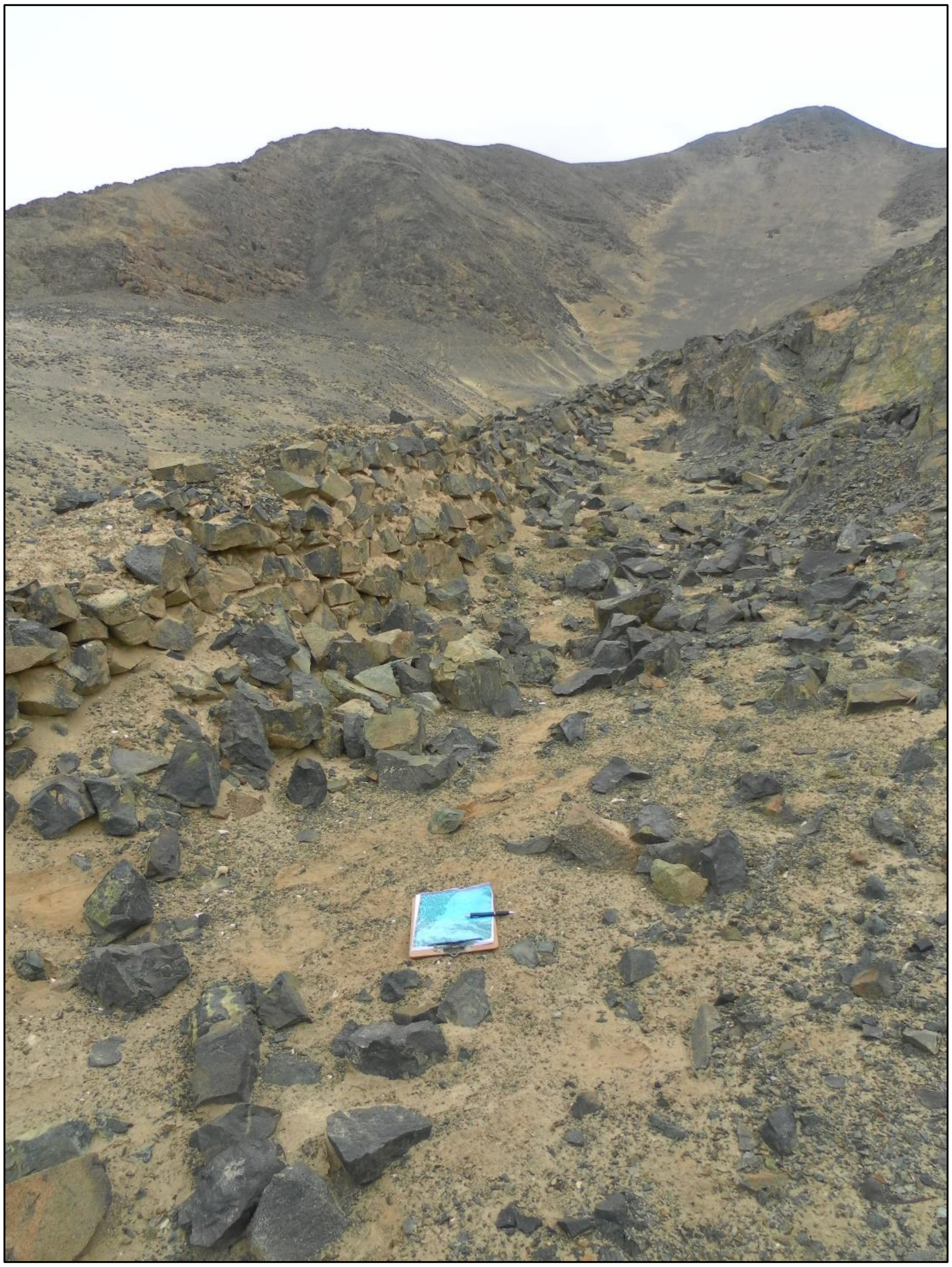


Figure 4.5 Example of defensive walls which line the eastern site perimeter.

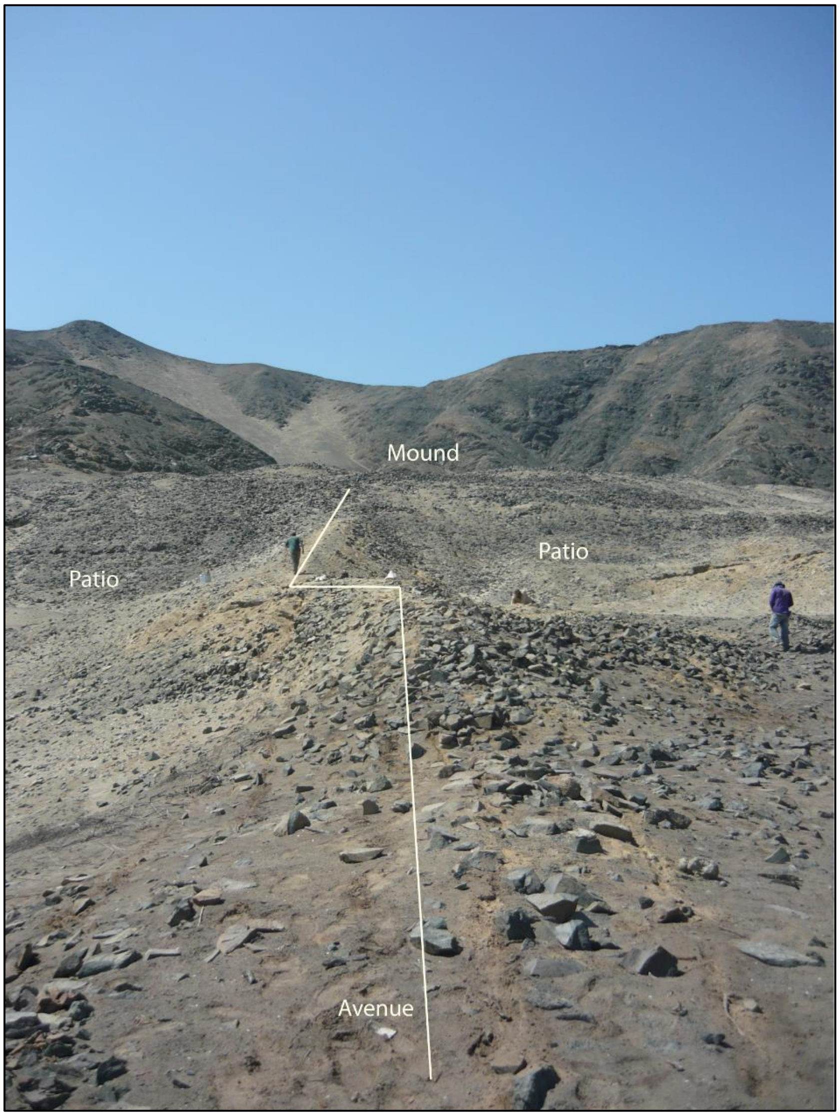


Figure 4.6 Portion of 80m long zig-zagging avenue leading from Compound 1 up to the terraced mound summit and the Plaza Mayor.

Figure 4.7a Photo of Plaza Mayor looking south.

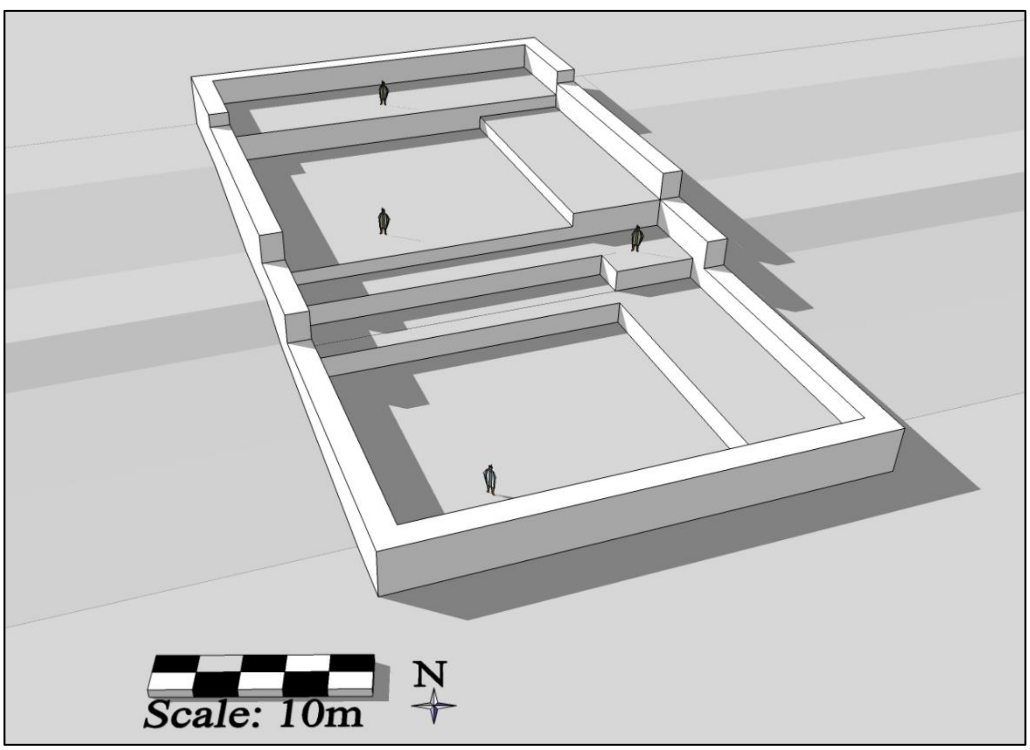


Figure 4.7b Isometric reconstruction of the Plaza Mayor.

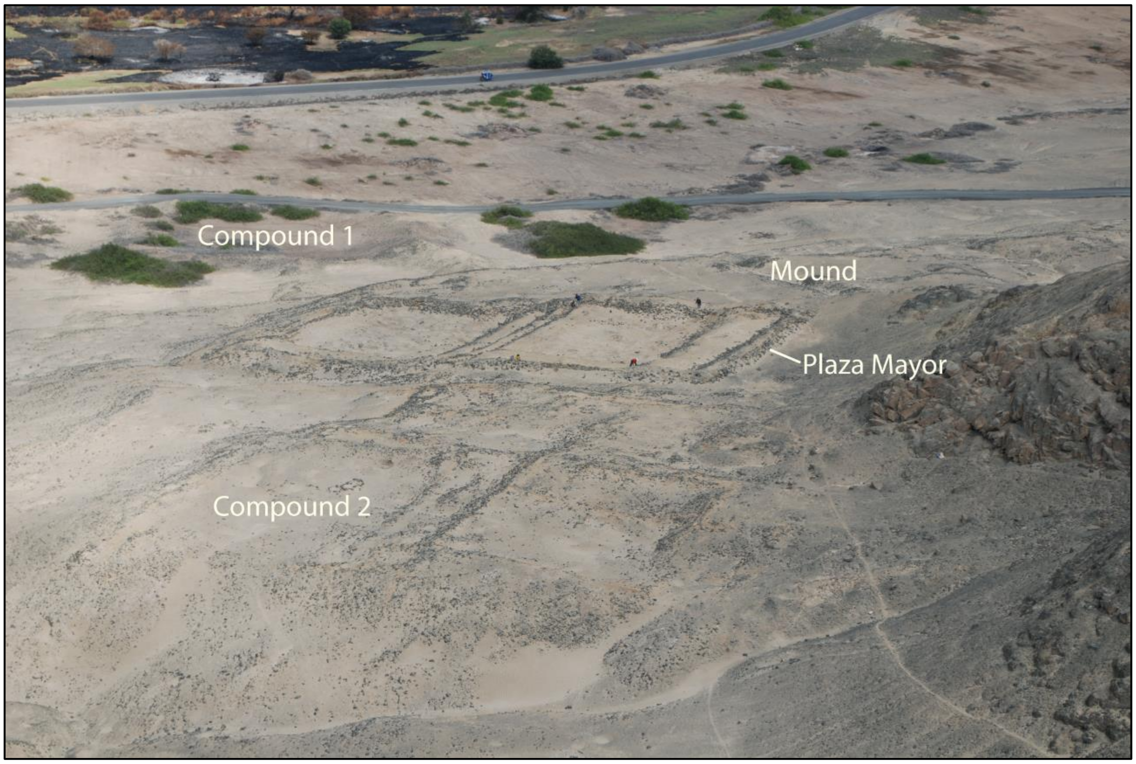


Figure 4.8a Photo of Compound 2; isometric reconstruction below is of the patio group in the foreground.

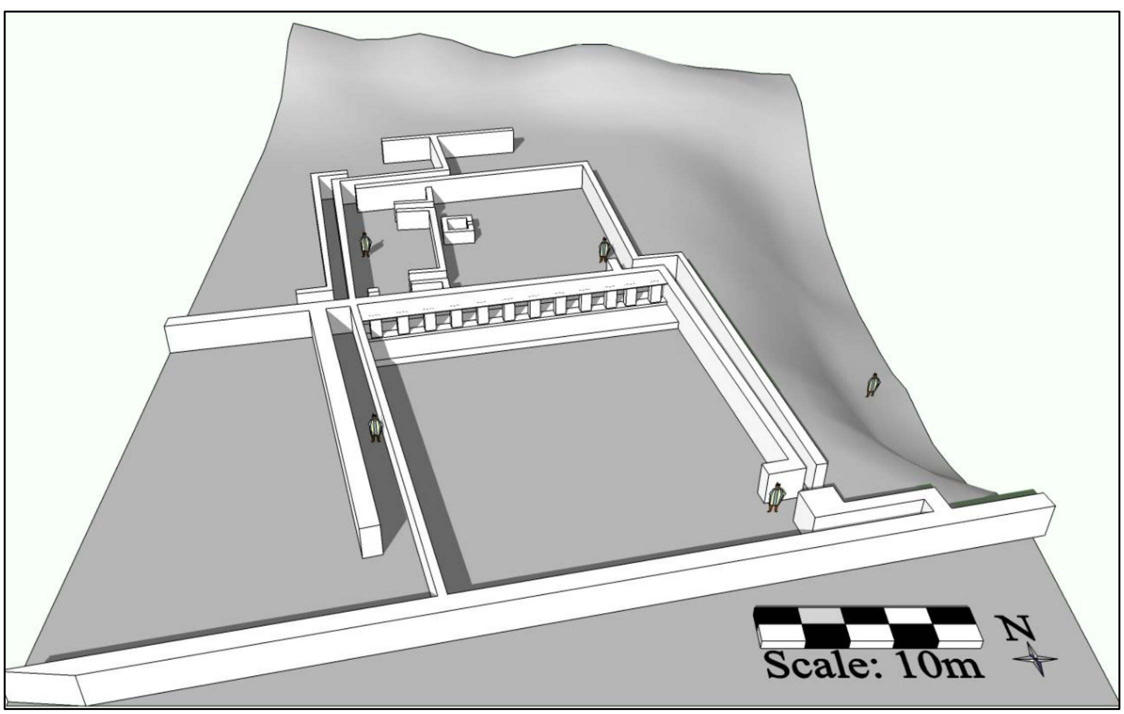


Figure 4.8b Isometric reconstruction of northeast Compound 2 patio group.

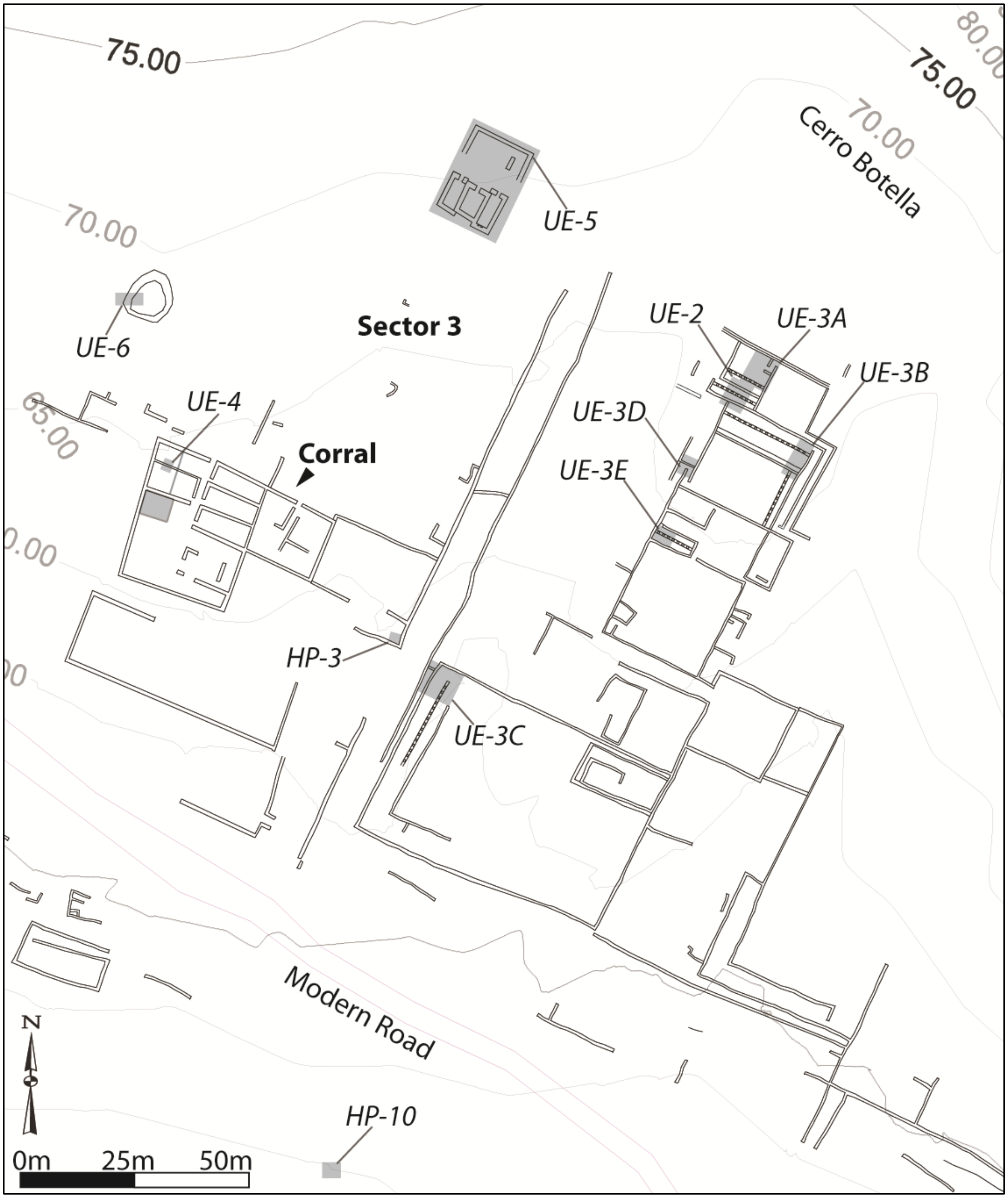


Figure 4.9 Central Samanco architecture and excavation areas.

Figure 4.10a Photo of the Compound 3 core and corral looking west; isometric reconstruction below is from the far right portion of the compound.

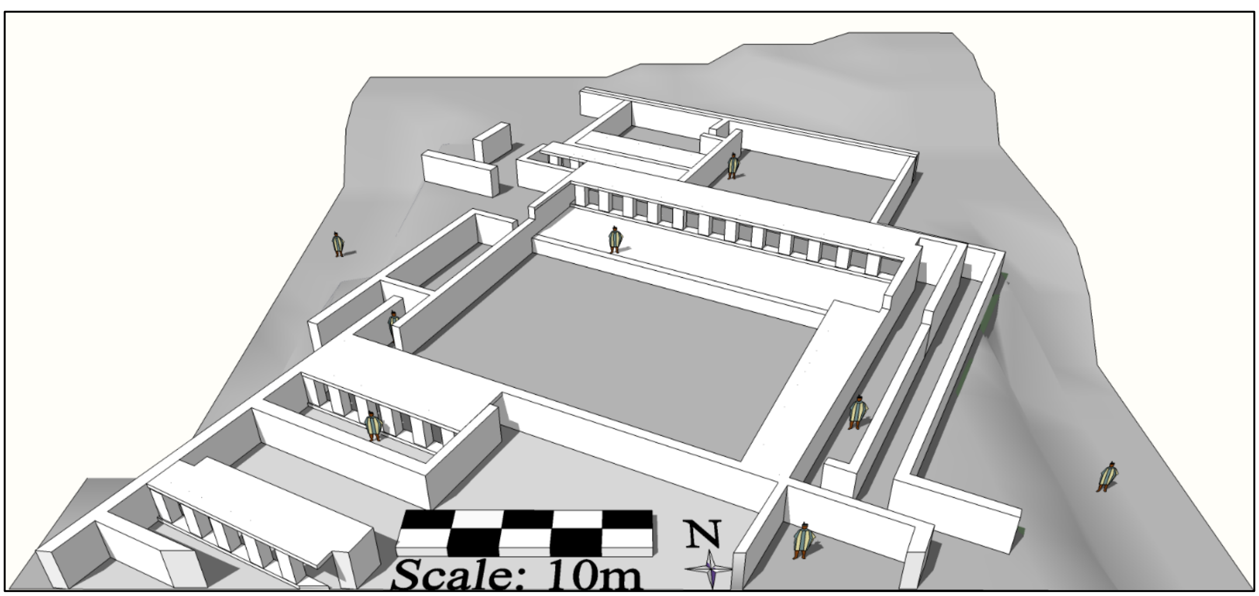


Figure 4.10b Isometric reconstruction of uppermost patio groups from Compound 3's core.

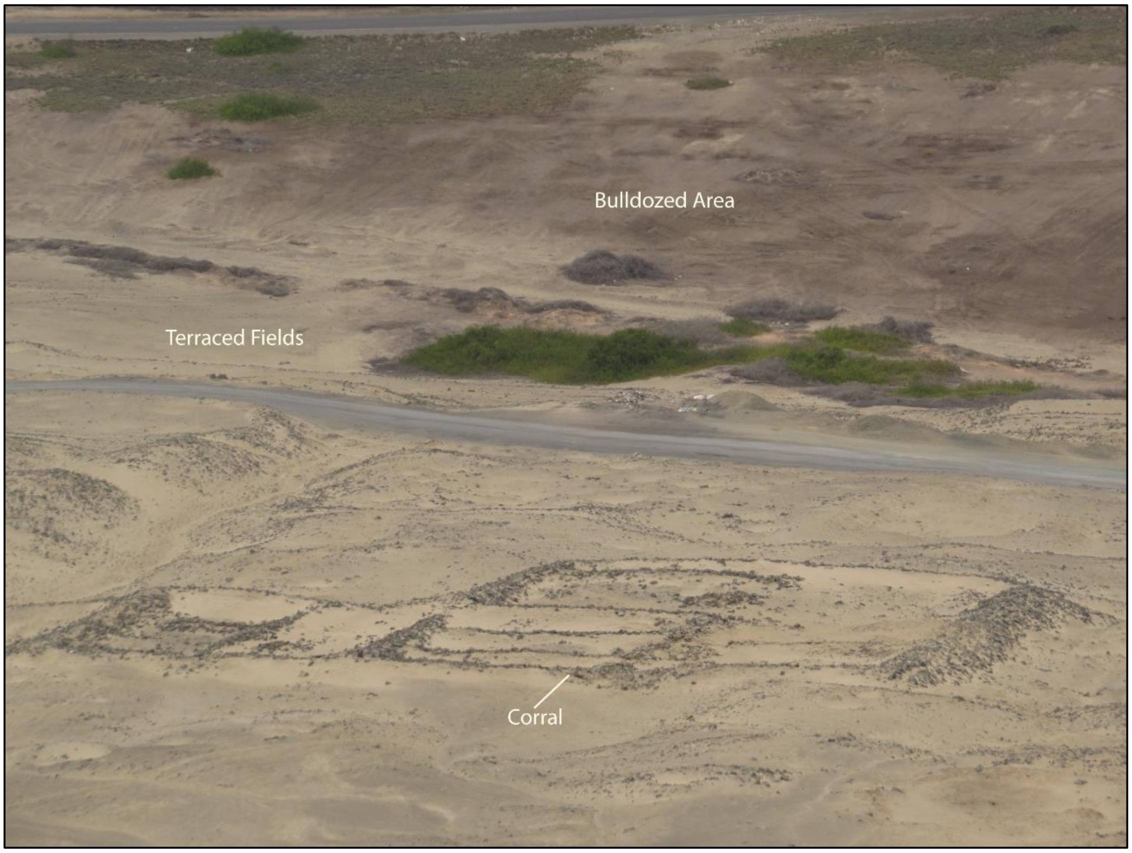


Figure 4.11a Southward view of the corral, ancient terraced fields, and destroyed site area.

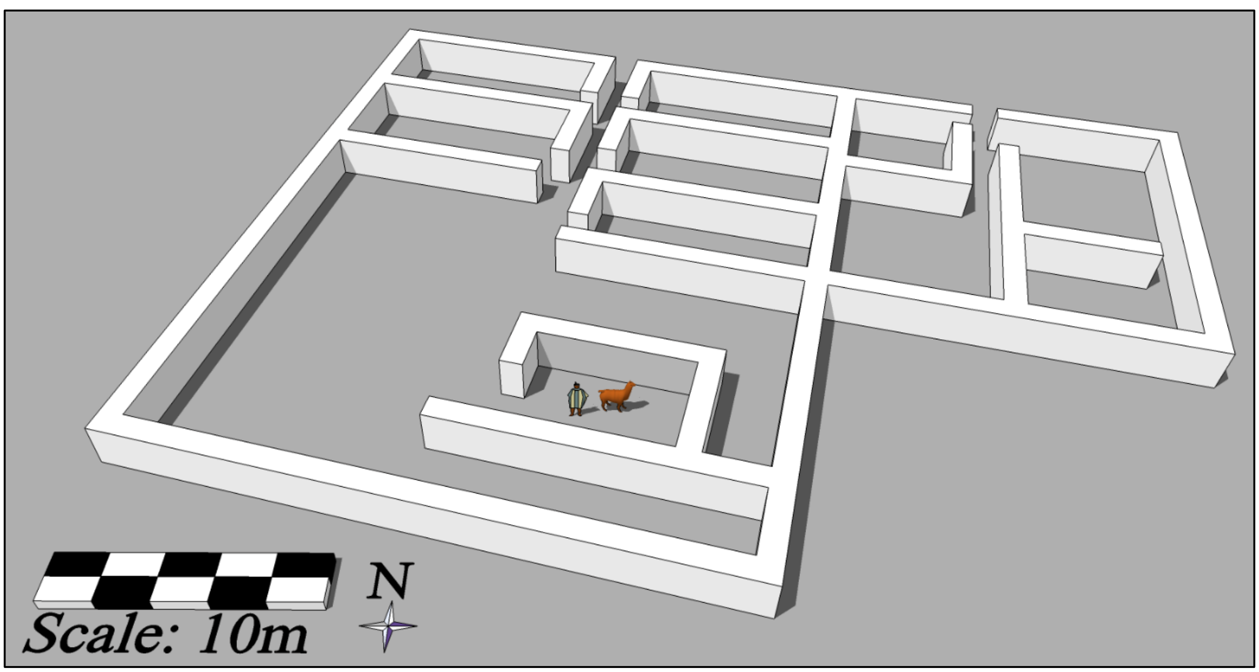


Figure 4.11b Isometric reconstruction of the corral.

Figure 4.12 Portion of long colonnaded patio verandah above ravine; columns highlighted.

Figure 4.13 Example of large circular adobe pits which correspond to intrusive looted tombs.

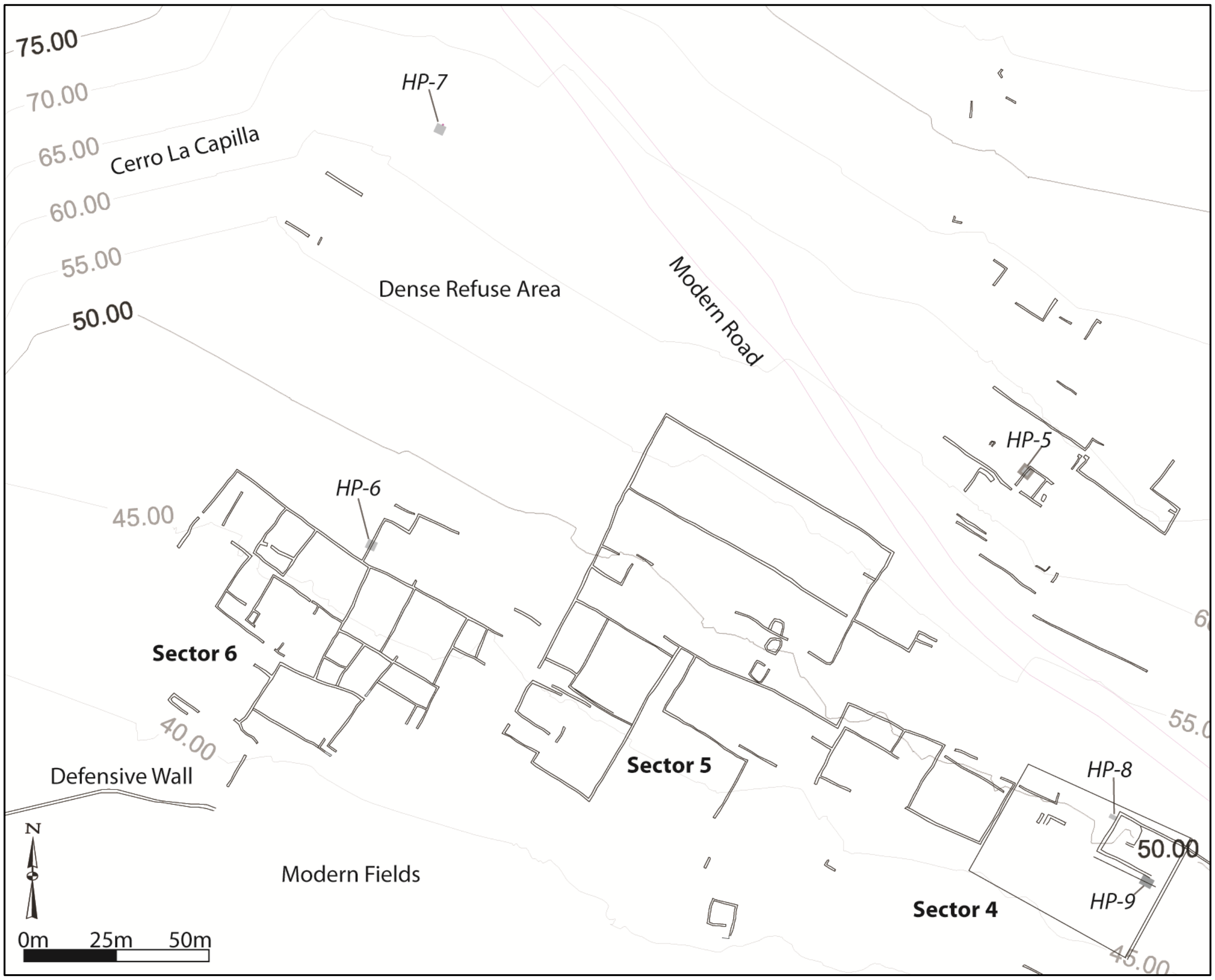


Figure 4.14 West Samanco architecture and excavation units.

Figure 4.15 Eastward view of Compound 6.

Figure 4.16 Example of dense refuse area which extends from the corral across the northwestern site perimeter.

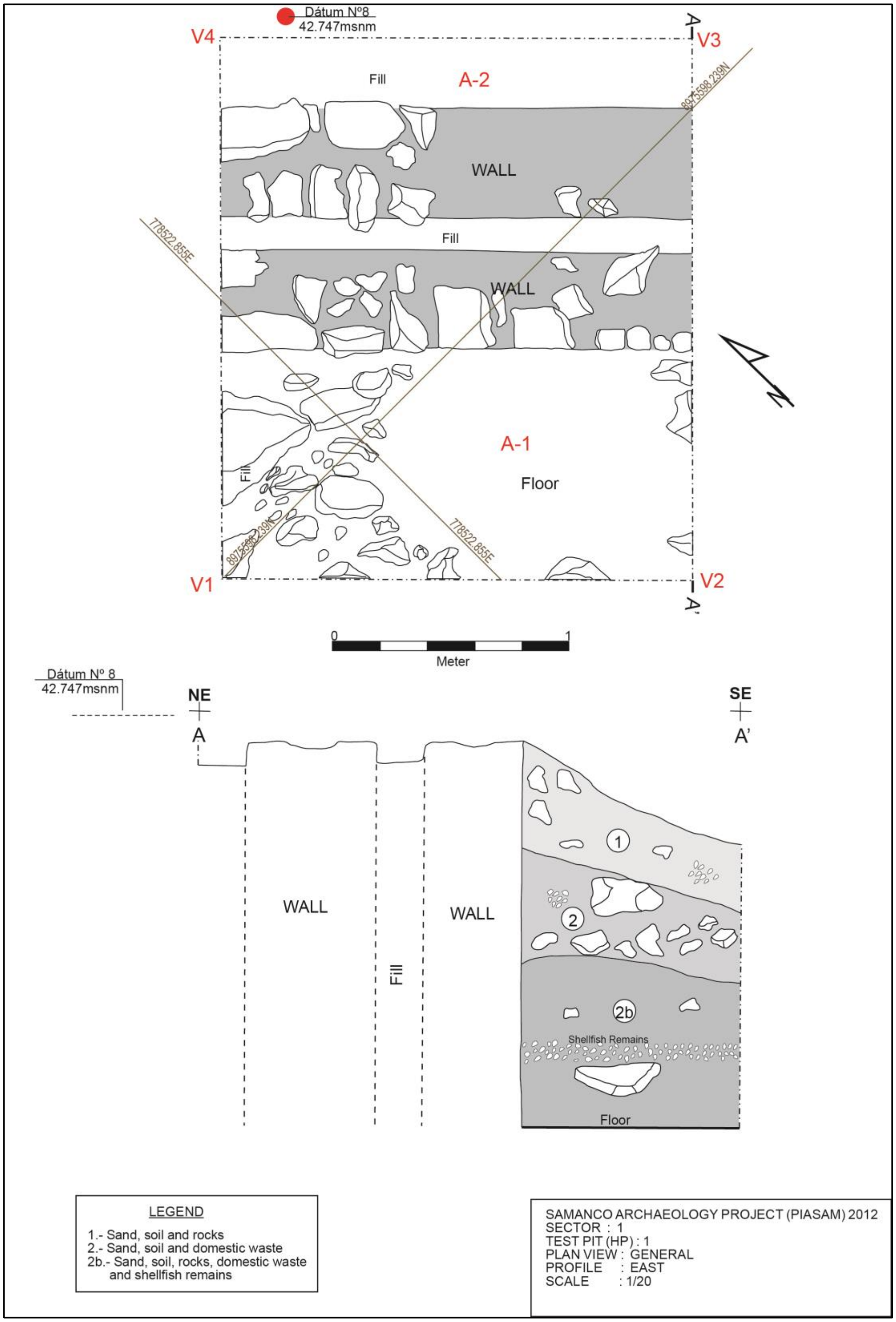


Figure 4.17a Plan-view and profile drawings of HP-1.

Figure 4.17b South end of HP-1 excavation.

Figure 4.18 Grafitto (5 cm) of Sechín-like eye and abstract body from HP-1 south wall.

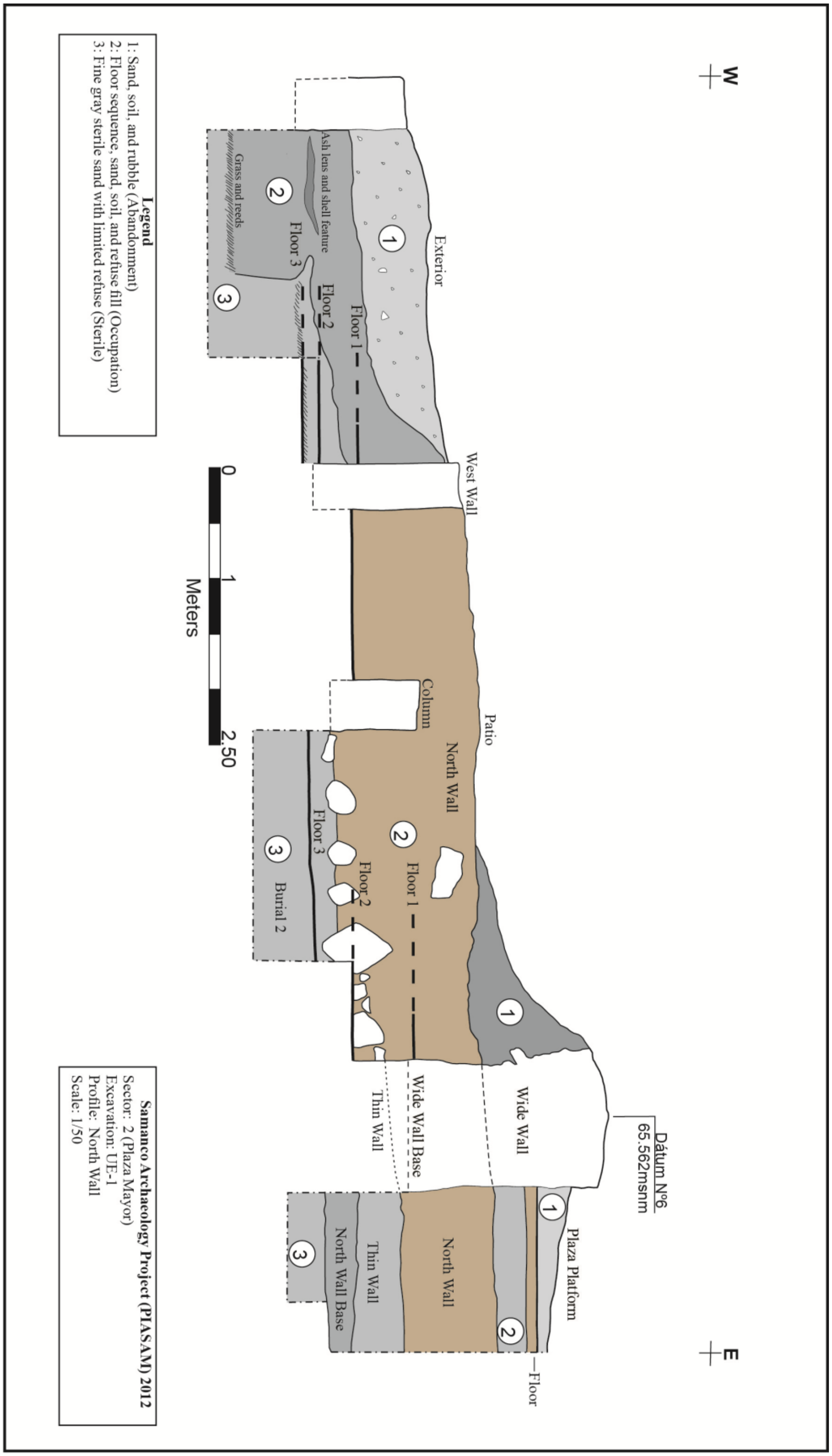


Figure 4.19a Profile drawing of UE-1.

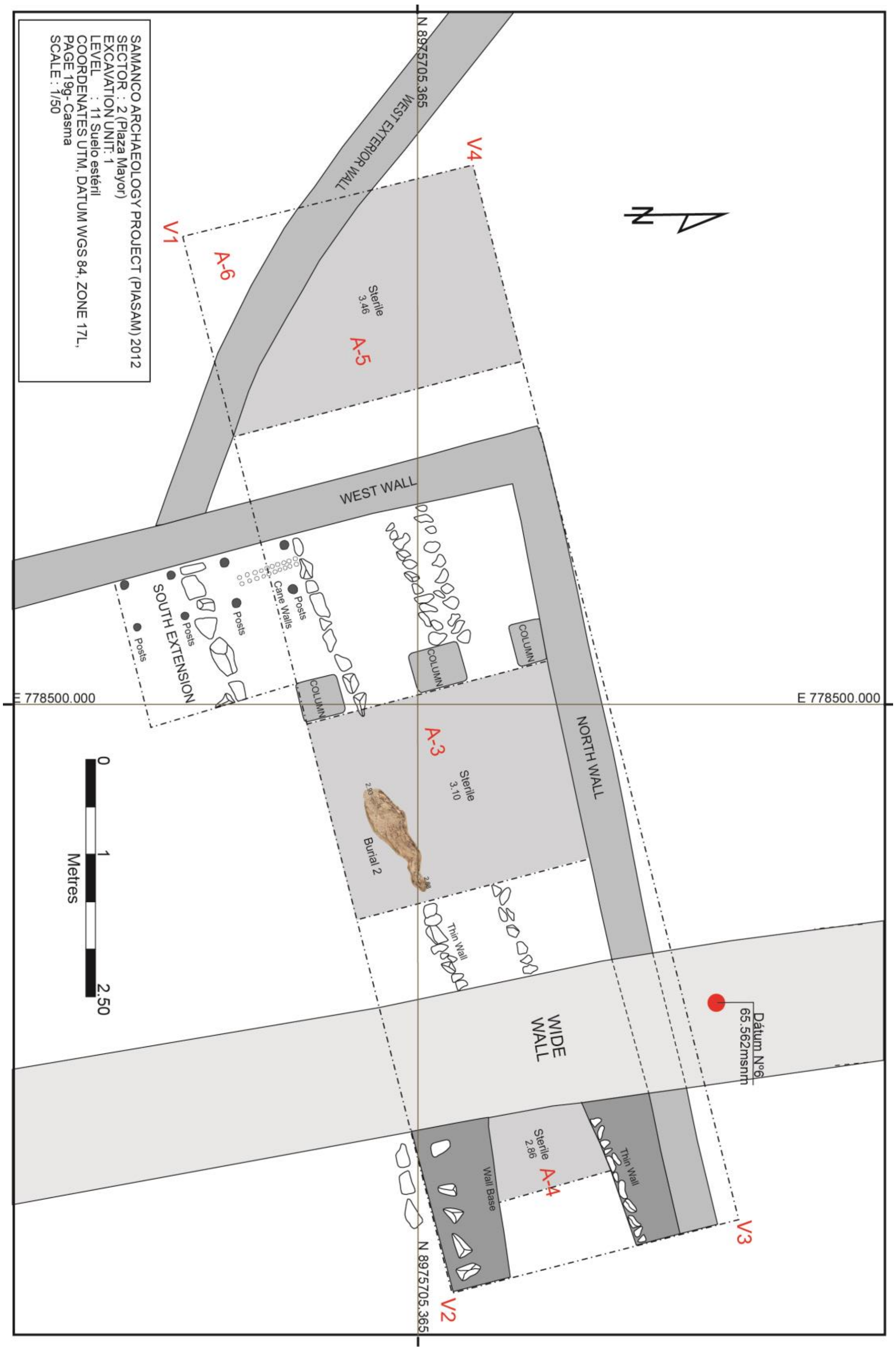


Figure 4.19b Plan-view drawing of UE-1.

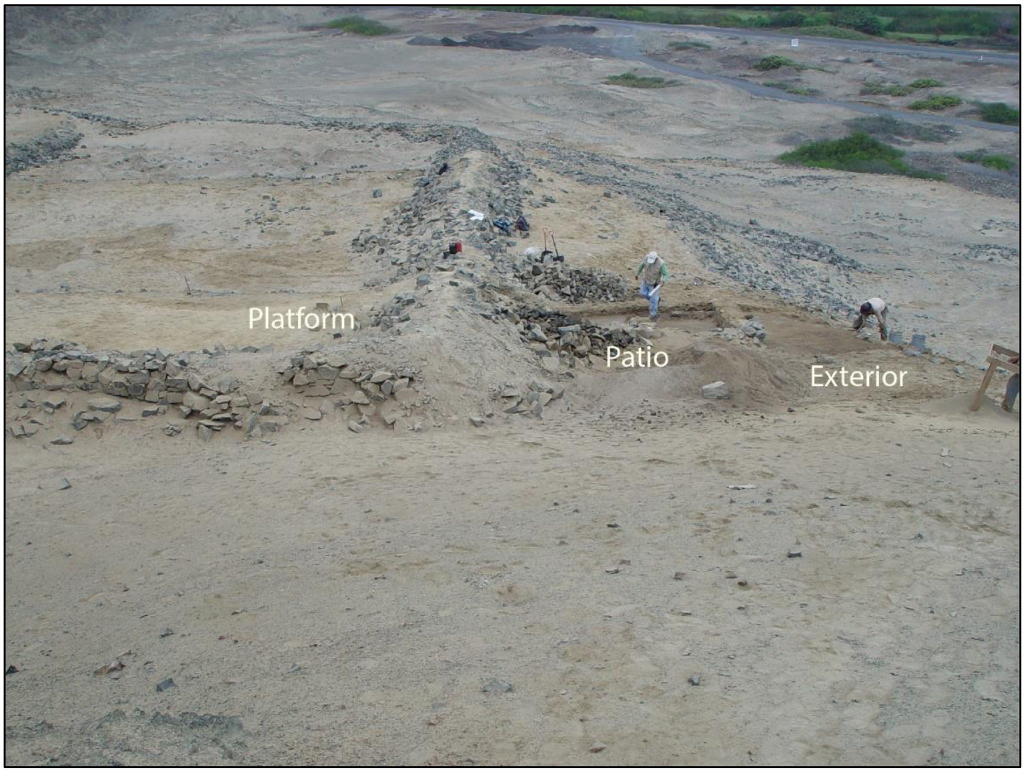


Figure 4.19c Southward view of UE-1 excavation with sections labeled.

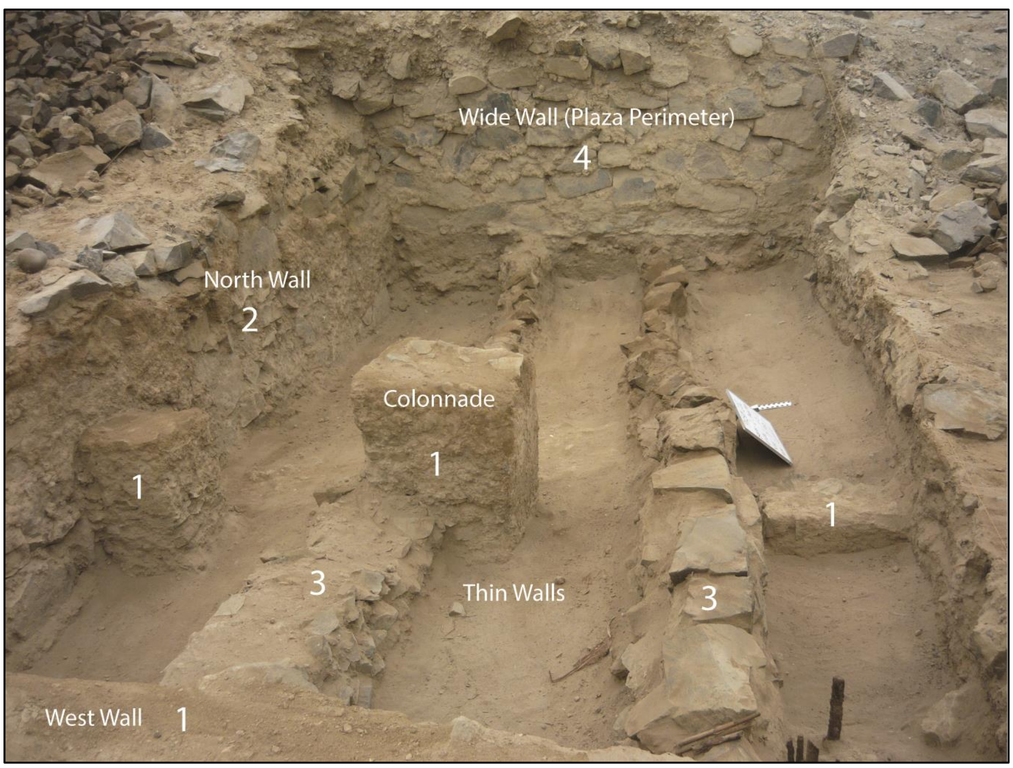


Figure 4.19d Four phases of renovation from UE-1(Patio).

Figure 4.20 Well preserved UE-1(Plaza Platform) floor laden with maize and camelid droppings.

Figure 4.21 Pole and thatch architecture from UE-1(Patio) associated with final phase of use.

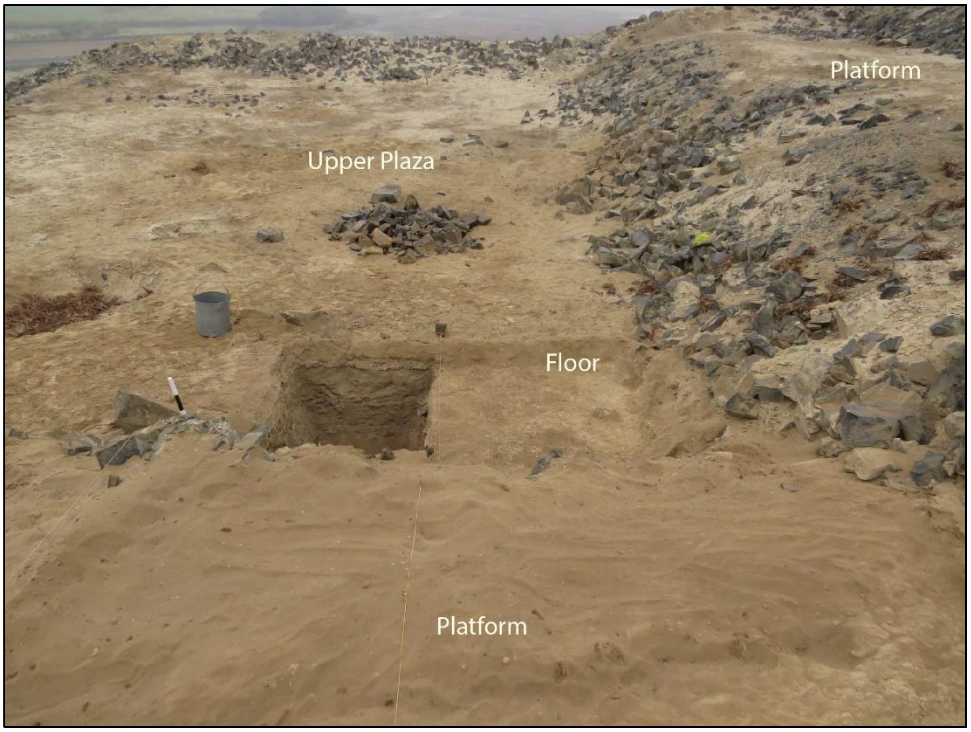


Figure 4.22 UE-7F excavation on the upper Plaza Mayor terrace.

Figure 4.23 (Left) Maize cobs below UE-7F floor. (Right) Kernels mashed into floor surface.

Figure 4.24 Eastward view of UE-7 upper patio excavations.

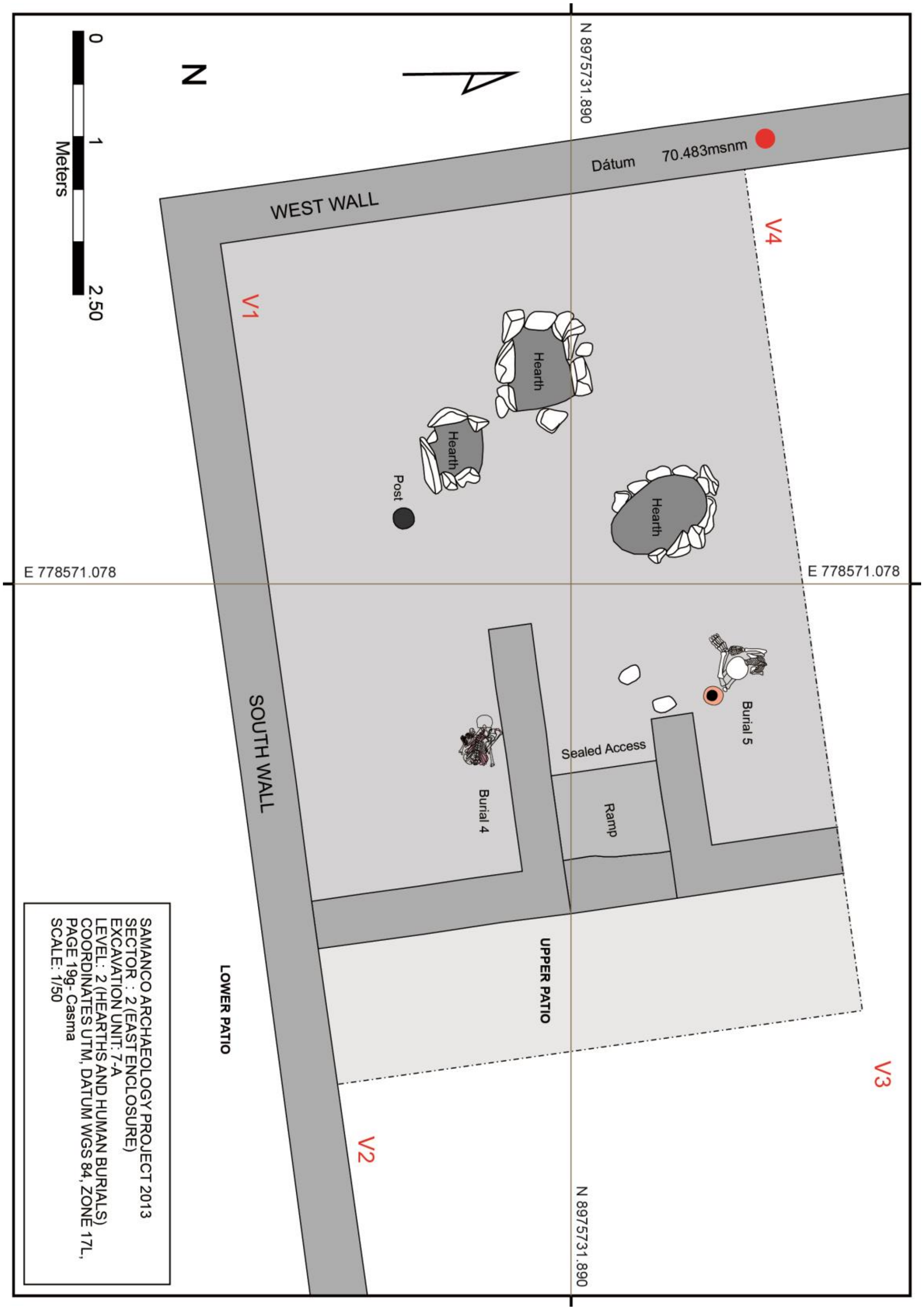


Figure 4.25a Plan-view drawing of UE-7A late phase features.

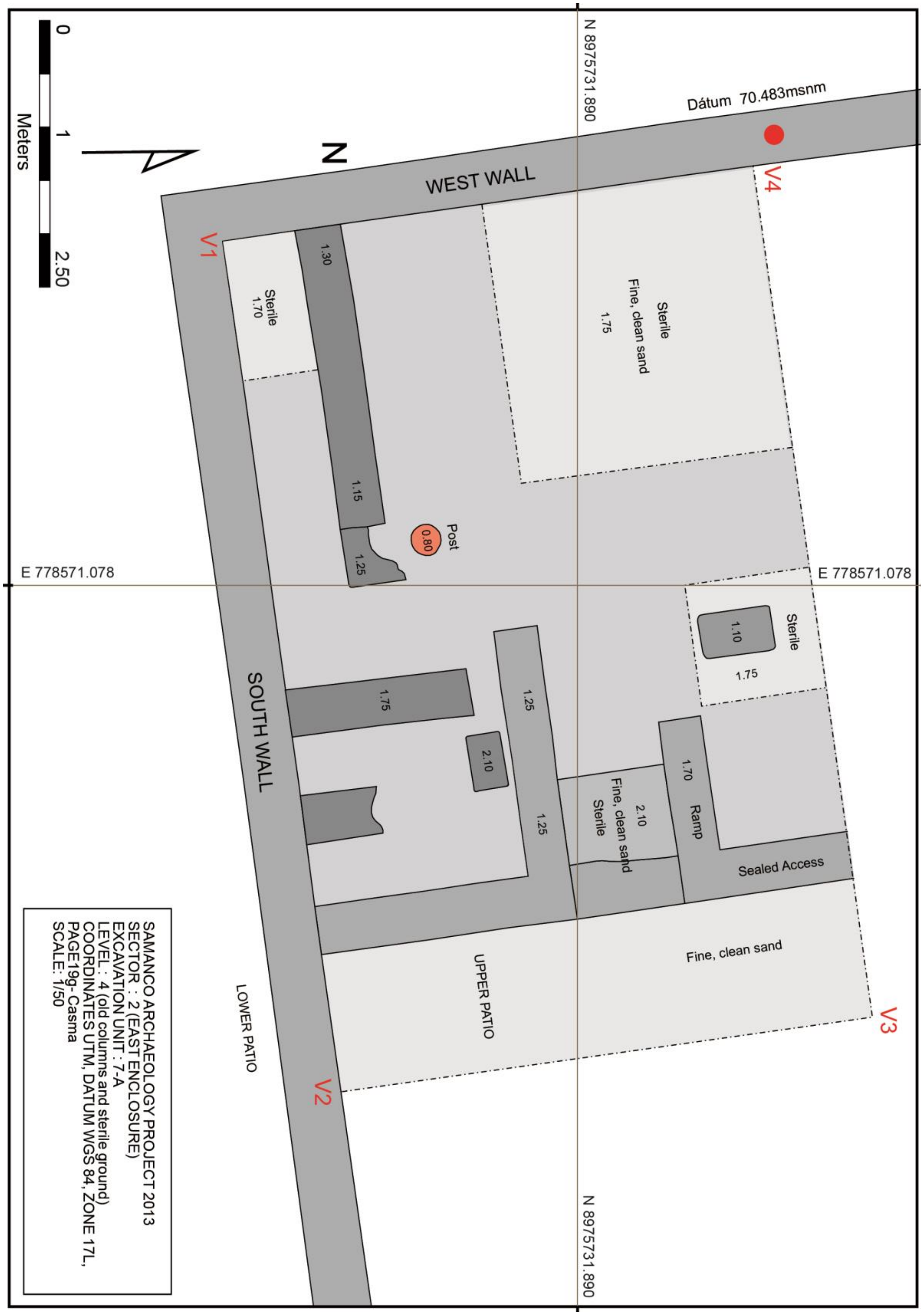


Figure 4.25b Plan-view drawing of UE-7A early phase features.

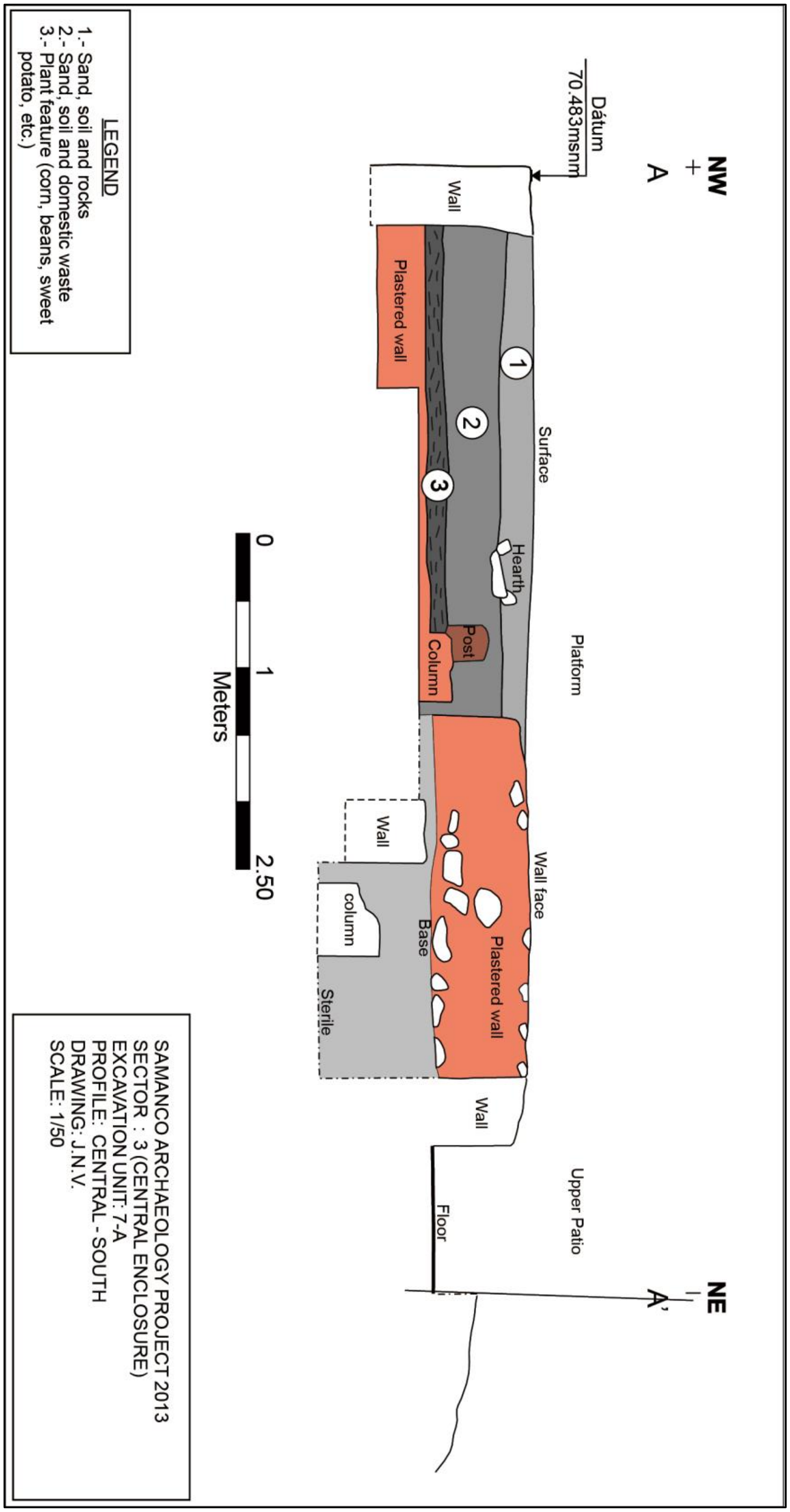


Figure 4.25c Profile drawing of UE-7A.

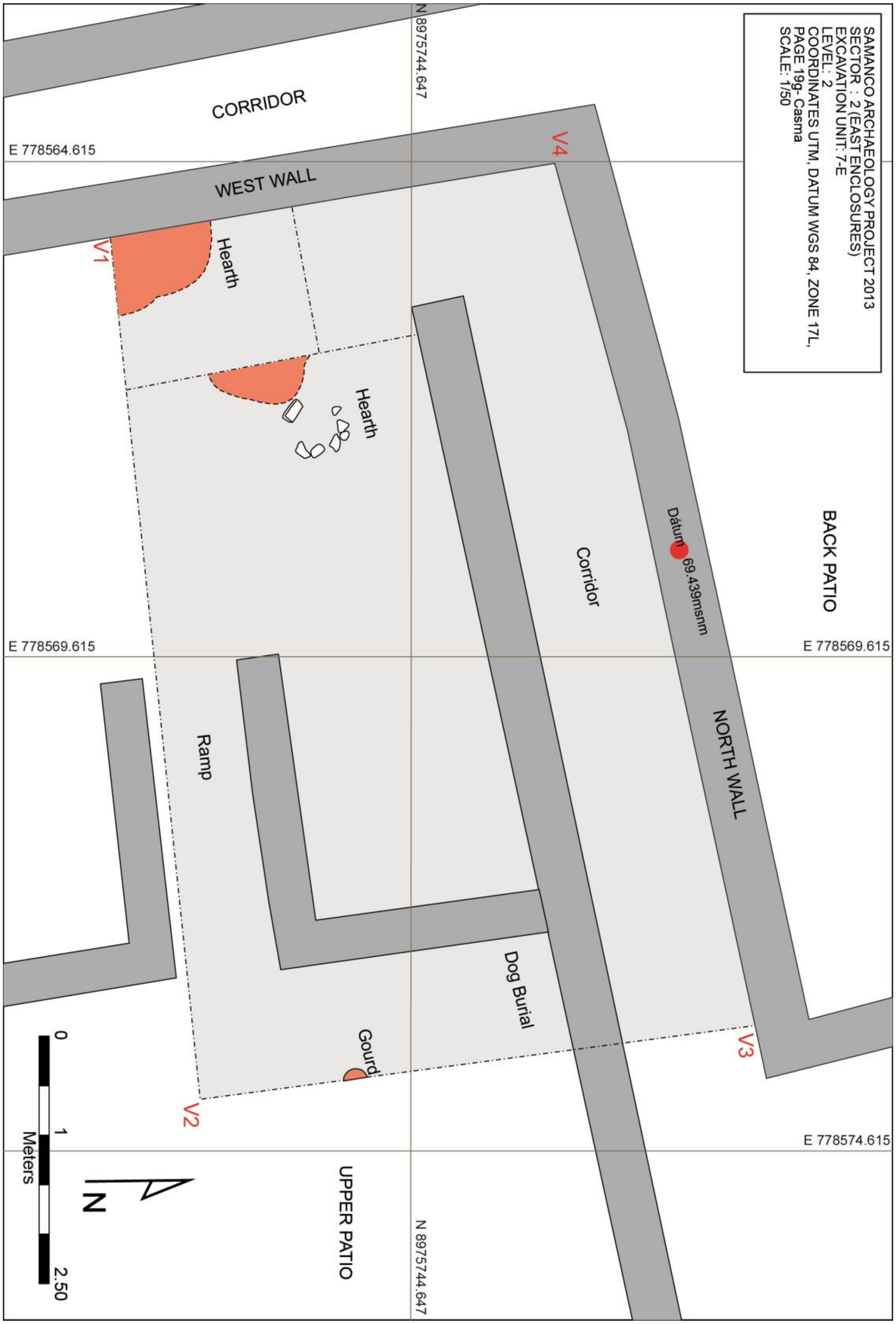


Figure 4.26a Plan-view drawing of UE-7E.

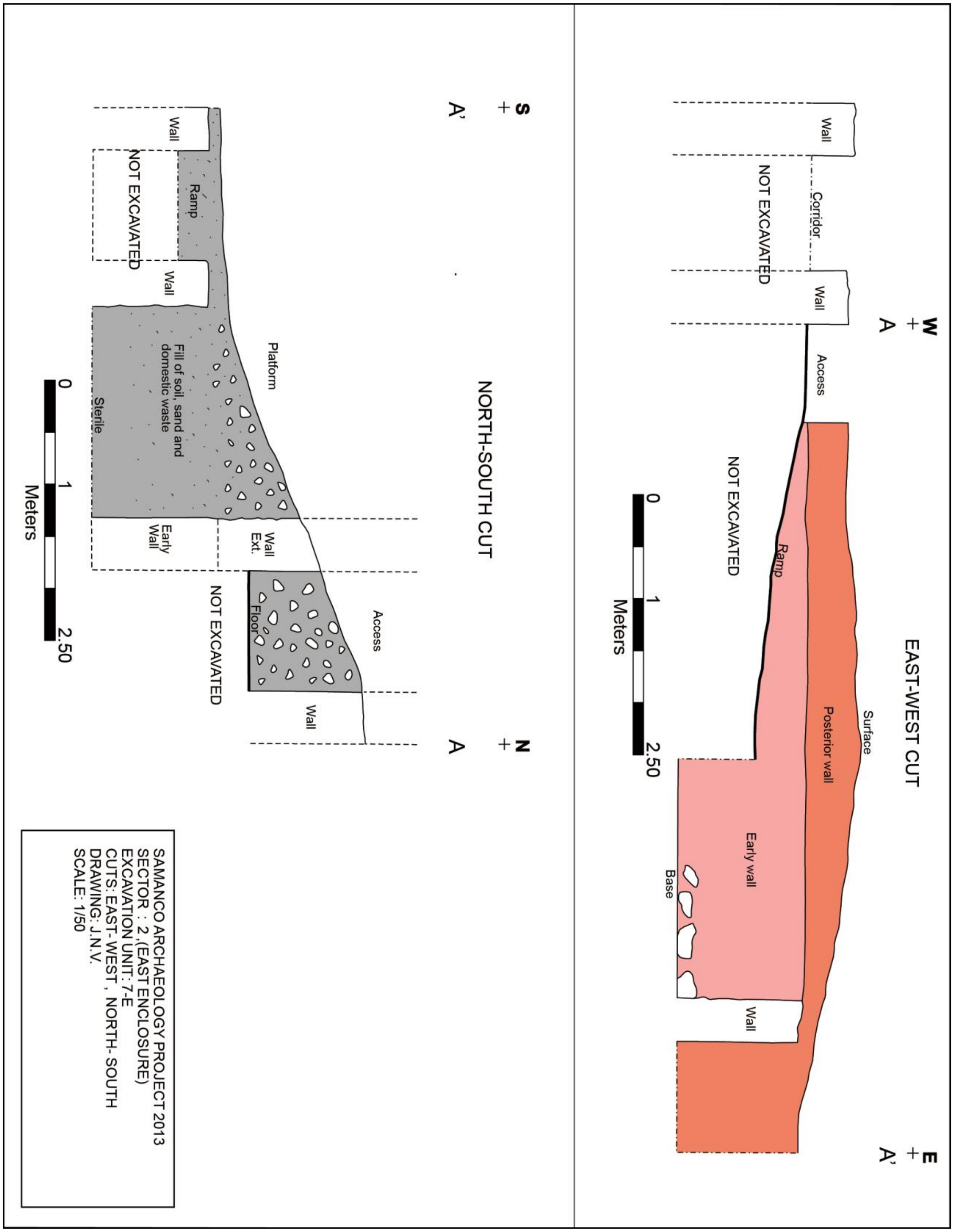


Figure 4.26b Profile drawings of UE-7E.

Figure 4.27a Stone-lined hearths from UE-7A south end of kitchen platform.

Figure 4.27b Stone-lined hearth and adjacent food feature from UE-7A.

Figure 4.28a Building sequence from UE-7A.

Figure 4.28b Large wooden post and plant fill placed atop leveled colonnade from UE-7A.

Figure 4.29 Large plant fill feature from UE-7A final phase fill below hearths.

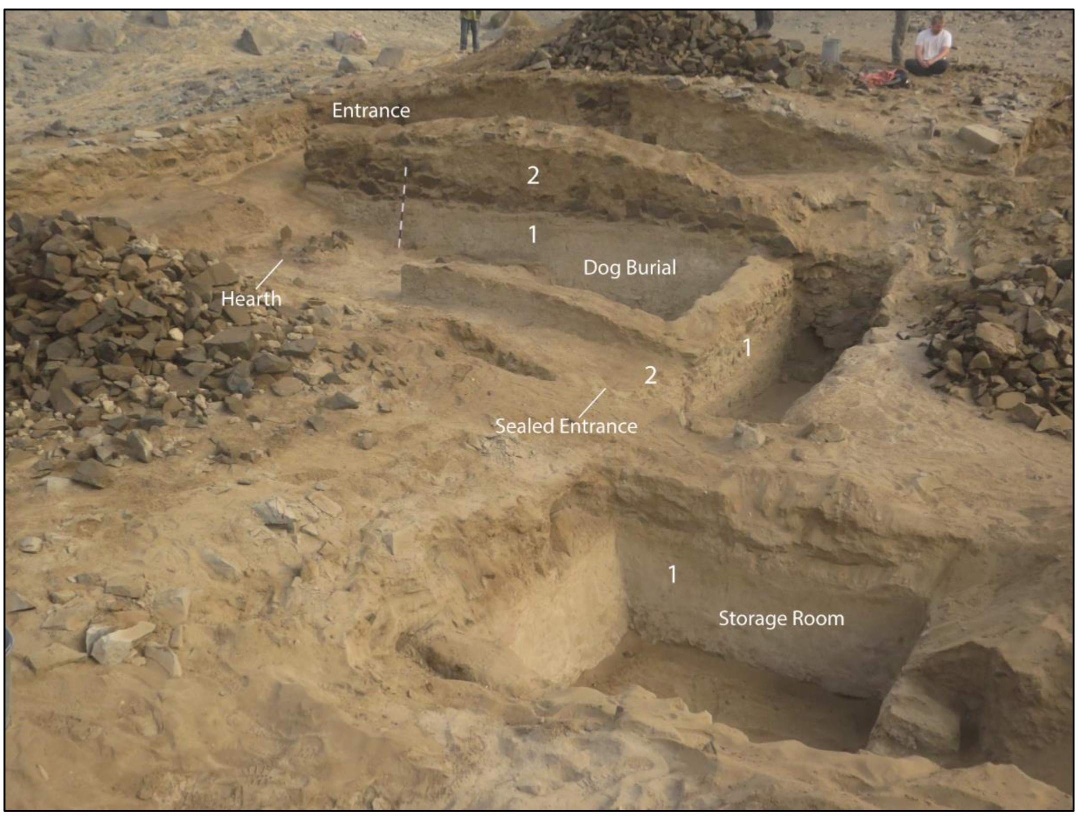


Figure 4.30 Building sequence and features from UE-7E north end of kitchen platform.

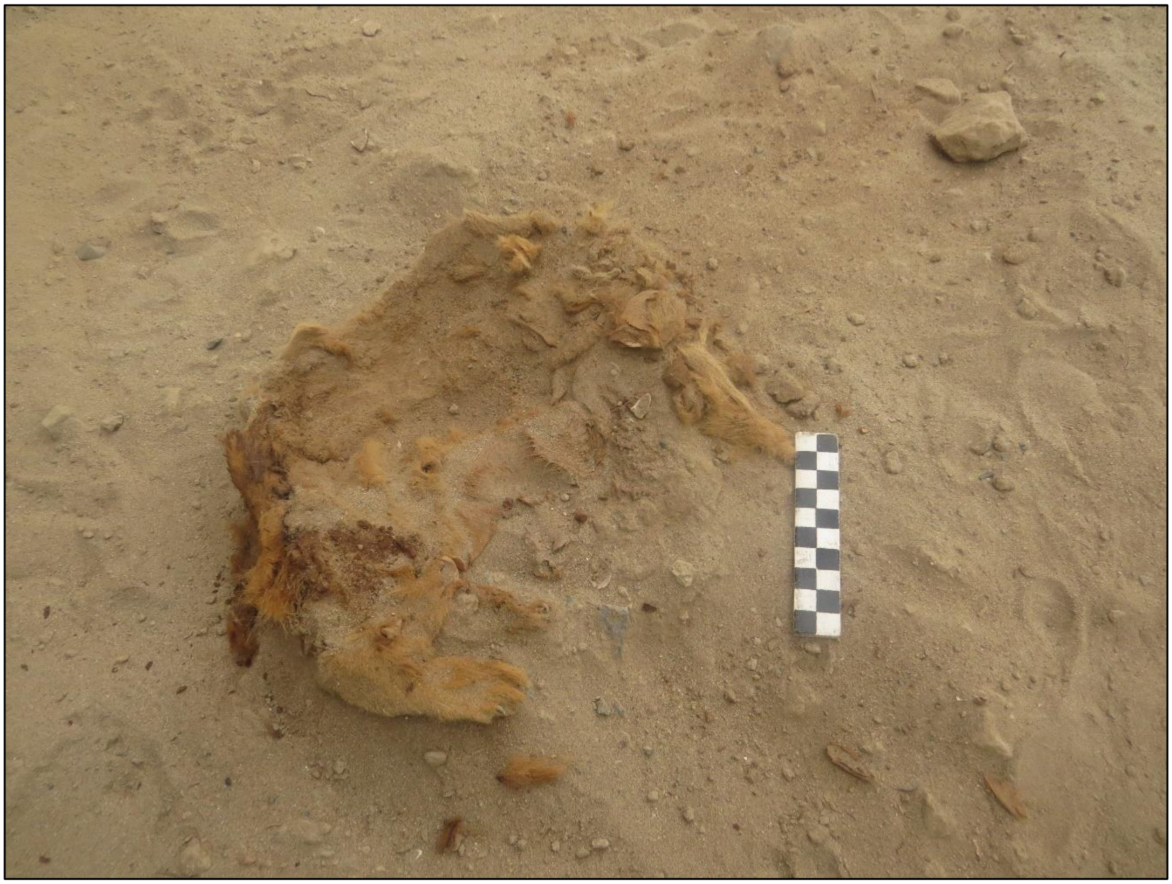


Figure 4.31a Canine offering from final phase UE-7E fill.

Figure 4.31b Gourd offering stuffed with *Persea americana* avocado leaves from early phase UE-7E fill.

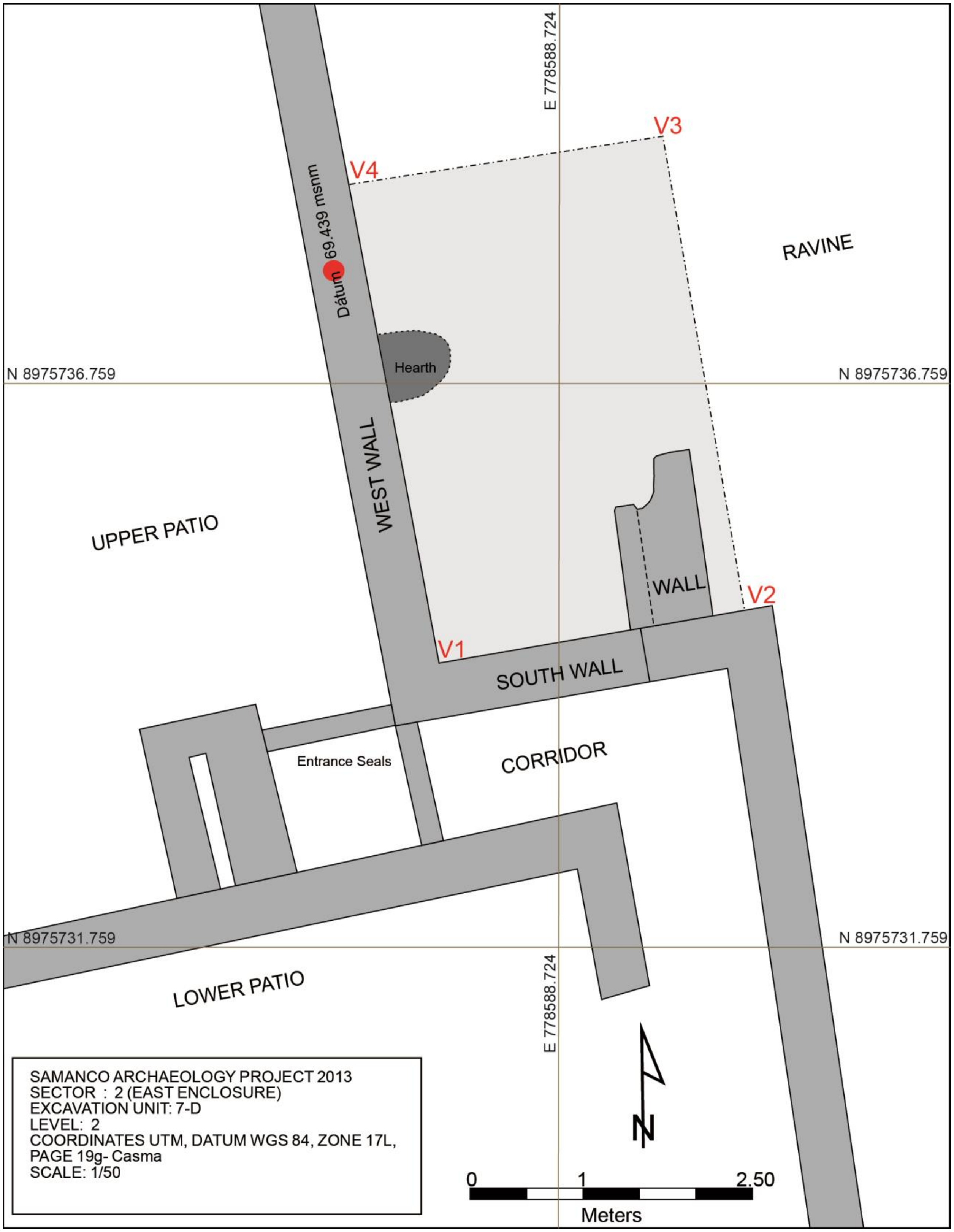


Figure 4.32a Plan-view drawing of UE-7D.

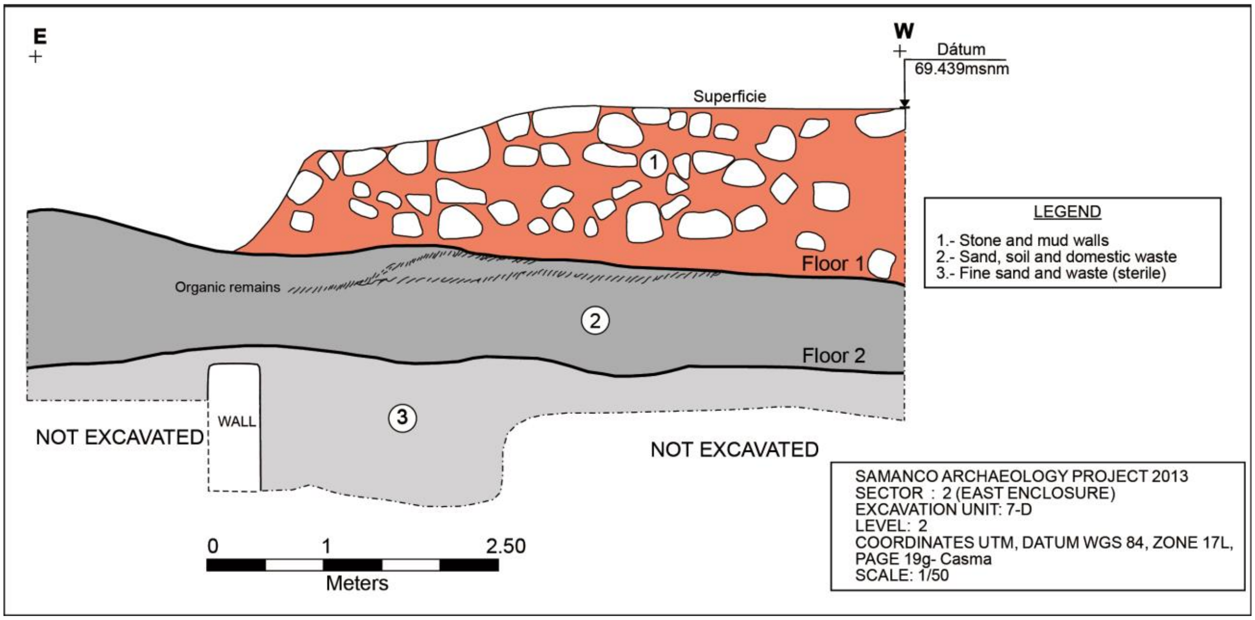


Figure 4.32b Profile drawing of UE-7D south wall.

Figure 4.32c Eastward view of UE-7D Floor 1, note organic color of patio exterior.

Figure 4.33a Shell features adjacent to broken neckless olla pot from UE-7D.

Figure 4.33b Small *Tegula atra* gastropods sieved from a UE-7D shell feature.

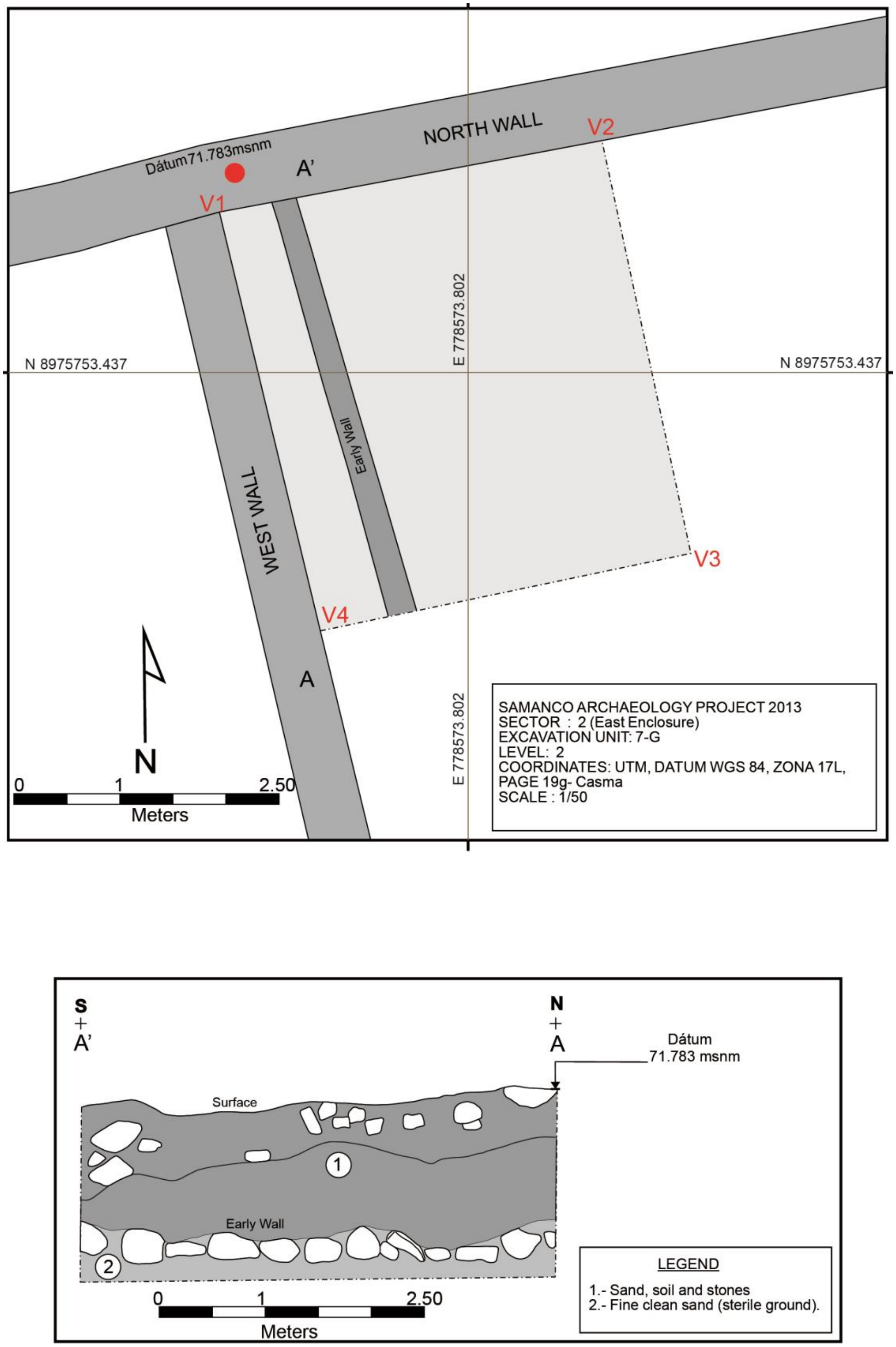


Figure 4.34a Plan-view and profile drawing of UE-7G.

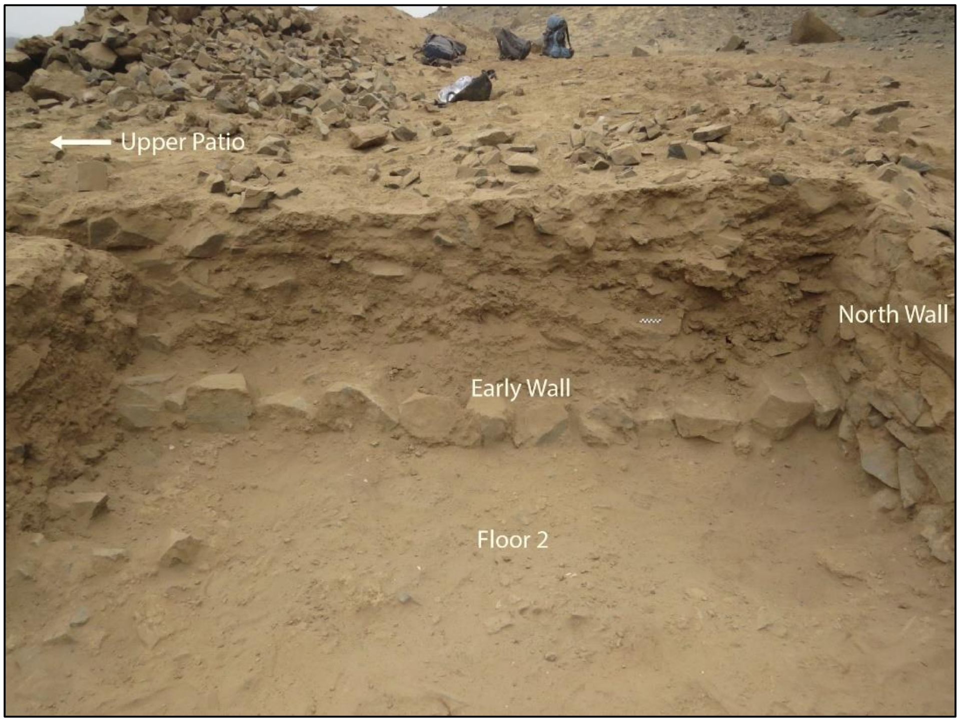


Figure 4.34b Westward view of UE-7G above the upper patio.

Figure 4.35 North wall from UE-7G showing late phase construction style and orthostats.

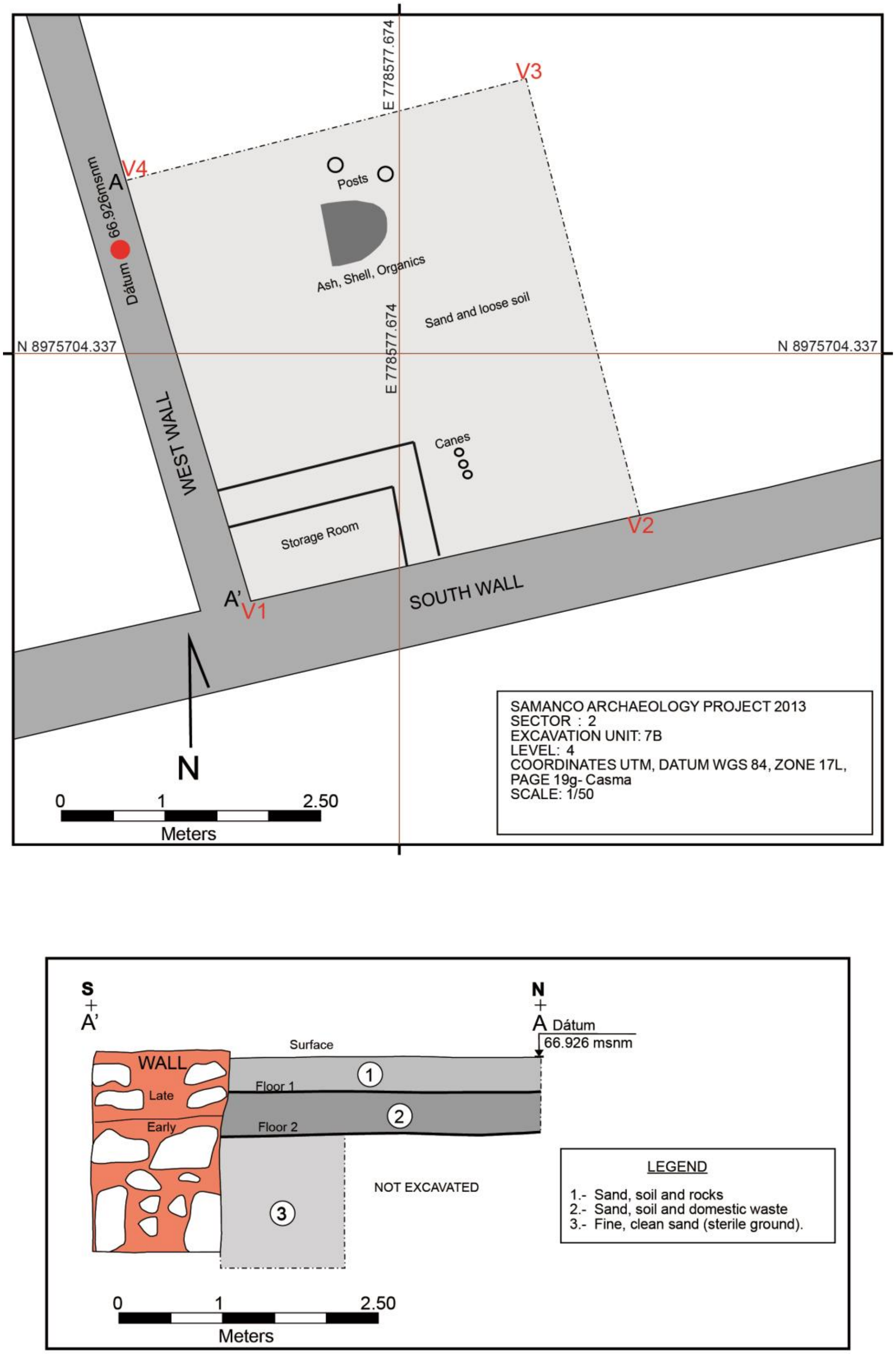


Figure 4.36a UE-7B Plan-view and profile drawings.

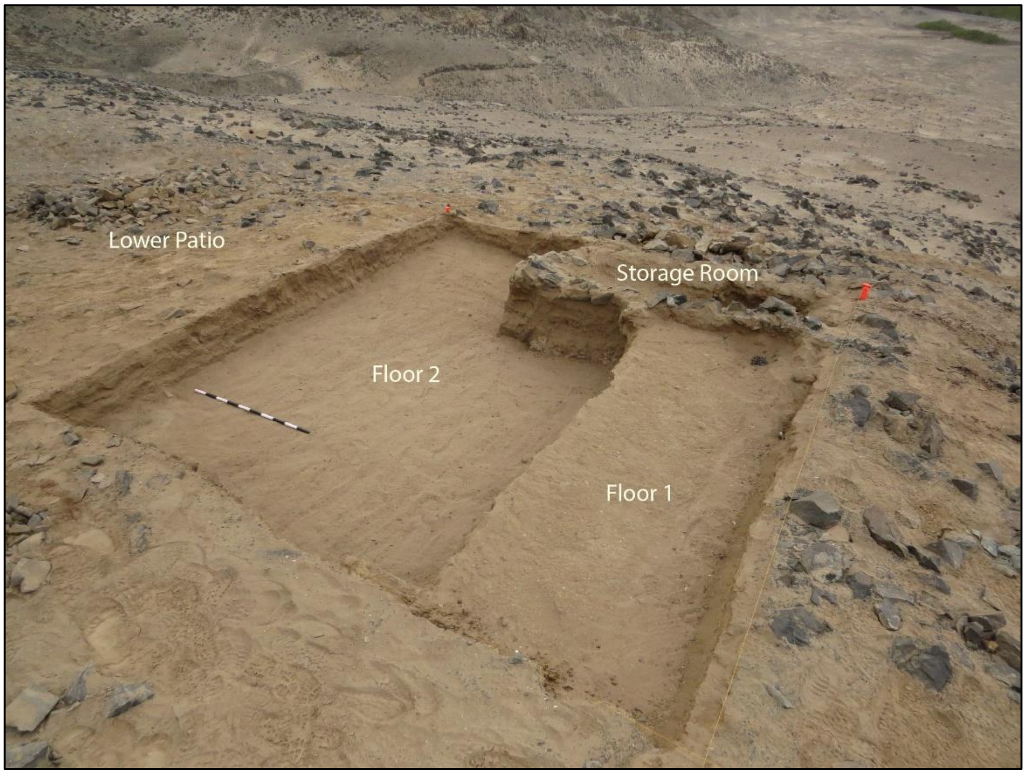


Figure 4.36b Southward view of UE-7B lower patio excavation.

Figure 4.37 UE-7B Storage room structure atop white-painted patio wall with orthostat base.

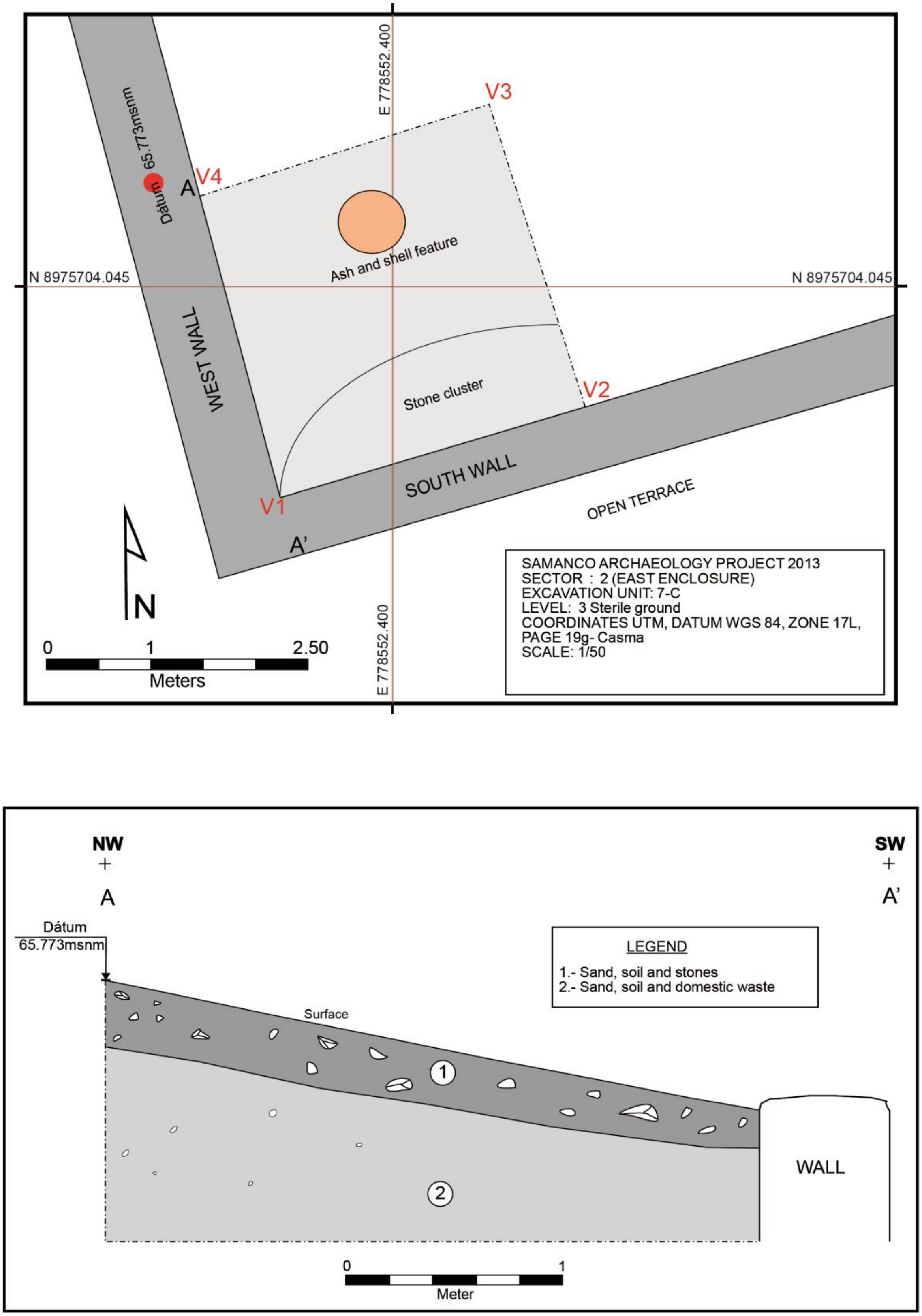


Figure 4.38a UE-7C plan-view and profile drawings.

Figure 4.38b Southward view of UE-7C surficial stone structures.

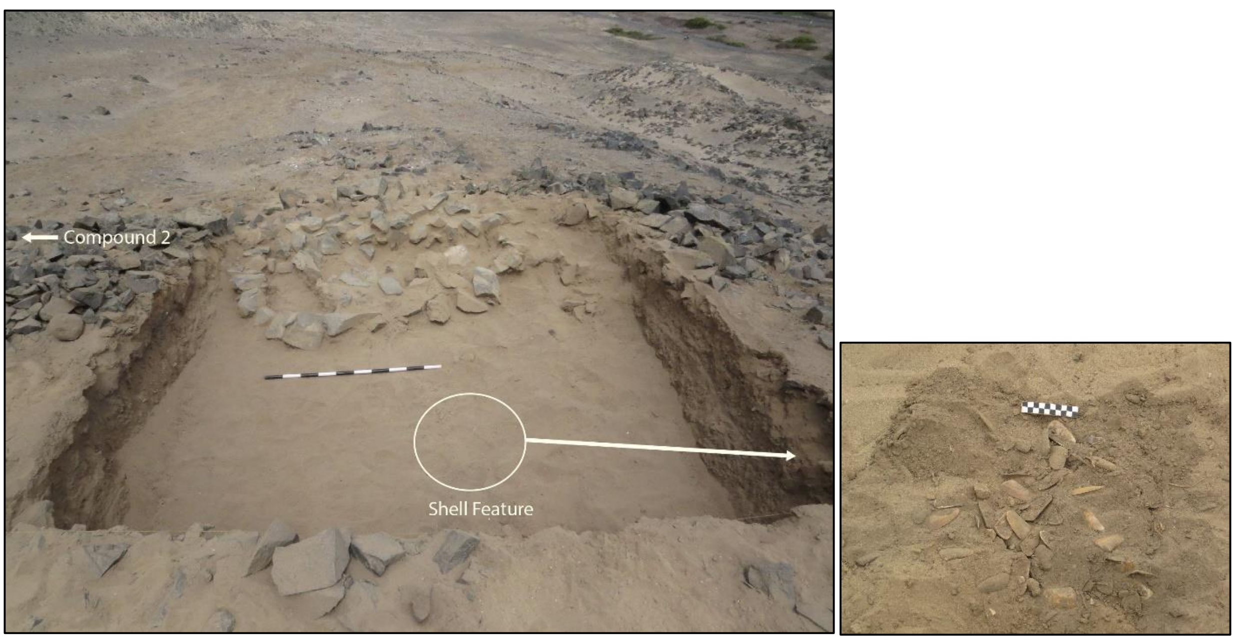


Figure 4.38c Southward view of UE-7C beneath surficial stone structures and shell feature.

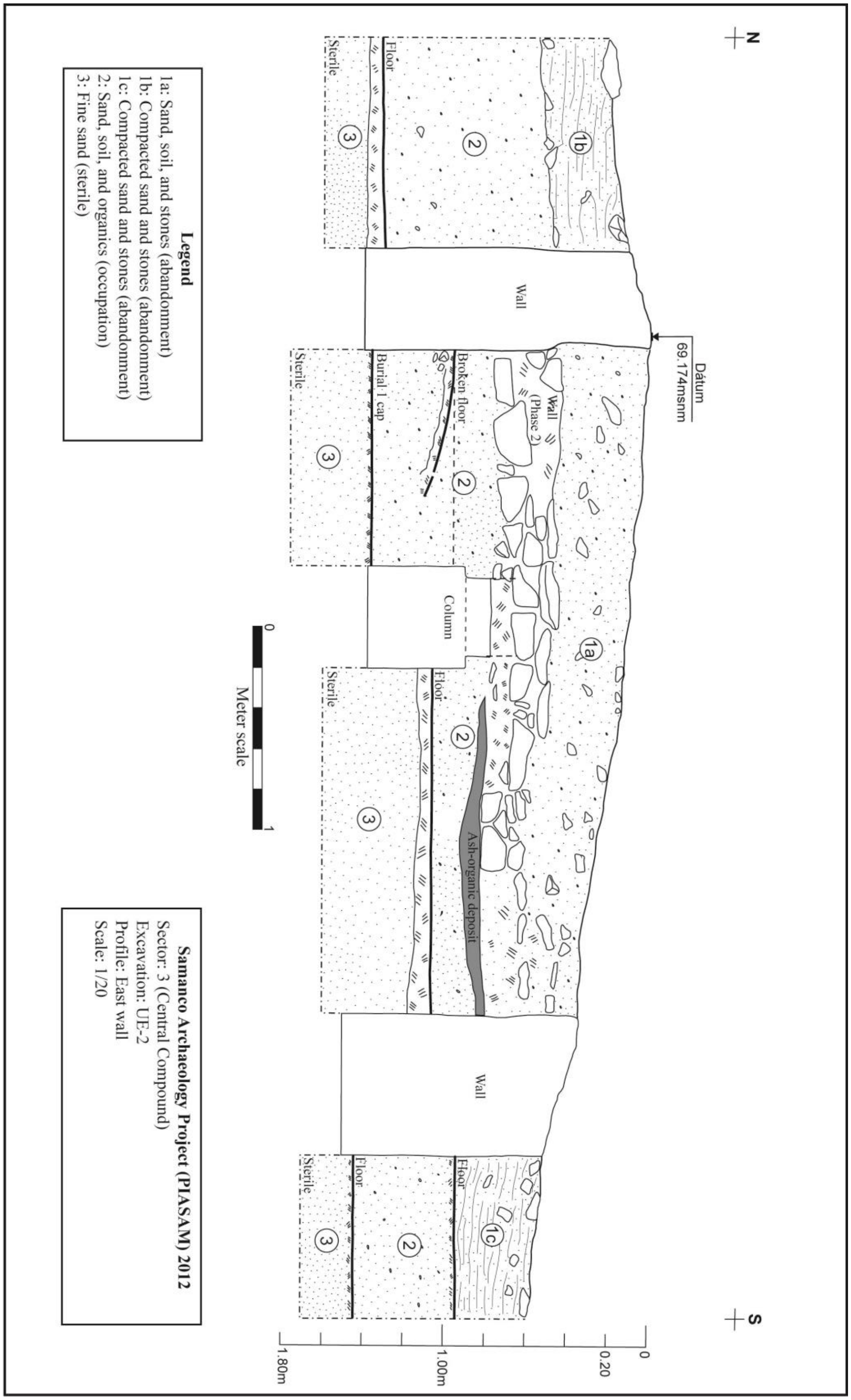


Figure 4.39a Profile drawing of UE-2 east wall.

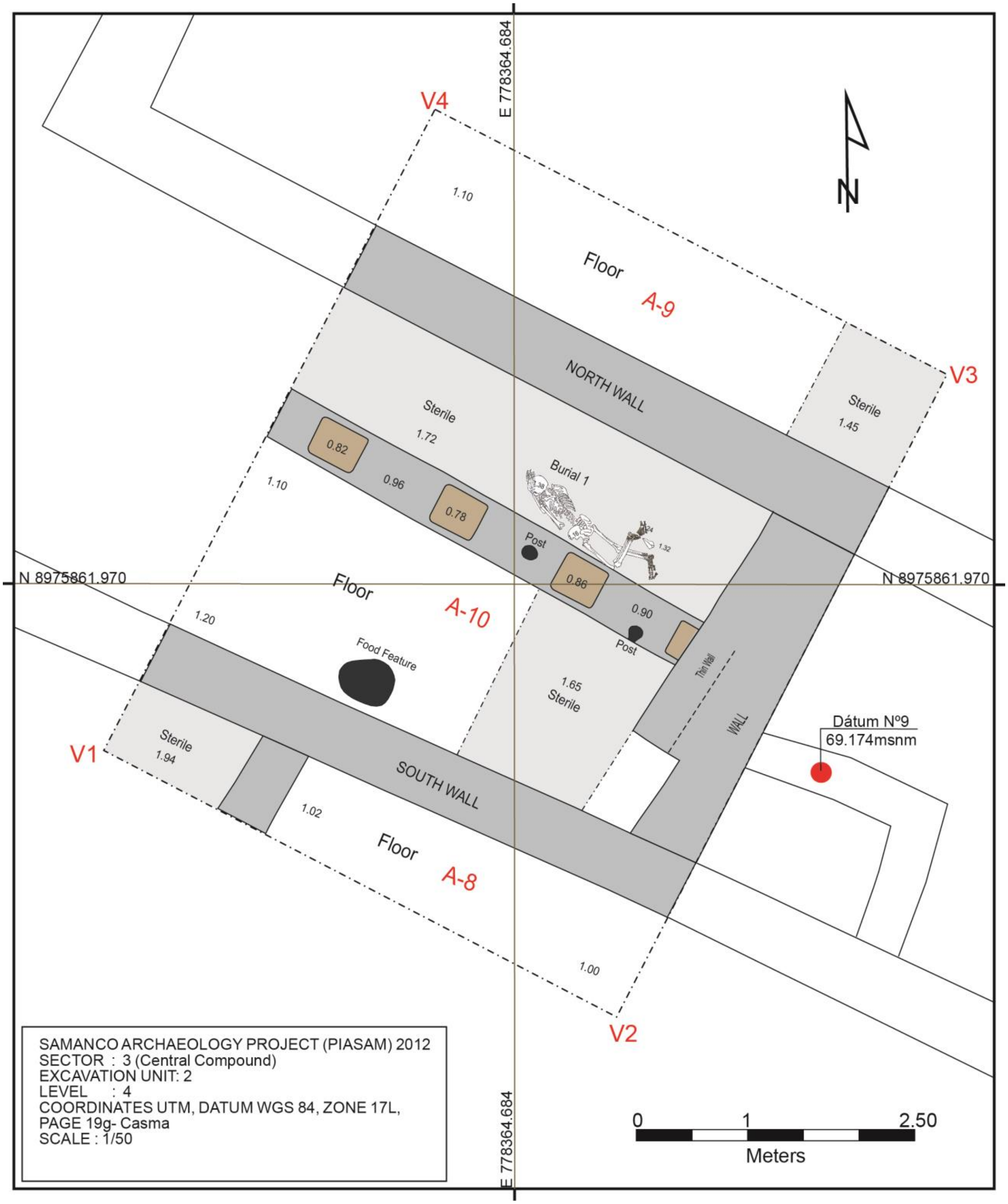


Figure 4.39b Plan-view drawing of UE-2 from southwest upper patio corner backroom.

Figure 4.39c Photo and construction sequence of UE-2 backroom at bottom floor level.

Figure 4.40 Food feature from UE-2 associated with Phase 2.

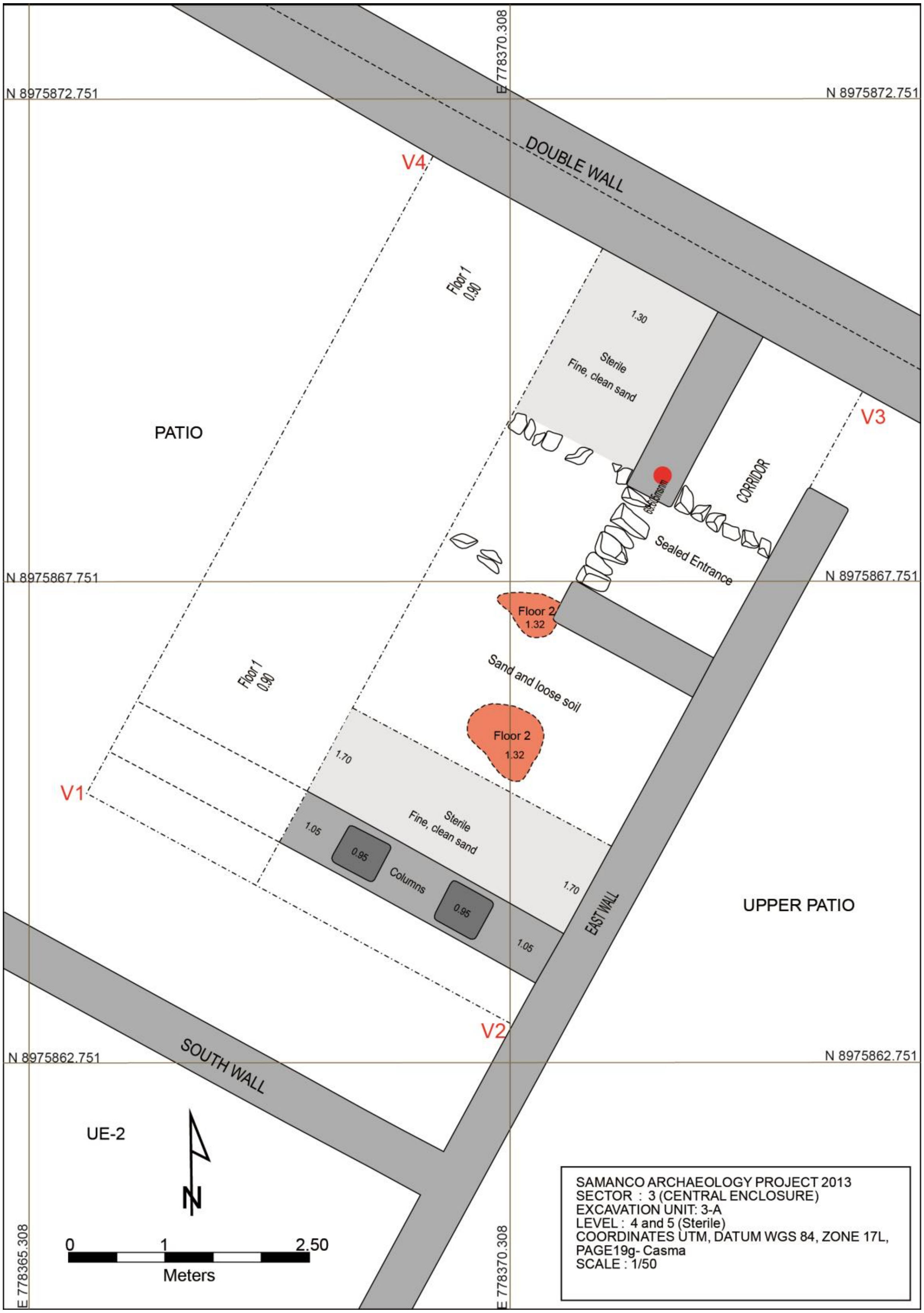


Figure 4.41a Plan-view drawing of UE-3A northwest upper patio corner backroom.

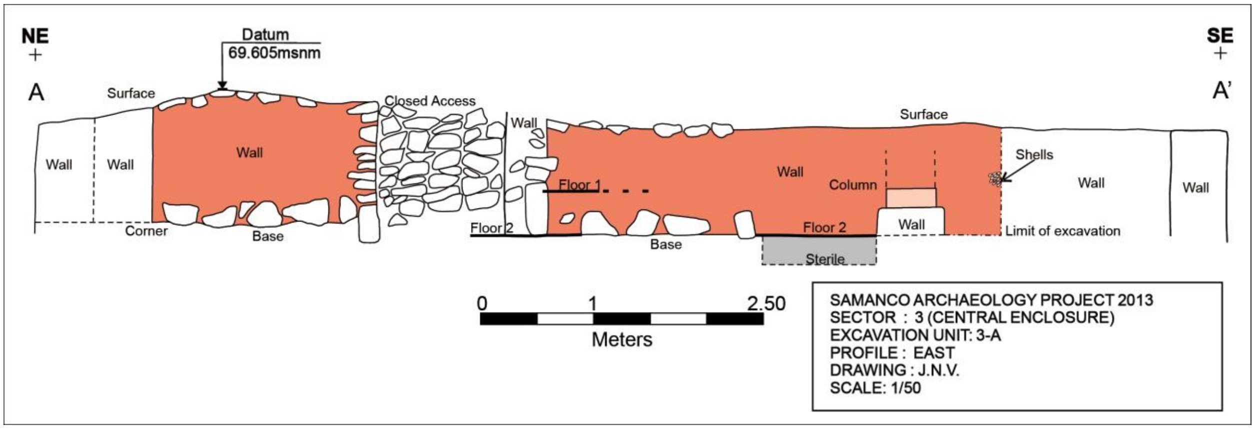


Figure 4.41b Profile drawing of UE-3A east wall.

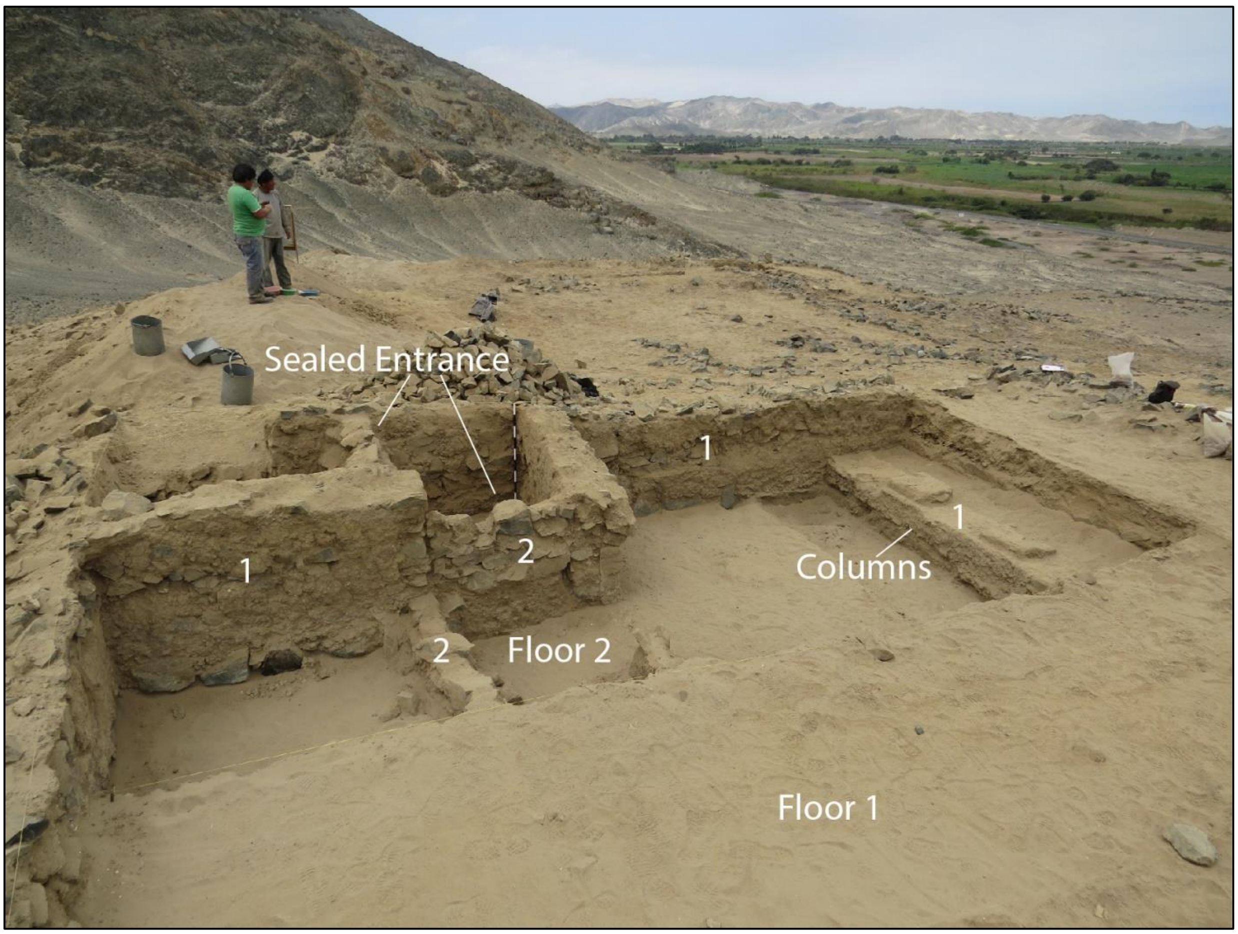


Figure 4.41c Eastward view of UE-3A showing two phase renovation sequence.

Figure 4.42 Massive shell deposit from UE-3A between east wall and entrance.

Figure 4.43 Wooden paddle from UE-3A located adjacent to hearth context atop Floor 1.

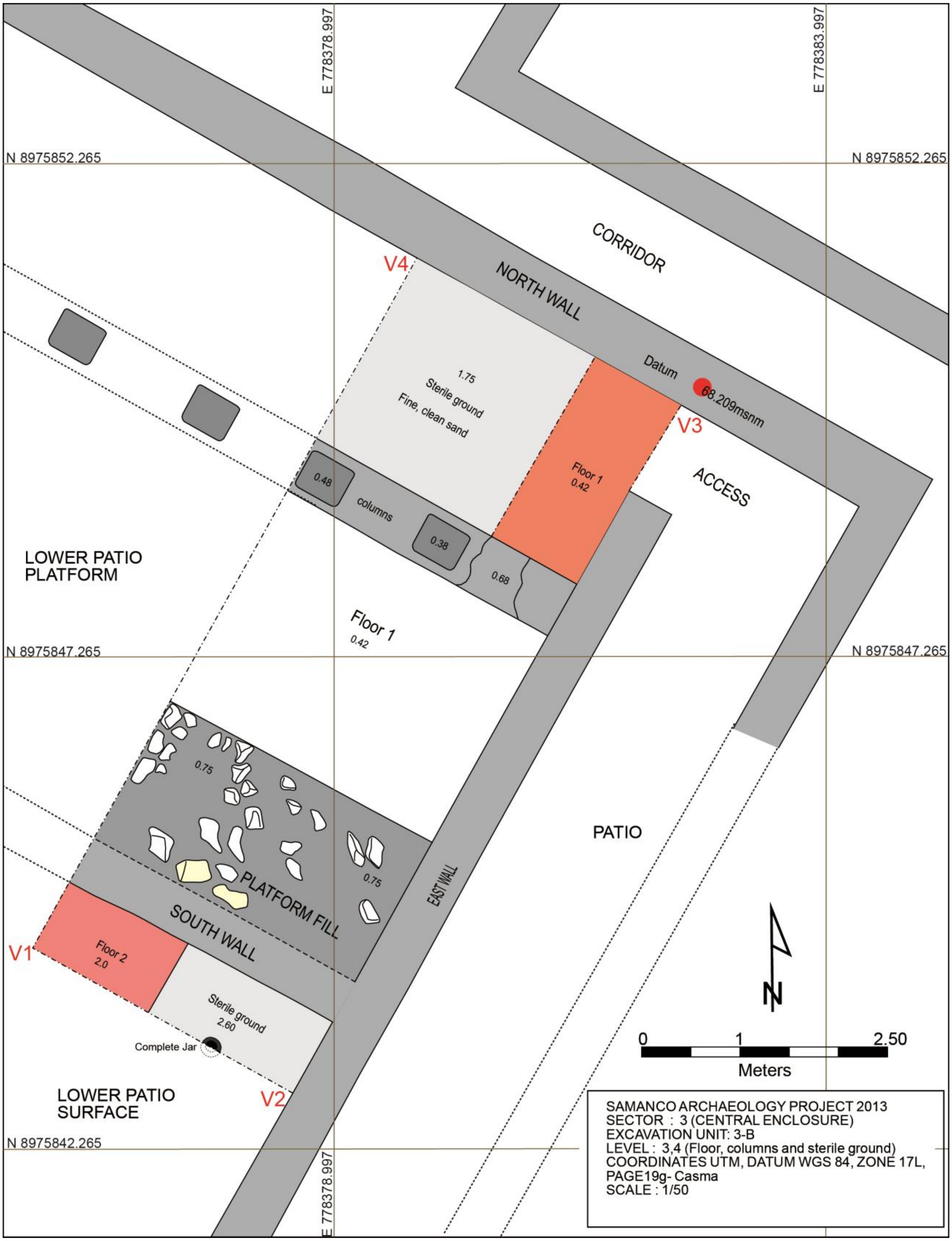


Figure 4.44a UE-3B plan-view drawing of northeast lower patio corner.

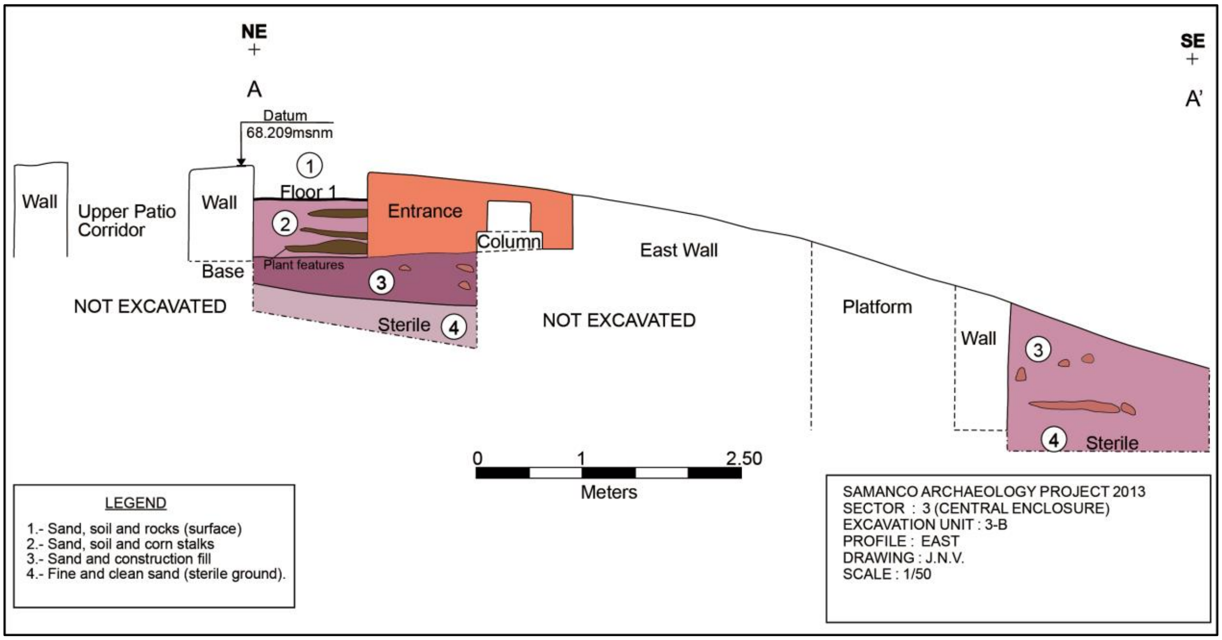


Figure 4.44b UE-3B east wall profile.

Figure 4.44c Southward view of UE-3B patio platform excavation; note cracks in colonnade.

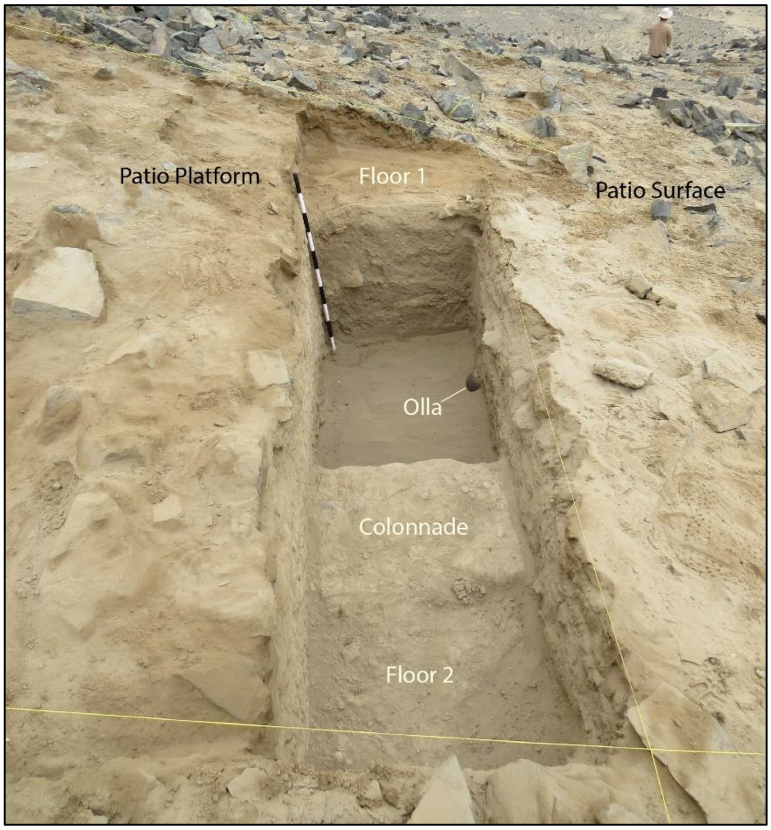


Figure 4.45d Eastward view of UE-3B patio surface excavation.

Figure 4.45 Maize deposit feature located just inside the UE-3B patio platform entrance.

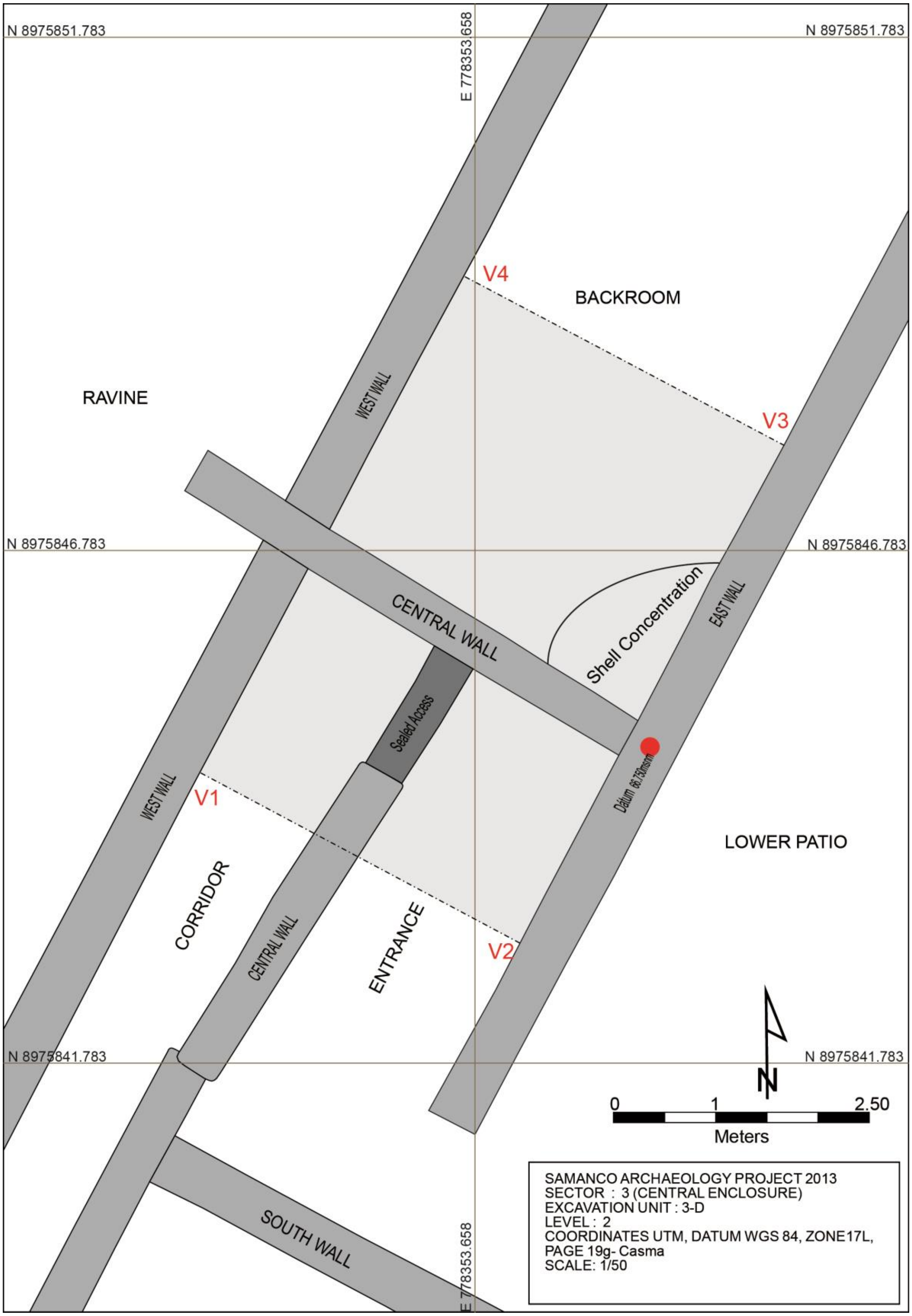


Figure 4.46a UE-3D plan-view drawing of southwest lower patio corner.

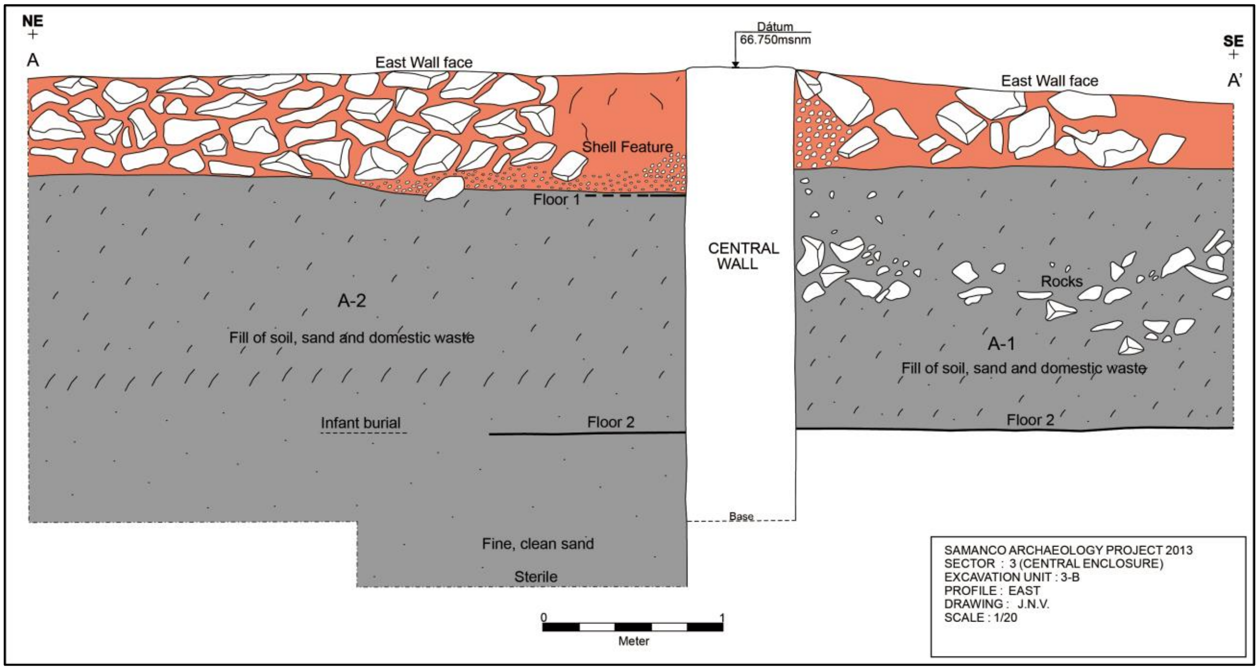


Figure 4.46b UE-3D east wall profile.

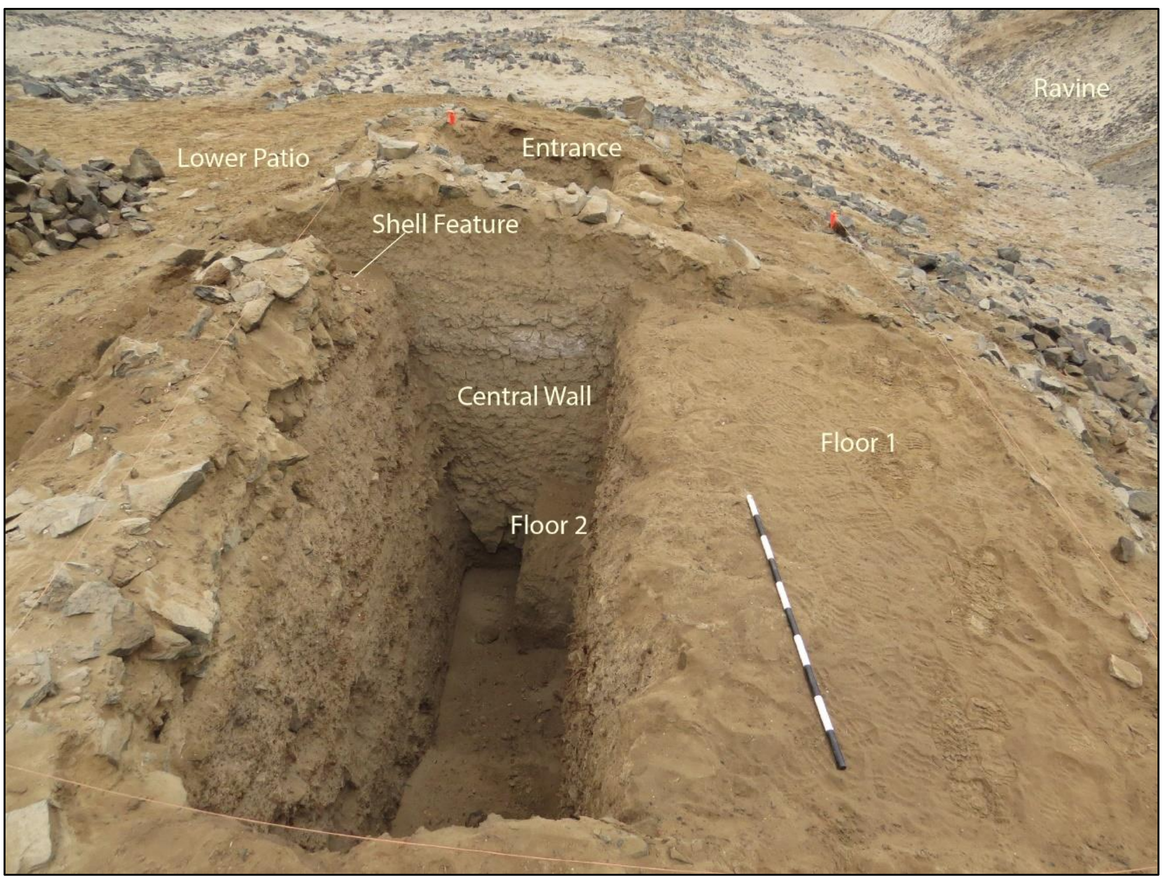


Figure 4.46c Southward view of UE-3D Back room adjacent to southwest patio entrance.

Figure 4.47 White-painted wall fragment with cross-hatched design.

Figure 4.48 Shell concentration from the UE-3D back room adjacent to southwest patio entrance.

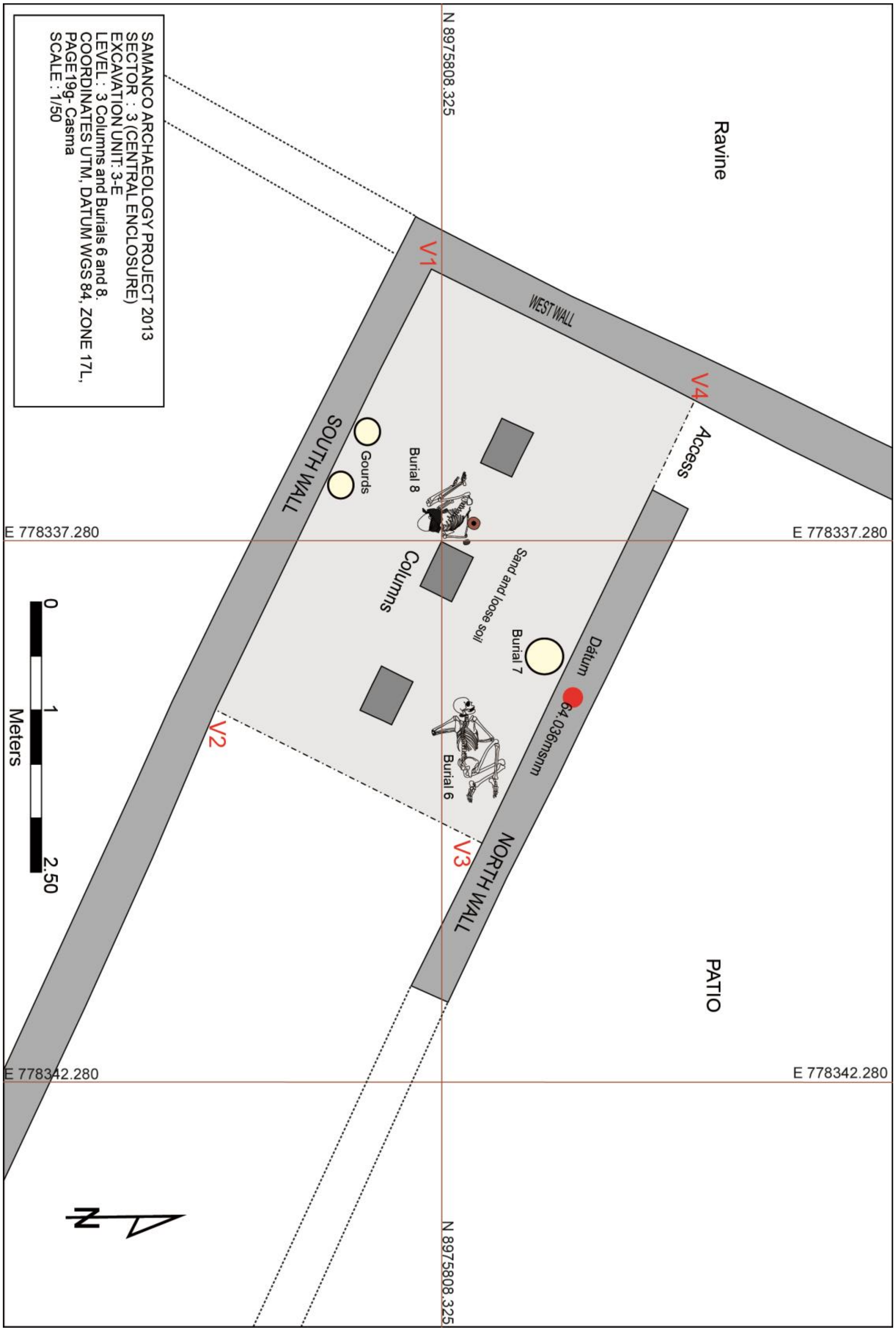


Figure 4.49a Plan-view drawing of UE-3E back room in the center of Compound 3.

Figure 4.49b Westward photo of UE-3E backroom at Floor 2 level, facing ravine.

Figure 4.50 Gourd cup from UE-3E Floor 1 level.

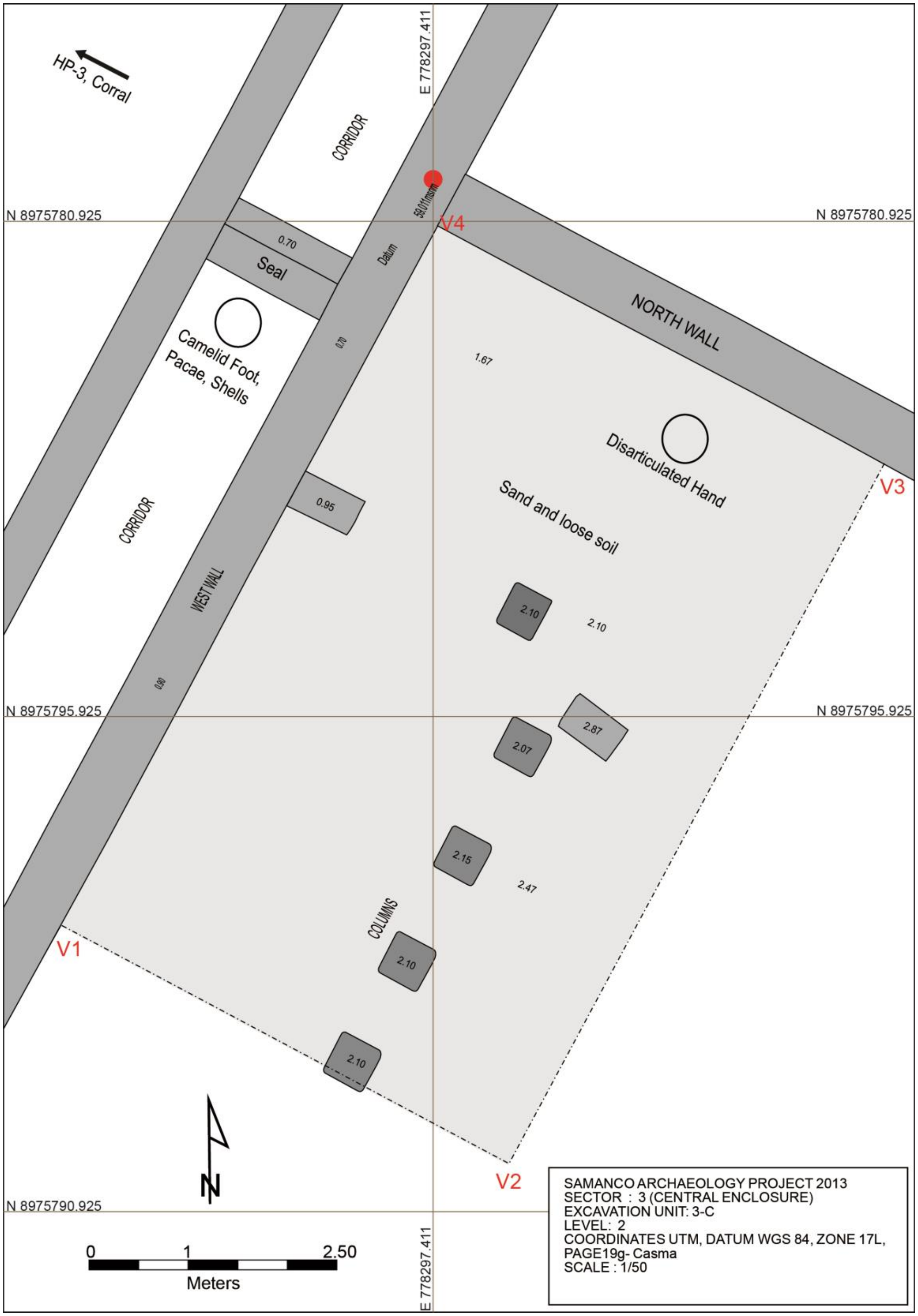


Figure 4.51a Plan-view drawing of UE-3C.

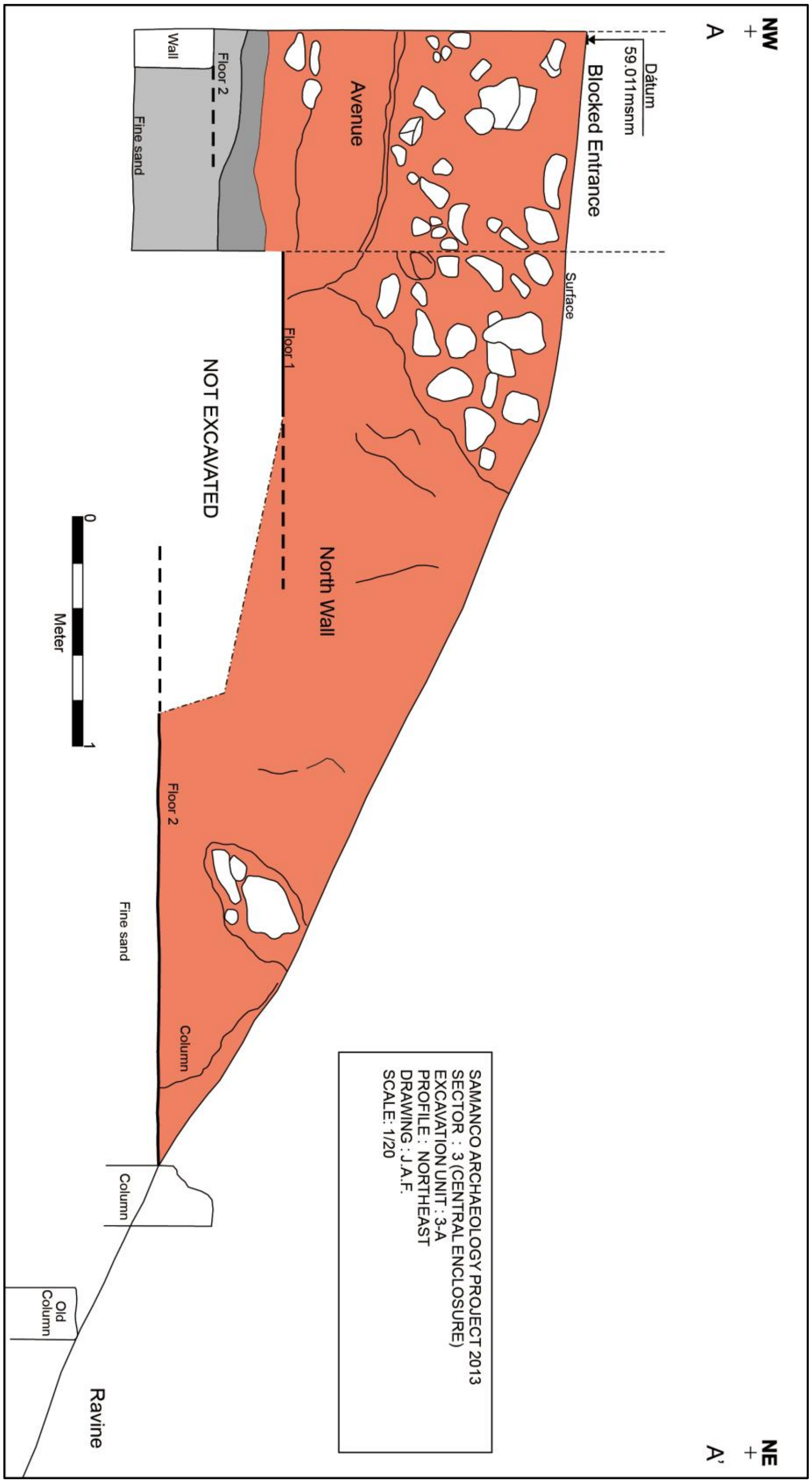


Figure 4.51b Profile drawing of UE-3C north wall.

Figure 4.51c Westward view of the UE-3C long verandah across the ravine.

Figure 4.51d Close-up westward view of UE-3C excavation along upper verandah platform.

Figure 4.52 Human fingers recovered from UE-3C in the final floor reparation fill.

Figure 4.53 Camelid foot recovered from UE-3C atop the final floor of the avenue.

Figure 4.54 Old column with white paint and cross-hatched designs from UE-3C early phase.

Figure 4.55a Photo of HP-3 depth of deposits and retaining walls used to build up Compound 3.

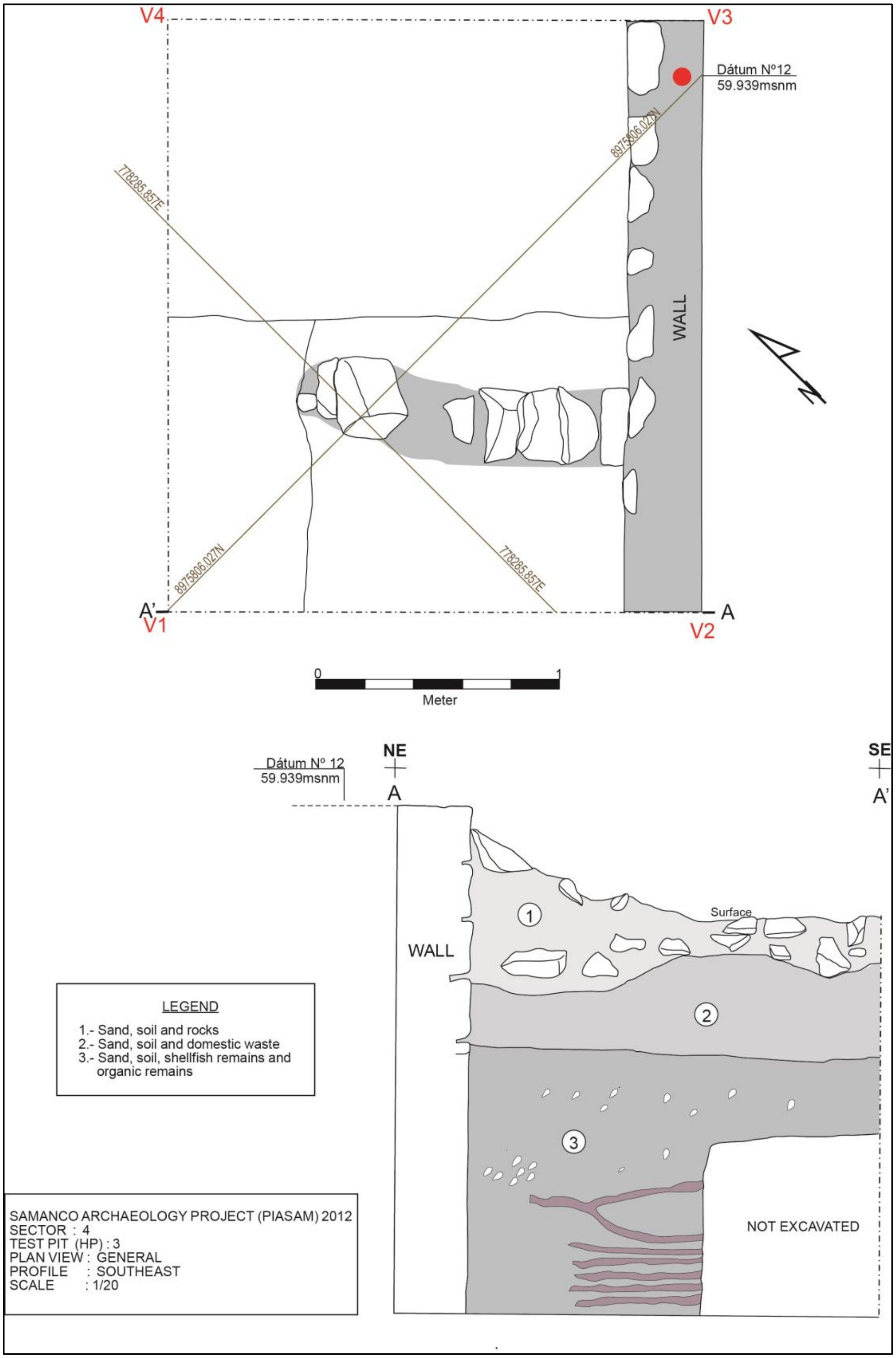


Figure 4.55b HP-3 plan-view and profile.

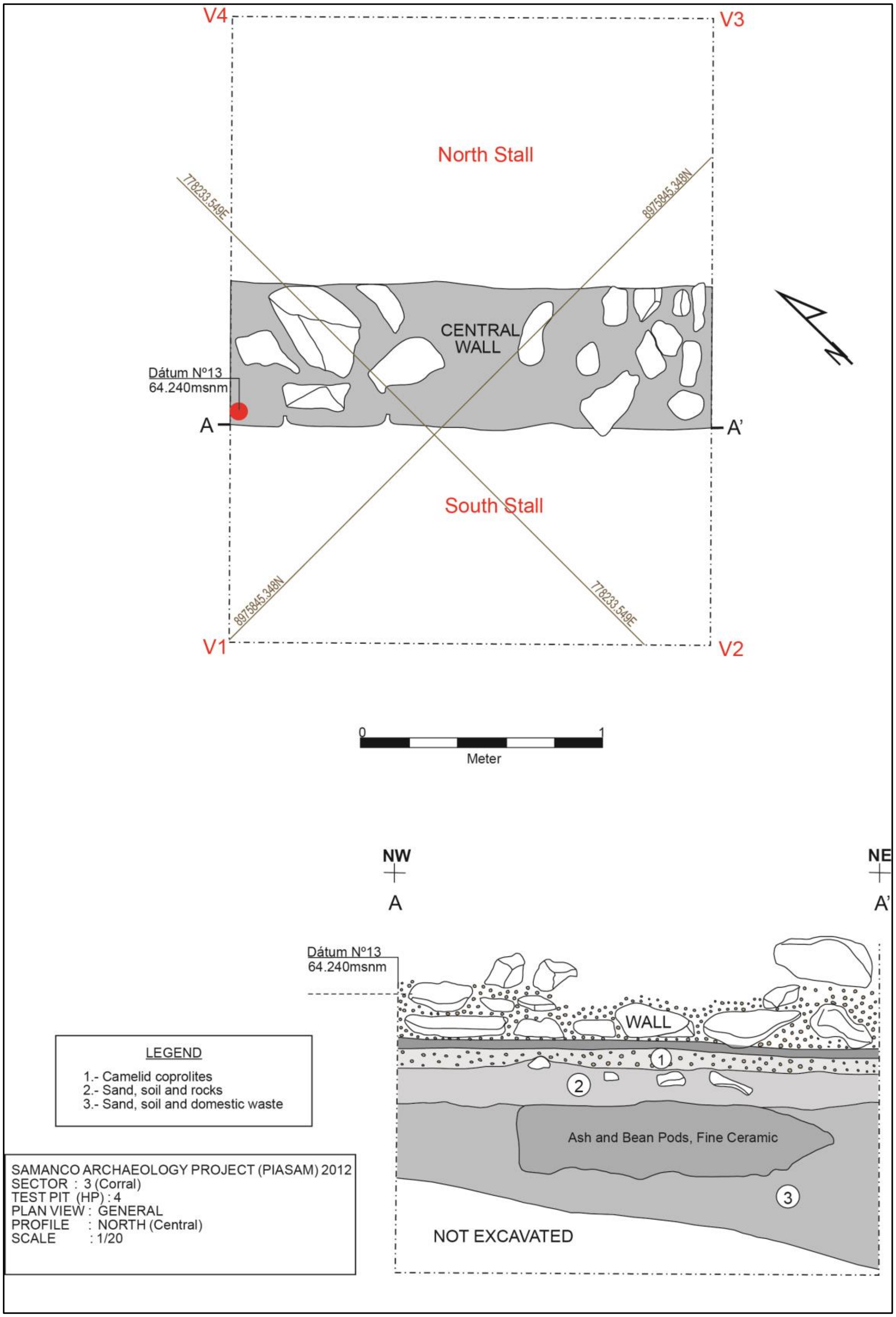


Figure 4.56a HP-4 Plan-view and profile from northwest corner corral stalls.

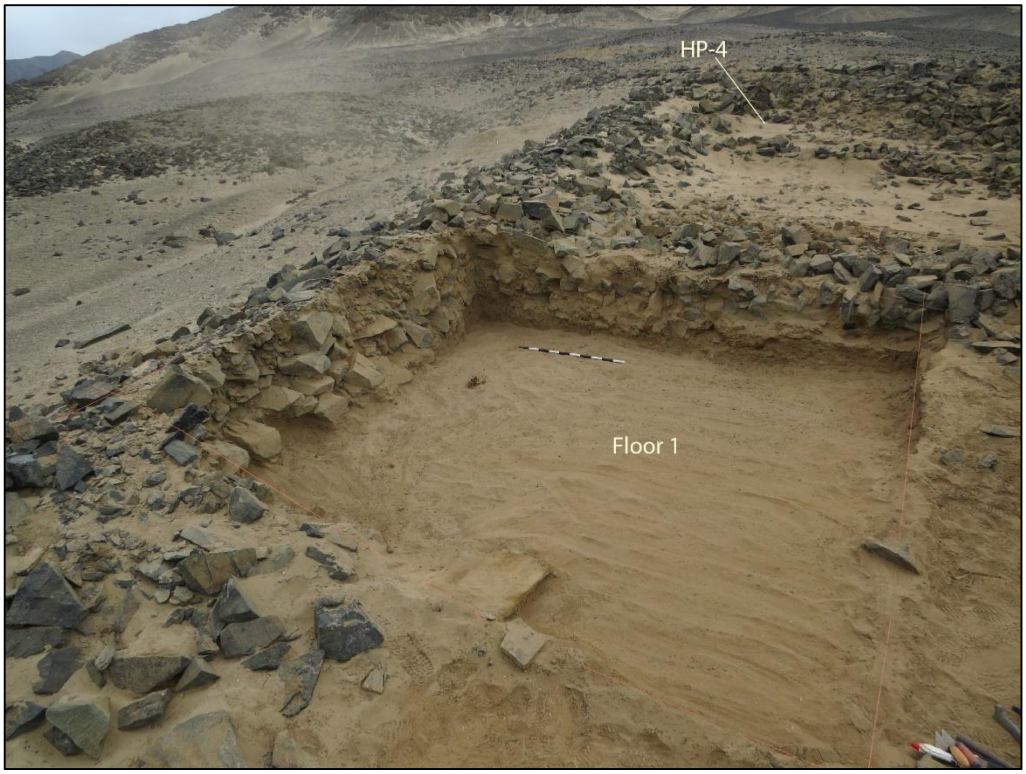


Figure 4.56b Northward view of UE-4 in central corral room, with HP-4 stall test pit noted.

Figure 4.57 Camelid dung from HP-4 stall.

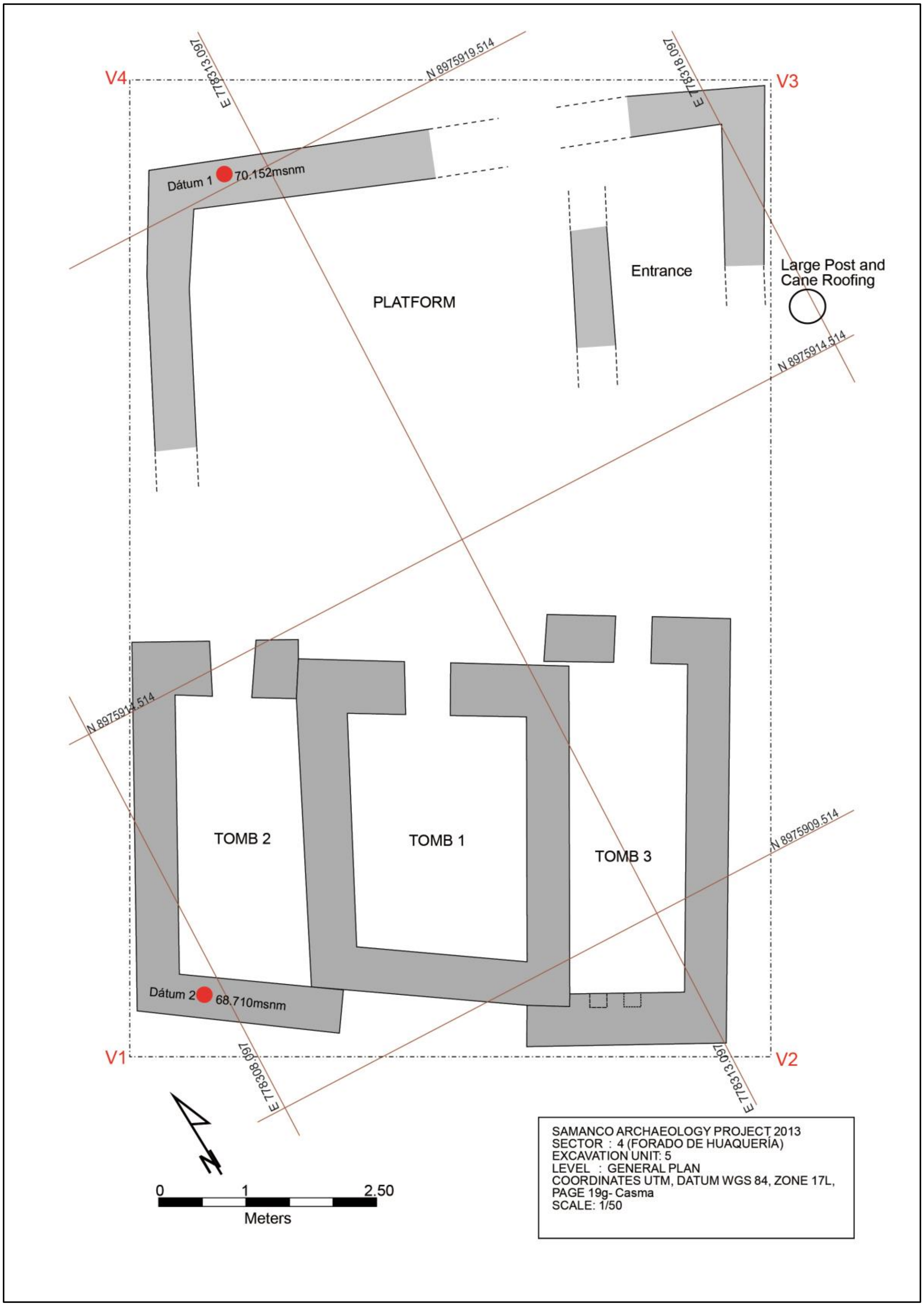


Figure 4.58a Plan-view drawing of UE-5 tombs and platform.

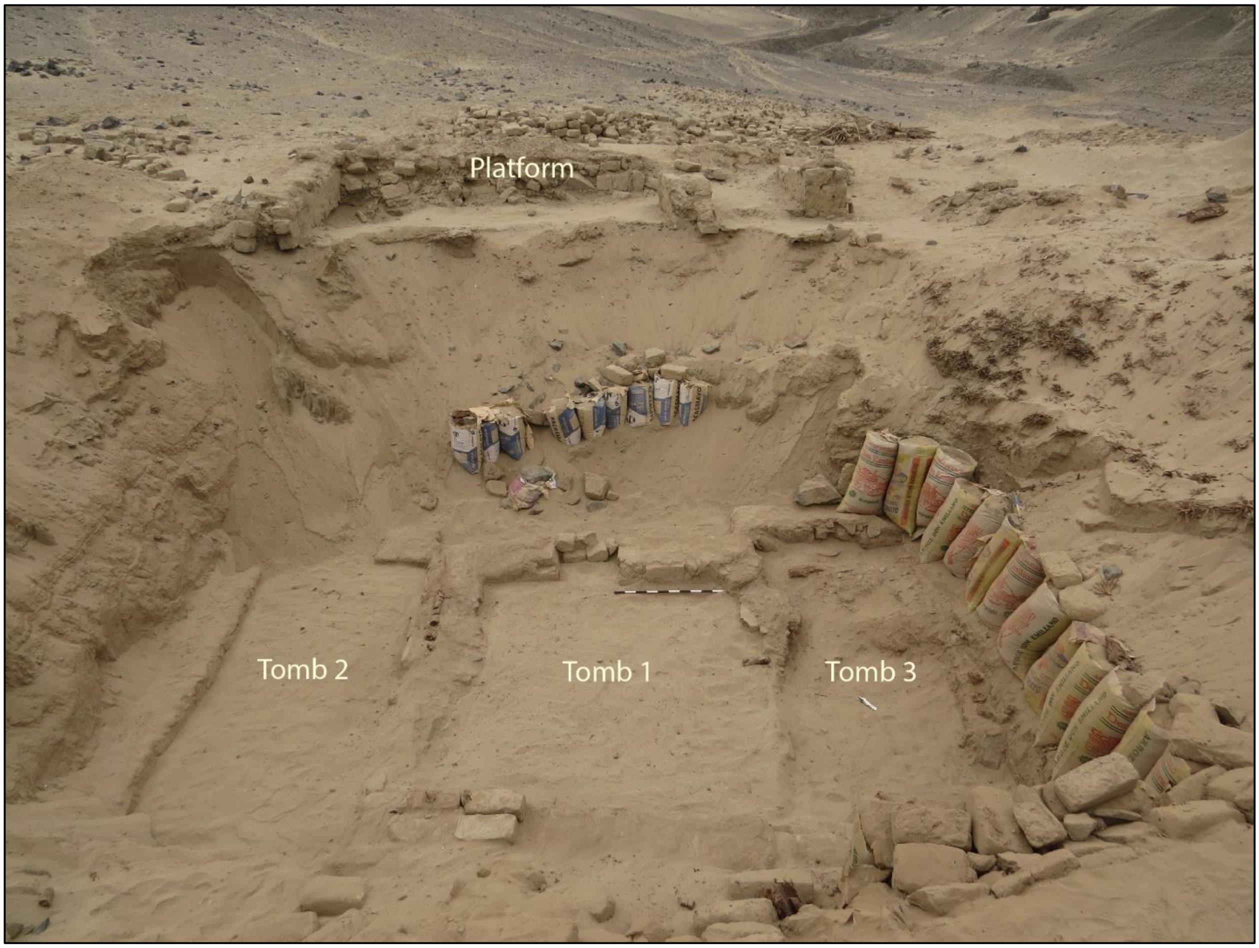


Figure 4.58b Northward view of UE-5 subterranean tomb and platform.

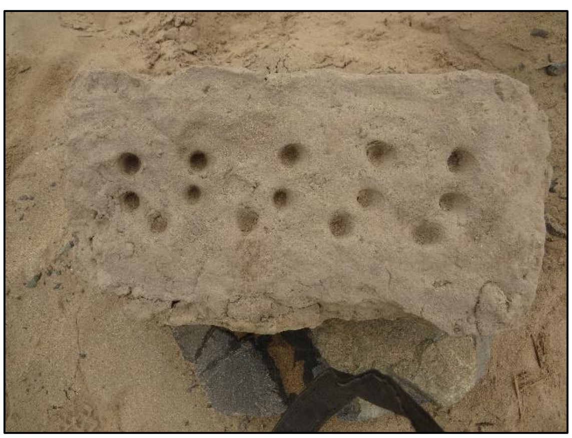


Figure 4.59 Maker’s marks from UE-5 adobe bricks, right brick is from Tomb 1 entrance.

Figure 4.60 Adobe types 1-3 recovered from UE-5.

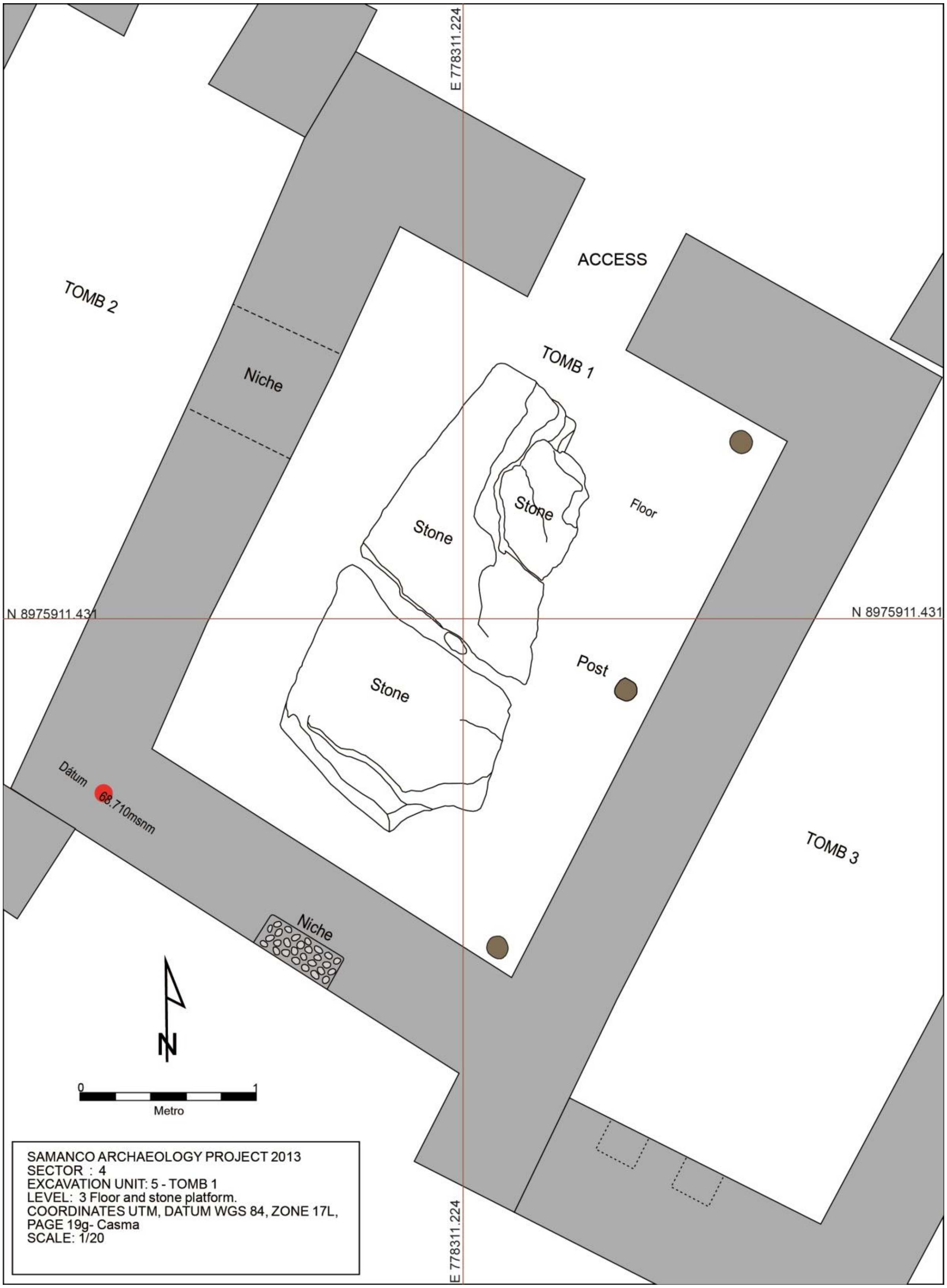


Figure 4.61a Plan-view drawing of UE-5 Tomb 1.

Figure 4.61b Disturbed UE-5 feature, with wooden sculpture, destroyed bones and grave goods.

Figure 4.61c Northward view of UE-5 Tomb 1 floor level.

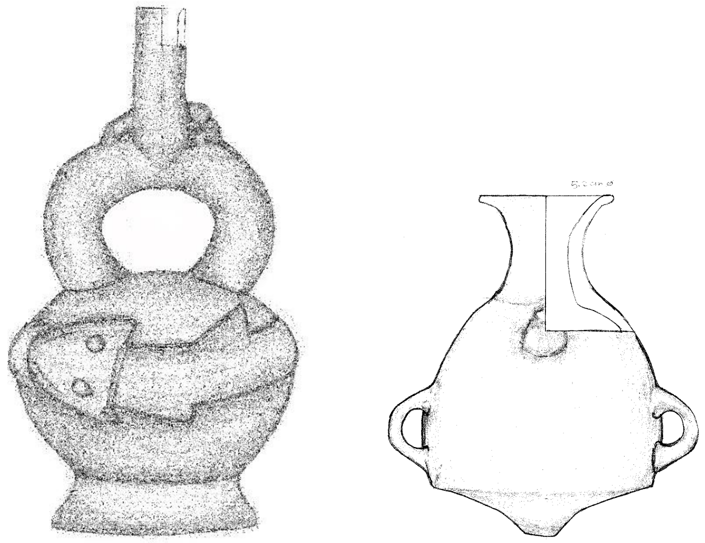


Figure 4.62 Examples of Chimú-Inka blackware pottery from UE-5 tomb. Left: Stirrup-spout bottle with molded shark and monkey appliqué; Right: Inka style *aribalo* jar (Scale 1:3).

Figure 4.63 Wooden sculptures of flute players from UE-5 tomb (Scale 10 cm).

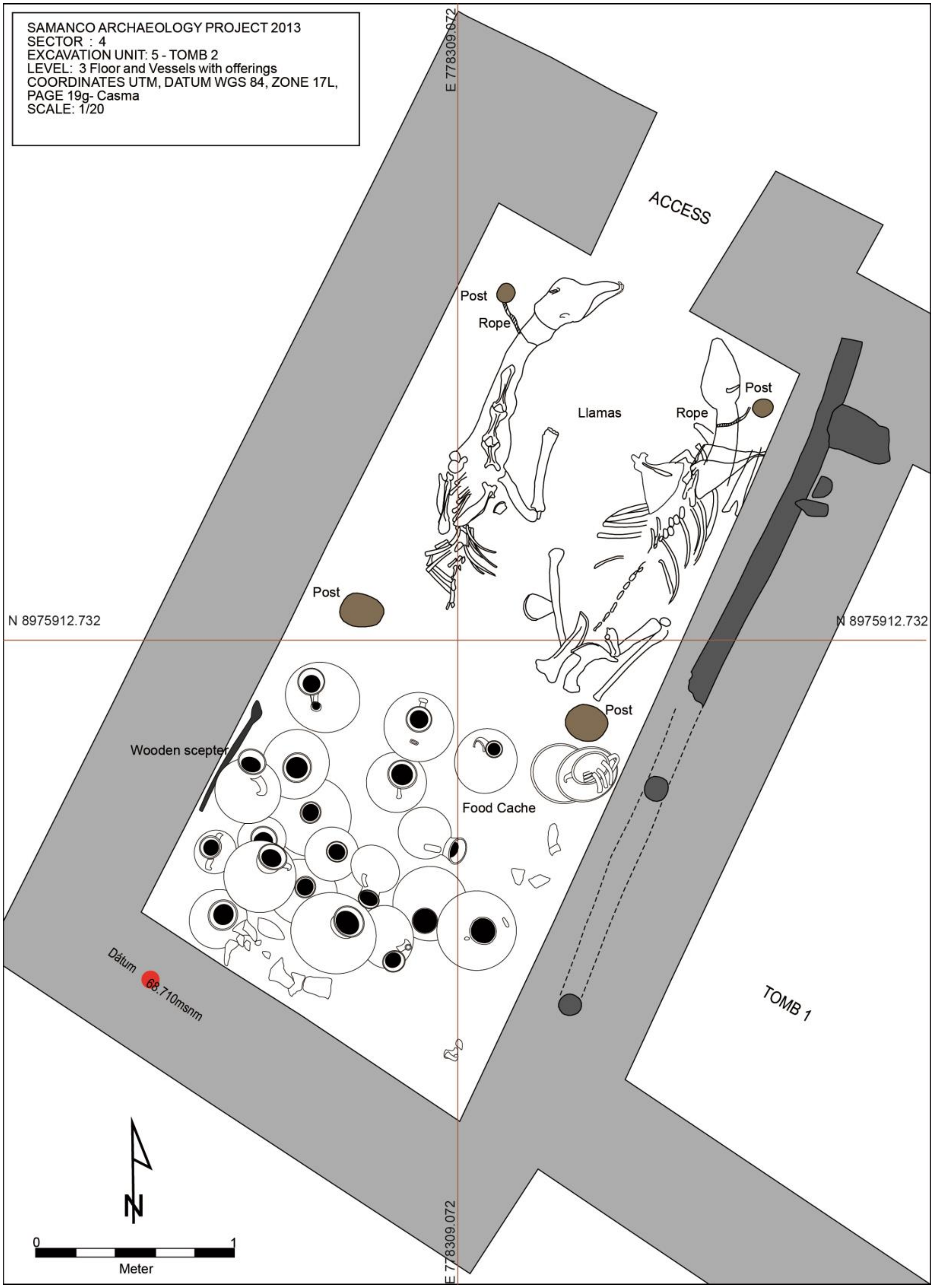


Figure 4.64 Plan-view drawing of UE-5 Tomb 2 west chamber.

Figure 4.65 Sacrificed camelids facing the entrance of UE-5 Tomb 2.

Figure 4.66 Cache of ceramics filled with food and drink from UE-5 Tomb 2.

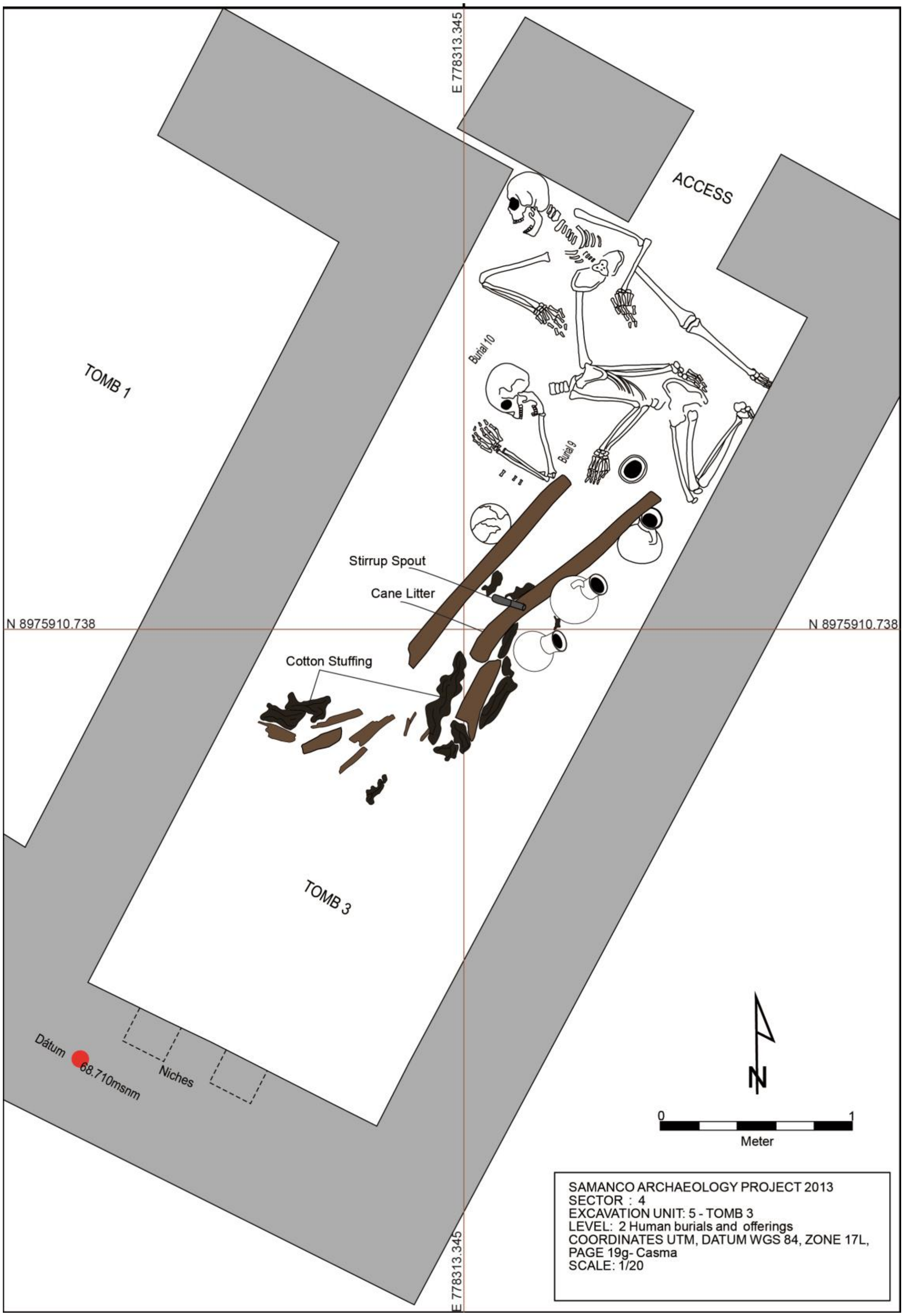


Figure 4.67a Plan-view drawing of UE-5 Tomb 3 east chamber.

Figure 4.67b Southward view of UE-5 Tomb 3 chamber showing attendants and carrying litter.

Figure 4.68 Copper Inka style ceremonial knives found beneath Tomb 3 attendants.

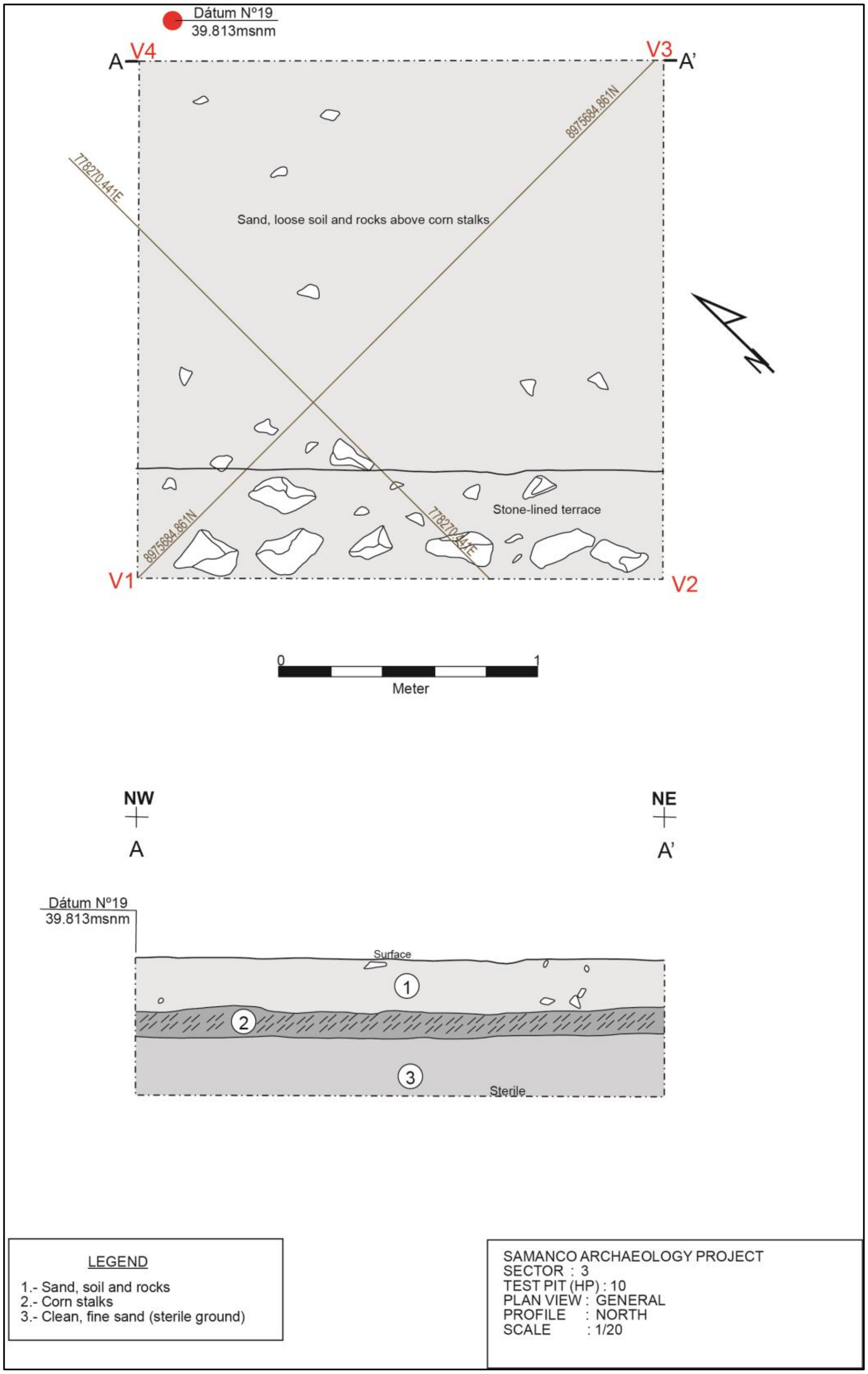


Figure 4.69a HP-10 plan-view and profile.

Figure 4.69b Westward photo of HP-10, maize layer, and surrounding terraced fields.

Figure 4.69c Close-up view of cornstalks cut and laid horizontally, interspersed with shucks and camelid dung.

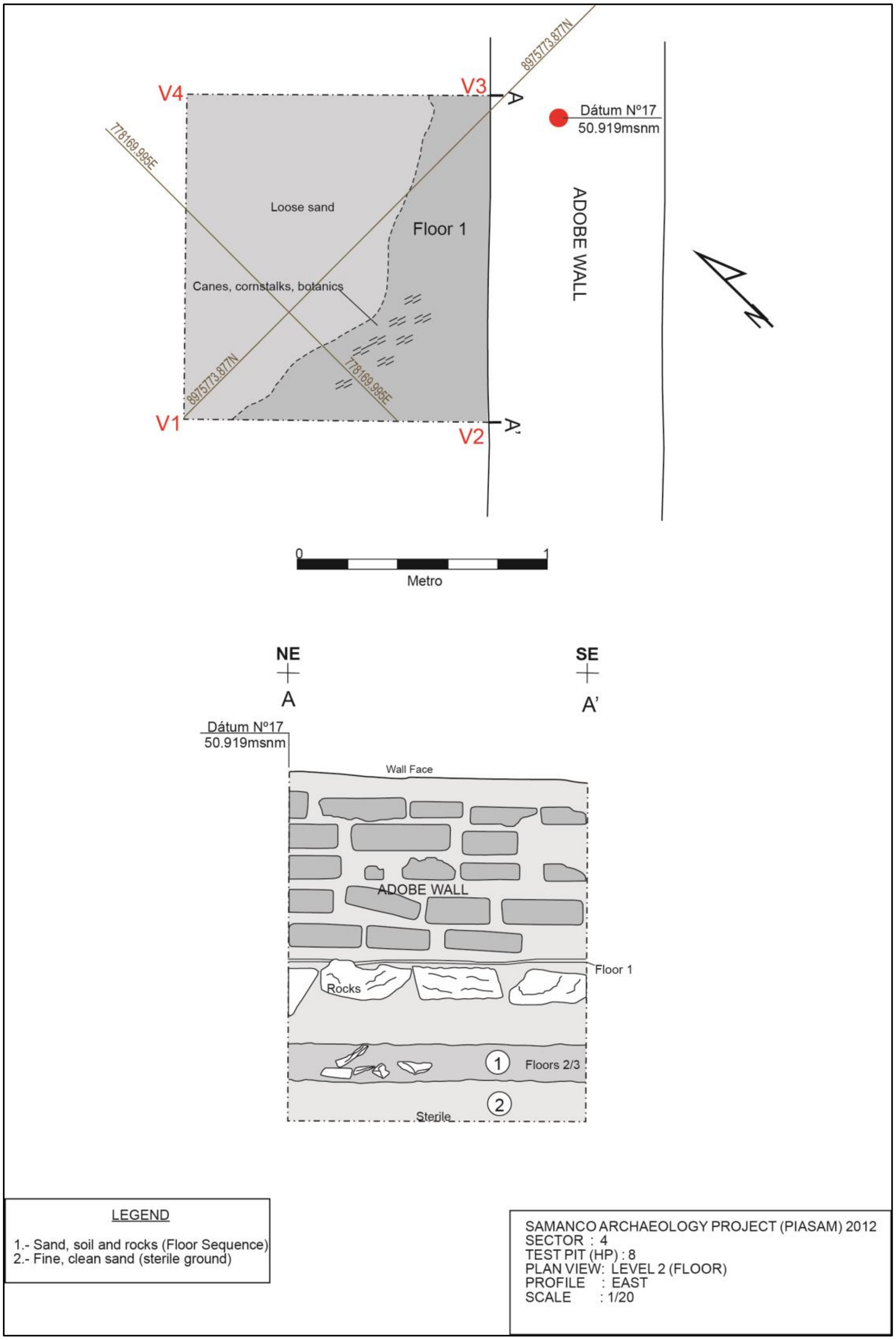


Figure 4.70a Plan-view and profile drawings of HP-8 from Compound 4.

Figure 4.70b Adobe wall, stone foundation, and Floor one of HP-8 adjacent to looter's pit.

Figure 4.71a HP-9 cane architecture along southern area of HP-8 adobe structure.

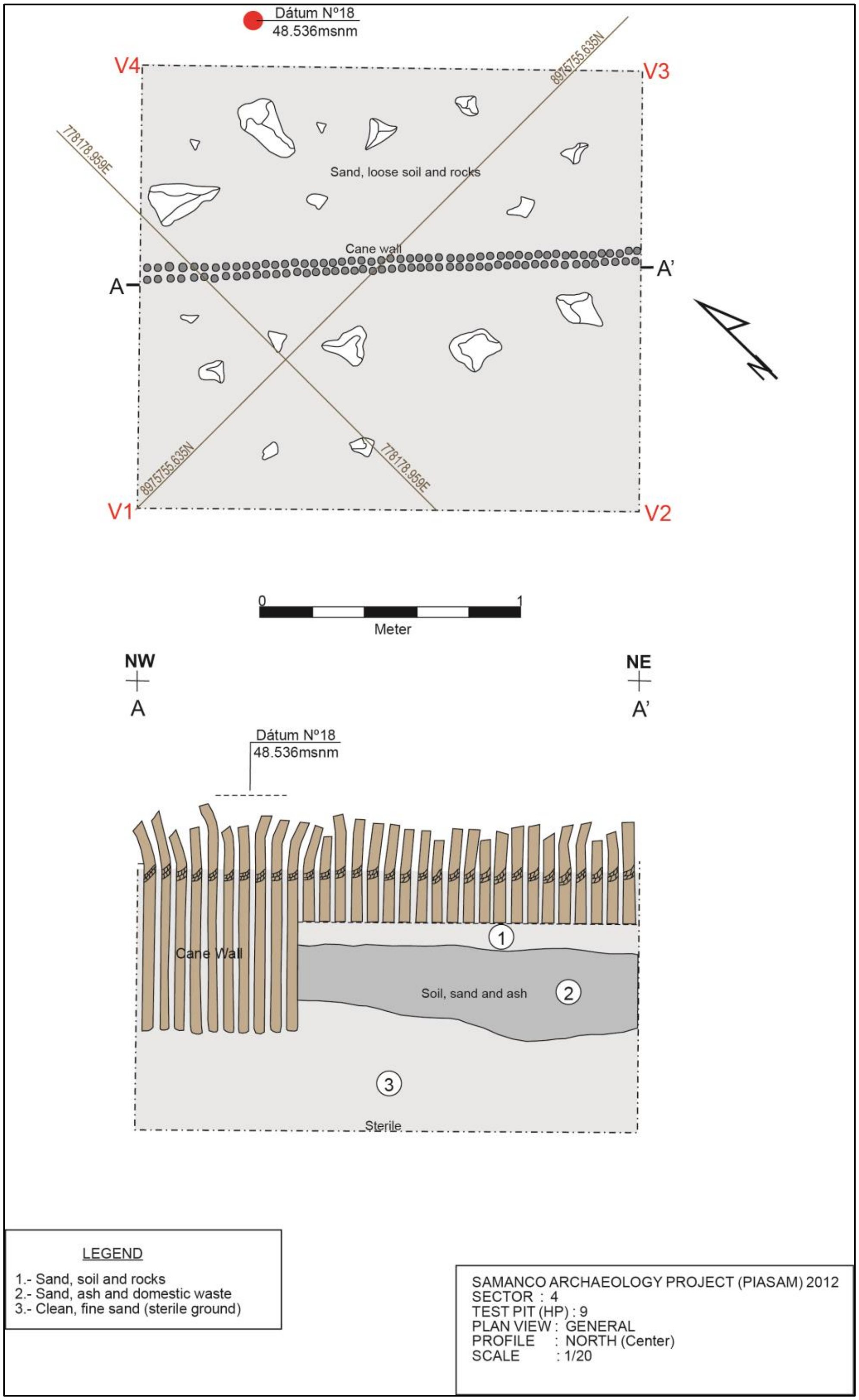


Figure 4.71b HP-9 plan-view and profile drawings from Compound 4.

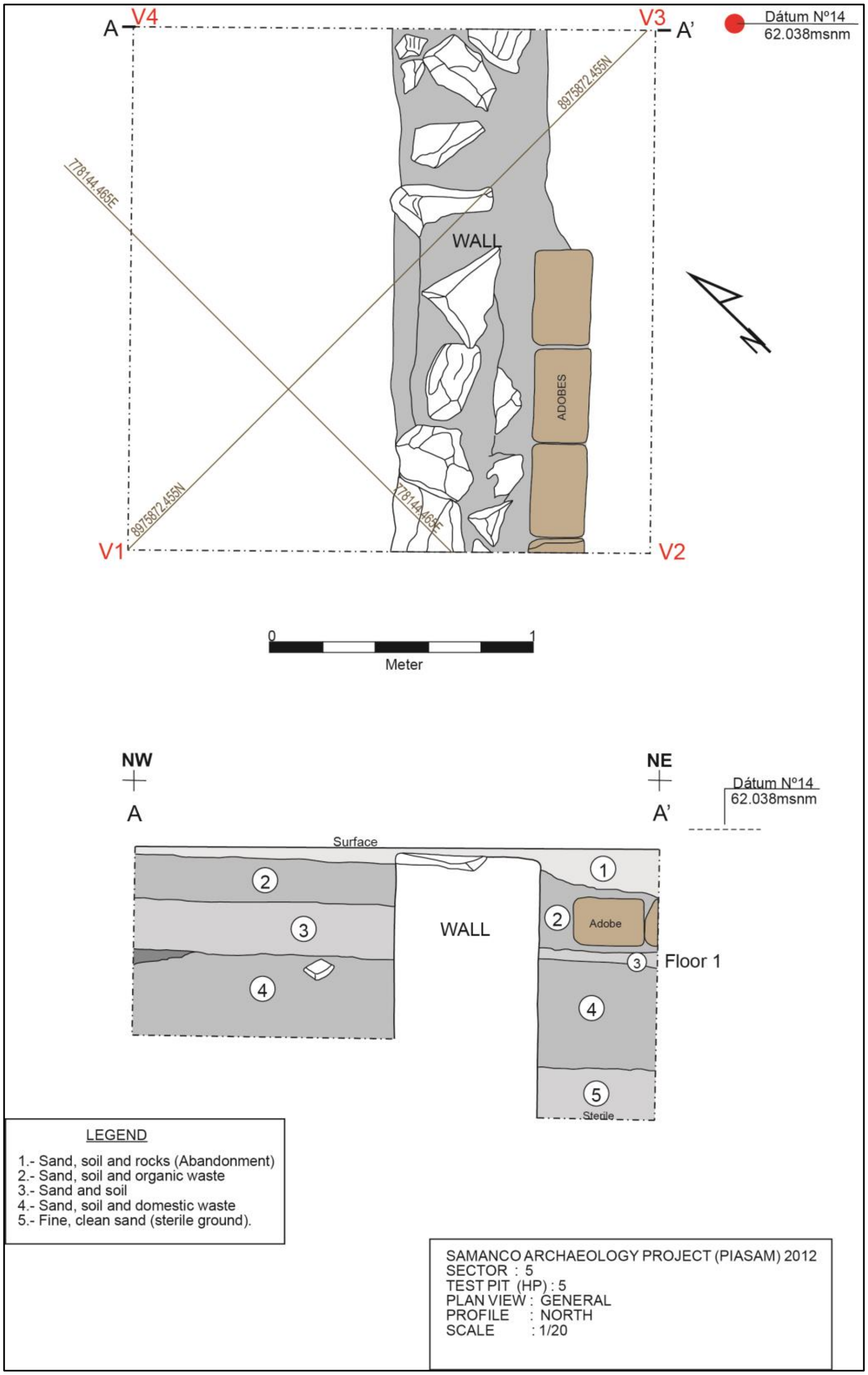


Figure 4.72 Plan-view and profile drawings of UE-5 from Compound 5.

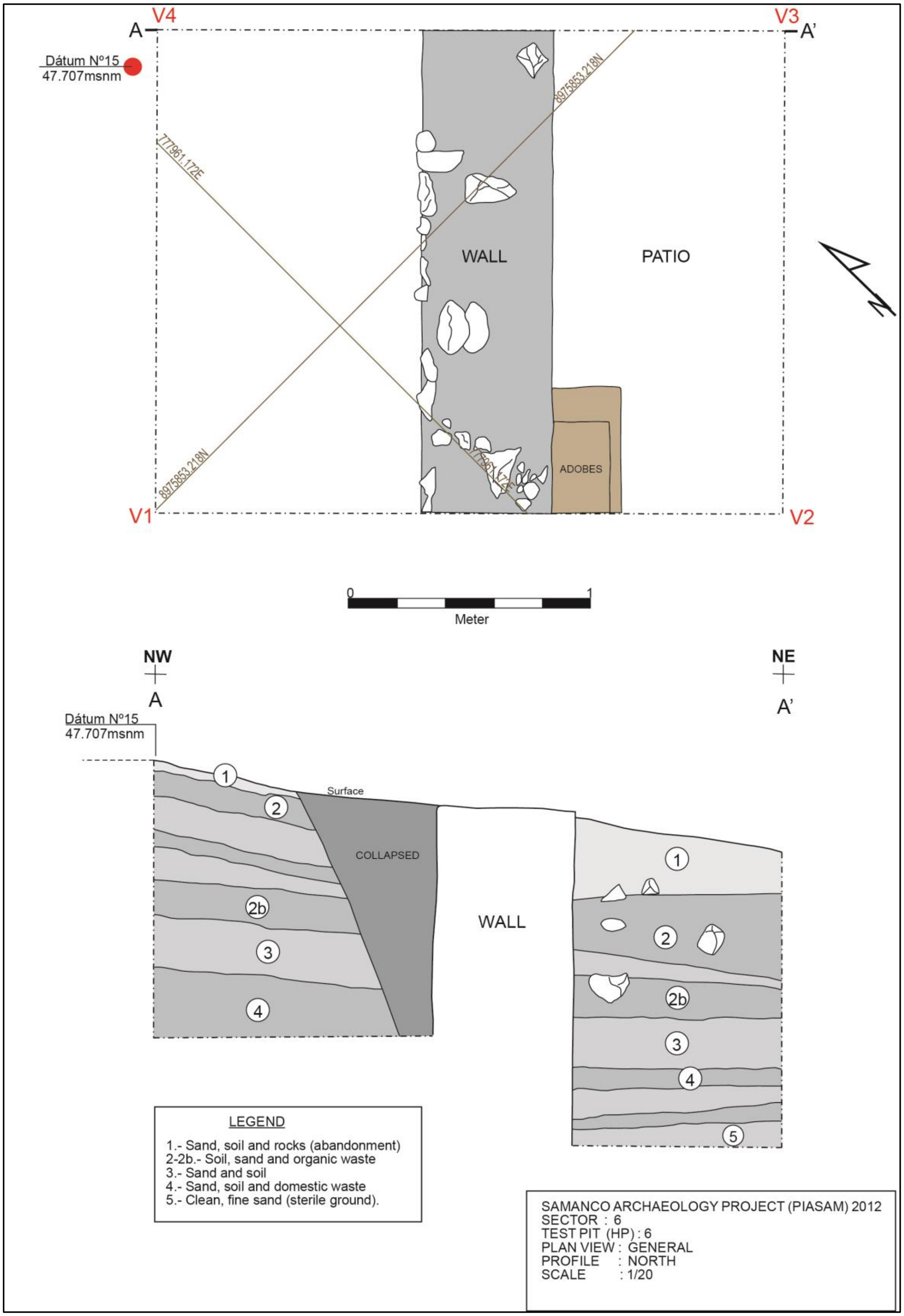


Figure 4.73a HP-6 plan-view and profile drawings from Compound 6.

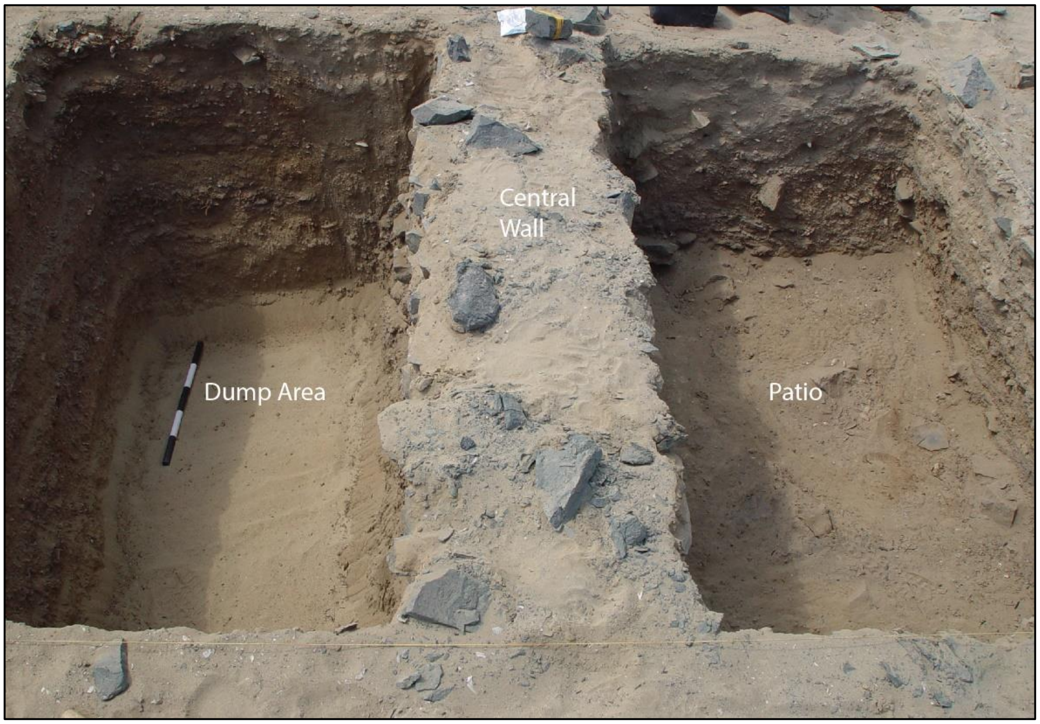


Figure 4.73b Northward view of HP-6 from Compound 6; note successive organic trash deposits.

Figure 4.74a Northward view of HP-7 from dense refuse area; note successive organic deposits.

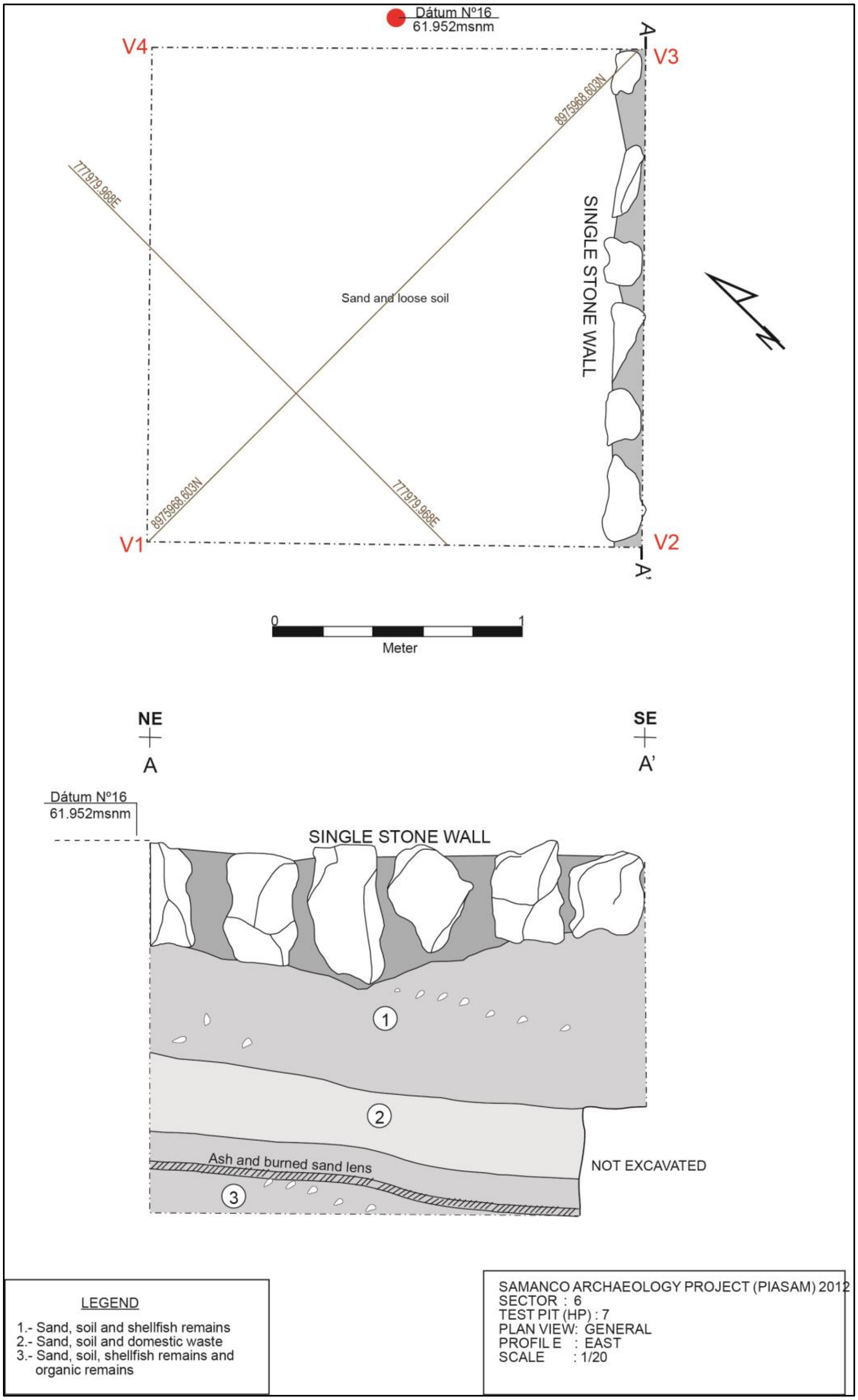


Figure 4.74b HP-7 plan-view and profile from dense refuse area.

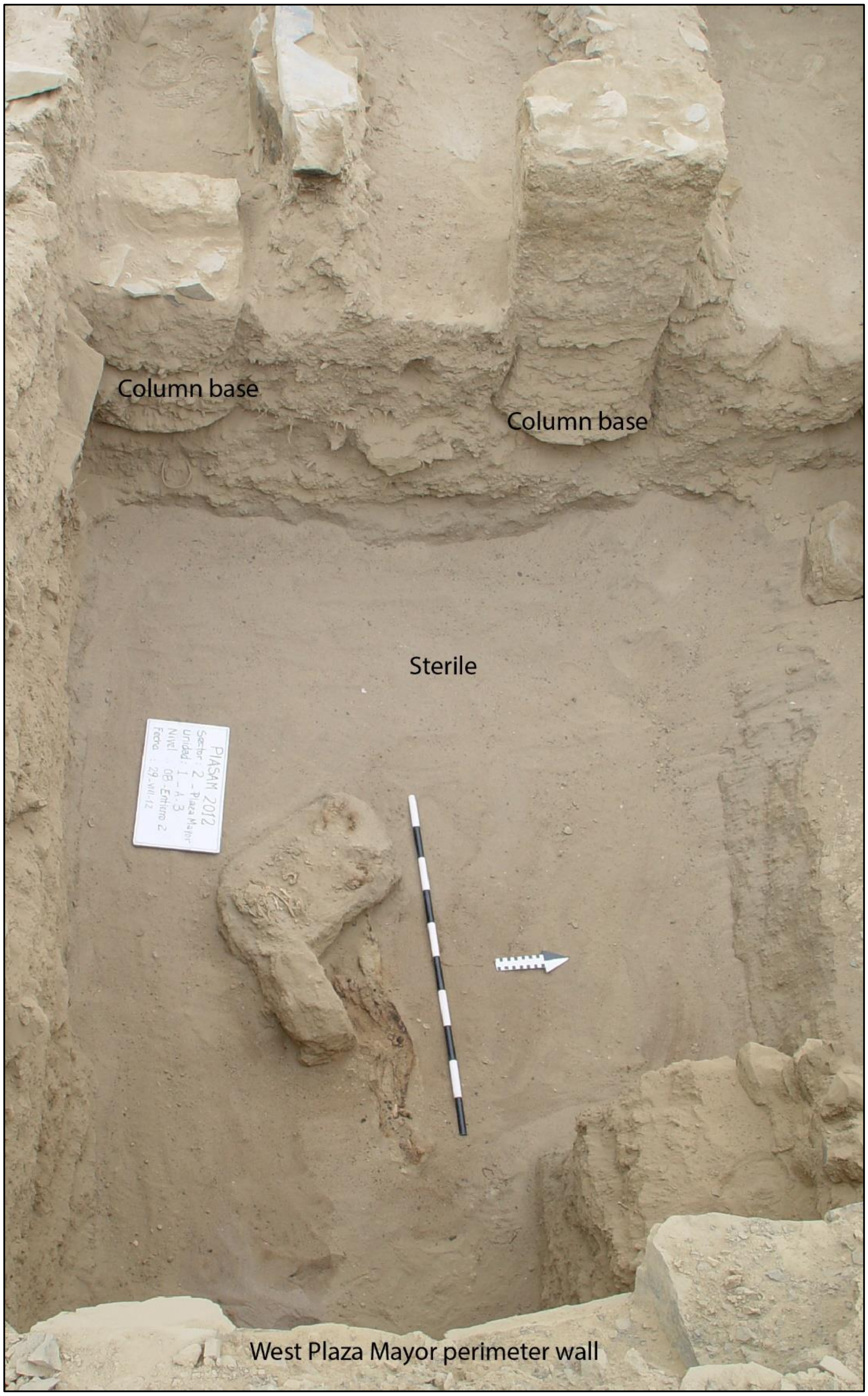


Figure 4.75 Burial 1 photo from UE-1.

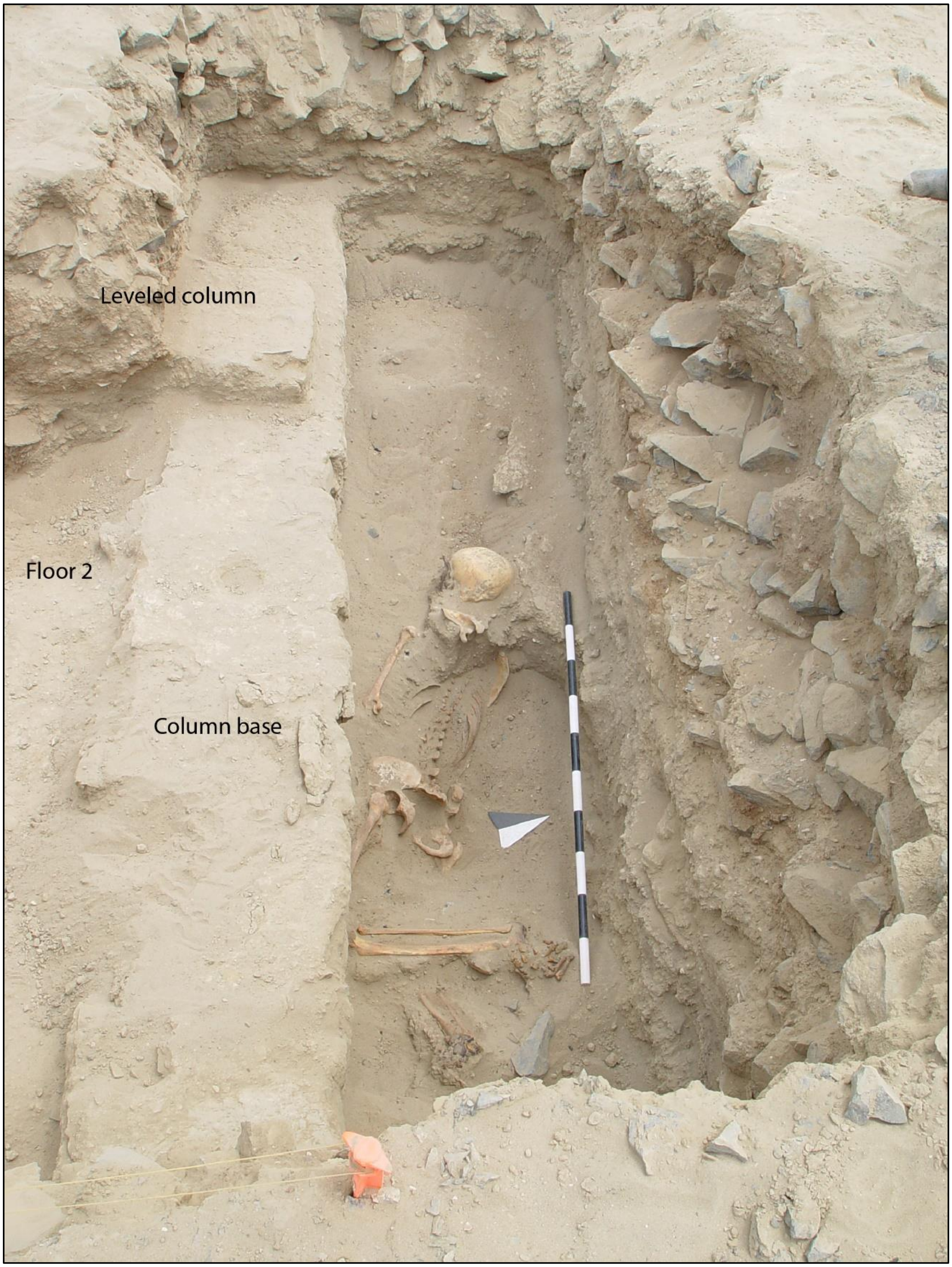


Figure 4.76a Burial 2 photo from UE-2.

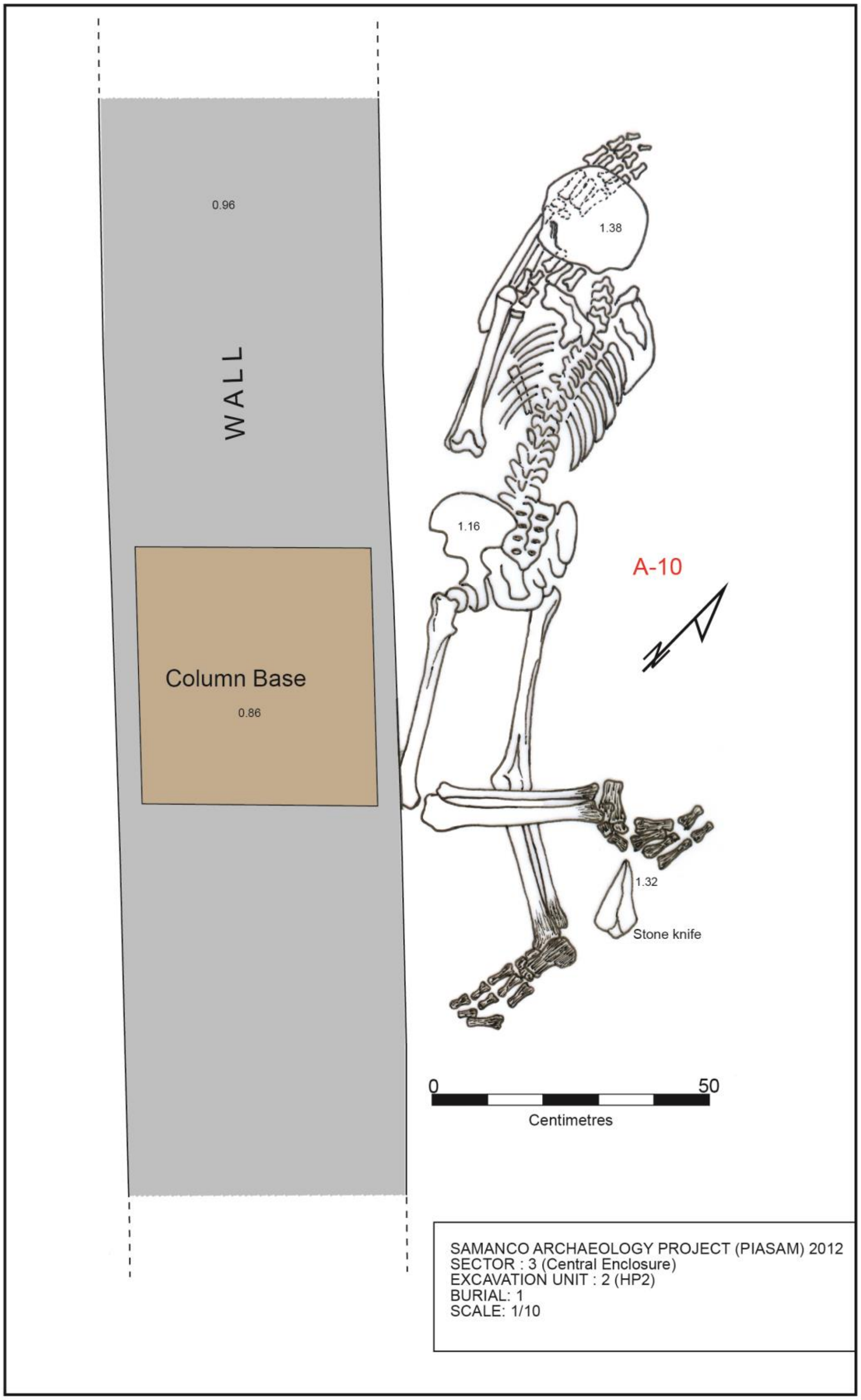
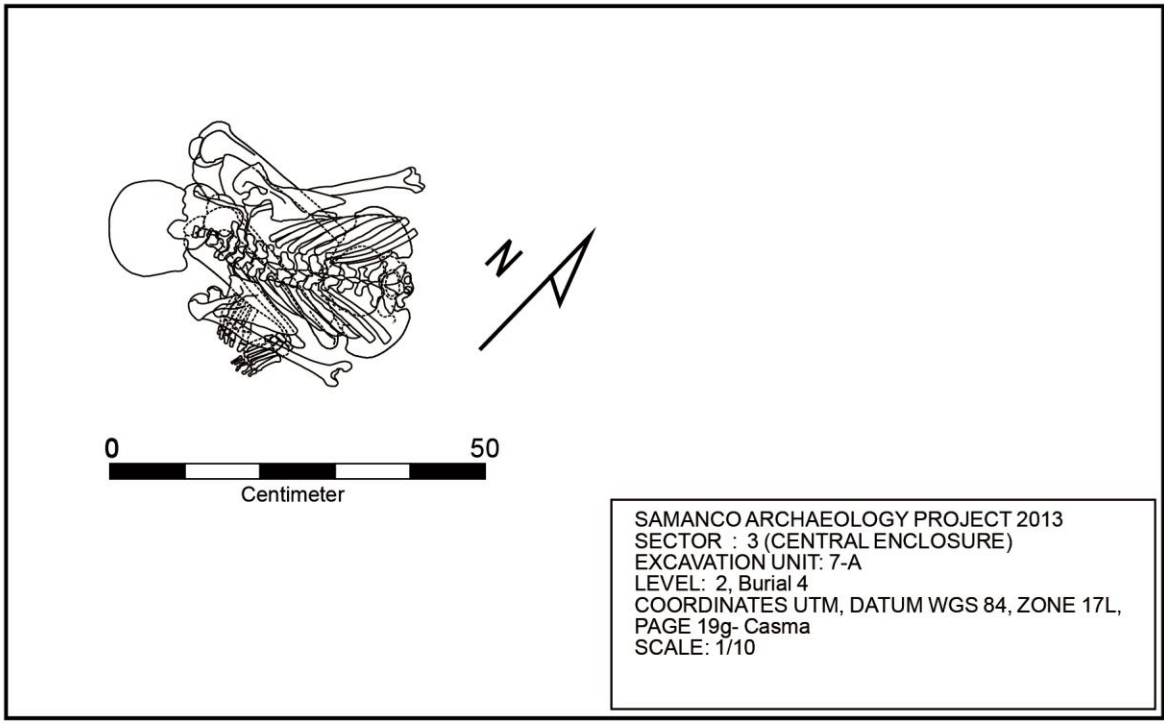


Figure 4.76b Burial 2 drawing from UE-2.



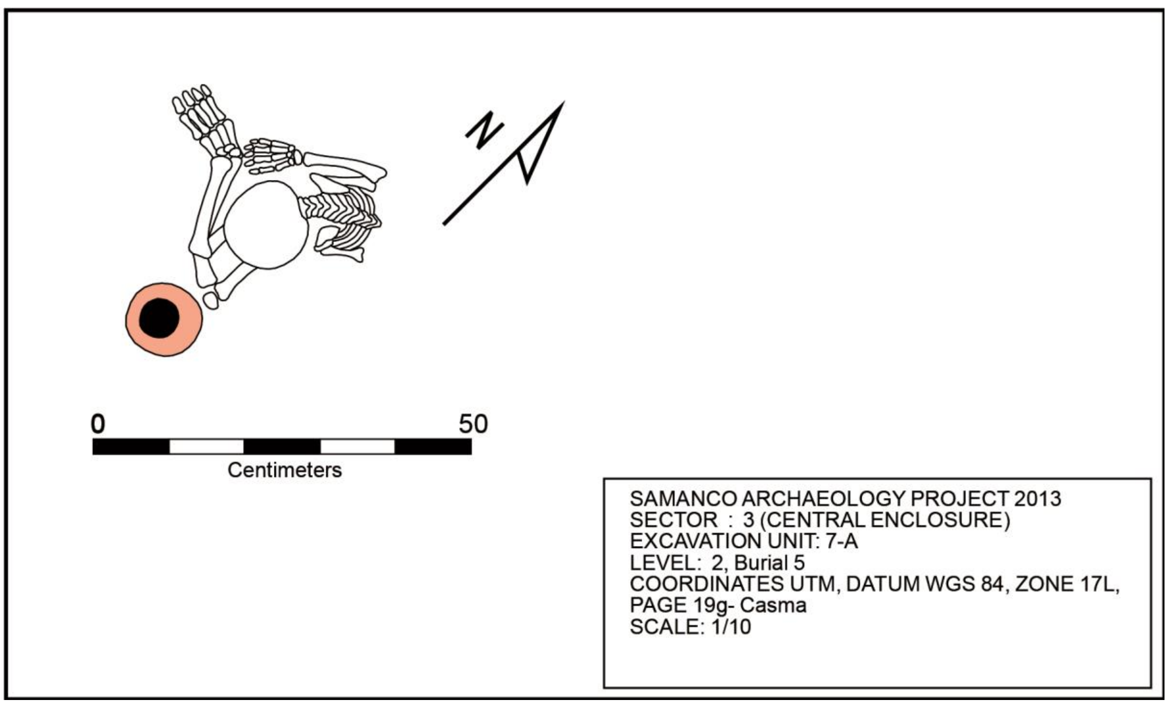


Figure 4.77a Burial 3 and Burial 4 drawings from UE-7A.

Figure 4.77b Photo of Burial 3 on south end of UE-7A entrance.

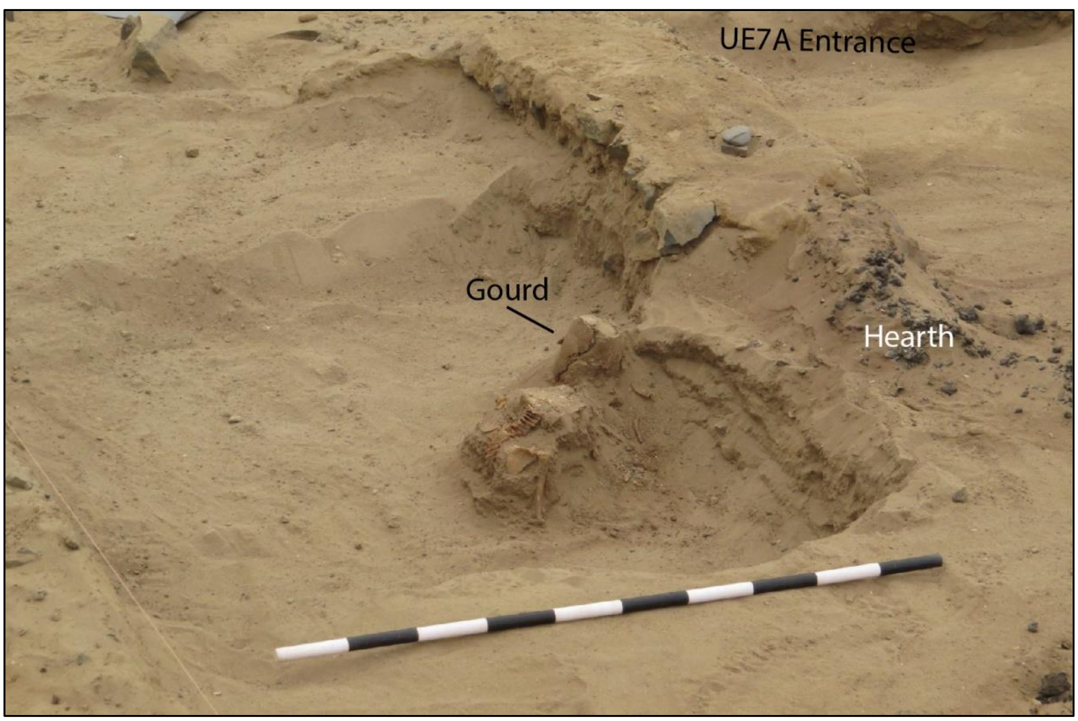


Figure 4.77c Photo of Burial 4 on north end of UE-7A entrance.

Figure 4.78 Photo of Burial 5 from UE-3D.

Figure 4.79 Photo of Burial 6 red-painted cranium from UE-3E.

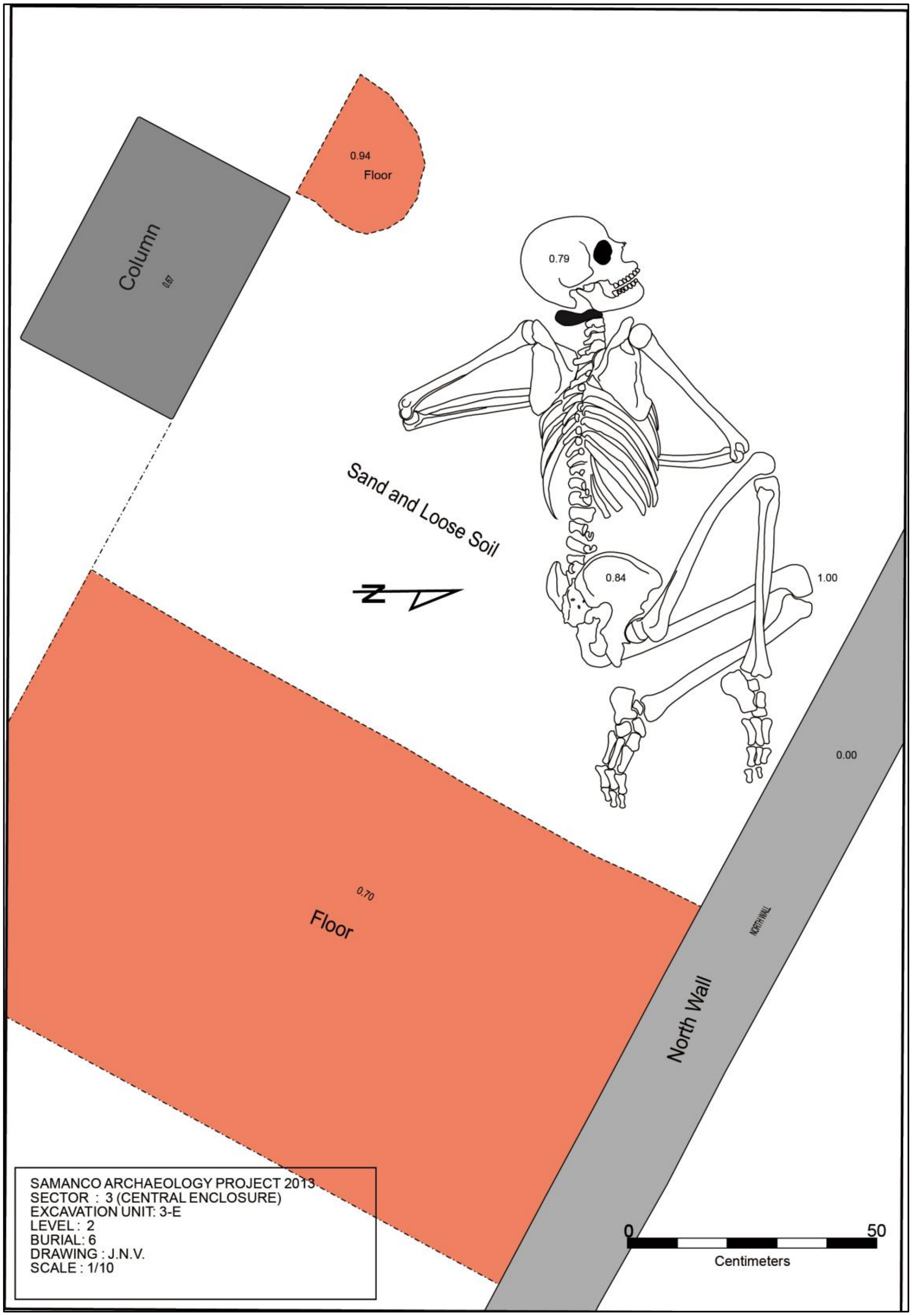


Figure 4.80a Drawing of Burial 7 from UE-3E.

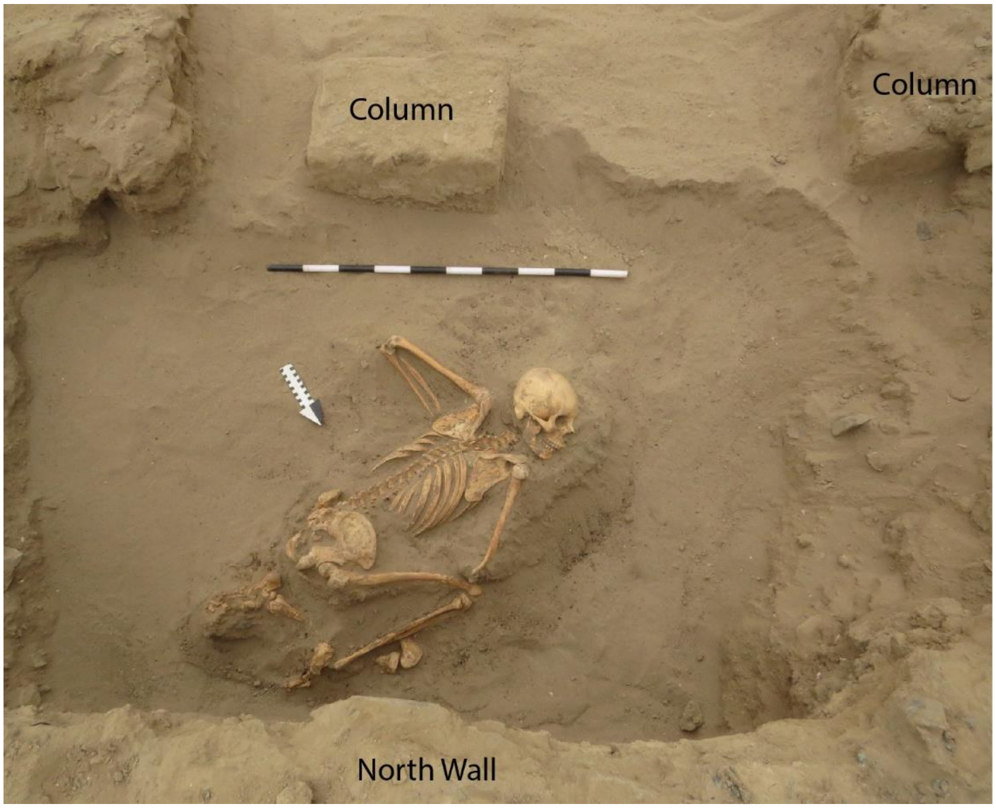


Figure 4.80b Photo of Burial 7 from UE-3E.

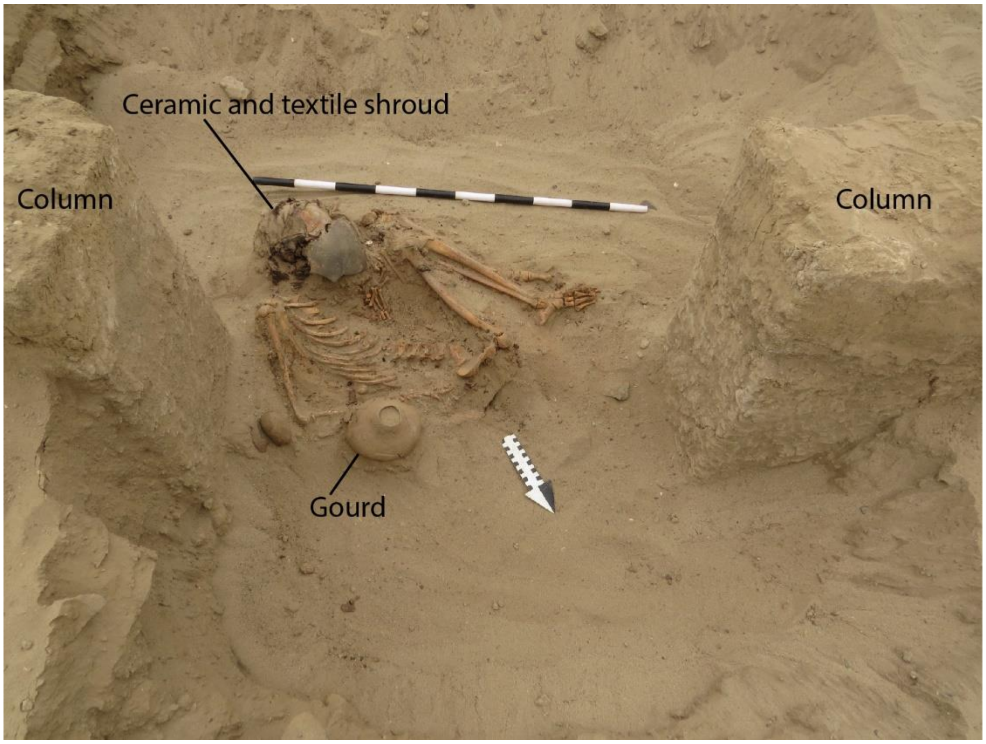


Figure 4.81a Photo of Burial 8 from UE-3E.

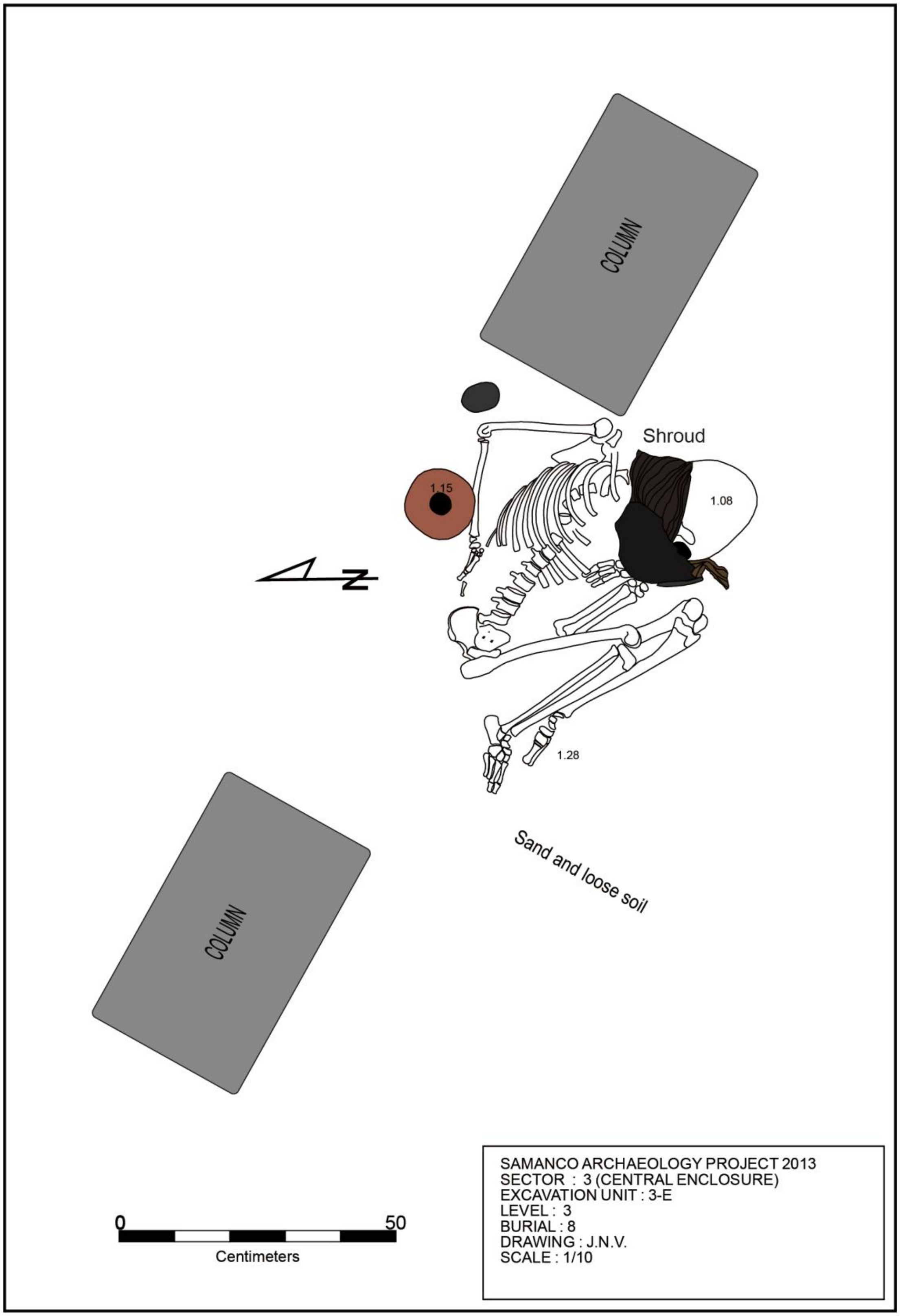


Figure 4.81b Photo of Burial 8 from UE-3E.

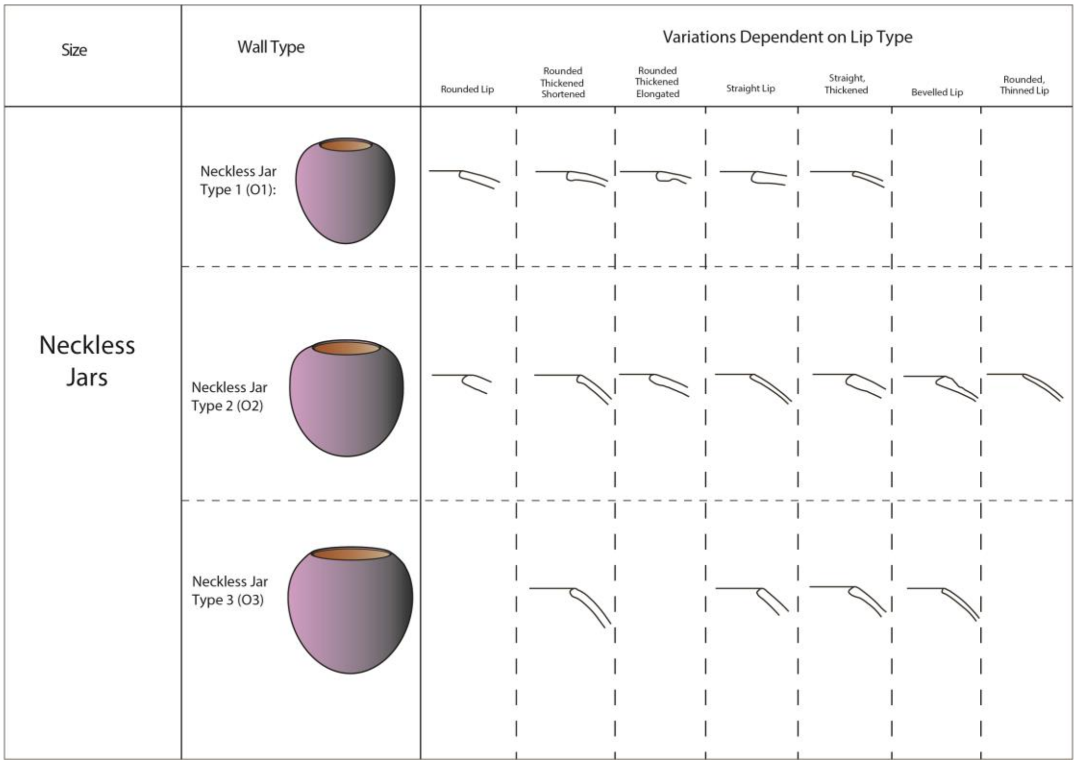


Figure 5.1 Neckless jar types of Early Horizon Nepeña (Modified from Ortiz 2012).

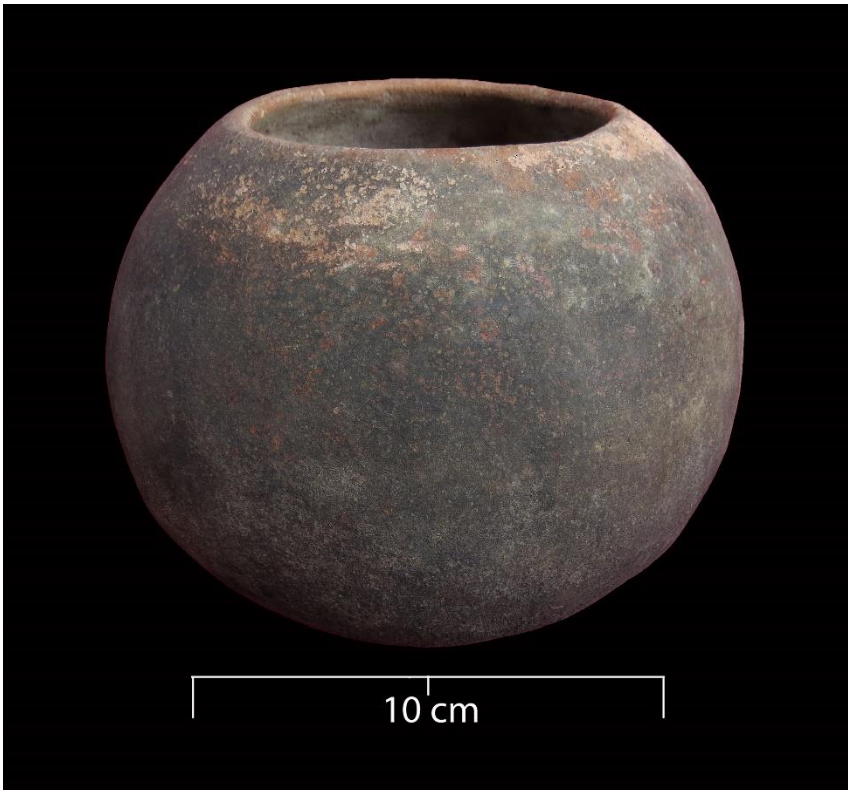


Figure 5.2a Example of neckless jar found beneath Compound 3 central patio.

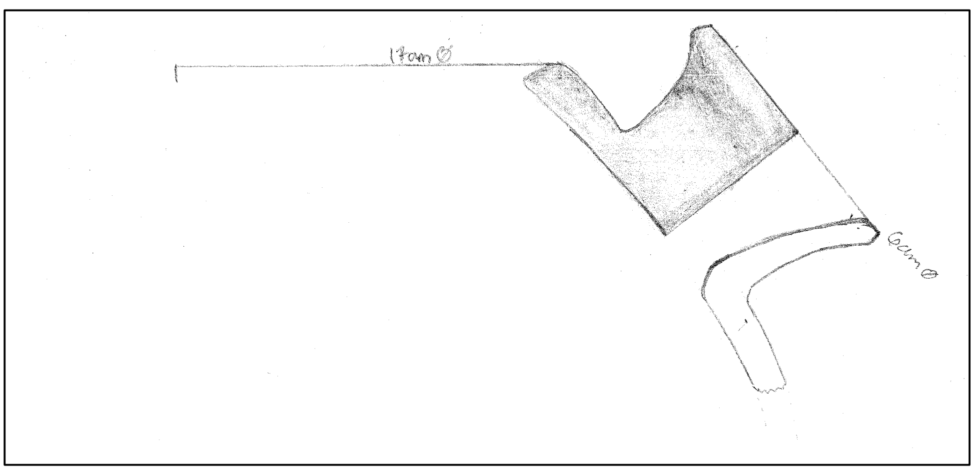


Figure 5.2b Example of neckless jar with spout.

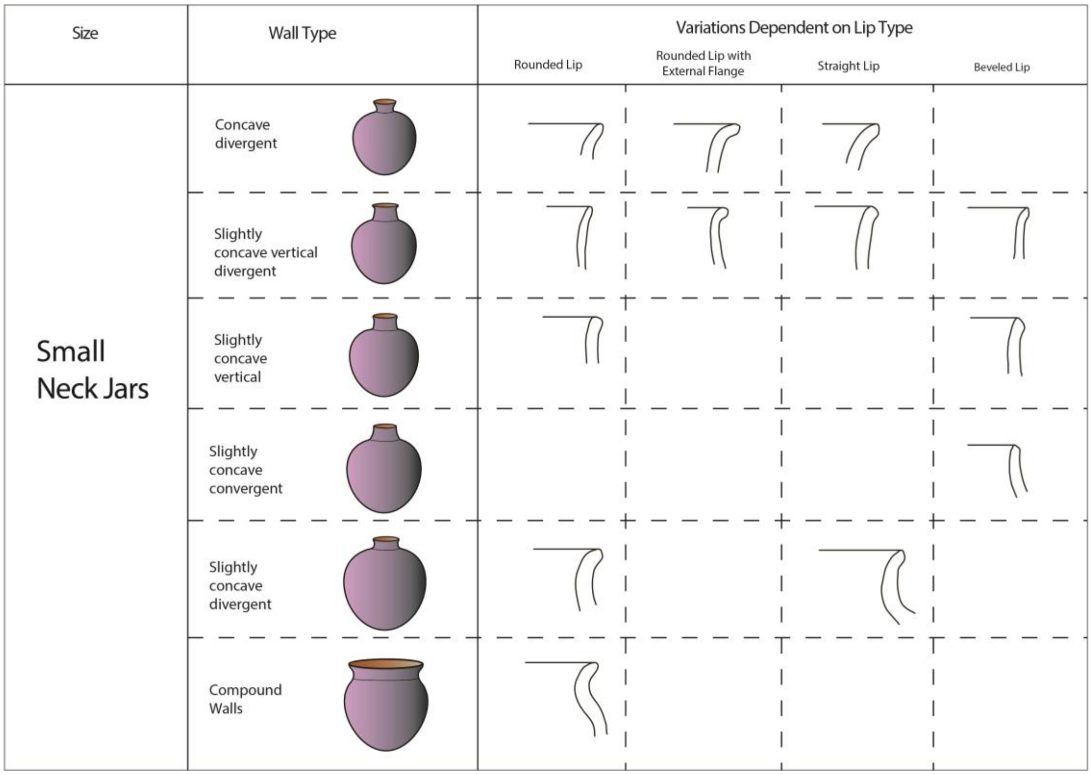


Figure 5.3 Small neck jar types from Early Horizon Nepeña (Modified from Ortiz 2012).

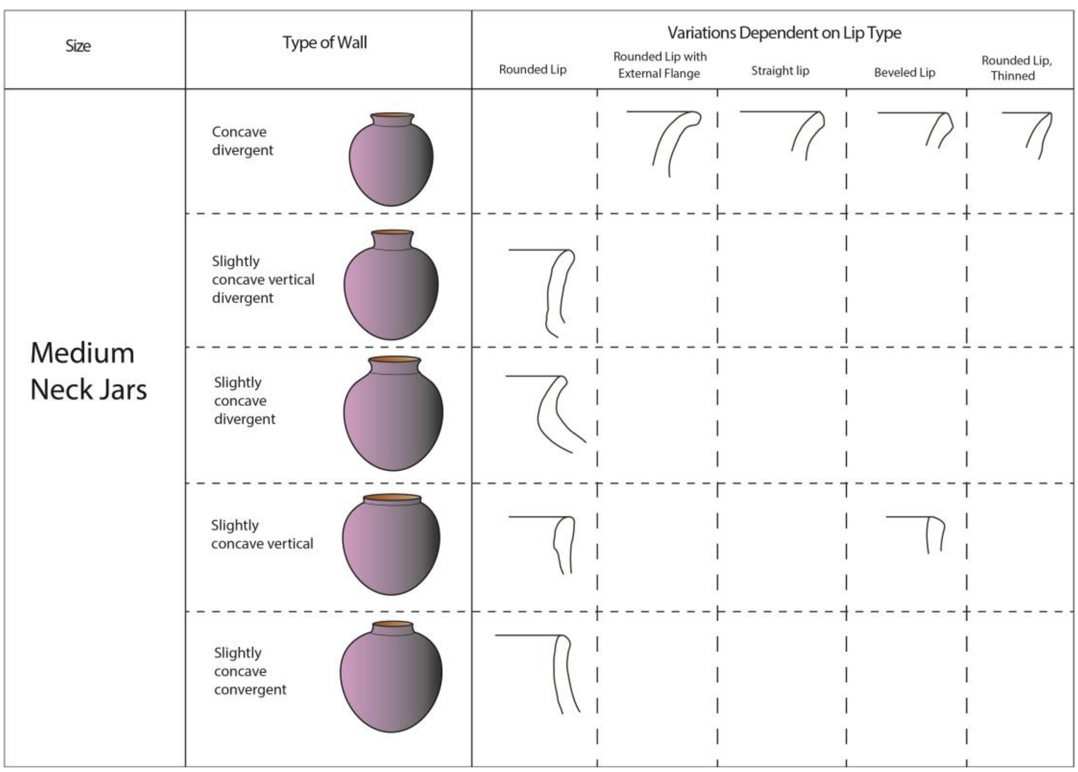


Figure 5.4 Medium neck jar types from Early Horizon Nepeña (Modified from Ortiz 2012).

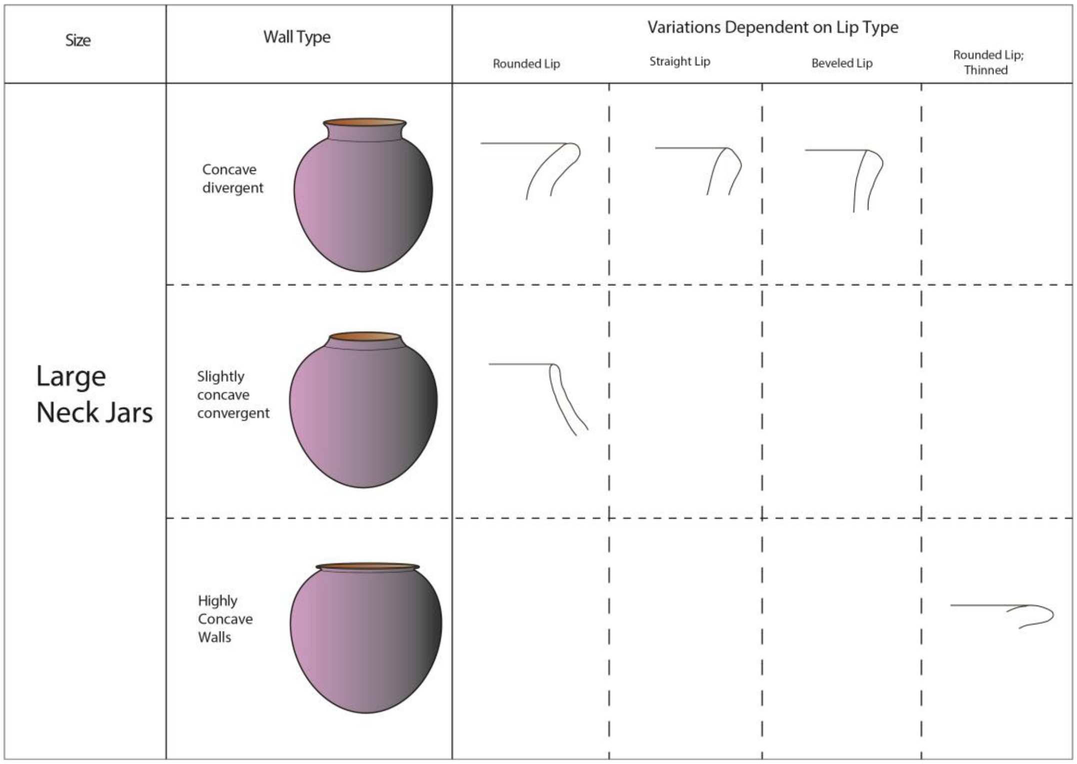


Figure 5.5 Large neck jar types from Early Horizon Nepeña (Modified from Ortiz 2012).

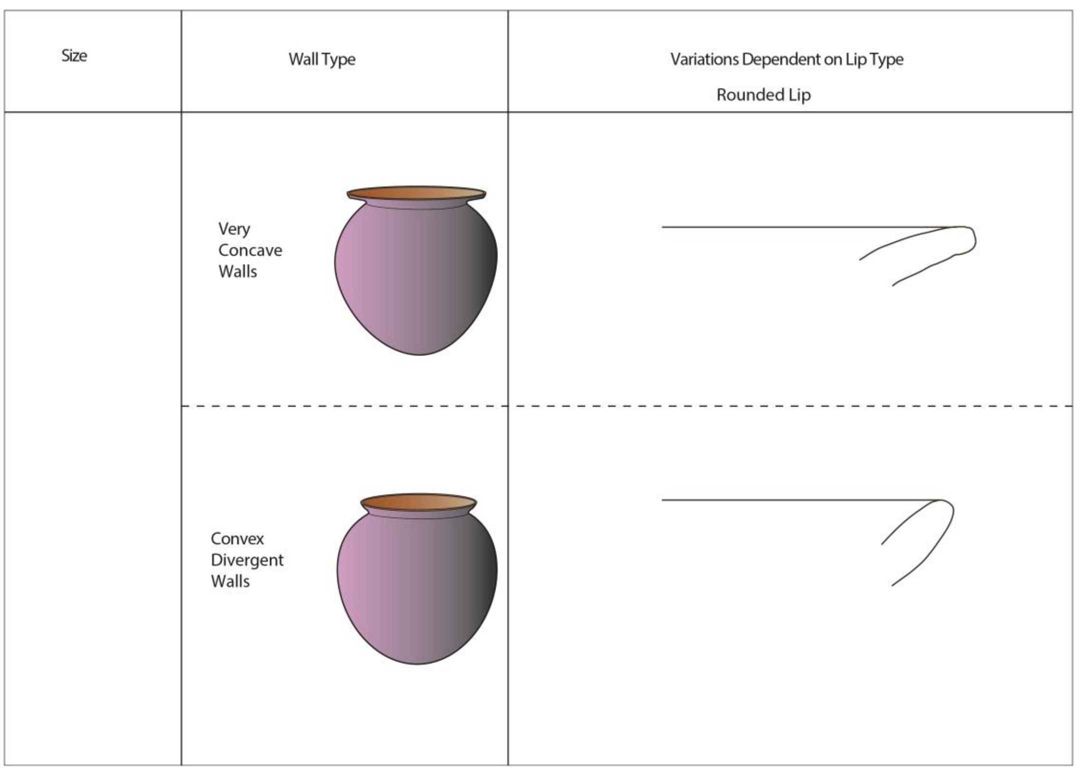


Figure 5.6a Tinajas from Early Horizon Nepeña (Modified from Ortiz 2012).

Figure 5.6b Large tinaja jar fragments recovered from the Plaza Mayor.

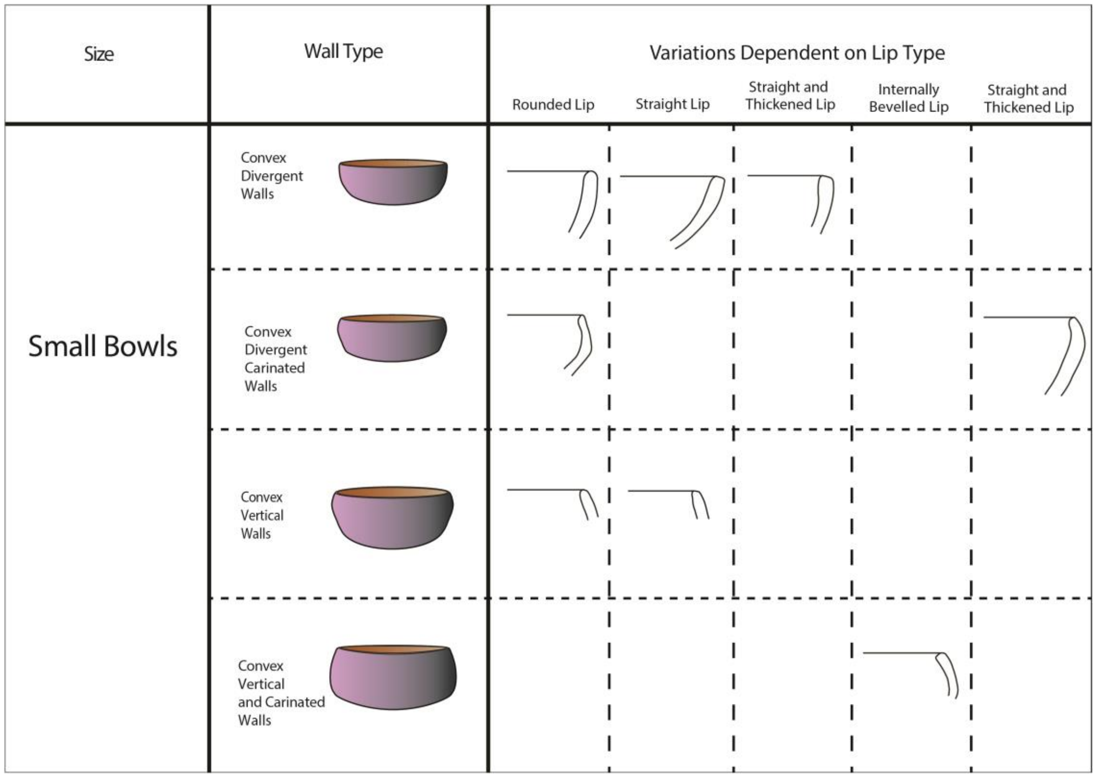


Figure 5.7 Small bowls from Early Horizon Nepeña (Modified from Ortiz 2012).

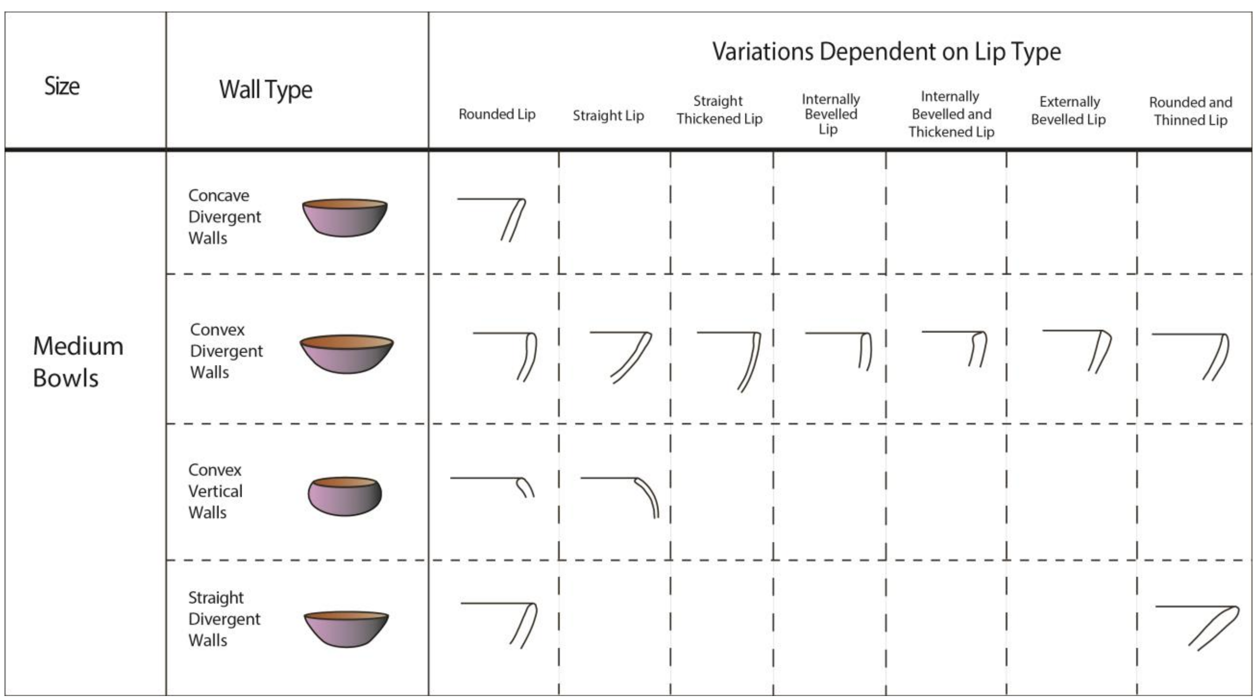


Figure 5.8 Medium bowls from Early Horizon Nepeña (Modified from Ortiz 2012).

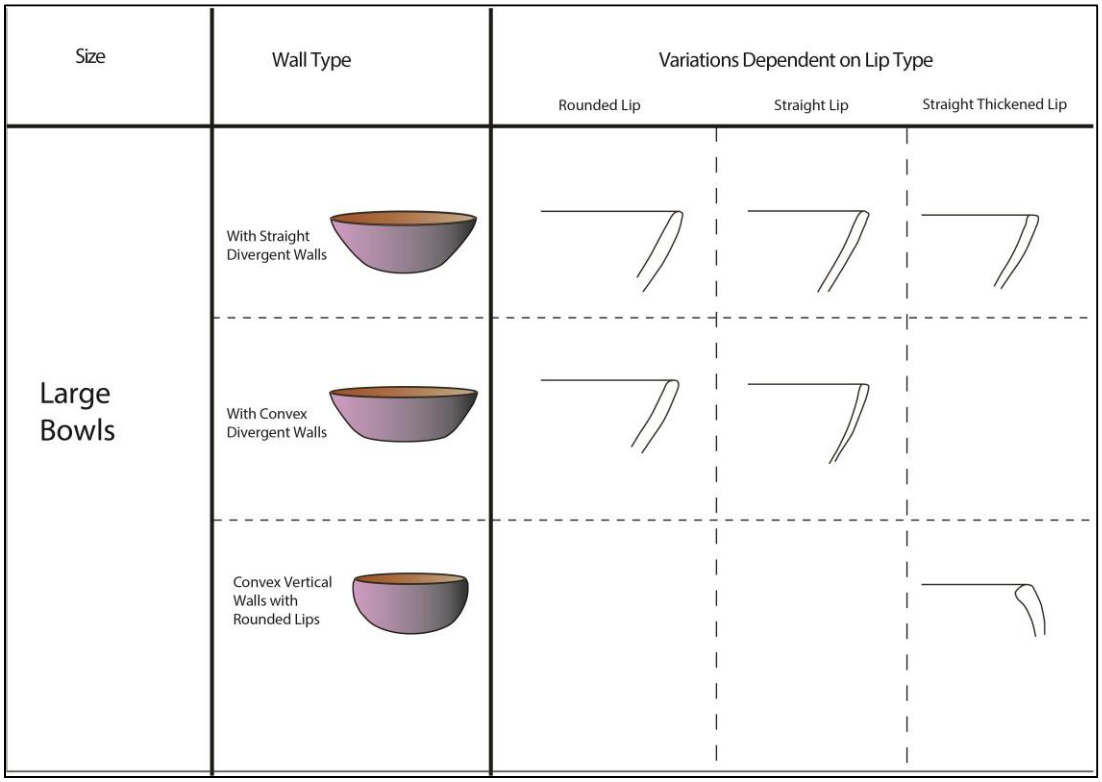


Figure 5.9 Large bowls from Early Horizon Nepeña (Modified from Ortiz 2012).

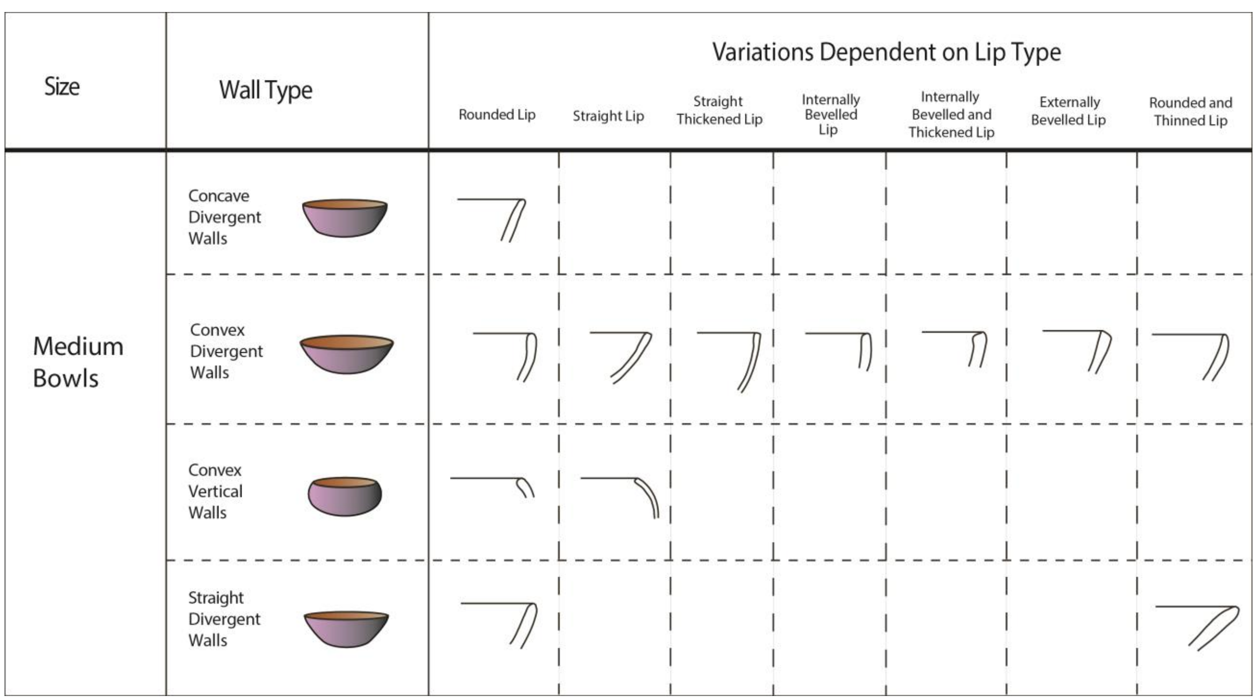


Figure 5.10 Rectangular bowls or *tazones* from Early Horizon Nepeña (Modified from Ortiz 2012).

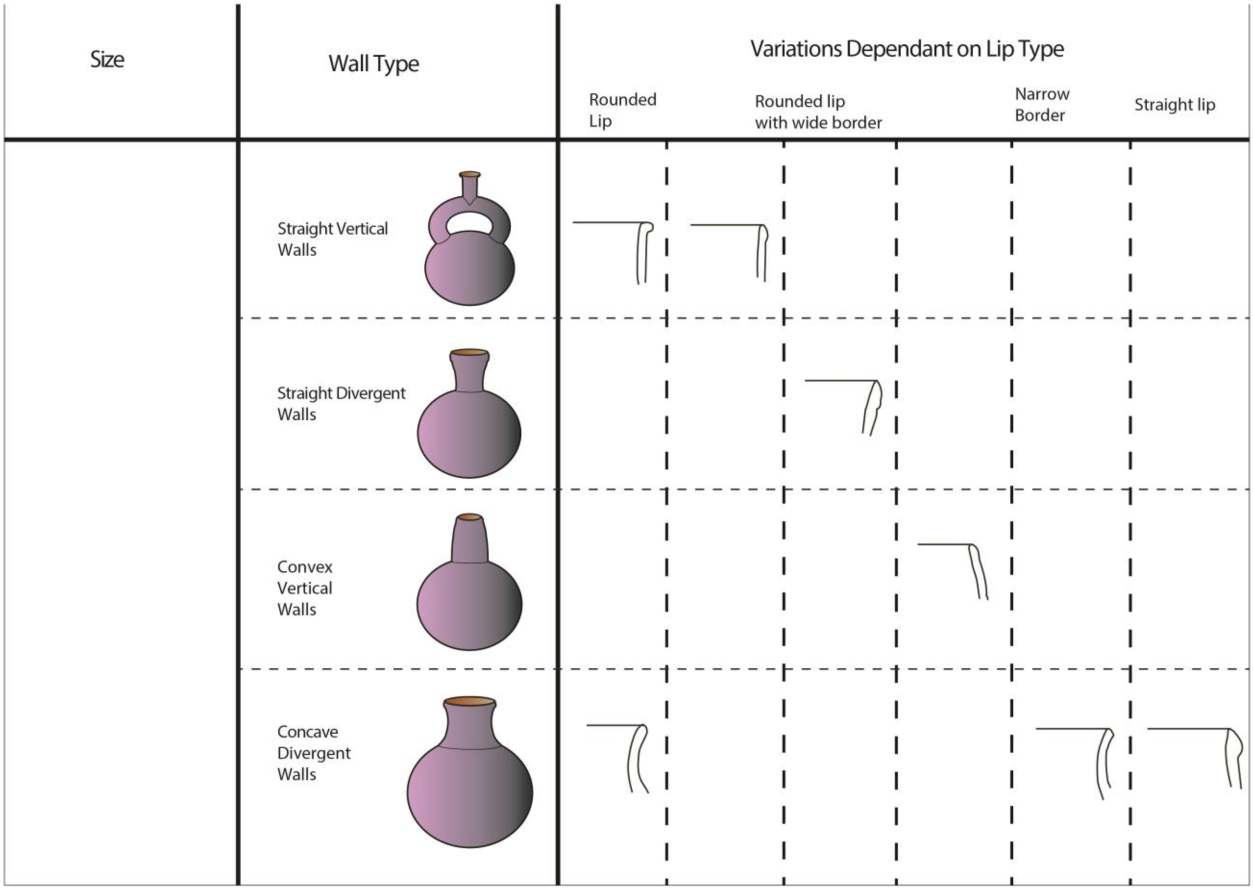


Figure 5.11 Bottles from Early Horizon Nepeña (Modified from Ortiz 2012).

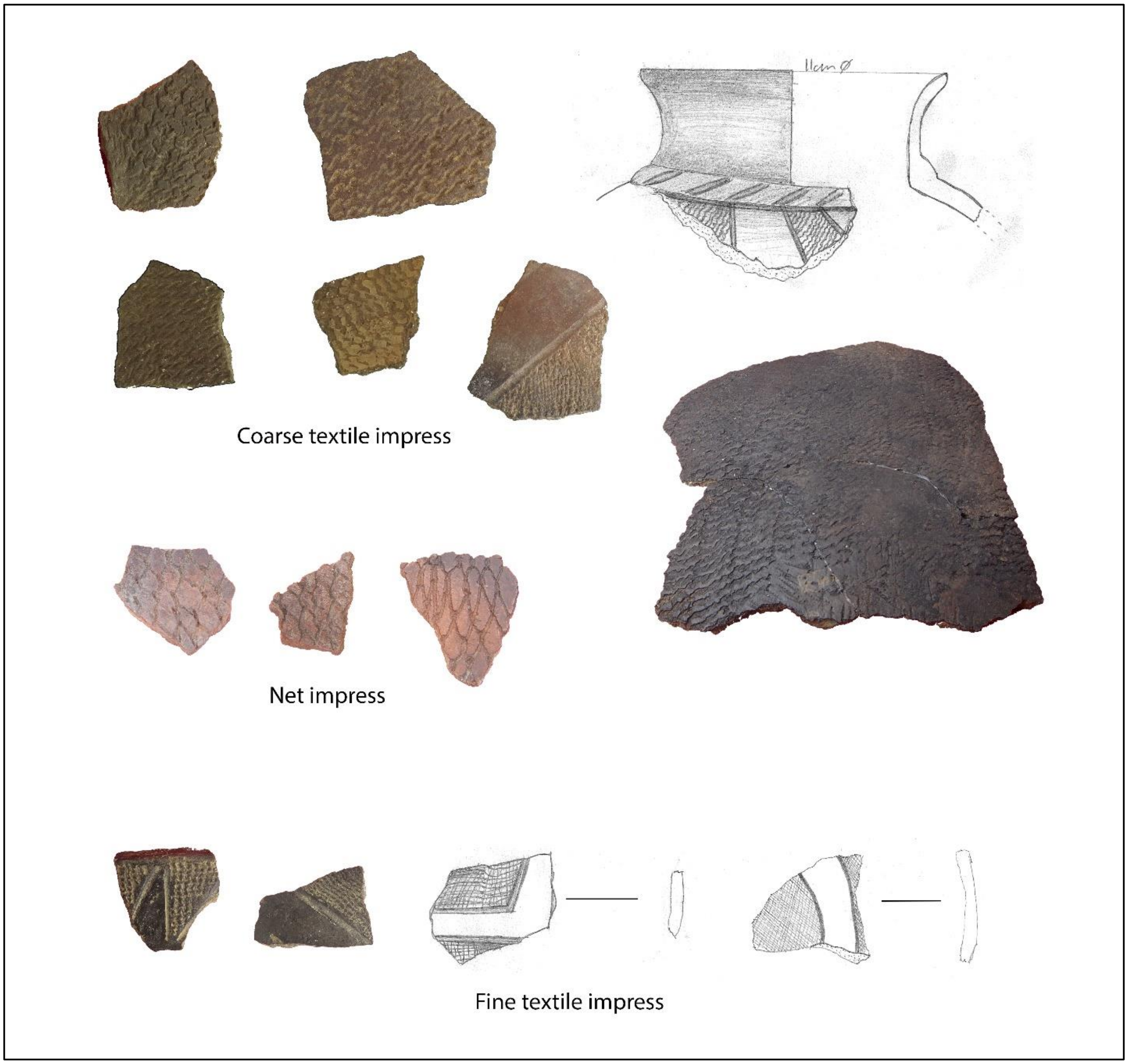


Figure 5.12 Textile Impressed ceramic sherds from Samanco.

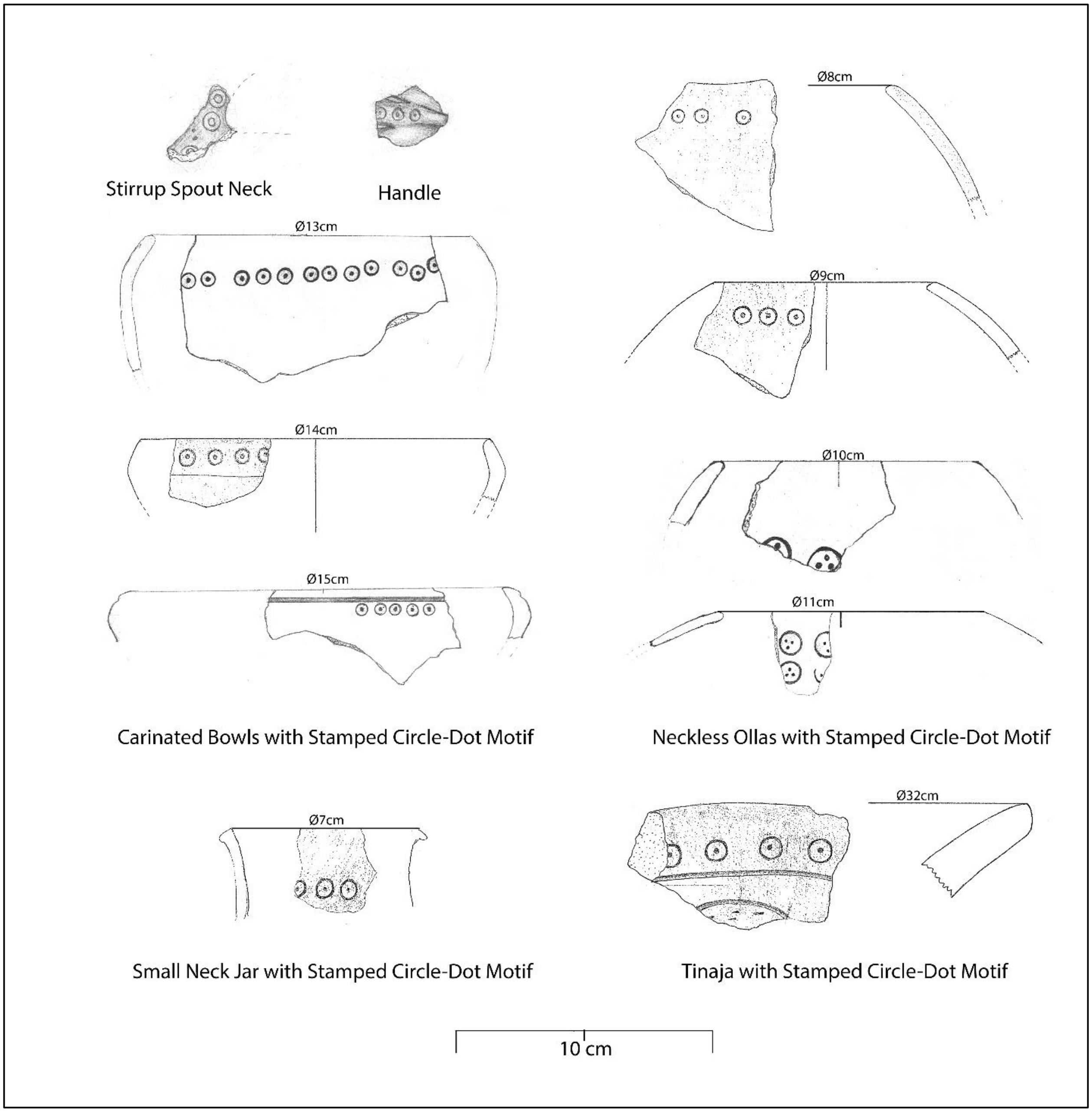


Figure 5.13 Stamped Circle-Dot sherds from Samanco.

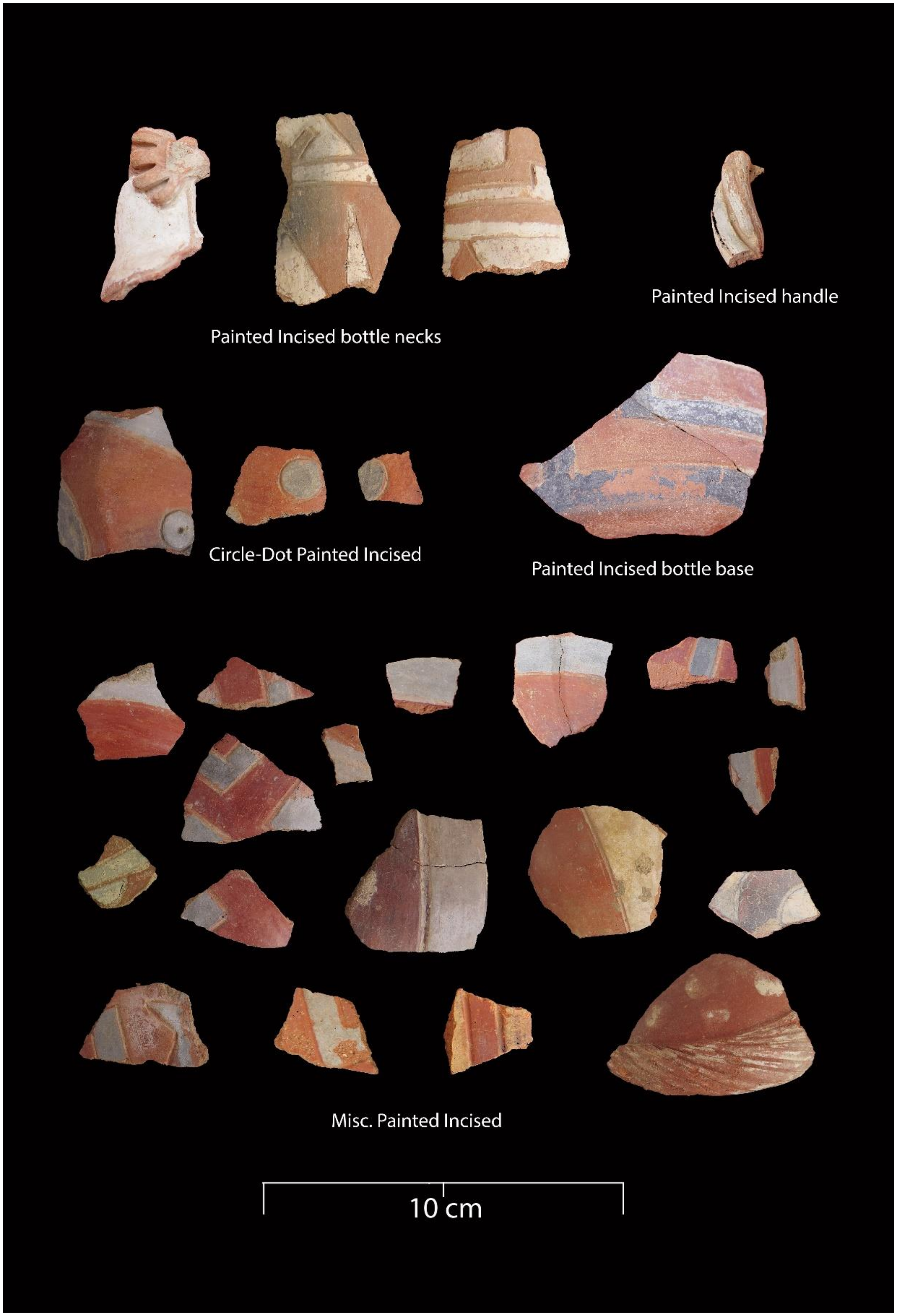


Figure 5.14 Painted Incised sherds from Samanco.

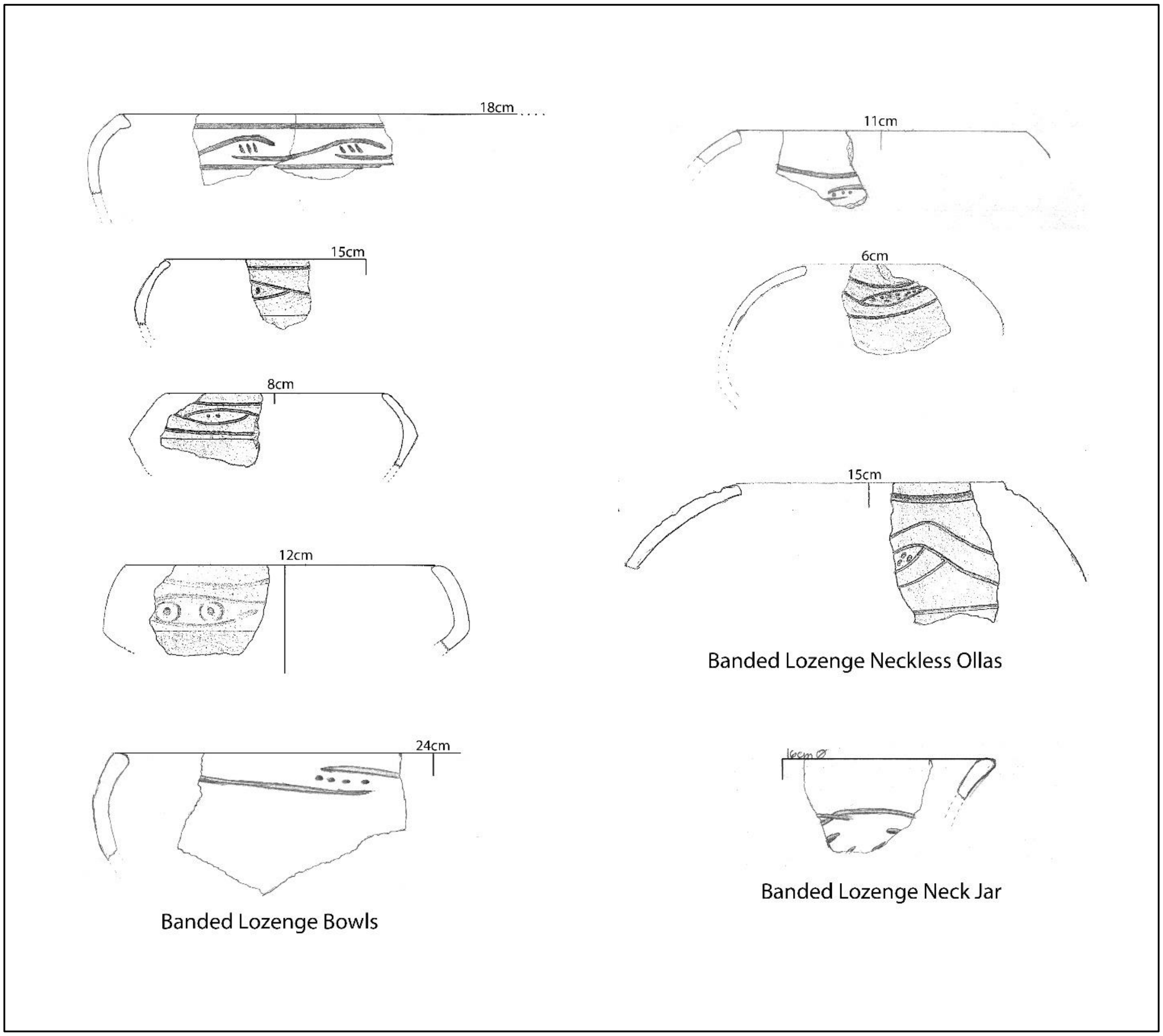


Figure 5.15 Banded Lozenge sherds from Samanco.

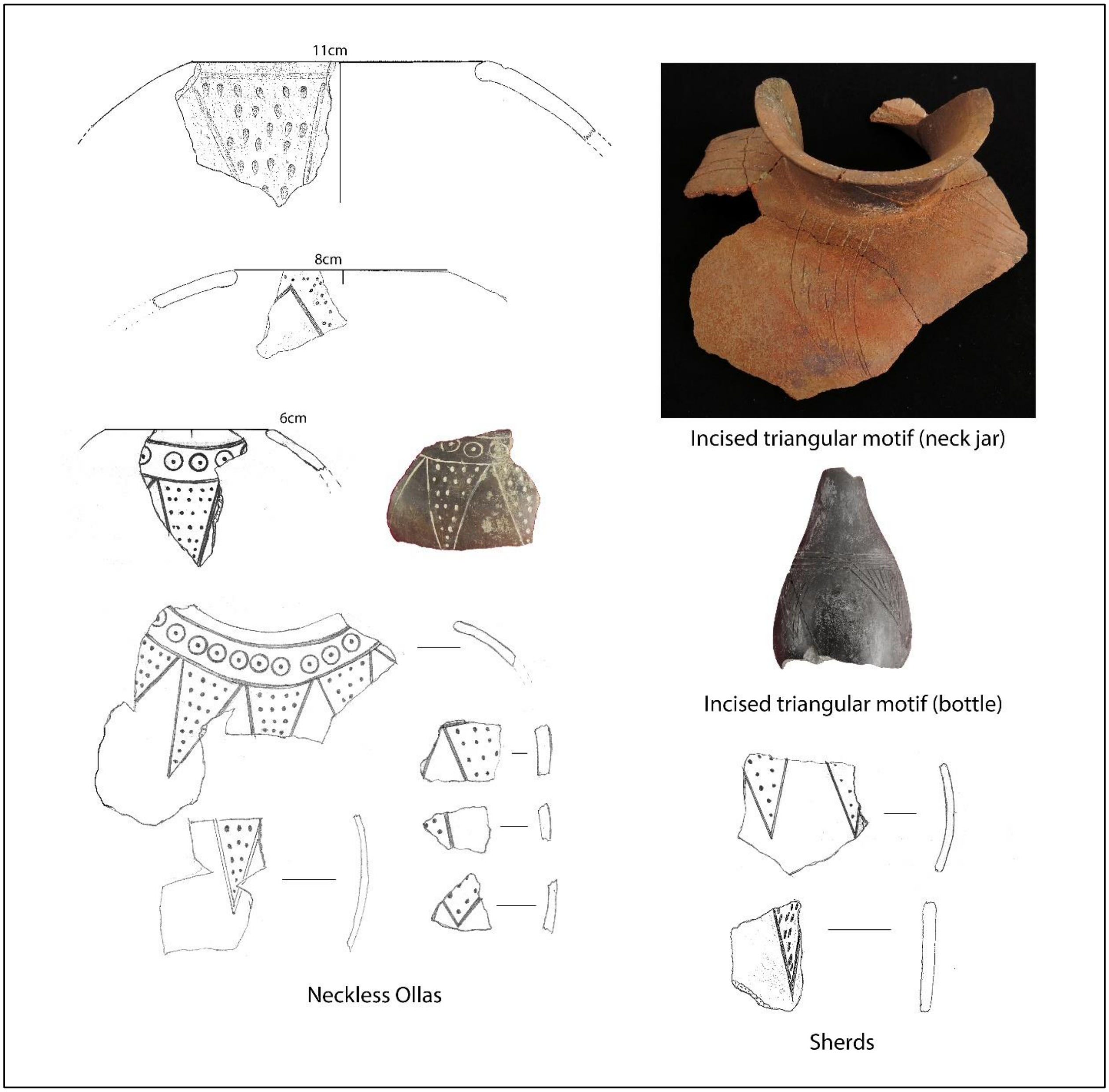


Figure 5.16 Triangular Zoned Punctate sherds from Samanco.

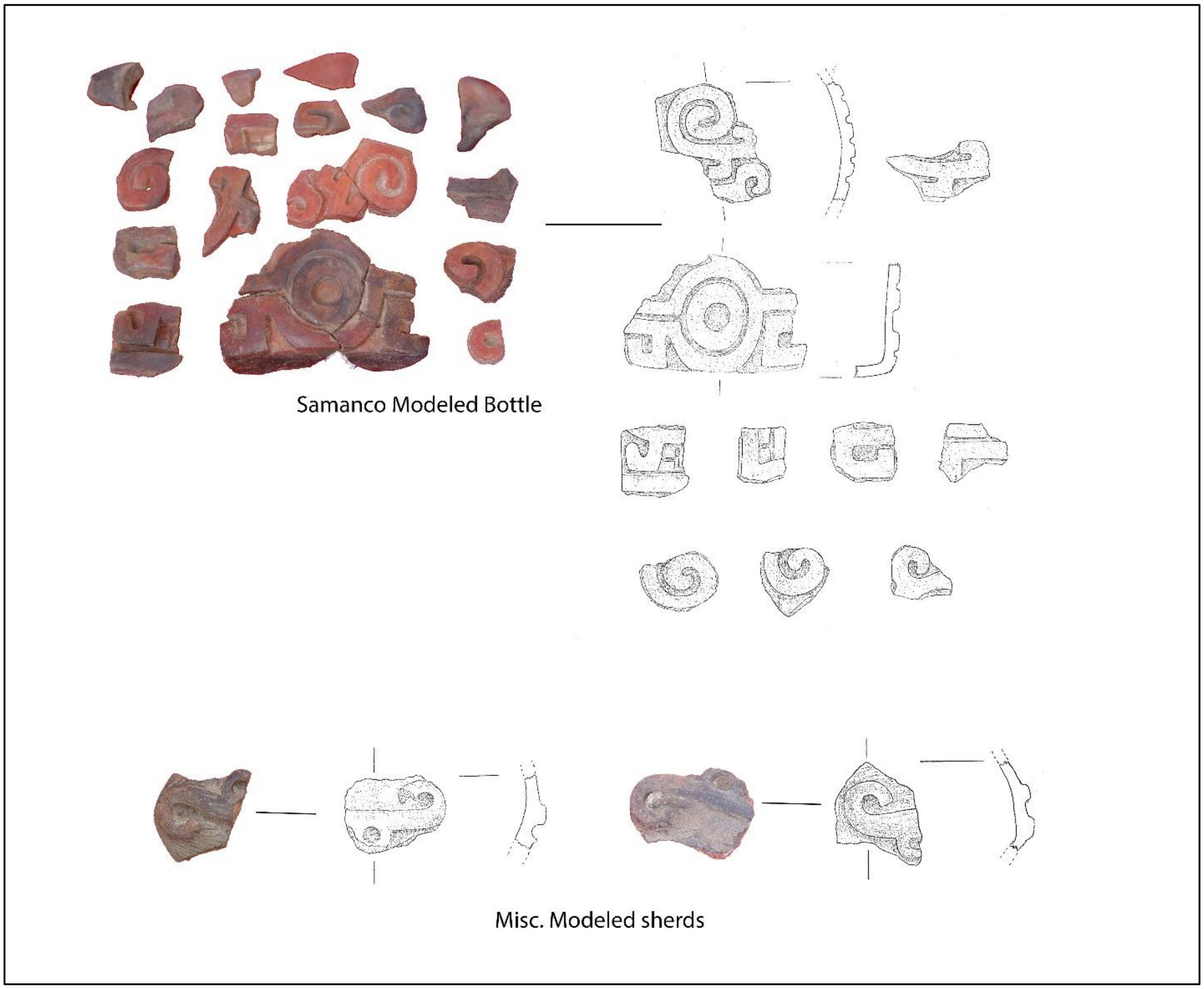


Figure 5.17 Modeled sherds from Samanco.

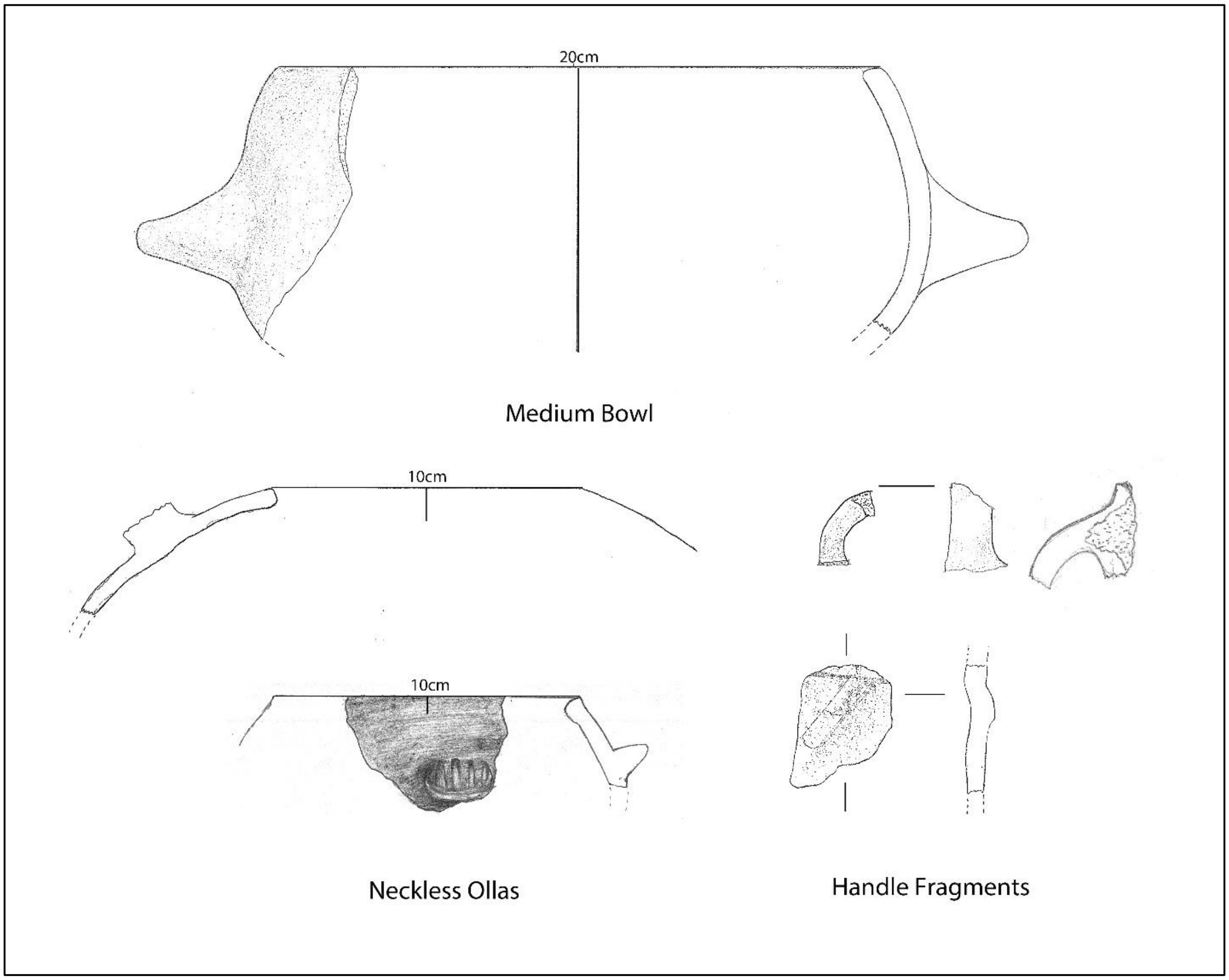


Figure 5.18 Miscellaneous handle fragments from Samanco.

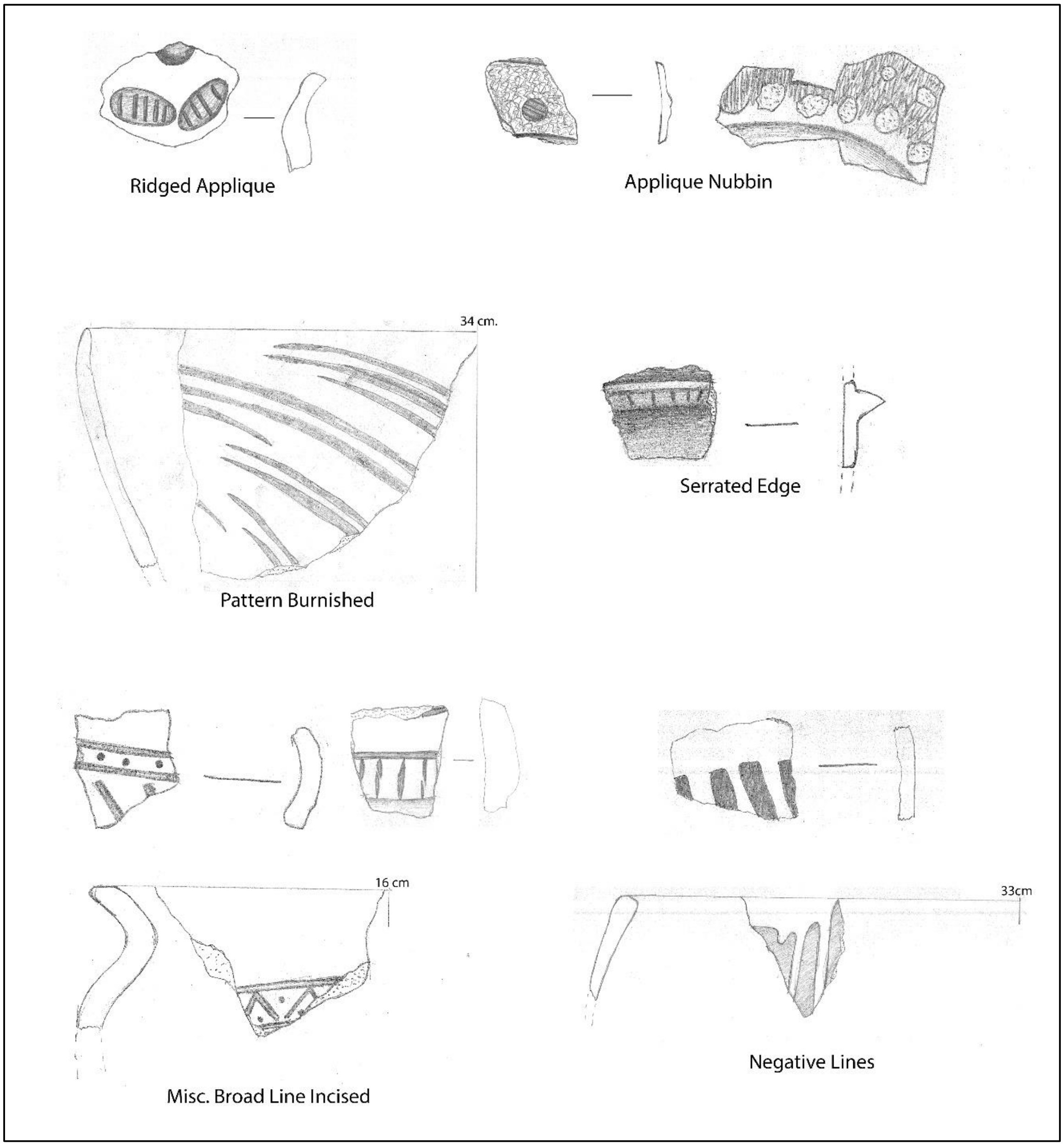


Figure 5.19 Miscellaneous decorated sherds from Samanco.

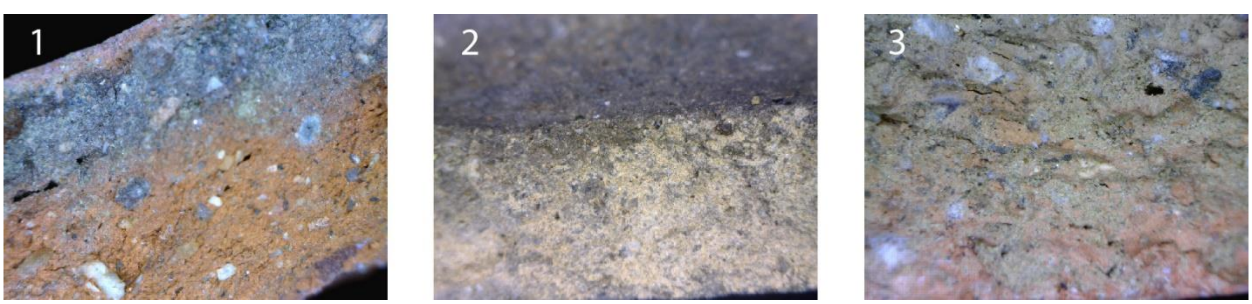


Figure 5.20 From left to right: Microscopic views of ceramic pastes 1-3.

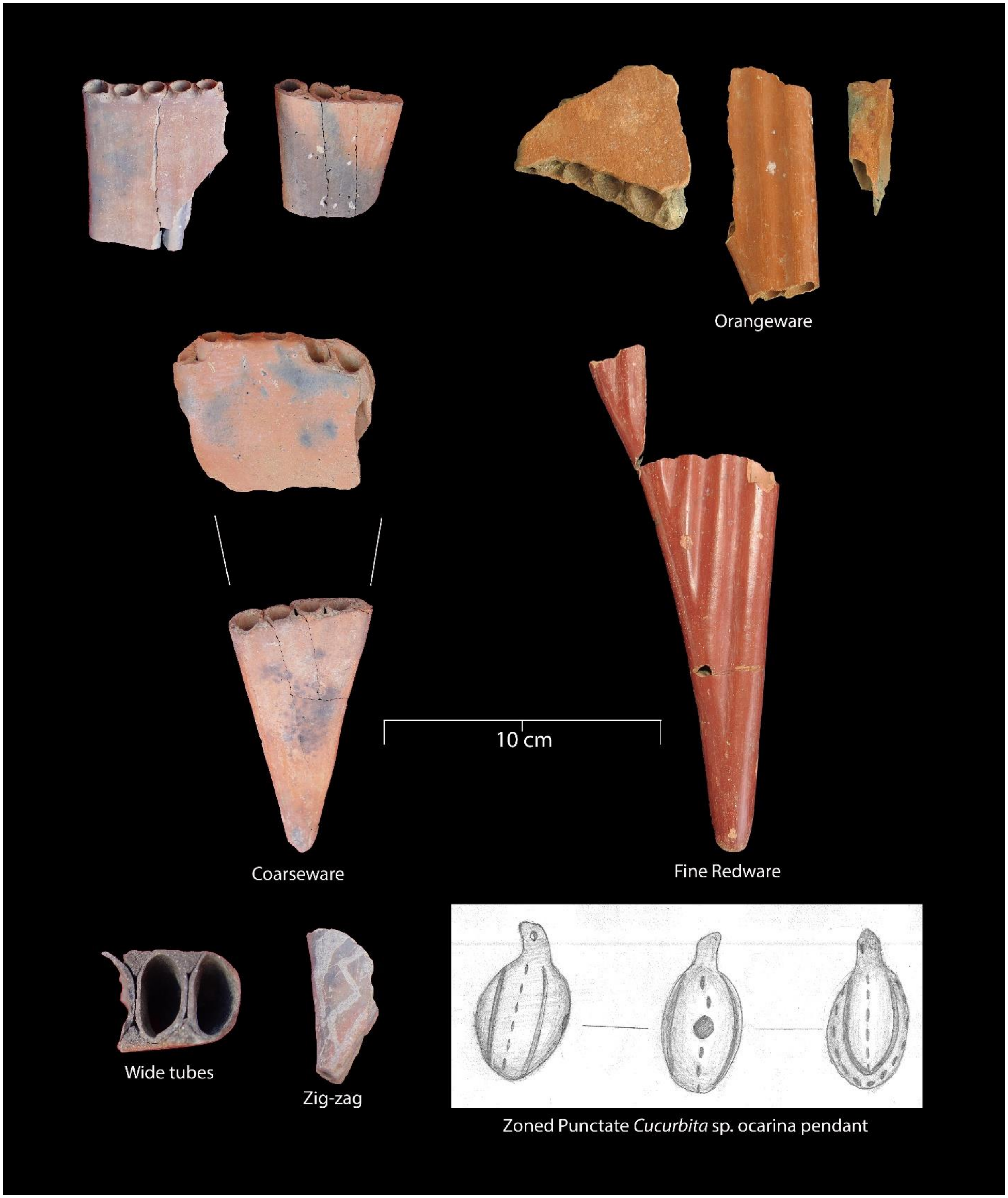


Figure 5.21 Panpipe fragments and squash (*Cucurbita* sp.) ocarina pendant from Samanco.

Figure 5.22 Ceramic disc objects from Samanco.

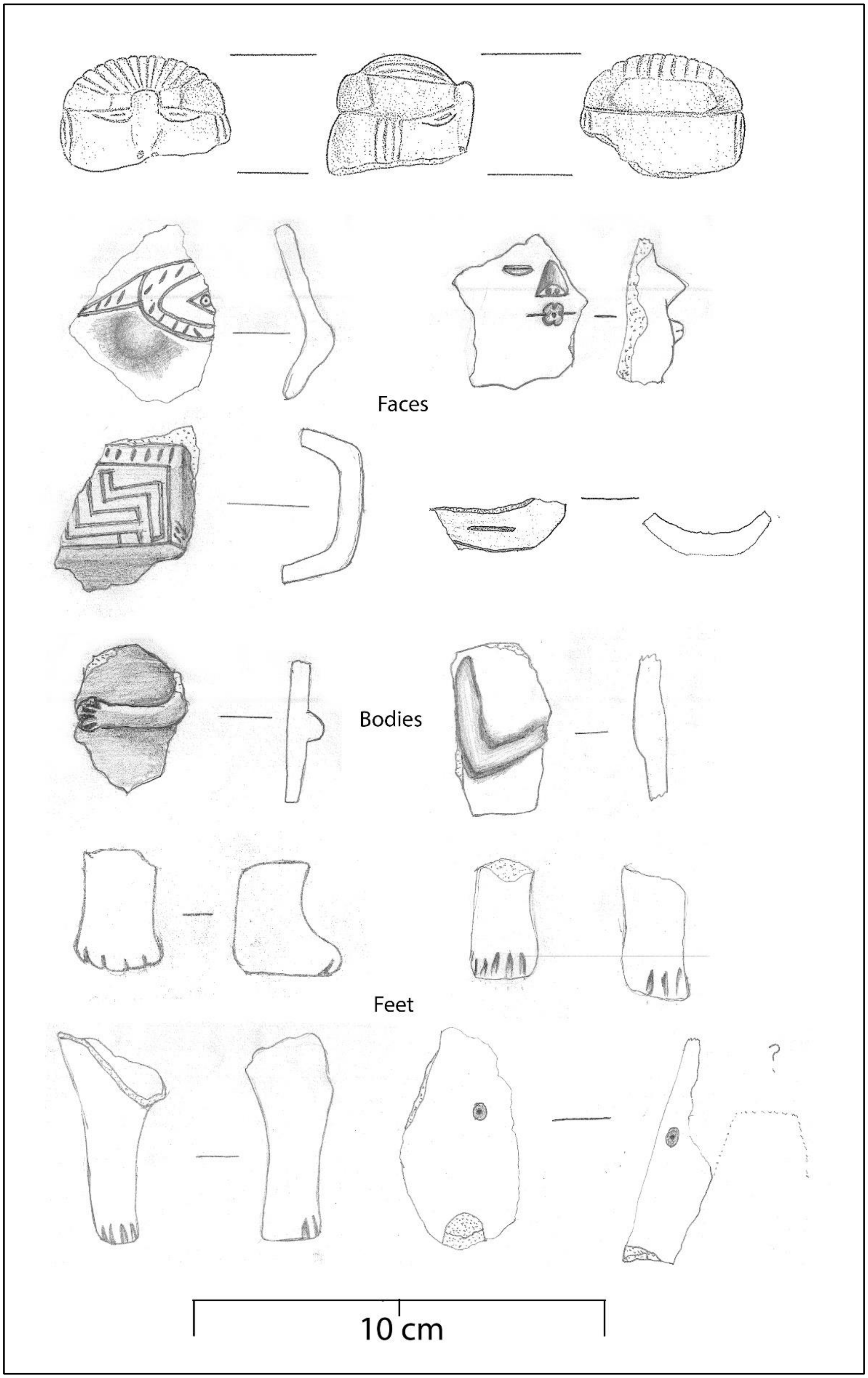


Figure 5.23 Ceramic figurine fragments from Samanco.

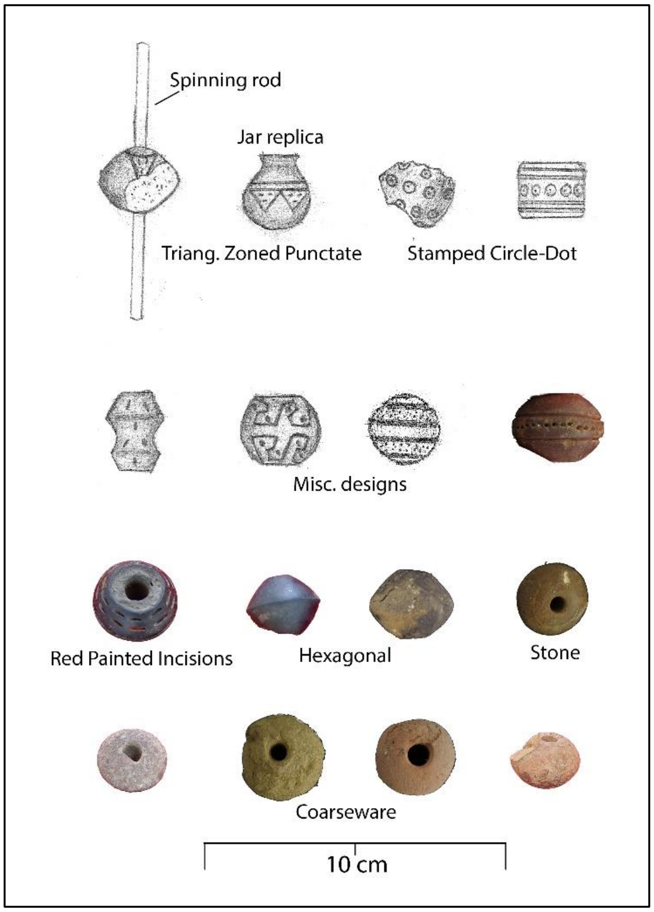


Figure 5.24 Spindle-whorls recovered from Samanco.

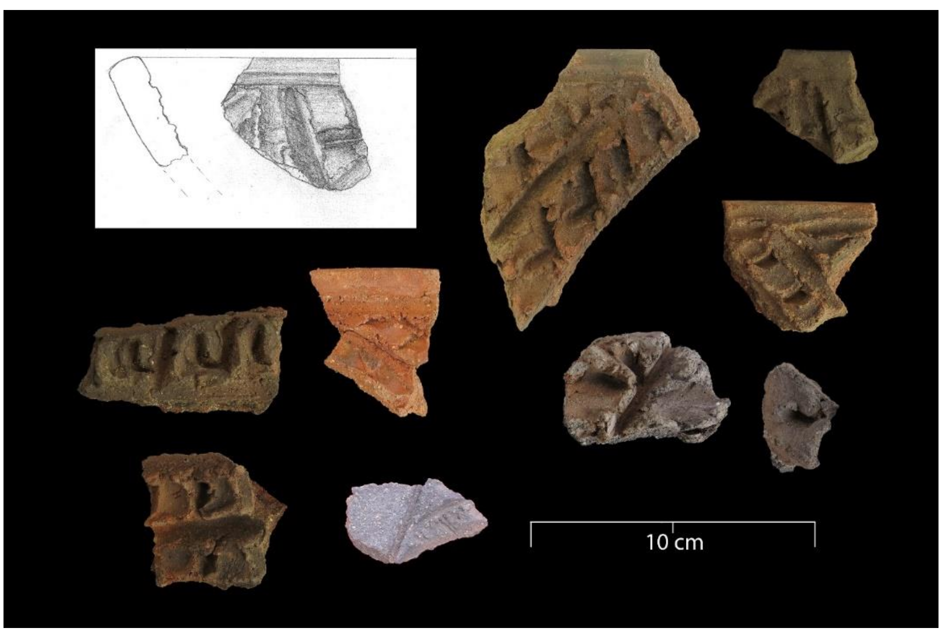


Figure 5.25 Grater bowl fragments recovered from Samanco.

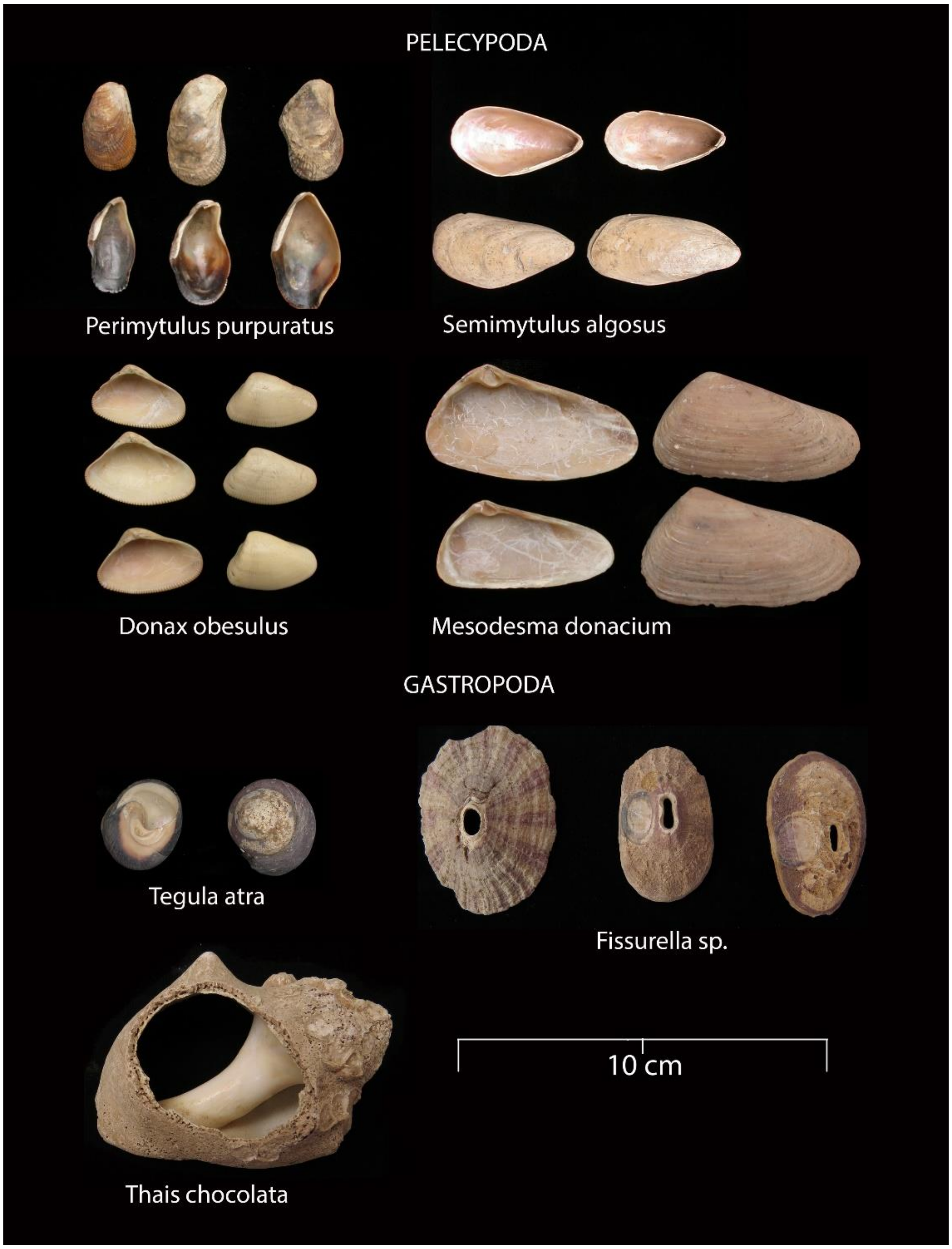


Figure 5.26 Photo of most common shellfish recovered from Samanco.

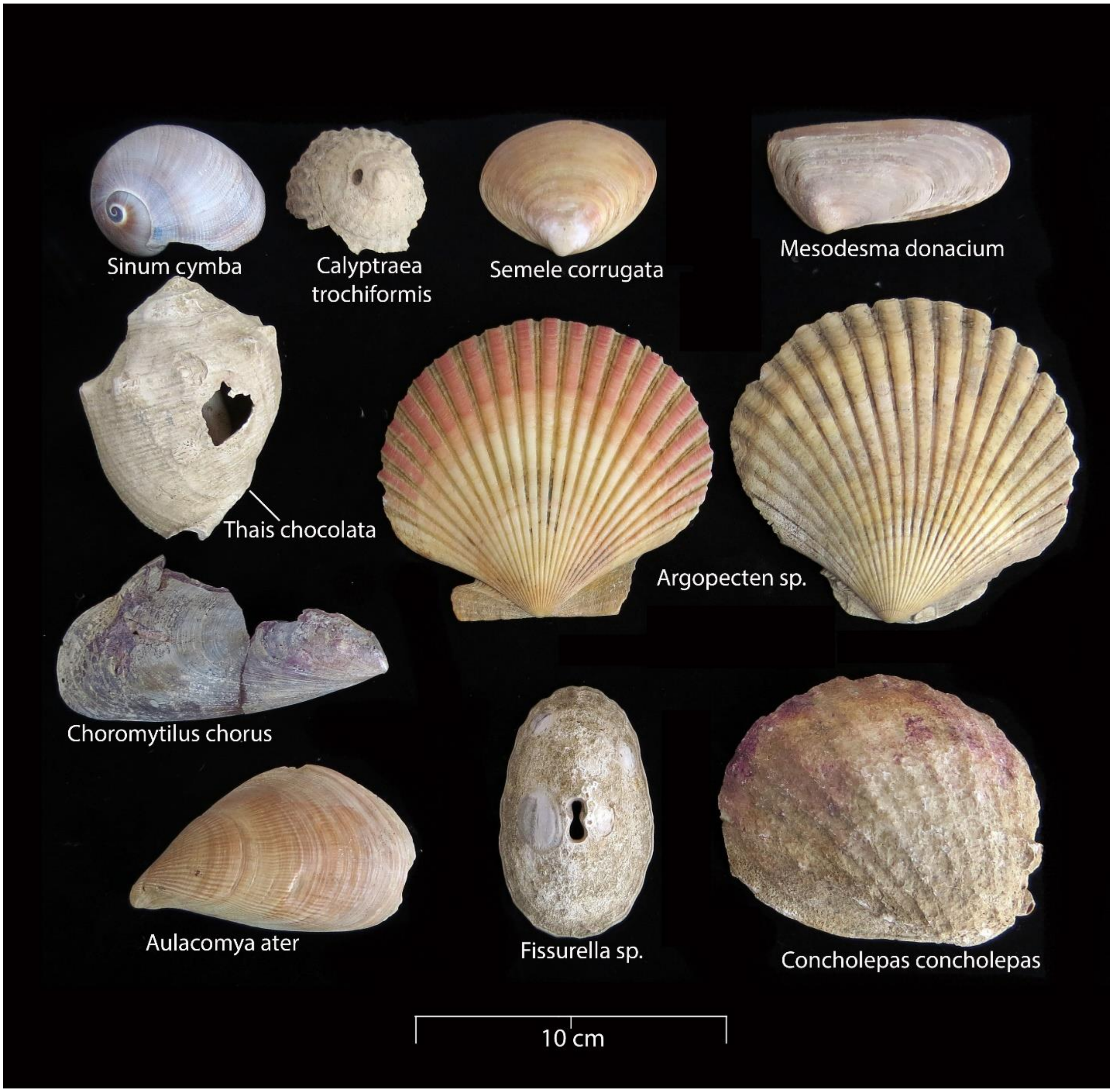


Figure 5.27 Photo of meaty shellfish varieties recovered from Samanco.

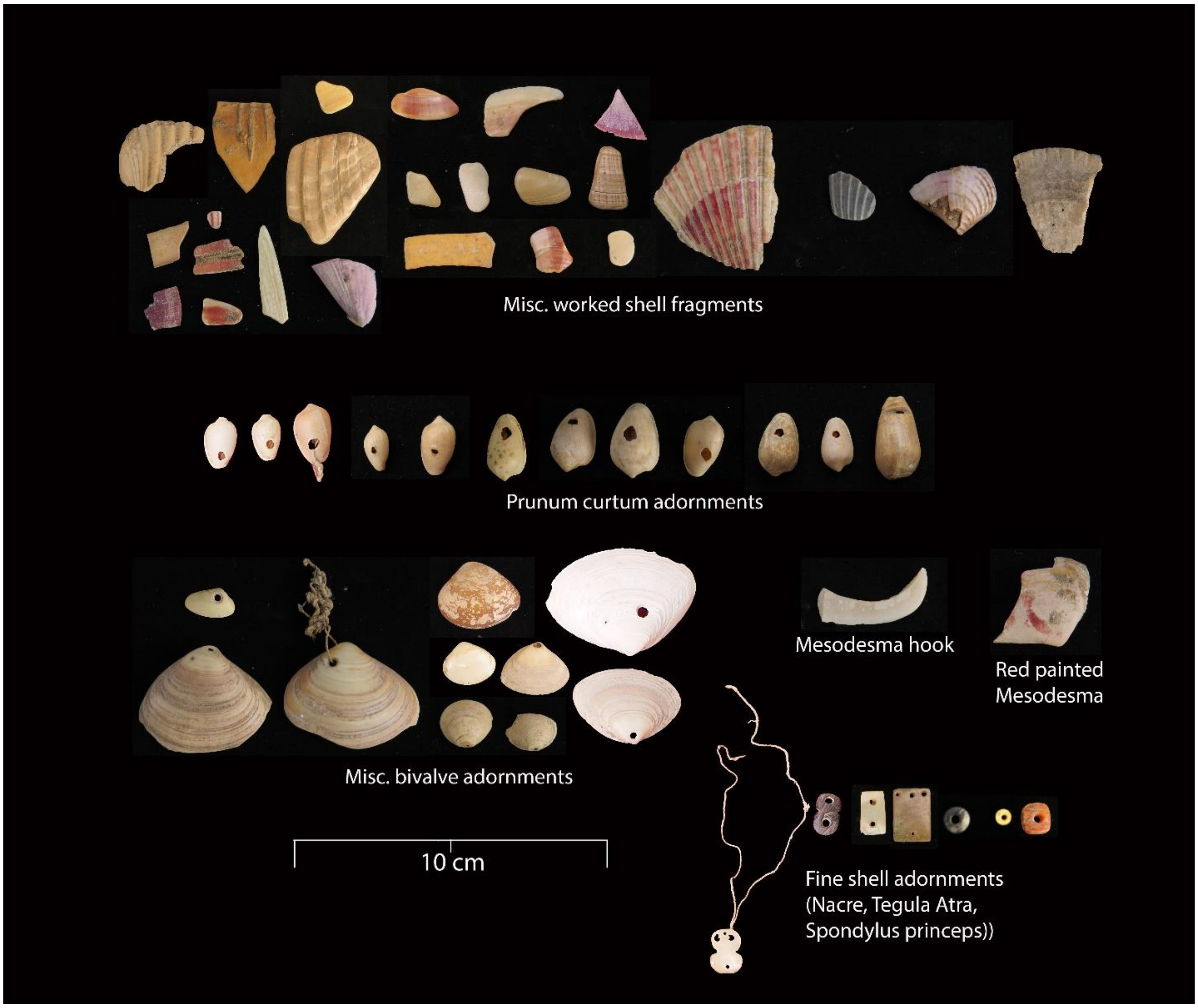


Figure 5.28 Photo of Early Horizon worked shells recovered from Samanco.

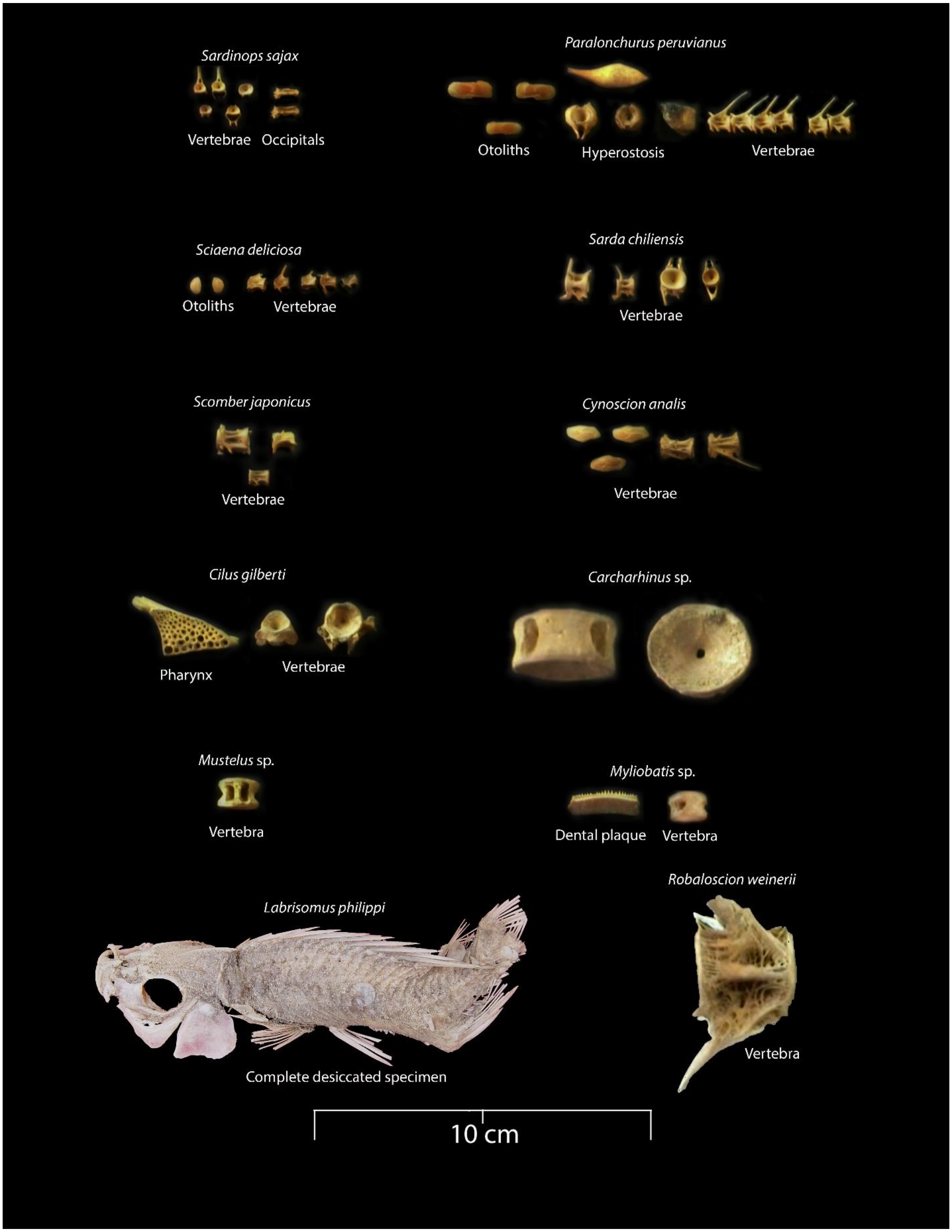


Figure 5.29 Ichthyological remains recovered from Samanco.

Figure 5.30 Botanical remains recovered from Samanco.

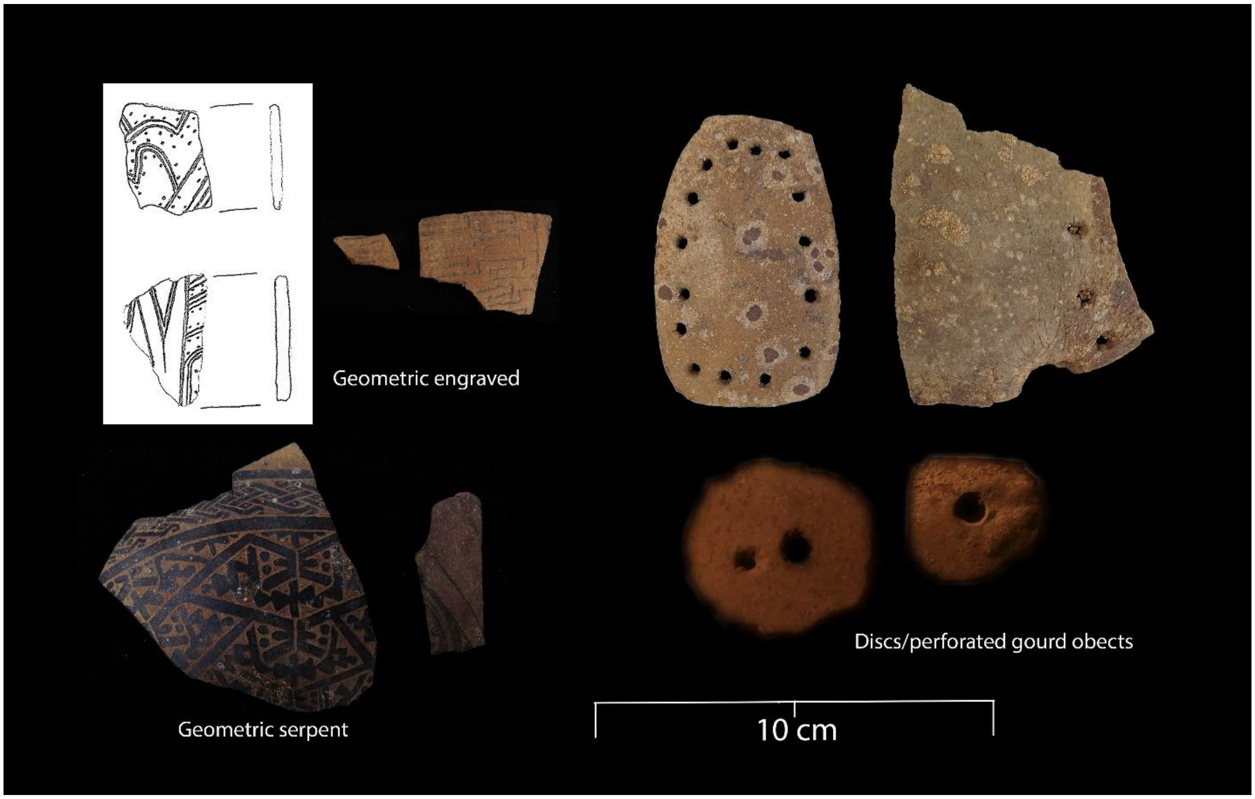


Figure 5.31 Gourd remains recovered from Samanco.

Figure 5.32 Avian remains recovered from Samanco.

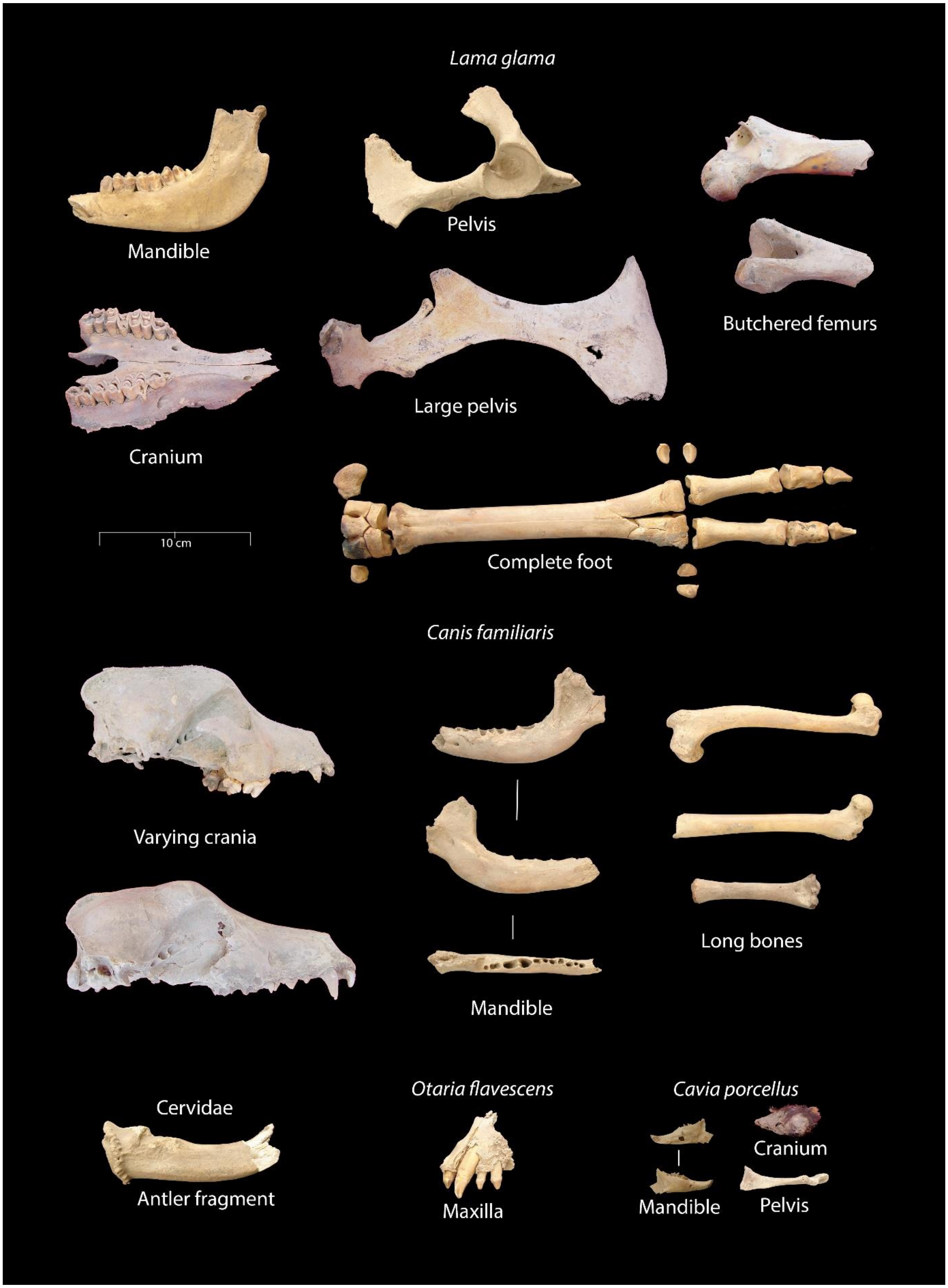


Figure 5.33 Mammal remains recovered from Samanco.

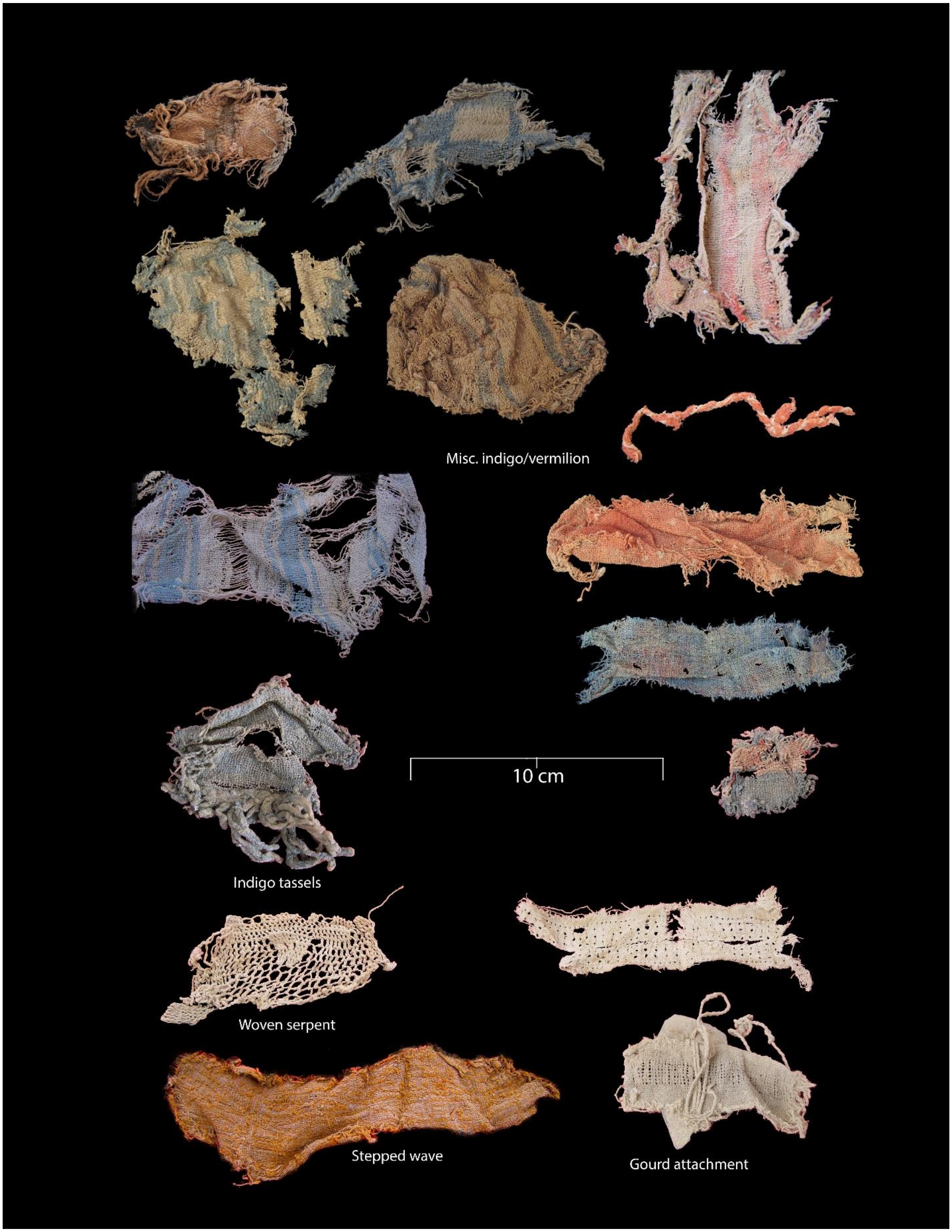


Figure 5.34 Textile remains recovered from Samanco.

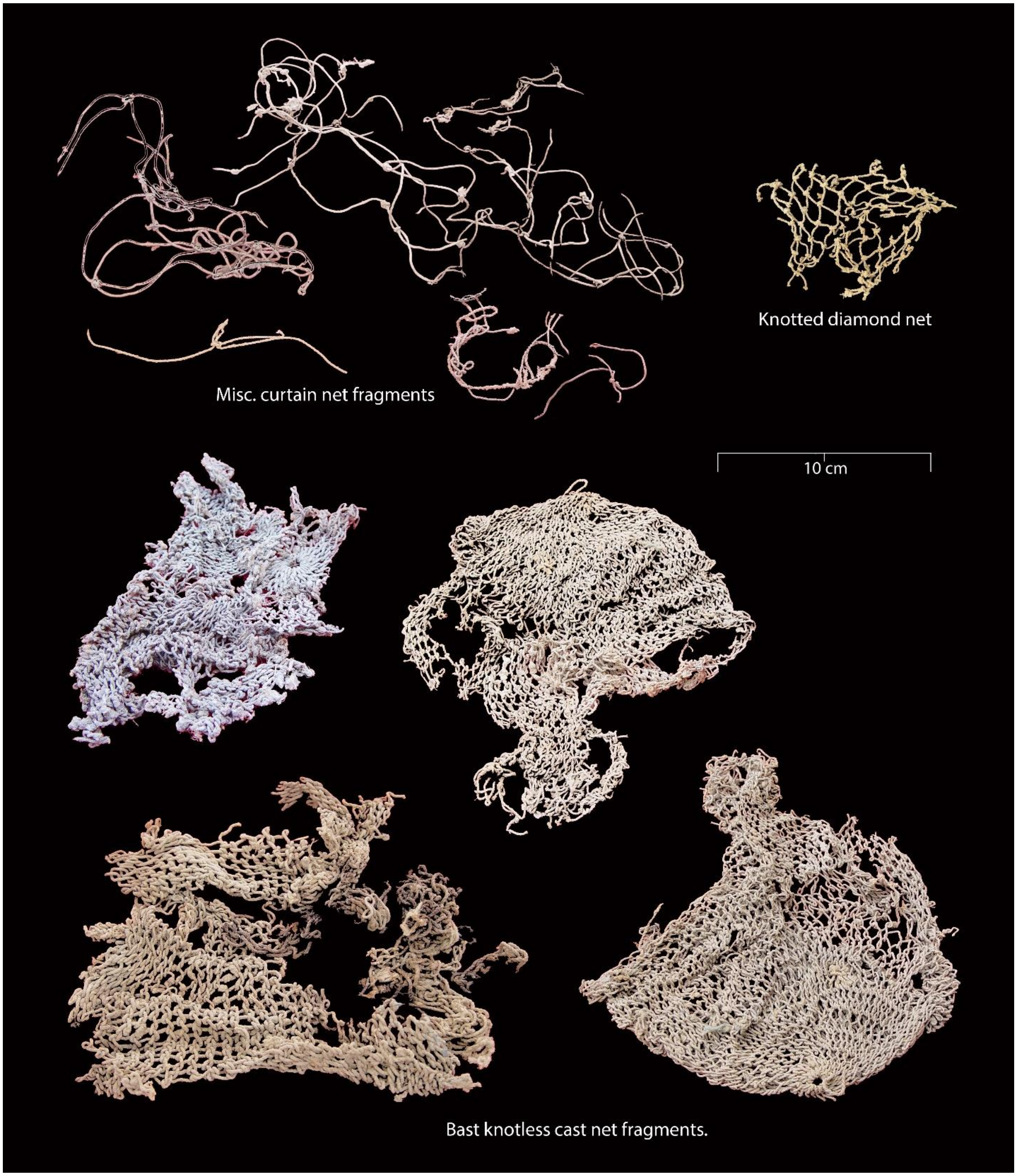


Figure 5.35 Net remains recovered from Samanco.

Figure 5.36 Groundstones recovered from Samanco.

Figure 5.37 Lithic remains recovered from Samanco.

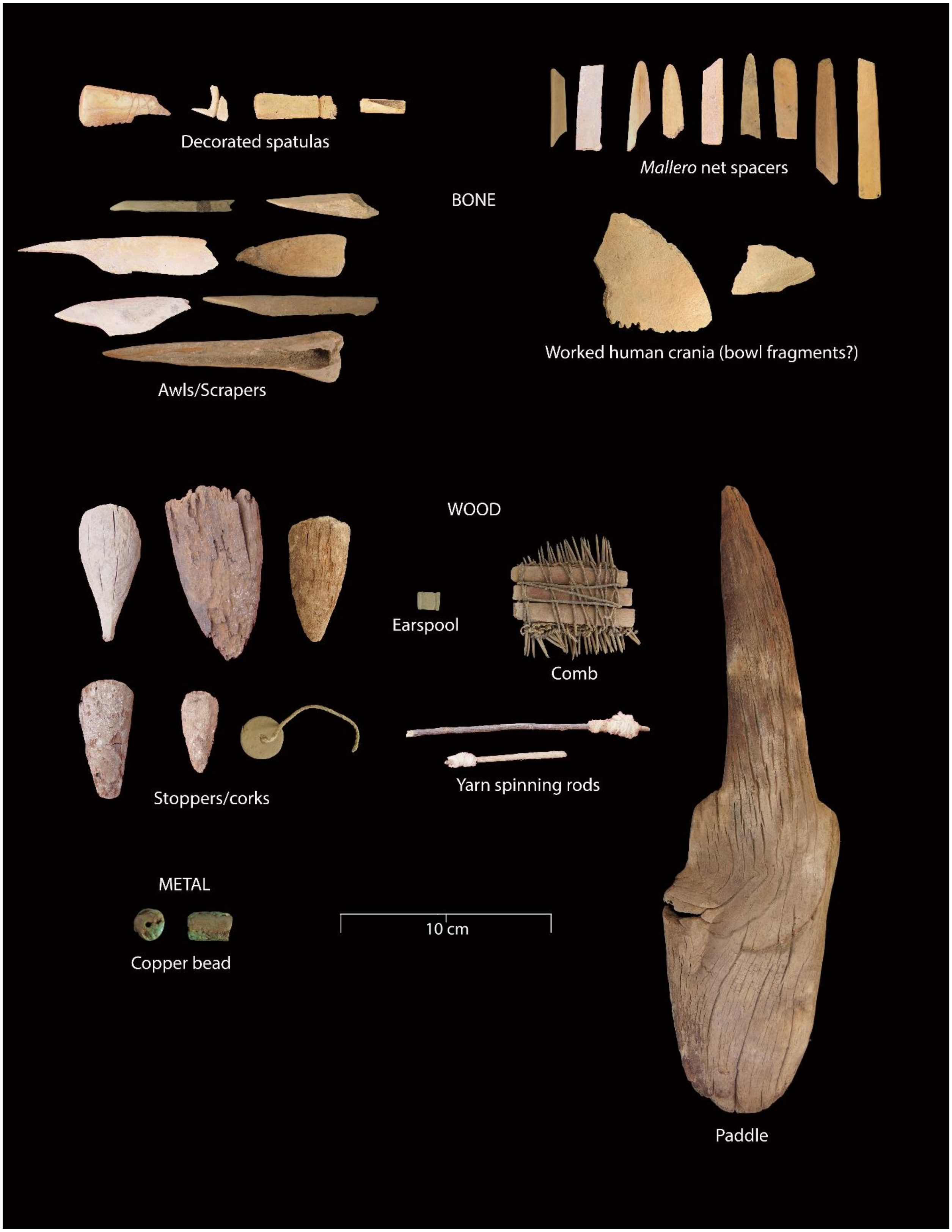


Figure 5.38 Miscellaneous remains recovered from Samanco.

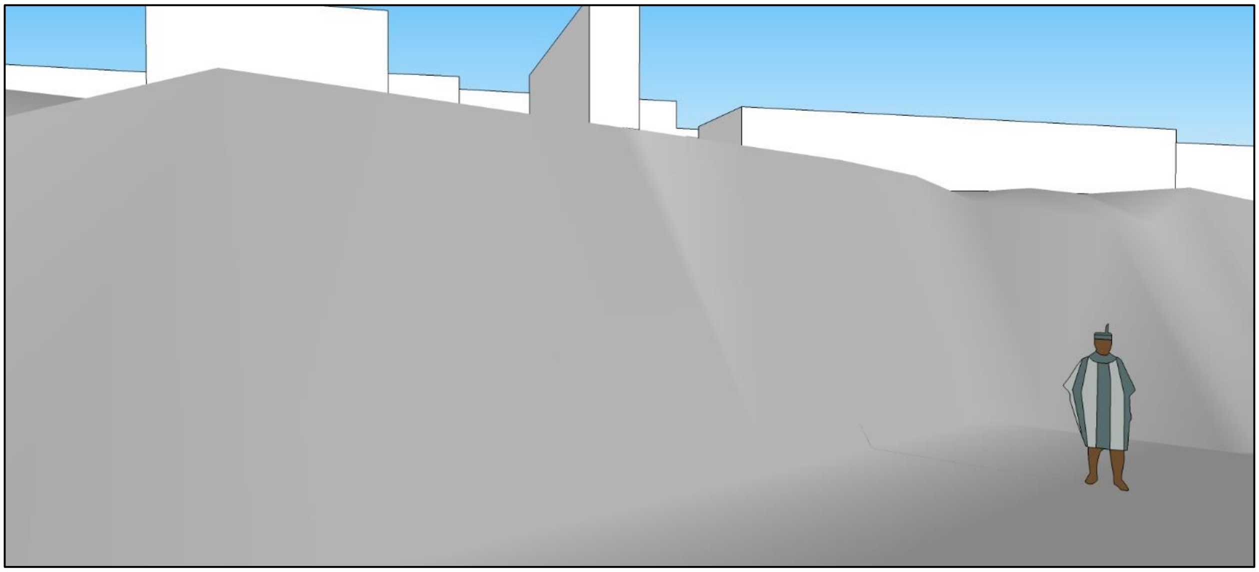


Figure 6.1 Outside viewshed of Compound 3 from the bottom of the western ravine.

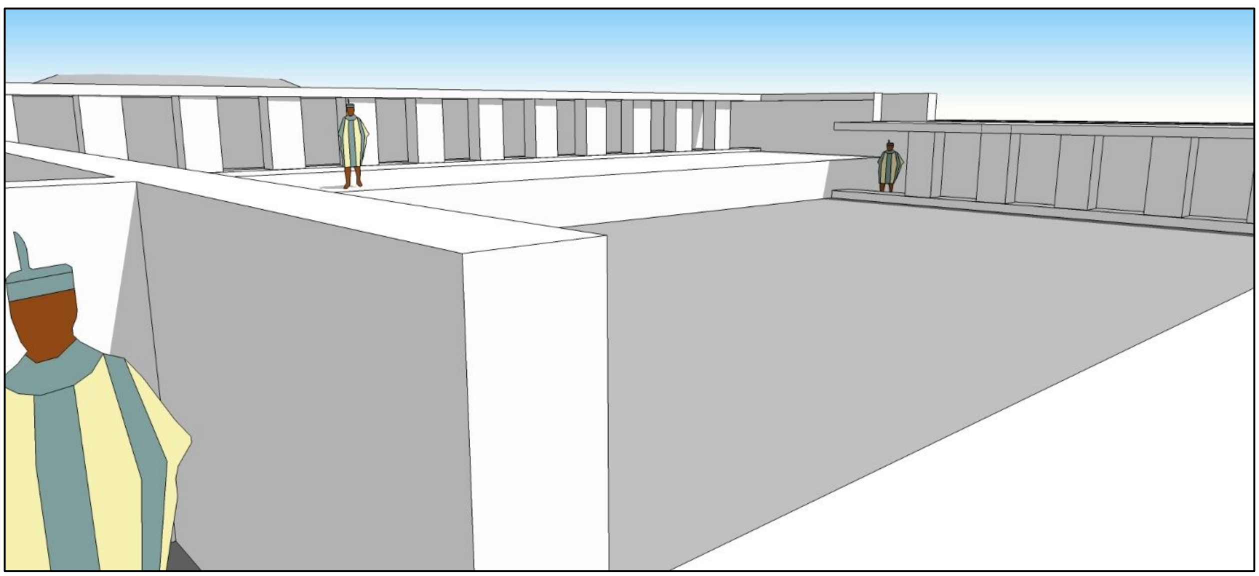


Figure 6.2 Inside viewshed of a Compound 3 patio from corner entrance.

Figure 6.3 Inside viewshed of a Compound 3 back room from corner entrance.

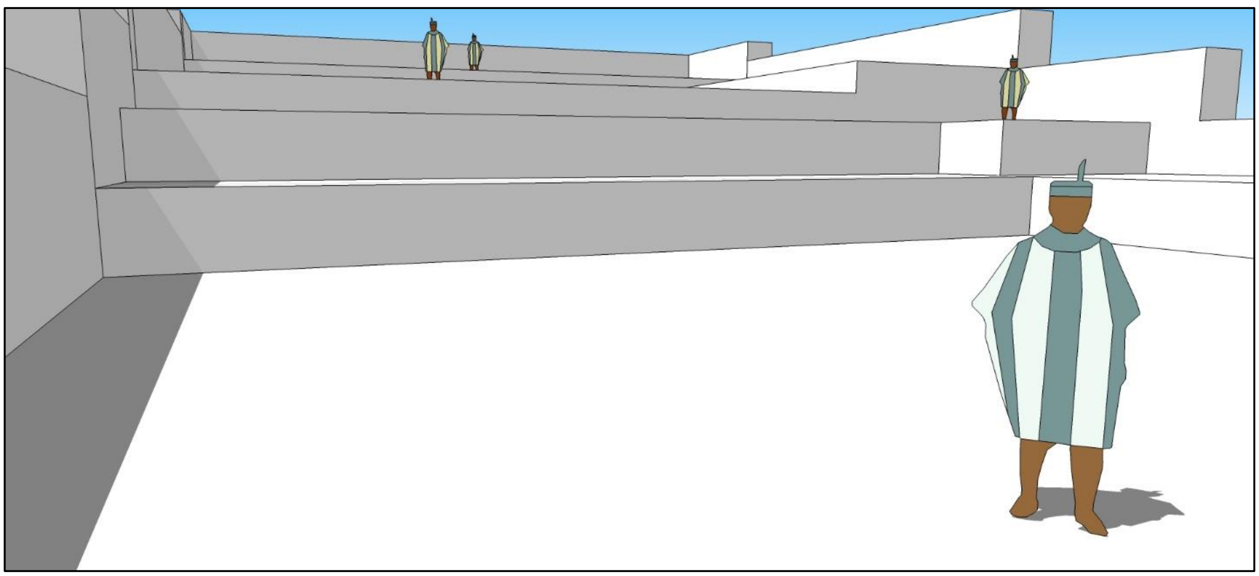


Figure 6.4 Inside viewshed of Plaza Mayor from bottom level showing visual prominence of tiered platform benches.

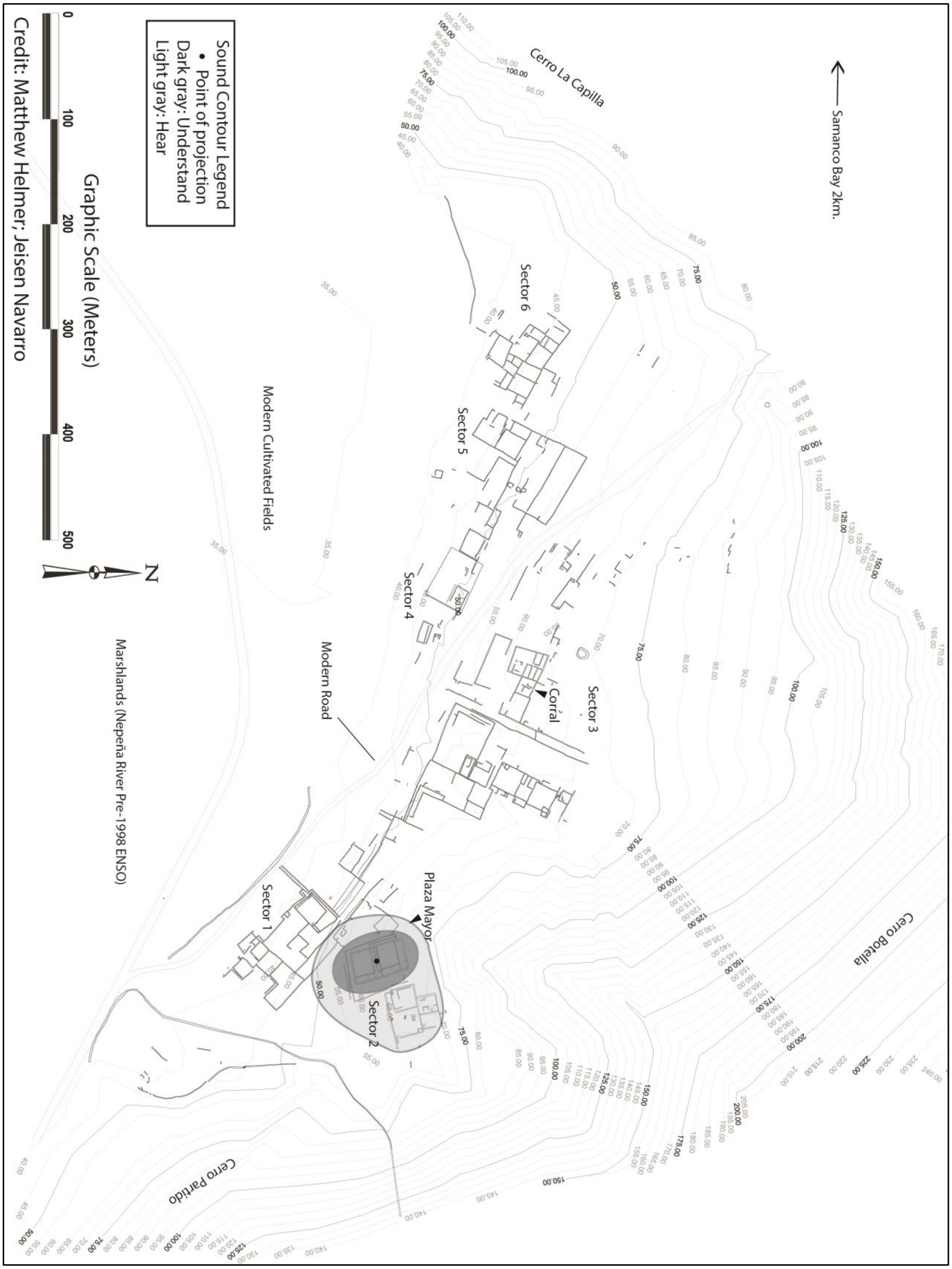


Figure 6.5a Sound contour of personal interaction from the Plaza Mayor.

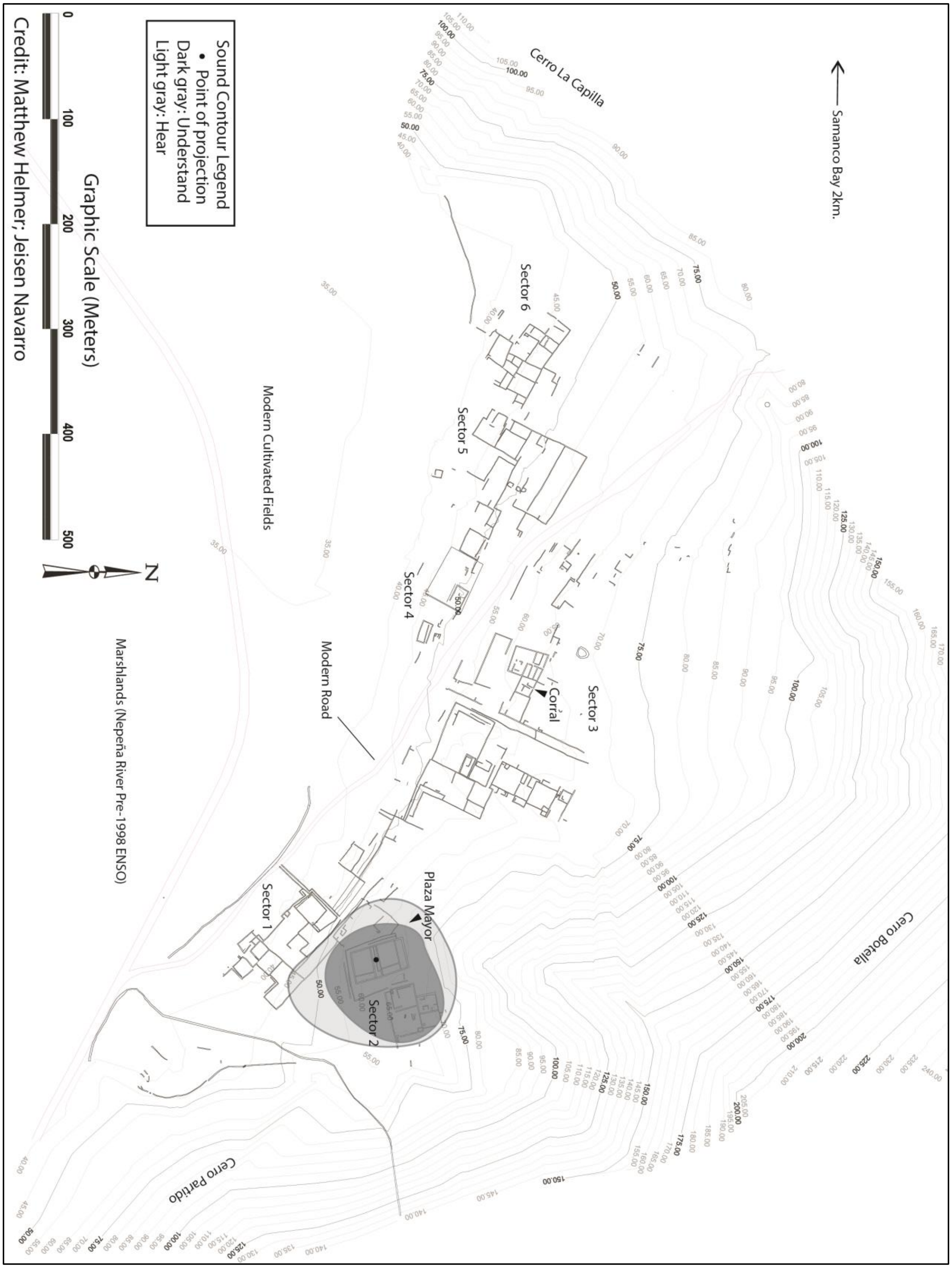


Figure 6.5b Sound contour of social interaction from the Plaza Mayor.

Figure 6.5c Sound contour of public interaction from the Plaza Mayor.

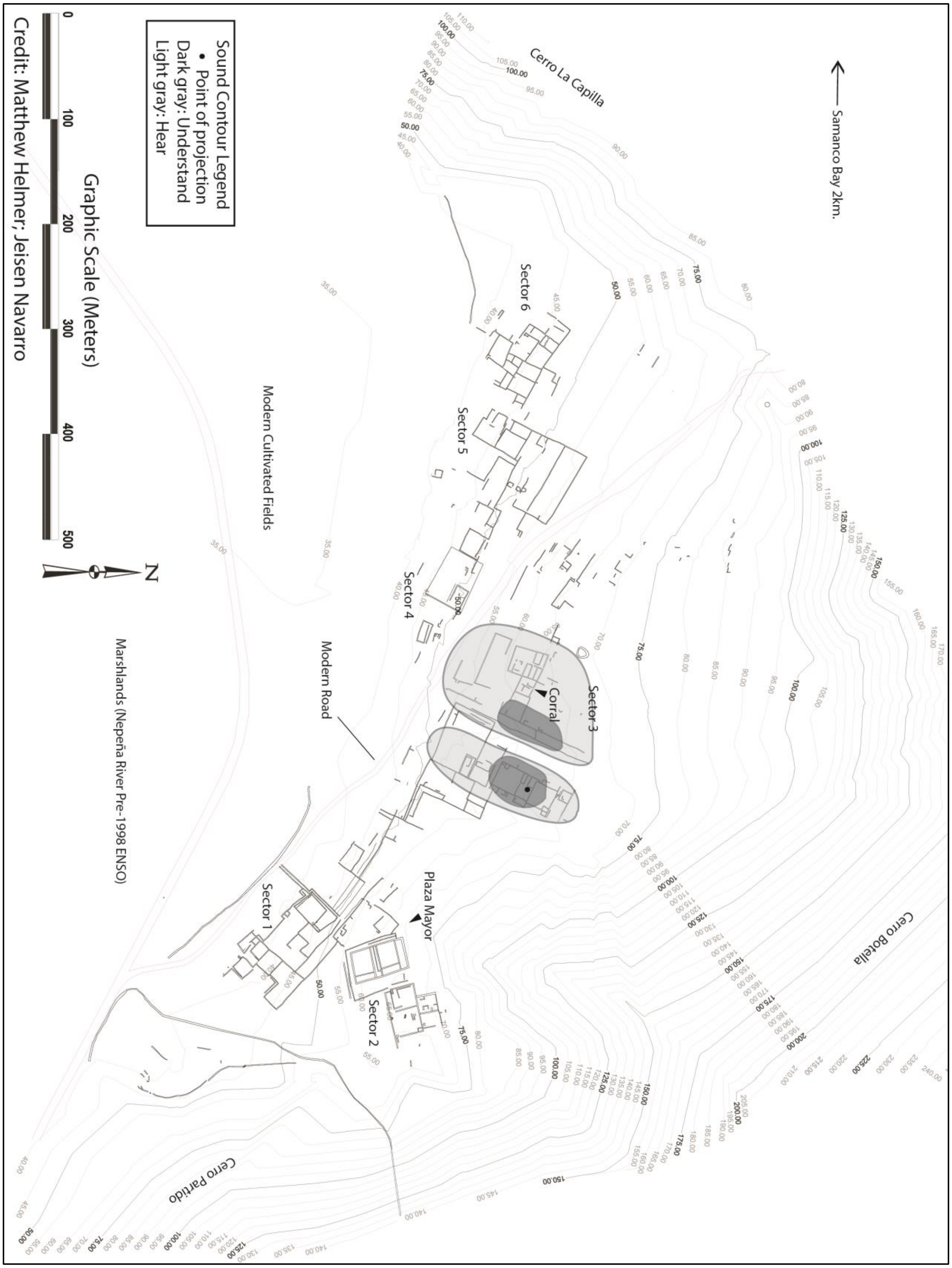


Figure 6.6a Sound contour of personal interaction from Compound 3.

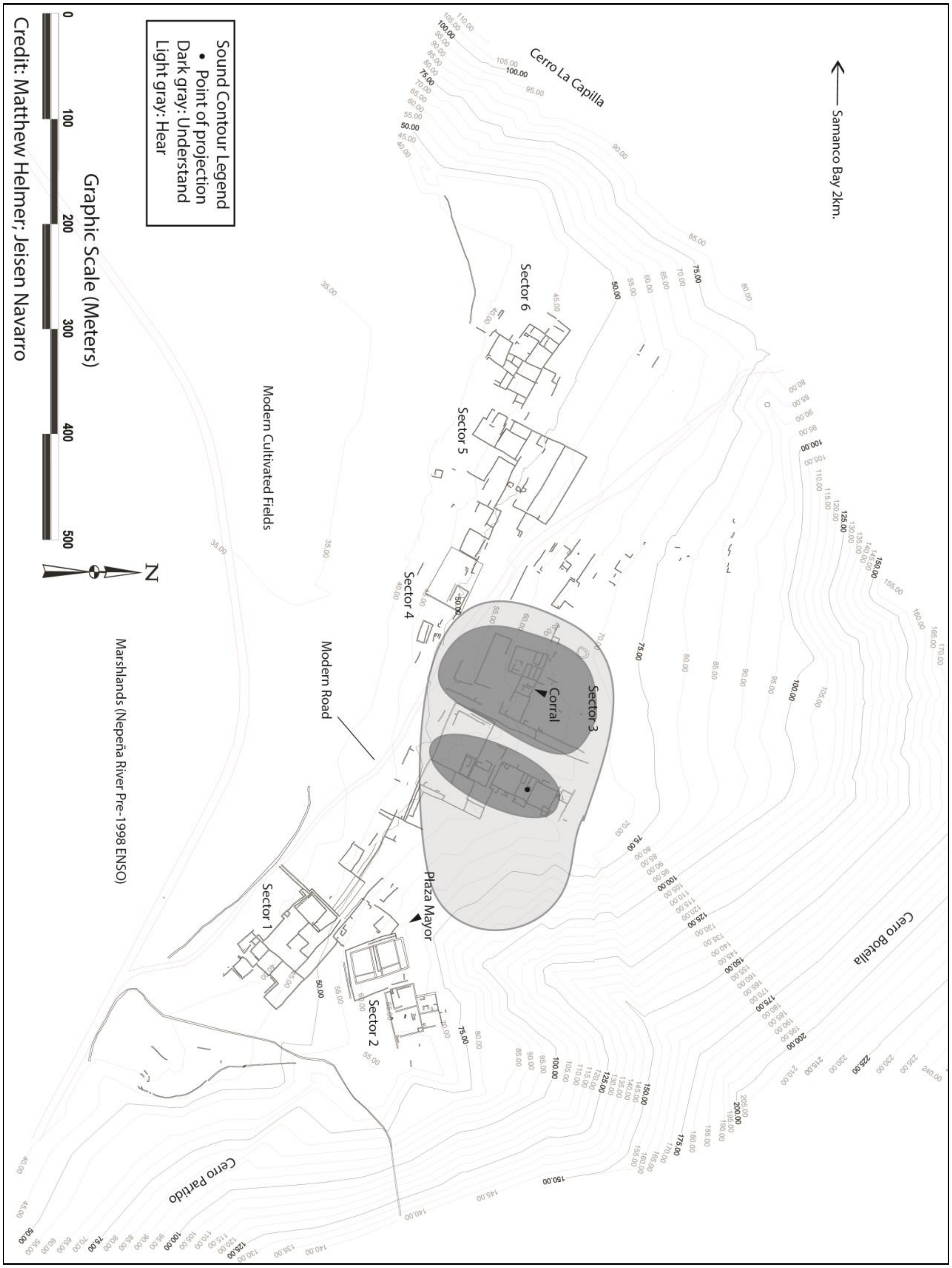


Figure 6.6b Sound contour of social interaction from Compound 3.

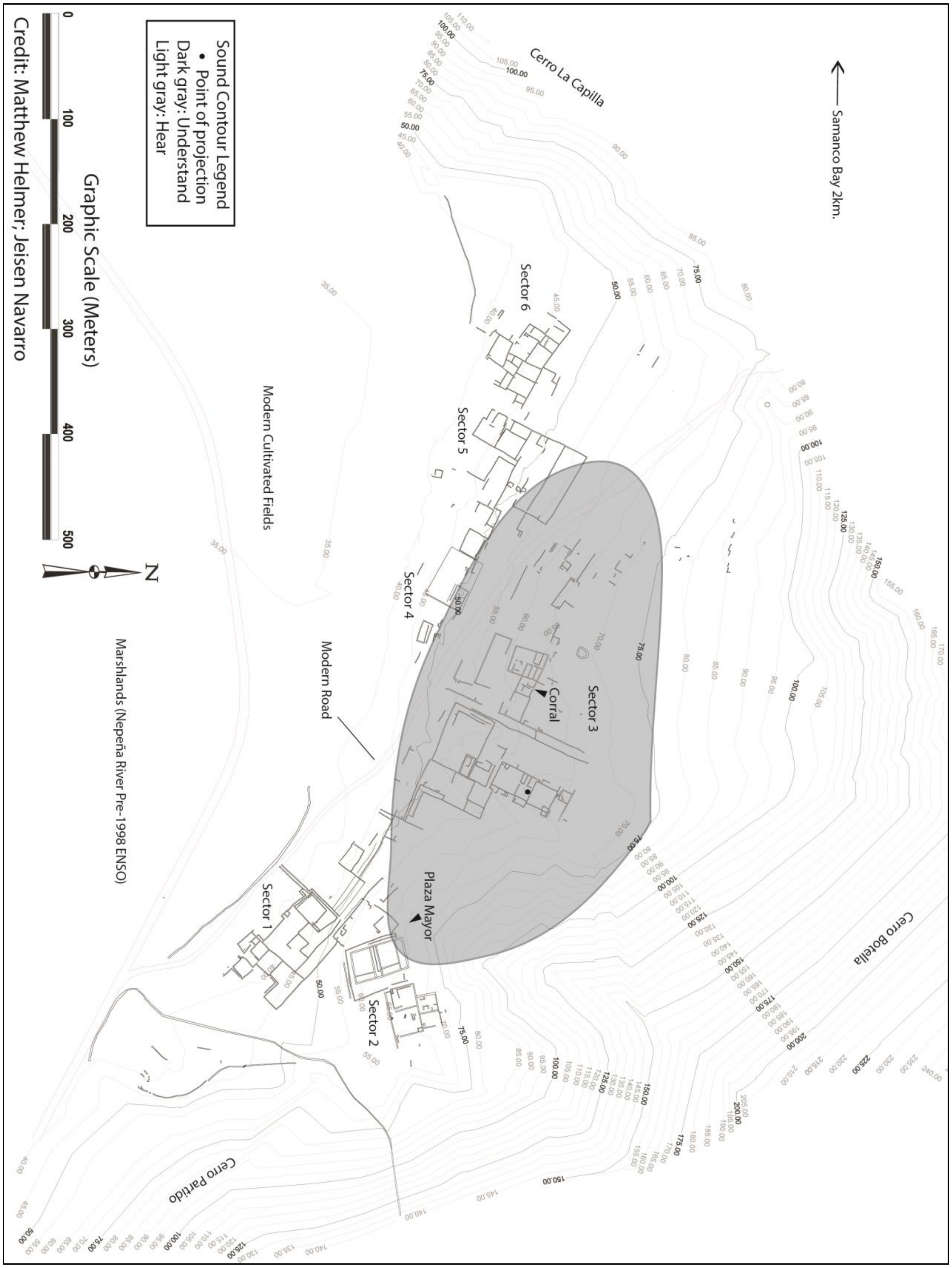


Figure 6.6c Sound contour of public interaction from Compound 3.

Figure 6.7 Part of an ancient road system which leads from the western hills of Samanco down to the northern Samanco Bay shoreline with rocky and sandy outcrops.

Figure 6.8 Rock dwelling mollusks which are harvestable during low tide.

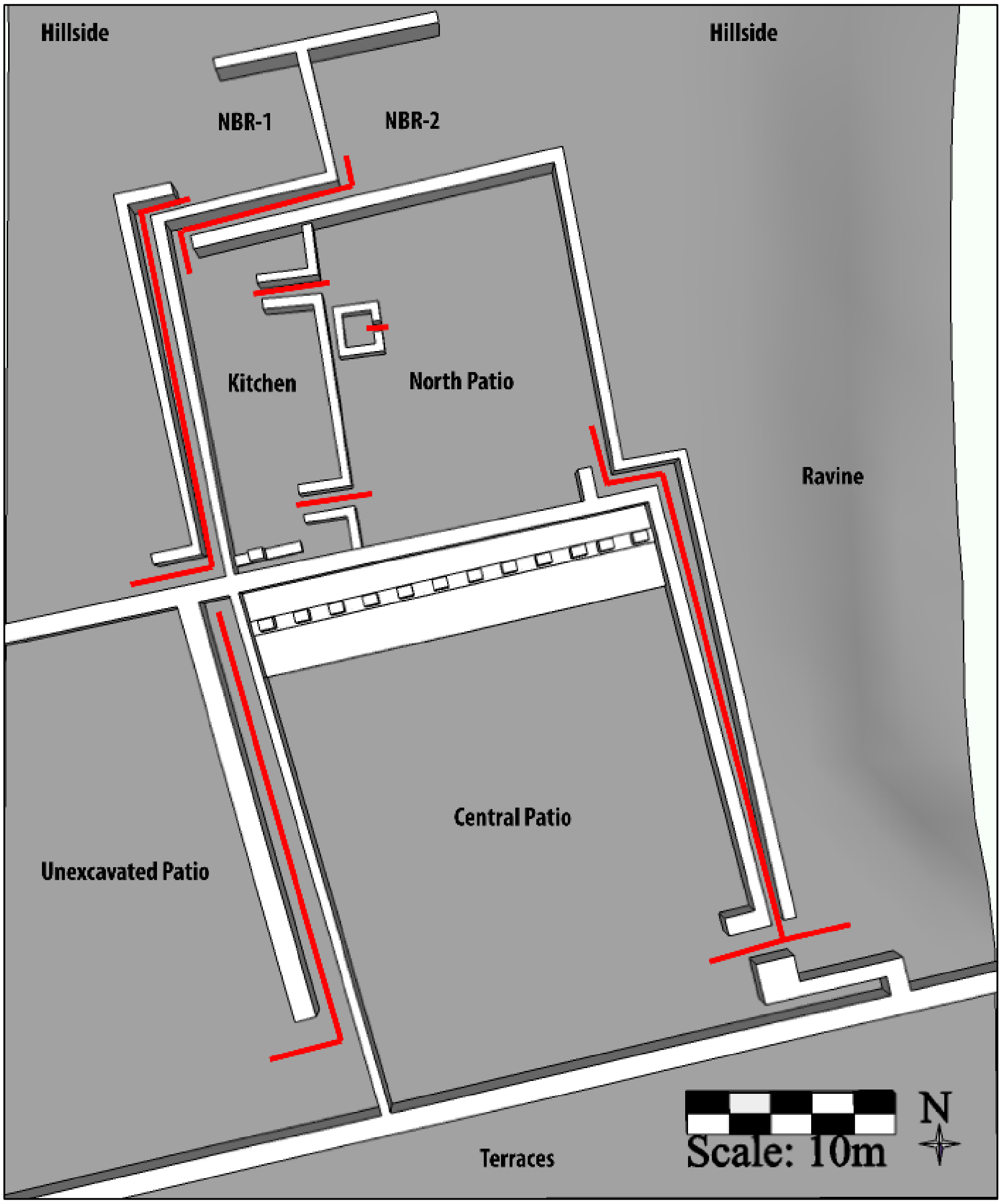


Figure 6.9 Access patterns throughout the excavated portions of Compound 2.

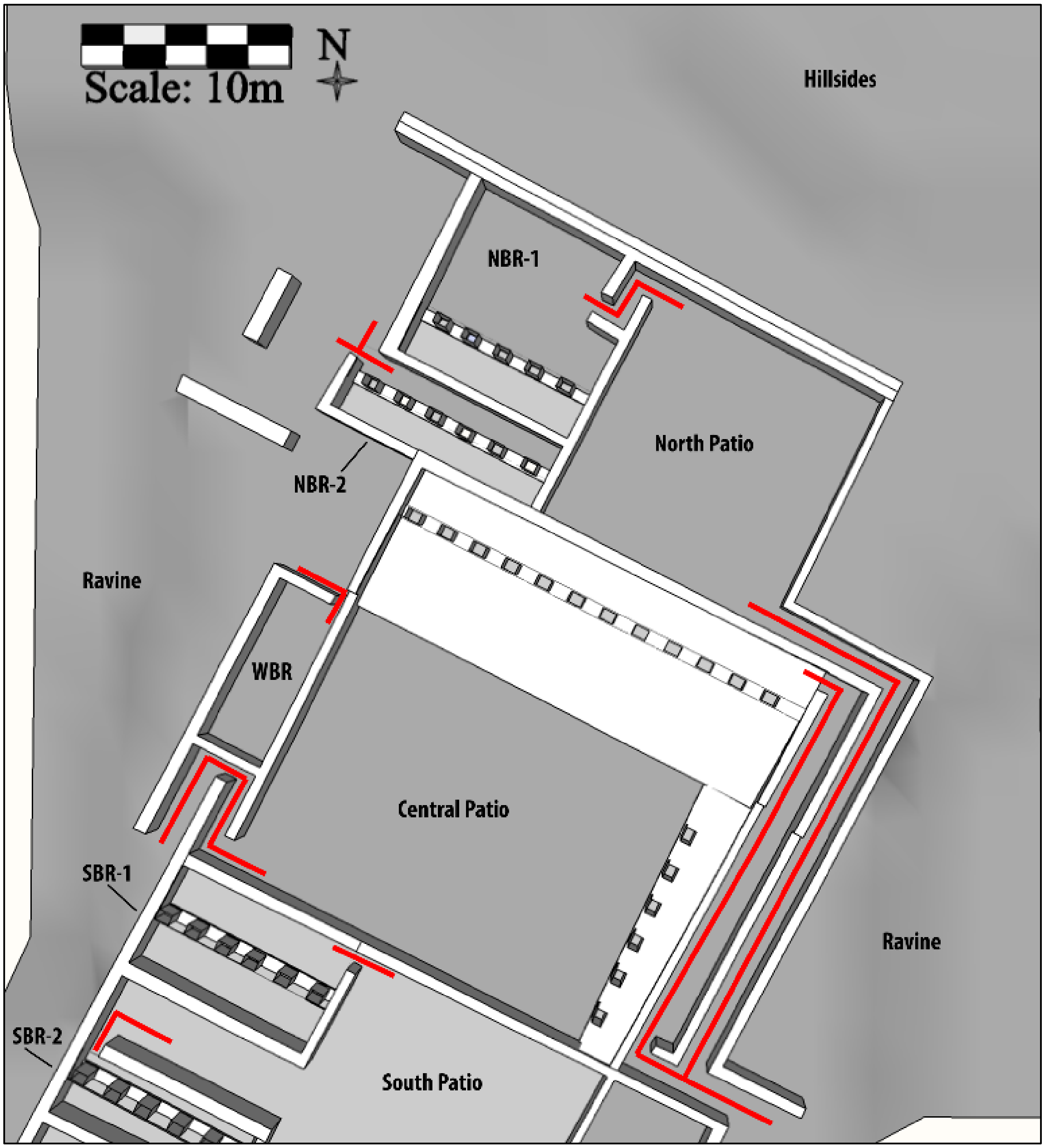


Figure 6.10 Access patterns throughout the excavated portions of Compound 3.

Figure 6.11 A group of fishermen and their families socializing while preparing nets for a nighttime fishing trip.

Figure 7.1 A huaquero’s ritual offering, or pago, of coca, tobacco, and alcohol placed with disturbed human remains at Caylán.

Figure 7.2 Pago offering ceremony by our crew before initiating excavation.

Figure 7.3 Photo of the San Pedro, patron saint of fishermen, ceremony at the Samanco dock.

Figure 7.4a Local co-worker Genaro Durand performing a pago offering at the UE-5 tomb by spraying homemade cane liquor mixed with honey.

Figure 7.4b The bottom of the emptied UE-5 tomb, with a last offering of coca leaves, alcohol, and tobacco, before being back filled.

Time Period	Phase	Nepeña Cultures	Samanco Occupation
1500	Late Horizon	Chimú/Inka	Elite Cemetery
1000	Middle Horizon	Casma/Chimú	Commoner Cemetery
500 CE 0	Early Intermediate Period	Gallinazo/ Moche	Abandonment Hiatus
BC 500	Early Horizon/Late Formative	Salinar	Primary Occupation
1000 1500	Initial Period/Early Formative	Chavín/ Cupisnique	Pre-Occupation
2000 2500	Late Archaic/Pre-Ceramic		

Table 1.1 Central Andean sequence with associated Nepeña cultures and episodes of Samanco occupations.

<table>
<tr><th></th><th>Kaulicke 2010</th><th>Lanning 1967</th><th>Shibata 2010</th><th>Daggett 1984</th><th>Billman 1996</th><th>Burger 1993</th><th>Mesía 2007</th><th>Kembel 2013</th></tr>
<tr><th>Region</th><th>Andes</th><th>Andes</th><th>Nepeña</th><th>Nepeña</th><th>Moche</th><th>Chavín</th><th>Chavín Ceramic</th><th>Chavín Architectural</th></tr>
<tr><td rowspan="2">0</td><td rowspan="4">Epiformative</td><td rowspan="4"></td><td rowspan="4"></td><td rowspan="4"></td><td rowspan="4">Late Salinar</td><td rowspan="4"></td><td rowspan="10">White on Red</td><td rowspan="4"></td></tr>
<tr></tr>
<tr><td rowspan="2">100</td></tr>
<tr></tr>
<tr><td rowspan="2">200</td><td rowspan="4">Final Formative</td><td rowspan="15">Early Horizon</td><td rowspan="6">Samanco</td><td rowspan="5">Phase 3</td><td rowspan="4">Early Salinar</td><td rowspan="6">Janabarriu</td><td rowspan="6">Post-monumental</td></tr>
<tr></tr>
<tr><td rowspan="2">300</td></tr>
<tr></tr>
<tr><td rowspan="2">400</td><td rowspan="8">Late Formative</td><td rowspan="8">Late Guañape</td></tr>
<tr><td rowspan="5">Phase 2</td></tr>
<tr><td rowspan="2">500</td><td rowspan="6">Nepeña</td><td rowspan="2">Chakinani</td><td rowspan="9">Janabarriu</td><td rowspan="1">Support</td></tr>
<tr><td rowspan="7">Black and White</td></tr>
<tr><td rowspan="2">600</td><td rowspan="7">Urabarriu</td></tr>
<tr></tr>
<tr><td rowspan="2">700</td><td rowspan="5">Phase 1</td></tr>
<tr></tr>
<tr><td rowspan="2">800</td><td rowspan="8">Middle Formative</td><td rowspan="6">Cerro Blanco</td><td rowspan="11">Middle Guañape</td></tr>
<tr></tr>
<tr><td rowspan="2">900</td><td rowspan="6">Consolidation - Expansion - Separate Mound</td></tr>
<tr><td rowspan="8">Initial Period</td><td rowspan="8"></td><td rowspan="8"></td><td rowspan="5">Kotosh</td></tr>
<tr><td rowspan="2">1000</td></tr>
<tr></tr>
<tr><td rowspan="2">1100</td><td rowspan="5">Huambokayán</td></tr>
<tr></tr>
<tr><td rowspan="2">1200</td><td rowspan="3">Early Formative</td><td rowspan="3">Wairajirca</td><td rowspan="3"></td></tr>
<tr></tr>
<tr><td>1300</td></tr>
</table>

Table 2.1 Regional sequences for the Formative Period with Samanco’s primary occupation shaded.

Site	Distance inland	Size (total)	Size (core)	Population: 125/1 ha	250/1 ha	500/1 ha
Samanco	2 km	40 ha	20 ha	2500	5000	10000
Huambacho	8 km	12 ha	12 ha	1500	3000	6000
Caylán	15 km	100 ha	50 ha	6250	12500	25000
Sute Bajo	17 km	N/A	2 ha	250	500	1000

Table 3.1 Early Horizon Nepeña enclosure sites interpreted as part of a lower-middle valley sociopolitical network. Population estimates based on area density (See Hassan 1999).

Structure	Location	Area	Visible Rooms	Patio Groups	Cap. Est. 1/10 sq m	1/5 sq m
Compound 1	East Samanco	21000 sq m	30+	10	2100	4200
Compound 2	East Samanco	3000 sq m	15+	4	300	600
Plaza Mayor	East Samanco	1600 sq m	2	N/A	160	320
Compound 3	Central Samanco	35000 sq m	30+	12	3500	7000
Corral	Central Samanco	1500 sq m	10	N/A	N/A	N/A
Compound 4	Central Samanco	3250 sq m	10+	N/A	325	650
Compound 5	West Samanco	7500 sq m	30+	N/A	750	1500
Compound 6	West Samanco	6750 sq m	30+	8	675	1350

Table 4.1 Sizes and capacity estimates for Samanco structures and compound sectors.

Burial No.	Area	Room type	Level	Age	Sex	Orientation	Materials/Notes
Burial 1	Plaza Mayor	Exterior Patio	4+; Early Phase	Child		Flexed	10 *Argopecten* sp. shells; plainweave wrap
Burial 2	Compound 3	Back Room	2; Late Phase	Adult	M	Contorted	Nude; peri-mortem cranial trauma
Burial 3	Compound 2	Kitchen Platform	2; Late Phase	Adult	F	Flexed	Nude; elderly
Burial 4	Compound 2	Kitchen Platform	2; Late Phase	Child		Flexed	Nude; gourd offering
Burial 5	Compound 3	Back Room	3; Early Phase	Infant			*Salix* sp. bedding
Burial 6	Compound 3	Back Room	2; Late Phase	Adult	M	Contorted	Nude; Large robust male; peri-mortem cranial infection
Burial 7	Compound 3	Back Room	2; Late Phase	Infant			*Salix* sp. bedding; red painted cranium; copper bead
Burial 8	Compound 3	Back Room	3; Early Phase	Sub-Adult	F	Flexed	Cloth facewrap beneath neckless jar fragment; gourd offering

Table 4.2 Burial data from Early Horizon Samanco contexts.

Lab no.	**Excavation unit**	**Location**	**Context**	**Sample depth (m)**	**Material**	**Uncalibrated**	**Calibrated (2 sigma)**
OxA-30630	UE1-Ext 1	Plaza Mayor	Ash below wall collapse	1.15m	Charcoal (93.2g)	2141 +/- 29 BP	205-53 BCE
OxA-30631	UE1	Plaza Mayor	Above sterile	3.46m	Charcoal (31.3g)	6533 +/-39 BP	5539-5358 BCE
OxA-30632	UE7A	Compound 2	Floor 1 hearth	0.35m	Charcoal (17.5g)	2238 +/-29 BP	372-198 BCE
OxA-30633	UE3B	Compound 3	Construction fill below floor 2	0.90m	Maize cob (35.0g)	2139 +/- 29 BP	205-53 BCE
OxA-30634	UE3B	Compound 3	Dismantled structures above sterile	1.50m	Charcoal (28.0g)	2270 +/- 28 BP	384-207 BCE
OxA-30637	UE5	Compound 3 Midden	Interior floor	4.0m	Charcoal (26.5g)	2240 +/- 29 BP	375-177 BCE
OxA-30635	HP4	Corral	Construction fill below floor 1	0.50m	Charcoal (146.1g)	2204 +/- 29 BP	360-133 BCE
OxA-30636	HP8	Compound 4	Construction fill at wall base	1.0m	Maize cob (56.1g)	2166 +/- 29 BP	351-61 BCE
OxA-30550	HP6	Compound 6	Refuse below wall collapse	0.45m	Maize cob (55.1g)	2255 +/- 29 BP	378-203 BCE

Table 4.3 AMS Radiocarbon measurements from Samanco. Calendar years calibrated using the OxCal v4.1 software (Bronk Ramsey and Lee 2013) and southern hemisphere calculations (Hogg *et al.* 2013).

	Vessel Shape	Classification	Sherd number (n=)	Shape percent	Avg. rim diameter	TOTAL (n=; %)
Cooking-Storage Vessels	Neckless Jar	O1	184	18.53%	10.56cm	993; 68.15%
		O2	679	68.38%	12.84cm	
		O3	130	13.09%	22.01cm	
	Small Neck Jar	Concave divergent	56	56.00%	7.84cm	100; 6.86%
		Slightly concave vertical divergent	25	25.00%	7.12cm	
		Vertical short neck	13	13.00%	6.38cm	
		Concave convergent	1	1.00%	5cm	
		Conjoined sides	1	1.00%	10cm	
		N/A	4	4.00%	N/A	
	Medium Neck Jar	Concave divergent	34	45.21%	13.125cm	74; 5.08%
		Slightly concave vertical divergent	32	43.83%	12.51cm	
		Vertical short neck	5	6.85%	12.00cm	
		Concave convergent	2	2.74%	13.00cm	
		Conjoined sides	1	1.37%	16.00cm	
	Tinaja	Very concave	18	45.00%	37.50cm	30; 2.06%
		Concave divergent	11	27.50%	32.80cm	
		Neckless	1	2.50%	30.00cm	
	Large Neck Jar	Concave divergent	5	12.50%	22.40cm	10; 0.69%
		Slightly concave vertical divergent	2	5.00%	23.00cm	
		Compound walls	1	2.50%	25.00cm	
		Very concave	1	2.50%	24.00cm	
		N/A	1	2.50%	N/A	
Serving Vessels	Small Bowl	Convex divergent	24	40.68%	12.08cm	59; 4.05%
		Convex divergent, carinated	22	37.29%	13.11cm	
		Convex vertical	12	20.34%	11.67cm	
		Convex vertical, carinated	1	1.69%	13.00cm	
	Medium Bowl	Convex divergent	51	51.52%	19.86cm	99; 6.79%
		Convex divergent, carinated	8	8.08%	18.75cm	
		Convex vertical	28	28.28%	20.82cm	
		Straight divergent	12	12.12%	21.08cm	
	Large Bowl	Convex divergent	4	33.33%	31.75cm	12; 0.82%
		Convex vertical	6	50%	31.67cm	
		Straight divergent	2	16.67%	38.00cm	
	Tazón	Concave divergent	5	38.46%	16.6cm	13; 0.89%
		Straight divergent	4	30.77%	24.0cm	
		Straight vertical	4	30.77%	22.67cm	
	Bottle	Stirrup spout	52	77.61%	4.13cm	67; 4.60%
		Convex vertical	5	7.46%	2.38cm	
		Concave divergent	4	5.97%	4.75cm	
		Straight divergent	1	1.49%	3.50cm	
		N/A	5	7.46%	N/A	
					TOTAL	1457; 100%

Table 5.1 Ceramic vessel shapes by overall and shape frequencies, and average rim diameters.

	Vessel Shape	Sector 1 (n=)	Plaza Mayor (n=)	Sector 2 (n=)	Sector 3 (n=)	Sector 4 (n=)	Sector 5 (n=)	Sector 6 (n=)	TOTAL (n=; %)
Cooking-Storage	Neckless Jar	50	154	299	360	63	11	61	993; 68.15%
	Small Neck Jar	2	19	29	32	7	2	9	100; 6.86%
	Medium Neck Jar	2	9	35	18	4	-	6	74; 5.08%
	Tinaja	-	7	4	11	8	-	-	30; 2.06%
	Large Neck Jar	-	1	7	2	-	-	-	10; 0.69%
Serving	Small Bowl	2	15	15	17	2	-	8	59; 4.05%
	Medium Bowl	-	15	19	56	6	1	2	99; 6.79%
	Large Bowl	1	-	1	10	-	-	-	12; 0.82%
	Tazón	-	3	1	5	3	-	1	13; 0.89%
	Bottle	1	14	5	30	13	-	4	67; 4.60%
								TOTAL	1457; 100%

Table 5.2 Ceramic vessel shapes and frequencies by sector.

Decoration	Cooking-Storage Vessels				Serving Vessels					
	Neckless Jar	Small Neck Jar	Medium Neck Jar	Tinaja	Large Neck Jar	Small Bowl	Medium Bowl	Large Bowl	Tazón	Bottle
Textile Impressed	-	-	1	-	-	-	-	-	-	-
Stamped Circle-Dot	6	1	-	1	-	14	2	-	-	-
Painted Incised	-	-	-	-	-	-	-	-	-	8
Misc. Incised Lines	1	-	1	-	-	1	-	-	-	6
Banded Lozenge	2	-	1	-	-	7	4	-	-	-
Broad Line Incised	1	-	-	-	-	2	-	-	-	3
Misc. Punctate	3	-	-	-	-	4	2	-	-	1
Triangular Zoned Incised Lines	2	2	-	-	-	-	-	-	-	1
Triangular Zoned Punctate	3	-	-	-	-	-	-	-	-	-
Zoned Punctate	-	-	-	-	-	-	-	-	-	-
Handle	2	-	-	-	-	-	1	-	-	1
Hole	2	-	1	-	-	-	1	-	-	-
Modeled	-	-	-	-	-	-	-	-	-	2
Stamped Concentric Circles	-	-	-	-	-	1	-	-	-	-
Applique Nubbin	-	-	-	-	-	-	-	-	-	-
Negative Lines	-	-	1	-	-	-	-	1	-	-
Serrated Edge	2	-	-	-	-	-	-	-	-	-
Banded Lozenge/Stamped Circle-Dot	-	-	-	-	-	1	-	-	-	-
Finger Modeled	-	-	-	-	-	-	-	-	-	-
Pattern Burnish	2	-	-	-	-	-	-	-	-	-
Sinuous Zoned Punctate	1	-	-	-	-	-	1	-	-	-
Triangular Zoned Punctate/Stamped Circle-Dot	1	-	-	-	-	-	-	-	-	-
Cylinder Stamped	-	-	-	-	-	-	-	-	-	-
Painted Incised/Stamped Circle-Dot	-	-	-	-	-	-	-	-	-	1
Ridged Applique	-	-	-	-	-	-	-	-	-	-
Zoned Incised Lines	-	-	-	-	-	-	-	-	-	-
Zoned Punctate/Stamped Circle-Dot	-	-	-	1	-	-	-	-	-	-
TOTAL	28	3	5	2	2	30	11	1	-	23

Table 5.3 Ceramic vessel shapes with known decoration types.

Decoration	Sector 1 (n=)	Plaza Mayor (n=)	Sector 2 (n=)	Sector 3 (n=)	Sector 4 (n=)	Sector 5 (n=)	Sector 6 (n=)	TOTAL (n=; %)
Textile Impressed	2	7	14	28	3	2	2	58; 20.79%
Stamped Circle-Dot	2	6	4	11	6	-	5	34; 12.19%
Painted Incised	-	5	4	24	-	-	1	34; 12.19%
Misc. Incised Lines	-	2	6	6	5	-	1	20 7.17%
Banded Lozenge	-	1	5	5	1	2	2	16; 5.73%
Broad Line Incised	1	1	3	8	1	-	-	14; 5.02%
Misc. Punctate	-	3	3	6	-	1	1	14; 5.02%
Triangular Zoned Incised Lines	-	1	2	9	-	-	-	12; 4.30%
Triangular Zoned Punctate	-	3	-	3	-	1	3	10; 3.58%
Zoned Punctate	-	5	-	2	1	-	2	10; 3.58%
Handle	-	4	-	3	-	-	2	9; 3.23%
Hole	-	2	-	4	-	-	3	9; 3.23%
Modeled	-	3	1	3	1	-	-	8; 2.87%
Stamped Concentric Circles	-	-	1	1	1	-	2	5; 1.79%
Applique Nubbin	-	-	2	1	1	-	-	4; 1.43%
Negative Lines	1	-	1	2	-	-	-	4; 1.43%
Serrated Edge	-	-	-	3	-	-	-	3; 1.08%
Banded Lozenge/Stamped Circle-Dot	-	1	-	1	-	-	-	2; 0.72%
Finger Modeled	1	-	-	-	-	-	1	2; 0.72%
Pattern Burnish	-	2	-	-	-	-	-	2; 0.72%
Sinuous Zoned Punctate	-	-	1	1	-	-	-	2; 0.72%
Triangular Zoned Punctate/Stamped Circle-Dot	-	-	-	1	-	1	-	2; 0.72%
Cylinder Stamped	-	1	-	-	-	-	-	1; 0.36%
Painted Incised/Stamped Circle-Dot	-	-	-	1	-	-	-	1; 0.36%
Ridged Applique	-	1	-	-	-	-	-	1; 0.36%
Zoned Incised Lines	-	-	-	-	-	-	1	1; 0.36%
Zoned Punctate/Stamped Circle-Dot	-	-	-	1	-	-	-	1; 0.36%
							TOTAL	279; 100%

Table 5.4 Frequency of ceramic decoration types by sector.

Samanco Occupation	Late Phase		Early Phase		TOTAL (n=; %)
Decoration	Level 1 (n=)	Level 2 (n=)	Level 3 (n=)	Level 4+ (n=)	
Textile Impressed	16	16	9	17	58; 20.79%
Stamped Circle-Dot	11	11	2	10	34; 12.19%
Painted Incised	1	17	9	7	34; 12.19%
Misc. Incised Lines	7	7	5	1	20; 7.17%
Banded Lozenge	5	5	2	4	16; 5.73%
Broad Line Incised	3	6	2	3	14; 5.02%
Misc. Punctate	8	2	-	4	14; 5.02%
Triangular Zoned Incised Lines	2	4	4	2	12; 4.30%
Triangular Zoned Punctate	3	3	2	2	10; 3.58%
Zoned Punctate	2	2	3	3	10; 3.58%
Handle	1	3	1	4	9; 3.23%
Hole	4	3	1	1	9; 3.23%
Modeled	1	1	1	5	8; 2.87%
Stamped Concentric Circles	2	1	1	1	5; 1.79%
Applique Nubbin	2	2	-	-	4; 1.43%
Negative Lines	2	-	2	-	4; 1.43%
Serrated Edge	-	3	-	-	3; 1.08%
Banded Lozenge/Stamped Circle-Dot	-	1	1	-	2; 0.72%
Finger Modeled	1	-	1	-	2; 0.72%
Pattern Burnish	-	-	-	2	2; 0.72%
Sinuous Zoned Punctate	1	-	1	-	2; 0.72%
Triangular Zoned Punctate/Stamped Circle-Dot	1	1	-	-	2; 0.72%
Cylinder Stamped	-	-	-	1	1; 0.36%
Painted Incised/Stamped Circle-Dot	-	-	-	1	1; 0.36%
Ridged Applique	-	-	1	-	1; 0.36%
Zoned Incised Lines	-	1	-	-	1; 0.36%
Zoned Punctate/Stamped Circle-Dot	-	-	1	-	1; 0.36%
				TOTAL	279; 100%

Table 5.5 Ceramic decoration frequencies by strata.

Samanco Occupation	Late Phase		Early Phase		TOTAL (n=; %)
Paste	Level 1 (n=)	Level 2 (n=)	Level 3 (n=)	Level 4+ (n=)	
1) Sandy Red Brown/Black	301	424	263	276	1264; 75.96%
2) Fine Gray/Black	5	2	4	3	14; 0.78%
3) Chunky Pink/Orange Yellow	101	165	78	43	387; 23.26%
				TOTAL	1665; 100%

Table 5.6 Paste types and frequencies by strata.

Object	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	TOTAL
Panpipe	24 (7.84%)	74 (24.18%)	44 (14.38%)	80 (26.14%)	23 (7.52%)	2 (0.65%)	59 (19.28%)	306; 100%
Disc	2 (4.44%)	11 (24.44%)	5 (11.11%)	13 (28.89%)	8 (17.78%)	2 (4.44%)	4 (8.89%)	45; 100%
Figurine	-	3 (9.09%)	19 (57.58%)	12 (36.63%)	-	-	2 (6.06%)	33; 100%
Spindle-Whorl	-	2 (8.70%)	10 (43.49%)	10 (43.49%)	-	-	1 (4.35%)	23; 100%
Grater Bowl	-	-	6 (66.67%)	2 (22.22%)	-	1 (11.11%)	-	9; 100%

Table 5.7 Non-vessel ceramic objects and frequencies by sector.

	Taxon	Temp.	Substrate	Supra-littoral	Meso-littoral	Infra-littoral	MNI; %
PELECYPODA	*Semimytilus algosus*	C	R		X	X	28115; 39.41%
	Perumytilus purpuratus	C	R		X		26656; 37.36%
	Donax obesulus	I	S		X	X	7837; 10.99%
	Mesodesma donacium	C	S		X	X	2647; 3.71%
	Semele corrugata	I	S		X	X	69; 0.10%
	Argopecten sp.	I	S			X	68; 0.10%
	Spisula adamsi	I	S		X	X	66; 0.09%
	Solen sp.	I	S		X	X	53; 0.74%
	Aulacomya ater	C	R			X	39; 0.05%
	Trachycardium procerum	I	M		X	X	23; 0.03%
	Chione subrugosa	I	S		X	X	21; 0.03%
	Argopecten purpuratus	C	S			X	12; 0.02%
	Tagelus domdeii	C	M		X	X	7; 0.01%
	Argopecten circularis	W	S			X	2; 0.00%
	Choromytilus chorus	C	R		X	X	2; 0.00%
	Glycymeris lintea	I	S		X	X	2; 0.00%
	Protothaca thaca	C			X	X	1; 0.00%
GASTROPODA	*Tegula atra*	I	S		X	X	2486; 3.48%
	Thais chocolata	I	R		X	X	623; 0.87%
	Fissurella crassa	I	R		X		444; 0.62%
	Fissurella limbata	I	R		X		342; 0.48%
	Scurria parasitica	C	R		X		278; 0.39%
	Littorina peruviana	C	R	X	X		154; 0.22%
	Thais haemastoma	I	R		X	X	102; 0.14%
	Scutalus proteus	L					102; 0.14%
	Prunum curtum	W	S		X		71; 0.10%
	Hipponix panamensis	W	S			X	52; 0.07%
	Crepipatella dilatata	I	R		X	X	51; 0.07%
	Hipponix pilosus	W	S			X	42; 0.06%
	Sinum cymba	C	S			X	34; 0.05%
	Fissurella maxima	I	R		X		31; 0.04%
	Calyptraea trochiformis	I	R		X	X	30; 0.04%
	Concholepas concholepas	I	R		X	X	15; 0.02%
	Fissurella sp.	I	R		X		14; 0.02%
	Nassarius dentifer	C	S			X	12; 0.02%
	Prisogaster niger	I	R	X	X	X	10; 0.01%
	Collisela orbigny	C	R		X		9; 0.01%
	Xanthochorus buxea	C	R		X	X	9; 0.01%
OTHER	*Chiton granosus*	I	R		X		220; 0.31%
	Chiton cumingsii	I	R		X		184; 0.26%
	Xanthidae	I	R/S/M				217; 0.30%
	Balanus sp.	I	R/S/M				188; 0.26%
	Echinoidea	I			X	X	113; 0.16%
						TOTAL	71453; 100%

Table 5.8 MNI frequencies of all shellfish from 2012 field season with water temperature (C, cold; W, warm; L, land; I, indeterminate) and substrate data (R, rocky; S, sandy; M, muddy) based on (Chicoine and Rojas 2012, 2013; Rosello *et al.* 2001).

	Taxon	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	MNI; %
PELECYPODA	*Mesodesma donacium*	117	495	1666	5886	331	60	991	9546; 67.59%
	Argopecten sp.	3	53	61	55	26	4	10	212; 1.50%
	Semele corrugata	-	19	15	41	6	-	35	116; 0.82%
	Spisula adamsi	1	7	15	46	-	-	37	106; 0.75%
	Aulacomya ater	1	7	9	11	4	-	26	58; 0.41%
	Chione subrugosa	-	20	7	4	1	-	1	33; 0.23%
	Tagelus domdeii	1	3	7	9	-	-	2	22; 0.16%
	Choromytilus chorus	-	-	9	-	2	-	-	11; 0.08%
GASTROPODA	*Thais chocolata*	55	212	603	646	68	9	210	1803; 12.77%
	Fissurella sp.	32	537	440	465	42	31	142	1677; 11.87%
	Hipponix pilosus	3	30	66	76	2	2	6	185; 1.31%
	Crepipatella dilatata	2	25	16	29	7	3	3	85; 0.60%
	Concholepas concholepas	-	8	28	29	-	-	4	69; 0.49%
	Calyptraea trochiformis	1	17	13	18	5	1	8	63; 0.45%
	Trachycardium procerum	1	16	18	8	-	-	7	50; 0.35%
	Hipponix panamensis	-	28	7	8	2	1	-	46; 0.33%
	Sinum cymba	-	8	6	4	2	4	18	42; 0.30%
								TOTAL	14124; 100%

Table 5.9 MNI frequencies by sector for meaty shellfish recovered from 2012 and 2013 field seasons.

Taxon	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	MNI; %
Prunum curtum	-	17	35	38	2	-	11	103; 70.40%
Argopecten sp.	-	-	10	-	-	-	-	8; 5.30%
Oliva peruviana	-	-	3	2	1	-	-	6; 3.97%
Mesodesma donacium	-	-	5	-	-	-	-	5; 3.31%
Spisula adamsi	-	1	2	-	2	-	-	5; 3.31%
Choromytilus chorus	-	1	2	-	1	-	-	4; 2.65%
Trachycardium procerum	-	2	1	-	-	-	-	3; 1.99%
Tegula atra	-	1	1	1	-	-	-	3; 1.99%
Nacre	-	1	2		-	-	-	3; 1.99%
Spondylus princeps	-	-	1	1	-	-	-	2; 1.32%
Semele corrugata	-	1	1	-	-	-	-	2; 1.32%
Chione subrugosa	-	-	1	1	-	-	-	2; 1.32%
Glycymeris lintea	-	-	2	-	-	-	-	2; 1.32%
Donax obesulus	-	-	-	1	-	-	-	1; 0.66%
							TOTAL	151; 100%

Table 5.10 MNI frequencies by sector for worked shellfish recovered from 2012 and 2013 field seasons.

TAXON	Common Name	Local Name	Substrate	Habitat	MNI; %	NISP; %
Sardinops sajax	Sardine	Sardina	-	P	332; 29.67%	13841; 49.46%
Paralonchurus peruanus	Peruvian Banded Croaker	Coco	S	D	156; 13.94%	1961; 7.01%
Sciaena deliciosa	Lorna Drum	Lorna	R/S	D	100; 8.94%	1019; 3.64%
Sarda chiliensis	Pacific Bonito	Bonito	-	P	96; 8.58%	657; 2.35%
Scomber japonicus	Pacific Chub Mackerel	Caballa	-	P	77; 6.88%	1115; 3.98%
Cynoscion analis	Peruvian Weakfish	Cachema	S	D	74; 6.61%	852; 3.04%
Trachurus murphyi	Chilean Jack Mackerel	Jurel	-	P	61; 5.45%	362; 1.29%
Cilus gilberti	Corvina Drum	Corvina	S	D	59; 5.27%	366; 1.31%
Carcharhinus sp.	Requiem Shark	Tiburón	R/S	D	52; 4.65%	248; 0.89%
Odonthestes regia	Pejerrey	Pejerrey	-	P	49; 4.38%	323; 1.15%
Menticirrhus ophicephalus	Snakehead Kingcroaker	Misho	S	D	47; 4.20%	705; 2.52%
Umbrina xanti	Yellowtail Croaker	Polla	S	D	43; 3.84%	175; 0.62%
Pralabrax humeralis	Peruvian rock seabass	Cabrilla	R/S	D	35; 3.13%	211; 0.75%
Anisotremus scapularis	Peruvian Grunt	Chita	R	D/P	33; 2.95%	121; 0.43%
Ethmidium maculatum	Pacific Menhaden	Machete	-	P	29; 2.59%	170; 0.61%
Myliobatis sp.	Eagle Ray	Raya	S	B	29; 2.59%	70; 0.25%
Cheilodactylus variegatus	Peruvian Morwong	Pintadilla	R/S	-	27; 2.41%	89; 0.32%
Mugil cephalus	Flathead Mullet	Lisa	R/S	D/P	25; 2.23%	67; 0.24%
Galeichthys peruvianus	Peruvian Sea Catfish	Bagre	S	B	20; 1.79%	71; 0.25%
Sciaena callaensis	Large Lorna Drum	Lorna Grande	R/S	D	18; 1.61%	241; 0.86%
Merluccius gayi peruanus	Peruvian hake	Merluza	R/S	D	15; 1.34%	102; 0.37%
Stellifer minor	Minor Star Drum	Mojarrilla	S	D	14; 1.25%	62; 0.22%
Labrisomus philippi	Pacific Blenny	Tramboyo	R	B	13; 1.16%	41; 0.15%
Engraulis ringens	Anchovy	Anchoveta	-	P	12; 1.07%	75; 0.27%
Seriolella violácea	Palm Ruff	Cojinova	-	P	12; 1.07%	42; 0.15%
Paralichthys sp.	Large-tooth Flounder	Lenguado	R/S	B	10; 0.89%	40; 0.14%
Mustelus sp.	Smooth-hound Shark	Tollo	R/S	B	6; 0.54%	30; 0.11%
Robaloscion wieneri	Robalo	Robalo	R/S	D	4; 0.36%	4; 0.01%
Genypterus maculatus	Black Cusk Eel	Congrio	R/S	B	2; 0.18%	3; 0.01%
Coryphaena hippurus	Mahi-Mahi	Perico	-	P	1; 0.09%	1; 0.00%
				TOTAL	1451; 100%	27983; 100%
Unidentified						4919

Table 5.11 MNI and NISP values of ichthyological remains recovered from Samanco. Substrates divided by R (rocky) and S (sandy); Habitats divided by P (pelagic), D (demersal), B (benthonic), based on (Marcus *et al.* 1999; Rosello *et al.* 2001; World Fish Base; Institute del Mar del Perú (IMAP).

TAXON	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	MNI; %
Sardinops sajax	1	9	168	140	5	2	7	332; 29.67%
Paralonchurus peruanus	-	9	59	74	6	2	6	156; 13.94%
Sciaena deliciosa	-	5	35	58	-	1	1	100; 8.94%
Sarda chiliensis	1	8	37	39	4	1	6	96; 8.58%
Scomber japonicus	-	3	32	34	3	1	4	77; 6.88%
Cynoscion analis	-	3	28	36	3	1	3	74; 6.61%
Trachurus murphyi	-	-	23	33	2	-	3	61; 5.45%
Cilus gilberti	-	2	31	19	4	-	3	59; 5.27%
Carcharhinus sp.	1	4	22	20	2	1	2	52; 4.65%
Odonthestes regia	-	3	18	24	1	-	3	49; 4.38%
Menticirrhus ophicephalus	-	1	20	24	-	1	1	47; 4.20%
Umbrina xanti	-	2	17	24	-	-	-	43; 3.84%
Pralabrax humeralis	-	1	15	18	-	-	1	35; 3.13%
Anisotremus scapularis	-	2	21	10	-	-	-	33; 2.95%
Ethmidium maculatum	-	3	12	13	1	-	-	29; 2.59%
Myliobatis sp.	2	3	17	6	-	-	1	29; 2.59%
Cheilodactylus variegatus	-	-	14	11	1	-	1	27; 2.41%
Mugil cephalus	-	-	14	10	1	-	-	25; 2.23%
Galeichthys peruvianus	-	3	9	7	-	-	1	20; 1.79%
Sciaena callaensis	-	-	13	5	-	-	-	18; 1.61%
Merluccius gayi peruanus	-	-	7	8	-	-	-	15; 1.34%
Stellifer minor	-	-	6	6	-	-	2	14; 1.25%
Labrisomus philippi	-	1	10	1	-	-	1	13; 1.16%
Engraulis ringens	-	-	5	6	1	-	-	12; 1.07%
Seriolella violácea	-	-	8	4	-	-	-	12; 1.07%
Paralichthys sp.	-	1	5	4	-	-	-	10; 0.89%
Mustelus sp.	-	1	2	2	-	-	1	6; 0.54%
Robaloscion wieneri	-	-	2	1	-	-	1	4; 0.36%
Genypterus maculatus	-	-	1	1	-	-	-	2; 0.18%
Coryphaena hippurus	-	-	-	1	-	-	-	1; 0.09%
							TOTAL	1451; 100%

Table 5.12 MNI frequencies of ichthyological remains from Samanco by sector.

Taxon	Common Name	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	MNE; %	NISP; %
Zea mays	Corn	14	1613	826	1219	306	56	228	4262; 40.57%	9834; 46.20%
Ipomoea batatas	Sweet Potato	-	-	1571	4	-	-	-	1575; 14.99%	1576; 7.40%
Phaseolus sp.	Bean	-	56	516	397	4	1	8	982; 9.34%	1130; 5.30%
Phaseolus lunatus	Lima Bean	-	8	815	107	-	1	-	931; 8.86%	1475; 6.93%
Arachis hypogaea	Peanut	-	32	368	304	1	-	9	714; 6.80%	1711; 8.04%
Inga feuillei	Pacae	-	3	177	371	2	1	-	554; 5.27%	3043; 14.30%
Capsicum sp.	Chili Pepper	-	4	181	94	28	2	5	314; 2.99%	338; 1.59%
Pouteria lucuma	Lúcuma	-	4	48	185	-	5	4	246; 2.34%	695; 3.27%
Campomanesia lineatifolia	Palillo	-	4	25	188	-	-	3	220; 2.09%	236; 1.11%
Cucurbita maxima	Squash	1	1	93	83	-	-	-	178; 1.69%	321; 1.51%
Persea americana	Avocado	1	13	34	59	-	1	7	115; 1.09%	141; 0.66%
Canna sp.	Achira	1	17	37	28	4	1	5	93; 0.89%	282; 1.33%
Bunchosia armeniaca	Cansa-boca	-	3	48	26	1	-	2	80; 0.76%	96; 0.45%
Phaseolus vulgaris	Snap Bean	-	28	34	11	2	-	1	76; 0.72%	96; 0.45%
Cucurbita sp.	Squash	-	4	15	27	3	1	2	52; 0.49%	97; 0.46%
Annona cherimola	Chirimoya	-	21	1	2	7	4	-	35; 0.33%	91; 0.43%
Canavalia sp.	Jack Bean	-	20	-	3	-	-	-	23; 0.22%	41; 0.19%
Cucurbita moschata	Squash	-	2	-	16	-	1	-	19; 0.18%	27; 0.13%
Bixa orellana	Achiote	-	3	6	3	-	-	-	12; 0.11%	14; 0.07%
Manihot esculenta	Manioc	-	1	1	6	1	-	-	9; 0.09%	19; 0.09%
Caesalpinia spinosa	Tara	-	-	-	3	-	1	-	4; 0.04%	7; 0.03%
Erythrina edulis	Pajuro	-	3	-	1	-	-	-	4; 0.04%	8; 0.04%
Psidium guajaba	Guava	-	2	-	1	1	-	-	4; 0.04%	4; 0.02%
Solanum sp.	Tomato(?)	-	2	-	-	-	-	-	2; 0.02%	2; 0.01%
Sechium sp.	Squash	1	-	-	-	-	-	-	1; 0.01%	1; 0.00%
Erythroxylum sp.	Coca	-	-	-	1	-	-	-	1; 0.01%	1; 0.00%
Solanum tuberosum	Potato	-	-	-	-	-	-	-	N/A	N/A
								TOTAL	10506; 100%	21286; 100%

Table 5.13 MNE and NISP values of food plant remains recovered from Samanco by sector.

Taxon	Common Name	NISP; %
Lagenaria siceraria	Gourd	5279; 60.14%
Gossypium barbadense	Cotton	2191; 24.96%
Phragmites australis	Reed	220; 2.51%
Guadua angustifolia	Guayaquil Bamboo	189; 2.15%
Gynerium sagittatum	Caña Brava	156; 1.78%
Cyperus sp.	Sedge	147; 1.67%
Schoenoplectus californicus	Sedge	132; 1.50%
Prosopis pallida	Algarrobo	108; 1.23%
Chloris sp.	Paja	106; 1.21%
Scirpus sp.	Bulrush Sedge	73; 0.83%
Salix humboldtiana	"Sauce" Willow	47; 0.54%
Chusquea scandens	Bamboo	34; 0.39%
Sapindus saponaria	Jaboncillo	26; 0.30%
Eleusine indica	Crowfoot Grass	20; 0.23%
Juncus sp.	Rush	20; 0.23%
Prosopis sp.	Mesquite	12; 0.14%
Acacia sp.	Acacia	8; 0.09%
Tagetes sp.	Sunflower	6; 0.07%
Algae	Seaweed	4; 0.05%
Tillandsia latifolia	Airplant	3; 0.03%
Equisetum sp.	Horsetail Grass	2; 0.02%
Cynodon sp.	Dogtooth Grass	1; 0.01%
Paspalum sp.	Bahia Grass	1; 0.01%
Setaria sp.	Foxtail Grass	1; 0.01%
	TOTAL	8778; 100%

Table 5.14 NISP values of medicinal/industrial plant remains recovered from Samanco.

	Category	Sector 1	Plaza Mayor	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	MNI; %	NISP; %
Food	Birds	6	19	103	92	12	2	18	252; 66.14%	670; 55.69%
	Canine	-	10	18	16	-	-	1	45; 11.81%	369; 30.67%
	Camelid	1	10	11	13	3	-	4	40; 10.50%	92; 7.65%
	Guinea Pig	2	3	17	10	1	-	2	35; 9.19%	61; 4.59%
	Sea Lion	-	1	1	4	-	-	-	6; 1.57%	7; 0.58%
	Deer	-	1	-	1	-	-	-	2; 0.52%	3; 0.25%
	Marine Otter	-	-	1	-	-	-	-	1; 0.26%	1; 0.08%
								TOTAL	381; 100%	1203; 100%
Other	Misc. Rodents	-	13	67	59	12	2	6	159	1178
	Misc. Reptiles	-	-	-	3	-	-	-	3	29
	Mammal NI	-	-	-	-	-	-	-	82	339
	Bird NI	-	-	-	-	-	-	-	84	148

Table 5.15 MNI and NISP values of mammal remains recovered from Samanco.

TAXON	Common Name	Biotope	MNI	NISP
Phalacrocorax bougainvillii	Guanay Cormorant	S	48; 19.05%	146; 21.79%
Columbina cruziana	Croaking Ground Dove	C	37; 14.68%	86; 12.84%
Pelecanoides garnotii	Peruvian Diving Petrel	S	33; 13.10%	69; 10.30%
Phalacrocrorax sp.	Cormorant	S	24; 9.52%	52; 7.76%
Larus pipixcan	Franklin Gull	S	19; 7.54%	26; 3.88%
Passeriformes	Starling	C	18; 7.14%	70; 10.45%
Larus belcheri	Peruvian Gull	S	12; 4.76%	74; 11.04%
Pelecanus thagus	Peruvian Pelican	S	10; 3.97%	40; 5.97%
Sula variegata	Peruvian Booby	S	9; 3.57%	10; 1.49%
Phalacrocorax olivaceous	Neotropic Cormorant	S	8; 3.17%	18; 2.69%
Larosterna inca	Inca Tern	S	7; 2.78%	12; 1.79%
Charadriiformes NI	-	S	5; 1.98%	5; 0.75%
Pelecaniformes NI	-	S	4; 1.59%	4; 0.60%
Vultur gryphus	Andean Condor	C	3; 1.19%	4; 0.60%
Rallidae	Rail	M	3; 1.19%	6; 0.90%
Cathartes aura	Turkey Vulture	C	2; 0.79%	35; 5.22%
Spheniscus humboldti	Humboldt Penguin	S	2; 0.79%	2; 0.30%
Procellaria sp.	Petrel	S	2; 0.79%	5; 0.75%
Scolopacidae	Sandpiper	M	2; 0.79%	2; 0.30%
Buteo polyosoma	Variable Hawk	C	1; 0.40%	1; 0.15%
Puffinus griseus	Sooty Shearwater	S	1; 0.40%	1; 0.15%
Tyto alba	Barn Owl	C	1; 0.40%	1; 0.15%
Strigiformes	Owl	C	1; 0.40%	1; 0.15%
		TOTAL	252; 100%	670; 100%

Table 5.16 MNI and NISP values of bird remains recovered from Samanco. Biotopes divided by S (seabird), C (continental), M (marsh).

Decibels	Examples	Subjective experience	Interaction levels
140	jet engine (25 m away)	painful and dangerous	
130	jet engine at takeoff (300 m away)	deafening	
120	metal band with electronic amplification		
110	accelerating motorcycle a few meters away		
100	auto horn (3 m away), crowd noise at football match	very loud	
90	pneumatic jackhammer; heavy traffic		
80	cafeteria with sound-reflecting surfaces		Public
70	crackling food wrapper (less than a meter away)	loud	
60	near motorway traffic; ordinary conversation (3 ft.)		
50	office activities	moderate	Social
40	soft background music		
30	a residence late at night	faint	
20	whisper, rustling of leaves	very faint	Intimate
10-0	human breathing	limit of audibility	

*Modified from Culver 1956: 59; Moore 2005: Table 2

Table 6.1 Decibel volumes correlated with interaction levels.

Intelligibility	Interaction level	Plaza Mayor	Compound 3
Understand	Personal	157 sq m	330 sq m
	Social	314 sq m	550 sq m
	Public	-	-
Hear	Personal	345 sq m	502 sq m
	Social	393 sq m	816 sq m
	Public	1177 sq m	1256 sq m

Table 6.2 Approximate sound intelligibility areas for interaction levels between the Plaza Mayor and Compound 3.

Area	Room	Distance (real)	Distance (travelled)	Turns
C2 Central Patio	North Patio	2m	32m	4
	Kitchen	2m	47m	5
	NBR-2	20m	57m	7
	Ravine	3m	3m	1
C3 Central Patio	North Patio	2m	53m	5
	NBR-1	4m	74m	8
	NBR-2	2m	40m	7
	WBR	2m	33m	7
	East Ravine	10m	28m	2
	West Ravine	6m	11m	4

Table 6.3 Access data from excavated Compound 2 and Compound 3 central patios to surrounding spaces.