UNSTABLE BOUNDARIES AND COMMUNAL GATHERINGS AT THE PREHISPANIC ARCHAEOLOGICAL SITE OF WIMBA (1000-1532 CE), AMAZONAS, PERU

By

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CHAPTER 1

INTRODUCTION

This research addresses social boundary processes by investigating how inhabitants of Wimba, a prehispanic settlement along an ecotonal boundary zone on the eastern slopes of the Andes, socially and economically interacted with other groups in the neighboring Amazon and Andes. The forested eastern slopes and adjacent lowlands in Ecuador, Peru, and Bolivia make up the ecological boundary zone between the Andes and the Amazon rainforest—the *montaña*. Despite a long tradition of archaeological interest in Amazonian and Andean interactions (e.g., Lathrap 1977; Meggers 1971; Tello 1960; Wilkinson 2018), relatively little direct investigation of the *montaña* has been undertaken. Scholars differ on the history of interaction through this region, some arguing that it was a buffer zone between incompatible highland and lowland social groups, and others arguing that lowland and highland exchange was a constant source of cultural interchange for peoples in both regions (Pearce et al. 2020). Both the difficulty of conducting archaeological research and the poor preservation of lowland goods have limited direct knowledge of these interactions. This research project fills this gap by examining the late prehispanic period in the northeastern *montaña* to understand how the practices of communal gatherings and exchange at this ecological interface may have changed or persisted. Results from excavations suggest that the dynamics of interaction shifted south and west in the late prehispanic period (ca. 1000-1532 CE), and inhabitants of Wimba participated in regional and interregional exchange networks in the time before the expansion of the Inka and Spanish empires to the northeastern *montaña*.

The ancient settlement of Wimba, located at 1500 meters above sea level (masl) in the Huambo Valley of the Peruvian lower *montaña,* dates from the Late Intermediate Period (LIP, 900-1470 CE) to the Late Horizon (LH, 1470-1532 CE). It is characterized by a public/ceremonial plaza, domestic architecture, and an agricultural terrace system. This research compared public and domestic spaces and collected archaeological evidence to evaluate Andean-Amazonian interaction at this location. To understand what interaction at the interface of these two macro-regions, I seek to examine the processes of exchange at a single settlement and situate Wimba processes in the larger borderland context as an example of local boundary processes.

The processes of interregional exchange at sites like Wimba are key to understanding the ways that people in the Amazon and Andes related to each other. Understanding the nature of interaction along this specific *montaña* location at an interface of the Amazon and Andes substantially increases our knowledge of cultural development in South America, which has traditionally focused on these regions as discrete culture areas with distinct histories to the detriment of understanding interactions between them. This research is thus situated within a broader re-examination of the connections between Amazon and Andes (Pearce et al. 2019; Dillehay et al. 2019), which has the potential to re-think the unique social dynamics that have been observed between lowland and highland societies worldwide (e.g., Scott 2009).

1.1 Archaeological approaches to prehistoric boundaries

This dissertation also builds upon the work of anthropologists, archaeologists, and others who study intergroup interaction, boundary maintenance, and alterity. Boundaries can be defined as divides or separators indicating limits within contiguous zones of transition or separation between internally connected clusters of population and/or activity (Tilly 2004:214; Kantner 2008; Parker 2006:79). The social phenomena that create and maintain boundaries are often referred to as boundary processes: “the finite, if complex, set of dialectic interactions that take place in contact zones" (Parker 2006:78). Boundaries require not only the existence of cultural differences, but also their recognition, which can be singled out analytically as the concept of "alterity" (Barth 1969a; Appadurai 1990; Lau 2013, Viveiros de Castro 1998). Boundaries are named, contested, and symbolized by distinctive practices or things that can leave material traces identified archaeologically (Canuto and Yaeger 2000; Parker and Rodseth 2005; Rice 1998; Stark 1998). Yet, recognizing and understanding cultural boundaries is a difficult task for archaeologists because it involves identifying the intersection of group identity, economy, and/or ecology (Jennings 2006; Lightfoot and Martinez 1995; Renfrew and Cherry 1986). This intersection also is what makes boundaries dynamic loci to examine cultural change (González-Ruibal 2014; Jones 2009; Stoner 2012).

This research is concerned with the way interregional exchange articulates with local agency and social processes. At similar ecological/cultural interfaces, dynamic social processes combine intense interaction with the emergence and maintenance of difference. Anthropologists studying globalization have realized the importance of the local even for large scale encounters. Tsing (2005), for example, argues that practical encounters at human scale have a "sticky" materiality that introduces friction into regional (and global) systems. Thus, where ancient Andeans may have had ideas about what it meant to be Andean, how political groups were organized, or how trade was best accomplished, these ideas became especially materialized at their edges, where people ceased to take them for granted. The most common way archaeologists track the social meaning of boundaries for groups of people—boundary *dynamics*—is by characterizing their permeability, or how freely objects, people, and ideas move across them (Alconini 2016; Green and Costion 2018; Lindsay et al. 2008; Parker 2006; Stoner and Pool 2015; Strassoldo 1980; Tilly 2004). This metric—within a continuum between open and closed—can apply to interrelations among social groups at different scales and in different contexts, such as economic, ideological, etc. How people chose to differentiate themselves from neighbors is an avenue to understanding social groups' recursive self-creation that can be examined through material remains (Hodder 1985; Jones 2018; Lau 2013; Castro 1992).

The nature of cultural boundaries—their genesis, maintenance, permeability, and change—depends on many factors, including language, material culture, ideology, and technology. Different approaches to identity in social sciences model boundaries as either emerging from existing differences between two populations (primordialism), or as part of a political process that can mobilize any trait to separate people (instrumentalism). This will be discussed at length in Chapter 3, but two key insights emerge from the studies of boundaries, first is that "boundaries persist despite a flow of personnel across them," (Barth 1969b:9), and boundaries shift through time as the networks of relations across them change (Bentley 1987; Jones 1997). As present-day examples such as the US–Mexico border illustrate, boundaries are contested cultural constructions (e.g., Alvarez 1995; Campbell 2005; De León 2015). Boundaries also were important parts of ancient political landscapes (e.g., Hegmon 2000; Stark 1998), and they are ideal subjects of anthropological study because in their construction and maintenance, identities often are created, made visible, and changed (e.g., Lightfoot and Martinez 1995; Schortman 1989).

1.2 The *montaña* as a boundary

Scholars have long inferred a cultural boundary between highland and lowland peoples (Camino 1977; Taylor 1999) based on diet, settlement and architecture, language, and mode of transportation, and exemplified by the dyadic terms *runa* (civilized highland Quechua speaker) and *chuncho* (savage lowland Indian) (Raymond 1988; Salomon 1987a). This boundary has been attributed to environmental factors that hypothetically created a buffer zone between incompatible social groups (Steward 1946). However, considering the paucity of archaeological investigation in the *montaña,* and insights gleaned from boundary studies elsewhere in the world, researchers cannot assume these correlates were static through time or space. By extension, I argue that the *montaña* could have been an important corridor for engagement between contiguous, but possibly contrasting highland and lowland cultural groups. Set in this context, this project provides a local test case to examine models of boundary processes in late prehistory (Stoner and Pool 2015; Tilly 2004), which can help us understand change over time in 1) the creation and maintenance of cultural difference along geographical boundaries such as these, and 2) the flows of people, ideas, and materials between the Amazon and the highland Andes.

Previous depictions of the *montaña* implicitly involve certain processes of boundary maintenance, most prominently the incompatibility of *montaña* environments with Andean subsistence practices and conflict between Andeans and lowland tribes (e.g. Burger 1992; D'Altroy 1992; D'Altroy and Hastorf 2001; Hastings 1987). Ethnographic and ethnohistoric studies document how subsistence helped constitute a broad cultural division between highland peoples and their lowland Amazonian neighbors, who highland Andeans frequently called 'savage' and 'naked' (Alconini 2004; Dudley 2011; Kojan 2002; Salomon 1987a). Andean settlements on the eastern slopes were concentrated along the transition between herding and agricultural ecological zones (Brush 1976; Hastings 1987). In the study region, oral traditions recount lower *montaña* groups living in long houses and subsisting on manioc and other lowland goods (Schjellerup et al. 2003:285). Conflict may have also played a role in creating a boundary. Some have argued that the primary interaction across the boundary here was not trade but warfare (e.g., Bonavia 2000). Early ethnohistoric documents describe the difficulties faced by Spanish administrators attempting to organize new subjects into administrative groups along the lower *montaña:* Spanish subjects often deserted Spanish towns, in the face of frequent attacks by 'savage' Indians (Espinoza Soriano, 1967 [1572 &1574]; Garcilaso de la Vega, 1991 [1609]; Guaman Poma de Ayala, 1993 [1615]). Early colonial accounts are biased by Spanish views that characterize the edge of the highlands as the edge of civilization because it was the limit of territory under Spanish control (Ortiz de Zúñiga and Murra 1967; Uhle 1969). But it is important to remember that much of what they documented was a result of the process of Spanish colonization—they both disrupted the connections within the *montaña* and neglected to document the interaction that persisted in the *montaña*.

Macro-cultural categories like highland Andean and lowland Amazonian seem stable in the last 500 years (Pearce et al. 2020) but may have been created or cemented by population loss in the *montaña* after Spanish arrival. Late prehispanic boundary maintenance processes may have been very different from those documented in the early colonial period and onward. In the northeastern Andes there is growing archaeological evidence for both higher populations and interregional exchange in the interfacing zone of the *montaña* in the LIP and LH (Church and Von Hagen 2008; Schjellerup 1997). The *montaña* is and was diverse (Guengerich and Church 2018). Though there is a division between Amazonian and Andean languages, broadly speaking (Heggarty 2020), there is also evidence of linguistic spread from the Andes into western Amazonia likely caused by contact and multilingualism (van Gijn and Musken 2020). The linguistic division maps the extent of Andean affiliation further east and at a lower elevation than many archaeologists would presume to extend it. This is especially pronounced in the northeastern central Andes, where the present study is located.

The present study is located along the eastern edge of one of the better-known archaeological cultures in the Andean *montaña*, called Chachapoyas. This research project focuses on the largest culture area in northeastern Peru, called Chachapoyas. I use the term Chachapoyas to refer to the region, though its eastern boundary is still poorly understood. I do not mean to imply that the region was unified politically or homogeneous in cultural practices. There are several social groups that composed that region in the late prehispanic period, which I will discuss. The name Chachapoyas is used to denote to both an archaeological culture that existed east of the Marañon river in the late prehispanic period between 900 CE and 1532 CE, and the region in which it existed. This area appeals for this research project because much of this culture area is situated in the *montaña* ecological zone, the montane tropical forest that marks the transition between the Andes and Amazon. Archaeological research in the area has shown that people living there were part of exchange networks that stretched to the pacific coast and into the low-elevation Amazon. The precise external boundaries and internal regional subdivisions of this area are not yet well known. Some elements of architecture and ceramics suggest a broadly shared artistic tradition. There are important sub-regional patterns which will be explored further in Chapter 6. Linguistically, pre-LH Chachapoya people spoke a local language within the broad category of Andean languages (van Gijn and Muysken 2020). The Chacha and their neighbors the Chedua, Alon, and Cholto groups to the east (which are thought of today as lowland groups) spoke Quechua when documented in early historical and ethnographic accounts (Taylor 2000; Torero 1989; Valqui Culqui and Ziemendorff 2016). The region's history will be discussed in further detail in Chapter 2.

The Chachapoyas primarily existed during the LIP. In the central Andes this period begins with the fall of the highland Andean empires of Wari and Tiwanaku, which existed between 500

CE – 1000 CE. The period ends with the emergence and expansion of the Inka Empire. Archaeological research into the LIP has centered on a few themes, most notably regional population and state development, and high rates of deadly warfare (Arkush and Tung 2013; Covey 2008). As recent research into the LIP has shown (Guengerich 2015; Kohut 2016; Kosiba 2011), local politics involved unique traditions, organized within shared practices like warfare, ancestor veneration, or commensality (Arkush 2011; Julien 1993). Such shared practices made LIP Andean groups mutually intelligible, even as they were not politically integrated (Schortman 1989). While some scholars view Chachapoyas as a unified kingdom before the Late Horizon (Narváez Vargas 2013), it is more likely that the area was made of independent and competing groups sharing some cultural characteristics prior to becoming an Inka province (discussed in Chapter 2 and 7). In the adjacent western Amazon, the chronology is less developed. Survey in the Peruvian department of San Martín by Ravines (1974), DeBoer (1984), and Salazar and colleagues (2015) documented ceramic assemblages corresponding both to the LIP and LH. This suggests that population growth during the LIP occurred throughout the upper and lower *montaña*.

Most Chachapoyas sites share characteristics making them defensible: ridge top location, panoramic views of surroundings, and large retaining walls (Arkush and Tung 2013). These defensive features are broadly shared with other LIP sites throughout the Andes and are often interpreted as evidence for conflict with regional neighbors rather than external forces (e.g, Toohey 2009: 477). In the context of the *montaña*, however, defensible sites with highland characteristics led some archaeologists to argue these sites were highland "colonial" outposts arrayed against lowland foes (Bonavia 2000). This idea has precedent in the Andean complementarity concept which suggests that small groups of colonists would occupy non-contiguous ecological zones to share lowland products with their extended communities at higher elevations (e.g., Murra 1972; Salomon 1985). This study suggests that this may oversimplify the nature of relationships with neighbors and the potential for interaction with regional neighbors. Investment in the lower *montaña* did occur during the LH, and appears to have been oriented toward exchange with the neighboring lowlands. Danish archaeologist Inge Schjellerup and colleagues have documented extensive Inka infrastructure throughout the region, including waystations and administrative sites associated with terrace systems and roadways, in the eastern valleys of the Chachapoyas region (e.g., Schjellerup et al. 2003). Prestige goods like feathers were important resources for the Inka army and north coast elites of the Chimu state, and many could only be procured in the lowland Amazon. The nature of Inka administration in northeastern Peru will be discussed further in Chapter 7.

1.3 Wimba in context

The archaeological settlement known today as Wimba is situated in the modern district of Rodriguez de Mendoza (hereafter Mendoza). Mendoza was the eastern edge of the Inka administrative region of Chachapoyas during the LH (Schjellerup 2003). This area and adjacent Moyobamba, in what is now San Martín province, were granted by Spanish administrators as the easternmost *encomienda*, or right to the collective labor of a group of natives (Julien 1985). This created a boundary of secular colonial control beyond which the lowland Indians were left to the missionizing efforts of the Catholic church (Reeve 1994). Schjellerup's surveys (1997; Schjellerup et al. 2003, 2005, 2009) suggest that the eastern bounds of the Inka administration reached the same extent. There are multiple Inka sites near Wimba. Approximately a half day walk northeast from Wimba is the Inka administrative site of Posic (Schjellerup et al. 2009), and to the southeast, Inka Llacta (Schjellerup et al. 2003). Both contain characteristic Inka complexes of rectangular architecture featuring niches and fountains. Excavations at Wimba did uncover some provincial Inka ceramics, suggesting it was not abandoned during the LH (addressed in Chapter 7). The Inka process of administering conquered regions involved encouraging the amalgamation of social groups as administrative units, also glossed as ethnic groups (Church and Guengerich 2017; Pease 1982). There may have been a pre-existing connection between all or some of the inhabitants of Mendoza with Chachapoya ethnic group(s), or the Inka administrators may have wanted to create such an ethnic connection for administrative purposes. Chachapoyas would ultimately be the easternmost Inka territory in this part of the Andes. Thus, Mendoza was the eastern edge of the easternmost region of the Inka empire. Understanding both the LIP sociopolitical organization of Mendoza and the effects of the arrival of the Inka on sites like Wimba provides an essential, diachronic perspective (McCray 2017).

The sociopolitical organization of the LIP *montaña*, specifically, is poorly understood both due to its association with a period of regional, rather than state-level, development, and its location at an ecological margin (Covey 2008). The communities that existed during the LIP in this area, developed autochthonously over a period of hundreds of years—a process that needs to be understood on its own terms rather than as a reaction to the end of the MH or as a prelude to the Inka Empire (Guengerich 2017). Cook (2004:376) estimated that the population of the *montaña* declined twice as much as in the northern highlands, and likely did not rebound to its late prehispanic peak until the 20th century. As mentioned previously, most information about *montaña* interaction comes from Inka and Spanish accounts of their encounters with lowland groups, which occurred in a much more asymmetrical context. In the LIP, individual Andean social groups were not so much bigger than their lowland neighbors. Thus, local processes of interaction during the LIP *montaña* are key for understanding how local agents negotiated the interface of the Andes and Amazonia.

1.4 Research question

Through local survey, mapping of architecture, and excavation of a total of 200 m^2 in both open areas and within structures executed within the Proyecto Arqueológico Wimba, I sought to evaluate the following questions: First, how did people create social boundaries at Wimba? Second, how permeable was Wimba to exchange with neighbors, and did permeability change between the LIP and the LH? Understanding social boundaries is crucial to understanding interregional connections across South America.

The range of recorded materials—ceramics, architecture, faunal remains, and lithics—suggests that the site's inhabitants mediated regional and interregional interaction (specifically exchange) between locals and their non-local neighbors in the northeastern Andes and nearby upper Amazon through communal feasting events. Serving vessels, faunal and botanical remains, and dense midden deposits were associated with public spaces at Wimba. Evidence also suggests that interactions between Wimba inhabitants and their neighbors outside the Huambo Valley changed in significant ways during terminal prehispanic times (McCray 2017a), as evidenced by the presence of mica-tempered ceramics from the Chachapoya ethnic polity (LIP-LH) and the Inka empire (LH) in some of the latest contexts. In this dissertation I argue LIP Wimba inhabitants maintained diverse connections with surrounding neighbors in highland, lowland and other *montaña* regions as part of a unique locally emergent phenomenon incorporating Amazonian and highland Andean influences. During the last phase of occupation, coinciding with the LH, architectural and ceramic styles indicate an intensified connection with neighbors to the west in southern and central Chachapoyas.

The evidence for feasting at Wimba suggests that social boundaries were created and maintained through local celebratory feasts located on the largest platform at the site. Based on data gathered during field and laboratory analysis, results indicate the *montaña* was a permeable ecological and cultural boundary during the LIP. During the LH, southern and central Chachapoyas appears to have increased influence over inhabitants of Wimba, shifting processes of interaction to the west and hardening the highland-lowland boundary. Inka imperial administration made it difficult for local groups to maintain ties with their neighbors outside the state, following a pattern seen at the northern extent of the Inka empire as well (Salomon 1985).

1.5 Structure of dissertation

This dissertation is organized into eight chapters. The subsequent chapter, Chapter 2, provides an overview of *montaña* regional settlement history from its earliest settlers appearing over 10,000 years ago to the period during the Spanish conquest of the Inka Empire. This chapter also includes information on the area's ecology and subsistence patterns, the social organization of local communities, and the nature of trade and interregional interaction. Chapter 3 situates this study within broader anthropological theory on interaction and boundary maintenance and focuses on defining social boundaries, tracing key developments in approaches to ethnicity, and describing the influence of practice theory. The chapter ends with a section on theoretical approaches to egalitarian politics. Chapter 4 examines the environment and geography of the study site, as well as outlining the archaeological methods used in the field and laboratory. The following section, Chapter 5, presents results of the detailed architectural and intra-site spatial analysis at Wimba. The site is described in detail, along with extensive overviews of the landscape and surrounding topographic features. Results from recovered ceramics and bone pendants at Wimba are summarized in Chapter 6, including statistical analyses. In Chapter 7, I provide an extended discussion of Inka-era changes at the site. Finally, the dissertation concludes in Chapter 8, where I review key research findings, consider the broader anthropological significance of this work, and discuss potential future avenues of research.

1.6 Significance

This dissertation's significance speaks to three broad issues: 1) the empirical testing of long-held assumptions about interaction (or lack thereof) among Amazonian and Andean cultural groups, 2) the further development of archaeological approaches to characterizing the relationship between exchange and communal gatherings in ancient societies, and 3) a contribution to anthropological understanding of boundary dynamics. Early debates about the origins of Andean civilization hinged on evidence of early interregional connections in this region (Lathrap 1970; Meggers and Evans 1957; Sauer 1952; Tello 1960). These debates raised questions about the type and intensity of shared cultural features, but ultimately, they were inconclusive due to the lack of archaeological data. This project is the first to explicitly test the boundary processes at a specific place in the interface between the Andes and Amazon. It builds upon the archaeological approaches that determine how exchange shapes economic, political, and ritual systems (Kintigh et al. 2014). By considering regional exchange networks, this work seeks to understand how people living in boundary zones fostered the mediation and/or maintenance of cultural differences in the past. Finally, the dissertation contributes to anthropological studies of boundaries as dynamic spaces for culture change. In the context of rapid globalization, alternative accounts of interaction dynamics and exchange of goods and ideas between regions are needed. This research applies current anthropological methods and theories of boundaries to the ancient past, focusing on the ways in which they were crossed rather than reifying them as spaces that separated.

CHAPTER 2:

DEEP HISTORY OF NORTHEASTERN PERU: SHIFTING SETTLEMENT, CULTIVATION, AND ORGANIZATION

2.1 Introduction

The *montaña* long figured as a place of refuge for highland Andean peoples, but the experiences of *montaña* inhabitants in late prehispanic times are not well documented. Chroniclers note that in the early years of Inka expansion, one of the captains of the conquered Chanka ethnic group, Anco Allo[1] made the dramatic decision to flee the Inka empire with a large contingent of his people. As a respected leader of a powerful 'nation,' Anco Allo's success in warfare was a threat to the Inka leaders. Different reasons are given for Anco Allo's flight from the empire: Cieza and Sarmiento state that the Inka conspired to kill him and the Chankas (Cieza de León 2005 [1550]: 405; Sarmiento de Gamboa 2007b [1572]: 131); Guaman Poma states that Anco Allo wanted to be the Inka, and was killed by a treacherous woman (Guaman Poma de Ayala 2006 [1615]: 85); whereas Garcilaso insists that despite good treatment by the Inkas, his pride was too great to accept life as a vassal (Garcilaso de la Vega 1989 [1609]: 302). From the Chanka homeland in Andahuaylas, just north of Cuzco, Anco Allo and his group of refugees (which included women and families) fled north. They could have stopped and settled at any point, but an Inka general was pursuing them, and Anco Allo wanted to get as far from the Inkas as possible. After going through Huanuco and Chachapoyas, the fugitive Chankas turned east, to Antisuyu, and went to settle alongside a lake among the warlike people of the *montaña*. Little is known about their fate: Did they form multi-ethnic communities with other *montaña* dwellers?

[1] Also referred to as Hancouallo, Hanco Huallu, and Anco Ayllu. Bauer et al (2010) understand him as a mythical ancestor for the Chanka like Manco Inka, but the stories referenced here pertain to a captain who lived during the Late Horizon.

Did they settle new towns of their own? Or did they lose highland identity completely when they crossed a highland-lowland boundary?

This is one among many stories of highland Andean peoples seeking refuge in the upper *montaña* (Saignes 1985:52–55). After the Spanish captured Cuzco and most of the Inka empire, Manco Inka considered going northeast to the *montaña* of Chachapoyas (Hemming 1993:236-237), before opting to stay in Vilcabamba to rule a diminished empire from his capital in the upper *montaña* near Cuzco (Hemming 1993:317–332). Two Inka missions to lowland groups in what is now Bolivia both ended with a contingent of Inka men staying behind and taking Amazonian wives (Tyuleneva 2020). As Brown and Fernández (1991) articulated, rebel groups opposing the Peruvian government have seen the *montaña* as both a refuge and a staging area for their campaigns into the colonial and modern periods (see also Pearce 2020a). For Andean peoples throughout history the *montaña* has represented escape, so how would this influence the people living in the lower *montaña* permanently? Was there a freedom in the local arrangements due to the ease of relocation, or due to influence from nearby lowland groups and their different political systems? Does that freedom include participating in interregional networks connecting deep into the lowlands? In this chapter I will outline the regional background of the study, which is situated within the *montaña*, where the interface of highland Andean cultural groups and lowland Amazonian cultural groups has shifted throughout history.

The previous examples show a common pattern in which highland peoples saw the upper *montaña* as a place where highland immigrants could both free themselves of the strictures of highland society, and thrive due to their superiority over lowland neighbors (e.g., Salomon 1987a; Tyuleneva 2020). In the imaginary of highland Andean peoples, the *montaña* represented a refuge, a wild place with fewer restrictions on personal freedom. In accounts of groups exiled to the lowlands, highland Andeans expressed belief that the power and knowledge associated with the jungle can grow and develop within a person or people, preparing them for a triumphant return to prominence[2]. Through alterity—through a set of archetypical contrasts essentializing cultural and geographical difference—peoples of the Andean highlands drew upon ideas associated with Amazonia while maintaining distance from them.

The *montaña* is seen as a boundary due primarily to its ecology, but the goal of this project is to understand it as a region where a social boundary is created, as well. The *montaña* of northeastern Peru is made up of eastern tributaries of the Marañon and western tributaries of the Huallaga. The ridges between these rivers descend in elevation as they move north and east. They are made up of sedimentary bedrock and mass wasting and fluvial geomorphic processes have left thin soils that are frequently disturbed (Young and Léon 1999: 21). Rainfall is high, though variable (micro rain shadows exist): totaling 400 to 7000 mm per year, plus fog inception. Temperatures range from 15-19° Celsius between 1500-2500 masl. Though there are challenges for agriculture and pastoralism, the *montaña* contains diverse flora, including important medicinal and ritual plants, as well as fauna valued as game (discussed further in Section 2.4). This makes the *montaña* a complex region where, as I will now describe, highland, *montaña*, and lowland people coexisted.

In the archaeological and geographical literature, the *montaña* is generally depicted as a zone of sparse population—a buffer zone betwixt the highlands and the lowlands (Gade 1979; Hastings 1985; Raymond 1992; Wilkinson 2020). According to the few archaeological surveys, the upper *montaña*, between 1500 and 3000 masl, was "an extension of the highland agrarian

[2] The fact that there are few accounts of lowlanders' perspective on Andean societies or the montaña interface itself illustrates the asymmetry in study and documentation of the two regions.

system… tied closely to social, political, and economic networks in the highlands" (Raymond 1988:286). In the lower Tarma region, for example, settlements along the eastern slopes concentrated along the transition between herding and agricultural ecological zones, around 3800 masl (Hastings 1987). The groups inhabiting the lower *montaña*, generally below 1500 masl, were referred to as "tropical forest cultures" characterized by smaller, less permanent, hunting/fishing and horticulture settlements, and not integrated into more complex, centralized social, political, and economic systems (Lathrap 1970; Steward 1946). Because the lowland and highland environments are relative extremes, the lifeways of the people inhabiting those regions were considered incompatible with the other region and thus the *montaña* is often characterized as a lightly populated buffer.

At lower elevations along the eastern slopes, the research into paleoclimate and human impact on landscapes is enmeshed in a debate over the environmental limits on human occupation of permanent tropical forests. Initially, archaeologists and cultural anthropologists viewed the Amazon rainforest as a "green desert" (Meggers 1971; Meggers et al. 2003). This term expressed the idea that, despite the diverse flora and fauna, the rainforest contained very few nutrients or sources of protein that were accessible to humans. This lack of resources, Meggers argued, constrained the size of human groups in the Amazon to the "tropical forest" mobile egalitarian bands described by ethnographers in the early 20th century (e.g., Steward 1946). However, the earliest European visitors to the Amazon described large, settled villages along much of the length of the major rivers (Hemming 2008). Denevan (2001), Balée and Erickson (2006), and others have shown that the Amazon was more populated before the impact of European-introduced diseases and colonialism, and the impact of human habitation was more widespread (Heckenberger et al. 2008; Mann 2005).

While the existence of large sedentary societies that maintained extensive riverine interaction networks in the central Amazon and its major tributaries is beyond doubt, debate remains over how extensively humans impact the Amazonian uplands, or *terra firme,* away from the large rivers. Some argue that *terra firme* was extensively shaped by human agro-ecology in which humans managed the arboreal mosaic of the forest, cleared brush with fires, and lived in large sedentary towns (Clement et al. 2015; Petersen et al. 2001). Warning of over-correction, some researchers responded that direct evidence for large-scale human impact on the tropical forest away from floodplain bluff locations is still lacking, based largely on the lack of charcoal in sediment cores from *terra firme* sites (Bush and Silman 2007; McMichael et al. 2012; Piperno et al. 2015, 2017). The human occupation of *terra firme* regions left patterns of charcoal and pollen in sediment cores recovered from lakebeds. Horizons of charcoal followed by maize (*Zea mays*) pollen are present in Amazonian tests suggesting people burned sections of forest to make room for maize cultivation. This pattern shows that prehistoric Amazonian people used fire as a tool to maintain clearings within or at the edges of forests. Mark Bush (2016) points out, however, that climate records show the main clearing events correlate to hot dry periods. He argues opportunistic human groups burned during periods of drought when the trees were brittle. In total, the paleo-ecological record supports periodic occupation by agriculturalists and forest regrowth (the specific patterns will be discussed further in Chapter 4). Where the *terra firme* meets the eastern slopes in the lower *montaña* the rivers are generally not navigable, and the archaeological impact of these groups is largely unexplored (Taylor 1999). In sum, despite the relative lack of archaeological investigation in the upper western Amazon, ample evidence suggests people managed the forest and practiced agriculture in the lower *montaña* at times, meaning they were not always small mobile bands, and thus suggesting that the subsistence basis was not always a contrast with the neighboring Andes—the interface shifted.

2.2 Deep history of the *montaña*

The *montaña* has a complex history that has been primarily sketched through documents and 19th and 20th century ethnographies (Reeve 1994; Steward and Metraux 1948; Taylor 1999). These sources depict an area that was socially open and spatially dynamic, and made up of diverse social groups, if only lightly populated (Piperno et al. 2015). In situations when powerful highland or lowland groups attempted to move into the *montaña*, local groups appear to have been displaced or chosen to move in the face of highland incursions, in the sense that the local groups ceded ground to the newcomers. In one example from the Urubamba, the local Machiguenga living in the lower *montaña* were forced to cede valuable land and were cut out of trade networks by the lowland Piro and the highland Quechua (Camino 1970). In the northeastern *montaña*, at the furthest extent of the eastern central Andean cordillera, archaeological, genetic, and linguistic research suggests a diverse region with a long history of movement between coast, highlands, and jungle.

The crossroads location appears to manifest in the genetic diversity still present in modern indigenous inhabitants of northeastern Peru. Mitochondrial DNA has shown that populations in modern Chachapoyas have retained diversity common to many populations from different regions in South America "which, in turn, may indicate the survival of diversity from the human groups that first colonized South America, high gene flow into the region from different directions at different time points, or both" (Guevara et al. 2016:865). It is possible that these populations have retained ancient haplotypes due to their location along the dispersal route used by the first Andean settlers (Dillehay 2020; Hester 1966; Lothrop 1961; Sauer 1944). Similarly, a study of Y-chromosome STR datasets from modern populations found genetic distinctiveness and frequent native American haplogroups that led the authors to call the area a "new hotspot of diversity" (Barbieri et al. 2017:6). Surprisingly, however, these studies found remarkable distinction, which is to say lack of genetic interaction, between Chachapoyas peoples and the "core Andean exchange network," of populations in southern Peru and Bolivia, suggesting that they have remained autochthonous for at least about 600 years (Barbieri et al 2017: 7). This reflects the fact that these studies are largely concerned with the genetic effects of more recent events such as Inka resettlement policies, and the population crash caused by the arrival of European colonizers. Nevertheless, the genetic studies do support the idea that the area has been an important crossroads, inhabited since the earliest stages of the occupation of South America. Though relatively little archaeological research has been carried out in the northeastern Peruvian *montaña* that pertains to the years before roughly 1000 CE, I will briefly synthesize the earliest occupations.

2.2.1 Evidence for early occupation

Physical evidence attests to human presence in the northeastern *montaña*. Rock shelters show travelers were passing through continuously starting in ca. 10000 BCE. Manachaqui cave, a rock shelter adjacent to a high-altitude pass from the highlands to the *montaña*, contained a deep sequence of cultural materials. Excavations there indicate human presence starting approximately 12,200 and 11,900 BP (Church 1996). The cave produced evidence for a late preceramic occupation including projectile points and hearths dating to 2700 BCE (1996). Macrobotanical remains included domesticated grains *Chenopodium* or *Amaranthus*. Obsidian flakes have been traced to the Alca source in the southern highlands of Arequipa (Burger et al.

2000). Around 1400 BCE, early ceramic styles appear in the cave assemblage, most of which are broadly similar to adjacent highland areas such as Cajamarca (Terada and Ōnuki 1985), but which include some examples of mica-tempered wares that have similar features to Amazonian styles (Lathrap 1970). This coincides with Chorrera stylistic tradition and 'flash horizon' of bottle shapes across the upper Amazon (DeBoer 2003). Ceramics also show formative period stylistic similarities with Bagua, and other ceramic complexes north of Manachaqui. Overall, this paints a picture of interaction networks connecting a wide sphere of the northern Andes and including some of the upper Amazon during the Initial Period (ca. 1800-900 BCE).

One reason researchers have studied interregional interaction in northern Peru and southern Ecuador is geographical. The Huancabamba depression separates the central Andes from the northern, and it is in the eastern part of this geographical feature that the most significant archaeological sites of the *montaña* emerge in the Late Preceramic (3000-1800 BCE) Initial Period (ca. 1800 - 200 BCE), and Early Horizon (EH, ca. 900-200 BCE). Along the modern border between Peru and Ecuador the Andean cordillera descends in elevation, becoming narrow and fragmented, creating what geographers have called a biogeographic boundary between the central and northern Andes. At this juncture, the distance between the Amazon lowlands and the Pacific coast is at its shortest, and the Paso de Porculla, at 2145 m above sea level, is the lowest pass over the Andes. Archaeologically, these geographical features appear to have made the area a crossroads between the coast, highlands, and Amazonia going back to the earliest peopling of the Americas (Guffroy 2008; Dillehay 2020). As Hastorf (2006) argues, the presence of domesticated plants on the Pacific coast is evidence of wide systems of cultural interaction (see also Kaulicke 2020). Most of the key domesticates of South America emerged in Amazonia and spread because they would have been given as gifts that had appeal to their recipients.

At the eastern end of the Huancabamba depression, several sites dating to the Late Preceramic to Final Formative and earlier are marked by mounds. The modern regions of Bagua and Jaén, where many are located, are characterized as a low altitude tropical forest, and notably, due to local topography, it is a very dry, xerophytic ecozone. The sites in this region were part of a northern Andean interaction zone that involved the north central Andes, the Pacific coast, the northern Andes, and the upper Amazon (Kaulicke 2020). Quirino Olivera (2014) documented three sites in the region, Montegrande, San Isidro and Casual/Las Juntas, each with Formative components. These included mounds with spiral walls, human interments, and offerings, including lowland animals like parrots. In southern Ecuador, at the northern edge of the Huancabamba depression, Francisco Valdez (2008) excavated Santa Ana-La Florida, where lapidary art contained iconography that shares elements with other Initial Period material from Huaca Prieta and La Galgada. Ruth Shady and Hermilio Rosas (1982) excavated an Initial Period site at Bagua Chica, where the Utcubamba river meets the Maranon. The site had ceramic evidence of multi-regional interaction that they interpreted as evidence of periodic ritual that would have seasonally concentrated people from the surrounding region and neighbors.

Nearby, excavations at Huayurco showed a long occupation, from 800 BCE to 600 CE (Clasby 2014a). Huayurco, at 400-450 masl, shows that certain areas of the eastern slopes were densely inhabited, featured unique cultural developments, and were deeply integrated into long distance exchange networks between the Pacific coast, Andean highlands, and tropical rainforest. These regions continued to be occupied after the Formative ended, though mound construction stopped. At Huayurco, for example, the site was abandoned at the end of the Early Intermediate

Period (EIP, ca. 200 BCE – 600 CE), and reoccupied starting in 1200 CE. Clasby (2014a:495) suggests that this reoccupation was caused by a new wave of migration from the east. The ceramics characterizing this occupation were corrugated wares associated with ephemeral occupations at the surface of the deposits, which had some applique bands, a style shared with Chachapoyas to the south. Ethnohistorical documents suggest this region was Bracamoros, an area the Inka encountered, but were unable to conquer (Cieza de León 2005 [1553]: 440).

Southeast of the Huancabamba depression lies the northeastern Peruvian *montaña*, in which the present study is situated. The dynamic landscape of the *montaña*, where landslides and dense vegetation can bury materials quickly, makes it difficult to locate sites archaeologically, and Formative and Early Intermediate Period (EIP: 200 BCE - 600 CE) sites are scarce. The best documented are Lámud Urco and Tosán, in the Luya region of modern Amazonas province where Klaus Koschmieder (2012) identified geometrically painted ceramic styles associated with fill deposits dating between 2870 BCE and 535 CE. These deposits were not directly associated with architecture, though he identified floors and hearths and speculated that the dwellings were made of less durable wattle and daub, locally called *quincha*. At Monte Viudo, a hilltop site in the Utcubamba valley, excavations adjacent to a rock outcrop uncovered evidence of fineware ceramics and burnt offerings of food dating to the EH/EIP (ca. 399 BCE - 50 CE) (Guengerich 2014:299). This suggests ritual activity associated with the mountain top, followed by some small structures and ritually important polychrome ceramics buried later in the EIP (ca. 250-550 CE). Archaeological excavations at Huepon (Schjellerup 1997) have yielded a radiocarbon date from the EIP and ceramics with stylistic connections to EIP wares from nearby. At Gran Pajatén, Church (1994) recovered five carbon samples dating from the EIP, as well as a large ceramic assemblage that was cross-dated to the EIP as well. None of these dates or ceramics could be directly associated with architecture, however. It is interesting that neighboring EIP group the Recuay in the Callejon de Huaylas and Callejon de Conchucos appear to originate stylistic motifs and stone carving techniques that make their way into the northeastern *montaña*, but they are most clearly seen in later periods (e.g., Church 1996; Lau 2011). During the EIP, then, people were crossing the *montaña*, and engaging in ritual activity associated with mountaintops, but judging by the relative scarcity of archaeological remains, the permanent population of the region was lower than in subsequent eras.

After the EIP, direct evidence for occupation of the northeastern *montaña* disappears during the Middle Horizon (MH: 600-1000 CE). Elsewhere in the Central Andes this period is characterized by the influence of the Wari empire, based in the Ayacucho valley city of Huari (Isbell 2008; Schreiber 1992). Though there is ample material evidence from ceramics and characteristic architecture that Wari had a presence in the north central Andes, scholars debate the degree to which this area was under direct control. In Huamachuco, Viracochapampa has been referred to as a Wari administrative center, but it was not completed, and the adjacent Huamachuco polity was not interrupted by Wari presence throughout the MH (George Lau 2012:36). While Tiwanaku, the Middle Horizon empire in the south-central Andean Titicaca basin, maintained connections with Cochabamba and Chuquisaca to the east (Janusek 2004:71), the Wari empire was thought to have made less impact on the eastern slopes of the *montaña*. However, in 2010 a Wari site in the Vilcabamba region was discovered (Fonseca Santa Cruz and Bauer 2020), and in Amazonas the site of Inticancha has characteristic D-shaped structures (Church and Muscutt 2018). Church and von Hagen suggest that the rise of Wari was part of the spark that caused the explosion of sites in the northeastern *montaña* during the LIP (2008:913). In the central Andes, Wilkinson (2018) makes the provocative argument that the Wari relied on access to lowland Arawak trade networks coordinated through Espiritu Pampa. Despite the plausibility of these hypotheses, few remains from the MH have been discovered, and it is likely that the permanent populations were still low, and/or the settlement pattern was different and architectural techniques did not involve stone masonry. The relative lack of archaeological materials dating to the Middle Horizon remains a mystery in Chachapoyas archaeology that obscures the foundations of the population increase in the following period.

2.2.2 LIP population growth in the *montaña*

Despite the evidence that people were using the *montaña*, the lack of archaeologically documented settlements suggests shifting habitation sites that left very little archaeological material in the era before the Late Intermediate Period (LIP, 1000-1400 CE). There has been archaeological research in the Chachapoyas region since the late 19th century, and radiocarbon dates suggest most sites were inhabited primarily between 1250 and 1400 CE. The Chachapoya appear in early chronicles and ethnohistoric documents as a bellicose ethnic group that was conquered by the Inka and later played a prominent role aiding in the Spanish conquest (Schjellerup 1997). Investigators into Chachapoyas have focused on three main topics: Chachapoyas origins, Chachapoya architecture and built environment, and the effects of Inka and Spanish imperialism in Chachapoyas.

The LIP is the first period in the cultural sequence in which the sample of settlements is sufficient to begin to understand settlement patterns. During this period, people lived on hill and ridgetops in agglutinated settlements (Guengerich 2015). This pattern is not unique to Chachapoyas, but is similar to other neighboring Andean highland communities during the LIP, such as in the Amaybamba valley, or the upper Mantaro (DeMarrais 2001; Hastings 1985; Wilkinson 2019a). The regional settlement hierarchy, like elsewhere in the central Andes, seems to reflect groups of moderate political complexity occupying a range of sites from hamlets to large villages (e.g., Conlee 2003; Covey 2008). Chachapoyas sites are frequently described as 'defensible,' due to their ridgetop location and the terrace and retaining walls that frequently form the lower slopes around sites (Arkush and Tung 2013). Few are fully encircled by walls, however, and archaeologists have also pointed to the proximity to upper-slope terraces and pasture lands offered by ridgetop site location (e.g., Nystrom and Toyne 2014:376). Sites in the Chachapoyas region rarely feature large public spaces, though structures with a ritual function are distinguishable at Kuélap (Narváez Vargas 2013:133–136) and Monte Viudo (Guengerich 2014:222–224). Differences in status are subtle, visible through investment in architectural elaboration (Guengerich 2017), and possibly related to a founder advantage, wherein the earliest settlers of the site occupy slightly favorable locations (Arkush 2017).

Since it was rediscovered in 1843 by Juan Crisostomo Nieto, a local judge investigating a land dispute, Kuélap has been the most famous Chachapoyas archaeological site. It is famous for the monumental walls encircling the site, which are 10 to 20 m tall, the *Templo Mayor* (also referred to as the *Tintero* because its outward sloping walls resemble an inkwell), and the elaborate circular houses with stone cornices and friezes. It was visited by Adolph Bandelier in 1893, who drew the first map of the site, and sketched the monumental walls, entrances, and the *Templo Mayor* as part of a series of explorations into the Chachapoyas area. In his published report on the trip, he hits on many themes that are still important in the archaeology of the region. He speculates about whether or not the indigenous groups spoke Quechua prior to Inka conquest; whether the constructors of these sites came to the area from the west; and whether the inhabitants of the region were divided in independent tribes prior to the exterior threat of the Inka or Spaniards (Bandelier 2016 [1907]). In the early 1930s Louis Langlois (1934, 1939) wrote another description of Kuélap and surveyed several sites in the area. Henri and Paule Reichlen were the first to excavate at Kuélap, and other sites in the region (1949, 1950). Their analysis of ceramics included the first descriptions of applique (Kuélap style) and painted (Chipurik style) decoration that were common at Chachapoyas sites. In the early 1970's, Arturo Ruiz Estrada created a ceramic sequence that is still the most influential ceramics study in Chachapoyas (Ruiz Estrada 2009 [1972]). Alfredo Narvaez Vargas took over excavations in the 1980s, and since then the site has seen investigation, reconstruction and conservation as it has become a major tourist destination for northern Peru (Bradley 2006; Narváez Vargas 1988, 1996a, 1996b, 2013; VanValkenburgh et al. 2020).

Though Kuélap was undoubtedly important, archaeologists and ethnohistorians have been hesitant to consider it a regional capital. The population at Kuélap was comparable to many other sites in the region, such as Timbambo/Caserones, Purun Llaqta de Cheto, and Ollape/La Jalca (Church and Von Hagen 2008). There are hundreds of LIP sites designated as Chachapoyas east of the Marañon river, between Pataz in the south and Bagua in the north (Centro Mallqui 2011). The eastern edge of the Chachapoyas phenomenon is not well known, which will be discussed at length later (c.f., Dover and Fletcher 2011; Muscutt 1998; Schjellerup et al. 2005, 2009). In the Sonche valley near the modern city of Chachapoyas, archaeologists have documented sites with Inka and Spanish components (Crandall 2018; Fabre 2006; Ruiz Barcellos 2004; Ruiz Estrada 2004). In the southern portion of Chachapoyas a number of studies have been undertaken in the Abiseo region, where the Late Horizon site of Gran Pajatén is located (Bonavia 1968; Church and Álvarez 2018; Church 1994, 1996; Morales Gamarra et al. 2002). In the northwestern part of Chachapoyas, a number of sites have been documented along with the distinctive *purunmachu* style of mortuary architecture (Koschmieder 2012, 2014; Koschmieder and Gaither 2010; Villar

Quintana 2019; Villar Quintana et al. 2020). The central Utcubamba valley between the modern cities of Leymebamba and Chachapoyas contains numerous sites well known since the mid-1800s. South of Leymebamba, Thompson and colleagues investigated in the Uchucmarca region (Jakobsen et al. 1987; Schjellerup 1979; Thompson 1971, 1972, 1976). These studies are all, individually, foundational—the crucial early stages of archaeological research—but detailed ceramic typologies and chronologies, numerous and precise radiocarbon dates, and studies that incorporate regional data have yet to be undertaken.

The dramatic topography of the northeastern Peruvian *montaña* provides numerous cliff faces where above-ground mortuary monuments are located (Nystrom et al. 2010). The micro-climates of these cliff tombs allow remarkable preservation of organic materials in some tombs. *Chullpas*, freestanding round or rectangular aboveground mortuary mausolea, can be found throughout the region, as well as throughout the central Andes during the LIP (e.g., Isbell 1997; Velasco 2014). *Chullpas* were constructed of stone, plastered and painted, and contained offerings as well as textile-wrapped mummy bundles (Guillén 2003; Nystrom et al. 2010). Well-preserved *chullpa* complexes can be found at Revash, Los Pinchudos, La Petaca, and Diablo Wasi. At Laguna de los Cóndores (Guillén 1998, 2003; von Hagen and Guillén 1998), rescue archaeology recovered more than 200 mummy bundles from a recently looted complex of seven *chullpas*, as well as ceramics, textiles, and organic remains from the LIP to early colonial period. In northwestern Chachapoyas in the modern district of Luya, several examples of a second type of mortuary structure, called *purunmachus,* can be found. These are also located high on cliff faces, but rather than taking the form of structures, they are sculptures made of clay, wood and fiber, constructed around a mummy bundle containing human remains (Kauffmann Doig and Ligabue 2003:205–248; Koschmieder and Gaither 2010). In addition to cliff-face tombs, burials have been encountered below house floors, in stone walls, and in caves (Nystrom et al. 2010). The mortuary monuments of the Chachapoyas region present both an argument for the cultural connections with the broader highland world—in the shared use of *chullpas*—and the unique characteristics and internal diversity of the region—which can be seen in the *purunmachus*.

The quantity and visibility of these mortuary monuments has led to several bioarchaeological studies of the human remains from Chachapoyas (Guillén 2003; Jakobsen et al. 1987; Nystrom and Verano 2003; Toyne and Narváez Vargas 2018). Nystrom (2009) used analysis of cranial non-metric traits to assess genetic relatedness of samples from Laguna de los Cóndores, Laguna Huayabamba, and Kuélap. He found significant diversity among the three samples, possibly suggesting different marriage patterns in different parts of the region. The LIP association with violence has also led to evaluation of trauma patterns (Jakobsen et al. 1987; Nystrom and Toyne 2014; Toyne 2011). Isotope studies of human remains have also yielded insights into diet and mobility, which will be discussed in the following section (Toyne et al. 2020). Overall, the patterns of mortuary architecture in the Chachapoyas region do suggest the inhabitants of Chachapoyas shared common Andean beliefs about the continued importance of ancestors for social reproduction (Dillehay 1995).

Finally, archaeologists have investigated the impact of the Inka empire on the region. Inge Schjellerup has been the most influential in this regard. Her book *Incas and Spaniards in the conquest of the Chachapoyas: archaeological and ethnohistorical research in the north-eastern Andes of Peru* (1997, 2005) surveyed archaeological sites along the path of the Inka conquest of Chachapoyas as described by el Inca Garcilaso de la Vega. This and subsequent works have documented the vast network of the Inka road and waystations (*tambos*) that remain in the Chachapoya region, as well as many Chachapoyas sites from the LIP and LH that the team encountered along the way (Schjellerup et al. 2003, 2005, 2009). The regional capital used by the Inka and their appointed *kurakas* can be seen at Cochabamba, above modern Chuquibamba, where Cuzco-style masonry was used to build an Inka administrative center (Schjellerup 1997:112–126; Tello 2004:72–89). Nearest to the proposed study area, Schjellerup and colleagues documented an Inka administrative center between the modern valleys of the Rios Huambo and Mayo in the modern department of San Martin. The Inka occupation can be seen at sites without distinctive Inca architecture, as well. Crandall documented the shift from LIP to LH to early Colonial Period at Purun Llacta de Soloco (2018). Further to the east, Flor de Mayo, in the Mayo river valley at the end of the Inka road east from Chachapoyas, was likely a short-lived Inka site, judging by the presence of stone architecture, and the ceramics that correspond to late-period *montaña* styles (Salazar et al. 2015; Silva Sifuentes and Jaime Tello 2015). Though the Late Horizon Inka presence in this region was likely short—most estimate around 60 years—the impact on the archaeological record was significant. This will be discussed further in Chapter 7. In the following sections I will sketch what archaeological data can show us about past ecology, subsistence, interregional connections, social structure, and ethnogenesis in the late prehispanic period.

2.3 Ecology and subsistence in the northeastern Peruvian *montaña*

Though the *montaña* has shown evidence of domesticated crops since early in the archaeological sequence (7000 BP), the record of intensive agriculture is discontinuous (e.g., Bush, Mosblech, et al. 2015). Part of the reason for that discontinuity is ecological. The *montaña's* closely stacked ecological zones mean inhabitants can grow a wide variety of crops within a small area, but the dynamic landscape, land cover, and frequent precipitation would have presented challenges to farmers relative to temperate mid-valley fields, dry highland pastures, or lowland floodplains. The stacked ecological zones along the eastern slopes shift based on fluctuations in climate, which in turn influenced decisions about what to plant and where (will be discussed further in Chapter 4). The long-term pollen record suggests that the northeastern *montaña* has primarily been host to shifting cultivation. The archaeological material indicates that intensive agriculture increased during the LIP and LH, along with the population.

During the Formative fluorescence in Bagua and Jaén, discussed previously, the subsistence base consisted of food production and a mixed game economy, including marine, highland, and lowland animal species. In the dry temperate zone around the site of Huayurco, near Bagua, starch grain analysis revealed that the Early Horizon community was consuming manioc (*Manihot esculenta*), maize (*Zea mays*), potatoes (*Solanum spp.*), and beans (*Phaseolus spp.*). Fauna present at the site at the beginning of the EH included deer, armadillo, birds, lizards, amphibians, snails, freshwater crabs, and prawn (Clasby 2014a:479). Later, during the Ambato phase in the early EH, camelids (*Llama spp)* and guinea pig (*Cavia porcellus)* appeared, which Burger suggests is related to the expansion of influence from the Early Horizon center of Chavín de Huántar (1992:218). This mixed economy appears to continue until the site is abandoned at the end of the EIP. When the site is re-occupied in the LIP, the occupations are shallow and ephemeral, and no data related to subsistence was reported.

Judging by rainfall, which is heavy throughout most of the region, and topography, which includes closely stacked elevation bands and a mosaic of microclimates, the *montaña* has the potential to cultivate a wide variety of plants. Stephen Brush studied subsistence and land use in the *montaña* ethnographically in the community of Uchucmarca, in the south of the Chachapoyas region (1977). The community lands spanned a very wide range of elevations, from 800 to 4300 masl. Unlike communities in the highland altiplano, where it would take multiple days to travel to lower elevation eco-zones for crops like coca and chili peppers, Uchucmarca residents could generally reach their fields in almost every ecozone within a day's travel. The only exception was the far eastern *montaña* where coca is grown, which took more than one day (Brush 1977:161). The *montaña* presents different challenges for infrastructure than the dry and high elevation agricultural areas of the central Andes. In the Tambillo area, three different types of earthen terraces were utilized to manage excess water, rather than to conserve it (Guengerich and Berquist 2020).

Upper elevation sites in the *montaña* (above 3000 masl, generally) appear to have been supported by a typical highland array of potatoes, *kiwicha* (*Amaranthus*), and camelid meat, which would have been supported by local agriculture and herding. For example, at Monte Viudo, the household fields would have ranged between 3000 masl, at the Tambillo valley floor, up to 3550 masl at the elevation of the site itself. This site presented evidence of potatoes, *kiwicha*, and camelid meat in nearly every domestic context. Maize was only present in a very small quantity, and large grinding stones, typically associated with maize preparation, were absent (Guengerich 2014:203).

As one moves north or east through Chachapoyas, the average elevation decreases, and the importance of maize in diet appears to increase, too. Sites in the northwestern corner of Chachapoyas, between the Jucusbamba and Utcubamba river in the modern region of Luya, average between 1500 and 2700 m elevation. Koschmieder's survey of the region found ample evidence of maize cultivation. Residue analysis of ceramics found 47.2% contained maize (n=25) and 41.5% contained potato (n=22). Overall, however, a wide range of remains were still present in the area, including high elevation crops such as quinoa (*Chenopodium quinoa*), and low-elevation crops such as manioc; sweet potato (*Ipomoea batatas*); arrowroot (*Maranta arundinacea*); and coca leaf (*Erythroxylum coca*). Archaeological chemistry indicates inhabitants of Chachapoyas consumed a mixed diet as well. Toyne and colleagues (2020) sampled human and faunal bones and teeth and found a mixture of C3 and C4 plant sources in local diet, with evidence of a shift toward C3 plant resources in the LH. Overall, however, they argue that the diet of those buried at Kuélap was intermediate, meaning maize was a bigger part of the diet at Kuélap than at Monte Viudo, but not as common as in Luya. Likewise, the isotope results from faunal remains also showed an intermediate pattern (Michell 2018). At terraces at Pata Llacta, approximately 1500 masl and east of Chachapoyas, pollen analysis indicated maize, beans, and squash were produced along with herbs and medicinal plants (Cummings 2002). These elevations were too low to cultivate potatoes or quinoa. This archaeological evidence underscores the diversity of sites in the Chachapoyas region, which can range from high altitude potato-dominant all the way down to maize-dominant.

This snapshot does not necessarily apply to the entire history of the region, however. Pollen studies in the *montaña* show some important transitions in land use at different elevations. One pattern that is seen in three separate lake-core pollen records in the NE *montaña* is that times of drought led to opportunistic burning of the forest and subsequent planting of maize (Åkesson et al. 2020). At Laguna de los Cóndores, which became famous for its cliff burials that were used in the LIP and LH, pollen studies show that during the EIP and MH, between 150 BCE – 800 CE the catchment was rich in disturbance taxa and *Zea mays* was present in most samples. In the late MH and early LIP, there was oscillation between forest and disturbance, but overall, there was an increase in forest pollen. Finally, from the late LIP to the present the pollen record suggests the area has been dominated by forest taxa, with only sporadic maize presence.

2.4 Interaction networks along the northeastern Andean Slopes

2.4.1 *Montaña* exchange goods

A range of goods were exchanged between the Amazon and the Andes, as seen in early documents, ethnographies, and archaeological studies (Espinoza Soriano 1967; Garcilaso de la Vega 1991; Guaman Poma de Ayala 1993a; Salomon 1986), including: coca, cotton, medicinal plants, animals, and feathers from the lower elevations, and ceramics, metal and stone tools, and beads from the highlands and coast. Unfortunately, most *montaña* goods do not preserve well in archaeological contexts, and relatively little archaeology has been carried out in the *montaña*, so the clearest examples of trade in *montaña* goods come from the highlands and coast. This creates an imbalance, where status goods like feathers and coca are known to have been of supreme importance but are almost invisible relative to spondylus and obsidian in scientific studies of interaction. Furthermore, archaeologists know about the scale of demand for these products because they were important to the Inka empire, which means that the models for their procurement may or may not apply to the pre-Inka periods. Only increased archaeological investigation on the eastern slopes can help to illuminate the frequency of interaction between *montaña* groups and their neighbors. Here I will briefly describe documentary accounts of the trade in lowland and *montaña* resources.

Early Spanish documents attest to the importance of lowland animals and animal products, especially feathers from lowland tropical forest birds. Pedro Sancho (1968 [1534]: 330) wrote that in Cuzco, more than 100,000 dried birds were always kept available for the use of the military. These feathers were made into headdresses and sewn into textiles, some of which have been found preserved in burial contexts (e.g., King 2013; Von Hagen 2004). Featherwork was well developed in the Chimu empire during the LIP, and Esther Pasztory has suggested that the feathers were procured as part of a cultural interrelationship with Chachapoyas (2008:4). During the LH, at least, the Inka were certainly exporting feathers through Chachapoyas to Cajamarca or Huamachuco, where a large portion of the army was stationed during expansion north (von Hagen 2004). This is attested by remains of a feather headdress and a net for catching birds, both found at Laguna de los Cóndores. Access to feathers was certainly advantageous for aspiring elite rulers. Wilkinson (2018) argues that it was the expansion of the Arawak in central Amazonia that spurred large-scale capture and trade in feathers that, in turn, helped the Wari empire emerge during the Middle Horizon. The amount of birds required to make feather textiles like those found in Wari context at Corral Redondo in the Churunga valley was staggering—an estimated 2000 macaws in one yellow and blue wall hanging—and there is no evidence of breeding programs outside the Amazon, meaning they would have all been caught in the wild (Wilkinson 2018: 1369). Though it is very difficult to discover direct archaeological evidence for this trade outside cave or tomb contexts, there is overwhelming evidence that trade in feathers and birds was an important interregional connection from at least the MH onward.

The other export good originating in the *montaña*, Coca (*Erythroxylum coca*), has been culturally valued in the Andes for at least 8000 years (Dillehay et al. 2010) and still plays an important role in Andean society today (Allen 1988). It is primarily grown between 1000 and 2100 masl (Plowman 1985), though eradication efforts in recent years have pushed cultivation into lower elevations. During the Late Horizon coca plantations were set up by the Inka empire in the lower *montaña*, and permanently staffed by a small number of specialists called *camayos* (Julien 1998). Catherine Julien analyzed documents from Charcas, in Bolivia, and found evidence for such specialization in cultivation, drying and packing, and long-distance transport of coca. The permanent populations of the low elevation areas where coca was planted was low, but for the 3 or 4 harvests per year, it would swell with *mitayos* (people providing their annual labor tax) who would transport the coca to the highlands. Pre-Inka models of coca cultivation for highland use may have been less intensive, but likely followed a similar seasonal pattern and left a small footprint in the lower *montaña*. Various reasons for minimizing the permanent population in the lower *montaña* include disease and the threat of violence from lowland groups (Gade 1979; Moine and Raymond 1987).

Other products that could be grown in the lower *montaña* like maize, cotton, hot peppers, hardwoods, and medicinal herbs would have also been part of interregional exchange systems. Cotton was likely an important product of Chachapoyas (Schjellerup 1997:102). One of the main tributaries of the Maranon in northeastern Peru is the Utcubamba river, which comes from the Quechua words for cotton, "*utku*," and plain, "*pampa*." Maize was both a ceremonial crop—in the form of fermented chicha—and a staple crop within the *montaña*. Finally, specialized knowledge attained in the lowland jungle was valuable in the highlands. This is asserted by many chroniclers and in modern ethnographies. Stereotypes of lowland peoples, depicted through dances in which Andeans wore Amazonian dress, are a "virtually pan-Andean motif" (Salomon 1987a:70). In these performances, feather crowns, palmwood lances, seed beads, and stuffed tropical animals are used to depict the Amazonians as the antithesis of highland peoples: connected to nature, outside history, and egalitarian. This comes from an historical account, but Andean imitations of Amazonian peoples illustrate how the groups could have been connected while maintaining ideas of cultural difference.

2.4.2 Ceramic evidence for connections

Small quantities of non-local ceramics have been documented at many sites in Chachapoyas, most notably Kuélap. The most common were Cajamarca ceramics. Cursive painted kaolin wares from the Initial to Late Cajamarca periods (100 BCE—1200 CE) have been found at Kuélap, at Huépon, and in surface collections at many other sites (Narváez Vargas 2013:150; Ruiz Estrada 2009:69–71; Schjellerup 1997:211–212). Wari ceramics were found at Kuélap, in very small numbers (N=3) from 'cleaning' at the site, as documented by Ruiz Estrada. Subsequently, Wari ceramics were found in the earliest levels near the Templo Mayor at Kuélap (Narvaez Vargas 2013:150). At San Jose de Moro, ceramic figurines matching the mortuary sarcophagi, or *purunmachus* of the northern part of Chachapoyas were found, themselves in mortuary contexts (Fabre 2006:163). Finally, Inka imperial and provincial Inka ceramics are found throughout the region (Crandall 2018; Ruiz Estrada 2004; Schjellerup 1997; Schjellerup et al. 2003, 2005, 2009). The non-local ceramics are likely prestige wares valued for their decoration and the connections that they index. The consistent low-level presence of inter-regional ceramic materials suggests maintenance of interregional connections between elites in Chachapoyas and neighboring regions. Unfortunately, no large-scale ceramics studies have been undertaken to document shifts in the intensity of interaction through time, or to identify evidence of prestige ceramics coming into the region from the lowlands to the north and east. Nevertheless, ceramics prove that Chachapoyas people participated in northern Andean interaction networks. As I will discuss in Chapter 3, the fact that the *montaña* is an ecological boundary zone does not contradict the persistence of connections that cross the ecological interface.

2.4.3 Models for interaction

Archaeologists looking to reconstruct models for interaction in the *montaña* face challenges of reconciling exchange systems that have long been understood to be incompatible, even though archaeological data proves the barriers were porous. The most influential model for

Andean social organization is Murra's (1972) model of complementarity (e.g., Dillehay 1979; Stanish 1989; Van Buren 1996). This model was developed from Spanish colonial records that documented not just ethnic groups in contiguous regions, but also group members living in other ecological zones, sometimes nearby but sometimes very far away. The ethnic colonists would live as self-contained 'island' communities interspersed in *montaña* valleys. The pattern this created was referred to as a "vertical archipelago" with small islands of different groups living side by side. At root, this idea suggests that Andean societies needed resources from multiple ecological zones and, rather than developing markets for inter-group or inter-community trade, they sent group members out to procure resources directly. Thus, one feature of the Andean "vertical archipelago" model (Murra 1972; Salomon 1985) was the avoidance of inter-ethnic exchange. Settlements in the Moquegua valley show Wari and Tiwanaku colonists existed side-by-side during the MH, supporting this model (e.g., Goldstein 2015; Green 2015).

There are occasional mentions of multi-ethnic *montaña* settlements where representatives from multiple groups lived together. The Amazonian groups of the lower *montaña* are impoverished and peripheral compared with riverine groups such as Piro, Conibo or Omagua (Taylor 1999). In late prehistory, Taylor (1999) suggests that both Amazonian and highland groups would send settlers to mediate trade and alliance in the *montaña*. In this scenario the representatives were sent to the *montaña* with the goal of interacting with other people, not just to directly access the resources native to the *montaña*. In eastern Ecuador, Bray (2005) documented the sites of Shanshipampa and La Mesa where ethnohistoric and ceramic evidence suggested a multi-ethnic community mediated interregional trade. Similar processes have been documented on the western slopes of the Andes as well (Dillehay 1979).

The community level would have been the most important level of interaction for inhabitants of the region in the LIP. Between communities, interaction would have been accomplished through reciprocal bonds. One important method of interregional trade—*rescate*—consisted of families who maintained direct trading relationships with neighboring families for barter (Mayer 2002:61). Early historic accounts also describe periodic gatherings for exchange at intermediary locations, usually in the upper *montaña* between 2500 and 2000 masl (Oberem 1980; Salomon 1986). For example, the Piro in the Urubamba valley held an annual market gathering at El Encuentro for trading with highlanders (Camino 1977). Much of this interaction was likely seasonal. Feasts, religious festivals, and trade fairs likely occurred during the dry season at intermediate locations (Lyon 1981; Raymond 1988). If these processes were common, we would see a *montaña* that was made of different ethnic settlements, but evidence of interaction between them.

Finally, many scholars acknowledge that interaction may have been understood differently by the different participants. I have already described the way the Inka empire sought to intensively exploit the *montaña* for feathers and coca. Some of these were sumptuary goods in the Late Horizon. Trade between lowland groups and the Inka was described by the Inka themselves as tribute, but the lowland groups themselves likely saw it differently: as trade or reciprocity. Raids and small-scale warfare were forms of interaction that likely occurred in the *montaña* (Hegmon 2000). As Whitehead (1992) and others (Scott 2009; Tenzin 2017), have written, small, mobile groups along the margins of larger polities often take advantage of their relative mobility by raiding settlements along the borderland. This is certainly supported by early Spanish accounts of settlement in the northeastern *montaña*, which frequently mention the risk of attack by lowland groups (e.g., Mogrovejo 2006:125). In this case, fortified sites may have created a harder boundary between opposing groups within the *montaña*.

Thus, there are at least three models for the population and exploitation of the *montaña*: first, locals, as well as people from highland and/or lowland groups may have lived together in multi-ethnic settlements. Second, highland and lowland groups may have sent members to the *montaña* to live adjacent to locals in ethnic 'islands' that cultivated resources directly (Lyon 1981; Mayer 2002; Platt 2009). The relations between these islands and their neighbors could have been friendly or adversarial. Third, some argue that the *montaña* boundary consisted of relatively homogeneous culture areas maintained by adversarial relations along hard boundaries (e.g., Bonavia 2000; Taylor 1999). These scenarios can be organized, as the following models show, from most permeable boundaries—multiethnic communities—to hardest boundaries—outposts. That any combination of these diverse possible scenarios for settlement and exchange in the *montaña* remains possible, given what we know about the region, underscores the need for comprehensive, foundational studies of *montaña* regional settlement.

2.5 Social arrangements in the *montaña*

Though the Chachapoyas region has frequently been left out of surveys of the Andean culture area (e.g., Covey 2008; Moseley 1992), its late prehispanic and early colonial societies were not isolated from their highland contemporaries (Guengerich 2015). Upper *montaña* social organization during the LIP, like most of the highland Andes during this period, were most likely based on the *ayllu* (Espinoza Soriano 1967). *Ayllu* is a complex term in Andean scholarship, but most commonly refers to a kin group that corporately held lands, shared rituals, and calculated rank within the group based on genealogical reference to a shared founding ancestor (Gose

2008:14). This concept was very flexible, and to varying degrees could incorporate both imagined and concrete kin relations, but it created a strong connection between place and identity (Janusek 2002: 37). Isbell (1997) has speculated that the concept emerged in the northern Andes in the EIP along with the practice of constructing above ground mortuary monuments (*chullpas*), to both venerate ancestors and visually claim land (Bongers et al. 2012; Crandall 2012). The details are known ethnohistorically and ethnographically. *Ayllus* were part of a flexible segmentary system in which larger *ayllus* could incorporate smaller ones, such that very large political formations could be termed *ayllu*, as well as small, localized groups of a few families that share real or spiritual kin ties (Abercrombie 1998:119; Netherly 1988). Some families could maintain membership in multiple *ayllus* if they participated in the local feasts and ceremonies of those groups (Abercrombie 1998). As a segmentary system, *ayllu* membership was activated in certain contexts: micro-*ayllus* at local ancestor veneration rituals, macro-*ayllus* at regional festivals or instances of conflict with neighboring macro-*ayllus*.

Ethnographic and ethnohistoric studies of social structures of the upper Amazon depict diverse and flexible social structures. In the Northwest Amazon, kinship is key to understanding fluid regional systems, because the "ideology of descent" pervades every aspect of life (Chernela 1993; Hugh-Jones 1979:33; Jackson 1983:105). Tukanoan groups, as one example, use kinship terms to address each other most of the time, and see nested orbits of relatedness starting with male siblings, and moving out to the "tribe" which shares language and tradition but no formal leadership (Goldman 1979:287). Hierarchies in these groups were not rigid. While the social units in upland Amazonian societies were mostly small, the social networks they inhabited were still extensive (Lathrap 1970). It will be discussed more in the following chapter, but anthropologists Eduardo Viveiros de Castro and Fernando Santos Granero argue that lowland

Amerindian groups share a belief in alterity that drives them to incorporate new people and groups as affines (Santos-Granero 2002; Viveiros de Castro 1998; see also Chapter 3).

Thus, the kinship systems of the highland Andes and upper Amazon differed in their outward orientation and acceptance of hierarchy. Andean *ayllus* were, at various points, organized as larger segmentary political structures within states and empires, whereas there is no strong evidence that Amazonian groups were so organized. Archaeologists and historians debate the degree of political centralization that existed in Chachapoyas during the LIP. Toponyms within the Chachapoyas region indicate a common language—termed Chachapuya—connected the people of the region (Rojas-Berscia 2020; Taylor 2000; Torero 1989; Valqui Culqui and Ziemendorff 2016). Early documents and other records indicate northern Peru was home to a diverse set of languages at the beginning of the colonial period: five on the north coast, eight in the northern Andes, and six on the eastern flanks (Rojas-Berscia 2020). Narvaez argues that the labor invested in building Kuélap and the ritual activity associated with the Templo Mayor elevate Kuélap to the status of regional capital (Narváez Vargas 2013:151), but most researchers believe that the region was made up of autonomous groups in the LIP (Church and Guengerich 2017; Espinoza Soriano 1967).

The LIP appears to have had populations in the thousands at large settlements such as Levanto, Kuélap, and Caserones, but the general settlement pattern does not show evidence of a dominant 'urban' site. Kuélap distinguished itself via its monumental walls and ritual structures, rather than population or density. The settlement pattern associated with the LIP was nonetheless transformative compared to previous periods. As Guengerich (2018) notes, the shift in settlement to dense hilltop sites had important social consequences. Stone became a more common construction material because it was more available at hilltops. Permanent houses were less flexible, and the spatial layout of sites often included less open space. Community interaction would have been different when each community was on a hilltop (Parsons et al. 1997). Finally, it likely involved a shift in relationships with sacred, animated features of the landscape called *wak'as* (Bray 2015; Dean 2007). Guengerich suggests that where before the LIP the Chachapoyas *wak'as* were fearsome personages to be bought off with ritual, the fact that people moved into closer proximity with *wak'as* may have in some sense 'tamed' them (2018: 380).

Thus, when Anco Allo would have traveled through Chachapoyas at the very end of the LIP, the area was likely made up of independent *ayllus* sharing a Chachapuya language, constructing monumental mortuary constructions, and organizing trade with their neighbors. Next, I will present the evidence for Inka administration of the region and the beginning of a politically unified Chachapoyas.

2.6 Ethnogenesis and the arrival of empire

The Chachapoyas area may have only coalesced as a political group in the face of, or under Inka and Spanish imperial expansion into the northeastern *montaña.* As Neil Whitehead asserted: "states make tribes and tribes make states" (1992:128). The expansion of a state sends ripples out beyond its borders that then affect the way neighbors receive state contact, and the state itself emerges in a symbiotic relationship with external tribes that check internal movement and provide targets for incorporation (Graeber and Wengrow 2021; Scott 2017). Though the inhabitants of the *montaña* would not have been ignorant of the existence of neighboring polities during the MH and LIP, the Inka were the first expansionary state to have sustained direct interaction with the people of the northern Peruvian *montaña* during the Late Horizon (LH, 1400-1532 CE)[3]. The diversity of material culture throughout the area known as Chachapoyas, when taken along with early ethnohistoric accounts of the region, have led to the scholarly consensus that Chachapoyas was not a unified polity prior to the Late Horizon (Church and Von Hagen 2008; Church and Guengerich 2017; Espinoza Soriano 1967; Schjellerup 2005). Whether the peoples of the region united in the face of the Inka incursion, or were conquered separately before being subsumed under the ethnic administrative category of Chacha for the purposes of Inka administration, the chronicle accounts of the Chachapoya "kingdom" are misleading (Church and Guengerich 2017).

Much of what is known about the sociopolitical landscape of Chachapoyas specifically comes from accounts of the conquest and early colonial era. I discuss this topic further in Chapter 7, on the Late Horizon at Wimba. Tupac Inka Yupanki was most likely the first Inka ruler to conquer Chachapoyas (e.g., Cieza de León 2005; Garcilaso de la Vega 1688). The account of his conquest of "la Provincia Chachapuya" by El Inka Garcilaso de la Vega focuses mainly on the route, from south to north, by which the Inka army crossed the Marañon from Cajamarca, north to Levanto, following the Utcubamba valley (Espinoza Soriano 1967; Garcilaso de la Vega 1985:153–154; Schjellerup 1997). Along this route the Inka army faced fierce resistance both from the local groups, and challenges from the landscape which protected Chachapoya fortified towns and allowed the Chachapoya to close narrow pathways. The account of Garcilaso finishes with a somewhat perfunctory statement that once Levanto had been captured, a small segment of the army was sent to conquer the province of Muyupampa, to the

[3] I follow Guengerich (2014), Schjellerup (2009), and others who point out that there is evidence for Inka impact on Chachapoyas earlier than the date derived from chronicles (commonly taken as 1470 CE).

east, but they capitulated right away because they had been vassals or confederates of the Chachas (Garcilaso de la Vega 1985:155).

The Chachapoyas were ‘legible’ to the Inka as a highland group with social structures and lifeways comparable to neighboring highland groups (Guengerich 2015; Hernández Garavito 2019). This can be seen in the immediate contrast between the depiction of the Chachapoyas and the depiction of Muyupampas to the east, and Huancapampa to the north. Chachapoyas was considered part of Chinchaysuyu, but Muyupampas was “in the *Antis*.” Chachapoyas is described as homogeneous, whereas Huancapampa was made up of “various tribes and differing languages” (Garcilaso de la Vega 1985:156). Together, this indicates that, as incorporated in the Inka Empire, Chachapoyas was a frontier or borderland society—the easternmost Andean group in this area.

Garcilaso’s account has details about Chachapoyas geography and history unique among chronicles, but it presents a simplified model of Chachapoyas. Garcilaso had access to the now-lost chronicle of Padre Blas Valera, a mestizo Jesuit who was born and raised in the provincial capital of San Juan de la Frontera de Chachapoyas, and this gives it a specificity that lends credibility (Barnes 2003). At the same time, Garcilaso’s, and presumably Blas Valera’s, accounts imagine a unified and homogeneous Chachapoyas ‘*reyno*,’ that is unlikely given accounts of factionalism seen in other documents (and the archaeological record). As Church and Guengerich state (2017:20), it appears Garcilaso mapped Late Horizon events onto colonial era geography. The Chachapoyas are described as bellicose in most accounts. Huayna Capac had to quell rebellions or reconquer Chachapoyas in the later years of his reign (Espinoza Soriano 1967; Sarmiento de Gamboa 2007b). The most outstanding effect of this rebelliousness was the extent to which the inhabitants of Chachapoyas were forcibly resettled in other lands as *mitmaqkuna*.

The resettlement program was designed to disperse societies that posed a threat to Inka security. Inge Schjellerup's research showed that groups from Chachapoyas were resettled in 18 locations around Tawantinsuyu and required to form permanent military units in service to the Inka emperor (1997: 68). This, in turn, meant that Chacha *kurakas* and soldiers became heavily involved in the Inka civil war and the Spanish invasion of Peru.

Chachapoyas played an important role in the Spanish conquest of the Inka empire, but early Spanish entradas and later neglect led the region to be depopulated. Some suggested that the Inka program of resettlement removed 50% of the LIP Chachapoya population, before the Spanish arrived (D'Altroy 1992:234), but genetic studies do not support a population shift of such a large scale (Barbieri et al. 2017). At Purun Llacta de Soloco, in northern Chachapoyas, archaeological investigation suggests the population reached a peak during the LH, but during the early colonial period, Crandall's analysis of census data indicated a 1-2% population loss every year in the Sonche and Olia valleys (2018:360). The Bishop Toribio Mogrovejo visited Chachapoyas and Moyobamba in 1586 and 1595. He described how fear of savage lowland groups had led to the depopulation of many of the pueblos east of Chachapoyas (2006:126). Open frontier to the east was again an enticement to leave. The linguist Rojas-Berscia compared Chachapuya toponyms with examples of historic and modern Kawapanan language and argues that their shared features linguistic connection imply that the modern Kawapanans were Chacha speakers pushed east ahead of the Inka into the lower *montaña* (2020). It was, in part, stories of highland refuges in the lowlands that spurred conquistadors to mount the expeditions into the lowlands that were so costly and demoralizing (Cieza de León 2005). When Hernando de Alvarado went east from Chachapoyas with 150 Spanish soldiers and 3 to 4 thousand Chacha allies, he was told Anco Allo's "paradise of the orejones" was nearby, only to lose the trail and be forced to turn back (Espinoza Soriano 2003:19–22).

2.7 Chapter conclusion

In this chapter I have sought to outline the long-term history of the northeastern Peruvian *montaña*, as it is known through archaeological remains as well as historic and other lines of evidence. The region has been occupied for at least 8000 years, mainly as home to small groups of mobile hunter/gatherer/horticulturalists leaving evidence of shifting, light-impact occupation. Trade between the highlands and lowlands crossed through the region, and it held appeal as a refuge. During the LIP the population of the region increased dramatically, and it is the Chachapoyas culture from the LIP that is the best known archaeologically, though it includes significant internal diversity. Chachapoyas is a huge area with wide range of products and subsistence base, in addition to its access to lowland goods from the north and east. The area was not politically unified before the Inka and Spanish empires sought to incorporate it.

Though the northeastern *montaña* has captured the imagination since at least when Alonso de Alvarado went searching for the fugitive Chanka, systematic archaeological investigation is still in relatively early stages. How can researchers better understand the diversity of the region? How did ceramics, subsistence, mortuary monuments change through space and time? Could archaeological investigation find more evidence of sites from different ethnic groups or ecological niches? Next, I will outline the theoretical background.

CHAPTER 3

THEORETICAL FOUNDATIONS FOR INTERACTION AND BOUNDARY MAINTENANCE

As present-day examples illustrate, even established socio-political boundaries that divide countries with differing languages, political traditions, and economic resources are frequently contested cultural constructions (e.g., Alvarez 1995; Campbell 2005; De León 2015). Though a popular conception of boundaries is that they emerge at the contact point of differing traditions, many examples show boundaries emerge as social identities create themselves relationally, meaning rather than inhering in in language, beliefs, or ancestry, they emerge from a relationship between groups that self-affiliate as groups (Barth 1969). So, to understand how inhabitants of the study area "construct regional worlds in experience" (Munn 1990:1), I examine how groups perform and solidify social identities and connections through public gatherings, for feasting and/or ritual. This process combines interaction—trade and cultural exchange—and the maintenance of separate categories of identities. To explain processes of boundary maintenance I will introduce a concept emerging from Amazonian ethnography: alterity, related to maintaining social boundaries to allow predation of the 'other.' The social structures of groups living in boundary zones elsewhere in the world and in ethnographic contexts are diverse and often composed of a mosaic of multiple ethnic groups (Clastres 1977). As described in Chapter 2, the northeastern Peruvian *montaña*, is considered such a boundary zone. Cross-culturally, boundary zones are frequently stigmatized as lawless places (Ethridge and Shuck-Hall 2009; Ferguson and Whitehead 1992; Wolf 1982), including the modern Peruvian *montaña* (Brown 2014; Skar 1994:138). This marginalization can lead to precarity (González-Ruibal 2014), but can also function as a refuge from state hegemony (Scott 2009). During the late prehispanic period Wimba was likely both an independent community (during the LIP), and a subject of the Inka state (during the LH). The key theoretical aim is to show how communal gatherings at one site produced and reflected social identities, and how communal gatherings and social identities changed between the LIP and LH.

3.1 Understanding social boundaries: the example of ethnicity

In both lowland and highland South America the most common conceptualization of social identity is the ethnic group (e.g., Hornborg and Hill 2011; Reycraft 2005). To understand the way social identity in the *montaña* is modeled in the present study, some background of the 20th century intellectual debates about ethnicity and cultural boundaries are relevant to the present study. I have two goals in this section. First, I illustrate the outlines of the debate and why the instrumentalist perspective (associated with Barth 1969a; Cohen 1985; Leach 1954) was broadly correct about the arbitrary nature of ethnic categories. Second, I argue that practice theory (Bourdieu 1977; Giddens 1984; Ortner 1984; Sewell 2005) shows how the ethnic affiliation process is contextual, political, and symbolic, but nevertheless rooted in habitus. Thus, in the experience of individuals ethnicity feels like it draws on deep, even primordial, attachments. Finally, I explain how these processes can be understood in a wider, multi-ethnic context, by employing the ‘shatter zone’ concept of Wolf (1982:230) and others (e.g., Ethridge and Shuck-Hall 2009; Scott 2009).

3.1.1 Key terms and parameters

It will be helpful to define two key terms for this study: boundary and borderland. In a strictly material sense, a boundary is a “contiguous zone of contrasting density, rapid transition, or separation between internally connected clusters of population and/or activity” (Kantner 2008; Tilly 2004:214). This definition somewhat abstractly states that boundaries indicate *something* about the people or things on either side. Then, a social boundary, in the broadest sense, is a transition between contiguous groups of people that is recognized by one or both groups as meaningful. In the context of the *montaña*, social boundaries can be political (related to nation or department), economic (related to land-use or land-rights), religious (related to evangelical, Catholic, or indigenous religious groups), lineal (related to ayllu), or more broadly cultural (e.g., *runa* [highlander] and *chuncho* [lowlander]). While social boundaries exist at many scales within societies: among castes, age-classes, or moieties, ethnic groups are mostly defined by spatial divisions that manifest on the landscape. The term borderland is spatial, too: it encompasses the region adjacent to a boundary or border (Baud and Van Schendel 1997). Borderlands involve complex networks of social boundaries, because they host encounters between diverse groups, for example: hunter-gatherer groups and agriculturalists, indigenous groups and colonial administrators, refugees and revolutionaries, and more (Barr 2011; Zartman 2010). For this project, I find one specific type of borderland illustrative—a shatter zone. Eric Wolf (1982:230) described the area where the demands and effects of a state destabilize an area outside that state’s control as the shatter zone. The original example is the effect of the slave trade on the Nigerian middle belt, but the term has since been applied to the North American southeast (Ethridge and Shuck-Hall 2009), northwest (White 1991), and Zomia in Asia (Scott 2009). In the NE Peruvian *montaña* the Spanish colonial empire and the Inka state created a shatter zone in the *montaña*, and in previous periods economic pressures from the Chimu, Wari, and Arawak may have had similar effects (Wilkinson 2018). Each term reflects the efforts of social scientists to acknowledge the sociopolitical impacts of a boundary near and far from its immediate location in space and time.

Anthropological study of social boundaries has shown over and over the problems with simplified models of social groups and boundaries. Here, I call attention to the reductive nature of early conceptions of cultural spheres. The definition of boundaries for cultural groups has been one of the thorniest problems in anthropology since the development of the culture concept. While the acknowledgment of cultural difference is part of the foundational anthropological concept of cultural relativism, it runs the risk of essentializing the 'other' in ways that reinforce and perpetuate inequalities (e.g., Gupta and Ferguson 1997). Early conceptions of groups' unitary cultures are often criticized as 'billiard ball' models, because they imagine them as solid and uniform. Social groups do not respond uniformly to outside influence, and they do not share discrete cultural traits are but rather exist on a continuum (Appadurai 1996; Schendel 2005; Wolf 1982). Nonetheless, it remains true that differentiation between one group and others—us and them—is one of the primary ways in which social groups create themselves (e.g., Bashkow 2004). These relatively simple models for social boundaries bely the complexity of borderlands, where encounters occur within a network of multiple ethnic, national, political and other identities. Complex processes of social boundary creation and maintenance involve activities such as communal gatherings, trade networks, and sometimes violence. In borderlands, processes of social boundary creation and maintenance sometimes spur ethnogenesis and create a mosaic of ethnic groups (Barth 1969b).

Compared to cultural anthropologists, archaeologists have added difficulties in defining social boundaries, in that they lack informants to explain the landscape of different social groups(e.g., Hodder 1982). The overarching meta-narratives of difference that create boundaries from the perspective of political centers are often not the same as the processes that occur at the actual interface of the adjoining regions (Harry and Herr 2018; Lightfoot 1995; Lightfoot and Martinez 1995). In archaeology specifically, the problem of defining cultures, ethnic groups, or polities based solely on material remains has been closely associated with outdated 'culture-history' approaches (Jones 1997; Shennan 1989; Stark 1998). Because it can recover the remains of everyday people almost everywhere that they lived, archaeology remains our best avenue for understanding the long-term social processes as they occurred in boundary zones. Though the process of interpreting these results is complicated—it is not always possible to draw direct connections between material culture and identity—the material record more accurately reflects the complexity of boundary zones than the clean lines of political maps or the assertions of elite political administrators (Smith 2003). An approach to social boundaries that looks at multiple scales to see how people defined themselves relative to their neighbors through practice is a way to understand how people negotiate and transcend social boundaries in everyday contexts. Lightfoot and colleagues (1998) presented one such study that has become a classic (Gardner 2021:506). They examined the structures of residential space at Fort Ross, a northern California Russian colony site that housed Russians, Native Alaskans, and local northern Californians. At different scales, different groups influenced the patterns found by the archaeologists. Through time, interethnic marriages and interaction led to innovations in tools and foodways (Lightfoot et al. 1998:216).

3.1.2 Are boundaries 'natural'?

On the surface, the influence of environment and inheritance on the creation of social groups seems clear. In northeastern Peru, the possible etymology of the word Chachapoyas—originating in a Quechua phrase for 'warriors of the clouds'—suggests a connection between the cloud forest landscape and the rugged characteristics of the people (Muscutt 1998; Schjellerup 1997). Social boundaries are often pegged to a geographic transition or obstacle—such as a mountain range, river, or desert—and so it is inferred that within these geographically demarcated spaces social groups independently develop their own characteristics and quirks. Though it is not the only entity believed to follow this pattern, the maintenance of ethnic group boundaries is the most-studied example[4]. The archaeologist Sian Jones defines ethnic group as "any group of people who set themselves apart and/or are set apart by others with whom they interact or co-exist on the basis of their perceptions of cultural differentiation and/or common descent" (1997: xii). This definition shows how ethnic groups are inextricable from their boundaries, from the processes by which they are "set apart." Study of ethnic groups quickly illustrates the ways in which the perception of spatial segregation and shared inheritance do not match historical accounts of the emergence and persistence of ethnic groups (Leach 1954). The two most important insights from social science studies of ethnic groups and boundaries are that "ethnic boundaries persist despite a flow of personnel across them," (Barth 1969b:9), but nevertheless boundaries shift, disappear, and emerge through time (Tilly 2004). Thus, even though most people understand ethnic groups as rooted in the past, they are not static or particularly old. A debate over how ethnic groups emerge and are maintained has structured the

[4] Groups that were often referred to as tribes when independent tend to become ethnic groups when incorporated into a nation state (Ferguson and Whitehead 1992). I use the term in the broadest sense.

study of social boundaries in anthropology and related disciplines. A brief review of debates in the anthropology of social boundaries will explore this issue, and ultimately support the practice theoretical approach taken in the present work, which acknowledges that ethnic groups are contextual and political, but that the bases of the within-group ties are experienced as emerging from deep inheritance due to their roots in habitus (Bourdieu 1977).

Twentieth century social scientists studying ethnicity fell into two opposing theoretical approaches to its emergence. The first group, referred to as primordialists, saw ethnic categories as emerging from differences in behavior or inheritance between groups of people, such as inhabiting different ecological zones or descending from a certain common ancestor. Others argued that ethnic categories were chosen and mobilized for specific purposes--that they were embedded in politics—these were referred to as instrumentalists. This theoretical divide manifests at the interfaces between social groups: if group differences are primordial, how could people living a mere 2 km from each other be sorted into different groups? If they are instrumental, why are they so deeply held as to lead to violence? And why do some boundaries seem stable if people can conceivably switch allegiances?

The primordialists argued that ethnic categories were emergent in human groups and could be identified objectively, through shared biological and cultural traits developed in geographical isolation (e.g., Abruzzi et al. 1982). This theory fits with the common perception and experience of ethnicity as embedded in ancestry and tradition, while attempting to use objective measures (genetics, kinship, ecological niche construction) to find and measure it. The culture-history approach to archaeology, which dominated the first half of the 20th century, had an implicit primordialist approach to cultural traditions, that can be seen at least as early as the

1920s (Jones 1997:16). In cultural anthropology[5] and other social sciences, the context for primordialist studies of ethnicity was a perceived anachronistic re-emergence of ethnic groups in modern nation states in the mid-20th century, and the conflict that sometimes ensued (e.g., Geertz 1963). Primordialists argue that the 'ineffable significance attributed to ties of blood (Shils 1975:122) causes a qualitative difference between ethnicity and other social ties. Sociobiological approaches have even suggested that inter-ethnic competition has a basis in biology (van den Berghe 1978; Kellas 1998; Reynolds et al. 1987). It is important to consider the history of the anthropology of ethnic boundaries before making an argument about social boundary processes based on ceramic styles and architecture—the data available from archaeological investigation.

The approach these scholars take to social boundaries is illustrative. Even though the groups studied were part of 20th century nation states, primordialist theories relied on spatial separation and strict endogamy to explain the maintenance of boundaries in the idealized cases upon which they built their hypotheses. Abruzzi and colleagues (1982), for example, argue that speciation in ecological niches is the best analogy for ethnogenesis. The analogy explicitly contends that ethnic groups more efficiently organize people, and thus encourage and support stable ethnic boundaries. To explain the fact that inter-ethnic competition sometimes led to violence primordialists point to outside events that cause friction between groups (Stack 1986). For example, a change in climate could change the altitude in which pastoralists graze their animals, leading them to lower elevations where they may encroach on agriculturalists. Certain evidence, like the fact that ethnonyms commonly denote primordial kin connections, have been taken as evidence that these ties are truly deeply embedded (Meyer 1987). Instrumentalists point

[5] Some scholars use the term primordial descriptively to refer to one type of social tie among many. Geertz (1963), for example, uses the term primordial to refer to certain kinds of social attachment, rather than using it to explain the emergence or maintenance of difference.

out, however, that if outside stimulus can adequately explain boundary disputes, perhaps historical contingencies such as climate, technology, and even more ephemeral events can adequately explain all aspects of ethnic groups, as the instrumentalists argued.

The instrumentalist viewpoint shifts focus from an idealized situation where ethnic groups maintain efficient separation, to an idealized situation where multiple groups maintain efficient contact. The approach can be traced to the work of Edmund Leach, who illustrated a cyclical pattern of shifting sociopolitical and ethnic identification among the Shan and Kachin living in the highlands of Burma near the Chinese border in his book *Political Systems of Highland Burma* (1954). Leach's work depicted the assimilation of lowland peoples by highland Kachin ethnic groups, and the way that the political organization of Kachin societies (and thus the 'traits' that described the ethnic group) oscillated between hierarchical and egalitarian. The instrumentalist approach to ethnic boundaries, inspired by Leach, is most closely associated with the Danish anthropologist Fredrik Barth, who sought to emphasize that the 'primordial' aspects of ethnic groups, such as the biological relatedness of their members, their shared cultural values and networks of communication, were *results* rather than causes of the existence of the ethnic group itself (Barth 1969a). For Barth and other instrumentalists, ethnic identity was both chosen and signaled, and this process of overt affiliation fulfills a political purpose that precedes shared ancestry or ecological niche. Thus, aspects of shared ancestry or ecological niche are correlates of ethnic identity. For example, when Barth studied the Pathan ethnic group in Afghanistan and Pakistan, he looked at the borders of Pathan territory, and saw how Pathan people could both expand their ethnic identity in areas where they dominated politically, and also leave it behind, in high population urban areas where they could not live out the ideals associated with Pathan honor (Barth 1969c). This indicates that for Pathans and other 20th century ethnic groups, the idea of an ethnic group, a political group that shares culture, language, and/or descent, itself spawns the creation of groups that claim this kind of solidarity (Appadurai 1996; Cohen 1985). In this formalist view, all that matters is the idea of the ethnic group as a category, not the content of shared traits.[6] This approach has been criticized by those who suggest it requires that members of ethnic groups are in some way insincere, or that leaders must knowingly manipulate group members (Bentley 1987:25), but it has ultimately proven durable in many contexts.

The way the instrumentalist model of ethnicity operates at social boundaries is again a valuable illustration. In fact, this approach spurred the development of boundary studies, because it exhibited the fact that boundaries, often far from political capitals, were the location for the political negotiation of identities (Donnan and Wilson 1999; Johnson et al. 2011). In terms of the overall effect of ethnic group articulation at social boundaries, early instrumentalists and primordialists both assumed that ethnic group divisions increase complexity and efficiency of a regional system, as a type of social division of labor. It was the appeal of this efficiency that pushed inter-ethnic systems to create boundary maintenance mechanisms: standardized differences within the group (stereotyping), and stable cultural characteristics. Most important to ethnic boundary maintenance was "a systematic set of rules governing inter-ethnic social encounters" (Barth 1969b:16). This means “stable inter-ethnic relations” presuppose, first, prescriptions governing situations of contact, second, articulations of different ethnic groups in specific sectors, and third, prohibitions on inter-ethnic interaction in other sectors. The problem with this approach is the way it relies on abstract rules and norms, and imagines efficiency plays a role in the creation and maintenance of ethnic groups. Thus, the problem with instrumentalism

[6] It is for this reason that Fried (1976), Gellner (1983) and Scott (2009) assert that states make tribes/ethnic groups because it is a more legible way for them to articulate with groups that otherwise seem acephalous, shifting, and complex.

in its early form is not the idea that ethnicity is ascriptive, political, and contextual, it is the fact that early instrumentalists viewed ethnic groups as social structures made of abstract rules and norms, in the mid-century tradition (Ortner 1984:146).

By showing the flexible, shifting nature of ethnic groups spatially and temporally, the instrumentalists successfully showed that neither ethnic groups nor their boundaries are 'natural' in a causal sense. Nevertheless, they were most often *experienced* as primordial, or emergent and their boundaries often coincide with geographical features (Geertz 1963). The best way to reconcile this discrepancy is through concepts derived from practice theory (Ortner 1984). Though in the archaeological literature the term Chachapoya usually refers to the entire area between the Marañon and the Huallaga, scholars have noted possible sub-structure within the region (Church and Guengerich 2017), specifically in mortuary style (Kauffmann Doig 2013; Nystrom et al. 2010), ceramic styles (Reichlen and Reichlen 1950), phenotypic traits (Nystrom 2006, 2009), and possibly diet (Koschmieder 2012; Toyne et al. 2020). These patterns could reflect social boundaries within the broader Chachapoya area, but it will require a holistic approach that considers how they are used and enacted to accurately describe their contours.

3.1.3 A Practice model for social boundaries

The French social scientist Pierre Bourdieu created a theory of the relationship between social structure and habitus, or the dispositions that generate and structure practices (habitus) and social interactions that lead to emergent social rules, mastery of tasks, or collective organization (Bourdieu 1977:72). Because social structures emerge from habitus, they are both structured by prior actions and creating structure for current and future actions. This approach has three aspects that appeal to archaeologists. First, practices that make up habitus can be reasonably expected to impact the archaeological record, and second, habitus from all domains of life can be relevant to the creation and reproduction of social structure, and third practice theorists expect that the constant recursive iterations of habitus allow for changes in social structures through time (Ortner 1984; Sahlins 1985; Sewell 2005). The mechanisms and processes through which practice changes social structure constitute the broad array of studies of agency and change through time (e.g., Beck Jr et al. 2007; Gero 2000; Pauketat 2001; Robb 2010).

Some claim that practice theory combines the strengths of primordial and instrumental approaches to ethnicity (Bentley 1987; Janusek 2004; Jones 1997; Voss 2008). It is more accurately described as a way of modeling instrumentalism at the level of individual experience. The articulation with practice theory allows the instrumentalist approach to escape reliance on the mid-20th-century concept of norms with which it was originally associated. The norms concept included the idea that categories like ethnicity are adopted to increase overall social efficiency, and the added implication that most members of an ethnic group are dupes of the elites who manipulate the symbols of membership. Practice theory helps in explaining "the affective focus of ethnic identity, its multidimensionality and context sensitivity, and its symbolic formulation" (Bentley 1987:39) because it looks at how social structures create dispositions toward self and others through practice. Practice theory also sees social structure (what Ortner (1984:148) refers to as "the system") as one entity that includes all domains of life, so it is not possible to identify one political system separate from an economic or religious system. Overall, however, the instrumentalists' central claim is unchallenged in the shift to a practice theory approach. Social scientists who study ethnicity from a practice theory perspective maintain "a concern with the role of ethnicity in the mediation of social relations and the negotiation of access to resources, primarily economic and political resources" (Jones 1997:72) just like instrumentalists. They did shift the search for the intersection of ethnicity and political and economic resources away from self-consciously ‘political’ activity, and toward everyday actions, such as agriculture, cooking, or household crafting—the activities that make up *habitus* (Dietler and Herbich 1998; Stovel 2013).

3.2 Creating borderlands at the local scale: Interaction and alterity

The discussion of practice theory of social identity established that boundaries are created by the push/pull factors of interaction and boundary maintenance: for example, in Apolobamba, along the eastern Andean slopes in Bolivia, highland and lowland groups frequently met to trade with neighbors—the push of interaction. The Inka empire incorporated the region, but during the early Spanish period it was outside the reach of the colonial administration, and the Apolista ethnogenesis emerged from this new period of political opportunity—when they controlled access to both missionary goods and lowland trade networks (Dudley 2011). These processes are emplaced, meaning that they occur in certain places and at certain times, and thus must be understood as the product of many discrete local events, not as ideals or symbols imposed from cultural centers. Frequently, events such as feasts, religious rituals, or trade fairs are where societies express ideas about who they are. These practices can involve any or all members of society, and not only reflect but actually *produce* society’s beliefs about itself and the material symbols of those beliefs.

3.2.1 Emplacing interaction: Ritual and feasting

To reiterate, a practice model of ethnicity involves both regular interaction with neighbors, and processes to maintain separate identities in those meetings: both pull and push factors. In this section I will talk about the pull factors bringing people together, and the events most frequently associated with them: feasts. Interaction—defined as practices that bring together people and things across social boundaries—could conceivably stretch from a community feast that brings together people from different families, ages, and occupations, all the way to a global network of market exchange that brings an electronic keyboard from South Korea to an aspiring musician in the Amazon. In prehispanic South America there is little evidence for formal marketplaces, so archaeologists hypothesize that most interaction occurred informally or within a ritual context (Hirth and Pillsbury 2013), and thus I focus on the communal gathering as the locus of interaction. A communal gathering is here defined as a ritualized event attended by members of one or more social groups that incorporates special foods, drinks, or activities (sensus Bray 2003a; Dietler and Hayden 2001; Kaulicke and Dillehay 2005; Spielmann 2002). In small-scale societies like the study area, a relatively small proportion of people actually traveled over long distances, but people were not ignorant of their place in the wider world. They understood it through stories and objects that were exchanged with other people, most often at inter-community gatherings. To fully understand the way networks of exchange and interaction connected different regions and groups, it is important to understand how people mediate and experience their connections with the local and non-local worlds through gatherings. This is what Nancy Munn refers to as a "general anthropological problem involving the means by which relatively distanciated social worlds, events or relations emerge within the experience of one's immediate world" (Munn 1990:1).

Communal gatherings and interregional interaction are often linked, with the former serving as nodes that articulate regional exchange systems (e.g., Dillehay 2013). Communal gatherings (e.g., feasting, trade fairs, public ritual, etc.) can be opportunities for peaceful exchange and interregional interaction. Feasting, as the enactment of social solidarity in Amazonian societies, plays an important role in inter-society relations. A feast of some kind almost always accompanies visits between members of different settlements (e.g. Gregor 1977; McCallum 2001; Siskind 1973). These range from brief and relatively informal visits occasioned by a brief surplus of meat (McCallum 2001), to formalized visits that conform to a ritual calendar (Heckenberger 2005). In the Great Lakes region of North America, the Calumet ceremony served as a valuable template for mediation, as many groups became displaced by the political and economic impact of colonization and the fur trade (Blakeslee 1981; White 1991). As Barth emphasized (Barth 1969a), meetings between different groups often had significant risk attached, so the structure of the encounter, feast, or ritual mediated possible differences among the participants.

The spaces in which communal gatherings occurred also structure and are structured by the variety of activities they host (e.g., Lefebvre 1991; Moore 2005; Tsukamoto and Inomata 2014). In the Andes, certain patterns of public space can be associated to large and small-scale ritual or commensal activity (Makowski et al. 2005; Moore 1996a). These places allow participants particular vistas, certain scales of communication, protection from sun, proximity to food preparation, and space for dancing or competition (e.g., Cobb and Butler 2016; Goldstein and Sitek 2018; Helmer and Chicoine 2013). Even broader, entire sites sometimes reflect the interaction of multi-ethnic constituents. Lightfoot and colleagues (1998) identify 'emplaced' interaction at Fort Ross, in northern California, largely through attention to daily practices like food preparation, trash disposal, and overall site layout. The fort was a multi-ethnic settlement, home to native Alaskans, native Californians, Russians, and Creoles, and the authors illustrate how different groups' principles appear to have governed different spheres of social life. Though communal gatherings themselves were special occasions, they had a lasting effect on the community and landscape.

In most exchange systems, interaction creates social bonds that endure through time (e.g., Appadurai 1986; Mauss 1990), and it is in communal gatherings where those bonds are most visible. In a political-economy sense, commensal hospitality binds exchange partners, relatives, or political leaders. The circulation of valuables through and between regions (Hayden 2001:69), indexes distant relationships and serve as indicators of status (Clark and Blake 1994; Helms 1993). Feasts and rituals associated with visiting emphasize the importance of interregional relationships to the rest of the social group. This is true in both the upper Amazon and in the Andes, the two regions most relevant to this study. In the northwest Amazon, for example, important rituals attend to visits among neighbors and affines. Most visits between separate groups, whether they come from other members of the same phratry, or affines, are occasions for ritual festivals (Jackson 1983:202). *Dabucurí* are festivals that mark relations between affines and involve an exchange of smoked meat or fish (from the guests) for beer (from the hosts). The festivals require investment in preparation: before these meetings take place, sufficient quantities of chicha and food must be prepared, as well as adornments to be worn during the ritual. As a repetitive and cyclical practice, the habitus of feasting both recalls previous events, and reinvents them, and this is undoubtedly one reason why food and identity are so intertwined.

Communal gatherings often provide opportunities for societies to “perform” themselves, in the sense that intangible ideals of community identity or organization are given physical expression through the food eaten, the vessels used, and the layout and timing of the events (Goldman 1979; Inomata 2006; Mills 2007). In many Amazonian societies feasting is associated with important rituals at the center of religious life (Clastres 1998; Conklin 2001; Fausto 2007; Heckenberger 2005). In post-contact indigenous groups living on the edges of national society in Brazil, for example, feasting is the only vestige of ritual that remains (Sáez 2004). Foodways are the most commonly cited index of social group identity (e.g., Bray 2003a; Dietler and Hayden 2001; Gumerman 1997; Lightfoot et al. 1998). Feasting, as an enactment of social roles, is key to incorporating the presence of outsiders into the local group. Indeed, the distance between societies are often described in terms of food practices. For example, Carib-speakers are derided by Arawakan-speaking Mehinaku: "they eat frogs and snakes and mice," and are seen as less human, in certain ways, than monkeys (Gregor 1977:302). True kinsmen, however, eat each other's food (Gregor 1977:265; McCallum 2001:97; Murphy and Murphy 2004:93; Siskind 1973:120). Ritual ceremonies often acquire legitimacy or import from the presence of individuals from neighboring settlements. Funeral ceremonies are necessarily intertribal. However, at festivals ceremonial exchange occurs, and men especially abandon moderation and consume "soul food": tobacco, beer, and coca (Hugh-Jones 1979a:170).

Communal gatherings bring people into contact with people and objects that illuminate the social horizon and connect them with other places and times. Ritual feasting creates the world in the image of the ritual ideal. In northeast Papua New Guinea, where Munn (1990) studies the kula inter-island exchange system, certain valued kula objects are exchanged to bring participants into a system including past and future exchanges. In the Amazon, feasts accompany life-stage rituals such as in the *kuarup* ritual cycle of Xinguano society (Basso 1973; Carneiro 1993; Heckenberger 2005), the *kachanaua* of Cashinahua society (McCallum 2001) and the "big drink" in Shipibo-Conibo society (DeBoer 2001). In these societies, gender is not fully achieved until the relevant ritual celebrating puberty is carried out (e.g. DeBoer 2001; Heckenberger 2005). This aspect is illustrated in a southern Andean ethnographic context by the concept of "t"aki," which combines reference to a pathway to travel, an oral narrative, or to a sequential fiesta sponsorship career (Abercrombie 1998: 320). Even in societies where prestige is understood primarily in intangible terms, as ritual proficiency (Overing 1993), feasting connects the tangible (resources) and intangible (schemas). Similarly in the Andes, feasting was often marked by differences in quantity or quality of the material consumed, rather than ingredients (Bray 2003b; Hastorf 2003). Hosts of feasts needed proficiency to know how to set apart feasts with presentation and ritual.

Thus, communal gatherings bundle together many important practices and significations: involve peaceful mediation; structure public space; create bonds; perform identity; and connect people and things through time and space. These events are especially challenging and potent in borderlands zones (Tilly 2004) where interactions are facilitated using widely shared concepts that span multiple regions, and through locally emplaced ceremonies or locally produced goods that incorporate them (Carr 2006:620). For example, in northwest Mexico Casas Grandes contexts, communal gatherings associated with built spaces such as ball courts were nodes of local and supra-local interaction networks, eventually connecting Mesoamerica and the US Southwest (Minnis et al. 1993; Minnis and Whalen 2015; Whalen and Minnis 1996, 2001). Ethnographic studies in Amazonia show how non-hierarchical societies develop complex and wide-ranging systems of ritual and exchange, suggesting that the centralization of leadership does not predict the extent of the regional system. As illustrated in Chapter 2, people, materials and ideas were transmitted in huge interaction networks that connected the lowlands with the *montaña*, highlands, and Pacific coast.

3.2.2 Emplacing boundary maintenance: Warfare and alterity in theoretical context

This practice model of ethnicity also requires processes by which neighbors maintain separate identities even as they interact frequently. The material manifestations of boundary maintenance have been sought primarily through evidence of buffer zones between groups, disjunctures in material culture, and in cultural conceptions of alterity as shown through depictions of neighboring cultural groups.

At the regional scale, archaeologists have used a combination of historical and archaeological evidence to argue that hunter gatherer groups maintained buffer zones (Bayham et al. 2017; Boozer 2013; DeBoer 1981; Valdez 2009). This is relevant to this study because some of the groups to the east of Wimba may have been hunter gatherer groups. Hunter gatherer groups presumably support themselves with similar resources as their neighbors, so maintaining a buffer zone between groups would prevent unnecessary conflict and leave a refuge area that would help maintain balance between people and wild resources. In some ways this can be thought of as a version of the larger borderland concept, scaled down for smaller societies (Harry and Herr 2018). Understanding buffer zones in material terms is simple in theory but very difficult in practice (Hastings 1985), because fine-grain regional survey data is difficult to obtain in many ecological zones. In theory, buffer zones should present lower density of archaeological remains per square kilometer, in between adjoining areas with higher density. While some areas have shown this (Peeples and Mills 2018), more often areas that are difficult for archaeologists to survey have been assumed to be less densely populated. Furthermore, the existence of a buffer zone itself does not reflect the social relations, or lack thereof, of the groups living on either side. Thus, despite the fact that this approach to boundary maintenance has likely occurred on occasion, it will not play a role in the present analysis.

Disjunctures in material culture are often interpreted as evidence of socio-cultural boundaries as well (e.g., Janusek 2002; Stark 1998; Stoner 2012). By disjuncture we refer specifically to a process by which a group enmeshed in a network removes itself from one of the links. Appadurai (1996) points out how globalization has not homogenized culture the way some theorists and models imagined, but that the interwoven social networks of (modern) life create more opportunities for cultural heterogenization. Drawing from Appadurai, Stoner and Pool (2015) argue that assemblages of ceramic wares, architecture, and obsidian could show variation in how external influences are negotiated across space. Areas possessing one or another style of ceramic, to choose the most common example, should not be assumed to lack connections, but rather to have made the active choice to reject these materials in favor of others. I will show how a similar disjuncture in the expected distribution of ceramics in the *montaña* reflects this process at Wimba.

In anthropological contexts the word alterity--referring to the state of being other or different—is the schema through which a social group defines what they are not, and how they relate to what they are not. It is the embedded relation between the subject and the other that makes the concept more meaningful than a simple "us vs them" distinction. This is especially relevant to studies, like this one, between the Andes and Amazon, though it can be applied cross-culturally (Lau 2013; Sharratt 2017). Alterity has grown in importance in recent anthropological scholarship worldwide, though anthropologists working in lowland South America first argued for the importance of alterity—and links with alters—in Amazonian societies (Henley 1996; Taussig 1993). In these societies the concept of alterity is central, not just because people are concerned with maintaining the social boundaries of their community, but because they are compelled to go beyond them. The 'other' or 'alter' can be an affine, a person from another social group, an animal predator, or a prey animal like a tapir, and by extension all 'others' have the social value of affines (Londoño Sulkin 2017). Thus the incorporation of 'others' through the process of predation or acquisition is necessary for the propagation of reciprocity, exchange, and renewal (what Århem calls the eco-cosmology (1996:198)).[7] Even if the ethnographic inspiration for the concept came from another continent, alterity would be relevant to the present study because it involves identity, exchange, and interaction among small-scale groups. In this case it is doubly relevant because the origin of the concept is with the descendants of the societies of the interfluvial Amazon, which includes the *montaña* shatter zone, thus supporting the idea that these concepts could have been present 500 to 1000 years earlier (Londoño Sulkin 2017; Santos-Granero 2009). I will briefly illustrate the way alterity has been conceived of as part of an Amerindian world view that was shared by the inhabitants of the interfluvial or *terra firme* lowlands of South America.

In the diverse mosaic of language, cosmology, and political organization that is the lowland Amazon, the fact that a central aspect of ones cosmovision is itself a mode of engagement with those who do not share your cosmovision has a straightforward functional logic (Santos-Granero 2002, 2009). Santos-Granero attributes the presence of these ideas throughout Amazonia to the fact that modern indigenous populations are descendants of *terra firme* Indians, groups who were navigating social life in the margins of states and complex chiefdoms in the highland Andes, and in the floodplains of the Amazon and Orinoco basins. As I illustrated in the previous chapter, groups in the shatter zone of the *montaña* were "engaged in asymmetrical links of warfare, captive slavery, and trade with such complex societies, the *terra firme* peoples must

[7] Alterity has emerged from Amazonian studies and had a broad impact on anthropology as part of the ontological turn. Anthropologists recognized how they participate in the creation of 'alters' through their scholarship (Clifford and Marcus 1986). Indeed, defining an 'other' and how to relate to him is almost precisely the job of the ethnographer. The ongoing development of alterity as it reflects upon the practice of cultural anthropology (Graeber 2015; Viveiros De Castro 2012) is outside the scope of this present work, however.

have often been confronted with the dilemma of losing their identity or losing their lives" (Santos-Granero 2017:494).

Alterity in the small-scale societies of the lowlands is a force to preserve cultural differences because they are valued for their differences. The idea that alterity is central to an Amerindian world view has been promoted most through the work of Eduardo Viveiros de Castro, though it is based upon earlier works (Descola 1994; Gow 1991; Lévi-Strauss 1963, 1966; Overing 1986), and its use has been expanded considerably (see critique in Graeber 2015). Based on synthesis of Amazonian and arctic ethnographic data, Viveiros de Castro proposes that alterity is central to Amerindian views of development, such that the identification, cultivation, and ultimately consumption of alters was key to health and vitality. The other contribution of this scholarship, the worldview called perspectivism, relates to this as it shows how the Arawete believe that other animals see themselves as humans, and interact with them via hunting practices as well. For the Arawete people, Tupi-speakers in southern Brazil at the heart of his ethnographic work, hunting was the metaphor that best expressed interaction with alters. For example, Vilaça (2002) describes how alterity affects the Wari' process of childbirth. The Wari', in western Amazonia, have a process of couvade that applies alimentary restrictions to all parents of the newborn, which includes everyone who had sex with the mother while she was pregnant. These restrictions are necessary because all who have contributed to the baby are still connected, and the foods the parents eat will influence the characteristics of the child (Vilaça 2002:357). Ideas about alterity influence this process--the construction of a new child--because the animals consumed by the Wari' family must have the matching 'spirit,' capable of constructing a new human. If the wrong animals are eaten, and thus incorporated into the baby, the child will have animal characteristics. "The new-born is made human by means of the production of its body as a human body in contraposition to animal bodies" (Vilaça 2002:347). Though I hesitate to attribute these alterity beliefs to all Amerindians, like Viveiros de Castro does, it is widely acknowledged that similar modes of relating to others are observed among most language groups of lowland Amazonia today (Henley 1996).

The ethnographic examples so far do not involve material objects directly, but alterity can be expressed materially as well. Specifically, artistic depictions of neighboring groups shed light on relations between them, at the scale of individual artifacts. Weapons for hunting and warfare—often indistinguishable—also represent alterity. For example, Lau (2012:17) argues that one could study ancient Greek art to try to reconstruct Troy, Trojan-ness, and the Trojan war. Even without the Homeric epics, much of the relationship between these groups could be reconstructed from art. Lau attempts to analyze the role of alterity in the Recuay culture (ca. 1 - 700 CE) of the north central Andes, a time when warfare was endemic and figurative art depicted different ethnic groups (2012; 2013). He argues, based on settlement patterning, weaponry, trophies and iconography that the "mediation of ambiguous others" was central to the chiefly process for aspiring Recuay elites. Ultimately, Lau's argument brings a potentially fruitful corpus of ethnographic information to bear on Andean archaeological materials. There is no concrete evidence that suggests that the Recuay materials uniquely reflect Amerindian alterity, relative to other archaeologically known cultures of western South America. Lau stops short of claiming that the geographical proximity of the Amazon indicates cultural continuity between the Recuay and contemporary groups. Nevertheless, the essential insight, that how we define what we are not reflects what we are, is worth applying, especially in regions with a diverse mosaic of small and medium scale social groups.

Though they have often been treated as a mass by neighboring states, diverse mosaics of small social groups are not reflective of a lack of development or complexity, but rather historical processes of both external pressure and autochthonous development. These areas have been shown to involve communal events to facilitate interaction and boundary maintenance. For example, the *pays d'en haut* in what is now the Great Lakes region of Canada and the USA was for 150 years composed of Algonquian refugees from conflict with the Iroquois and their British allies (White 1991). For the *pays d'en haut*, the task of mediating relations between the diverse constituent communities was the principal challenge for holding the region together, and it was accomplished by allowing each group, to maintain political independence on the village level. Gift exchanges and the political ritual of reconciliation called the "calumet ceremony" allowed each village to create and maintain ties to neighbors and strangers without subjecting themselves politically (White 1991: 15). Like central Africa (Wolf 1991), the colonial American southeast (Ethridge), and Zomia (Scott 2009), the *pays d'en haut* illustrates the degree to which even small autonomous political groups are connected to large-scale interaction networks and affected by historical forces. When I use the term boundary maintenance, it is to delineate a set of practices that recursively create and continue social groups as separate from other neighboring social groups. As Lightfoot and Martinez (1995) point out, even in seemingly clear-cut colonial situations, boundary maintenance did not result in segregated "homogeneous populations of newcomers and indigenes." Rather, given the fluidity of fracture zone situations, we should not expect sharp spatial boundaries. We also must be careful that certain objects have different meanings in multi-ethnic scenarios (Lightfoot and Martinez 1995:477). These theoretical discussions attest to the complex forms of boundary maintenance processes and also prompt questions about different forms of political organization that arose as part of these endeavors—a topic I explore further below.

3.3 Egalitarian politics: The anarchic *montaña*

As discussed in Chapter 2, the northeastern *montaña* was likely not part of a centralized Chachapoyas state or complex chiefdom prior to the arrival of the Inka. The practice theory model for ethnic identity illustrates how inhabitants would have expressed their social position through interaction and boundary maintenance embedded in practice. With regards to sociopolitical organization, ethnographic and ethnohistoric studies of the interfluvial regions of Amazonia show that anti-hierarchical practices are central to many societies (e.g., Brown 2007; Clastres 1977; Ferguson and Whitehead 1992; Santos-Granero 2011). I propose that anarchistic principles may have undergirded interaction and boundary maintenance practices in *montaña* societies, helping create and maintain a society without a recognized organization beyond individuals and kin groups (Kroeber 1925:830). The chronicler Garcilaso supports this idea in his description of the groups east of the Inka empire as:

> "independent communities, without order or government. They had no villages, worshipped no gods, and had no human acquirements. They lived like beasts, scattered about the countryside, the mountains, and the valleys, slaughtering one another for no particular reason, recognizing no lord or master, and having no names for their provinces" (Garcilaso de la Vega 1989 [1609]:336-337)

This framework acknowledges that small-scale, egalitarian societies do not organize themselves through inaction or ignorance, but rather shared principles that encourage autonomy, network organization, high costs for authority, and spatial decentralization—principles that scholars recognize as anarchistic[8] (e.g., Angelbeck and Grier 2012:551). This is not to argue that the *montaña* as a whole was always anarchic, but to bring anarchistic practices—activities with the effect of leveling hierarchy—within the frame of archaeological investigation in order to better understand this complex area that undeniably possessed key traits (environment, agriculture, kinship system, material culture), that suggest these practices could have been important.

Alternative explanations for the political organization the *montaña* are insufficient because they do not account for the interregional connections that crossed the region they rely on an assumption of poverty and isolation. The first designation for the constituent groups of the region was 'tribes' organized by direct kin relations (Steward and Metraux 1948). These researchers placed *montaña* groups on an evolutionary ladder below the chiefdoms of the Chachapoya, or Arawak and Panoan groups that dominated rivers (Hill and Santos-Granero 2002). The primary problem with these prior depictions of the sociopolitical organization of *montaña* societies is the implication that these societies were isolated and unaware of the advances that have occurred elsewhere, and thus were organized according to a 'default' egalitarian tribal organization. As diachronic studies of the region are now showing, the default egalitarianism perspective is ahistorical and limiting. Amazonian ethnographic and historical research parallels the expanding corpus of research in SE Asia showing that people living in societies that state call primitive, are not and have never been holdovers from a pre-state past, ignorant of the practices or values of people in modern states (Baud and Van Schendel 1997). In

[8] A note on terminology: Though the usage is not always consistent, in the anthropological and archaeological literature, 'anarchistic' is most often used to describe anti-hierarchical political practices, particularly those occurring before or outside the influence of 19th century anarchists (e.g., Rathbone 2017). 'Anarchy' and 'anarchic' describe situations without a central controlling authority. I use 'anarchism' and 'anarchist' more narrowly for the principles or practices inspired by the scholarly and political legacy of 19th century political theorists.

South America, Amazonia is sometimes contrasted with a simplified version Andean culture, such that anyone in the *montaña* who spoke Quechua is assumed to share a basic suite of Andean characteristics differentiating them from their neighbors (Jamieson 2005). As discussed in Chapter 2, highland groups saw the *montaña* as a place of escape, so we should not assume that social practices were perfect replicas of highland antecedents even if we could prove that a group originated in the highlands. Anarchistic political practices helped some inhabitants of the *montaña* maintain egalitarian societies as population increased, and chiefdoms and states emerged in neighboring regions during the LIP. It is very likely that anarchistic groups lived in the *montaña*, the question is how widespread were they, and how could anti-hierarchical or anarchistic practices be identified archaeologically? I will briefly outline autonomy, decentralization, justified authority, and network organization.

In many cases, mountainous landscapes are advantageous for group autonomy, especially relative to valley or plain areas. What Scott (2009: 178) calls 'escape agriculture' refers to modes of subsistence that allow individuals and small groups to evade state control. One example he describes comes from 20th century Burma, where the Karen developed 'hiding villages' in the highlands away from encampments of the military (Scott 2009:181). The proximity to multiple ecological zones meant that each family group could still access many of their fields and subsistence necessities, which had to shift from rice to maize, cassava, sweet potatoes, and cardamom bushes[9]. In the early colonial *montaña*, administrators complained of the depopulation of Spanish villages, because in the *montaña* the same opportunities for escape were appealing. When Bishop of Trujillo Toribio Mogrovejo inspected the Mendoza valley at the end of the 16th

[9] Maize, cassava (more frequently called yucca or manioc in South America), and sweet potatoes were also grown in the dense vertical landscape of the late prehispanic montaña (Bush, Mosblech, et al. 2015; Cummings 2002).

century he encountered whole communities that had gone away from planned villages and "into the *montaña*" for fear of attack (Mogrovejo 2006:124). The fact that the subsistence base and the landscape allowed for this kind of 'escape' meant that individual households could exercise significant autonomy relative to those living in valleys. Autonomy is not a correlate for isolation or marginalization, however, but instead a political choice made and maintained by its constituents.

Even though individual families could remain autonomous when it came to subsistence, larger groups still often lived together in villages and other regional groups. One of the main ways that groups maintained a non-hierarchical or anarchic social structure in larger groups was through decentralization and heterarchy (e.g., Crumley 1994). Heterarchy is a complex system where elements "have to potential of being unranked (relative to other elements) or ranked in a number of ways, depending on system requirements" (Crumley 1979:144). The way this is manifest is the power of different social sub-groups are counterpoised, and fluid. In modern Peru, people living in the *montaña* are less constrained by communal ties to land than people living in highland communities, which meant that sociopolitical coercion was less effective (Skar 1994). Scholars of performance theory point out how even in hierarchical societies, the effectiveness of leadership requires proper performance of public obligations such as ritual and commensal feasting. The ultimate punishment for ineffective leadership that commoners can inflict is to not attend the next gathering (e.g., Dungan and Peeples 2018; Hull 2014; Inomata 2006). The presence of other small societies and difficult terrain made it easy to leave a settlement because of a dispute or dissatisfaction with a communal decision, and often neighboring groups were not hesitant to add new members, as has been seen in SE Asia (Leach 1954; Scott 2009:266), North America (White 1991), and the NW Amazon (Hornborg 2005).

This option is most often referred to as the freedom to "vote with your feet." Though the societies of the *montaña* were not subsumed within a larger hierarchical sociopolitical organization, it does not follow that any particular site is irrelevant to understanding regional scale patterns.

Groups of relatively autonomous and decentralized families and kin-groups present a challenge of leadership. One of the biggest differences in an anarchic approach to leadership is the idea that in 'societies against the state' there are heavy costs associated with leadership that prevent leadership positions from growing into permanent hierarchies. In the most famous formulation, Pierre Clastres argues that the majority of Indian societies possess an "anarchic separatism" maintained by the requirements placed on the chief to mediate disputes, redistribute good, and use oratorical skills for the benefit of all (1977:28). The requirements of leadership are almost impossible to fulfill for long, and it is often not seen as a desirable position, and certainly not a position that will lead its holder to lasting power over his compatriots (1977:44). Even if he fulfills these requirements, the chief only has coercive power in the event of external threat. Temporal cycles may constrain leaders. Many societies have long histories of seasonally shifting social structure that involved complex hierarchies that did not calcify into permanent hierarchical institutions (Dillehay 2004; Wengrow and Graeber 2015). For example, the Nambikwara in Brazil live in small family groups during the dry foraging season, but consolidate into dense villages during the wet season, and the roles of chiefs change in each setting (Wengrow and Graeber 2015:606). These strong constraints on leaders express the anarchic idea of situationally justified authority.

The way many small-scale anarchic societies structure interregional exchange also serves to undercut centralized authority, because individuals and kin-groups have more horizontal connections than vertical (hierarchical) obligations. Small scale societies who maintain autonomy can still work together when necessary, but the structure of those alliances is horizontal and limited by expectations for justified authority, mentioned above. Feasts involve connections to neighbors accessible by individuals and kin groups. Flexible kinship systems allow people to maintain horizontal links to kin living in other regions. In Northern California, for example, the shift from centralized patrilineal groups to more autonomous family groups with bilateral kinship was accompanied by an increase in trade in both status and subsistence objects (Bettinger 2015:183). This can also mean that a broad cohort has access to symbols of status or wealth, leading to what some call inverted-pear shape societies where the 'elite' are the largest group (Angelbeck and Grier 2012: 555). In the northwest coast of North America, Angelbeck and Grier (2012) argue that the increasing access to cranial modification—a symbol of elite status—among the Coast Salish is evidence of anarchistic leveling mechanisms. Anarchistic social principles suggest that despite the autonomy of people and communities, relational networks of mutual aid are still formed. This network is "not driven by minorities or authorities but rather is generated and structured by the needs of the people involved in negotiation with one another" (Angelbeck and Grier 2012: 551). Where many models of social organization rely on 'individual aggrandizers' (Hayden 2001) or the network connections of powerful individuals (Blanton et al. 1996), this way of looking at inter-community aid does not assume that it is being conducted for 'competition', or by self-interested agents (Wiessner 2002).

3.4 Chapter conclusion

The theoretical background outlined in this chapter serves to frame discussions that follow in succeeding chapters in several ways. First, I deploy concepts derived from instrumentalism, practice theory, and theorization of alterity to better understand how social identity was formed, reproduced, and transformed through time at the archaeological site of Wimba. By showing how social identity is embedded in practice, for example, I aim to show that everyday behaviors—site-scale activity—are how people understand their place in the larger region. Second, these theoretical concepts prove essential to my arguments on how social identity relates to larger social boundary processes in the *montaña*. Based on geographic location, architectural features, and recovered material culture, several lines of evidence indicate people at Wimba engaged in communal gatherings. As presented in this chapter, communal gatherings allow people to create and communicate their connections with outsiders, and conversely, ideas about alterity may have provided impetus for acquisition of the other either through exchange or violence. Together, these practices may reflect anarchic values that maintained *montaña* societies' autonomy in the LIP. The application of these ideas to the Peruvian *montaña* will help generate further research both there and in similar regions elsewhere. Finally, bringing together these bodies of theory and the regional background discussed in Chapter 2, the study of Wimba enables a critique of longstanding notions that lowland and highland Indians were mutually incomprehensible. Research into a single site is a foundational step toward a better understanding of the local processes of identity formation, and by extension, how those practices relate to regional and interregional social boundaries.

CHAPTER 4:

RESEARCH DESIGN AND ENVIRONMENTAL SETTING

4.1 Introduction

In the preceding chapters, I explained the theoretical and regional background of the Wimba archaeological project in order to outline the challenges to understanding highland-lowland interaction in South American prehistory. The overarching research goal of the Wimba Archaeological Project (Proyecto de Investigación Arqueológica - Wimba, or PAW) is to directly explore the evidence for Andean and Amazonian interaction at the interface of the two regions at a site likely to have locally mediated those connections. Given that most knowledge about Andean and Amazonian interaction during prehistory has been inferred from sources in the highlands and on the Pacific coast (see Chapter 2), the PAW project sought to 'emplace' these networks of movement and exchange of goods, people, and knowledge between the regions, by examining the interface itself. What were the pathways of movement in the *montaña*, what material correlates of interaction are present, how were they used at Wimba, and how might these have changed through time? This research design, thus, needed to address the challenges of documenting interregional interaction in an environment with significant obstacles and at a site where no comparable studies had yet been undertaken. Specifically, the first goal was to select a site that was similar to other sites in the Mendoza area, and that would be feasible for a small team to excavate. Second, the goal of the excavations was to be able to make intra-site comparisons between open spaces and structures, and between the large Platform 1 and the smaller Platforms 2-5. The project combines methods at multiple spatial and temporal scales to answer these questions. Exploratory spatial analysis, pedestrian reconnaissance, and targeted excavation were used to collect data in the field, and Geographical Information Systems (GIS), a relational database, and the R statistical program version 4.0.5 (R Core Team 2021) were used to analyze the results.

In this chapter, first, I will address regional scale methodological issues. The geographical, geological, climatic, ecological, and paleoecological contexts of Wimba have helped construct the research design. Elsewhere in the *montaña*, the environmental context—the ground cover and steep topography—has limited archaeologists' ability to collect the data necessary to understand regional processes. Given these constraints, PAW attempted to overcome these limitations by targeted survey involving local experts. Considering the ecological context, I describe the regional reconnaissance undertaken prior to excavation. This explains how survey and spatial analysis overcame the difficulties of the *montaña* environment to collect region-scale data and illuminate how Wimba was selected for further investigation.

At the site scale, the project had to address three main objectives. First, I sought to understand the spatial variation of artifact deposition within the site. Specifically, did structures have evidence of habitation, such as ceramics used in cooking, grinding stones, spindle whorls? What activities occurred in the open spaces on the platforms? Did the largest open space on Platform 1 contain evidence of communal gatherings? If so, was the space kept clean and the evidence found nearby? Was there evidence of ritual adjacent to the large rock outcrop? We designed excavations in open spaces on all five platforms to understand possible public space, and we excavated structure interiors, as a comparative sample. Second, we were confronted with the essential task of descriptive analysis of ceramics, architecture, and other portable artifacts. Because Wimba is situated at the geographic edge of prior archaeological research, meaning no ceramic data has been published from the Mendoza valley, we do not have straightforward heuristics to attribute contexts or sites to different cultures and time periods. Additionally, because the *montaña* has not been extensively surveyed, the ceramic typology remains ambivalent (which helps explain why the boundaries of the cultural polities of the LIP are so poorly defined, as well). As such, this project approached the material culture at Wimba first with purely descriptive goals. The descriptive data was collected, stored in a relational database, and later refined with rigorous statistical methods. After these steps, comparisons were made to similar assemblages from neighboring sites, to help understand vessel function, cultural affiliation, and stylistic change through time. Third, we sought to understand when, and for how long, Wimba was occupied. Excavation by cultural levels was implemented to best evaluate whether Wimba was destroyed, expanded, or rebuilt. In Amazonas province, the Late Intermediate Period (LIP, 1000-1470 CE) and Late Horizon (LH, 1470-1532 CE) are the best-known archaeological periods. The LIP is marked by the emergence of the Chachapoya culture in western Amazonas, and the Late Horizon by the arrival of the Inka Empire (as reviewed in Chapter 2). Stratigraphy and ceramic analysis were the primary modes of distinguishing chronology at Wimba, a process which is described here.

The PAW project began in 2012, with initial regional survey in the Mendoza area of Amazonas province (Figure 4.1). This opportunistic survey was undertaken to document the variety of sites in the region, and to choose one site for further investigation. The bulk of the intensive investigations were carried out in 2016, between June and November, when the PAW team (between 5 and 9 students and professionals) mapped and excavated the site of Wimba. I directed the team with the co-Director, Lic. Willy Chiguala Villanueva, of Chachapoyas. In June 2017, a ceramic analysis season was completed, based in Leymebamba. Since 2017, analysis based on the database has continued. This methodology overview grounds the data and analysis that follows.

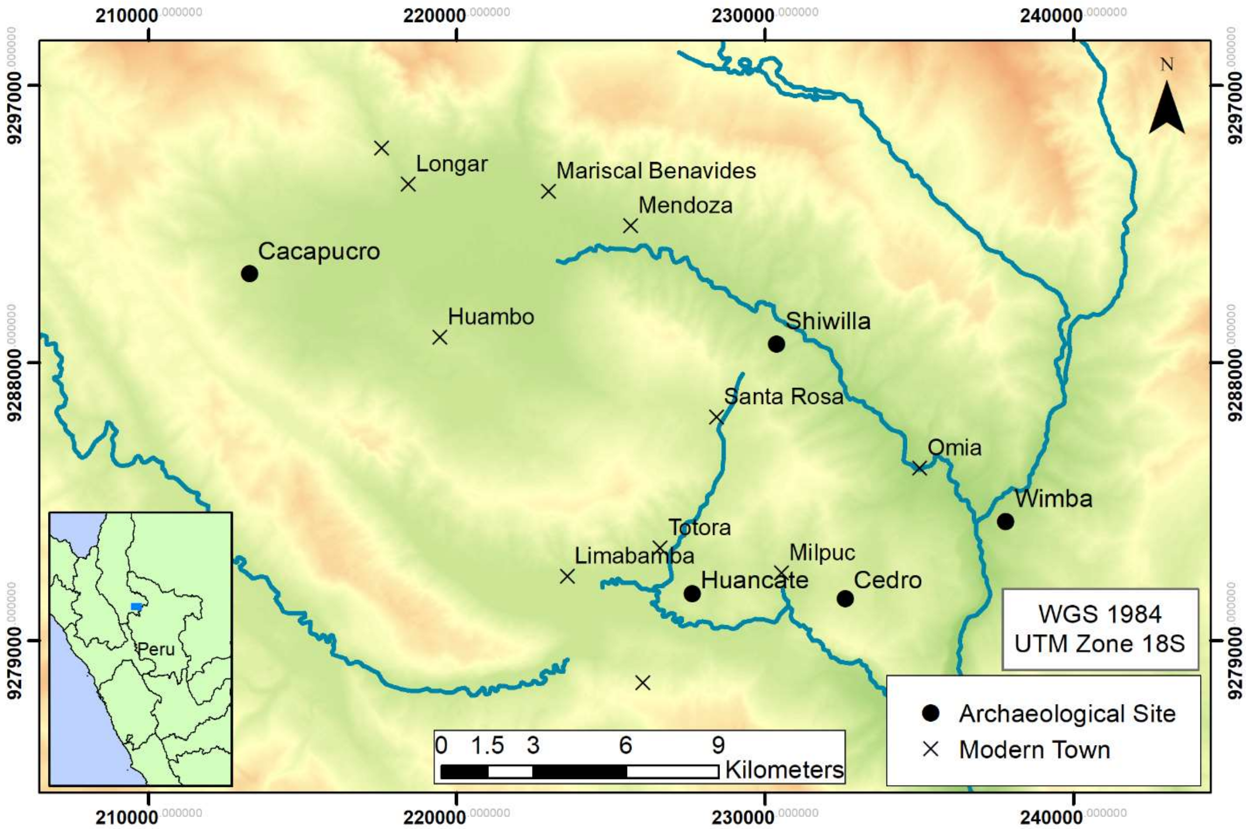

Figure 4.1: The Mendoza survey area

4.2 Geography, climate, and paleoclimate of the study region

I begin this section with a brief outline of the regional context. As Inkas, Spaniards, and archaeologists have attested, the *montaña* is a difficult landscape for newcomers. The combination of steep mountainous terrain, heavy rainfall, and often dense vegetation creates challenges for travel, but I do not intend to argue that the marginal status of the *montaña* is solely determined by geography, climate, or biota, or that the interrelationship between these factors has been static throughout history. The area also has advantages for controlling access to the lowlands, and growing mid-elevation crops. The following chapters explain in more detail with the human relationship with this environment, but here I outline the basic context.

Three valleys in the modern Peruvian departments of Amazonas and San Martin make up the greater area of interest for the present study: the Utcubamba valley, the Huambo valley, and the Mayo valley. There are almost 3000 meters in elevation change between the western edge of the Utcubamba valley and the Mayo valley floor, in the east. The area is made up of four partially interconnected ridges that trend from northwest to southeast. Geologically, the study region is part of the subandean zone (Jaillard et al. 2000; Pfiffner and Gonzalez 2013), where the rise of the Andean cordilleras created thrust faults to the east that expose millions of years of geological stratigraphy. That stratigraphy is primarily made of sedimentary rock created by marine and continental deposition during the upper Paleozoic, the Jurassic, and the Cretaceous (Castro 2010). The bedrock in the vicinity of Wimba is primarily limestone from the Chonta formation and quartzite sandstone from the Oriente formation, interspersed with mica, shale, and mudstones. Prehispanic architectural materials reflect the underlying geology of the region; the elaborate architecture of Kuélap, Gran Pajatén, and other Chacha sites is made of cut limestone blocks (e.g., Guengerich 2014).

The *montaña* landscape is geomorphically dynamic. Caves and sinkholes riddle the limestone bedrock. The most encountered archaeological sites by residents are prehispanic cave burials that make use of this landscape feature. One of the tributaries of the Huambo River spends a portion of its course underground, only to emerge and join the Huambo southeast of Wimba. The ridges and valleys of the *montaña* are shaped by two primary geomorphic processes: mass wasting and montane fluvial activity. Mass wasting refers to the landslides that occur frequently in the area, creating new cliff faces, or escarpments, and changing the course of rivers (e.g., Contreras and Keefer 2009). Montana soils are typically shallow, because they develop over rock, and are frequently disturbed by slope failure (Young and León 1999). Fluvial activity refers to the action of rivers to both erode and deposit sediment throughout the landscape. During the rainy season, *montaña* rivers carry massive amounts of material, even large boulders, leaving narrow floodplains strewn with what look at a glance like megalithic architecture. These geomorphic processes have been cited as one explanation for the prehispanic settlement patterns that cluster on ridgetops rather than valley bottoms (Guengerich 2018).

Despite its name, the department of Amazonas contains several ecological zones, not solely tropical rainforest. The landscape varies dramatically by elevation: upper elevations are cool and dominated by scrub grasses and often used as pasture, while lower elevations are hotter and dominated by tropical forest. There is a wet season between November and March and a dry season between April and October. The Utcubamba valley flows north-northwest to meet the Marañon, with temperatures averaging between 7 and 15 °C (Young and León 1999). The river takes its name from the Quechua word for cotton, *utcu*. The peaks of the ridge west of the Utcubamba valley rise to 3500 masl, while the Utcubamba valley floor is roughly 2000 m asl. As the elevation chart shows (Fig. 4.2), the valley is steep and 'v' shaped, and it is roughly 2000 km^2 in area. The amount of cultivable land near the river itself is minimal, but the 'shoulders' of the mountains provide fertile fields.

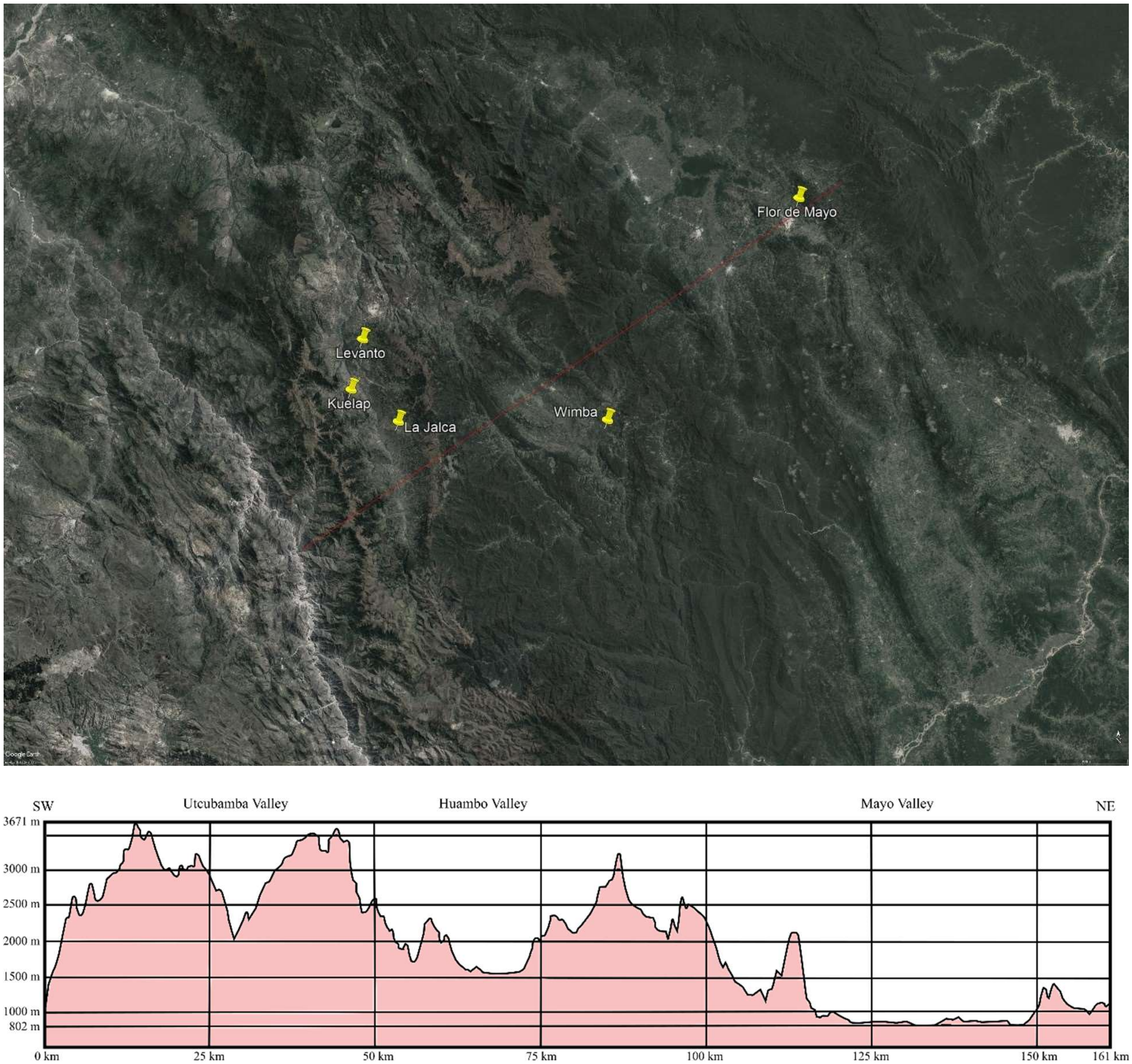

Figure 4.2: Elevation cross-section of the NE montaña study area, with valleys mentioned in the text labeled.

To the northeast of the Utcubamba valley, the Pishcohuañuna mountain separates the Marañon watershed to the west and north, from the Huallaga watershed to the south and east. The Huambo valley—part of the Huallaga watershed—is wider than the Utcubamba, but about half the size in area (1000 km^2). The peaks between the Utcubamba and Huambo valleys rise to 3000 masl, the broad Huambo valley sinks to 1200 masl, At the lower elevations (1500-2500 masl) average temperatures range from 15 to 19 °C. Mendoza averages 1000-2000 mm of rain annually. The Mayo valley also drains roughly 5,000 km^2 into the Huallaga River. The final ridge between the Huambo and Mayo valleys rises to 2800 masl before descending into the Mayo valley at approximately 800 masl. The Utcubamba and Huambo rivers are not navigable by boat. The Mayo river is navigable, however, rapids prevent direct canoe travel between the central Mayo valley and the Huallaga. In the Mayo valley, which is primarily below 1000 masl, average temperatures are 18 to 28 °C. There is an increase in temperature as you decline in elevation approximately 0.65 per 100 m (Johnson 1976). This brief overview of the region's geography and climate introduces the complex array of microclimates that, as described below, provide ideal environments for agriculture in some areas.

4.2.1 Ecological zonation and agriculture

The topography of the Andes mountains creates diverse, stacked ecological zones suited to different agricultural specializations, a fact that has become a central tenet in Andean studies. The classification of Pulgar Vidal (1981) has been especially influential (Zimmerer and Bell 2013). He divided the Andes into eight land-use zones determined by elevation, laid out symmetrically across the spine of the Andes mountains. While it is clear different staple crops grow at different altitude ranges, models like Pulgar Vidal's and those of other geographers and ecologists suggest that agricultural practices are more formalized and ecologically determined than ethnographic and archaeological data supports (e.g., Zimmerer 1999). A brief comparison of this general model with a localized study in the northeastern Andes illustrates the variability of ecological zonation in the Andes, which has consequences for the material correlates of regional and interregional interaction on the eastern slopes.

In Pulgar Vidal's classification, the eastern slopes of the Andes are considered the *yunga oriental*, like the mid-valley elevations on the western slopes (*yunga pacifico*), but with far more rainfall coming from the Amazon. From the perspective of one community in the eastern Andes, emic ecological zone classifications depend on their position relative to the home community, not just elevation. The best example of this scenario is that the *montaña* is defined as forest below 2500 masl, on the far side of the ridge. These classifications are especially relevant to new projects at low elevations in the *montaña*, such as this one.

The anthropologist Stephen Brush investigated the agricultural system of Uchucmarca 80 km southwest of Wimba (in the department of La Libertad). He produced an emic classification of the crop zones of the eastern Andes. Beginning in the Marañón valley, at the western edge of Chachapoyas, there is the *temple* from 800-1500 masl. This zone is located in the dry lower valley within the rain shadow, and people plant sugar cane, maize, fruits, manioc, cacao, hot peppers, and other commercial products here. The *kichwa fuerte*, from 1500-1900 masl begins at the edge of the rain shadow. This zone is subject to drought and is used to cultivate wheat and maize during non-drought years. The *kichwa* zone, from 1900-2450 masl, has moderate rainfall and mild temperatures. This zone has more cultivable land and a longer dry season; people grow wheat and maize here. The *templado* zone, from 2450-3100 masl, is a transitional zone between warmer and drier lower valley and the more temperate moist forest zone. It has a short dry season, and it is used to cultivate wheat, maize, and barley in the lower parts and some potatoes in the upper extent. Field peas are grown exclusively here. The *jalka* zone, from 3100-3500 masl, is associated with the cultivation of tubers and quinoa, as well as pastoral activity. *Jalka fuerte*, from 3500-4300 m has heavy rains with no dry season and frequent frosts. Finally, the *ceja de* *montaña*, from 2500 m and down-slope, is used largely for hunting and lumbering, and the land is communal (Brush 1976).

In his study, Brush showed the relative nature of ecological zones for Andean communities. The geographer Karl Zimmerer (1999) has built on Brush, and his own work in southern Peru and Bolivia, to argue that, on the ground today, community agricultural strategies are organized into "overlapping patchworks," not discrete ecological bands. Agricultural goods like corn, potatoes, pasturage, and goods designed for market, are grown in fields (*chacras*), depending on what crops are needed and the hierarchy of accessible plots. As a result, the boundaries of ecological zones, as seen through agricultural choices at least, are much fuzzier than classic geographical studies suggest. I do not suggest that community agricultural practices have not changed for 1000 years, however. It is very likely that prehispanic *montaña* communities made agricultural decisions differently before they were participants in international markets like coffee and cacao, but as a matter of setting expectations, I believe Zimmerer, Brush, and others have convincingly shown that we cannot presuppose a strict division of agricultural products by elevation. In fact, *montaña* regions like the Huambo valley are precisely the ideal settings to test such ideas. Presumed ecological zones might have to be re-calibrated from the perspective of each focal community in order to fully understand the local experience of ecological diversity. What was a marginal 'ceja de *montaña*' zone suitable to occasional hunting or lumbering from the perspective of Uchucmarca, could be a 'kichwa' productive maize and legume growing region from the perspective of a community based further east. Whether or not a researcher assumes that the *montaña* was marginal influences every subsequent interpretation of data, such as changes in land cover or in agricultural use. In fact these eastern slope regions have ample water and fertile soil. The paleoecological record shows that with climate shifts the eastern slopes have been home to intensive agriculture at multiple times.

The climate of South America has seen considerable shifts over the last 2000 years. Broadly, there has been a steady increase in moisture throughout the late Holocene (approx. 2000 BCE to present), that was interrupted by the Medieval Climate Anomaly (MCA, ca. 1000 – 1200 CE) (Lüning et al. 2019) and then the Little Ice Age (LIA, ca. 1400 – 1700 CE). Paleoclimatic reconstructions suggest that the MCA, at the beginning of the Late Intermediate Period, caused warmer temperatures generally, less precipitation, and more productive environments (Lüning et al. 2019). The LIA, which followed, saw cooler temperatures and more rain throughout most of South America (Mann et al. 2009). Paleoecological studies also document shifts in land cover due to changes in climate and the impact of human activity (e.g., Åkesson et al. 2020). Since 2000, several new paleoclimatic and paleoecological datasets allow archaeologists to understand the ecological context of the late prehispanic *montaña*. I provide a summary of this data here.

A review of paleoclimatic data suggests that the late Holocene, starting from 4.2 thousand years ago and continuing to the present, shows gradual increase in precipitation, with three mean state changes in monsoon variability: The MCA, the LIA, and the contemporary warm period (Bustamante et al. 2016; Kanner et al. 2013; Vuille et al. 2012). The ratio of ^{16}O to ^{18}O ($\delta^{18}O$) gathered from speleothems, ice cores, or lake sediment, reflects changes in the intensity of the South American Summer Monsoon, the main source of precipitation between October and April. During times of more precipitation in South America, the upstream rainout of ^{18}O increases, and the $\delta^{18}O$ measured in the Andes is more negative (Kanner et al. 2013). These proxies do not solely reflect local precipitation: Mayo valley speleothem $\delta^{18}O$ data from Cascayunga and Tigre Perdido closely tracks the Huagapo cave record, 550 km to the south

(Vuille et al. 2012). The karstic (limestone) bedrock of much of northeastern Peru provides ample opportunity to collect paleoclimatic data from cave calcite speleothems at Cueva Palestina (60 km N of Wimba), Cueva Cascayunga (46 km N of Wimba), Cueva Shatuca (100 km NW of Wimba), and Cueva del Tigre Perdido (70 km N of Wimba).

The Medieval Climate Anomaly is well-recognized in the Northern Hemisphere. Much of the precipitation in South America originates from the Atlantic Ocean, traveling across the Amazon basin until it collides with the Andes Mountain chain. Lüning and colleagues (2019), in a survey of paleoclimatic evidence for the MCA in South America, examined ice cores, lake cores, glacier records, and sediment records from the sea floor. The MCA showed evidence for glacier retreat, elevation in organic matter in lake sediment, and more positive $\delta^{18}O$ and Hydrogen isotope values. Though $\delta^{18}O$ is associated more with precipitation, Lüning argues that with the evidence from other proxies, we should conclude that the MCA was both warmer and drier than the rest of the late Holocene. The LIA, by contrast, was a colder and wetter time period (Mann et al. 2009). This is reflected in $\delta^{18}O$, ice cores, sediment cores, as well as written accounts. The paleoecological data from the study area provide a record of the impact of these climatic shifts, and those shifts caused inhabitants of the region to change cultivation patterns.

Table 4.1: Data sources discussed in the text

Name	**Proxy**	**Coordinates (UTM zone)**	**Elevation**	**Reference**
Cueva Cascayunga	Speleothem calcite $\delta^{18}O$	253186 E 9326336 S (18 M)	930 m	Reuter et al 2009
Cueva Huagapo	Speleothem calcite $\delta^{18}O$	413774 E 8754050 S (18L)	3550 m	Kanner et al. 2011
Cueva del Tigre Perdido	Speleothem calcite $\delta^{18}O$	233807 E 9351915 S (18M)	1250 m	van Breukelen et al. 2008
Cueva Palestina	Speleothem calcite $\delta^{18}O$	240203 E 9344019 S (18 M)	870 m	Apaestegui et al. 2014
Cueva Shatuca	Speleothem calcite $\delta^{18}O$	178752 E 936150 S (18M)	1960 m	Bustamante et al. 2016

Quelccaya Ice Cap	Ice $\delta^{18}O$	302287 E 8459255 S (19L)		Thompson et al. 2013
Laguna Pomacochas	Lake core pollen	173439 E 9355545 S (18M)	2245 m	Bush, et al. 2015
Laguna de los Condores	Lake core pollen	201801 E 9242127 S (18M)	2940 m	Åkesson et al. 2020; Matthews-Bird et al. 2017
Laguna Baja	Lake core pollen	220540 E 9148039 S (18M)	3650 m	Hansen and Rodbell 1995
Laguna Sauce	Lake core pollen	365594 E 9258674 S (18M)	630 m	Bush et al. 2016
Laguna Pumacocha	Lake sediment calcite $\delta^{18}O$	384079 E 8816992 S (18L)	4300 m	Bird et al. 2011a; Bird et al. 2011b
Huascaran Ice Cap	Ice $\delta^{18}O$		6048 m	Thompson et al. 1995

Paleoecological studies in the northeastern Andes and upper Amazon show the efforts of humans in clearing land and choosing what to plant and where (Church and Guengerich 2017). Paleoecological data has been collected through analysis of pollen and charcoal extracted from lake cores at Laguna de los Condores (55 km SW of Wimba), Laguna Pomacochas (97 km NW of Wimba), Laguna Sauce (130 km E of Wimba) and Laguna Baja (135 km South of Wimba) (Table 4.1). In a study of the pollen and sediment record at Laguna Baja, at 3500 masl in the eastern cordillera of southern Chachapoyas, Hansen and Rodbell (1995) saw more evidence that anthropogenic disturbance—rather than climate—maintained a tropical alpine (*paramo, jalka,* or *suni*) landscape rather than tropical wet forest (*montaña*). They argue that by 4000 B.P. anthropogenic activity played a greater role than climate in controlling vegetation because the pollen assemblage shows an increase in paramo taxa, and a decline in some, but not all, montane forest taxa. This implies that the inhabitants of this area preferred paramo taxa to the full suite of montane forest taxa. This interpretation fits the results of the ecologist Young (1990), who documented a pattern of anthropogenic maintenance of the timberline in Rio Abiseo National

Park, 130 km south of Wimba on the eastern slopes. In keeping the timberline lower than it would have otherwise been, humans could control patterns of species diversity and abundance associated with forest edges.

Pollen and charcoal found in lake cores in the study area (Fig 4.3) also show a long history of agriculture and landscape management in concert with paleoclimatic shifts. Charcoal from a core at Lake Sauce, southwest of Wimba at 607 masl, indicate that fires (probably associated with megadroughts) cleared stands of forest and were replaced by maize fields between c. 6700 and 4270 cal BP (Bush et al. 2016). Maize cultivation near the lake continued for thousands of years, as farmers maintained the cleared area with small fires. Then, ca. 700 cal BP, maize was abandoned, and forests filled in the land around the lake. At lake Pomacochas, north of Chachapoyas at 2150 m asl, changes in charcoal and pollen were compared with the cave calcite $\delta^{18}O$ isotopic data from Cueva Huagapo, in central Peru. Pollen from *Zea mays* appears to peak in intensity in concordance with dry periods (Bush, McMichael, et al. 2015). At Pomacochas, this meant that dry periods coincide with anthropogenic charcoal, which is followed by increase in grass pollen and then the appearance of maize, ca. 1250 BCE. After 610 BCE maize becomes more erratic in the record, until the last maize pollen was recorded at ca. 750 CE, and the lake shows evidence of reforestation. Compared with Laguna Sauce, this study shows that the intensity of maize cultivation was less consistent at this higher altitude, probably related to fluctuations in precipitation.

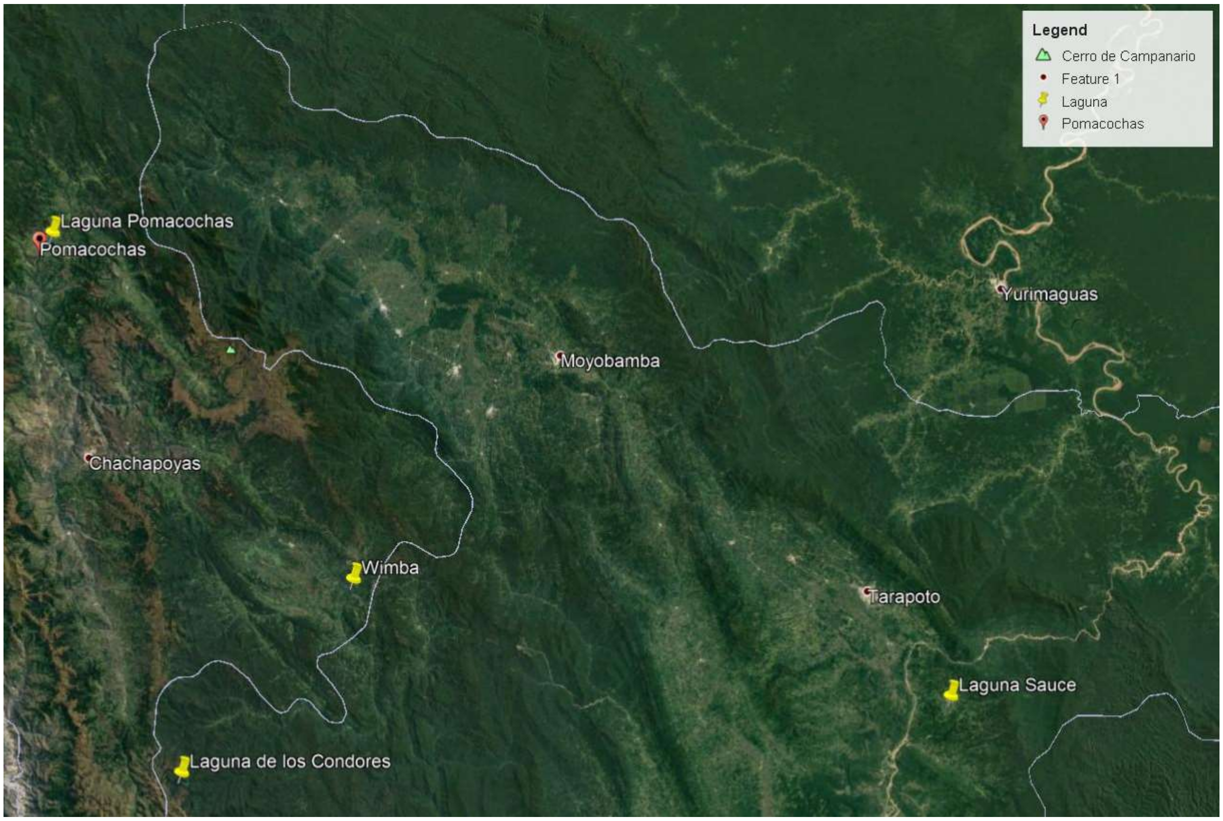

Figure 4.3: Location of lake cores discussed in the text relative to Wimba

Finally, at Laguna de los Condores, in southeastern Chachapoyas, paleoecological proxies collected from lake cores indicate that the lake and its catchment area changed significantly in the last two millennia. The lake is famous for the discovery of cliff tombs dating from the LIP, LH, and early colonial Chachapoya culture (approx. 1400-1600 CE (Wild et al. 2007)). Alongside the lake, a relatively small Chachapoya site Llaqtacocha was occupied after 900 CE (Guillén 2000). The diatom record indicates that the lake itself underwent a change around 900 CE from a eutrophic lake with high productivity due to inwash, to an oligotrophic lake, with a more stable and less productive diatom signature (Matthews-Bird et al. 2017). This indicates that the area around the lake was more impacted by human activity, such as clearing for agriculture or pasture before 900 CE. Lake core pollen show a related story: from ca. 150 BCE to 800 CE pollen come from grasses and new-growth trees, and maize is present; between 800 CE and 1200 CE the pollen reflects transitional species, including some continued maize production; and finally, after 1200 CE the forest had regrown and there were no further attempts to clear agricultural land within the lake catchment (Åkesson et al. 2019). Åkesson and colleagues (2019:10) argue that precipitation and cloud cover were affected by the fluctuations of the MCA and this can be seen in the decisions related to subsistence and settlement planning more than other climate factors.

The montane forest paleoclimate and paleoecology records provide context for the shifts in settlement and agriculture that occurred in this area in the last two millennia. As Church and Guengerich (2017:16) emphasize in their overview of Chachapoya archaeology and history, the paleoclimatic record shows that the montane forest was not an obstacle to settlement or agriculture, and even the forest interior has been used for at least the last 2100 years. The oxygen isotope data, especially, also suggests that the LIP and LH, the best-known periods archaeologically, were times of climatic instability, with periodic droughts and productive years during the MCA, followed by cooling temperatures and more precipitation during the LIA. While this knowledge is key to putting archaeological findings in context, it should also temper any impulse toward environmentally deterministic explanations. While it does appear that inhabitants of the *montaña* took advantage of shifts in climate to clear new lands or plant different crops, there is no easy relationship between climate and population or settlement pattern. This corpus of paleoclimatic information provides an important perspective on potential living conditions during the time period of Wimba's occupation. In the following section, I present an overview of the various archaeological methods used in this study, beginning with survey work.

4.3 Survey

To address questions about interregional interaction, archaeological studies require regional-scale data, most often collected through survey. There are a range of possible scenarios for survey data collection, depending on resources, already completed work, and the accessibility of the landscape. Ideally, archaeologists systematically document evidence for cultural, political, or social and economic boundaries before they begin to discuss models for 'interregional' circulation of goods. This is a challenging task, and often archaeologists mark borders by the distribution of key artifact types, usually ceramic styles, in ways that sometimes are not supported by multiple lines of evidence (Stark 1998). Alternately, they rely on environmental transitions that coincide with modern borders as proxies for past borders, as is often the case in South America (Kojan 2002). However, with enough survey and excavation data, the social processes that created and maintained ancient frontiers, borderlands, 'edge regions' and boundaries can be directly inferred (Harry and Herr 2018). One such ideal scenario comes from the American southwest, where a detailed region-scale archaeological dataset including architectural, ceramic, and chronological data has been marshalled for network analysis (Mills et al. 2013; Peeples and Haas 2013).

Pedestrian survey projects can thoroughly document surface archaeological materials to estimate settlement patterns and changes through time. Gordon Willey's (1953) Viru valley survey was one of the first and most influential settlement pattern surveys in Peru, and the methods developed there have had a long legacy (Banning 2002:5), especially where preservation and visibility are high, like the Altiplano and coastal valleys of western South America. In these settings, large swaths of land can be systematically surveyed because the remains of archaeological sites of all sizes are visible on the surface (e.g., Arkush 2011;

D'Altroy and Hastorf 2001; Dillehay et al. 2009). These projects are usually designed to focus on an area that can be surveyed by a single team during one field season, and thus comprise a subset of a single region. These projects provide evidence of interregional connections through materials like obsidian, or spondylus shell, that have a single identifiable distant origin.

In the *montaña*, survey projects are severely limited by the environment. No *montaña* project has attempted to systematically cover 100% of a test area in the style of Willey's survey, or to use shovel test pit survey, as is sometimes used in North America where leaf detritus and brush obscure the ground surface. Rather, archaeologists in this region have targeted their investigations to ridges and hilltops that were known or suspected to house archaeological remains, based on consultation with local inhabitants. Though it may be less systematically conducted research, this method is effective, although perhaps biased toward certain types of archaeological materials (burials, stone architecture, painted pottery). Examples of *montaña* surveys include Savoy (1970), Hastings (1985), Guengerich (Alexandrino et al. 2017) and Schjellerup and colleagues (Schjellerup 1997; Schjellerup et al. 2003, 2005, 2009). Every year, new settlement in the *montaña* leads to discoveries of new sites as farmers clear land. High resolution remote sensing, such as LiDAR, has tremendous potential to aid archaeologists in this difficult terrain, though the expense has thus far limited its use (VanValkenburgh et al. 2020).

The present project thus is poised at a transition point in methods, between the difficulty of previous eras of pedestrian survey and mapping with tape and compass, and the promise of technological innovations for survey using handheld GPS, drones, and detailed aerial imagery. Here, I used a combination of satellite imagery, selective pedestrian survey, and ethnohistorical research for regional-scale investigation. In sum, these lines of evidence help us understand the late prehispanic history of human occupation of the *montaña* more clearly than any previous study at a comparable spot at this altitude.

4.3.1 Reconnaissance season 2012

The 2012 reconnaissance was conducted with the help of Alfonso Saldaña, a guide living in the city of Rodriguez de Mendoza, over the course of one week in July. At this project stage, the goal of survey was to evaluate how feasible it would be to conduct a project in the Mendoza area, and whether the area's sites were appropriate to the overall research question regarding interregional interaction along the eastern slopes. We sought to visit the primary archaeological sites in the area around modern Rodriguez de Mendoza, to document their locations, levels of preservation, and remains of archaeological materials that could help assign a temporal period (though we did not collect any materials). I used a Garmin GPS 12 to take waypoints marking the location of sites, and an Olympus 1030 SW camera to take photographs. I used the published architectural and ceramic indices of Church (1996), Schjellerup (1997), and Guengerich (2012) as a guide. The method was opportunistic, meaning we could not systematically walk over the landscape to look for archaeological remains because the ground cover in this part of the *montaña* prevents full coverage pedestrian survey, and the valley is broken up into individually owned parcels of land, many of which are under cultivation or used for pasture. As we traveled through the area, we talked to residents about the archaeological materials they had encountered directly or heard about from friends and neighbors. The residents

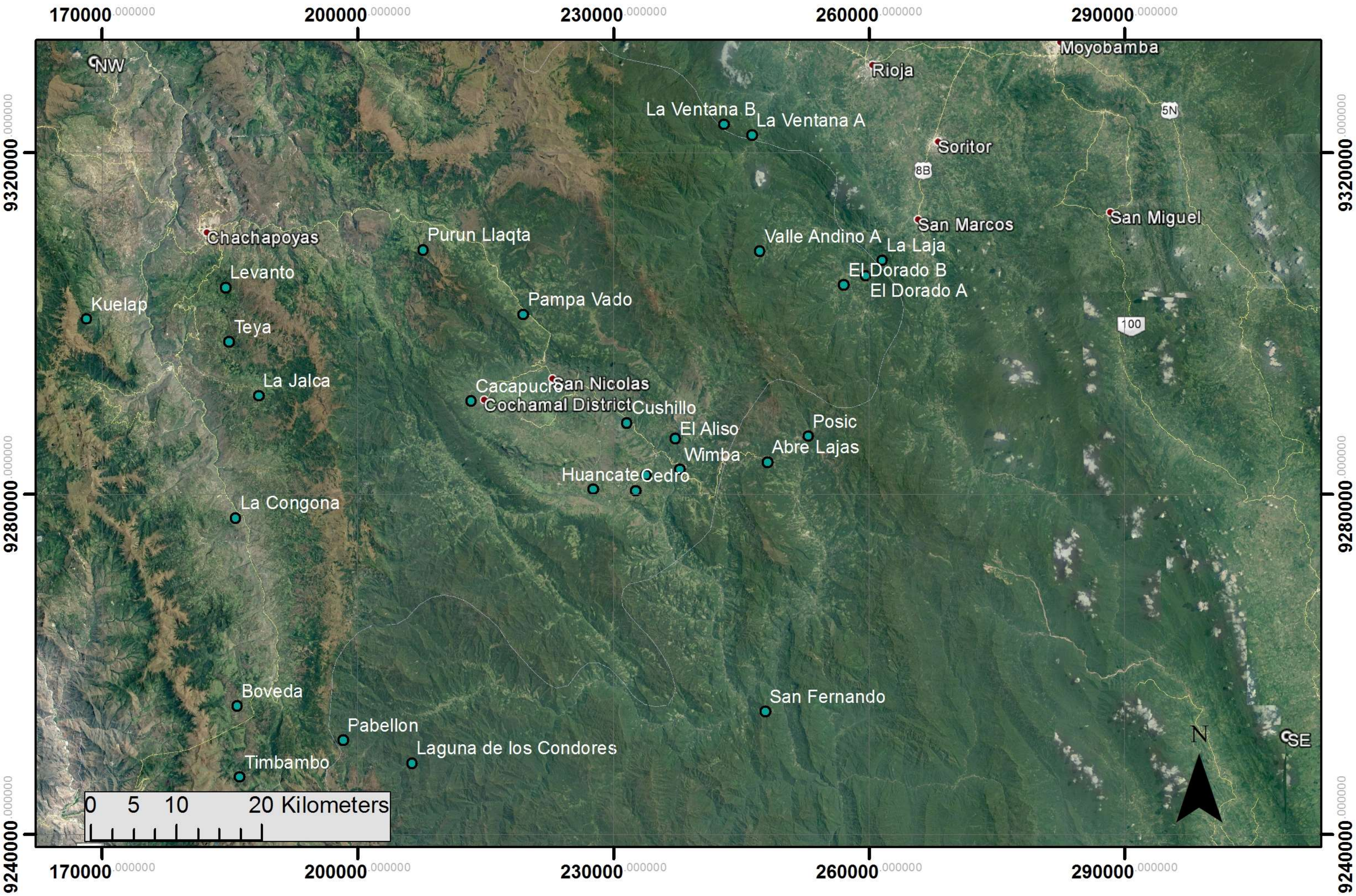

Figure 4.4: Satellite image from Google Earth showing Mendoza and Moyobamba region sites (in green).

described extensive evidence for prehispanic occupation of the region. Mortuary sites, especially, are commonly encountered by farmers, usually in shallow caves and cliff faces, common features of the Mendoza region landscape. Most of the sites were described by local inhabitants, as 'Chacha,' and thought to come from the late prehispanic or early colonial period (Saldaña, personal communication).

We visited several sites in the immediate vicinity of the Laguna Huamanpata, a seasonal lake at 2100 masl in the Huamanpata valley in northern Mendoza. Principally, we documented Lejia (norte), a small settlement on a hill south of the lake. Three circular field stone structures were visible within an area surrounded by a stone retaining wall. There was thick brush covering the rest of the area, so no further architecture was registered, and no ceramics were encountered. Similarly, at Yuracyacu, approximately five circular field stone house foundations were visible near the pathway, where brush was removed and the path had worn down, but none of the site was visible within the adjacent forest. Finally, we visited a large rectangular structure on a small hill overlooking the laguna called Iglesia Monte. This was likely an early colonial construction, as the rectilinear architecture and scale of the building (35 meters by 10 meters) do not fit with known Inka constructions in the area. The river was too high to cross to the sites on the northern side of the lake, but the general impression is that the lake was surrounded by small settlements characterized by circular stone residential constructions and stone retaining walls.

In the southwest of Mendoza, we visited a site called Huancate, in addition to Cedro, Cacapucro, and Huactana. At these sites the total spatial extent of retaining walls and structures covered a larger area than the Huamanpata sites. These sites were laid out on hilltops surrounded by retaining walls and featuring circular fieldstone structures made of roughly cut limestone. Some were covered by *paja* grass, rather than forested *monte*, which likely increased the proportion visible to a visitor. Nevertheless, no diagnostic ceramics were encountered at these sites. The best-preserved site we visited, however, was Wimba, in the southeast of Mendoza, near the border with the department of San Martin. The owner of the land around the site, Sr. Cirilo Tafur, showed us that the site included numerous terraces and at least 6 platforms created by retaining walls, including one from which he had removed undergrowth to show at least 9 stone structures. He showed us ceramics and lithic artifacts he found in the area, as well as two small caves near the site that contained evidence of burials and LIP ceramics. Based on this survey, it appeared that Wimba was possibly the largest accessible site in the Mendoza area, but that all the visited sites had shared the settlement pattern of the region: hilltop location, stone terraces, retaining walls, and stone circular constructions.

The sites that we visited had been discovered by local inhabitants, primarily cattle farmers clearing trees for grazing cattle, mostly in the previous thirty years, since the valley had been resettled by immigrants from the highlands or from lower elevation cities such as Moyobamba and Tarapoto. Sr. Saldaña, known locally as Don Alfonso, was an expert on the history of the local area and had guided previous scientific groups, such as a group of Spanish biologists interested in the Laguna Huamanpata, in the northwestern portion of the Mendoza region, and the Danish archaeologist Dr. Inge Schjellerup, in 2007. Despite his 80 years of age, Don Alfonso traversed steep muddy trails with nimble grace. Also, because most of these archaeological sites were not officially registered with the Ministry of Culture, Don Alfonso's good relationships with the landowners in the region were instrumental in allowing us to visit and document these sites.

Figure 4.5: Retaining wall documented during 2013 survey, Lic. Willy Chiguala Villanueva for scale.

4.3.2 Site survey season 2013

An additional reconnaissance and site survey season was conducted with Alfonso Saldaña, Willy Chiguala, and Cirilo Tafur in 2013 to create a preliminary map of Wimba. This season had the primary goal of assessing the feasibility of excavating at Wimba and visiting mortuary and petroglyph sites in the immediate vicinity (figure 4.4). We visited Wimba, Mito, Shiwilla petroglyphs and Cedro. A Trimble Juno handheld GPS was used to take GPS points at the sites visited, and an Olympus camera was used for photographs. After these two survey seasons, Wimba was selected for intensive excavations, and this portion of the project was initiated in 2016, upon receiving a permit from the Ministry of Culture.

Figure 4.6: View of the San Antonio River Valley to the northwest of Wimba. Photograph taken on Platform 1.

4.3.3 Site selection

Once the project area was narrowed to the Huambo valley in the Mendoza region of Amazonas, Wimba offered the best venue for intensive excavation. Wimba presents several advantages for excavation based on our stated research goals. First, and most importantly, the presence of significant archaeological remains at the surface and artifacts discovered by local farmers, which suggested this site was not primarily an Inka administrative site, but rather what Schjellerup (2003) would have classified as a 'Chachapoya' Late Intermediate Period settlement. Surface architecture included round as well as rectangular structures, with irregular masonry styles. Two structures were exceptionally large, and there were defined open plaza or patio spaces. Ground stone tools, grinding stones, painted pottery, and applique pottery were all encountered by Sr. Tafur while hunting, planting, and maintaining the site itself. Along the flank of the ridge a small cave contains human remains and a few sherds of pottery. Taken together, these surface remains suggest that the Wimba site was appropriate to investigate change through time in the LIP and LH, and the mediation between highland and lowland societies at the eastern edge of highland society.

Figure 4.7: View of the Jebil Valley, northeast of Wimba. Photograph taken on Platform 1, with perimeter walls and entrance visible.

Second, Wimba was likely among the largest of Mendoza area sites, judging by both site area and extant surface architecture. It is important to caveat that the amount of brush cover obscuring sites in the lower *montaña* makes it very difficult and time-consuming to uncover architectural features, and architectural remains have undoubtedly been destroyed in the process of clearing fields for modern agriculture. Architecturally, the site spanned a long ridge, including at least seven platforms enclosed by retaining walls, numerous other terraces, a canal, and a reservoir. On the terraces, at least 17 structures were visible on the surface, in sizes ranging from 56 m^2 to 8 m^2. The extent of Wimba made us more confident that the site hosted a range of activities, including communal gatherings, feasting, or ritual that may incorporate local and non-local elements.

Finally, Wimba is accessible and already registered as an archaeological site by the Peruvian Ministry of Culture, in addition to the site of Mito, located a few km down the San Antonio valley toward Mendoza. Most sites in Mendoza, including comparable sites such as El Aliso, Cacapucro, or Iglesiapampa, are further from modern settlements and have not been officially registered. Wimba occupies a hilltop just above a small village (*anexo*) called Tocuya and can be reached by a 20-minute walk from that village. Tocuya itself is accessible by regular *colectivo* from Rodriguez de Mendoza. I discuss this more in following sections, but it is likely that this modern accessibility reflects proximity to pathways in the prehispanic period as well. Before it was declared an archaeological site by the Ministry of Culture, the owner of Wimba and the fields on its flank was Cirilo Tafur. He is a conscientious custodian of the site. For example, he has cleared the largest platform of brush, groomed paths between its largest features, and he built a small shelter on the platform for visitors to rest and to show some of the ceramics and ground stone artifacts found on the surface (Figure 4.3). He was in contact with the primary guide to archaeological sites in the Mendoza area, Alphonso Saldana, and welcomed tourists and school groups to tour the site on occasion. For this reason, we felt that the pre-existing community engagement, and the most important stakeholder, Sr. Tafur, would be valuable and helpful partners in an intensive archaeological project.


Figure 4.8: Structure on Platform 1 reconstructed by Sr. Tafur.

4.3.4 Mapping

To effectively plan our excavations, we first needed a thorough map of archaeological remains at the Wimba site. Thus, on June 1, 2016, we began clearing brush and creating a map of the site. The site was mapped using handheld GPS and a Nikon NPL-352 Pulse Laser Station (commonly referred to as a total station) with handheld prism. The handheld Garafa GPS Kit software on an iPhone 6 was also used. The handheld GPS units and smartphone apps were used for general site and feature location, so the fact that their error ranges from 1.5 to 10 meters is not a problem. The Garmin GPS 12 was used to take waypoints during 2013 survey, and GPS Kit software on an iPhone 6 was used to take control points during the 2016 excavation season.

GPS Kit software was also used to geolocate photographs of dispersed features encountered during survey.

We started by choosing a datum over a rock outcrop at a high point on Platform 1. This location was ideal because the stone was not likely to move, nor would we need to excavate the area below the total station. From that position, we could map the northern two thirds of the platform. We took a second datum in the southern part of Platform 1 to be able to view the rest of the platform. Each of platforms 2 through 5 had their own datum points, but they were all linked from the original location on Platform 2.

The mapping team consisted of myself, running the Total Station, and another member of the team holding the stadia rod, measuring wall thickness, and describing the site for notations as mapping progressed. We hired two field assistants to clear brush from the five main platforms, so that we could identify all remaining architectural features, and so that we could use the total station to map those features without being obscured by brush. We shot in architecture, excavation units, and topography points on each platform. We also took photographs and UTM coordinates of important features during mapping and excavation. Each feature was extensively photographed and documented with notes.

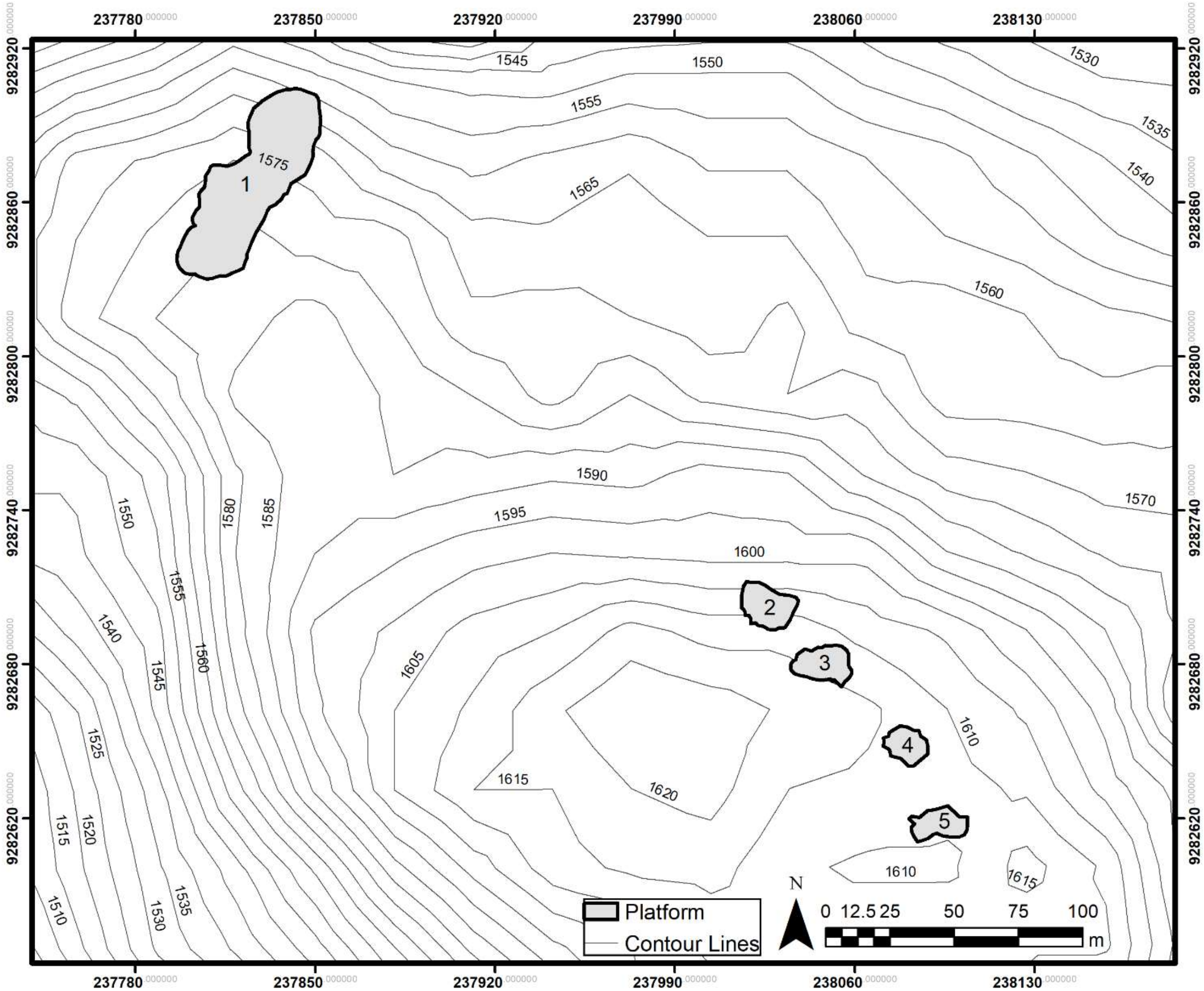

Figure 4.9: Site map of Wimba with associated features.

4.4 Excavation

Because one of the goals of the project was to find evidence for public space and communal gatherings, we sought to investigate both open spaces and structure interiors through excavation. When planning the project, I anticipated relatively shallow contexts, due to the ridgetop location and likely late prehispanic occupation. Based on my experience working at Posic with Inge Schjellerup, and in consultation with Willy Chiguala, we estimated that we could excavate 200 m^2 during the project duration. We divided the excavations into 14 operations, each chosen to test either one open section of a platform or one structure. The operations were each subdivided into two or more units to provide some horizontal control and visibility for profiles within the operation. Because it was the largest platform, seven operations were located on Platform 1. Two operations were excavated on Platforms 2, 3 and 4, and one on Platform 5. Operations one through eight were linear excavations sub-divided into 1 x 3 m units separated by 1 x 1 m balks, designed to investigate open spaces. These operations were oriented East - West across the width of each platform (Figure 4.6). We used the Total Station to plot the corners of each unit within each operation. Operations 9-14 were located within structures visible on the surface. These were planned as complete structure excvations. In Operation 11, a single 1 m^2 test unit was excavated because it was difficult to excavate in such a small place, and in Operation 10, a tree within the structure limited the area excavated. The other structure operations were subdivided into between 2 and 6 units to maintain horizontal control. In total, the excavation covered 202.25 m^2, divided into 57 units (see table 4.2).

Platform 1 was the largest flat space at the site and had the most evidence for architecture (9 structures) and public space (figure 4.3). The seven operations excavated on Platform 1 made up two thirds (134.73 m^2, or 66.62%) of the total area excavated. The four linear operations were located in the four primary segments of the open area on Platform 1: the open area in front of the three-sided rectangular structure at the northern end of Wimba, the area in front of the large rock outcropping in the center of Platform 1, and the open area at the southern end of the platform. These trenches were laid out to capture the most probable open spaces on Platform 1, as well as evidence for formal elaboration of public spaces with architecture, and fill or secondary deposits located along the edge of the platform.

Table 4.2: Excavation areas by operation and unit

Operation	**Total area (m^2)**	**Unit 1**	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**
Op. 1	16.54	3.01	3.11	3.03	3.12	4.27	
Op. 2	22.36	2.85	5.02	5.34	2.87	3.14	3.13
Op. 3	14.41	2.97	3.05	2.57	2.79		3.04
Op. 4	17.55	2.51	3.11	2.79	2.89	3.07	3.19
Op. 5	11.15	2.96	5.13	3.06			
Op. 6	15.61	3.12	3.06	3.10	3.07	3.27	
Op. 7	8.79	2.99	3.00	2.79			
Op. 8	11.23	2.70	2.86	2.66	3.00		
Op. 9	56.45	12.80	14.60	13.43	15.62		
Op. 10	6.43	4.01	2.42				
Op. 11	0.98	0.98					
Op. 12	6.95	3.56	3.39				
Op. 13	5.76	2.51	3.25				
Op. 14	8.03	3.70	4.34				

Survey of the smaller platforms 2-5 did not suggest they contained public architecture. Nevertheless, linear operations were excavated across the open spaces in order to both provide a comparison to the open spaces on Platform 1, and to understand the use of such spaces as likely domestic contexts.

Generally, the whole team worked on the same operation at the same time, divided up on different units in teams of 2 or 3 (figure 4.7). That way students and workers new to the practice of archaeology could rotate among the different primary tasks of excavation, screening, writing notes, and drawing. The typical operation at Wimba involved a surface layer of topsoil disturbed by the roots of small plants, usually grasses. This layer was removed with a mattock or shovel, as there were few artifacts in this uppermost layer. Below the topsoil, cultural materials were abundant; excavators would set them aside as they were encountered in troweling and reserve the rest of the dirt to be screened. As the excavation proceeded, each context was recorded with a standardized form called the “Capa ficha” developed with the Peruvian co-director to reflect the project’s research goals and the conventions of archaeology in Amazonas province.

The context form involved basic information about the team working on each unit and when the excavation took place. The form has fields for the elevations below datum at the open and close, as well as the UTM coordinates of at least one corner of the unit. Most importantly, the form standardized the observations noted by each excavation team. This was especially important for students and workers who were new to archaeology. Having forms and options on the “capa ficha” helped them learn to pay attention to and describe, for example, the soil matrix of each context, color, texture, and consistency. Soil colors were further standardized with Munsell color charts. Excavators took notes on the artifacts encountered in the unit, why the context was opened and closed, and their thoughts on the preliminary interpretation of the context. In addition, each context was sketched in plan view by the excavator and included the elevation points taken at the closing of each context. Closing depths of excavation units were 40 to 50 cm below the surface, except for units 01-03, 02-02, 02-03, and 08-04.

In the field, we collected 100% of the ceramics and portable artifacts uncovered throughout excavations at Wimba. The materials recovered through screening were collected in zip-top plastic bags. Every sample taken was labeled by context, using the format [operation number] – [unit number] – [context letter]. Every context was logged with a context form. The plastic bags were left open to allow moisture to evaporate in the covered courtyard of the field house to prevent mold from degrading the materials when they were closed and stored in cardboard boxes. In addition, we collected two-liter soil samples from all cultural contexts below topsoil.

Figure 4.10: Undergraduate students from Pontificia Universidad Católica del Perú excavating a unit on Platform 1.

4.4.1 Procedures for artifact cleaning and curation

Ceramic sherds were processed during the field season in the covered courtyard area on weekends and when rain prevented excavation. The processing involved lightly brushing and washing the sherds with water and drying them on wooden benches in the covered courtyard. Once they were dried, the diagnostic fragments were separated from non-diagnostic fragments, and placed in labeled bags. When washing sherds with soft bristle brushes, team members took care not to damage fragments with any evidence of decoration or cooking residue. After diagnostics and non-diagnostics were separated, the non-diagnostic sherds were weighed, and the diagnostic sherds were saved to be entered into the project Filemaker Database. Bone fragments and lithic artifacts were carefully dry brushed to remove excess dirt and then re-bagged. Mineral and mollusk samples were left in their original bags. The bags were stored in 11 separate cardboard boxes, each labeled with the contents by their operations of origin. The non-diagnostic ceramics were kept in the original field bags, in storage at the field house, to be reburied at a future date in accordance with Ministry of Culture protocols.

After the conclusion of excavation at Wimba, the soil samples were treated by flotation to prepare them for future specialized analysis. This was done by a crude method common on rural projects in the Andes (e.g., Guengerich 2014). A large basin (approx. 30 liters) with a spout was filled with water. The contents of the soil sample bag, by now completely dry, were poured into the basin, the water and soil were stirred to remove any clumps of dirt and organic material, and the material was rested for 10 minutes. Once the sediment was allowed to sink to the bottom of the basin, and the organic material to remain floating at the surface of the water, the water was poured out into a bucket through a cone of mesh cut from a pair of panty hose. In this way, the organic material floating on the surface was captured by the mesh, separate from the heavy fraction that remained in the bottom of the basin. The mesh bags were tied to the original soil sample bags to maintain the context and hung up on a line to dry for five days. When dry they were put in a labeled plastic bag for long term storage.

4.4.2 Database creation

In the field, I collected context records, structure records, soil sample records into a digital database. During the lab analysis phase I entered ceramic info, drawings, and photographs as well. The related table database was created with FileMaker Pro 13. The database was inspired by the Digital Archaeological Archive of Comparative Slavery, based at the Monticello Archaeology Department, though it is much smaller in scale and executed with Filemaker instead of Microsoft Access.

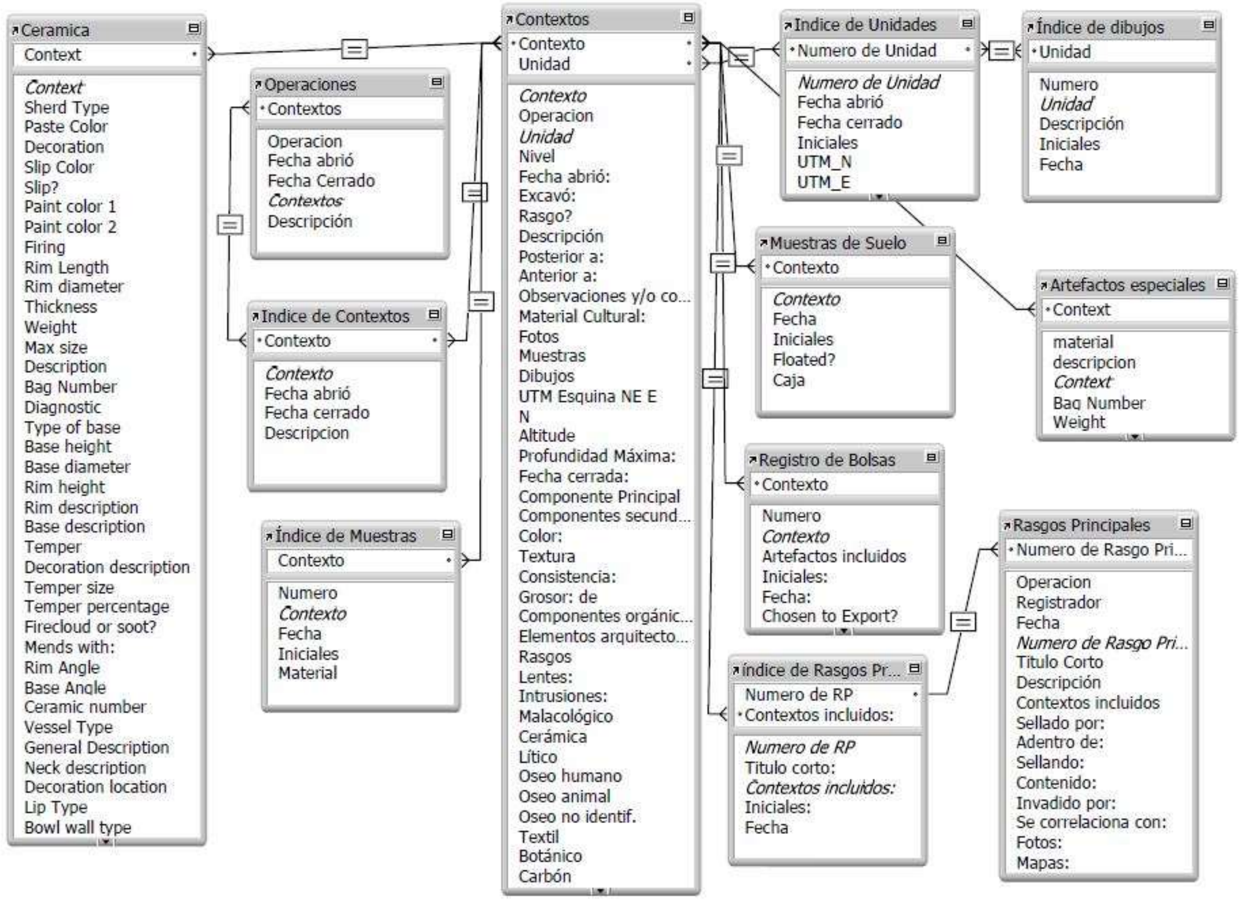

Figure 4.11: The related tables of the Wimba project's Filemaker database.

In this database, the key link between contexts, ceramics, soil samples and other tables is the context field (Figure 4.11). This field combines operation number, unit number, and context letter into one unique code. In the process of creating the context forms, and in creating the Filemaker database, I standardized certain terms with a dropdown menu to ensure that they were entered consistently across contexts, even when entered by students with less experience. For example, we used a Munsell soil color chart to standardize the soil color descriptions in the field. The Munsell colors were pre-loaded into the Filemaker database, so that they could be easily digitized without risking typing errors or other deviations from the Munsell format. Another example is the consistency of the soil.

The context form was logged by me on evenings and weekends during the field season. It was entered in both English and Spanish. I typed the text from the paper forms verbatim and did not translate the entries logged by primarily Spanish-speaking students and colleagues to avoid mistakes or ambiguities in translation. Saving the content of the context forms as text makes the database more easily searchable. The downside is that certain nuances cannot be easily captured by the database format, most importantly sketches. To address this issue, the sketches were entered into the database as jpg files associated with each context. These are not open to search or query, but they are nevertheless easily available and associated with the contexts they depict.

The other forms that were digitized in the field were the soil samples, bag registry, and drawing index. Some tables were created but have not been extensively used. The "Rasgos Principales," and "Índice de Rasgos Principales" tables were not necessary, because separating certain contexts as special features would have simply created a barrier to searching all the contexts together, rather than saving time by separating them out. These tables may yet prove useful as the data from the project is further analyzed and used as the foundation for future projects. The tables for "Artefactos especiales," "Índice de Muestras," and "Índice de Contextos" were not extensively used for similar reasons.

Creation of the ceramics database happened in a few different steps. First, the bags were inventoried and entered in the bag database daily, which gave us a primary view of which contexts contained ceramics, and roughly how many fragments were available. After the sherds were washed and sorted into separate diagnostic and non-diagnostic bags, I weighed the non-diagnostic sherds and put a batch entry into the ceramics table recording the weight in grams. These materials were kept in storage at the site (to be reburied at a future date). The diagnostic sherds were saved for more thorough description in the database, which I will describe in the analysis section.

In the short term, these digitized forms made the preparation of Ministry of Culture reports and inventories much easier. Queries can be executed inside the Filemaker system to answer basic questions, like: Which contexts were finished on September 16th? How many bags of animal bone were excavated in Operation 2? Which excavators worked on Operation 12? The data stored in the Filemaker database can also be easily exported as .txt or .csv files that can be opened in Microsoft Office suite, or with the R statistical computing environment, which brings up the next phase of research, the analysis of the excavation results.

4.5 Post-field data analysis

The first phase of analysis occurred immediately after the close of excavations, as I refined the ceramics Filemaker database (Figure 4.11). I sought to create a form that encompassed the most important aspects of diagnostic ceramic sherds, both quantitative and qualitative data that could be useful both now and, in the future, when archaeological knowledge of late prehispanic ceramics in Amazonas and San Martin is more developed. The information in this table was collected with a digital scale, a pair of Mitutoyo calipers, a rim diameter chart, a Munsell soil color book, a jeweler's loupe, a Sony digital camera with tripod, photo scales and drawing materials.

The data collected was entered into the ceramics table. Each sherd or batch has a page with General, Body, Rim, Base, Handle, and Decoration information (Figure 4.12). To fit with terminology used by other archaeologists in Peru, I used Manrique Pereyra's (2001) guide to the

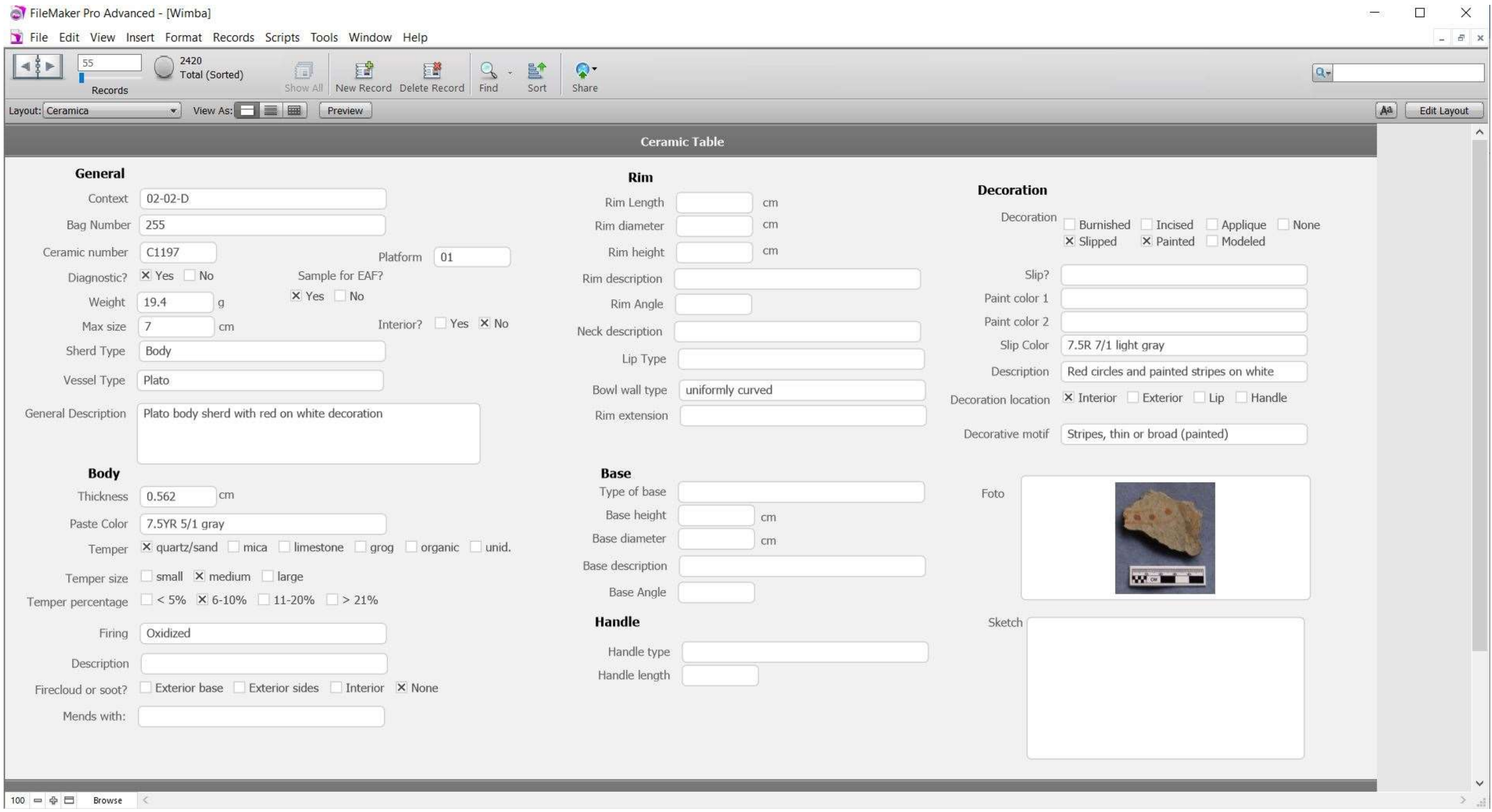

Figure 4.12: The Filemaker data entry page for ceramic sherds.

study of pre-Columbian ceramics along with the basic structure outlined in the DAACS ceramics cataloging manual (Anon 2018). As I will explain further in Chapter 6, the study of *montaña* ceramics is still in preliminary stages, so I sought to preserve the maximum amount of descriptive information about each sherd without collapsing data to the shorthand of particular typological categories that may or may not persist in the field with future researchers.

The General section of the ceramic catalog page includes the information that can be collected from each sherd analyzed. This includes context information like context number, bag number, and platform location number. In addition, the weight of each sherd or batch of sherds is recorded in grams, measured with a digital scale sensitive to the milligram. The quantitative categories like weight, sherd size, and vessel diameter are self-explanatory. I will briefly explain the qualitative categories I created in the database. Diagnostic sherds were those that had a (portion of) rim, base, handle, or decoration. “Sherd type” refers to the part of the body of the ceramic vessel that the sherd comes from, if identifiable. Vessel type refers to the inferred shape of the complete vessel, if identifiable. Here, I used the basic categories from Manrique Pereyra: *platos* are open vessels whose greatest diameter is located at the mouth, and the height is less than 1/3rd the opening diameter; *cántaros* are medium- to long-necked jars, usually with a handle; *ollas* are open vessels with short, constricted necks; *cuencos* are open vessels with constricted openings and no neck; *cancheros* are open or closed vessels with one tubular, circular, or sculpted handle; *vasos* are small open vessels with height that is equal to or less than the diameter of the vessel opening (see Figure 4.13). As Roddick (2009) points out, even though these vessel type categories seem to imply specific functions, many of the most common vessel types were flexible and could potentially be used for storage, preparation, or serving. Finally, the general description field allows a short text description of the sherd, the way the analyst would describe it to a colleague.

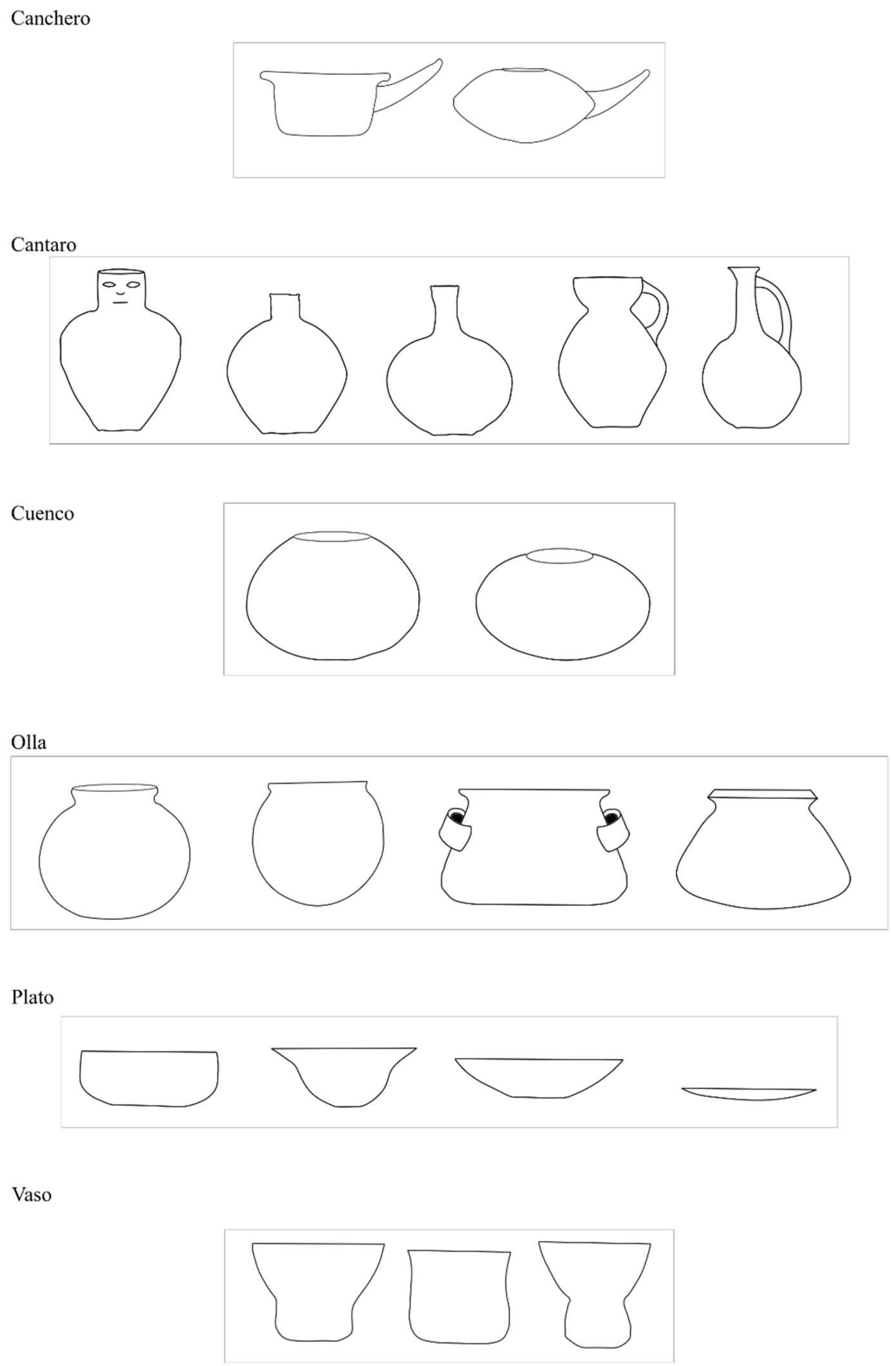

Figure 4.13: Schematic of vessel shapes drawn after Manrique Pereyra's (2001) guide.

The body description includes only one quantitative category: thickness. Because most of the sherds were fired at low temperature, paste color attribution requires some observer judgment. The paste color was taken from a section of the sherd without firecloud or soot, that best represented the color of most of the sherd. The temper was examined with a jeweler's loup, to determine whether it was primarily "quartz/sand," "mica," "limestone," "grog," "organic," or "unid." Temper size was chosen from 3 categories: "small," "medium," and "large." The percentage of the paste that was made up of temper was categorized into: "<5%," "6-10%," "11-20%," and ">21%."

Rims were measured along their length. If they contained at least 15 cm long of the original lip surface, a rim diameter chart was used to estimate the complete diameter of the orifice of the vessel. The rim extension describes how the rim juts out from the orifice at the end of the neck, either "not past orifice," "slightly past orifice," or "horizontally past orifice." The rim extension distance is the length between the edge of the lip and the end of the neck. The rim description is a text field where the cataloger can add notes to the description. The Lip type field includes the options "plain," "square," "tapered," "rounded, bulging," "thickened, bulging rim," "triangular globule (*olla*)," "spherical globule (*olla*)," "elongated globule (*olla*)." The rim section also includes a field for bowl wall type: "uniformly curved," "straight," "pinched lip," "s-shaped," and "unid." Finally, rim fragments that have enough rim intact to estimate the diameter of the orifice are drawn in profile, and the digitized version of the profile drawing is added to this page in the Filemaker database. These traits have all proven useful to categorize ceramic vessels and track change through time in *montaña* ceramic production.

Base types include "Flat," "Rounded," "Ring," "Legs," and "Unid." We did not distinguish between a ring base and a pedestal base, the way some classification systems do. In the field, the distinction between ring and pedestal bases would have been arbitrary, instead we recorded the base height of all ring bases, so that if a dividing line becomes more apparent in later studies it can be retroactively applied to these sherds. We used the ceramic diameter sheet to extrapolate the diameter of ring bases as well. Base description was a text field that allowed the data entry person to describe any unusual features of the base. Finally, the base angle field allowed the description of the base.

The handle description section is simple. Handle types include “Lug, basic”, “Lug, hollow”, “Rounded, 2 attachments”, “Flattened, 2 attachments”, “Double barrel, 2 attachments”, “Conical, 1 attachment”, and “Unid.” The length of the handles was recorded and whether they were complete or not. The decoration description section is based on decoration techniques and motifs encountered on ceramics elsewhere in Amazonas province. Decoration types include burnishing, incision, applique, slip, paint, modeling, or none. Slip was recorded as presence or absence. Paint colors were recorded. Slip color was recorded with Munsell color. The description box allows a text description of the decoration. Decoration location is recorded whether the interior, exterior, lip or handle. Decorative motifs include: “Zigzags (incised/applique)”, “Dots or dashes (incised)”, “Stripes, thin or broad (painted)”, “Interlocking rhombuses (painted/incised)”, “Anthropo-/ zoomorphic figures (applique)”, and “Unid.” Decorated sherds were all photographed, and the photographs that best capture the decoration are attached to the Filemaker page.

This project’s most obvious methodological shortfall is the lack of absolute radiocarbon dates to confirm stratigraphic levels chronologically. Given recent excavations elsewhere in the region, the project uses well-established relative dating techniques to associate deposits at Wimba with the chronological framework of the Late Intermediate Period (ca. 1000 - 1475 CE), and the Late Horizon (ca. 1475 – 1532 CE). The key diagnostic ceramic styles that can help us attribute periods of occupation of the site are provincial Inka style ceramics. Though few, these types were found in the upper-most context on Platform 1. The provincial Inka sherds anchor the dating of the site for two reasons: first, the occupation appears continuous between the founding of the site and the arrival of Inka wares and then eventual abandonment of the site, and second, though not as well known or tightly confined to a narrow timespan, painted ceramics common in the lower levels at Wimba are similar to Late Intermediate Period painted ceramics at nearby sites in nearby *montaña* sites in Amazonas and San Martin provinces. Interpretation of stratigraphy and features will address the chronology further in Chapter 6.

Similarly, the project did not involve specialist analysis of faunal and botanical remains collected from Wimba due to lack of funding. Despite this shortcoming, there are a few reasons to think that faunal and botanical data from Wimba would not overturn the interpretation put forth here. First, the deposits at Wimba were mostly shallow (<50 cm deep), given their relatively recent deposition (since approx. 1000 CE), and their location along the spine of a ridge. Roots of modern plants intruded on the top two basic strata at Wimba, and thus the likelihood of contamination of these contexts with remains of organic material from the modern period is high. Second, when examining the typical subsistence plants that would have sustained late prehispanic peoples in this part of the world, one is impressed by the fact that almost any botanical resource could have been accessible to inhabitants of Wimba. Given the terraces along the slopes of the ridge, and the proximity to fields from 800 masl to 2600 masl in elevation, it would be difficult to argue that a hypothetical botanical resource was at Wimba due to interregional interaction and not local in origin. There is currently no thorough reconstruction of the paleoenvironmental conditions, with regards to temperature, rainfall, and tree cover in this part of the *montaña*. As reviewed earlier in section 4.2, Mark Bush and colleagues (Åkesson et al. 2020; Bush 2002; Bush et al. 2015; McMichael et al. 2012) have examined lake sediments along the eastern slopes.

4.5.1 Statistics

As mentioned previously, organizing the project data in a Filemaker database was useful for organization and accessibility, and it was a convenient way to organize and export data for statistical analysis in R studio and ESRI ArcGIS software. When planning this research, I referred to the explanations of basic statistics used by archaeologists in Quantifying Archaeology (Shennan 1997), as well as Quantitative Methods in Archaeology Using R (Carlson 2017), and other textbooks (Drennan 2010; Wheatley and Gillings 2002). Storing data in a database made of related tables has a few notable advantages over a simple spreadsheet. I generated *counts* of artifacts organized by any cross-cutting factor, such as operation, location, context, or excavator. This was important for exploring the relationships between ceramic type and context. I also generated *proportions* of the overall assemblage. These exploratory methods were central to identifying and quantifying the patterns of material culture that underpin the interpretations in the following chapters.

The first step of statistical analysis was exploratory production of general statistical summaries, looking for patterns in the data that could be explored further. To generate these, I created some basic measures that I will explain briefly. First, the volume of each context was calculated. When the context covered the entire unit, the area of the excavation unit as generated in ArcGIS was used. When the context was only a subsection of the entire unit, the area was either measured or drawn in the field. The depth of the context was based on an average of the elevation measurements taken upon closing the unit. Using this volume measurement, I calculated the density of artifacts in each context by weight (for artifacts that are batched) and by count. This makes contexts more directly comparable in certain circumstances.

At different scales, general statistical summaries can be used to measure the proportions of diagnostic ceramic sherds. For example, I can compare Platform 1 to platform 2, compare context 02-02-C to 09-02-B, or I can compare the proportion excavated inside structures to that excavated outside. Do certain contexts or structures have different proportion of serving wares versus cooking wares? Is there a difference in type of cooking based on location? For example, there may be more evidence for roasting (based on soot on sherds) on Platform 1 compared to platforms 2-5, or in earlier contexts rather than later ones?

I used histograms to explore patterns in continuous data, and to address questions such as: can we define 'fine' vs. 'rustic' ceramic *platos* through patterns in wall thickness? Are there standard sizes in *cántaros* or *platos* that can be seen in the distribution of vessel orifice diameters? Is there a shift in the distribution of decorative motifs based on space (platform, or interior/exterior) or time (early contexts and later contexts stratigraphically)? Were higher quality decorated wares associated with public space, or with structure interiors? Did they change through time and if so, how? Similarly, the distribution of temper, temper percentage, paste color, etc, was plotted by platform, operation, context, or by interior/exterior.

Finally, I performed significance tests, using Fisher's exact for 2x2 tables and chi-squared test (**χ^2 test)** for different size tables to test if variables behaved independently. I also conducted binominal logistic regression to evaluate ceramic paste color. Statistical analysis of Wimba's artifacts allowed for more accurate summaries and comparisons of the artifact assemblages from different contexts.

4.6 Chapter Summary

This chapter briefly documented the methods used at each stage of archaeological study of Wimba and the surrounding region. First, to explain why certain methods were chosen, Wimba's geographical context was outlined, along with a brief discussion of the current knowledge of the paleoecology during the last two millennia. Then, the process of targeted archaeological survey of the Mendoza region of Amazonas province was described. Next, I outlined the justification for selecting Wimba for further archaeological investigation along with the goals of intensive excavation in 2016, and how they guided methodological choices. These choices were guided by the research questions outlined previously. Because we were interested in the use of the open spaces at the site for possible communal gatherings, we excavated linear operations crossing open spaces on the platforms. To analyze change over time, and thus changes in the permeability of the social boundary at Wimba, we organized the ceramic database to track the distribution of key ceramic types. Finally, the steps to analyze the materials collected in excavation were outlined, including the limitations faced by the project and how they were overcome. This also included brief discussion of the statistical tools and techniques applied to project results. In the following chapter, I present a detailed examination of the architectural features and spatial layout on an intra-site scale.

CHAPTER 5

ARCHITECTURE, SPACE, AND INTRA-SITE ORGANIZATION AT WIMBA

5.1 Introduction

At the site-scale, analysis of architecture and the use of space at Wimba will illustrate how platforms and structures afforded both feasting and everyday social practices in this community. The settlement is composed of structures, terraces, platforms, as well as pathways, at least one canal, a likely reservoir, and at least two cave tombs. In this section I outline, first, the architectural forms, techniques and spatial patterns that make up Wimba. Second, I explain what those forms, techniques, and patterns tell us about the use of space at Wimba. Third, I compare these forms, techniques, and patterns to Chachapoyas, Inka, and lowland sites nearby. Finally, I synthesize these findings to explain how Wimba exemplifies a borderland community in this regional and temporal context.

The architectural elements of the site emerge from a wide range of individual decisions that reflect concerns from practical to symbolic (e.g., Bowser and Patton 2004; Hillier and Hanson 1984; Moore 1996a). Archaeological projects elsewhere in South America have shown how household and monumental architecture mediated changes in community organization, religious practice, and political affiliation through the construction of new, larger structures, or the emulation of non-local styles (e.g., DeMarrais 2001; Jennings and Álvarez 2001; Vaughn 2005). Only rarely have these studies expanded to the eastern slopes of the Andes and upper Amazon east of Chachapoyas, and when they have it has most often been in pursuit of evidence of imperial Inka expansion (Salazar et al. 2015; Schjellerup 2018), rather than the vernacular/domestic architecture of autochthonous groups (cf. van Dalen Luna et al. 2013;

Ravines 1981). Mapping and excavation of the layout and architecture at Wimba allow us to understand the social construction of the built environment. The built environment both stabilized social life, and was a means for its renegotiation (Gieryn 2002). Though the political importance of monuments and palaces has long been subject to study, Guengerich (2017:272) points out how the materiality of a broader array structures also mediate the creation of a political group, or "public." Spatial organization may reflect both the everyday practices related to construction and subsistence, and symbolic elements of structures are part of a discourse with the Huayabamba valley and neighbors elsewhere. Close attention to the patterns of space within this site allow us to complement and complicate the macroscale models that currently dominate discussion of the eastern Andes. As Lightfoot and Martinez outline, we can look at "microscale issues of individual intentionality and social action" (1995: 477) at sites along the interface between regions.

The expectations for a borderland site that we can derive from the research on borderlands and shatter zones (summarized in Chapter 3) can be used as a framework for understanding the architecture and the spatial layout of Wimba. The goal is to understand how decisions related to site location, site layout, and architectural style reflect shared or unique practices within the northeastern Andean and upper Amazonian context. Previous researchers have broadly categorized this area as "Chacha influenced," but have not done enough mapping or excavation to determine what that means other than stone architecture and LIP occupation. Wimba is located at an ecological interface between ecological zones (Young and León 1999), at the eastern edge of the highlands, where "el monte y espesura de los Andes[10]" separates the large river basins of Moyobamba from the highlands (Cieza de León 2005 [1553]:213). In this case the

[10] "Dense brush and thickets of the eastern forest"- Author's rough translation

term Andes is used in the original sense, the way it is used in Antisuyu to mean the eastern cloud forest (Bertazoni 2020). This area was also a sociopolitical boundary, where, according to the account of Cieza de León (which will be discussed further in Chapter 7), Inka administrators sent soldiers from Cuzco to garrison the frontier (Cieza de León 2005 [1553]:212). To understand this site as part of a borderland region we look at defensibility, the organization of domestic activities and structures, pathways through the site, and the relationship with the landscape.

In this section I describe the primary architectural forms that were encountered during the Wimba project. These forms, made of stone architecture but less regular and less elaborate than Chachapoya sites to the west, represent a borderland in that they evoke forms from the west, but incompletely (e.g., Jennings and Álvarez 2001). Because overall the site occupation was relatively shallow, and the ceramics (which I will discuss later) appear to come primarily from one tradition associated with the LIP, it is most appropriate to discuss the architecture and use of space as roughly contemporaneous. This means describing the site here as it would have appeared at its largest period of occupation. Excavation revealed some evidence of earlier architectural features that were covered by later constructions and expansions of platforms, but the nature of the project prevented us from expanding excavations to the scale necessary to fully explore those features, so I cannot provide a full description of the architecture at every stage of the occupation of the site. I will discuss the possibility that some structures may have been constructed in the Late Horizon in Chapter 8. I am confident that the description gathered from the project is most representative of the site during the late prehispanic period and provides a more detailed picture of a borderland site in Amazonas than has yet been provided archaeologically. Additionally, because the project could not acquire radiocarbon dates from any of the excavations at Wimba, a close examination of the architecture and use of space at the site and comparison with Chacha and Inka settlement styles is helpful for determining when the site was likely built and occupied.

5.2 Architecture and space at Wimba

Within the region, Wimba overlooks the convergence of three valleys at their eastern limit. The Huayabamba valley is made up of three river basins, oriented northwest to southeast. Pathways along the length of these valleys all converge at Wimba. The road that climbs past Wimba continues to the northeast to the Mayo valley, following a prehispanic route (Schjellerup 2003). The site is organized along a low ridge of the Cerro Santa Maria, which rises to 2324 masl at its peak to the southeast of Wimba. Platforms created by retaining walls contain stone structures and open spaces. On the slopes surrounding the platforms there are terraces, tombs, and canals. Though the site is not very large, it occupies a key node in the regional network of movement.

There are a range of stone constructions at Wimba. The largest is a platform, called Platform 1. This is six times larger than any of the others at Wimba, and contains a wider array of architecture. Within the total area of the settlement, Platform 1 is not centrally located, its largest open space is at the northwest extreme of the site. (Figure 5.1). At the north end of Platform 1 there are two large structures, one round and one rectangular and three-sided. These large structures define an open plaza space looking out over the confluence of the San Antonio and Jebil rivers below. In the middle third of Platform 1 there are rectangular structures oriented east-west. These structures are smaller than those on small public plaza, but on average larger than the other structures. At the south end of Platform 1 there is a narrow entranceway separating the platform from the rest of the site, and four round structures. On Platforms 2-5 there are small oval fieldstone structures arrayed around open patio space. One striking feature shared by all the platforms is their panoramic view of the valleys to the west, and up along the road to the southeast. The likely approach to Wimba, both today and in the past, was from the southwest, passing below terrace walls and ridgetop platforms. As seen elsewhere in the *montaña*, movement within the site was not easy due to the topography. The terrain, limestone outcrops, and terrace retaining walls, restrict pathways of access to the tops of platforms. The pathways connecting the platforms run east to west along the flank of the ridge, and below it to the north.

With roughly 25 surveyed structures laid out over seven platforms within 12.5 hectares, Wimba's population would have been significantly smaller than many of the large villages documented in the Tambillo area in the center of Chachapoyas, for example. There, Monte Viudo and La Joya had more than 300 and 400 houses, respectively. Wimba is more comparable to the satellite sites surrounding Tambillo that had 8 to 50 houses (Alexandrino et al. 2017), but survey of the Huayabamba Valley has not found any large central settlement. This suggests Wimba was a small village settlement at the eastern edge of a valley of dispersed agriculturalists, rather than a constellation of towns. Full coverage survey in the surrounding area has not been carried out, but it is likely that the Wimba area would have included households spread throughout the valley near agricultural plots. The first line of evidence I will discuss is the built space at Wimba. This built space reflects the activities undertaken at Wimba and the role of Wimba within the wider landscape.

At least seven platforms are distributed across Wimba, containing structures and open patio spaces. These platforms are created by a two-stage process. First, a retaining wall of shaped limestone blocks was erected around a naturally occurring ridge. Second, the area within the retention wall was filled with stones and soil to create a flat, elevated surface at the level of the top of the ridge. This pattern is common not just at Wimba, but at the other non-Inka sites in the Mendoza region, such as Cacapucro, El Cedro, and Huancate. At the sites in this region the platform and terrace walls have been preserved better than the structures themselves. Thus, the platforms are literally the foundation of the site, and what scholars believe to be typical LIP habitation of the Huayabamba region (Schjellerup et al. 2003). Beside the five platforms that we tested archaeologically there is one is downslope to the west of Platform 1, and another south of Platform 3. These were heavily overgrown with trees and bushes, so they were outside our excavation plan. Though platforms 2 through 5 are currently overgrown with brush, which both restricts the view from the platforms and hides the platforms from the valley, I believe the platforms and their immediate surroundings would have been mostly cleared of trees when the site was occupied such that visibility would not have been impeded. Tree roots damage the terrace and platform walls and impede sun from reaching plants on terraces.

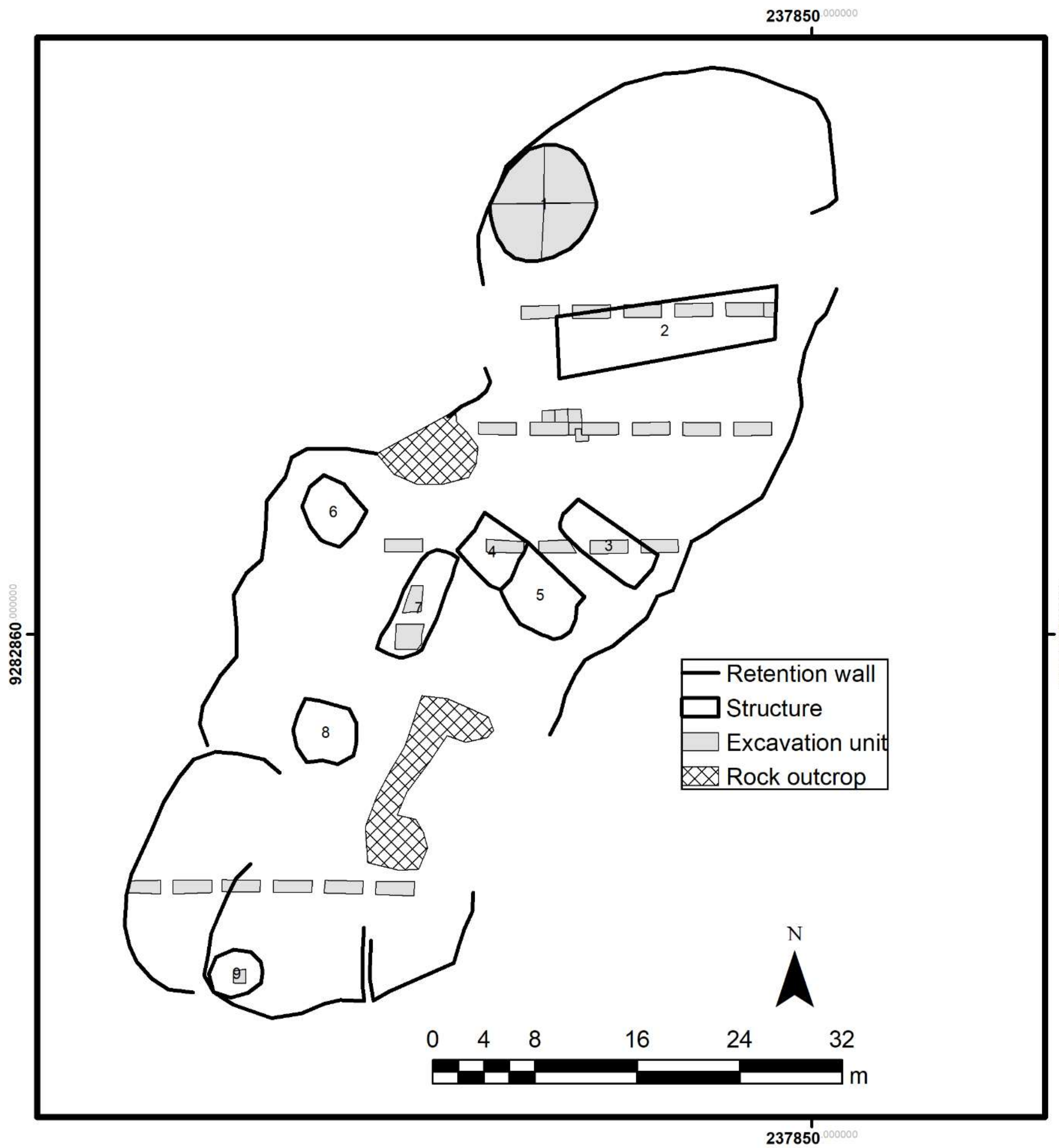

Figure 5.14: Platform 1, with structures and excavation units. The map is oriented according to cardinal directions.

5.2.1 Platform 1

The long approach to Platform 1, coupled with the large walls, emphasize the experience of crossing the threshold into the platform. Platform 1 is surrounded by high stone retaining walls, 1.5 to 3 meters in height. Platform 1 is more than 6 times larger than the other platforms at Wimba (more than 2000 m^2). The entryway is a 6 m long ramp, flanked by stone walls (Figure 5.15). Within Platform 1, certain spaces are delineated by retaining walls and large rock outcrops as well. The platform can be divided into southern, central, and northern thirds. In the early 2000s, the owner of the surrounding land, Cirilo Tafur cleared underbrush and maintained and reconstructed two circular structures (8 and 9) following the model of the circular Chachapoya houses reconstructed at Kuélap, though on a smaller scale. Sr. Tafur, who cooperated with the Wimba project and helped with excavations, asserted that he had not disturbed the ground itself while clearing the platform, and that the reconstructed structures were built on foundations that he had found while exploring the site while hunting. He did encounter several surface finds: grinding stones, bola stones, and ceramic fragments. I will discuss the southern, central, and northern thirds of the platform separately, but there are no obstacles to movement within the platform itself.

5.2.1.1 Southern third of Platform 1: Entrance and rock outcrop

The southern third of Platform 1 contains the primary access point to Platform 1, curving retention walls, the largest limestone rock outcrop at the site, and two circular structures. At the southern edge of the platform Structure 9 overlooks the pathway to the platform from the southeast. The walls of this structure have been partially reconstructed, but there is no roof covering it. We conducted a test excavation inside it (Operation 11). The few materials recovered from the test were largely non-diagnostic. Because the walls had been reconstructed, we cannot be sure where the structure openings were oriented, but Cirilo believes they opened west toward the valley below. Operation 4 investigated the open space in the southern end of the platform. It consisted of six sub-units excavated to understand the retention walls and possible use of the open space south of the rock outcrop. This operation was ultimately helpful in showing how the platform was built, and how the subsoil and bedrock varied in this portion of the site, but the material assemblage encountered here was primarily ceramic sherds. Excavation of the open space in the southern third hoped to find evidence of ritual activity associated with the rock outcrop itself, but excavations showed shallow deposits relative to elsewhere on the platform.

Figure 5.15: View facing south of the ramp entering Platform 1 between two walls.

The view from the southern portion is one of the hardest to predict, because today the ridgetop is completely covered in trees, but presumably when the site was occupied it would have been more cleared if not completely cleared. The smaller platforms would have been visible from the southern third of Platform 1, as well as the terraces along the slope to the east and the pathway to the site.

Figure 5.16: Rock outcrop AR-1, view from southeast

Another kind of feature found on the platforms is rock outcrop. Exposed stone outcrops were often important locations and tools for ritual in the Andes (e.g., Dean 2007). The Andean term for sacred entity, *wak'a*, can apply to a wide variety of entities, including plants, people, and geological features that from a Western ontology we would classify as 'things,' but which actively maintained social relations (e.g., Bray 2015; Salomon et al. 1991). One aspect of *wak'as* that made them hard to grasp for the early Spanish extirpators of idolatry was their partibility. They could be both places and things: mountains and stones, lakes or containers of water. Mountains were frequently important *wak'as*, and thus rock outcrops were *wak'as* that existed at a scale appropriate for ritual engagement with humans (Astvaldsson 1998; Murua 1946). It does not follow that every exposed stone outcrop was viewed this way, of course. Archaeologists are challenged to identify “the material practices that constituted these [possible *wak’as*] as members of the social matrix” (Bray 2015:13), and our excavations at Wimba did not find any offerings, interments, or specialized architecture in the immediate vicinity of either outcrop, so I do not claim these outcrops were *wak’as*. I describe them in detail and reflect briefly on their possible ritual significance because the integration of large rock outcrops into the platform in a way that maintained both their visibility and their unaltered nature is at least as relevant to the experience of the platform as the walls, structures, and patios.

The rock outcrop in the southern third of the platform (called AR-1 for afloramiento rocoso 1), takes up most of the eastern side of the platform. The outcrop is 14.25 m long (NE-SW), 6.0 m wide at the north end, 2.2 m wide in the center, and 5.2 m wide at the south end for a total area of 48.9 m^2. This rock looms over the central and southern thirds of the Platform. The dark weathered limestone is more than three meters high on the western and southern faces, and the platform slopes upward toward it. On the eastern face, out of view from the structures on the platform, the face of the outcrop is more irregular, and it is possible to climb up to the top. The top of the outcrop is roughly horizontal for the whole length, but the surface is not flat. It does not appear that the rock outcrop has been sculpted.

5.2.1.2 Central third of Platform 1: Rectilinear structures

The central third of the platform contains the remains of five structures laid out at three different sub-levels between the two rock outcrops. The western edge of the platform is the lowest area. Above that the other four structures occupy a middle elevation, and behind them, in the center of this section is an even higher elevation area extending north from the large rock outcrop. This section includes three rectangular structures and two circular structures. At the northwest of this section is the smaller rock outcrop. Operation 3 stretched across this section of Platform 1. There were relatively few decorated ceramics, and the vessel forms were evenly split among *platos*, cantaros, and unidentifiable forms (n = 13, 13, and 19 respectively). This operation did uncover several lithic objects, including three *boleadores*, an axe-head, and other lithic fragments, predominantly in unit 3 adjacent to a retaining wall. There were animal bones and carbon found in unit 2. The likely use surface of this section of the platform was distinguished by orange clay. Structure 7 contained Late Horizon provincial Inka ceramics.

Figure 5.17: View facing north of Operation 10, units 1 and 2, within Structure 7

The middle third has the least open space—264 m^2 —and the most structures (5). The southern third of the platform has 327 m^2 open space, subdivided by small terrace walls and the intrusion of the entrance to the platform. Grinding stones were found here indicating food preparation here.

The rectangular structures clustered in the center of the Platform, Structures 3, 4, 5 and 7, are not well preserved enough to determine the size of the entrances, but they were likely located in the north wall. Structures 3-5 are oriented the same way as Structure 2, they stretch east - west, and likely opened to the north, which is slightly downslope. Structure 7 is oriented perpendicular to the other three rectangular structures, with its entryway facing west.

Sections of structures 3 and 4 were excavated as sub-units 2 and 4 of Operation 3, the linear operation cut across the central third of the platform. One quarter of the total area of Structure 7 was excavated in Operation 10 (6.4 m^2). Sterile subsoil was relatively shallow on this section of the platform. We encountered remains of packed clay floors in each of these structures. These structures contained stone weapons. Structure 3 contained two *boleadores*, and Structure 4 contained two boleador stones, a hammer stone, and a small axe or hatchet head. In relatively small contexts this number of lithics could be related to the need for weapons for defense, or as a trade good that would have been valuable to eastern neighbors. The space itself was likely a living area where lithics were worked opportunistically. The second rock outcrop on Platform 1 (AR-2) is along the western edge of the platform in the middle third. This outcrop is smaller (28 m^2), and roughly round, with a 6.6 m diameter and is 1.5 to 2 m in height. AR-2 is also round on the surface and overgrown by brush.

5.2.1.3 Northern third of Platform 1: Plaza space

The north end of Platform 1, which I will argue is a plaza space that hosted communal gatherings, is set apart from the rest of the site by the size of architecture defining it, and the size of the open space. The north end of Platform 1 is defined by the largest structures at the site one round and one rectangular, each facing toward the open space at the northern edge of the Platform. The rectangular structure (Structure 2) was open to a large space to the north with a clear view of the valley and the river confluence below. The cliff to the north, east, and west here is very steep, and visitors to the open space at the northern end of Platform 1 had to walk through the platform from the entrance at the south end. Thus, local inhabitants would not have necessarily passed through Platform 1 during the course of daily activities. They would have to pass below other platforms and through agricultural terraces before arriving at the best view and the most likely venue for communal gatherings.

The area at the northernmost section of the platform, created by structures 1 and 2, is 416 m^2 in area. This open space had a wide, unimpeded view to the northwest, north, and east, encompassing the Jebil, San Antonio, and Milpuc valleys. These valleys included other LIP sites, and dispersed fields and pathways. The northern section of the platform also includes the space directly behind Structure 2 (area=277 m^2). This area was higher than the open area in front of the platform by ~1 m, and excavation revealed that it was raised by the deposition of fill behind Structure 2. This presented the most complicated series of walls, representing at least two, and probably three periods of construction in this area (Figure 6.2). The thatched roofs topping the surrounding structures would have impeded the views from this area, making it more like a closed patio.

Structure 1 is circular, roughly 8.5 m in diameter (56.5 m^2 in area), with a doorway facing east. It is the northernmost structure on Platform 1. Its walls are partially collapsed, but at least 5 courses of masonry were still preserved in many sections. Following Guengerich (2017) the masonry is worked stones with rectilinear form, but in irregular courses. This masonry was made of worked stone blocks of primarily limestone, with some sandstone and other stones included as well. The masonry is laid down in irregular courses approximately 65 cm thick on average. The wall is only preserved up to approximately 30 cm in height, too short to expect to encounter any decorative features in the masonry. No carved sculptural elements or decorations were found while cleaning the structure of brush and excavating the interior.

Figure 5.18: Structure 1, view facing west

The interior was excavated in four quadrants. In the center of the structure, we encountered the limestone bedrock surface very shallow below the topsoil. It is likely that this outcrop was exposed inside the structure when it was occupied and in use (Figure 5.14). Around the stone outcrop, the depth of cultural materials above fill was relatively shallow (15 cm), but the interior contained quite a few cultural materials. Ceramics were present in high quantities. There were two unfinished mace heads, and one hammer or boleador stone. Carbon and burned animal bone were also encountered, suggesting the consumption of roasted meat. There was a high quantity of hematite probably collected to use to make red ochre pigment. Overall, this structure contains an unusual combination of features, both materials associated with a workshop for lithics and pigments, and materials associated with the consumption of feast foods. This structure must be understood in conjunction with structure 2 to adequately describe this sector of the site, at the north end of Platform 1.

Figure 5.19: Structure 1, view facing southeast.

Structure 2 is the largest structure at the site. It is 17.25 m long on the east-west axis and 4.14 m deep, with a total interior area of 76.72 m^2. It has a somewhat unusual structure of a rectangular building with one long wall (the northern one) missing. The north side is open, with a stone foundation threshold raising it approximately 40 cm above the level of the open space in the north of Platform 1, but no further courses. Several terms are used for this type of building when it appears in the canon of Inka architecture (though it is not exclusive to the Inka). Guaman Poma illustrates an Inka royal building type called a *carpa uaci,* which is drawn as a three-sided building missing one of the shorter sides and exposing the supports for the roof, and in one case housing an *ushnu* or platform for public ritual (Guaman Poma de Ayala 1993b:331, 371; Nair 2015). *Carpa uaci* would roughly translate to 'tent house,' and it is the only structure drawn by Guaman Poma in which the interior is fully visible in the scene. While the structures illustrated by Guaman Poma appear monumental in size, smaller rectangular structures with open walls are present at other Inka sites. Valcárcel refers to the structures in this form at Machu Picchu as *masma,* from a Quechua term for gallery, corridor, or space with one open side (1967:7). Another term for them is *huayrana*, or, in Protzen's influential analyses, type 2 Inca buildings (2018). This format is associated with the warmer temperatures and more frequent rainfall of the *montaña*, because a covered open space could be a good place to work during the day. Nair (2015), Protzen (2018), and Margolies and Gasparini (1980) speculate that the form of the 3-sided building, *carpa uaci* or *masma*, may have originated in the lowlands of the eastern Inka quarter of Antisuyu, where examples open or partially open structures are frequent. At the same time, it must be noted that at Machu Picchu the three-sided structures are associated with stone outcrops, such as, for example, the 'temple of the three windows' which is a *masma* located directly below the intihuatana (Gasparini and Margolies 1980; Valcárcel 1967). The fact that Guaman Poma depicts *carpa uaci* as open to the outdoors containing an ushnu structure (Guaman Poma de Ayala 1993b:369 [371]) suggests that ritual activity akin to that hosted on ushnu ritual platforms in outdoor spaces may have occurred inside *carpa uaci.* Schjellerup (2009:42) describes one structure at the nearby Inka site of San Francisco as a *carpa uaci* of a similar size to the one at Wimba (20.30 x 4.80 m). Put together, this means that buildings like Structure 2 are likely to have facilitated public ritual or commensal feasting.

Excavations within and just to the west of Structure 2 exposed the threshold of the north face of the structure, buried by 15-25 cm of soil. The interior of the structure was relatively clear of artifacts, but the platform just adjacent to the western corner showed evidence of the use floor, as indicated by burned clay lenses and ceramic sherds oriented horizontally. The floor inside the structure appears to have been made of packed earth on top of sterile fill of cobbles and clay. We did not encounter features inside the structure such as postholes or hearths, but the soil inside was heavily disturbed by roots making preservation of these kind of features difficult. It is possible that a large stone in unit 4 was the base for a post to support the beam over the north opening.

Though the site is relatively small (~12.5 ha), and structures are not densely agglutinated, architectural forms vary in size and shape, and evidence for public/ritual space is strong. If visiting the small plaza on Platform 1, Visitors to Wimba would have emerged from a pathway constricted both physically and visually by trees, walls, and constructions, into the largest flat open space at the site, with the best view over the valleys below. The area of the north end of Platform 1 is 416 square meters (not including the space inside the structures). To put this in human terms, based on an intermediate estimate for personal space calculated based on the population and plaza size at Ollantaytambo (Moore 1996b:147), 116 people could have been accommodated in just the open space at the north end of Platform 1, and 360 total on that platform, compared to an average of 60 people on the smaller platforms. The structures on Platform 1 would have delineated the space for communal gatherings, as well as highlighting certain areas within the plaza, especially the area inside Structure 2. The evidence for the activities undertaken here will be discussed in the following chapter.

5.2.2 Platforms 2-5

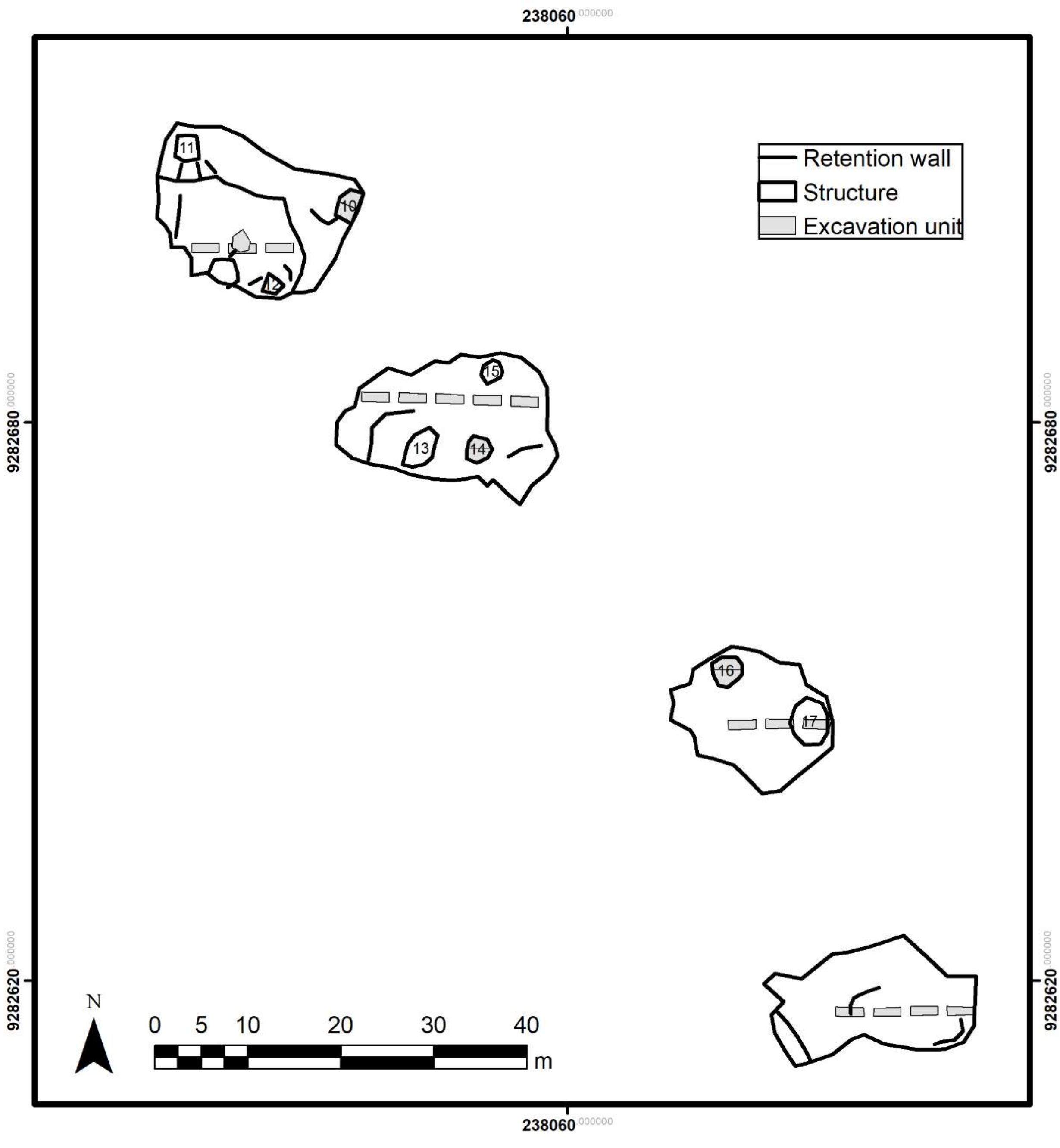

Figure 5.20: Platforms 2 through 5 (left to right) structures and excavation units

The smaller platforms at Wimba, including Platforms 2-5 that were excavated, present much less variety in construction techniques. The combination of open patio space with small structures makes these spaces fit with residential compounds. They occupy prominent spaces along the ridge above Platform 1, and if the trees were cut away the stone walls of the platforms would have been visible across the valley, but these platforms are not easily accessible. The characteristics of each platform and the structures built there will be discussed below.

At the southeastern corner of the site (1614 masl), Platform 5 overlooks the pathway rising to the east, approximately 120 m away. A large limestone outcrop defines the southwestern edge of the platform. The platform itself is 205 m^2, and multi-level—the southern section is approximately 0.5 meters above the northern section. Platform 5 was investigated by Operation 8, which consisted of four units. These units defined the typical pattern of deposition on the small platforms at Wimba. At the center cultural deposition was relatively shallow (~ 30 cm), while as excavations approached the edge of the platform cultural fill was deeper (~ 130 cm), indicating the way the platform had been constructed around a pre-existing ridge. Two low retention walls curve in from the outer southern wall. The area just outside the eastern wall, excavated as Operation 8 unit 1 (08-01), contained a large quantity of ceramic sherds with better than average preservation (sherd size is significantly larger). Also, in the center of the platform in unit 2 a very dense concentration of ceramic fragments was uncovered in the second excavated layer (08-02-B). Further west, in unit 4, two shallow retention walls or steps were uncovered, leading up to the east. The use surface here did not have the same concentration of ceramics as 08-02-B. Overall, the assemblage of this platform contained ceramics in the typical array (*cántaros*, *platos*, and unidentified body sherds), and camelid bones. Even though no structures were detectable on Platform 5, the ceramic assemblage contained the full suite of domestic wares, including the highest number of identifiable *cántaros* (n = 24) and the highest number of decorated sherds (n = 22) outside Platform 1. This assemblage likely represents domestic use of this platform.

Platform 5 contained a very large pile of limestone cobbles in the center. In initial survey I assumed this was a caved-in structure, but when the platform was cleared it became obvious that the stones did not form walls, but rather one dense pile. A similar, but smaller, pile of stones was found on Platform 2, and excavated (Operation 05-02b). A couple scenarios may explain the presence of the rock pile on Platform 5. First, this stone pile may have been created from stones removed during the process of clearing and leveling the platform. Second, the stones may have been stored there to be used later to build walls or structures either on Platform 5 or nearby. These scenarios both suggest that Platform 5 was left incomplete. In the next section I explain the key inferences about activities that occurred at Wimba, and how they were structured by the built environment.

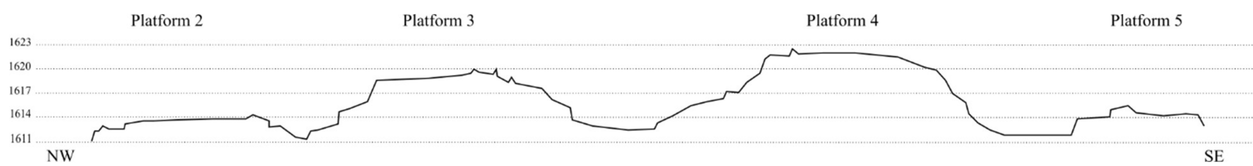

Figure 5.21: Profile of Platforms 2-5 elevation (masl)

Less than 20 m northwest of Platform 5, but 8 m higher in elevation (1622 masl), Platform 4 is the smallest tested (181 m^2) (see Figure 2). This platform contained the remains of one structure on the surface, Structure 16 (8 m^2 in area) which was excavated as Operation 14. In the western half of the platform soil is very shallow, and limestone bedrock is reached within 30 cm of excavation. Surprisingly, Platform 4 contained one of the most interesting contexts at Wimba. Operation 7, unit 3 uncovered a use-floor associated with a round structure that was not recognized during survey. A cache of bone plaques that would have made up a necklace or bracelet were deposited on top of this floor, which will be discussed further later. This platform, the highest elevation of the five, has a clear view of the Jebil and San Antonio confluence, even today when the brush on and around the platform has not been entirely removed.

Platform 3 is 27 m northwest of Platform 4. Its elevation is 1619 masl, and the area is 261 m^2. This platform contains three structures (13-15). We excavated Operation 6 in four units across the breadth of the platform, providing a representation of how the platforms were constructed. The layer of soil containing cultural material in the center of the platform is shallow, approximately 15 cm above limestone bedrock in units 2 and 3. The platform is not perfectly flat; two short (< 30 cm tall) curving retaining walls are present at the southwest and eastern sections of the platform delineating lower areas near the edges. Close to the edges of the platform in excavation units 1 and 5, however, sterile fill is encountered approximately 70 cm below the contemporary surface. This sterile platform fill, or "nucleo," is made of 75% limestone cobbles and 25% clay soil. This fill would have been available close by, but it suggests that this platform was created with the use of sterile fill that did not include materials from prior deposition elsewhere. The ceramic assemblage of this platform is like the other small platforms and is generally interpreted as domestic. A spindle whorl and a stone for burnishing were also discovered here, possibly indicating that the platforms functioned as a workshop.

Structures 13-15 were found on Platform 3. Structure 13 was 10 m^2in area, and oval. This structure is in the middle of the southern half of the platform, immediately facing structure 14, to the east. Structure 14 is smaller (5.75 m^2in area), and oval shaped. Together these structures are located at the highest section of the platform, which slopes downward to the north edge by ~0.75 m. Along the north edge, Structure 15 measures 4 m^2in area, possibly functioning for storage. Excavation of Structure 14 (somewhat confusingly in Operation 13) showed a shallow deposit. Fragmented bone, ceramic sherds, and terrestrial snail shells were found in excavations, but wall fall heavily disturbed the soil itself. There is a spindle whorl as well.

The most complex small platform with regards to the subdivision of space is Platform 2, which contains three structures, an unusual round stone feature, a retention wall, and internal dividing walls. This platform is the same altitude as Platform 5, 1614 masl, five meters below Platform 3, which is located 17 m to the southeast (see Figure 2). The soil in this area is very rocky, with limestone cobbles at all depths. Throughout this platform we encountered sterile, silty soil below the cobbles and humus that were deposited as part of the platform construction and leveling, though the depth of this sterile soil varied between as little as 15 cm and as much as 50 cm due to the uneven limestone outcrops that made up the foundation of the platform, but limestone bedrock was mostly shallow across this platform, approximately 20-30 cm below the surface. The platform is laid out on two levels, divided by a ~1 m stone retention wall. The lower level wraps around the northern and eastern edges of the platform, and contains two structures, while the upper level is in the central/southwestern part of the platform. The upper level contains a limestone outcropping, a small structure, a very small stone structure (<2 m diameter) that may have been used for storage, and two segments of stone walls. This platform layout resembles what in other regions are termed 'compounds' where a number of structures and workspaces were surrounded by walls and set apart from neighbors somewhat. The assemblage is like the other small platforms, reflecting domestic activity. The excavation uncovered grinding stone mortar fragments that mend. To the northwest, in the direction of Platform 1 exists the remains of at least one other platform, and numerous terrace walls. The area along the ridge itself is entirely overgrown and thus the pathway between Platform 2 and Platform 1 extends directly north, to where it joins the primary path to Platform 1.

Structures 10-12 were found on Platform 2. At the northeastern corner of the platform, on its lower level, was Structure 10, which was excavated in operation 12. Structure 10 was approximately 7 m^2 in area, and rectangular with rounded corners. The masonry was made of minimally worked and irregularly shaped stones, and the preservation of the walls was poor. Most of the wall had caved in. Excavation recovered a relatively small assemblage of diagnostic ceramics, which correspond to largely domestic use. Structure 11, at the northwestern corner of the platform, and on the lower level, was slightly smaller ~6 m^2 in area. It was also made of minimally worked and irregularly shaped stones. This structure appeared to have three other walls radiating to the south to connect it with the retention wall of the upper portion of the platform. The purpose of these walls could not be discerned through survey, though they may have been used for storage. The smallest and worst preserved structure on this platform was structure 12, less than 3 m^2 in area. This may have been a storage structure, or possibly a smaller part of a larger entity that had been partially destroyed. Excavation in the open space uncovered a camelid metacarpal and mortar fragment.

5.2.3 Terraces

Along the slopes surrounding Wimba are both modern fields and the remnants of ancient terraces. Modern fields are located directly on the slope, with only minimal boundary walls. Stone terrace walls in the area around Wimba are located higher on the slope closer to the platforms at the site. This area has only recently been prepared for shade-grown coffee cultivation, which only involves partial clearance of underbrush, and does not involve terracing. It is highly unlikely that these terraces were constructed after the LH. The terrace walls predate the 20th century resettlement of this part of the valley. Typically, terrace walls are built in coordination with natural rock outcrops. They connect and fill gaps in the natural topography of the hillside (Figure 5.22), in a way that creates more flat surfaces and prevents erosion. Due to the thick vegetation covering most of the site it is difficult to say exactly how much of the hillside is terraced, but there are three areas where terrace walls are frequently encountered. The first is to the west of Platform 1, where a sequence of terraces extends down toward the Huambo valley, and include at least one other platform with a structure. The second is to the south of Platforms 2-5, where the most extensive terracing was encountered during survey. The third area is in the northeastern portion of the site, along the approach pathway toward the site from the road and modern Tocuya. This part of the landscape is less steep than the previous two sections, but nevertheless there are retaining walls at intervals that create an easy grade.

Figure 5.22: Terrace wall south of Platform 3

Other sites in the area are also associated with stone terracing. Terraces are often associated with Inka sites in the *montaña*, and it is well established that the Inka encouraged construction of new stone-faced terraces (Guengerich and Berquist 2020; Lyon 1981; Schjellerup et al. 2009), though it is difficult to directly date terrace complexes. In the lower *montaña* area where Wimba is located ground cover prevents us from a complete map of terracing. A mixture of crops would have been cultivable at this altitude, probably including maize, beans, and gourds. Closer to the valley bottom coca, chili peppers, and cotton could have been grown as well, which is attested in early colonial documents (Mogrovejo 2006:124).

5.2.4 Other features

There are at least two small caves in the hillside adjacent to the Wimba site. Local farmers found human remains there while using the area for hunting and agriculture. Two of the project members told a story of finding and removing ceramic vessels from a small cave at the site, though all that was left on the surface currently were some small, non-diagnostic ceramic fragments. Commingled remains were visible in the tomb, comprising at least 2 people. Visual examination by bioarchaeologist Emily Sharp indicated evidence of pathologies. A disarticulated bone from a subadult cranium presented evidence of porotic hyperostosis, and one adult mandible fragment was abscessed.

A canal descends to the modern *anexo* of Tocuya, passing close by the site of Wimba. The remains of a relict canal and a reservoir are located below the terraces to the northeast of the platforms. These were not tested through excavation, but they have been tentatively included in the map. The archaeology of the *montaña* east of Chachapoyas is still developing, so Wimba is the best-known site of its kind. So, to summarize, inhabitants of Wimba buried their dead nearby in natural caves, and likely had access to water very close by, despite their ridgetop location.

5.3 Emplacing practice: What activities can we infer from the use of space?

Though this site is small, a wide range of practices related to domestic production, agriculture, ritual, treatment of the dead, connections with neighbors, concern with defense, and relation to the landscape can be inferred from the forms and pattern of the built environment at Wimba.

The investigated areas of the site showed ample evidence of domestic activities. People living at Wimba were grinding corn, weaving textiles, cooking stews, roasting meat (more on this in the following chapter) and making weapons and tools. The presence of grinding stones, spindle whorls, and animal bones inside and/or adjacent to structures on each platform makes this conclusion clear. I will discuss the specific characteristics and implications of the ceramic assemblage in the following chapter. The organization of domestic activity both determined and was determined by the location, layout, and building materials of the site. Small platforms, and subdivisions of the larger platform, appear to have included patio space where domestic tasks were undertaken. In this way the smallest social units that makes up Wimba appear to be made up of not just one single structure; but rather a few small structures and a patio. This pattern can be found elsewhere in the Andes, though notably not in Chachapoyas, which I will discuss further in the next section. Most importantly for this study, the small plaza at the north end of Platform 1 appears to have hosted communal gatherings. There, people from Wimba, as well as visitors from neighboring towns and regions could have shared food and drink.

On terraces and shallow slopes surrounding Wimba, we can infer the cultivation of plants. Pollen analysis of soil from terraces at the nearby sites of Llacta Pata and Inka Llacta indicate that the areas were cleared enough to receive regular sunlight, which would have allowed the cultivation of legumes (*Fabaceae*, including *Phaseolus*), maize (*Zea mays*), gourds (*Cucurbita*), as well as herbs (*Satureja spp.*), avocado (*Per sea*), medicinal plants (*Brassicaceae*, etc), amaranth (*Amaranthus*), and others (Cummings 2002). In addition to these plants likely to have been grown in the immediate surroundings of the site, there are also ethnographic records of the agricultural products of farms and ranches of the lower elevations closer to the Huayabamba valley floor, which were primarily coca, chili peppers, and cotton. It is likely that residents of the Huayabamba valley engaged in the cultivation of lower-elevation crops to share or trade with higher elevation neighbors in the prehispanic period, as they are documented to have done in the early colonial period.

I will discuss this aspect further in remaining chapters, but one implication of the large rectangular and circular structures 1 and 2 and the small plaza at the north end of Platform 1 is public or commensal ritual behavior. Each structure is larger than any other at the site, the open space between them is the largest at the site and oversees important landscape features, particularly a river confluence (*tinku*), cliff faces along the edges of the valley, and pathways connecting with neighboring sites. The pathways of movement within the site support the interpretation that entry to this space was restricted. The combination of restricted access, outstanding architecture, and the visual control of much of the valley suggest that the plaza at the north end of the platform was the most important space at the site. The ceramic data that will be discussed in the following chapter will help further explain ritual practices that occurred at the north end of Platform 1.

Though it was not a focus of the project, we did encounter surface evidence for burial practices at Wimba in the process of mapping the site. We can see that a cave and small rock shelter were used to bury the dead alongside ceramic vessels. Discussions with locals supported the idea that most caves in the region have remains from prehispanic interments. Both caves adjacent to Wimba were disturbed and it is likely that offerings and human remains have been removed in the past (or possibly recently by less scrupulous archaeologists). Cave interments have been documented elsewhere in Chachapoyas (Crandall 2012; Koschmieder 2012), and throughout the Andes (referred to as *machays*). The preservation afforded by cave burial may have been related to ritual activity involving the mummies of the deceased as actors (Dillehay 1995), which would connect these inhabitants to their ancestors, and more broadly, to Andean beliefs in ancestor veneration (Buikstra and Charles 1999; Nystrom et al. 2010). The presence of cave burials at Wimba, and nearby at Mito suggests Wimba inhabitants shared practices of ancestor veneration that were common in the broad Chachapoyas region, which is also supported by the ceramic assemblage discussed in the following chapter.

We can infer connections with neighbors at intervisible sites. As Guengerich (2018) points out, the hill and ridgetop location of sites made travel and visiting neighbors more difficult, but makes visual communication at a distance through smoke signals or other methods easier (Kohut 2016). Field observations show that much of the San Antonio and Jebil (Huayabamba) valleys are visible to the northwest. Platform 1 has a commanding view of the Huambo (Huayabamba) river to the south, as well. The mountaintop observation post called El Arenal is visible from the platforms, and in turn that observation post oversees a huge swath of the valley and the roadway toward Posic and eventually the Mayo valley (Schjellerup et al. 2009). Also, important landscape features are frequently considered valuable actors within society, and the invocation of connections to those features played a role in site planning and ritual elsewhere (Hernández Garavito 2019; Williams and Nash 2006).

A wide viewshed would have been valuable for the defense of the site as well. Though Wimba does not preserve evidence of a complete perimeter wall, the ridgetop location and terrace walls would have provided defense against the raids typical of warfare in prehispanic South America (Arkush 2011; Arkush and Stanish 2005; Arkush and Tung 2013). In the early colonial period sites in the Huayabamba valley that were part of Spanish encomienda grants were subject to raids by “savage” lowland groups. Wimba was not well positioned to monitor the approach from the east, where these lowland groups presumably originated, but it was positioned at a narrow point at the eastern edge of the Huayabamba valley such that people coming north or west from lower elevations would have passed nearby. Visual signals could have been shared between El Arenal, Wimba, and other sites. The platforms were surrounded by terrace walls. The entranceway to Platform 1 is very narrow, which would have required attackers to enter single file. We can infer the preparation of weapons at the site due to the presence of unfinished mace heads and *boleadores* on Platform 1 (though the *boleadores* likely also had a use in hunting). As outlined in chapter 2, archaeologists debate the degree to which fear of attack caused the ridgetop settlement pattern observed in Chachapoyas. I do not suggest that the site was built primarily as a fortress, but the location of the site was probably defensible.

5.4 Contextualizing Wimba

Despite some shared features, Wimba does not obviously fit into the architectural tradition of either Chachapoyas or provincial Inka settlements. Compared with lower elevation sites, which are admittedly poorly documented, the use of stone as a primary building material and the architectonic organization of the site fits more within highland traditions. What makes Wimba unique relative to the predominant highland traditions during the LIP and LH is key to understanding Wimba as a borderland settlement.

Due to spatial proximity and similarity in both site location and building material, the building tradition of the Chacha is a point of comparison. First, the built environment at Wimba can be compared with central Chachapoyas, which has been well documented by the research of

Guengerich (Alexandrino et al. 2017; Guengerich 2012, 2015) in the Tambillo area near modern Leymebamba, and Koschmieder's (2012, 2014) survey in Luya. As I outlined in Chapter 2, the practices common to the group(s) that would be called Chachapoyas were diverse. The subsistence base could range from high-elevation tubers and quinoa at Tambillo, to mid-elevation maize and beans in Luya, but most sites contain evidence of the consumption of camelid meat. Sites were typically located along ridge or hilltops, frequently forming narrow bands following the topography, and they lacked large areas of open space or evidence of central planning. The actual elevation of those sites varied considerably, from almost 4000 masl, down to below 2000 masl in the north. In terms of warfare, the bioarchaeological evidence for trauma ratees around 20% suggest that warfare was frequent in and among groups in this area (Jakobsen et al. 1987; Nystrom and Toyne 2014), though the area may not have been as *exceptionally* violent as ethnohistoric accounts suggest (Espinoza Soriano 1967; Ruiz Estrada 2010). Bioarchaeological investigations are well-developed in Chachapoyas because the Chacha utilized a diverse range of mortuary treatments, from secondary burials within walls or below floors, to *chullpas*, caves, and anthropomorphic sarcophagi (Nystrom et al. 2010). All these methods allowed continued interaction with the deceased, implying ancestor veneration was part of the ritual practice of Chacha groups. But the feature of Chacha sites that most unites the large region is household architecture. At Chacha sites from Pataz in the south to Jucusbamba in the north, the locus of investment was on the house, and its attendant platform base, decorations, and roof (Guengerich 2017).

Wimba shares the overall pattern of ridgetop location and linear shape with many central Chacha sites, such as Cuchaconga, and TMB6 (Alexandrino et al. 2017). Archaeologists disagree over the cause for LIP settlement shifts up to hilltops where certain activities were harder. Some say it was due to desire for safety amid chronic warfare; others that it was proximity to higher elevation terraces; and finally, there may have been a spiritual appeal to moving closer to sacred mountaintops that were already sites for religious ritual in earlier periods (Guengerich 2018). Along the eastern slopes specifically, the threat of leishmaniasis may have led some groups to favor ridgetop site locations (Wilkinson 2020). All these explanations could have been influences on the founders of Wimba as well (with the added fact that the site is very close to an important pathway). The decision to live at the upper elevations in this part of the Huayabamba valley likely reflected a subsistence base of maize and beans, like Inka Llacta (Cummings 2002), rather than manioc which is the archetypal lowland staple (no artifacts related to manioc processing such as graters were encountered at Wimba). Somewhat surprisingly, given the low elevation, there was evidence of camelid meat consumption throughout the site. This, together, means that inhabitants of Wimba likely had a very similar subsistence diet to LIP inhabitants of Luya and the Jucusbamba area (Koschmieder 2012; Toyne et al. 2020). There is evidence that Wimba inhabitants produced weapons, and the site itself is broadly defensible, meaning likely shared warfare practices with Chacha peoples, though no skeletal trauma studies have yet been undertaken. The caves in the hill around the site have evidence of burials, meaning there may have been shared beliefs about treatment of deceased ancestors. Finally, the presence of communal or public architecture that is only subtly different from domestic architecture is characteristic of Chachapoya sites. In this case the pairing of large rectangular and circular structures around a patio is seen at La Joya, in the Tambillo area as well, but there it is on a much larger scale. As I outlined in chapter 2, Chachapoyas has been defined too broadly in the past, but these are numerous ways in which Wimba shares practices that created Chacha communities in the northeastern Andes.

Despite these strong connections, there are some important ways in which the architecture and use of space at Wimba differs from established Chachapoyas tradition. As I have illustrated, other than a common building material—stone—the household architecture at Wimba was different in size, decoration, use of platform bases, and association with open outdoor space all of which are independent of the size of the site or number of structures it contained. Unlike at the smaller sites in the Tambillo region, the domestic structures themselves show less investment, as seen in size, masonry quality, platform bases, and decoration. These features were identified by Guengerich as key to Chachapoya community formation at LIP sites in the Tambillo area (2017). The consistency of the overall house form was combined with the many possible variations that individual households could choose to embellish their houses to create a discourse within the community of a site. By contrast, at Wimba the platforms are the focus of architectural investment, and, as mentioned previously, they form compounds with various small structures associated with an open patio space. The structures themselves are not predominantly circular like typical Chacha houses. None of the structures are situated on platform bases, and none of them have subfloor chambers. None of them are preserved enough for niches, tenon heads, or other decorations to be found. Rectilinear and oval structures are more common at Wimba than at the Tambillo sites. Communal architecture can be defined by size and location, though rectilinear structures do occur in Chacha sites at La Joya and Purun Llacta de Cheto, for example, these structures were still part of the household vernacular architecture style, and none were open on one wall like Structure 2 at Wimba. Thus, to summarize, despite the broad base of shared practices between central Chachapoyas sites and Wimba, the feature that is most closely associated with Chachapoyas social life—the Chacha house—is where the builders of Wimba deviated.

As was discussed in chapter 4 and will be discussed further in Chapter 6, Wimba was occupied during the LIP and LH (~1000 – 1525 CE). The architecture documented in this chapter could not be definitively attributed to either period. However, the architectural characteristics of Inka administrative sites, as documented at Posic, Laurel, Inka Llacta, and Llacta Pata (Schjellerup et al. 2003, 2009), are remarkably clear, and Wimba does not share those characteristics. These tambos and administrative sites contain characteristic Inka administrative architectural forms, such as *kancha* groups of rectilinear structures around a central courtyard, and are in open areas in valleys, associated directly with pathways, rather than overlooking them from atop a ridge. Thus, Wimba is clearly distinct from these settlement types in several ways. First, larger administrative sites like Posic, Inka Llacta, and Pata Llacta are located on valley floors, rather than along ridgetops the way Chacha sites were. Second, these Inka sites contain recognizable architectural forms—kanchas, baths, rectilinear kallanka—and styles of masonry that include fine worked and fitted stone walls with trapezoidal doorways. Wimba has one large three-sided *masma* or *carpa uaci* building, and smaller rectilinear structures, but the corners are rounded, and the masonry quality was much lower than what is observed at Posic. No direct connection with Inka architecture can be argued. Third, when the Inka conquered groups living in hilltop fortified towns in the Titicaca basin, they frequently resettled them down to valley sites where they were less liable to resist or rebel against Inka authority (Hyslop 1990). These people stayed in their LIP settlements. Fourth, sites like Posic and Laurel are not laid out on platforms, but in open, relatively low areas. Borderland settlements from the Late Horizon do not always have such clear Inka characteristics, however. Early accounts refer to forcibly resettled populations, *mitmaqkuna*, who were moved to frontier areas, though positive evidence for these intrusive groups is very difficult to ascertain (Alconini 2016;

D'Altroy 2005; Hyslop 1990). It is more difficult to rule out this possibility because *mitmaqkuna* could take so many different forms. This will be discussed further in Chapter 8.

Finally, there are several sites in the eastern *montaña* that have been attributed to the Chachapoya, or to Chacha influence, that deserve separate attention. Van Dalen Luna and colleagues surveyed 25 sites in the middle Mayo valley in 2008 and 2009, and described the architectural pattern, which he interprets as evidence of Chacha influence (van Dalen Luna et al. 2013). The sites he attributes to the LIP have terrace walls that create flat spaces, large circular, quadrangular or irregular enclosures containing small oval structures. They are located at lower elevation (between 700-900 masl), but they are located on low hills in the intermediate zone and on the flanks of the mountains. Though the constructions that were discovered are made of local limestone, Van Dalen Luna speculates that most of the stone walls would have been topped with wood or wattle-and-daub. More evidence for sites in the Mayo valley without stone architecture exists in the form of ceramic scatters. Van Dalen Luna interprets this pattern overall as evidence of Chacha influence. Similarly, Schjellerup describes several small sites within the Huayabamba area as Chacha, based on the presence of circular structures, but none of them are well preserved, and there are no platform bases or friezes. I suggest that together the Huayabamba and Mayo valley sites form a lower *montaña* architectural style that differs from Chacha in important ways. Smaller stone structures were likely interspersed with wooden constructions, and the constitutive unit of the sites were platforms or enclosures containing small oval or irregular stone constructions, rather than elaborate Chacha houses.

5.5 Discussion of social boundaries in spatial organization

If we seek to understand how the use of space at Wimba related to social boundaries or social boundary processes in the borderland zone where Wimba is located, how can we move from cataloging spatial traits and comparing them to neighboring regions, toward understanding the ways that these practices would create, and be created by, past ideas about identity and social boundaries? A valuable idea originating in southern Andean ethnography can help frame the architectural data. *Tinku* has been documented ethnographically and ethnohistorically and is one of the most important concepts for understanding the formation and maintenance of Andean ayllus, or corporate kin groups, as well as the animated landscape of the Andes. *Tinku* can be most simply defined as "encounter; confluence of two or more streams; ritual battle"; and *tinkuy* means to join through a violent meeting or to encounter (Allen 1988: 262).

Platform 1 at Wimba overlooks a *tinku*, where the Jebil and San Antonio rivers come together to form the Huambo. The view over this confluence is defined by a round structure and a rectangular structure creating a small plaza. I think that the complementarity shown through the contrast in architectural forms in the small plaza deliberately draw upon the *tinku* below. Like the rivers below this small plaza was also the location of a generative encounter.

In southern Peru and Bolivia, *tinku* in the form of ritual battle, plays an important role in ayllu boundary maintenance. During important festivals, such as carnival, competitive dancing between different moieties or ayllu groups traditionally escalates to ritual battle designed to shed blood, which serves as a sacrifice to the mountains and continuation of the circulation of life force. As Catherine Allen describes it: "In *tinkuy*, one experiences an opponent's similarity to oneself as well as his or her difference. If there were no basic similarity between combatants, they could not join in battle; but if there were no differences between them, they would not have a reason to fight." (1988:206). Thus, *tinku* requires recognition of some degree of social equivalence and similarity, which raises the question of where such similarity would have ended.

With regards to the eastern slopes, it is relevant that the ritual encounter of *tinku* documented by Allen involves communities enacting a battle between *chunchos* and *qollas*—jungle indians and highland traders. Though most documentation of the ritual practice of *tinku* battles comes from south central Peru and Bolivia, and there are no records of *tinku* battles in Chachapoyas, the concept was likely understood throughout the central Andes, at least. Bioarchaeologists have suggested *tinku* explains some trauma patterns observed from Pacopampa, in northern Peru (Nagaoka et al. 2017), and La Real in south central Peru (Tung 2007) despite the lack of documentary evidence.

In her review of the prehistory of western Amazonia Taylor suggested that there were dyadic relations between upper and lower *montaña* groups that involved conflict that was ritualized like *tinku*, and specifically suggested the Chachapoya had such a relationship with the Bracamoro to the north, just as the *chunchos* and *qolla* have their ritual battle up to recent times (1999:202). Based on ethnographic fieldwork in Bolivia, Abercrombie notes that the conjunction does appear to be between "balanced, complementary opposites, it always has the character of the conquest and subsummation of one unit by the other" (1998:367).

Structures 1 and 2 are unique within the site due to size, association, view, amount of open space adjacent to them, and the quantity of cultural materials affiliated with them. These traits together suggest that these filled more than a domestic role. In their study of Huánuco Pampa, Morris and colleagues (2011) assert the connection between Inka plazas intra-group *tinku* rituals. Though both structures are large and open onto the small plaza, combination of circular and rectangular suggests that they had different functions and possibly symbolic roles. Wilkinson documented a pattern of combined circular and rectangular structures in the upper *montaña* of Amaybamba as well (2019a). I suggest that the dual structures represent the tensions created by alterity along the borderland—the rectangular structure is open while the circular is closed; access to the plaza area is practically constricted but visually the plaza is open to the entire valley. The role of the site was akin to a frontier site hosting diverse travelers but also creating a boundary identity that was specific.

Along most of the eastern slopes, the use of stone in construction of terraces and structures distinguishes the highland and upper *montaña* inhabitants from their lower elevation neighbors. The integration of rock outcrops and the maintenance of visual control over the valleys may have involved maintenance of connections with wak'as. But, as suggested by Van Dalen Luna, the extra open space likely involved spaces defined by wooden structures, and thus involve the meeting of two construction types. Solely considering architecture we may get an impression of ancient Wimba inhabitants as concerned more with the maintenance of social boundaries between the inhabitants of Wimba and their neighbors to the east, than with crossing them. Looking at the portable artifacts found at Wimba will help balance that perspective.

CHAPTER 6

EXAMINING THE EVIDENCE FOR COMMUNAL GATHERINGS AT WIMBA: CERAMICS AND PORTABLE ARTIFACTS

6.1 Introduction

Chapter 5 discussed the ways that the inhabitants of Wimba structured the space of the site through permanent features of architecture and landscape modification. In this chapter, I present the key features on Platform 1 that illustrate both the chronology of the site and evidence for feasting. Then, I present ceramics and other portable artifacts and discuss what the assemblage and its spatial patterning says about how people at Wimba used communal gatherings to mediate exchange and create social boundaries in this borderland. The evidence for communal gatherings at Wimba comes from two sources: the features uncovered on Platform 1, and the makeup of the assemblage itself. Ceramic stratigraphy indicates the site was host to a relatively short late-prehispanic occupation, during which inhabitants hosted feasting on Platform 1. In addition, the materials used at feasts index connections with neighboring regions. The feasts included serving vessels with stylistic motifs connected to specific neighboring communities to the northwest. In addition, some ceramic vessels and bone pendants also suggest familiarity with lowland and coastal adornment styles, too. Together, material culture at Wimba suggests feasting and ritual activity that emphasized the importance of alterity, or *tinku*—whereby highland and *montaña* forces collided and the collision of opposing forces as a source of vitality.

The stratigraphy uncovered particularly on Platform 1 clearly suggests a late prehispanic (LIP and LH) occupation of the site. Despite the relatively shallow deposits at much of the site, there is clear evidence of at least one expansion of Platform 1, some structures were covered by fill so that the overall area on the platform could be expanded. The assemblage of ceramics found throughout the site present clear connections to neighboring regions and styles of the late prehispanic period. In discussion of the basic ceramic vessel types excavated at Wimba, I show how a unique assemblage of ceramics and pattern of deposition illustrates the practices that made up social life at the site, and the wider role that it would have played in asserting the social identity of the inhabitants of the site. The diversity of the assemblage itself reflects the different ways people produced and used ceramics in daily life and in ritual/communal gathering contexts. The descriptive approach to ceramic pastes and types helps us understand the diversity of the assemblage at the site, where previous approaches may have ignored the cross-cutting similarities and differences across vessel and decoration types.

The assemblage at Wimba contains an unusually large quantity and proportion of serving wares and storage vessels. The densest deposit of decorated sherds is found intermixed with camelid remains, suggesting that feasting and communal gatherings occurred on Platform 1. When ceramic data are combined with the other portable artifact data that we have from Wimba, including tooth pendants, we can see how the borderland community of Wimba was constituted through communal gatherings at which media/mediation of the lowland and highland signifiers of maize, maize beer, lowland animals, highland animals, and the view of the landscape (discussed in the previous chapter). Otherwise, I argue that the best model for the data is the cyclical celebration or pot-luck feast, bringing the culinary equipment of the highlands into a new context, using it to celebrate products of the lowlands. In the following sections I outline the key features on Platform 1, and their association with feasting. Then I describe the ceramic assemblage, its distribution at the site and the stylistic motifs. Next, I introduce the bone pendant and plaques found at Wimba. Finally, I synthesize this information with models of feasting activity and communal gatherings.

6.2 Chronology and context

Before discussing the ceramics and other materials, I describe the primary features on Platform 1 to illustrate both the chronology of the site (to expand upon Chapter 4), and to justify the interpretation of feasting activity on Platform 1.

6.2.1 Features

Excavations of the platforms along the ridge uncovered primarily relatively shallow cultural deposits. Within structures, use-floors were rarely clear in excavations due to wall fall and the intrusive roots of bushes and trees. Despite that general pattern, excavations of Operation 2 uncovered four related that are key to interpreting the chronology of occupation of Wimba. These features are sketched below in Figure 1. Taken together, this evidence suggests that the bulk of occupation of Wimba occurred during the Late Prehispanic Period, but that there was at least 1 remodeling/expansion of this part of the platform. The stratigraphy of the Operation 2 units 2 and 3 area is the most complicated at the site. I use this example to explain the evidence for the Platform 1 sequence that was inferred from these excavation units.

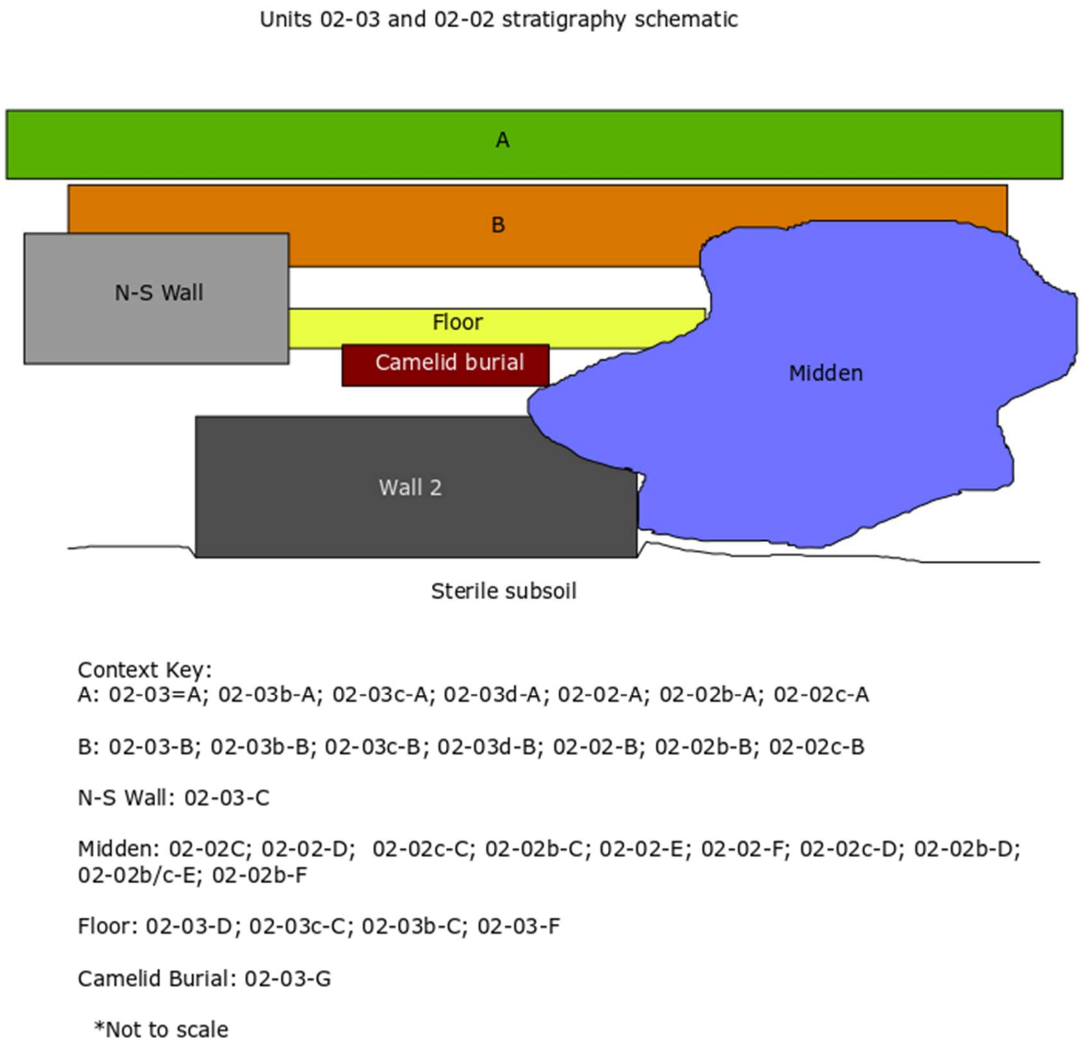

Figure 6.1: Schematic representation of the relationships between contexts excavated in units 02-03 and 02-02 on Platform 1

N-S Wall & Floor

A north-south wall in unit 3 was the first to become visible as we excavated. The N-S wall, though it was not visible from the surface, appears to be contemporary with the visible surface architecture at Wimba, as it is very shallow below current surface, and made of similar fieldstones. This wall was associated with a layer of hard packed soil extending to the west –the floor associated with the wall. Because it is the uppermost floor, stratigraphically, and associated with a wall similar to the surface architecture, I interpret this floor as dating to the latest phase of occupation of the site, contemporary with the visible architecture. This feature was associated with two of the tooth pendants that will be discussed later in this chapter. With such a short portion of the wall present in this excavation unit it is impossible to determine what function the wall would have served, but it does appear to divide the floor to the west from a contemporary use-surface/floor to the east, at a slightly lower level (approx. 30 cm below).

The western extent of the floor, toward unit 02-02, is broken up, so the interface between this floor and the midden feature (discussed below) is unclear. Tree roots disturbed some of the soil between the two. Thus, it is possible that the midden cuts into the floor, or that the midden is contemporary with the floor, but there is no evidence that the floor extended to completely cover the midden. The floor did completely cover a camelid burial, which is the next feature to describe.

Camelid Burial

Just below the N-S wall and associated use-floor, we uncovered a circular arrangement of stones delimiting a cache of camelid bones and ceramics in the southwest corner of unit 3, which I interpreted as an intentional deposit and will refer to as the camelid burial. As we excavated, we found a camelid cranium, mandible, long bones, teeth, and other smaller bones including ribs. These bones were directly associated with broken ceramic vessels, as well.

To excavate the entire feature, we expanded unit 02-03 to the southwest. In total the burial was circular, with a 60 cm diameter. It averaged 25 cm deep. The feature context included many ceramic sherds, totaling 4.18 kg of non-diagnostics, and 37 diagnostic sherds. Twenty-one sherds presented evidence of soot or firecloud, suggesting that they were involved in roasting or cooking in some form. These were otherwise nondiagnostic body sherds so we could not determine what sort of vessel was used for cooking in this case. The diagnostic sherds came from at least two large bowls, with slip decoration and a lug handle at the lip. In addition, at least three different *cántaro* sherds were found, including a hollow lug handle and two strap handles.

This feature suggests an event of ritual sacrifice, consumption, and burial of a camelid. This is the clearest single example of evidence for the communal gatherings that occurred here on Platform 1. Because it is below the primary use-surface level of Platform 1, this could have been deposited as a dedicatory offering accompanying the expansion of the platform. Also, this burial is above fill covering an earlier wall (discussed below), indicating the presence of earlier structures that were covered over in the process of expanding the platform. The ceramics associated with the camelid offering fit with late prehispanic local styles, but so far camelid burials at other sites in Chachapoyas date to the Late Horizon.

Midden

In Unit 2, a dense deposit of ceramic and faunal remains became clear below the B stratum, adjacent to a small alignment of stones in unit 2. I interpret this as a midden, or the secondary deposit of midden material, for three reasons: First, there were no clear floors or caps dividing the deposit vertically. Second, the materials inside were found at all angles, rather than horizontally the way they would have been on a floor. Third, the materials were mixed with camelid bone amid a dark loam soil indicating organic materials were likely deposited along with the ceramic fragments and bone.

The midden contains a dense deposit of a wide range of cultural material. Platos, or serving bowls, make up the largest single vessel type. Many of these are associated with ring bases. Decorations include slip, burnishing, painting, and applique. Certain decoration styles found within the midden are associated with Chachapoya painted serving wares (Figure 6.x). Bowls whose interior is covered in white slip and decorated with stripes of red paint corresponds to the Chipurik style, that is found at Chachapoyas sites in Luya and at Kuelap beginning in the LIP. Overall, 33.7 kg of ceramic sherds were excavated from the midden context, including 157 *plato* sherds, 78 cantaro sherds, and 302 sherds from unidentifiable vessel types. At least 100 sherds had evidence of firecloud or soot.

This midden is made up of serving wares, including finewares, and faunal bones that included likely camelid, deer, and guinea pig. The largest concentration of faunal bones at Wimba was within the midden contexts (43% of total samples). This indicates that the assemblage was likely associated with feasting activity. The edges of the midden appear to be defined by both a large low rock outcrop, in the southwest third of unit 02-02, and further delineated by the placement of a low fieldstone wall along the northern edge of unit 02-02 (foreground in Figure 2). This was further traced when we expanded into units 02-02b and 02-02c. This low wall was placed just above, slightly cutting Wall 2, oriented at a different angle. I interpret that the wall was constructed as part of a project to raise and expand the level of the platform behind Structure 2, and the midden was deposited in a natural cavity between the wall and the boulder. This expansion of the platform space behind Structure 2 completely buried Wall 2, which will be discussed below.

Figure 6.2: view southeast showing retaining wall in foreground, Wall 2 in center left

Wall 2

Upon removing the N-S wall, the floor, the camelid burial and the soil around it within unit 02-03 to a depth of approximately 40 cm, a low wall to the northwest was uncovered (see upper center left in Figure 6.2), that was not oriented the same as the others. This wall is approximately 45 cm wide, with stones that are cut and formed to fit well, creating a smoother wall face on both sides than the fieldstone retaining wall above it, or the N-S wall. This wall is built on sterile subsoil that is sandy and yellowish. Unfortunately, though this wall suggests that there was more than one phase of occupation here, it is not directly associated with a use floor or builder's trench that could help suggest when it was built.

Interpretation of Chronology

Based on the material culture at Wimba, and the sequence of deposition in Operation two, I reconstruct the chronology of occupation as follows. The primary occupation of the site began during the LIP. The choice of site location, non-Inka stone architecture, and vast majority of the pottery assemblage fit within LIP traditions of the *montaña*.

However, there is significant evidence that the site continued to be occupied during the Late Horizon as well. Though they are few, provincial Inka pottery is a tighter chronological marker than the local pottery styles, which have been found in contexts (supposedly) ranging from as early as the late middle horizon into the early colonial period. Also, the camelid burial and cuy remains, which are both closely associated with the primary/maximal occupation of the site. At other Chacha sites camelid burials and cuy date to the Late Horizon (Guengerich and Crandall 2018). Finally, the largest structure on Platform 1 is a 3-sided rectangular structure (similar to *carpa wasi*), that may reflect Inka influence (Gasparini and Margolies 1980; Nair 2015; Schjellerup et al. 2003; Valcárcel 1967). Evidence for the role of Wimba within the Late Horizon will be discussed further in Chapter 7.

6.3 Ceramics

So far, no ceramic chronology exists for the northeastern Peruvian *montaña* post 500 CE. A model that exerted a lot of influence suggested that the eastern slopes were populated by people crafting coarse brown ceramic wares starting in the EIP (Lathrap 1970). However, this model appears to be incorrect both descriptively and chronologically. Judging by the most accurate proxy for population, the quantity of radiocarbon dates recovered (Bamforth and Grund 2012; Shennan 2009), the bulk of post 500 CE occupation of this region occurred during a relatively short time, after 1250 CE (see Chapter 2). Hilltop archaeological sites in the

Chachapoyas region typically have deposition of cultural materials less than 0.5 meters deep. These sites do not display the stratigraphic resolution needed to understand long-term shifts, and generally studies have not published detailed data necessary for multi-site comparisons. It should be acknowledged that there may not be significant change in ceramic styles during the occupation of most Chacha sites, because most were occupied for 250-300 years rather than 600 like Kuélap. Where earlier deposits exist, like at Monte Viudo, Tosán, and Gran Pajatén, they often correspond to ritual activity rather than domestic occupation, and are distinguished by the presence of fine wares like Cajamarca Polychrome and Tosán (Church 1994; Guengerich 2018; Koschmieder 2012). Occasionally, but not always, these finewares can be traced to neighboring regions, namely Cajamarca (Church 1994; Ruiz Estrada 2009). Furthermore, the fact that they are relatively few and that they date to well before the primary occupation means it is difficult to assign their influence on later styles. Even though they may not reflect temporal change, the LIP ceramic assemblages at Wimba and elsewhere are more diverse in surface decoration than the coarse-brown model suggests. Painted vessels, which were supposedly omitted from coarse brown tradition, are a significant proportion of some ceramic assemblages, and likely differentiate assemblages sub-regionally.

6.3.1 Expectations

In his treatment of the eastern slopes of the Andes, Donald Lathrap identified a broadly shared “coarse-ware ceramic tradition” that stretched from Bolivia to northern Peru and emerged sometime between 100 BCE and 600 CE (the EIP) (see also Bonavia 1968; Isbell 1968). Isbell and Lathrap suggested that it might reflect a "horizon" caused by Quechua speakers bringing terracing to the eastern slopes as they moved north from Bolivia (Isbell 1968; Lathrap 1970).

Archaeologists looking at the eastern slopes suggested that this tradition was made up of related styles sharing coarse brown pastes, vessel forms, and decorated with “carelessly applied rolls of clay or the crudest kind of modelled representations of men or animals” (Lathrap 1970:173). At the time this argument was developed, Chachapoyas ceramic studies seemed to support it. Now, though some Chachapoyas ceramics fit the broad pattern, Lathrap’s timeline was proven incorrect.

The overall pattern of Chachapoya ceramics was established by the excavations of Henri and Paule Reichlen in 1947 (Reichlen and Reichlen 1950). They described two contrasting styles of ceramics. The first style was characterized by dark pastes, applique and incised decoration, and often everted rims. This style is called "Kuelape" by the Reichlens, and it corresponds with the coarse-brown ware tradition (though their study predates this term). They argued that it was contemporary with Cajamarca III, roughly the MH. Kuelape ceramics were found at the site Kuélap and along the right bank of the Utcubamba valley. The second ceramic style described by the Reichlens was characterized by light red-orange-yellow pastes with frequent evidence of slip and/or painting. They called this type "Chipurik" because it was found in abundance in the north of Chachapoyas, at the Luya site of the same name. They believed that the makers of Chipurik ceramics were a separate cultural group from the creators of "Kuelape" style ceramics, and that this group had conquered the site of Kuélap before the arrival of the Inka. They claimed to have found an abrupt stratigraphic transition between Kuelape and Chipurik style pottery at the site Kuélap that supported this interpretation.

This interpretation was discarded after Ruiz Estrada studied the ceramics from Kuelap, and two nearby sites: Cancharin, and Pumahuanchina. In contrast to the Reichlens, when Ruiz Estrada excavated at Kuélap in 1970, he found evidence that *both* incised/applique (Kuelape) and painted (Chipurik) ceramic types were together in assemblages beginning early in the site's occupation (though a Kuélap-style antecedent slightly predated painted decoration). This suggested that the two styles were used contemporaneously, and likely reflected different purposes of use, rather than different users, at least at Kuélap. Even though the Reichlens' interpretation was disproven, their terminology for these types has continued in use by many archaeologists (e.g., Crandall 2018; Guengerich 2012; Koschmieder 2012). One effect of this finding is the de-emphasis of the spatial pattern in Chipurik and Kuélap ceramics. The Luya area (and the Mendoza area) ceramic assemblages frequently contain light-bodied painted wares that are almost absent in the Leymebamba area. The fact that these styles co-occur at Kuélap may reflect Kuelap's exceptional centrality. At the least, the Chipurik style should not be subsumed within the 'coarse-ware tradition' the way the Kuélap wares have been.

The spatial distribution of Chachapoya decorated ceramics has remained under-explored for two reasons. First, it is impossible to find representative ceramics in surface survey in the *montaña*, so the sample comes exclusively from excavated sites, which are fewer. Second, the idea of the coarse-ware tradition of the *montaña* has led to the assumption that relatively homogeneous coarse ceramics lack potential for helpful temporal or group markers. The survey and excavations of Schjellerup illustrate this fact (Schjellerup 1997; Schjellerup et al. 2003, 2005, 2009). In the survey and excavation at Cochabamba and around Atuén, she developed a unique classification for the Chachapoya ceramics. The primary division occurred between coarse and fine sherds: coarse-grained pastes had 20-30% temper, and fine sherds had pastes of fine sand. Within these categories she observes different surface treatments: polishing, slip painting, "dried with cloth", burnished, and corrugated (brushed with irregular stripes). Aside from the two paste groups of brown-wares she created separate categories for vessels with micaceous temper (“Micaceous wares”), and kaolin clay (“Kaolin wares” which would have been imports from Cajamarca). She also anchored the sequence to the EIP, though there was very little evidence for change through time in vessel type or decoration. This typology apparently reflects the fact that the survey area did not present any Chipurik light-bodied painted wares. In subsequent surveys in Valle de los Chilchos, the Huambo valley, and up toward Moyobamba, ceramics are categorized as Chachapoya, presumably according to the Cochabamba/Huepon typology, but close study of these assemblages was not part of the research plan.

As research in the area has continued archaeologists have changed the picture of the earliest occupants of the *montaña* and their ceramic traditions. At Monte Viudo, the earliest contexts date to the beginning of the EIP, but they are not associated with coarse-brown tradition ceramics. Rather, the ceramics are finewares, with uniform paste, and polychrome painted decoration (Guengerich 2014:230). At Lamud Urco, in the Luya region, the earliest contexts also date to the beginning of the EIP, and they are also associated with fine polychrome ceramics rather than coarse (Koschmieder 2012). In the earliest contexts at Gran Pajaten a similar pattern is visible (Church 1994). Though it is unclear if the polychrome ceramics from the EIP in these two regions belong to the same style, they do not belong to the broad coarse-ware tradition, nor to the Chipurik style. The EIP finewares and their contexts are interpreted by Guengerich (2018:380) as evidence that these mountaintops were venerated in the EIP, but seen as ritual venues rather than habitation sites, possibly indicating a different stance toward the landscape before the LIP.

No in-depth ceramics studies have been conducted in the Mendoza region. The Reichlens’ study of the upper Utcubamba intended to investigate the Rodriguez de Mendoza area. Unfortunately, they were unable to visit due to both overruns on their investigations in the core area, and the difficulty of investigating an area that was sparsely inhabited and which had dense land cover (Reichlen and Reichlen 1950:241). They speculated that the ceramics of Mendoza would correspond with Kuelape style, characterized by dark paste, applique and incised decoration, and without painted decoration. This assumption was made based on the pattern they found wherein the sites on the right bank of the Utcubamba river (the east bank) were characterized by Kuelape style ceramics, and Mendoza is immediately east of these sites. Even further east, in the modern department of San Martín, Rogger Ravines studied the Huayabamba region assemblage (1978, 1995). There, the earliest ceramics were termed Shakimu, with fine sand temper, and though they did have red slip, the primary decoration was incised and excised. The Huayabamba complex was believed to correspond to the LIP. It shares everted rims and applique decoration with Kuélap style. Finally, the Jerusalén complex is believed to begin in the LH, and is also characterized by large paste inclusions, poor surface treatment, and very little decorations. Broadly, the Huayabamba complex fits within the coarse-brown *montaña* tradition. These other sites which are most associated with Kuelape pottery encircle the Mendoza region. Thus, it was the expectation that the Mendoza valley would be dominated by coarse brown ceramics, and applique and incised decoration.

To one degree or another, these studies have attempted to find chronology in Chacha ceramics, without the advantage of radiocarbon dates. Unfortunately, the *montaña* ceramic sequence reconstructed by Church (1996), which is supported by numerous radiocarbon dates, ends at the EIP. The previous studies do not demonstrate shifts in ceramic form, decoration, or paste within the late prehispanic Chacha culture that can currently help archaeologists divide Chacha history into smaller phases or understand the kinds of changes in ceramic manufacture that occurred during the LIP. This complicates many avenues of research, especially studies of the boundaries of the region, which rely on ceramics to establish chronology rather than AMS dating. The primary research questions for this assemblage are: What vessel forms are most common? What is the ratio between storage, cooking, and serving wares? What decorative elements are present, and do they share characteristics with styles found elsewhere?

6.3.2 Approach to categorizing Wimba ceramic sherds

As outlined in Chapter 4, the Wimba project created a descriptive database of diagnostic ceramic sherds. The database is particularly helpful in cases like Wimba because most of the ceramics were not decorated, and most were likely locally made coarse wares. A detailed database allows for comparison and analysis of the range of vessel forms, manufacturing techniques, and decorations in the present work, and will be more easily included in future studies. To organize the discussion of ceramics in this chapter I divide the sherds principally by vessel type (*plato*, *cántaro*, unidentifiable, etc). Within those categories, I discuss the recipes: the temper chosen, and the color of the clay paste. Next, I discuss the aspects related to the vessels' construction: the thickness, the rim type, the finish of the surface, and the firing (whether the sherd is oxidized or reduced)[11]. Finally, I discuss the decoration observed within the Wimba assemblage, and the possible stylistic relationships to previously documented traditions in the area.

The Wimba assemblage analysis led to a few conclusions. First, while the paste recipes were similar across vessel categories, and are interpreted to indicate predominantly local

[11] In this order of description, I follow a rough chaine operatoire method that attempts to look at the decisions made by the potter in the creation of the pot (Roux 2018).

manufacture, there were clear differences in patterns of construction and decoration. One vessel type could be distinguished by finer temper, narrower walls, and more frequent decoration: Platos. Conversely, coarse temper, thicker walls, and simple incised decoration was more frequent to Cantaros and unidentifiable vessel types. To examine the degree to which different decorated ceramics reflected separate approaches to production, I work backward from the two traditions described in the previous section, Chipurik and Kuelape. Using a logistical regression to test whether the two types can be distinguished by color, I argue that the distinction between the two decorated styles is limited to the surface treatment stage in the production process—decoration—and otherwise does not diverge from *plato* and *cántaro* crafting techniques. These forms would have different functions, however, which I discuss below. This section aims to summarize the ceramics found at Wimba and put them in context of the surrounding region.

6.3.3 The Wimba assemblage

The assemblage collected during excavations at Wimba consists of 1677 diagnostic sherds that were analyzed. In addition, 732 non-diagnostic batches of sherds were weighed by the context and bag with which they were excavated.

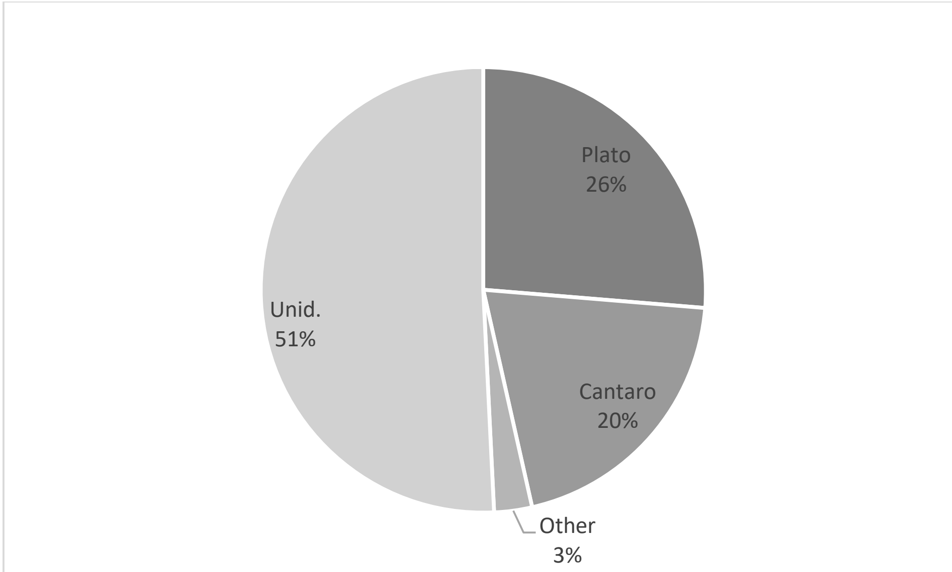

Figure 6.3: The composition of the Wimba assemblage by vessel form (N=1673).

The diagnostic assemblage can be divided into three principal categories: unidentifiable forms (51%, n = 850), Platos (26%, n = 440), and Cántaros (20%, n = 338)[12]. Platos, a category that includes bowls and deep plates, are open vessels with their opening approximately three times their height. Cántaros have restricted openings, medium or long necks, and flared openings, like vases or jars. Elsewhere in the Andes, *cántaros* are believed to be transport or storage vessels, while *platos* are considered serving wares, to be used in the consumption of food or drink. In addition to these two types the Wimba project also discovered *ollas* (2%, n = 39). These are restricted vessels with very short, everted necks, which are the most common cooking vessels in Andean sites. Other forms that were part of the project's classification scheme, but which were only present in small quantities were *cuencos*, botellas, vasos, and *cancheros*. The *cuenco* is a restricted vessel without a neck (also referred to as a neckless *olla*). There was one botella

[12] I choose not to translate Manrique's (2003) names of vessel forms because the Spanish names are widely used, and certain terms do not have a direct equivalent in English. Unfortunately, the terms used for ceramics vary by project. Here plato refers to the English terms bowl and plate. *Cántaro* refers to jar or pot with a flaring neck.

(bottle) fragment, three vasos (drinking cups), and one *canchero*, or saucepan shaped vessel, that is named for its similarity to modern vessels that have one long handle and are used for toasting corn. The following summarizes the ceramic data by vessel type, and then decorative style.

6.3.3.1 Vessel forms

Paste colors of the Wimba assemblage were primarily along a continuum of red to brown, reflecting non-kiln firing, and clay collection from local sources, both of which often create vessels with inconsistent color (Rice 1998:334). More than three quarters of the sherds contained quartz/sand temper, which can be sourced from near the site and thus likely reflects local procurement. General paste recipes could be determined based on temper inclusions, paste color, and vessel wall thickness. As has been the case elsewhere in the area (Church 1996; Guengerich 2014), one paste recipe makes up the majority of the assemblage. In the case of Wimba that recipe is red-brown clay with quartz/sand temper and between 55 and 95 mm wall thickness. Unusual paste recipes could also be identified based on inclusion of mica temper, or occasionally very light-colored clays. The dominant red-brown pastes were not uniform in firing (or likely sourcing). The range of colors represented in the assemblage meant that very few ware types could be subdivided based on color. This accords with the unreliability of color for classifying Andean pots that has been demonstrated ethnographically as well (Arnold 1993: 209). The *plato* sherds stood out from the others, statistically. They were significantly thinner, lighter, and had larger rim diameters than cantaro sherds or sherds from unidentifiable vessels. They were more likely to have fine temper, and much more likely to be decorated. However, much diversity was found within each vessel type, and the largest group of sherds was those that could not be attributed to a specific vessel type.

PLATOS

I use the term *platos* to refer to open vessels whose greatest diameter is at the mouth, corresponding to bowls and deep plates. The most common paste color is red (n=107), reddish yellow (n=29), brown (n=29), yellowish red (n-27) and light brown (n=25). The vast majority (90%) of *platos* at Wimba contained quartz/sand temper, primarily small and medium grains (60% and 50 %, respectively). The walls of *platos* are significantly thinner than cantaros (p = 2.2e-16) and sherds from unidentifiable vessel types (p = 2.2e-16). The average *plato* sherd weight was significantly less than the average weight of a *cántaro* sherd (chi square test p = 0.0005) and sherds from unidentifiable vessel types overall. Thus, while the paste ingredients—the clay and temper types—are very similar to the other vessels at Wimba, the temper size and quantity is different, and the vessels can be clearly distinguished from the rest of the assemblage via formal traits. I interpret this as evidence that they are locally produced by the same potters as the other wares (Arnold 1993:186), and the differences reflect functional and aesthetic choices by the potters.

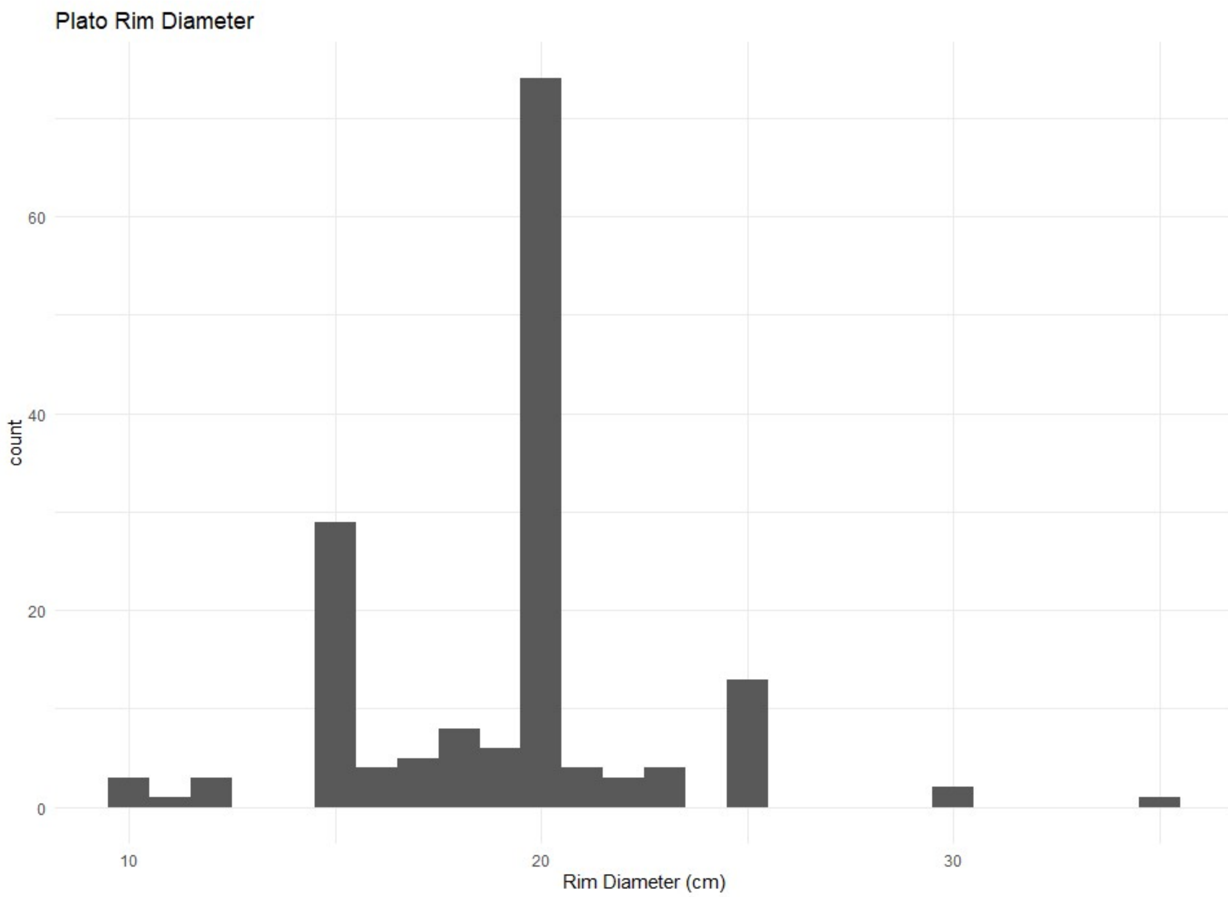

Figure 6.4: Plato rim diameter count histogram.

The function of *platos* like the ones at Wimba is most likely for presenting and serving food or beverages (Rice 238). The common *plato* form was unrestricted, allowing the material to be easily seen and accessed. Frequently, these *platos* included ring-bases (116 ring-base sherds were found overall) which provide stability, which is also a common trait associated with serving vessels. The average ring base diameter was 8.63 cm, and all the ring bases were between 6 cm and 10 cm in diameter. The bowls may also have been used for cooking, 5.5% of bowls had firecloud or soot on the interior or exterior. In the Inka ceramic assemblages studied by Bray (2003), the "pedestal base cooking pot" is a common style that involves a similar raised circular base. The Wimba pots differ from those, however, because the pedestal bases are much lower (2.74 cm average) and wider (9.5 cm median diameter) than documented pedestal base cooking pots (figure 6.4). The fact that the *plato* walls are the thinnest in the assemblage could be evidence that they were used for cooking, because thin walls transfer heat more efficiently, but the thin average could also be related to the overall size of the vessels and the tendency of many of the lips of the *platos* to be tapered (160 of 281 lips). The median rim diameter of the *platos* was 20 cm, though the second and third most common diameters were 15 cm and 25 cm, respectively (see Figure 6.3). Based on modern bowls with the same diameters we can estimate the area of a median bowl at 1400 ml volume, a small bowl at 800 ml volume, and a large bowl at 2600 ml volume. These volumes, at least the median and large *platos*, would certainly have been for serving, rather than use as personal portion bowls. Some included small basic lugs on the lip (n=10).

Figure 6.5: Ring base fragments

Platos were vastly more likely to be decorated than any other vessel type. More than half of all decorated sherds in the assemblage come from *plato* vessels. Among *platos*, 42.8% of the sherds had some form of decoration, and 96% of the decoration was on the interior of the vessel. The most common decoration (33%) was slip, a thin layer of light-colored clay most frequently applied on the inside of the *plato* (Figure 6.5). Slip covers defects or irregularities in the surface of the vessel (Druc and Velde 2021). Slip is most often applied to non-cooking vessels (Arnold 1993: 99), and it is frequently combined with painting. It may be a way for local potters, without access to high quality kaolin clay, to imitate Cajamarca ceramics that are decorated with paint on a white body. Painting, frequently found alongside slip decoration, was found on 9% of sherds, and burnishing, frequently on the unslipped exterior of *platos*, were also common (5.63%). By contrast, only two sherds had incised decoration, and none had applique or modeled decoration. I would hypothesize that, like many of the Chipurik vessels documented by the Reichlens, and found in Luya cave funerary contexts, the *platos* used at Wimba combined ring bases, burnished exteriors, slipped interiors, and painted decoration.

Figure 6.6: Plato fragments with remnants of slip

One unique decorative style was found on six sherds: white painted stripes on a red surface (Figure 6.6), and medium size sand/quartz temper. They are almost the inverse of the red-on-white ceramics that are most common, and no other published work on Chachapoyas or Moyobamba describes ceramics of this style. I hesitate to attribute these to a completely different tradition, because they involve ceramics with similar pastes and a similar set of colors. At least five of these potentially originated from the same vessel, and were found in adjacent excavation units at approximately the same depth.

Figure 6.7: White on red striped plato fragments

CANTAROS

The term *cántaro* to refer to constricted vessels with flaring openings emerging from restricted necks. Like the rest of the assemblage, *cántaro* sherds primarily contained sand/quartz temper (77%). They had larger temper grain size (80% of sherds had large and medium grain size) and (probably relatedly) were more likely to contain limestone or unidentified temper inclusions than *platos*. The vessel walls were thicker than *platos* and unidentifiable vessels, and the *cántaro* sherds were heavier on average, too. The paste color was typically red, with yellowish and brownish gradients, which was the same as *platos* and unidentified vessel types. As mentioned previously, the predominance of this paste recipe (red clay, sand/quartz temper) suggests local materials and producers, but the *cántaro* vessel shape involved a different paste recipe and thicker walls. This was most likely related to the function of *cántaros*.

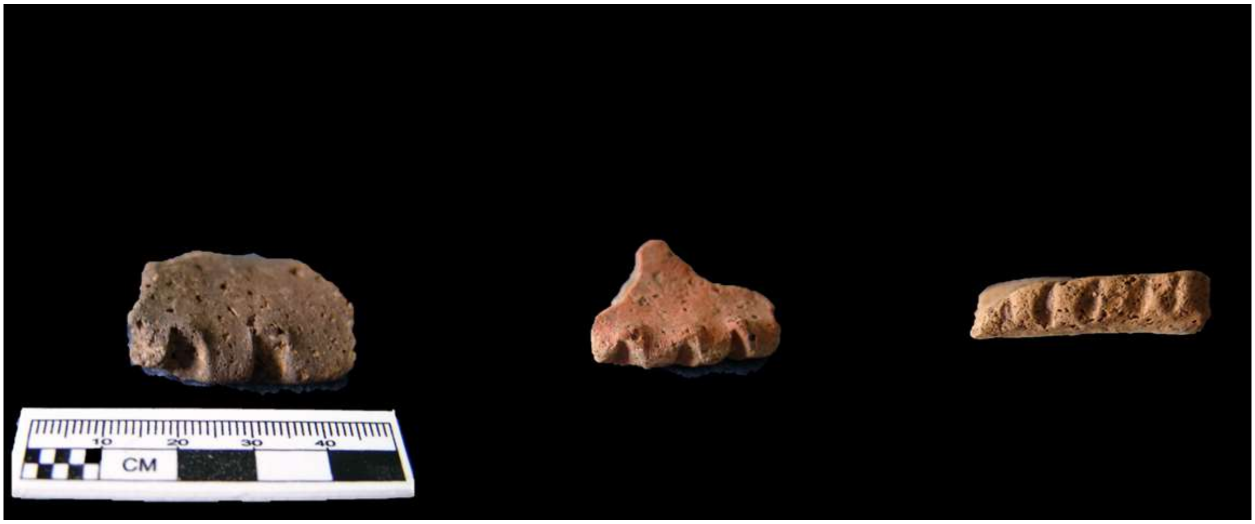

Figure 6.8: Oblique views of incised cántaro rim sherds

The typical interpretation of the function of *cántaros* is that they were primarily used for storage or transport of liquids (Manrique Pereyra 2001; Rice 1987). Cántaros all had outward flaring orifices above restricted, elongated necks, which allow them to hold liquids without spilling, and facilitates pouring. The vessels orifices were smaller than the *platos* and unidentifiable vessels, on average, only 16.97 cm in diameter. A commonly encountered feature of *cántaros* from this general area is a thickened lip (e.g., Schjellerup 1997), and 36 examples of such lips were found in the Wimba assemblage. Liquid storage vessels often have thicker walls, which would also facilitate storage of liquids, vis-à-vis thin walls that would facilitate heat transfer for cooking (Rice 1998: 238). Cántaro sherds were the least likely to have evidence of firecloud or soot (<1%), but that likely relates to the fact that most diagnostic sherds were rims, and thus would have been far from the fire even if they had been used in cooking. Surface treatments were less frequent among *cántaro* sherds. One example was painted, matching LH *cántaro* styles observed at Kuelap and in Luya. But more common were simple incised decorations on or around the lip (Figure 6.7).

One issue to highlight is that some portion of the *cántaro* vessels in the assemblage likely functioned as cooking pots. The primary difference between cooking vessels and storage ones is the orifice size, which determines the accessibility of the food while it is on the fire (Rice 1998: 239) (diameter sizes were impossible to calculate from rim sherds alone). When categorizing rim sherds, the neck and rim shape determined whether the vessel was a *cántaro*, and rim diameter was *not* considered. In retrospect, it would be useful to determine a cutoff point beyond which the rim diameter is too big for a vessel to be classified as a *cántaro*. The difficulty when dealing with jars with necks is that when the opening flares outward, as *cántaro* openings do, the rim diameter is some distance larger than the actual vessel opening at the narrowest part of the neck. The reason it matters is that the vessel type that is under-represented at Wimba is the *olla*, which elsewhere is the most common utilitarian cooking pot (e.g., Costin 2001). Typically, guides to Andean ceramics describe *ollas* as being restricted vessels that nevertheless have wide openings, to accommodate access to the food inside during cooking. The relative lack of *ollas* within what appears to be domestic assemblages has also been observed by Guengerich (2012) in the Leymebamba area in Chachapoyas, and Crandall in the Sonche valley (2018). This may suggest that people in this region produced cooking pots that were *cántaro*-like, especially in their rim features. If we could determine that rim diameters of greater than 19cm were more likely *ollas* than *cántaros*, the *olla* (68 *cántaros* with rim diameter above 19 cm, or 20% of all *cántaro* sherds, and 22 of 59 unid vessels where rim diameter could be determined). We discovered only two likely *cuenco* rim fragments[13], which in this classification refers to an *olla* shape with no neck and would be the only other vessel type likely to function as a cooking vessel. Developing methods to distinguish cooking vessels from storage vessels is a goal for future research in this region.

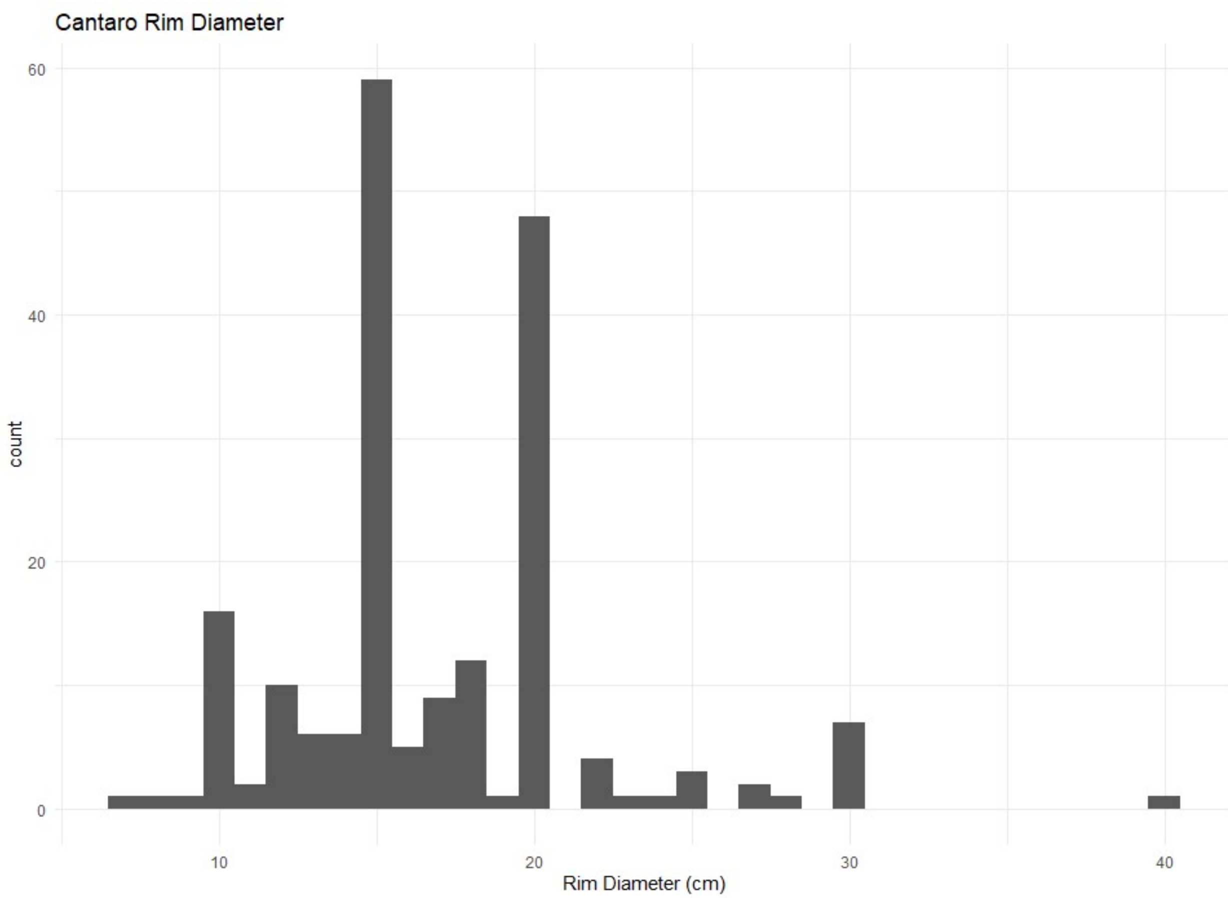

Figure 6.9: Cántaro rim diameter count histogram.

UNIDENTIFIABLE VESSEL FORMS

The largest group of wares were those with a recognizable and classifiable element, such as a section of rim, base, handle, surface treatment, or decoration, but no characteristics that were

[13] Elsewhere (e.g., Koschmieder 2012; Kauffman Doig 2013) the term cuenco refers to a serving bowl, for which I use the term plato.

sufficient to distinguish the overall vessel type (*plato*, cantaro, *olla*, etc). This group most likely contains some sherds from each of the typical vessel forms found in Andean and *montaña* ceramic assemblages. This is born out in the overall statistical profile of the assemblage. In many metrics, like thickness and rim diameter, the unidentifiable vessel types fall between Platos and Cantaros. The histogram of rim diameters supports this conclusion (Figure 6.9), showing peaks at both 10 and 20 cm in diameter, which correspond to common diameters of the identifiable forms. This suggests that the unidentifiable vessels come from a wide range of vessel types and most likely includes fragments of vessels that seem to be underrepresented in the Wimba assemblage, most notably *ollas*.

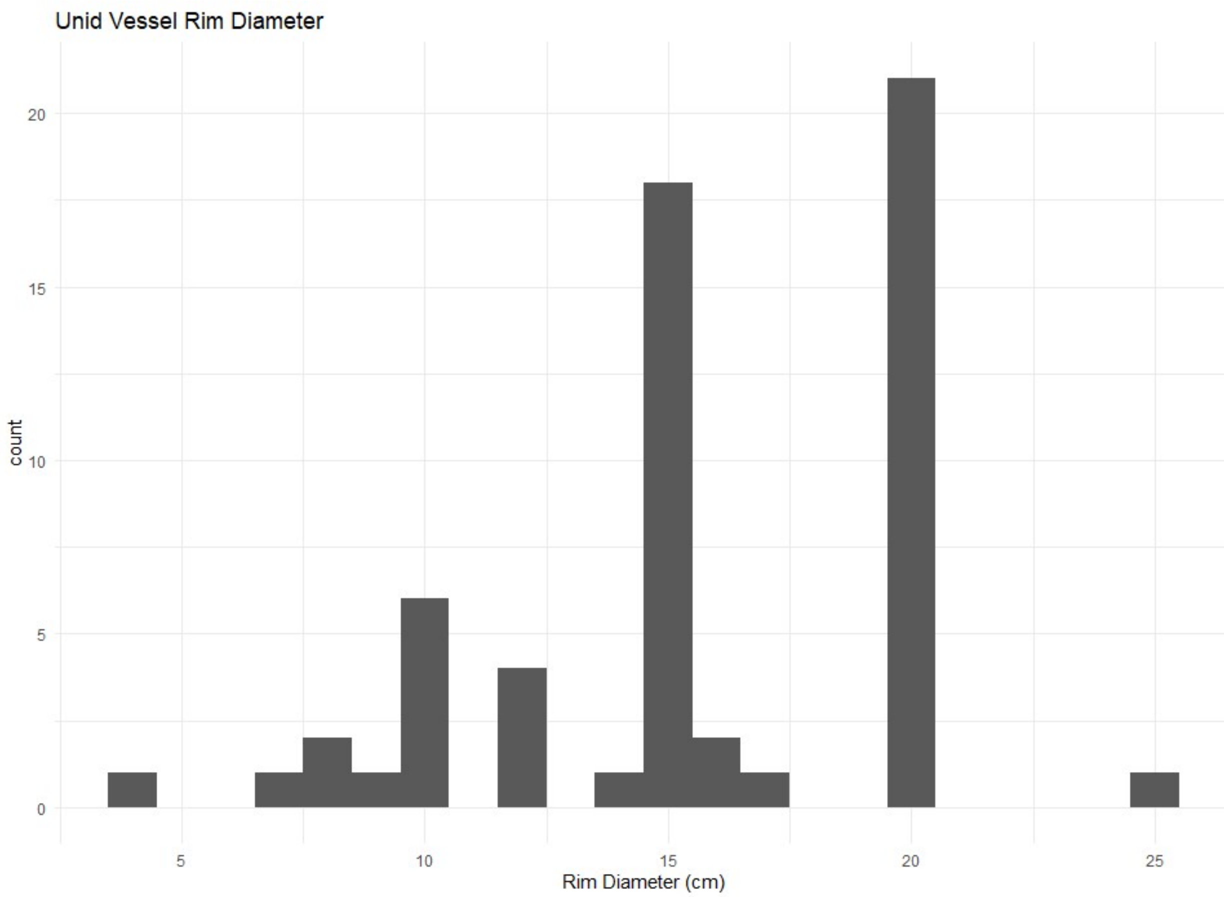

Figure 6.10: Unidentified vessel rim diameter count histogram.

It is difficult to interpret function from the unidentifiable sherds. The sherd types in this category included most of the body, base, and handle sherds found at Wimba (35% rim, 39% body, 5.5% base, 17% handle). These features, while easily identifiable, could come from different vessel types. Strap handles (rectangular handles attached to the body of the vessel in two places) and lug handles could be used on *cántaros*, *ollas*, or aribalos (an Inka style similar to a large *cántaro*). The body sherds in the category contain much of the evidence for use, such as firecloud/soot, which was identifiable on the interior of 6.91% of the unid vessel sherds and the exterior of 4.36% of them.

The entire range of decoration types were present within the unidentifiable vessel sherds category, as well. The most common decorative surface treatment, slip, was found on otherwise unidentifiable body (n=59 of 70 sherds) and rim (n=7 of 70) sherds. The second most common surface treatment, burnishing, was also most often present on body sherds (n=29 of 32). Same with painting (n=21 of 22). Except for one painted neck sherd that probably comes from a *cántaro* (Figure 7.7), the benefit of hindsight suggests that these are likely all *plato* sherds. Incised decoration on unid vessels was more likely located on the rim (8 of 10 sherds) (see Figure 6.13). Again, after analyzing the entire assemblage, it is most likely these are *cántaro* sherds.

6.3.3.2 Spatial distribution of vessel forms

Two factors govern the basic spatial pattern of ceramics at Wimba. First, is the fact that more than half of the diagnostic artifacts come from the midden and associated features in Operation 2, units 2, 3 and expansions. The density of sherds by weight (8.7 kg/m^3) within this context (7.76 m^3 in volume), is more than double the overall ceramic density at the site (3.2 kg/m^3). Though the *plato*, cantaro and unidentifiable vessels were found throughout the site, the non-domestic contexts on Platform 1 contain a higher frequency of *plato* sherds relative to the domestic contexts (Figure 6.10). The Platform 5 assemblage stood out within the site, too, because it contained a higher number of diagnostic ceramics than the other small platforms. Although the non-domestic excavations were weighted toward *platos*, Operation 1, which was in and adjacent to Structure 2, contained more cantaro sherds. This may suggest that the covered space inside the semi-open rectangular structure may have been a location for serving chicha.

Figure 6.11: Vessel types in domestic and non-domestic contexts

In the uppermost strata of operation 10 in Structure 7, provincial Inka and Kuélap style ceramics with mica temper were uncovered together. The Late Horizon evidence will be discussed further in the following chapter, but here their distinctiveness is the exception that proves the rule, with regards to the interpretation that most of the assemblage at Wimba is locally produced.

6.3.3.3 Kuelap and Chipurik vessels

There are many different decorative elements to the ceramics excavated at Wimba. I briefly describe the overall assemblage, and then discuss the vessels that fit with the Kuelap (incised/applique) and Chipurik (painted) styles/motifs identified by previous archaeologists in northeastern Peru.

Within the context of the Chacha area, the presence of ring base bowls appears to be typical of Chipurik. While the presence of incised and appliqué decoration is characteristic of the late-period Kuelap (even though Schjellerup separated them into a unique category, they were common at Monte Viudo). Most sherds do not present enough diagnostic attributes to be categorized as one or the other. In fact, I demonstrate that the Wimba assemblage shows no significant differences between these types other than the decorative motifs—they do not appear to reflect diverging production techniques, clay/temper sources, or firing methods. What the data show at Wimba, is that most of the ceramics are probably locally produced, and that there is not a bimodal distribution of paste recipes or vessel styles that would reflect the Kuélap / Chipurik divide that the Reichlens described. Close examination of the decorated sherds excavated at Wimba, shows how the paste, color, thickness, and other features do not reflect a clear difference. By describing the ideal fineware ceramic of Wimba without creating an unnecessary dichotomy in overall waretypes and begin to understand the process of the producers of decorated vessels that were used at Wimba.

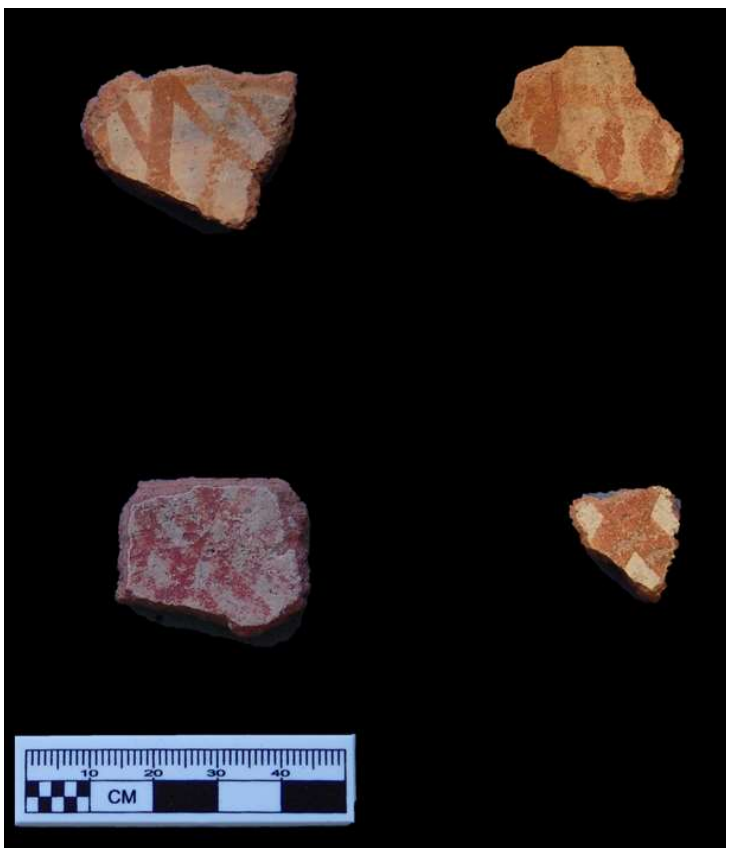

Figure 6.12: Cross-hatched red on white painted plato fragments

The Chipurik wares I discuss have been determined based on the presence of painted stripes/dots on top of a burnished or slipped body. The vessel type is either *plato* (27/44), vaso (2/44) or unidentifiable (17/44). First, the clay used for the creation of Chipurik wares ranges in hue from red to brown, in value from very light to medium, and in chroma from weak to strong. The most common paste color (10 of 46) is light red (2.5YR 6/6 in the Munsell color system). 17 of them have white/buff slip. The most common temper was fine quartz/sand that makes up less than 5% of the paste (15/44). They are typically thin walled (avg=0.63 cm), and the lips are frequently tapered (7/44). Finishing treatments, such as brushing, combing, or smoothing wet or leather-hard paste with a tool prior to firing, were not observed on the Wimba ceramics. Surface treatments, which are transformations of the leather-hard or fired pastes, were identified at Wimba, particularly burnishing and slip (Figure 6.5). The sherds which preserved enough surface treatment and decoration to be categorized as Chipurik were likely to have surface treatments along with painting. Seven sherds were burnished and painted. Seventeen were slipped and painted.

Finally, the decoration of the Chipurik wares was most commonly red painted stripes on a white slipped bowl interior (22 of 46) (Figure 6.11). Most of the sherds are too fragmented to determine design motifs beyond the presence of stripes, cross-hatching, and sometimes dots or dashes (Figure 6.12).

Figure 6.13: Dotted and lined red on white plato fragments

The context of use of Chipurik *platos* may be inferred somewhat from the location and scale of decoration. As Mills (2007) illustrates, there is frequently a correlation between the size of the ritual or feasting location and the size of the decorations painted onto utensils involved in rituals or feasts. The Chipurik bowls are primarily decorated in their interior, with complex fields of dots and stripes, suggesting they were designed to communicate, to be appreciated, by the same people who used them by being served food or consuming food from them. Many complete Chipurik *platos* have been found associated with cave burials in Luya (Koschmieder 2012; Reichlen and Reichlen 1950). This may suggest they were used during 'feasting with the dead' or ancestor veneration rituals that included the remains of deceased ancestors.

The wares that the Reichlens would have categorized as Kuelape style (I will, from now on, write this with the more common spelling Kuélap), and which fit into the umbrella category of the coarse-brown tradition, are less commonly encountered at Wimba. In analyzing the Wimba ceramics, sherds with incised or applique decoration were considered Kuélap style (33 total sherds). Cántaros were the most common vessel form (21/33), followed by unidentifiable vessels (10/33), one *olla*, and one *canchero*. A plurality of these sherds had more than 20% of their paste made of large temper, and only one sherd has less than 5% temper. The temper itself was larger in Kuélap decorated ceramics than in the Chipurik sample: more than one third had more than 21% temper and large temper inclusions. The average thickness of these sherds is 0.72 cm. The differences in temper size and wall thickness are in line with the typical dimensions for undecorated *cántaros*. Thicker walls were better for holding liquids, and coarser temper was associated with larger vessels.

Figure 6.14: Clockwise from upper right: Incised Applique decoration (10-01), broken applique decoration, incised applique decoration, and applique zig-zag decoration

Decoration for Kuélap ceramics was more diverse, encompassing modeled anthropomorphic figures, incised dots or dashes, and applique decoration. The majority of the Kuélap forms had a simple pattern of short incisions in the lip of the vessel (23 of 33). In addition, there was a modeled paw that was likely applied to the body of a larger vessel, and a handle that was modeled to look like an anthropomorphic face. Only four sherds presented zig-zag shaped applique designs that are commonly considered the most iconic example of Kuélap or coarse-brown wares (Figure 6.14). Of these, all but one emerged from the uppermost A contexts in the Wimba excavations.

Despite the common description that Chipurik vessels are lighter in color, the assemblage at Wimba showed no prediction for paste color in distinguishing Chipurik from Kuelap vessels. The common description that Chipurik ceramics are lighter, and Kuélap ceramics are darker masks the fact is that the paste colors vary a lot and there is significant overlap, as discussed previously regarding undecorated ceramics. To illustrate this fact with an experiment, a method adapted from a study of Mesoamerican ceramics conducted by Ruck and Brown (2015) was implemented. First, I sampled the vessels that had decoration indicating that they would have been considered Chipurik (n=46) and Kuélap (n=33) types. This sample was chosen to give the best chance of having divergent paste colors. Then, I used Ruck and Brown's (2015) method to convert the Munsell colors of the ceramic pastes into three dimensional coordinates by hue, value and chroma. Then, those coordinates were modeled with a binomial logistic regression model to see if a Chipurik paste color could be distinguished from a Kuelap paste color (see Chapter 4). The resulting regression was not significant even at a 90% confidence interval. The overlap in paste recipes likely reflects the local production of the ceramic vessels. This indicates that clay sources and firing methods were shared by each of these decorative motifs within the *montaña*. The main difference, and surely the source of the misconception, is that Chipurik ceramics are much more likely to be slipped with a white or light tan color.

The distinction between the two decorated styles is limited to the surface treatment and decoration stages in the production process. Otherwise, the process of making one of these vessels does not diverge from basic *plato* and *cántaro* crafting techniques. Their use was very likely simultaneous and complementary. Kuélap style liquid storage vessels—*cántaros*—could have held chicha and been used in feasts and rituals alongside Chipurik decorated bowls that held food.

6.3.3.3 Vessel type conclusions

The Wimba assemblage differs from expectations for a 'domestic' small village site in that it contains a higher proportion of serving wares, and a lower proportion of cooking wares. We did uncover lithic grinding stones, a spindle whorl, and sherds with firecloud and soot from cooking fires, all of which support the idea that Wimba was a site for some domestic activity. At Monte Viudo, a well-documented Chacha sites of predominantly domestic contexts, the LIP assemblage was also made up of *cántaros* and *platos*, but there was only one ring-base bowl at the site. The Monte Viudo assemblage has a much higher ratio of *cántaros* to bowls, and a lower proportion of decorated sherds, too. There, less than 5% of sherds were decorated, and Guengerich reported a chronological pattern: "based on association with radiocarbon-dated excavation units, it appears that decoration is linked to chronology: painting, and to a lesser degree slipping, is mostly found in pre-LIP contexts, and appliqué in LIP contexts" (Guengerich 2014: 338).

The pattern of decoration and the prevalence of ring-base bowls is a clear connection to the Chipurik ceramic style predominately documented in the northwest Chachapoyas region of Luya y Chillaos (see Chapter 7). While we do not have complete ceramic datasets sufficient to say that this is a typical or Luya assemblage, there is clearly more shared in terms of vessel shapes and decoration styles between Luya regions than southern Chachapoyas, where applique-incised decoration is most common. In the future, a program like the one proposed by Philippe

(2018) could be adapted to categorize all the Wimba assemblage according to a chaine operatoire technique defined through further study of *montaña* ceramics. Further, this could be adapted to new innovations, or to test out competing approaches to categorization of these ceramics.

The fact is there are many features that connect the entire assemblage and support the interpretation that most of the materials are locally produced. First, temper is dominated by sand/quartz. Second, the range of oxidized clay colors is relatively narrow and likely reflects local clay sourcing. The colors found exist on a continuum without clear connection between color and ware type or decoration, for example. There is a clear pattern associating public, non-domestic space on Platform 1 with serving wares and decorated wares. The constitution of the domestic assemblage includes more *cántaros* whereas the assemblage from the non-domestic of Platform 1 contains more *plato* fragments. Most vessels have no surface treatment. As I argued previously, it is difficult to determine chronological patterns in ceramics at Wimba due to the lack of contexts with stratigraphy built up over enough time to reflect significant changes. The remodeling on Platform 1 suggests that the site was occupied long enough to be expanded, and the late appearance of provincial Inka and mica-tempered wares supports a Late Horizon occupation, but the local late prehispanic ceramic styles maintained consistent recipes and styles during the life of occupation of Wimba.

6.4 Bone artifacts

While ceramic styles indicate cultural continuity between the pottery producers of Wimba and their neighbors in the Utcubamba valley heart of Chachapoyas, Amazonia's primary trade goods, feathers, plants, animals, and specialized knowledge, are difficult to recover archaeologically outside tombs. A closer study of the bone and tooth adornments found at Wimba presents a unique opportunity. The two types of perforated adornments found at Wimba comprise: 1) Plaque pendants likely made of camelid bone, and 2) tooth pendants made of camelid and primate molars. I'll begin with a discussion of the excavation contexts and then proceed into my analysis of the objects themselves.

Figure 6.15: Perforated camelid tooth fragment

On Platform 1 we encountered tooth pendants in Operation 2. We excavated five square meters just behind Structure 1, to the southwest, and discovered a use surface approximately 20 cm below the ground surface (see section 7.2). At this level, less than 1 meter apart horizontally, we uncovered three tooth pendants. Two likely camelid, and one primate maxillary molar. The primate molar comes from either a human, or possibly a frugivore monkey, such as a Capuchin or Spider monkey (Figure 6.15). Each tooth was perforated through the root once, to be hung from a cord or sewn into a textile.

Figure 6.16: Primate molar with perforated root

As indices of relations/connections with animals, these materials are drawn from animals with very different roles in *montaña* society. Camelids, which were not common at this low elevation, were likely present as part of pack trains or brought in for possibly ceremonial consumption. Coming from a human or other primate source, the molar would have been recognizable to a viewer as coming from a primate/human. As media, these teeth were not worked other than being cleaned and perforated. There was no evidence that they were painted or ground. That is not to say that they were unadorned, but we can safely infer that their connection to their animal origin was not obscured.

On Platform 4, a small platform to the southeast above Platform 1, we uncovered two structures, one made of rough fieldstone walls, and another indicated by a circular wall footing. The camelid plaque pendants, which were found in a small (approximately 15 cm diameter) deposit of at least 17 individual plaques, were uncovered above a prepared clay floor near the wall inside a circular stone structure (Structure 17). This circular stone enclosure differs from other constructions at the site in both style and location. The size of the stones and the lack of wall fall suggests that the structure walls were made of wood or adobe above the stone foundations.

Figure 6.17: Above: front of six bone plaque pendants. Below: obverse view of bone plaque pendants.

The plaque pendants themselves are of a uniform shape, with parallel mediolateral sides and convex distal ends with rounded distal corners (Figure 6.16). Proximal ends are either flat or convex, and proximal corners were rounded slightly, as you can see in the image. The perforations themselves are parallel, and the plaque pendants dorsoventral walls are parallel, as well. The pendants average 93 mm wide, 224 mm long, and 16 mm thick. Because they were found together and are so uniform in manufacture, I infer these were part of one object. Strung together and laid flat, these pendants together measured at least 16 cm long. At that length it is impossible to say whether they were part of a collar, bracelet, sewn onto a cloth, or part of another object.

As indices of their animal origin, it is hard to say how apparent the source of these bone adornments would have been. Their source may well have been obvious to the community here, but they are unidentifiable to archaeologists other than the fact that they come from long bones. As media, these bone plaque pendants would have required significant investment in labor to cut the bone, form the plaques to the same size and shape, and perforate them. They are fragile today.

Examples of bone and tooth adornments abound in Amazonian ethnographic contexts: caiman teeth and osteoderms, monkey teeth, Tapir canines, whole birds, and even river dolphin teeth have all been documented as valued parts of bracelets, collars, headbands, and textiles (e.g., Harding 2003). These were created and used for special purposes, such as ritual dances, or to adorn baby blankets (Chernela 1993). These often capitalized on the tactile quality of bones rattling and clicking as they move. In northeastern Peru, the primary archaeological examples of similar tooth pendants come from low elevation Formative sites in Cajamarca, Amazonas, and southern Ecuador. Ryan Clasby (2014a) and Quirino Olivera (2012) uncovered tooth pendants in formative contexts at Montegrande and Huayurco broadly associated with ground stone pendants, spondylus shells and other classic exotic materials.

Finally, the bone plaque pendants found on Platform 4 bear a striking resemblance to spondylus plaque pendants that were manufactured in great quantities, at around the same time period, on the north coast (e.g., Helmer et al. 2012; Shimada 1994). A Chimú-Inka burial excavated by Helmer and colleagues (2012) contained more than 3000 perforated adornments, and a workshop where shell beads and plaques were created was excavated by Shimada (1994) at Pampa Grande. These materials were sewn into elaborate textiles or worn as collars or bracelets. There is a rich corpus of archaeological and ethnographic examples of similar bone and tooth adornments and pendants outside the study region (e.g., Harding 2003); yet, similar finds have not previously been documented in the area around Wimba. The *montaña* and coast were connected, at least down the line, by the exchange of exotic feathers, as Pasztory (2008), von Hagen (2004) and Wilkinson (2018) have pointed out.

One of the key questions that spurred this study was: why would bone be the preferred material in some contexts? Cross-culturally, bone amulets are understood to directly call upon the characteristics of the animals from which they are taken. As Alice Choyke points out for Eurasian contexts: every society attaches cultural attitudes to animals and their remains, such as 'lucky rabbit's feet' or goat astragali used as game tokens (Choyke and Bar-Yosef Mayer 2017). At the same time, bone was a relatively cheap media for the creation of personal adornments, compared to materials like stone, metal, or shell. It is commonly asserted that the raw materials, color, size and shape of body ornaments can signal group identity between groups, or social status and rank within a group, but in practice it is difficult to draw one-to-one correlations between ornaments and social difference. The pendants found at Wimba must be considered in relation to their possible place within the overlapping regional traditions of highland, lowland, and *montaña* South America, meaning they were plausibly part of each tradition, and that versatility may have been valuable in this context. In the Ecuadorian *montaña* beads were embedded in systems of exchange: "*chaquira*" or tiny seedlike beads made of gold, red shell, or white bone (Salomon 1986), and *"carato"* were a bead currency of the Amazonian foothills, where one string of 24 beads was considered equivalent to one day's work, for example (Reeve 1994). I do not argue that these pendants were tokens for exchange, but their use as such in Ecuador underlines their widely recognized value.

Tooth pendants have so far not been documented in nearby regions of the highlands, which is a notable contrast to the broadly highland affiliations in diet, house construction, and settlement patterning. However, two of the tooth pendants come from camelids, which would have strong highland associations. I suggest that that the plaque pendants have an analog in spondylus plaque pendants created on the North Coast (Helmer et al. 2012). Thus, in total the three main ecozones of Peru are represented in this assemblage, by an object type that itself is associated with the lowlands. I interpret the presence of perforated organic adornments as evidence of connections between the Wimba *montaña* inhabitants and their neighbors in lowland societies. They show that, no matter how or why past inhabitants interacted with their neighbors, they were doing so, at least partly, through a media that lowland societies would have understood. Furthermore, they are 'speaking' that language with materials and in forms that also emphasize their intermediary position through their highland, or possibly coastal connections.

Were the inhabitants of the *montaña* able to 'speak' in the iconography of their lowland neighbors in a way their highland neighbors couldn't, or chose not to? Did highland Andeans view the bones of highland animals more as raw material, as a cheap option for tools or beads, but not for their totemic qualities, whereas the bones of Amazonian animals maintained a special power through their connection to the animals from which they were collected? If so, it doesn't appear that these ideas were mutually exclusive, at least in this *montaña* context where they overlapped. Future work is necessary to determine the prevalence and function of bone adornments in the *montaña*.

6.5 Ritual and feasting: Communal gatherings on Platform 1

The results of our excavation at Wimba support the interpretation that feasting occurred on Platform 1. The food remains include evidence of roasted meat from camelids, in the camelid burial, as well as ample camelid remains in the feasting midden. This was both a feasting food[14] and a connection to higher elevation camelid pastoralism. We did not uncover clear evidence of specialized feasting preparation utensils, but we did find grinding stones, which would have been necessary to produce chicha maize beer, and storage vessels for that beverage. *Plato* serving vessels were abundant at Wimba, especially within the feasting midden, which is one of the strongest pieces of evidence for feasting activity. Painted serving vessels make up a higher proportion of the ceramic assemblage here than elsewhere at Wimba, or in nearby Chacha sites (Ruiz Estrada 2009:109–110). Special food disposal is indicated by the presence of the feasting midden in Operation 2 unit 2. The feasting midden contains a higher quantity of serving and storage vessels than any other context at the rest of the site—almost as many as the rest of the site combined. I interpret Structures 1 and 2 as feasting facilities, because they were adjacent to the open space on Platform 1 and would have provided shelter for important guests while also maintaining visibility of the plaza and the valleys to the north. The small plaza itself qualifies as a special location due to its position overlooking the river confluence of the three valleys. A

[14] Camelid meat was most likely primarily consumed in ritual and feasting, especially at this elevation (Bray 2003b; Hastorf 2003)

gathering here would have had special significance because it is in this space defined by unique buildings, on top of a large platform with a panoramic view of the rivers. Finally, we found portable items of personal adornment at Wimba, in the form of bone pendants and plaques, which may have been worn on special occasions.

To understand how Wimba fits within the *montaña* borderland, we need to pay attention to the social/symbolic content of the feasts—how the inhabitants of Wimba assert their identity and imagine the larger interregional network through the way they feast. There are broad differences in cuisine between highland and lowland peoples, allowing certain foods consumed at Wimba to be characterized as highland, hybrid, or lowland. The storage and serving wares used in feasts can be categorized in terms of regional affiliations in decorative styles - connecting with Luya, southern Chacha, Mayo valley, and unique/local. Attributes of the vessels, and the size/shape of the space, will help us understand the scale of the gatherings whether large, medium, or small. Together, these forces emplace Wimba as a highland-aligned village within the borderlands of the *montaña*. As I established in Chapters 2 and 3, feasting and communal gatherings were key settings for interaction and boundary processes, especially at ecological transitions. Feasts relate to temporal cycles (such as yearly holidays or harvests), exchange with neighbors, and the creation/maintenance of social boundaries (e.g., Wengrow and Graeber 2015).

Cuisine

The cuisine involved in feasting at Wimba included ingredients and modes of presentation that are shared with highland Andean societies. The primary indicator is the presence of camelid bone throughout the site, and in high quantities in both the offering and the midden on Platform 1. This does not rule out the co-presence of lowland materials, but preservation at Wimba was poor for organic material and no macrobotanical remains were found. Unfortunately, many of the lowland materials that would have been valued here are organic and do not preserve well in these contexts. The secondary indicator of a highland feasting cuisine is the suite of ceramic vessel types that includes *cántaros* that were most likely used for storing and serving fermented maize beer chicha. Grinding stones are common at Wimba as well. Though grinding stones would have a variety of functions, they are frequently associated with the processing of maize for the production of chicha (e.g., Hastorf and Johannessen 1993). As discussed previously, cuisine is a common proxy for identity/ethnicity in archaeological contexts, and many ethnographic accounts support this in the Andes and elsewhere (Lightfoot et al. 1998; Peres 2017; Stovel 2013; Twiss 2012). A complete analysis by specialists of the faunal and botanical remains from Wimba are necessary to fully appreciate the diversity of the foods prepared and consumed here, but the presence and ubiquity of the two most important feasting foods of the Andean tradition, camelid meat and chicha, indicate that the inhabitants shared some traditions with highland peoples.

Ceramic stylistic connections

Ceramic decorative style is a commonly used, if imperfect, indicator of community affiliation (e.g., Dietler and Herbich 1998; Janusek 2002; Wiessner 1983). The closest analogue to the decorated *platos* excavated at Wimba are the decorated serving *platos* excavated and found during survey by Klaus Koschmieder in his Jucusbamba valley survey of the Luya region in modern Amazonas province (Koschmieder 2012:149). The size and shape of the vessels, the ring-bases, and the red paint on a white or buff slip background are all clearly shared with Luya vessels (Figure 6.11). At Wimba, and in Luya, incised and applique decorated vessels are present, but a much lower proportion of the overall assemblage than in southern Chacha. Connections to the east are less clear. Ceramics excavated from Flor de Mayo, near Moyobamba to the northeast of Wimba, have no decoration in common with Wimba, though excavation has so far been minimal (Salazar et al. 2015). Survey in the middle Mayo valley documented ceramics painted white and red, but no images or information about vessel type are available (van Dalen Luna et al. 2013:218). Finally, vessels with white stripes painted on a red background, as found at Wimba (Figure 6.6), have not been documented anywhere in the surrounding region. I interpret this, for now, as a local variant that would have been used in a similar way to the *platos* with connections to Luya.

Size of gathering

Proxemic approaches can help us infer the scale of communication and interaction within feasts from the shape of spaces (e.g., Moore 1996b) and the decoration of serving vessels (e.g., Mills 2007). Within the scale created to understand Andean ritual proxemics, the plaza at the north end of Platform 1 is larger than the sunken plazas of the Tiwanaku tradition, but smaller than the Chimu and Inka plazas (Moore 1996b:796). Based on a density estimate derived from the ratio of population to plaza size at Ollantaytambo, at least 116 people could have filled the exterior plaza area for a feast (3.6 m^2 per person) (Moore 1996a:149). Bowser and Patton (2004) found a correlation between the size of decoration on pots and the size of social spaces in Ecuadorian ethnographic context. Like Moore, they develop proxemics (Hillier and Hanson 1984) to understand the distance at which certain messages can travel. They show that the spaces in hosting ranged from 2 to 10 m in distance, with sizes corresponding to the size of symbols depicted on bowls. A similar correlation between gathering sizes and exterior decoration of serving bowls was observed in the Southwest US (Mills 2007). The serving bowls at Wimba have very little outside decoration (primarily burnishing), indicating that the decorations were intended to be appreciated by the users of the pots and people close by rather than at a distance across a plaza (see Wobst 1977). Together, the basic proxemic analysis suggests that feasts at Wimba involved primarily close interaction between hosts and visitors.

Feasting 'type'

Feasting is an important social practice that shapes and is shaped by social structures related to politics, cosmology, and identity (e.g., Dietler and Hayden 2001; Hastorf 2017; Hayden and Villeneuve 2011; Peres 2017; Twiss 2012). Since feasting came to prominence as an area of interest in archaeology, several subcategories have been created to organize feasts by their political content (e.g., Dietler and Hayden 2001). Engaging with typologies is unavoidable within feasting studies, though there is significant variation among scholars' approaches (Hastorf 2017:197-203). For the purposes of this project, I identify three primary feasting types. First, feasting events can be arenas of competition among elite political actors. Hastorf calls these competitive feasts, while Dietler and Hayden call them diacritical feasts. Second, feasts can create or reinforce hierarchical relations of debt between the givers and the receivers of the feasts. Hastorf calls these alliance-building feasts, Dietler calls these patron-role feasts (2001:82-85), and Hayden refers to them as economic feasts. Last, communities may hold feasts to create and strengthen horizontal bonds (Hastorf has two categories that I am combining here: pot-luck, and celebratory feasts, and Dietler calls these entrepreneurial feasts, Hayden (confusingly), refers to them as alliance and cooperation feasts). In this section, I explain how these findings indicate that Wimba hosted celebratory feasts.

Competitive feasts

The least likely feasting type to have been hosted at Wimba is feasting carried out exclusively by groups of elites, consuming rare and expensive foods. Hastorf terms this competitive feasting (2017:203-204), while Hayden and Dietler use the term diacritical feasting (2001: 38). Competitive feasts are meals designed to illustrate status differences "through differential access to ingredients and cuisines for select clientele, separating those who attend from those who do not" (Dietler 2001:85; Hayden 1996:129, 2001:57). The conspicuous consumption of valuable foods and items by a restricted group are the most common traits of competitive feasts, though it is possible that these occur concurrently with larger events, which could obscure the archaeological record. These events, which exclude most of the commoner population, are the least likely to have a direct relationship with exchange and social boundaries of the community. In this way they seem connected to the idea of 'network' elite agency, by which elites emphasize their separation from common people and connections to elites in other regions (Blanton et al. 1996). The social boundary that is created is between elites and commoners, and the materials that are most likely to be exchanged alongside food are luxury items.

It is unlikely that Wimba hosted competitive feasts for a few reasons. First, the architecture at the site is mostly coarse. There is no evidence that any structures at Wimba were elite residences based on the size or quality of architecture. Second, the site did not contain precious metal, spondylus, obsidian, or other objects that would indicate an elite's access to long distance exchange networks of prestige goods. During the Late Horizon, which I discuss more in the following chapter, there is a larger site nearby, Posic, that was more likely host to Inka commensality because it contained distinctive Inka architecture and ample open space (though few would characterize Inka provincial feasting as competitive, more on that below) (Schjellerup et al. 2009). Many of the decorated serving vessels found at Wimba stand out in that they are thinner, lighter, and more likely to be decorated than other vessels within the LIP regional tradition. Even though they may imitate or incorporate elements of vessels from neighboring regions, they are created by local artisans for local use. Finally, while the area for feasting in the plaza on Platform 1 is restricted by the retention walls and the placement of Structures 1 and 2, it is more likely small because it is proportional to the size of the site overall, rather than an indicator of elite exclusivity associated with competitive feasting.

Alliance-building feasts

Alliance-building (Hastorf 2017:199), patron-role (Dietler 2001:84), or economic feasts (Hayden 2001: 38), are best understood as formal hospitality that emphasizes the relation between those of superior status and those seen as inferiors. Performing relations of indebtedness was one of the main ways of creating and solidifying hierarchical relations. Materially, these feasts are associated with specialized equipment, rarely used presentation vessels, and/or special ingredients. The Northwest Coast potlatch is likely the best-known type of patron-role or alliance building feasting (Mauss 1990). There, one of the goals is to induce indebtedness in some participants. In the South American context, we see these sorts of feasts associated with regional polities (Gero 1992; Lau 2002). In vertical archipelago model of Andean ethnic groups, a small group of colonists associated with a highland ethnic group would have cultivated and harvested low elevation crops like chili peppers, cotton, or coca to share with compatriots living in the highlands. It is reasonable to expect that at important intervals, likely associated with planting and/or harvest, extra workers who are brought in to break ground, harvest, or transport the lower elevation goods may have been rewarded with an alliance-building or work feast. This pattern is described by Guaman Poma, where workers who helped with the planting and harvest were paid in food and drink (GP 192). Certainly, in the Late Horizon, the Inka feasting pattern had the effect of solidifying the hierarchical relation between administrators and administrated in this way. Evidence for massive feasts at ceremonial/administrative centers like Huánuco Pampa and Cuzco is clear (Morris et al. 2011; Morris and Thompson 1985). As it has been found archaeologically, Andean hospitality was geared toward redistribution and corporate solidarity This was likely part of their strategy of developing intensive maize and coca plantations at different parts of the empire staffed by mitmaq.

It is easier to set expectations for the assemblages of Late Horizon Inka sponsored alliance-building feasts. Very large liquid storage vessels and large hearths are broadly interpreted as evidence of work-feasts in the Andes (Gumerman 2010). Keros, or drinking cups, may be expected, as they are found in Tiwanaku and Inka feasting contexts (Bray 2003b; Goldstein 2003). Hastorf and Johannessen (1993) demonstrate that in communities in the central Andes maize shifted from a simply-prepared, boiled item to a ground and fermented beverage during the late prehispanic period. Inka ceramic assemblages, which frequently include high quantities of shallow plates, are interpreted to emphasize meat consumption (Bray 2003).

During the LIP, alliance building feasts may have worked on the same assumptions at slightly smaller scales. In an LIP Chimu context on the coast, state sponsored feasting is in open compounds, but habitation platforms were occupied and expanded in small-scale construction events associated with feasting (Cutright 2013). The expansions were accompanied by feasts on platforms and public areas that were characterized by larger than average serving/cooking vessels, higher proportion of serving vessels, and unusual quality and quantity (Cutright 2013). Plus, these feasts were associated with spondylus and nectandra household offerings. no restriction of access or visibility between sectors A and B. Further south, in Nasca, LIP elites at Pajonal Alto weren't associated with ceremonial centers, but did participate in production, exchange, feasting, and community/exclusive ritual (Conlee 2003). In the mid-valley along the western slopes of the Andes, multiethnic sharing of midvalley agricultural resources were mediated through feasts and festivals (Dillehay 1979). This brings up the important fact that many, if not most, analogous examples of borderland mid-slope societies from Peru (Conrad 1993), and Ecuador (Bray 2005) are explicitly multi-ethnic. The line between alliance-building feasts that enact hierarchical relations and feasts that bring together a more egalitarian society—the following category—are not always easy.

Celebratory feasts

At the other end of the social competition spectrum is celebratory or potluck feasting. These feasts are meals shared by a group of self-identified members, animated by communality and "reaffirm[ing] membership through equal participation" (Hastorf 2017:198). As Kassabaum (2019) has argued, feasting studies have focused on the role of feasting in social change, and as venues for social entrepreneurs, at the expense of understanding how feasts work in noncompetitive contexts to solidify group identity. At the Cerén archaeological site, which was a peripheral Maya site preserved by ash from a volcanic eruption, there is evidence for what Brown (2001) calls commoner 'kinfolk' feasting. associated with ancestor veneration and life-cycle celebrations. They found a pattern of exterior cleared space around a permanent facility that allowed for food consumption and ritual performance as suggested by a ceremonial dance costume. Hastorf (2017) makes the distinction between celebratory and potluck feasting, based on the idea that potluck feasting has a more diverse assemblage associated with it, but the diversity does not reflect elite/status materials, but rather the participation of households. These visitors could be local or non-local. Amazonian groups would travel long distances during the dry season to meet highland peoples and trade (e.g., Camino 1977), and people in highland communities likewise travel

Celebratory feasting is the most likely interpretation for the evidence at Wimba. A portion of this camelid meat would have been roasted, as indicated by the presence of interior soot in some of the sherds found alongside the camelid burial and in the midden feature. The decoration would have been seen and appreciated primarily by people who used the *platos* directly, not necessarily designed to impress a large crowd at a distance (Mills 2007). The ring base bowls were used to serve solid foods like meat and maize. They also could have been used for serving/consuming liquids, but it is also very possible that gourds would have been primary for that. Everyday foods became luxuries in quantity in special occasions (Hastorf 2003). The assemblage in the feasting midden is unusual in size, but it does not contain unique vessels, it is only slightly weighted toward decorated serving vessels. I interpret this as evidence that the midden is made up of vessels that were brought to Platform 1 by feast participants from their homes, rather than provided by the hosts of the feast. Most participants who brought food in ceramic serving vessels were likely local, but not exclusively. In the US southwest, "only a relatively few very large vessels may have seen more specialized or exclusive use for feasts. Instead, other vessels, especially serving bowls, likely moved back and forth between household and suprahousehold contexts" (Mills 2007: 214). During the feast they were broken (intentionally or otherwise) and discarded along with the bones and organic trash. Hastorf

(2017:198) calls this ‘potluck’ feasting, and Salomon (1986:76) and Bray (2003) describe this pattern in Andean community feasts as well.

The two most likely causes for these events are typical cyclical events in the life of a small community: funerals/ancestor veneration, and harvest/planting celebrations. During/near end of dry season is when feasts, trade fairs, and wars would have most likely occurred (DeBoer 1986). Osborn 1989, Raymond 1988. The Wimba material could have been associated with ancestor veneration for a few reasons. The best examples of ring-base vessels are found in funerary contexts in caves in the Luya region (Koschmieder 2012; Reichlen and Reichlen 1950). Platform 1 has a view of three valleys to the northeast, northwest, and south, and each one has rock faces and caves that are visible. This may suggest a funerary/ ancestor veneration aspect to the use of decorated serving *platos* in view of burial caves. Maybe they were frequently used for funerary feasts, or for the dead to use during feasts at which they still participated (common in the Andes). It is also likely that feasts were multi-community events that facilitated trade, marriage, defensive alliances, or other purposes (Hayden & Villeneuve 2011).

It is helpful to point out the way feasting allows for temporary hierarchies (Wengrow and Graeber 2015). Feasting is a repetitive, cyclical affair in most contexts (Dietler 2001), and often different people or families shoulder the responsibility of hosting, organizing, or gathering the materials on a rotating basis. While these people enjoy some status within their communities, these are not permanent, nor do they prevent achievement of the same status by others. Feasting could be a venue that empowers social identities and sub-groups who cannot always exert influence. Feasting was a venue for women’s autonomy as participants in the community (Gero 1992). In the Callejon de Huaylas, feasts were sponsored in the EIP by an emergent ranked social authority analogous to a prestigious ayllu. The Inka subverted this later, by co-opting the position of local elites (Costin and Earle; Hastorf and Johannesen 1992). In the Southwest US, Graves and Spielmann (2000) documented a pattern by which feasting practices were extended beyond the natural boundaries of the main food source: bison. They argue that the feasting practices were part of a durable system of ritual dependency that connected feasting to ritual and tradition. At Wimba, there is a repeated pattern of the incorporation of alters: circular and rectangular architecture; incised liquid storage vessels and painted serving platters, highland camelids (presumably) with lower elevation maize, coca, and gourds. These were, in turn, associated with portable artifacts that index neighboring regions and predation of alters.

Feasting and Wimba's regional context:

How does knowledge of feasting relate to the overarching research question about the permeability of the eastern slop highland/lowland boundary? To reiterate, there are at least three elements involved in communal gatherings at Wimba: There is connection in ceramic form and decoration style with Luya. The camelid remains indicate a connection to the highlands generally, and probably to camelid pack trains specifically. The use of bone pendants as personal adornments has precedent in the lowlands and on the coast. In the larger context, the point I am making is not that Wimba was home to important elites who warranted access to prestige wares, but rather that the people living here had both a practice of alterity by which communal ceremonies/feasts indexed connections to others near and far, and a number of connections to the northwest based on sharing or exchange of lower elevation products.

The simplest explanation for this may be that the inhabitants of Wimba shared ethnic identity with a highland group in Luya. They shared ceramic styles but did not invest in stone architecture on the same scale as at sites in the Luya area due to the size of the site, peripheral nature, or other cause (Koschmieder 2012). In that scenario the feasting events may have celebrated the harvest of cotton, coca, or maize. If a camelid packtrain would have been present to help bring low elevation products quickly up to the west, it would have been relatively simple to sacrifice one and roast it to reward workers for their help with the harvest. Chicha would flow from *cántaros* into gourds, roasted meat would be presented and served from decorated *platos*. The feast would serve the complementary goal of reinforcing the highland connections of the people living and/or working at and around Wimba.

On the other hand, people living at Wimba could have been autonomous in the LIP, when there is little evidence for political centers in the *montaña*. It would have been very hard to exercise direct control of groups living at this elevation in this landscape. The difficulty then, is in how to interpret the shared ring-base serving bowl tradition connecting NW Chachapoyas to Wimba. The practice of feasting is a centripetal behavior that brings people together with the promise of food, exchange opportunities, and meeting with neighbors, and this may have brought Wimba inhabitants into contact with Luya inhabitants and led to shared pottery styles but not shared political organization. The context, cuisine, and culinary equipment of the feasts underline an appeal to diversity—participants, objects, traditions—that are ultimately resolved in process of sharing the meal. The location (above a *tinku* river confluence), and contents of the feasts (camelids and chicha), and decorated vessels (incised *cántaros* and painted *platos*) indicate it was a goal of the Wimba inhabitants to enact alterity or complementarity that was associated with this ecological zone. The stone architecture wasn't necessarily about 'being' highland, but about indexing an aspect of highland identity, which would bring that (alter) identity into the affine category. The Luya bowls weren't necessarily about being part of one political organization with the people of Luya, but of indexing the connection, and maybe making it explicit to possible visitors from those areas/groups, or visitors that would understand what those symbols meant. The identity that is defined is one that connects specifically to Luya. The most significant social boundary is illustrated by the disjuncture between Wimba ceramics and their neighbors to the immediate west in the southern Chacha region, where Kuélap ceramics are most common. This boundary changed in the Late Horizon, as I discuss in the following chapter.

6. 6 Conclusion

The ceramics and other portable artifacts sampled from Wimba indicate that the inhabitants were hosting communal gatherings during the late prehispanic period. This can be most accurately interpreted as celebratory feasting, in the sense that it was organized locally, but without evidence of political elites. The celebrations were likely associated with ancestor veneration and/or seasonal festivals related to the harvest of corn, peppers, cotton or other low elevation resources, when camelid pack trains may have arrived to take a portion of these products to the higher elevations to the east. Drawing from chapter 5, the context of these communal gatherings would have underscored the repeated pattern of *tinku*, or the coming together of opposing forces. The river confluence below Platform 1, the rectangular and circular structures defining the small plaza, the incised *cántaros* and painted *platos*, and the consumption of highland originated food in a lower elevation setting would have all created Wimba within the borderland between highland and lowland.

CHAPTER 7

THE LATE HORIZON AT WIMBA

The Inka empire had immense demand for materials originating in the eastern *montaña*. Coca, gold, and feathers from lowland Amazonian birds, for example, all played key roles in the performance of Inka prestige (e.g., Von Hagen 2004). Heavy rains, disease, and hostile *montaña* groups made the acquisition of these materials difficult (Gade 1979), but archaeological survey in the *montaña* valleys east of Chachapoyas shows considerable Inka investment in administrative infrastructure, such as waystations and administrative sites with Cuzco style architecture (e.g., van Dalen Luna et al. 2013; Schjellerup et al. 2009). How did inhabitants of this imperial frontier experience the Late Horizon—did they actively engage with the state, or did they avoid state entanglements? What can Inka administration tell us about local political divisions? According to the chronicler Garcilaso, though the Inka conquest of Chachapoyas was hard won, the areas immediately *east* of Chachapoyas were easily conquered. There, the people capitulated to the Inka because they had already "recognized the sovereignty of the Chachas either as vassals or friendly confederates, a point on which the Indians disagree" (Garcilaso de la Vega 1989 [1609]:480). Though Garcilaso's account presents a maximalist vision of Chachapoyas as a vast kingdom, this statement implies a few contrasting points: first, the region of Chachapoyas was not solely made up of Chacha people. Second, prior to the Late Horizon, Chacha groups attempted or succeeded in subjugating eastern neighbors and forced them to pay tribute, but third, not all agreed with the idea that the Chacha were sovereign. In this chapter, I evaluate the evidence for Late Horizon at Wimba, which was very close to the eastern edge of the Inka province of Chachapoyas, to evaluate the way it incorporation into the Inka empire of the Late Horizon.

To contextualize the experience of the inhabitants at the eastern edges of the Inka province of Chachapoyas, I first discuss the ways the frontiers of the Inka state have been modeled elsewhere. Second, I present the ethnohistoric evidence for political competition or conflict among subgroups within the region during the Inka and early colonial periods. Third, I outline the archaeological and ethnohistoric evidence for regional alliances and factions within Chachapoyas that predate the Inka, focusing on data collected from Wimba. Finally, I argue that 18th century maps and clerical boundaries can help us better interpret the earliest documents and archaeological material.

7.1 Expectations for Inka frontiers

Scholars of the Inka empire typically consider administration along a continuum between direct control, characterized by military or Inka administrative centers, and indirect control, characterized by diffusion of prestige objects (e.g., D'Altroy and Earle 1985; contributions in Shimada 2015). In a *montaña* context, direct control would depend on a few things: first, the pre-existing groups (ie population size and capacity for cooperating with the Inka), and second, the Inka's interest in the particular products of the region. Relatively little archaeological investigation has been undertaken in the *montaña*, but one of the few exceptions is the relative proliferation of analyses of the frontiers of the Inka empire (D'Altroy 1992; Dillehay and Netherly 1988; Malpass 1993; Malpass and Alconini Mujica 2010; Salomon 1986). These studies depict the Late Horizon eastern frontier as one that was likely less porous than the previous *montaña* interfaces, but one that also stimulated increased interaction with lowland groups, in the form of higher demand for exotic lowland goods like feathers, plants, game animals, and human labor.

When discussing the Inka empire's expansion to the east we find contradictory themes. The Inka had a difficult time in the true lowlands, where canoe transportation was predominant (Gade 2016:300), and opposing groups had less in common culturally, but the Inka were firmly associated with maize-growing quechua ecological zone (between 2300-3500 masl), and clearly prioritized cultivation of *montaña* materials and occupation of *montaña* valleys such as the Urubamba valley (Wilkinson 2013). While documentary sources suggest that much of the Inka frontier was militarized, meaning it featured forts manned by soldiers loyal to the Inka (Polo de Ondegardo 1916), the best direct evidence for these forts comes from the far northern and southern Inka frontiers (Connell et al. 2019; Stehberg 1976). In the *montaña*, the southeastern frontier in modern Bolivia featured fortifications that have been documented archaeologically (Alconini 2016). The central Andean *montaña*, by contrast, contains few analogous fortress complexes, that were constructed by the Inka (though that is partly due to environmental challenges to research). While the lowland environment undoubtedly limited Inka expansion into the Amazon basin where the thick forest limited travel by foot and favored canoes (Lyon 1981), the *montaña*—both upper and lower—was much less of an obstacle for Inka expansion than it would be for the Spaniards. I will explain why, based on precedent from elsewhere in the Inka empire, it is likely that the Inka presence in Chachapoyas involved both significant investment in the expansion of the eastern boundary of highland-aligned groups, and an increase in trade with groups to the east (Muscutt 1998; Salazar et al. 2015; Schjellerup 2019, 2018; Villar Quintana 2019; Villar Quintana et al. 2020; Wilkinson 2013).

Many documentary sources assert that the Inka set up a line of forts garrisoned by *mitmaqkuna* in the upper *montaña* to channel and oversee links among political formations in the various ecological zones (D'Altroy 1992:79–81; Reeve 1994:200). For example, the Spanish colonial official Juan Polo de Ondegardo reported that Inka warfare created the need for militarized borders, specifically mentioning the boundary with the Araucanians in Chile, with the Chiriguanos in Bolivia, with the chunchos in the central *montaña*, in Ecuador near Quito, and with the Bracamoros, who occupied the area immediately north and east of Chachapoyas (Polo de Ondegardo 1916:98). The ethnohistorian Thierry Saignes reports that early colonial period land claims show that *mitmaqkuna* were resettled to the eastern valleys of Bolivia (Saignes 1995:171). The Chacha were subject to extensive forced resettlement under the Inka rule, reportedly because they were particularly rebellious (Schjellerup 1997:66). Despite this, there are few mentions of mitmaqkuna from elsewhere resettled into Chachapoyas, most notably Wanka colonists who were resettled near the modern city of Chachapoyas. Cieza (1991:229) reports that 200 Chupachus from the Huánuco area was resettled among the Chacha. A mitmaqkuna community of Chacha were resettled in Huánuco, as well, which is the location for one of the most important ethnohistoric studies of Inka administration.

The visita of the province of Leon de Huánuco in 1562 presented detailed demographic data about one central Andean province. This province was the site of significant Inka presence, most notably the large administrative center at Huanuco Pampa. The visita data was used by John Murra (1972) as the case study for a small society (500-18000 households) vertical archipelago. He also highlighted the ways in which the Inka administrators' approach to Huánuco focused on exploiting the eastern frontier (Ortiz de Zúñiga 1967:179, 1972:38). There were 200 Cuzco, Chachapoya, and Cayambe families sent as *mitmaqkuna* and resettled primarily in the northeastern edge of Huánuco. There, archaeological survey documented the greatest variance in ceramic and architectural styles, which were interpreted as support for the presence of multi-ethnic colonists, as well as re-settled Chupachu from nearby (Morris and Thompson

1985; Thompson 1967). The easternmost settlements did not show evidence for occupation prior to the Late Horizon and the deposits were very shallow. In an analysis of the documentary evidence, Sue Grosboll (1993: 72) noted that the most prominent voices in Ortiz de Zuniga's visita were the *kurakas* from the easternmost groups. She speculates that the prominence of these eastern leaders originated in the Inka conquest, meaning that these leaders were prominent because the most important roles in administering this region were supporting and protecting the eastern frontier. As is frequently the case, the neighbors to the east are missing from the documentary record. If *mitmaqkuna* were sent to fortresses along the frontier, it remains a mystery who they were meant to oppose (Murra 1972:466). The archaeological surveys undertaken in Huánuco in the 1960s did not recover direct evidence for lowland contact, and archaeologists were left to infer that maize, coca, and timber were the primary resources that attracted the Inka to this part of the frontier (Grosboll 1993; Thompson 1967).

Along the southeastern Inka frontier, in Bolivia, the military nature of the boundary is more visible archaeologically, and the opposing group is explicitly known. In the Oroncota region, Sonia Alconini investigated the boundary between the Inka and the Chiriguanos—Guaraní speakers from the lowlands (2004, 2008, 2016). The Inka administration of the border in this region included a small provincial center, Oroncota, as well as a military garrison, Cuzcotuyo. In this area she documented sparse pre-Inka occupation of the region, followed by the establishment of Inka sites adjacent to naturally irrigated agricultural lands (Alconini 2004:409). There were few storage structures, and no agricultural infrastructure such as terraces or canals. The distribution of pottery suggested that public feasting events were sponsored at Inka sites at which Guaraní pottery vessels were used. Alconini describes the result as not a "hardened perimeter," but an attempt to control key strategic points amid a zone of sociopolitical interaction (Alconini 2004). This echoes the distinction made by Dillehay and Gordon (1988), between the geopolitical frontier that coincided with the Maule River in Chile and a zone of sociopolitical interaction that extended further to the south and into the colonial period (see discussion in Dillehay 2007:98–114). Overall, as is to be expected from an expansive empire, the Inka sought to militarily control strategic points along the frontiers of their political control. However, the Inka were not expanding in a vacuum, and they predominantly relied on local allies to man these forts. I will explain further in section 7.4 how Wimba became part of a hardened border of Chachapoyas regional identity.

The ethnohistoric record suggests that the Inka disrupted the interaction networks of subject populations to exert their control, but also that they relied on client groups as intermediaries for acquisition of resources from the periphery of the empire (Reeve 1994; Salomon 1986, 1987b). This system resembles, at least, later imperial approaches to frontier administration, which, as I discussed in Chapter 3, had impacts well beyond their precise boundaries. They create what has been called the “shatter zone:” the region of sociopolitical instability radiating from a state’s frontiers (Raffield 2021; Wolf 1982). It is possible that the degree of cultural familiarity between highland-based Tawantinsuyu and its neighbors partially determined the location of the eastern frontier of the Inka empire (Hernández Garavito 2020), but it is also possible that the Inka denigrated the societies that successfully avoided direct incorporation in the empire. There is a lot of evidence that highland Andeans stereotyped lowland groups as naked and barbaric (e.g., Tyuleneva 2020), and this is assumed to be part of the reason the Inka did not extend their conquest to the east. This situation illustrates what Barth was describing when he said that maintenance of boundaries required interaction to reinforce the identity affiliations on each side of the boundary in complementary ways. As Salazar and colleagues (2015) have argued, this was likely accomplished through commensal hospitality—feasting—that occurred at Inka administrative sites like Flor de Mayo, in the Moyobamba region. Thus, it appears that during the LH the boundaries of upper *montaña* Inka allies expanded both spatially and in terms of importance.

The Inka demand for lowland products that they could not always directly procure, like birds, coca, hardwood, gold and medicinal plants, combined with periodic military ventures against lowland groups (Reeve 1994), likely caused competition and instability among groups in the lower *montaña*. This would have created a shatter zone, analogous to the one created by the Spanish and Jesuit colonization of the *montaña* later (Dudley 2011). For one study, Salomon showed the extent to which the Inka empire had successfully changed the local lifeways of northern Andean chiefdoms: they got rid of trade, somewhat, they cut down on markets, somewhat, they reorganized people according to decimal administration (1987b). But other than the degree to which we know they went to war with outlying groups, we don't know what their trade policy was like, and what the effects of their imperial expansion were beyond their borders. We also know from documents and from the discovery of a few examples, that lowland feathers were extremely valuable and the most important came from lowland regions mostly outside the direct control of the Inka or any highland group. This means there was a system of trade by which lowland peoples, or seasonal workers from the highlands, potentially, could catch huge quantities of birds to be exported whole to the highlands (Wilkinson 2018). The products that the lowlanders would have received in exchange have not been found archaeologically in great numbers, but the lack of investigation outside the bounds of the Inka empire and the poor preservation of much of the *montaña* mean that the absence of evidence is most definitely not evidence of absence.

There are a few lines of evidence that the Inka empire network of trade extended into the lowland areas and significantly impacted the people living there in a manner akin to a shatter zone. First, is linguistic, there are many quechua and quichua speakers in the lower *montaña* and into the lowlands in the early documents and up to the current day, and the language has been in those low elevations since well before Inka expansion (Heggarty 2008). The anthropologist Anne-Christine Taylor talks about how the upland Jivaroan Palta were 'Inkaized', as well as the Cahuapanans, Chachapoyas, Hibitos, and Cholones (Taylor 1999:205). This was, at least in part, also due to the expansion of Quechua under the early Spanish empire, but it likely also reflected expansion of Quechua associated with the interaction of lowland peoples with highland / *montaña* traders during the Late Horizon and earlier as well.

The demand for feathers, specifically, would have incorporated lowland hunters in the Andean interaction network, as the birds with bright red and blue plumage were only found in the Amazonian lowlands, and were not domesticated, so they had to be caught wild. As famously Pedro Sancho noted there were more than 100,000 dried birds in storehouses in Cuzco for the use of the Inka armies, which would have been festooned with feathered cloth on campaigns. There were specialists in crafts made with feathers. The 1562 visita of Huanuco registers "120 indios…para hacer plumas" (Murra 1972:242). It has been suggested that Chachapoyas was one of the primary sources for feathers used by the Chimu empire (Pasztory 2008), and the Inka would have certainly sought to coopt and continue that trade. The grave goods discovered at Laguna de los Condores, a cliff-side burial complex in Chachapoyas that mostly dates to the Late Horizon, supported this idea (Von Hagen 2004). There was a headdress made with feathers from Amazonian species, as well as fine cotton nets that were used to capture birds.

Finally, early ethnohistoric accounts cite the importance of the lowland product ishpingo, the ground nut of the *Nectandra sp*. or *Amburana caerensis* (Montoya Vera 2015). When Arriaga described important sacrificial offerings, he mentions that ishpingo (also spelled espingo, ispincu, and other variants) was valued as an additive to chicha, or to llama fat that is offered during rituals. This material was valued across the north coast and central Andes, though its effects are still being determined. It was part of a ritual bundles interred with burials on the north coast, and probably involved in ceremonies of sacrifice as depicted in Moche art (Montoya Vera 2015). *Nectandra* and *Amburana* are both native to the northeastern *montaña*. The Aguaruna, who inhabit the northern and eastern, low-lying portions of Amazonas province, are a primary source for modern traditional medicine practitioners. According to Arriaga, the primary source of ishpingo in the sixteenth century was Chachapoyas, but he also mentions that the Indians of Bracamoros—the ancestors of the Aguaruna—paid their tribute in powdered ishpingo (1968:44). This is a direct account that suggests that the Chachapoya were the primary middle-men for the distribution of a low-elevation resource valued across the central Andes.

Though these materials are unlikely to preserve in open archaeological contexts like those excavated at Wimba, the fact that we know trade was so important influences the interpretation of the materials we do find, like bone pendants and Chacha ceramics. We can expect the Inka to have shifted the local balance of power by making local allies, and to have invested some labor of locals or mitmaqkuna into agricultural production and/or supervision of outposts along the frontier. It seems that where the Inka administration depended on incorporating local señoríos, there is evidence that along the eastern interface, where ethnic groups likely shared access to *montaña* lands with multiple other ethnic groups from the highlands and lowland, the Inka sought to increase the highland claim on space. In summary, Wimba relates to the network of interaction that would have brought all these materials from the jungle to the highlands by virtue of its location along the infrastructure of transportation that connected Moyobamba with the Inka administrative site Posic (Schjellerup et al. 2009), then to Cochabamba (Schjellerup 1997) and then to Cajamarca (Von Hagen 2004).

7.2 The Inka incursion into Chachapoyas

Once the Inka fully conquered the Chachapoyas region, probably under Tupaq Inka Yupanki in the mid-15th century (see discussion in Espinoza Soriano 1967; and Schjellerup 1997), they built an administrative center at Cochabamba with Cuzco style masonry (Figure 7.1), and they elaborated the road system with tambos and smaller administrative sites. Overall, the impact of the Inka presence on LIP regional architectural or ceramic styles was not a

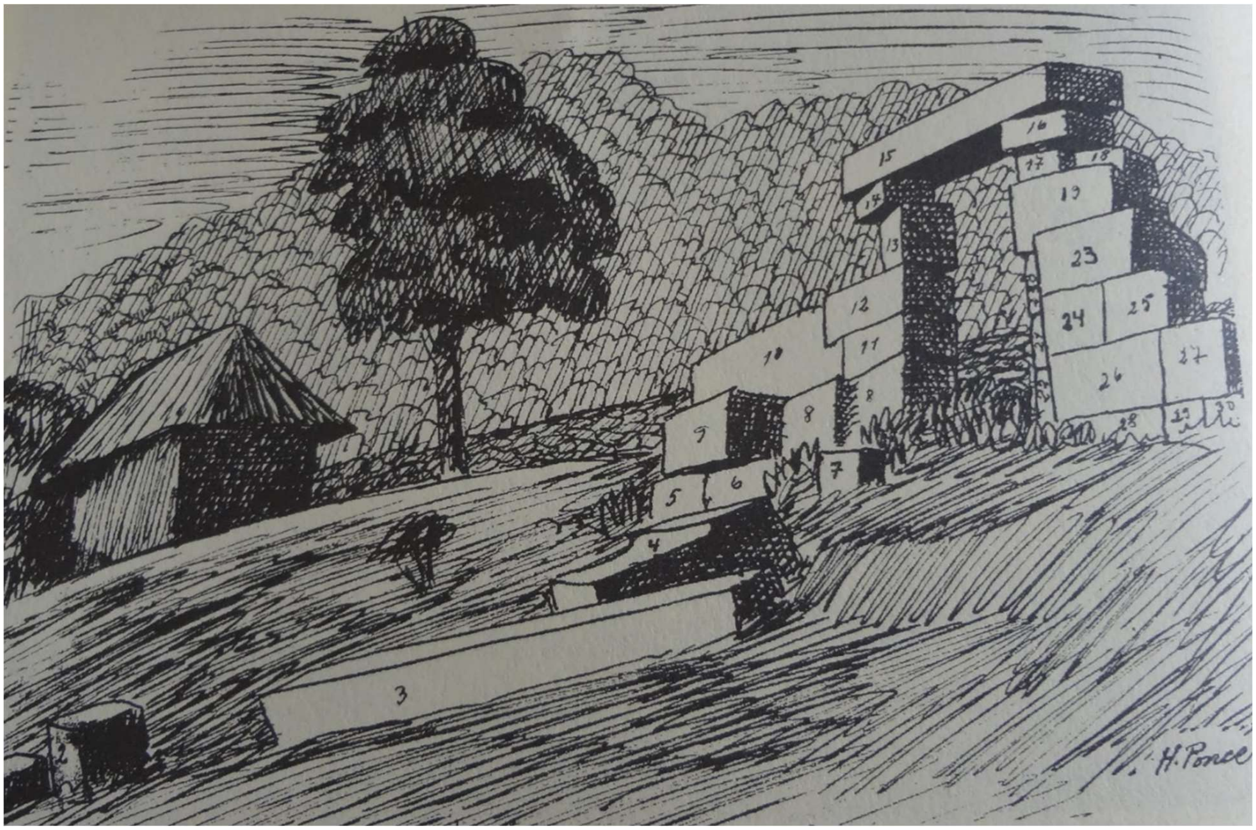

Figure 7.1: Sketch of Inka architecture at Cochabamba, Chachapoyas by Hernan Ponce Sanchez (Tello 2004:76)

diminishment, but an enhancement. Chacha funerary sites continued in use through the Late Horizon, such as chullpa complexes at los Pinchudos (Church and Morales Gamarra 2001) and Laguna de los Condores (Wild et al. 2007), and new buildings were built with even more impressive friezes at Gran Pajatén (Bonavia 1968; Church 1994; Kauffmann Doig 2009). The expansion of Chachapoyas art under Inka administration may be interpreted as evidence that the Inka encouraged the creation of a regional Chachapoyas macro-identity or ethnicity that likely did not exist during the LIP (e.g., Nystrom 2009).

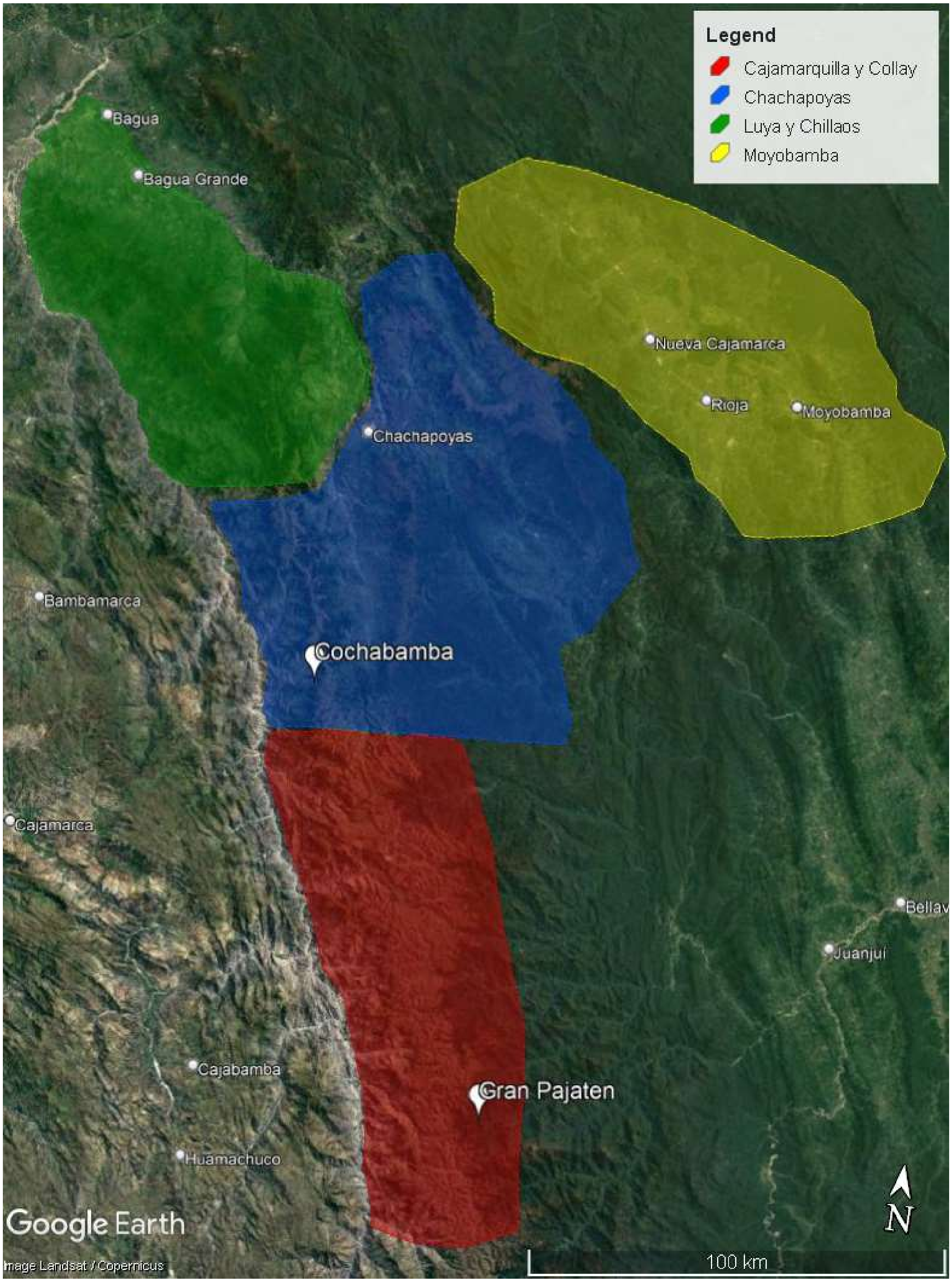

Figure 7.2: The conventional view of the three repartimientos within Chachapoyas, plus Moyobamba. Derived from Espinoza Soriano (1967), see also Centro Mallqui (2011)

Espinoza Soriano's (1967) analysis of nine documents written in Chachapoyas in 1572 and 1574 underpinned his reconstruction of the process by which Inka incorporated Chacha ayllus, and the Chachas' later alliance with the Spanish. This set of documents has been very influential in understanding Chacha ethnohistory, but it only relates to the ayllus living in what is now the central portion of Chachapoyas, between Levanto and Quinjalca in the north, and Leimebamba and Chuquibamba in the south. If the earliest Spanish repartimientos followed Inka provincial distinctions (which they often did), there were 3 provinces within the region we now refer to as Chachapoyas: Chachas, Luya y Chillaos, and Cajamarquilla y Collay (Julien 1985). The Inka consolidated their rule by establishing their main administrative center in at Cochabamba within the Chacha region and elevating a *kuraka* associated with the Chacha ethnic group to authority that province. Though the *kuraka* Guamán later claimed otherwise (Cieza), there was likely no paramount *kuraka* ruling over the entire region until the early colonial period. Most likely the region came to have the name Chachapoyas as a result of the elevation of the Chacha in power during the LH and early colonial period (Church and Guengerich 2017).

Historians and archaeologists attempting to reconstruct the sociopolitical geography of the region have generated consensus on the locations of many of the groups and towns referenced in the chronicles, but not with certainty along the eastern edge. Based on the ethnohistoric documents, the most likely interpretation of the approach to administration of the eastern border is that the Inka sought indirect control, through Chacha intermediaries. They set out to expand Chachapoya ethnicity to encompass the whole area, and to graft Chacha elites upon the upper levels of their social hierarchy. In Espinoza Soriano's account, he assumes there was already cultural familiarity within the region in terms of shared language, architecture, an artistic tradition, and a pacarina or mythical origin point. Thus, the Inka project worked and

Chachapoya ethnogenesis united a large region. This account, however, works backward from the accounts of people favored in the early colonial administration. Archaeological evidence for LH events along the eastern edge of this region show a different picture of the political landscape. As a site located at the far edge of what Espinoza Soriano assumes was the region that shared language and religious beliefs, Wimba would have been incorporated at the same time as Levanto and the Chachapoyas province (Figure 7.2). Espinoza Soriano argues that the Chacha sites were located on hilltops primarily as a defense against attack by tribes from the east and north, so I infer that Espinoza Soriano would argue Wimba was a frontier outpost.

In many ways, archaeologists have not only accepted the premise that Chachapoyas identity encompassed the entire region, but also expanded and projected this identity further into the past. I want to point out some ways in which the corpus of documents foundational to Chachapoyas studies has skewed our understanding of the LIP balance of power, and the experience of the Inka empire. Church and Guengerich (2017) point out the way Garcilaso's (1989 [1609]:478-482) account has misled archaeologists about the supposed unity of the Chachapoyas 'kingdom.' For one contrasting example, Cieza (2005:211–214) indicates there was significant factional warfare at the time of the arrival of Alonso de Alvarado in 1535. The *kuraka* Guaman, who made an alliance with the Spanish, was under attack from neighboring groups and those who wanted to remain loyal to the Inka. In the account of Alonso de Alvarado's conquest of Chachapoyas the power of Guaman is diminished, the relative power of the Chillaos and other peoples north and east of Chachapoyas appears larger, and the division within the region is more evident (Church and Guengerich 2017:20–24). Even though he was clear about the limit of his sources, Espinoza Soriano's narrative, has unfortunately stood for the ethnohistory of the entire region based on testimony from just a few lineages—lineages explicitly attempting to maintain their own power and position. The archaeological record can show us the experience of the other groups that were not in the position to be sources for early colonial documents (Espinoza Soriano 1967, 2003; Mogrovejo 2006; Schjellerup 1997). If we do so, we can see the political struggles by and among peoples living to the north and east of the Chacha core and have a more accurate picture of the dynamics of this frontier region.

7.3 The empire's eastern edge

During the Late Horizon the Huayabamba valley and the cordillera separating it from the Moyobamba valley was the location of significant Inka investment in road construction, tambos, and small administrative sites (Figure 7.3). Inge Schjellerup's survey (Schjellerup et al. 2003, 2005, 2009) has documented the Inka presence at the eastern edges of the Chachapoyas area. At least two Inka administrative sites, called Pata Llacta and Posic were built southeast and northeast of the Huayabamba valley, respectively. In addition, tambos, at Pampa Vado (2021 masl), Legia, El Arenal (2305 masl), and Laurel (1960 mas), trace an Inka path connecting the Huayabamba valley both south to the Chilchos valley, and north to Moyobamba. Finally, remains of at least ten terrace systems are interpreted by Schjellerup as evidence of Inka infrastructure projects to increase the production of maize or coca for use at their administrative sites, as has been seen elsewhere. The extent of Inka presence at the eastern edges of the upper *montaña* would be completely unknown without these archaeological surveys.

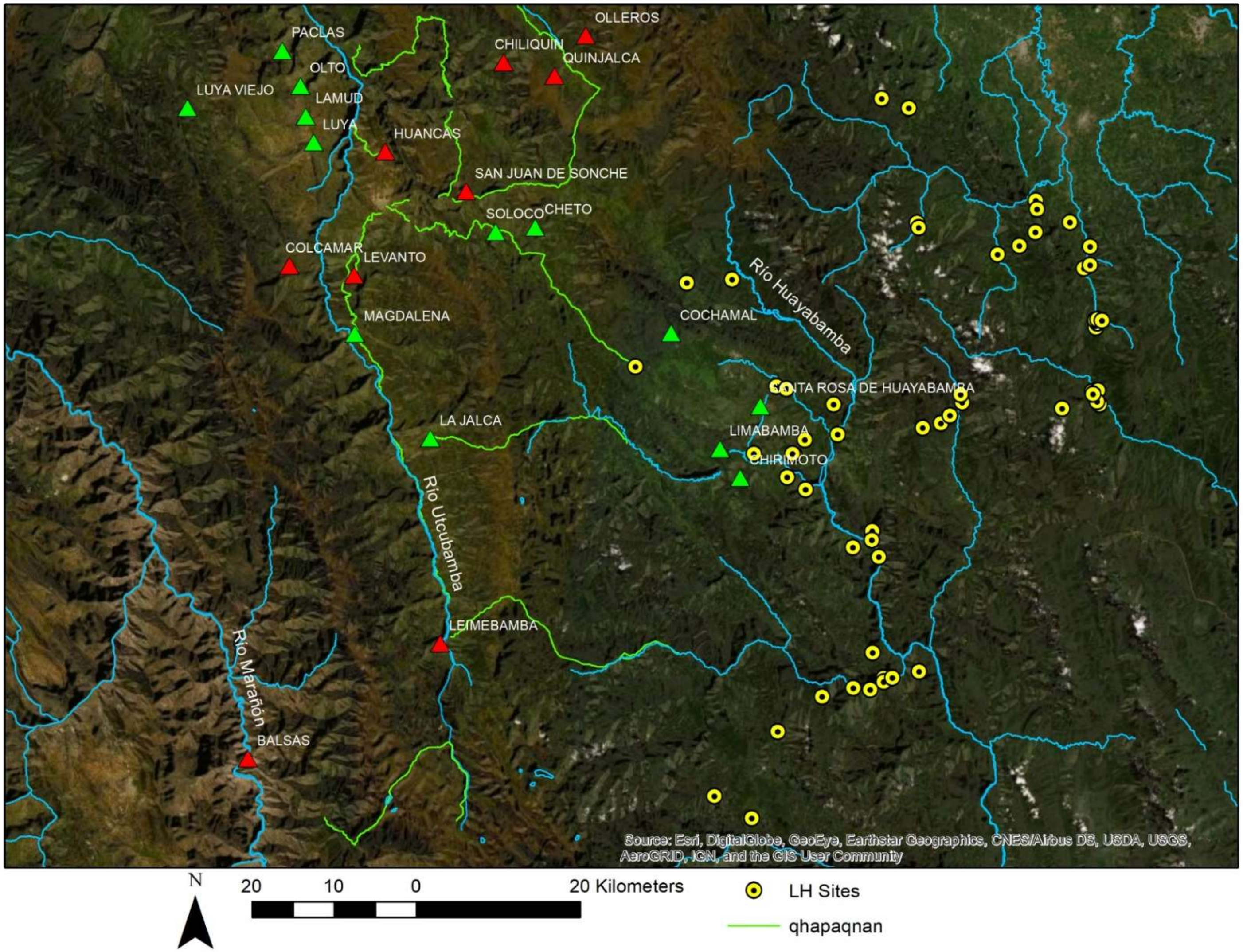

Figure 7.3: Map of Inka sites documented by Schjellerup (in yellow) east of Chachapoyas. In green are segments of the Inka road. Labeled sites appear on colonial maps.

7.4 Wimba during the Late Horizon

Wimba did not have an obvious Inka occupation based on surface features, but excavation uncovered both provincial Inka and Chacha-Inka style ceramics. The site is well situated within Late Horizon networks of movement as documented by Schellerup. First, Wimba overlooks a road linking the Huayabamba valley with the Mayo valley to the north that was used by the Inka as seen by the presence of Tampu Laurel, el Arenal, and Posic (Schjellerup et al. 2009). There are also traces of rough rectangular architecture, which generally contrasts with the round forms of LIP architecture. Of the 9 structures on Platform 1, five were rectangular, though they were in a poor state of conservation upon surface survey. In Chapter 5, I outlined the similarities between Structure 2, the *carpa uasi*, and Inka forms. This feature was rectangular in shape and open to the north, facing the small plaza and the view of the confluence of the Jebil and San Antonio rivers. It was just behind the large rectangular structure where we uncovered evidence of retaining walls and fill from the expansion of the upper platform (see Ch 6). The expansion of the platform, which likely included the construction of the *carpa uasi*, may date to the LH. So, considering these features, what can we say about the effects of incorporation into the Inka empire on the eastern edge of the Huayabamba valley? How did people at Wimba experience the LH?

At a modest site like Wimba, we did not expect to find direct evidence of Inka material culture. However, though the sample sizes are small, we did find evidence for pottery dating from the Late Horizon, including provincial Inka styles, on Platform 1. The ceramic assemblage of the latest stratigraphic layers on Platform 1 was primarily composed of serving bowls and *cántaro* jugs, like in the strata below. The majority of the assemblage's diagnostic forms, also like the preceding likely LIP layers, are decorated bowls, slipped and painted with geometric designs, roughly corresponding to the "Chipurik" ceramic style, found most commonly in the north in Luya y Chillaos. Within this larger assemblage, though, a few sherds stood out for their likely connection to interaction during the LH.

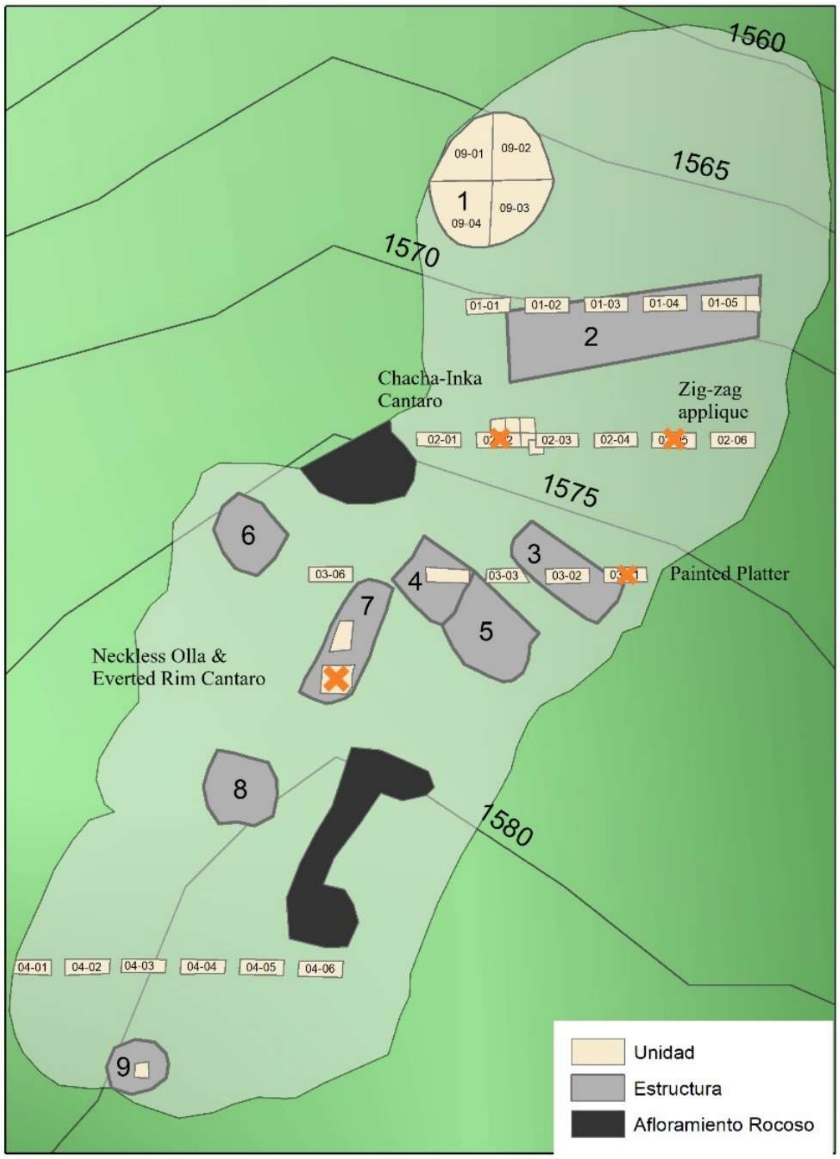

Figure 7.4: Location of possible Late Horizon Materials on Platform 1.

The roughly rectangular Structure 7 on Platform 1 contained a few non-local ceramic sherds that likely date to the Late Horizon (see Figure 7.4). In the uppermost stratigraphic level both provincial Inka sherds and southern Chacha sherds were found, contained three fragments of one provincial Inka vessel: a very small neckless *olla* or *canchero*, painted on the exterior (Figure 7.5). The wall of the vessel is thin (0.4 cm) with temper made of fine and medium particles of quartz/sand making up less than 10% of the paste. The plain rim of the constricted vessel has a dark brown/black stripe on the exterior, and the body of the vessel is painted red. Comparative examples for vessel form were difficult to find. The constricted opening and body curvature is similar to those of *cancheros*, vessels for toasting maize kernels, that are found in Moche and Chimu contexts on the north coast. The sherds could also be part of a small neckless *olla*, or a rounded cup. Alongside these sherds, in Structure 7, were non-local mica-tempered *cántaro* sherds. These small pieces of Kuélap-style ceramics had the characteristic everted rim and incised decoration which are very common in the southern portion of Chachapoyas, but otherwise absent at Wimba (Figure 7.6).

Figure 7.5: Provincial Inka Neckless Olla or Canchero sherds excavated from context 10-02-A in Structure 7

Figure 7.6: Mica tempered sherds with incised and applique designs. On the left, a rim sherd from context 02-05-A with zig-zag applique near the short everted rim of an olla. On the right, two sherds that mend showing incised decoration on the everted lip of a cántaro from context 10-02-A in Structure 7

During the LH locally produced Chacha vessels start to show Inka influence in form and decoration. Ruiz Estrada (2008) and Koschmieder (2012) have identified Chacha-Inka style of decoration. The best examples come from *cántaros*, with groups of red painted stripes forming a comb motif around the shoulders and neck. Though the form is somewhat different, these vessels are decorated similarly to Inka *aríbalos*, which, though common at provincial Inka sites (Bray 2003), are not commonly encountered in Chacha sites. One painted *cántaro* of the Chacha-Inka style was found in the Platform 1 midden context (02-02-E, Figure 7.7). This vessel has red-on-white painted decoration, and the sherd, which comes from the narrow neck of a *cántaro* shows a red striped comb design. Similar examples of Chacha-Inka *cántaros* have been noted in the Luya area by Koschmieder (2012, fig. 79) and at Kuélap by Ruiz Estrada (2008). Finally, a very flat plate or griddle was excavated in the uppermost context behind Structure 2 (the *carpa uasi*, context 03-01-A). This vessel had a simple lug handle and radiating red lines like the Chacha-Inka *cántaro* (figure 7.7).

Figure 7.7: Exterior (left) and interior (right) views of a likely cántaro neck sherd with radiating stripes on the opening.

Finally, as mentioned in the previous chapter (section 6.2.1), the camelid offering deposit could also be evidence of Late Horizon ritual practice. A camelid cranium deposited on top of two ceramic vessels was buried just behind the large rectangular structure. I interpret this as evidence of public ritual or feasting in the last period of site occupation.

The combination of southern Chacha forms with provincial Inka forms is direct evidence that interaction connected Wimba with the central Chacha province during the short period of intertwined power of both the Inka administration and the Chacha *kuraka* at Cochabamba. From a regional perspective, though, this is evidence of the importance of the non-Chacha ethnic groups within the new region of Chachapoyas. The feasting activity at Wimba, alongside the construction of the Inka road to the east, observation posts, tambos, and the administrative site of Posic represents considerable investment. Contra the testimony of the Chacha *kurakas* in the early colonial period, who dismissed the *kuraka* of Luya y Chillaos as 'third rate' and their faction as 'insignificant' (in Espinoza Soriano's summary), the Inka administration was collaborating with people from these other groups and investing in the outer edges of Chachapoyas province.

One aspect of life at Wimba that I do not treat extensively in this project is warfare, with either local or Inka adversaries. The early accounts refer to the frontiers of the Inka empire as violent places where lowland groups would frequently raid and take captives (Cieza de León 1989; Mogrovejo 2006; Polo de Ondegardo 1916). The design of the site is defensible, as previously mentioned, and there were maceheads and macehead wasters (or possibly nutting stones) (Figure 7.8), *boleadores* (bola stones) (Figure 7.7), and one stone axe-head found on Platform 1 (Figure 7.8 upper right). Most of these materials could have multiple uses in agriculture, hunting, and warfare. The project did not encounter human remains in our excavations, so we cannot speak to direct evidence for violence. Unlike Espinoza Soriano, I hesitate to accept the idea that the lowland groups outside the Inka frontier were the primary threat throughout the entire region, but at the eastern borderland there certainly are written accounts of attacks in the early colonial period. In the late 16th century, the priests serving the Huayabamba and Mayo valleys reported the danger of attack from lowland groups. The *visita* of Bishop Mogrovejo reports "es forzoso ir el sacerdote con mucho cuidado y recato por causa de los indios motilones y jeberos, que de ordinario sale a Laya y PoSu Señoría Ilustísima y toda aquella tierra a cortar las cabezas a los cristianos y los caminos son muy malos y peligrosos" (Mogrovejo 2006:123). As other sources note, there were frequent conflicts between communities within Chachapoyas (Church and Guengerich 2017).

Figure 7.8: Boleadores excavated at Wimba

Figure 7.9: Upper left: Macehead fragment. Upper right: mostly complete axe head. Top row center and bottom row: Incomplete maceheads or possible nutting stones excavated at Wimba.

7.5 Developments in the Early Colonial Period

The end of the Late Horizon and the early colonial period was a violent time in this region. The Inka civil war and the arrival of Alonso de Alvarado to the northeastern *montaña* disrupted social life, but the conflicts can still provide some insight into the factions within this region that likely existed during the LH and earlier. The court documents published by Espinoza Soriano speak to the divisions in Chachapoyas caused by the conflict between Huascar and Atahualpa. The Chacha initially supported Huascar, and eventually allied with the Spanish in Cajamarca. When Alonso de Alvarado first arrived in Chachapoyas, the Chachas installed in Cochabamba, Leymebamba, and Levanto requested help in their conflicts with neighbors, and it appears that the opposing group was led by the leader of the Chillaos (Cieza de León 1989). Cieza states that Alvarado put down an uprising from the Chillaos before he left for Cuzco in 1537. While he was gone, the Spanish settlers were afraid of the climate of violence in the region. Indeed, the region was split among those who supported Guaman's alliance with the Spaniards, and those who supported the remaining Inka. The primary leaders of the group that supported the remaining Inka were led by the Chillao leader Guayaquemulos (or Guaquemulos, among other spellings), and the Inka leader Cayo Topac (Church and Guengerich 2017; Espinoza Soriano 1967, 2003). The Spanish-allied Chacha *kuraka* captured and executed many of the leaders of the rebellious Chacha group in Cajamarquilla, in southern Chachapoyas. When Alvarado returned from Cuzco, Guaman was in position to be the paramount *kuraka* of the whole region, including Luya y Chillaos and Cajamarquilla y Collay. Thus, it appears from the documents that Guaman successfully used his alliance with the Spaniards to his advantage against local rivals, as Chacha leaders would have used their Inka allies during the LH.

The privileged position of Guaman influenced the documentary record. In 1988 Arturo Ruiz Estrada observed that the Chacha allies of the Spanish greatly influenced the depiction of regional power relations, to the detriment of the Luya y Chillaos (republished in Ruiz Estrada 2010:75–79). He observed that in the 18th century Cosme Bueno attributed a much larger dominion to Luya y Chillaos, even including the Huayabamba valley (Bueno 2013). Another 18th century source supports this attribution. A map drawn for the Bishop Martinez Companon depicts an interlocking/overlapping pattern for the two provinces (Figure 7.10). Luya y Chillaos crosses NW-SE from Bagua to the Huayabamba valley, while Chachas crosses SW to NE from the border with Cajamarca up to Chachapoyas to Chiliquin, creating an 'X' shape of non-contiguous regions. This is how this arrangement looks on a modern map (fig. 7.11). This indicates that the conventional map of Chacha subregions (fig. 7.2), may be incorrect, or at least that it represents the political landscape at the time of maximum Chacha influence.

When Garcilaso wrote that 'the Indians disagree' on the point of whether the eastern groups were vassals or friendly confederates of the Chacha, I think this is a reference to the political conflict between the smaller groups that made up what we now call Chachapoyas, especially the Chachas and the Chillaos. The political conflict predated and outlasted the Late Horizon. The documentary record has been skewed by the efforts of one Chacha family to consolidate power in the early colonial period. The efforts of the Inka to create a region-wide hierarchy where it had not existed previously appear to have heightened the tension and factionalism. Chachapoya are described in the chronicles as a bellicose people, and Huayna Capac was said to have been required to return to Chachapoyas to put down rebellions on at least two occasions. If we understand the region as only weakly unified and take the perspective of a person living at Wimba, these 'rebellions' were likely not over local opinion about Cuzco politics, but objections to the Cochabamba-based *kuraka*'s attempts to wield power, which is to say: local politics.

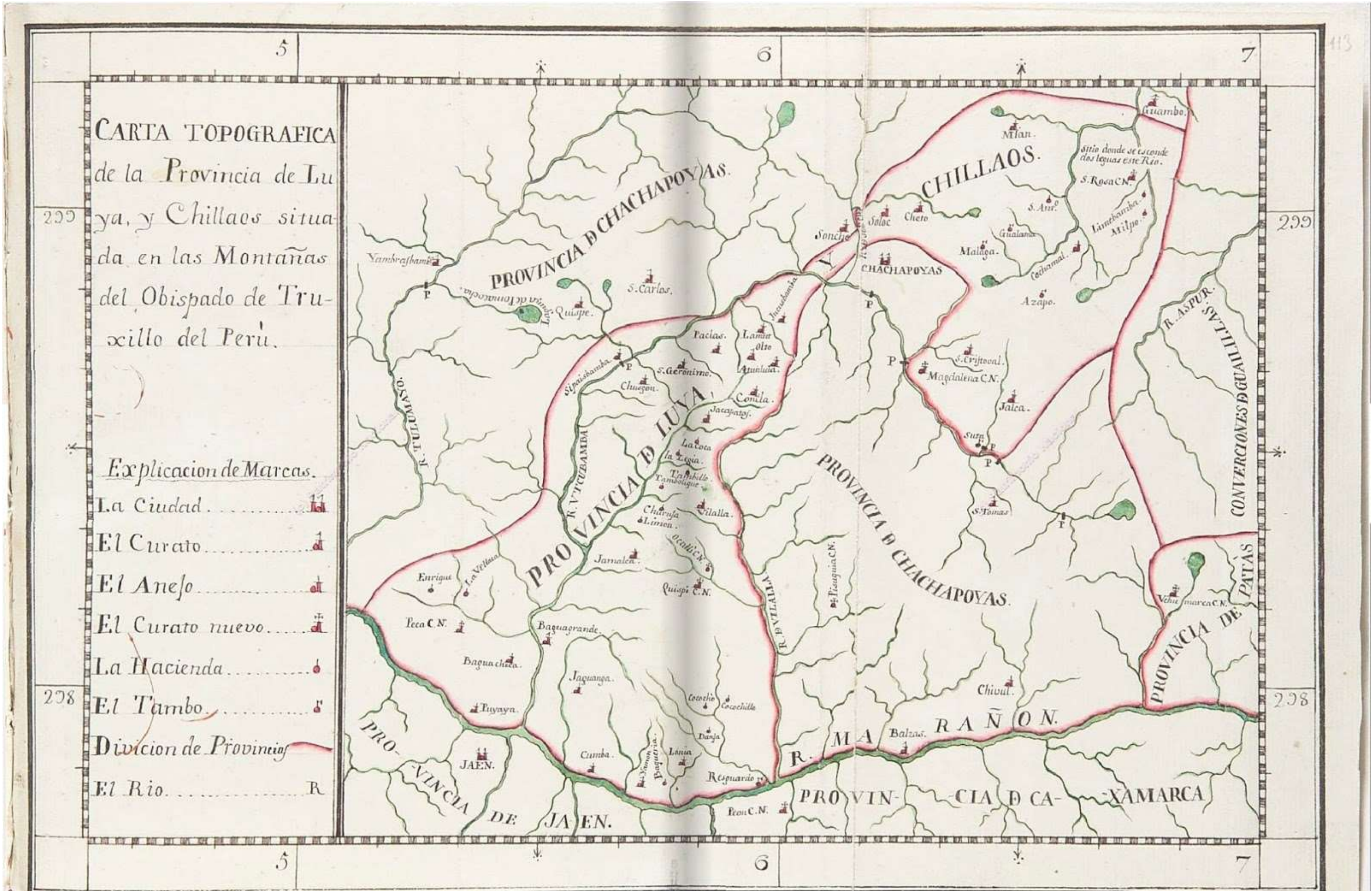

Figure 7.10: Martinez Compañon, Trujillo del Peru, v. 1, ca. 1790. Folio 113 r.

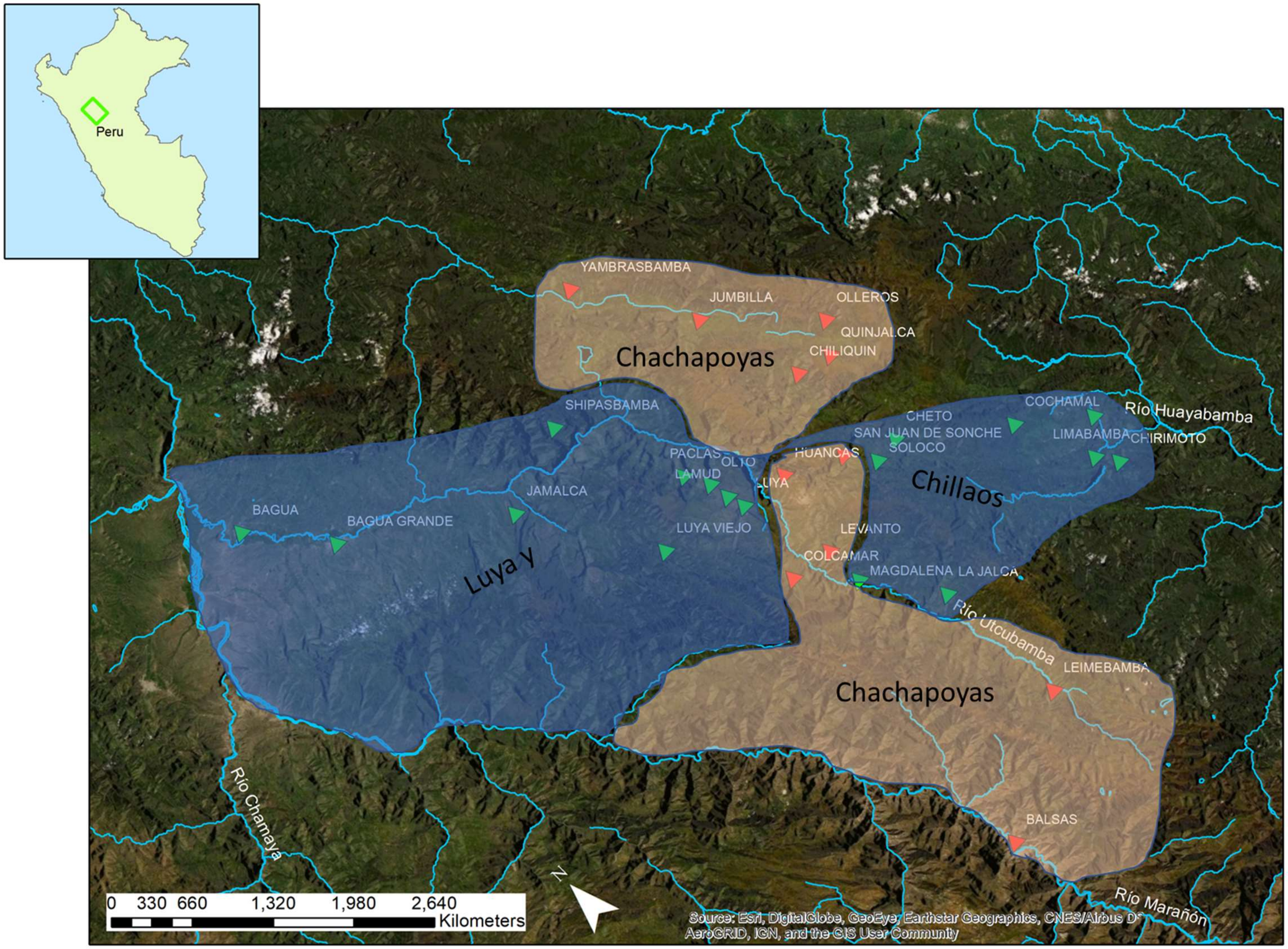

Figure 7.11: Arrangement of the Luya y Chillaos and the Chachapoyas regions on a modern map.

Also, from that viewpoint of an inhabitant of Wimba, the Late Horizon was a time of Inka expansion downslope to the lower edges of the *montaña* region, improving roads and building sites (Schjellerup 2019). The population of the *montaña*, as it can be seen archaeologically at least, was increasing and expanding throughout the LIP, and the Inka appear to have accelerated this drive further. Roads were improved, tambos and observation posts made travel easier, and the desire of the Inka state for elite lowland goods provided new opportunities. Mita obligations of *montaña* Indians were often different than highland groups (Julien 1998), but the creation of this new infrastructure would have been accomplished by local groups (Wilkinson 2019b).

7.6 Chapter conclusion

Building on the results presented in chapters 5 and 6, evaluation of the Late Horizon evidence suggests a few important conclusions. First, the feasting and ritual activity that occurred during the late LIP appears to have continued or been expanded during the LH. The participants did not have access to high prestige Cuzco ceramics, but they did have local ceramics in Inka styles, and they were part of broader regional exchange networks that included southern Chacha groups. The prominence of stylistic connections with the Luya region to the northwest makes me interpret the inhabitants as either allies with or colonists from the Luya y Chillaos sub-region (as suggested by the 17^{th} century maps). In this part of the *montaña*, this data suggests that the LH was a period of hardening of the frontier and emphasis on the material correlates of highland identity (camelids, stone architecture, chicha), that quickly dissolved after the civil war and subsequent wars of conquest and rebellion.

I want to end by mentioning one other lacuna in the written records: the lowland neighbors. Sources mention Jivitos, Choltos, Alones, Cheduas Charasmal, Ascayunga, (Espinoza Soriano 1967), as well as Bracamoros, Orimonas, Paltas, and others (Reeve 1994; Schjellerup et al. 2009; Steward and Metraux 1948; Taylor 1999). The eastern valleys of Chachapoyas were certainly multi-ethnic, and the goal of building new sites to the east would have been at least in part to intensify trade with these eastern neighbors. One site in Moyobamba, Flor de Mayo, has been interpreted as an Inka installation specifically for meeting and trading with lowland groups (Salazar et al. 2015). It would be 450 years before the state would invest in infrastructure in the Huayabamba valley again. After the initial excitement to discover El Dorado through brutal entradas beginning in Chachapoyas, the region was depopulated by disease, overwork, and desertion into the lowlands, and then neglected by a Spanish colonial government that was not interested in connections east (Pearce 2020b). The Late Horizon increased inequality, but it also increased investment in infrastructure at the outermost edges of Chachapoyas. Once conflict started, the inhabitants of the Huayabamba and Mayo valleys had the option of decamping for lower elevations, and many did. As Sarmiento stated, “they have this manner and custom of governing themselves” in “the forests of Peru to the east of Quito and Chachapoyas, where they do not obey any lord longer than the war lasts” (2007a [1572]:56). In the following chapter, I conclude this dissertation by reviewing significant findings, highlighting how this work contributes to anthropological theory, and discussing future research.

CHAPTER 8

CONCLUSION

8.1 Introduction

In the preceding chapters, I presented the results from the Wimba archaeological project —including those drawn from archival, excavation, material examination, and spatial analysis. Here, I review the present study's important findings, note its broader relevance for archaeology, history, and anthropology, and suggest future avenues of research. This study was focused on evaluating the following questions: First, how did people create social boundaries at Wimba, and how were these practices influenced by the site's location? Second, how permeable was this boundary and how did it change between the LIP and the LH? Broadly, I argue that Wimba inhabitants created feasting and other practices that involved materials, like pots and pendants that had broadly intelligible meanings, to enact and solidify connections with neighbors in Luya and lower elevations to the east. These feasts included: the consumption of highland camelids, the display of personal adornments like pieces found in the lowlands and on the coast, local ceramic vessels, non-local stylistic elements on serving vessels and jars, and an architectural setting that involves contrast and alterity and overlooks a *tinku* river confluence. Together, these practices indicate people living at Wimba interacted with others outside their immediate location, and because of these celebrations, the site's inhabitants created a porous boundary within a likely multi-ethnic zone during the LIP. During the LH, in contrast, the boundary between the Mendoza valley and the east was hardened, meaning new administrative sites decreased local peoples' access to interregional interaction networks. The presence of the Inka Empire likely put pressure on local groups to coalesce under a Chacha regional authority. Additionally, this study confirms the value of archaeological investigation into boundary sites in the eastern Andes for understanding boundary processes and interregional interaction.

8.2 Significant findings

Below, I discuss the significant findings and address how they inform my research questions.

Question 1: how did people create social boundaries at Wimba, and how were these practices influenced by the site's location?

Feasting and associated rituals on Platform 1 are the most important practice for which this project found evidence. Feasting, at the scale at which it occurred at Wimba (outlined in Chapter 6), would have been a way for people to celebrate harvests and holidays, or venerate their ancestors—in the process reinforcing their identity and referencing interregional connections. Feasts would have also served as a node of interaction between residents and neighbors. Because foodways are closely tied to identity (e.g., Dietler 2006; Osores Mendives and Hernández Garavito 2019; Twiss 2012), these feasts would have been a key cultural process for the formation of group identity at the interface between the Amazon and Andes. The Andean feasting traditions described in early ethnohistoric sources (outlined in Bray 2003b) contain the same basic elements as Wimba feasts: camelid meat and *chicha* beer. The assemblage of ceramics at Wimba included a high proportion of serving vessels, with an especially high quantity in the midden context on Platform 1. In addition, portions of camelid bone were found alongside serving bowl fragments. Broadly, the feasting conformed with expectations drawn from highland societies, which was somewhat surprising because the site itself is small and located at a low elevation. This conclusion should be applied cautiously, due to the lack of paleoethnobotanical or zooarchaeological analyses here that would present a more complete picture of the resources used at Wimba.

The spaces in which feasts occurred suggest a symbolic connection with *tinku*, the idea of a generative clash of opposing forces between highland and *montaña* ecological zones (as discussed in more detail in Chapter 5). One large rectangular open-sided structure and one large circular structure define the small plaza at the north end of Platform 1. This combination of circular and rectangular architectural plans is found elsewhere in the *montaña* (Wilkinson 2019a, 2020). Though the extent and meaning of this pattern is not yet known, the similarity provides tentative implications for a structured approach to hilltop settlements in the *montaña*. The contrast may index different oppositional forces: the circular structure evokes the Luya and Chacha architectural traditions, while the rectangular open-sided structure could be connected with lowland traditions (due to its shape and openness) or Inka traditions (because it is rectangular, and because *carpa uacis* have been found at Inka sites (Gasparini and Margolies 1980)). The meeting of rivers was also considered a *tinku* in Quechua, and Andean thought more broadly, so vistas from the north end of Platform 1 would have evoked this idea because the plaza overlooks the confluence of the Milpuc, San Antonio, and Jebil rivers below. *Tinku* may have had special meaning in a boundary context where two ecological zones, and multiple social groups, would have met.

The inhabitants of Wimba possessed bone and tooth pendants and plaques, as described in Chapter 6. These pieces, found on Platform 1 and on Platform 4, would have been personal adornments worn by people at the site. I interpret their form and materials to be intelligible symbols to both local and non-local groups, including lowland peoples—the legibility may have been part of the appeal of possessing them (Choyke and Bar-Yosef Mayer 2017; Harding 2003).

The bone pendants and plaques are the primary evidence for lowland influence on the people at Wimba. The poor preservation of organic materials at the site likely obscures some evidence of trade with peoples to the east, but it is frustratingly difficult to determine the type or quantity of materials like palm lances, feathers, seeds, or other high-value lowland materials. So, while, cross-culturally in ethnographic contexts, feasts frequently involve visiting neighbors, extended family or guests (Chernela 1993; DeBoer 2001; Dietler 2001), it is impossible to adequately prove this aspect of feasts at Wimba.

The people who attended feasts at Wimba used pottery decorated in the same tradition as the Chipurik pottery found in the Luya region, on the left side of the Utcubamba valley (above Wimba to the west, as discussed in Chapter 6). This pottery would have been most visible to other guests at feasts, where people brought food and drink in decorated serving vessels that signaled their knowledge of the Chipurik tradition to the other attendees (Dietler and Herbich 1998; Mills 2007). The people making and using pottery for communal gatherings at Wimba notably did not produce large quantities of vessels with applique-incised decoration, though they surely would have been aware of decoration styles associated with the Kuélap ceramic tradition of central Chachapoyas immediately to the west. I interpret this to likely indicate a disjuncture (sensu Stoner and Pool 2015) in the social network separating the inhabitants of Wimba from the inhabitants of Levanto, La Jalca, and Purun Llacta immediately to their west during the LIP. Meanwhile, the Chipurik tradition would probably connect Wimba inhabitants to the Luya, Chillao, and other subgroups to the northwest. Based on the prevalence of serving bowls at all strata on Platforms 1 and 5, I believe that feasting occurred in both the LIP and LH, but the presence of some Kuélap style pottery in the latest contexts suggests some changes in social boundaries in the LH.

Question 2: how permeable was this boundary and how did it change between the LIP and the LH?

I argue that feasting at Wimba created and recreated the social boundary between highland and lowland worlds. This observation prompted my secondary question regarding how permeable that boundary would have been. The ridgetop location of Wimba makes it defensible and a good location for monitoring movement throughout the valley. Much of the architecture is made of stone, which contrasts with the groups to the east, where survey has not documented stone residential architecture. However, the presence of bone pendants and plaques indicates some possible lowland influence. In addition, the unique white-on-red ceramics may have been a local creation or related to an as-yet unknown neighbor. This suggests that during the LIP the Wimba community was part of a porous boundary. The most likely interpretation is that the region was multi-ethnic, hosting groups from different parts of the highlands and lowlands. The Wimba inhabitants' feasts reified a mostly highland identity but maintained a network of small-scale trade connections outside that social sphere.

During the Late Horizon, interregional interactions changed, and the social boundary hardened through closer affiliation with Chacha and Inka administration. Wimba was occupied during the Late Horizon and thus we can come to some conclusions about the effects of the Inka administration on the Mendoza area. The appearance of provincial Inka and Chacha pottery together suggests a stronger association of Wimba with the Chacha region writ large. This supports the idea that the Inka, attempting to rule indirectly through Chacha elites, helped the Chacha interaction network expand. Central Chacha mica-tempered wares with incised and applique decoration arrived at Wimba along with provincial Inka pottery, representing the new regional hierarchy. The people living at Wimba may have played a role in supporting the Inka frontier solidification, through maintenance of the Inka road and observation of movement into and out of the valley, as local Inka subjects did in the Amaybamba valley of the central Andean *montaña* (Wilkinson 2019b).

8.3 Broader impacts

Though this project examined the past actions of people living at a small site over a relatively short period, the comparative lack of investigation at this elevation means that this project has a number of important broader impacts. The first set of impacts are regional. This project has important contribution to our understanding of the socio-political geography of the northeastern *montaña*, specifically possible sub-divisions of the large Chachapoyas region as it has come to be understood archaeologically. This project also provides an example of the testing of Amazonian and Andean interaction in the late prehispanic period. On a broader, theoretical level, this project contributes to our understanding of the archaeology of boundaries and the unique social processes that occur there.

The results of the Wimba project provides a solid example suggesting that a social boundary separated the inhabitants of Wimba and the central Chacha groups of the LIP. This would conform to the expectations set by the early colonial map discussed in Chapter 7 (figure 7.x). That map showed the lands associated with Chachapoyas including the right side of the Utcubamba, and the higher elevations northeast of Levanto, while Luya y Chillaos included the left side of the Utcubamba, and the Mendoza valley. Together the two regions formed an "X." Studies have begun to include acknowledgment of the differences in mortuary styles between northern and southern Chachapoyas (e.g., Nystrom et al. 2010), but the differences in ceramic styles should be considered as well. At this point, I argue that Luya y Chillaos, may need to be understood as a different/competing phenomenon of a different order than the different groups that share (Guengerich and Church 2017; Ruiz Estrada 2017). The disjuncture between Wimba and, for example, la Jalca immediately west is more marked than those others. The formal and stylistic attributes of the serving wares at Wimba support that the Luya y Chillaos subgroup had a significant presence in the Mendoza valley. Broadly, the pattern of a small site at lower elevation with an apparent connection to a more populated 'nucleus' at a middle elevation conforms to Murra's model for 'vertical control' maintained by small ethnic groups (1972: 455): the relative size of the groups and the spatial pattern would tentatively support this interpretation. The small groups living at lower-elevation locations like Wimba may have maintained access to lowland agricultural products and traded with neighbors to the east for lowland products to share with their highland affiliates. The Wimba example adds detail to the picture of how this happened on the eastern slopes to the corpus of western slope examples (e.g., Dillehay 1979; Szremski 2017).

This project also provides a better appreciation of the experience of life on the interface of Amazon-Andean interaction. The fact that the excavation showed ring-based *platos* with painted decoration were common both at Wimba and such a direct connection with one neighboring region and disjuncture from another supports the idea that through excavation archaeologists can, in some cases, infer the group affiliation of *montaña* sites. Previous archaeological investigations into resettled Andean communities (D'Altroy 2005; Lorandi 1980) have been disappointed at the difficulty of finding material correlates of ethnic or regional identities outside their core areas (cf Hu 2019). Fitting with recent surveys and excavation projects in the Amaybamba valley (Wilkinson 2019a), in Bagua and Jaen (Clasby 2014b), and in

SE Bolivia (e.g., Alconini 2016) together these are illuminating the dynamics along the eastern slopes of the Andes despite the logistical difficulties.

Boundary (and by extension borderland) archaeology documents both the effects of states and the unique ways that local people in marginal areas create small-scale social systems (Glatz and Casana 2016; Lightfoot and Martinez 1995; Parker 2006). The practice theory orientation of this project's approach to social boundaries (following Lightfoot et al. 1998) uncovered evidence for a system of feasting and ritual that would have invoked the idea of complementary *tinku* at the ecological interface of south America's macro-regions. Scott (2009) describes the anti-hierarchical and anarchistic social systems that emerged in Zomia, the upland area adjacent to the states of south and east Asia. As outlined in Chapter 2, the *montaña* has many of the same features as Zomia, and the deep history of the *montaña* predominately involved occupation by independent egalitarian groups. In this context, the occupation of Wimba represents a short period in which stone architecture and trade with the highlands appears common in the area, and the Inka period of occupation of the *montaña* was shorter still. As much as these groups seemingly tried to expand and solidify an Andean identity within the Mendoza valley, it did not last into the colonial period. The sites were depopulated (Mogrovejo 2006), and the colonial authorities were attacked by *auca* groups (most often translated as "savages") as they moved within the region.

This project is focused on the social boundary maintenance aspect of interaction at this ecological and cultural interface. I do not mean to argue that the only important social process that occurred at Wimba was the creation/maintenance of social boundaries. The marginal location of Wimba would not have been the most important day-to-day fact of the experience of someone there. Feasting would have been about religious beliefs and sharing and commensality as well. In modern day, many occupants of the *montaña* who have origins in the highlands experience life there as one of isolation. Skar (1994) affectingly described the loneliness but also the appeal of life in the *montaña* for immigrants: the people living there could not rely on the same network of family connections as they could in the highlands, but they could own a house and some land, and feel free to do as they liked. The modern influx of colonization of the upper *montaña* began in the 20th century (Bebbington 1990), and it continues as more immigrants move to the area to grow cash crops of coffee, and new infrastructure projects—roads and dams—threaten the ecology of the *montaña* (Finer and Jenkins 2012). Coffee growing has drawn immigrants from both the lowlands and highlands to the Mendoza and Moyobamba area. There is increased interaction between highland/mestizo colonists and indigenous community groups (Brown 2014), that manifests in occasional confrontations.

8.4 Future avenues

The results of this project form a foundation for several possible avenues of future research. Technical analysis of organic remains would allow Wimba to be integrated into the broader culture history of the region more precisely. First, radiocarbon dating of samples from Wimba should be undertaken to delineate the LIP and LH occupation of the site more precisely and situate this study's temporal inferences. The Late Horizon contexts at Wimba tell us more about local response to Inka/Chacha administration, whereas the LIP contexts reflect the processes of independent segmentary *ayllus*. Second, the analysis of paleobotanical and zooarchaeological remains would strengthen the understanding of subsistence, feasting, and exchange at Wimba. The study of botanical and faunal remains from archaeological contexts is unfortunately still rare in the *montaña* (Piperno and Pearsall 1998). These analyses have the potential to add to our understanding of the low-elevation resource base, and the frequency of practices associated with the lowlands and *montaña* in ethnographic contexts, like hunting. Remains of game animals may have been present in small fragments and recording the presence of those bones would only be possible with more fine-grained zooarchaeological research. Grinding stones and ceramic sherds can be analyzed for residue that will help us understand the plants utilized by Wimba inhabitants. Analyses of organic remains have the potential to illuminate the aspects of Wimba that draw the most from its mid-elevation ecological context and thus make it different from its neighbors to the west.

Within a broader context, the Wimba results should be integrated with a study of the LIP and LH settlement patterns in the Mendoza valley. This would help us better understand possible vertical archipelagos during the LIP and/or the archaeological signatures of LH *mitmaqkuna* in the *montaña* (e.g., D'Altroy 2005; Murra 1972). Broader survey and excavation may indicate whether the Mendoza valley was a multi-ethnic mix (Bray 2005). Such a study should include isotope analysis of human and camelid remains to determine diet and mobility patterns (e.g., Toyne et al. 2017). Discovery and analysis of human remains would likely help understand an aspect of borderland society that is not addressed in the present study due to lack of evidence: warfare. Warfare was undoubtedly part of *montaña* life during the LIP and LH (Arkush 2011; Arkush and Tung 2013; Brown and Fernández 1992). Platt writes about how one of the keys to coexistence in multi-ethnic communities was likely the responsibility to support your neighbors in conflicts (2009:53). Skeletal remains would also be useful for genetic studies to complement the studies done analyzing modern populations (Guevara et al. 2020). The Mendoza valley was likely made up of farms, taking advantage of the relatively flat valley floor. Remote sensing and targeted survey of the wider valley has great potential to determine past agricultural patterns, and locate settlements that might have existed away from ridge- and hilltop locations, though their use has so far been limited to well-known sites (Iriarte et al. 2020; Righetti et al. 2020; VanValkenburgh et al. 2020).

The success of even such a small project should encourage future work to extend eastward from the Andean slopes to illuminate the groups living in the lower *montaña* and how they changed through time. New archaeological investigations further to the north and east, perhaps taking advantage of advances in remote sensing, will be key to understand the extent of the impact of *montaña* networks of exchange. It will also help establish the material correlates of the neighboring regions. As only archaeology can, we need to replace abstract categories with knowledge of the lived experiences of real people in the *montaña*.

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