

## Collagua "Eco-Logistics"

Intermediate Elites and Hybrid Community Structures  
in the Colca Valley, Peru

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By the fifteenth century, the expanding Inka empire had developed varied and flexible imperial strategies for administering a diverse range of ethnic polities and the equally diverse ecologies they inhabited. Their strategies were highly effective in part because they manipulated key cultural principles and practices familiar to local polities and their leaders. Central among these, as hypothesized by John Murra more than thirty years ago, were the principles and practices of "verticality" or "vertical complementarity," whereby the marked altitudinal ecological zonation of the Andes was matched by "vertical archipelagoes" of settlements linked through reciprocal and redistributive relationships (Murra 1972). It was this patchwork political and ecological landscape, albeit considerably reconfigured and simplified by Inka consolidation, that confronted the Spanish invaders after they decapitated the Inka imperial system in 1532.

In both the Inka and the Spanish empire, the position of local elites constituted the primary fulcrum upon which local and imperial interests rested. Local elites articulated local economic and ecological practices to the contrasting models of rationality and discipline that these successive imperial powers sought to impose. In this chapter, I explore how local elites negotiated this intermediate position in the context of the Collagua ethnic group, a major highland polity based in the Colca Valley of southern Peru. Combined archaeological and ethnohistorical research enables the reconstruction of community organization and land-use practices during Inka and early Spanish colonial times. Analysis of systematic survey data from the core area of the Collagua province provides a view of changes

in settlement patterning during the transition from autonomous to Inka imperial rule. Regional- and local-scale patterns of authority and land use, derived from declarations in detailed colonial administrative surveys (*visitas*), yield information on the role of local elites as political-ecological intermediaries in this polity. At the regional scale, Collagua lords (*kurakas*) played a pivotal role in managing far-flung systems of production and exchange by continuing to assert their specific Inka imperial status as redistributive “eco-brokers,” even as their administrative function became almost exclusively extractive under Spanish rule. These data illustrate how hybrid Collagua/Inka community structures and complementarity practices were grafted onto the radically altered settlement pattern of nucleated villages (*reducciones*) that resulted from the forced resettlement of Collagua populations after 1570. At the local scale, a detailed reconstruction of early colonial land-tenure patterning reveals continuity from Inkaic times despite forced resettlement. By extension, through a comparison of colonial land-tenure and Late Horizon settlement patterns, I have been able to reconstruct where elites and their kin resided during Inkaic times and how they mediated imperial administration at local settlements.

### **Intraethnic Verticalities: Structure, Agency, and Eco-Logistics**

By investigating the role of Collagua lords as mediators between state institutions and local Andean communities, and between local communities and their vertically dispersed resources, I aim to provide a more nuanced view of the articulation of state and local Andean power structures during protohistoric times. Much recent archaeological research on Inka imperialism focuses on characterizing the impact of Inka rule according to general indices of “direct” (high-control/high-cost) versus “indirect” (low-control/low-cost) imperial strategies (e.g., Covey 2000; D’Altroy 1992; Stanish 1997). This research clearly identifies an important axis of variability amenable to archaeological observation within a comparative framework and has charted a complex and dynamic mosaic of imperial control over the more than eighty provinces that composed Tawantinsuyu. But in this chapter, the spatial synthesis of archaeological and documentary data provides a means of assessing just how heterogeneous and bidirectional local-imperial relations could be within one area of a single province. Rather than characterize the “impact” of an imperial strategy of control, I focus on how local elites played a key role in articu-

lating local community organization with Inkaic ideals of rank, hierarchy, and order. This perspective therefore highlights the central role of local elites in the negotiation of power between local communities and the state.

A focus on the intermediary agency of local elites can also help resolve a contradiction in our view of Andean communities during early colonial times as either inherently conservative and impervious to change, or dominated by massive political and economic structural change (for historiographical discussion, see Larson 1998; Schwartz and Salomon 1999; Stern 1985). A key dimension of this paradox involves debate between cultural-ecological and political approaches to vertical complementarity. Following Murra’s paradigmatic formulation, anthropologists have traditionally approached vertical complementarity as a uniquely Andean cultural-ecological means for balancing population and resources, guided by an ancient ideal of community self-sufficiency (see Masuda et al. 1985; Murra 1972). Indeed, vertical complementarity has become iconic in status—considered widely as an essential, defining trait of Andean civilization, or “*lo andino*” (see Starn 1994). But recent studies indicate that the “vertical archipelagoes” documented by Murra were not of the antiquity predicted (Stanish 1985, 1989a, 1989b, 1992) and probably never functioned to provision whole populations (Van Buren 1993, 1996, 1997). Rather, recent critiques suggest that vertical complementarity is better viewed as a dimension of social power—that is, as a strategic mobilization of labor and material toward specific political ends by ethnic lords (Van Buren 1993, 1996, 1997).

In this chapter, I seek a bridging position by building on the frameworks of political and historical ecology (Balée 1998; Crumley 1994a, 1994b, 1999; Crumley and Marquardt 1987; Erickson 2000; Knapp and Ashmore 1999; Zimmerer 2000), as well as practice theory (Bourdieu 1977; Giddens 1979). Traditionally, studies have used entire ethnic groups as the unit of analysis to document and compare types of verticality systems. By contrast, in this chapter I distinguish distinct complementarity practices within a single ethnic group, using households and communities as units of analysis. Here, the processual variability of complementarity practices, rather than a list of their formal attributes, is of primary interest. I refer to these as distinct “eco-logistics” or eco-logistical practices. The term *eco-logistics* refers simultaneously to economic and ecological decision making regarding, respectively, the proper deployment of labor and its products, and the energetic requirements of agropastoral goods within the varie-

gated Andean landscape, itself an anthropogenically modified construct of distinct "production zones" (Mayer 1985). Eco-logistics therefore conceptualizes a particular kind of agency, related recursively to the structures of landscape and community organization—in this sense, constituting an Andean "technology of power" (Lechtman 1993). The role of intermediate elites is especially critical in this recursive process, because they occupied a key axis of power between imperial and community demands during late pre-Hispanic and early colonial times.

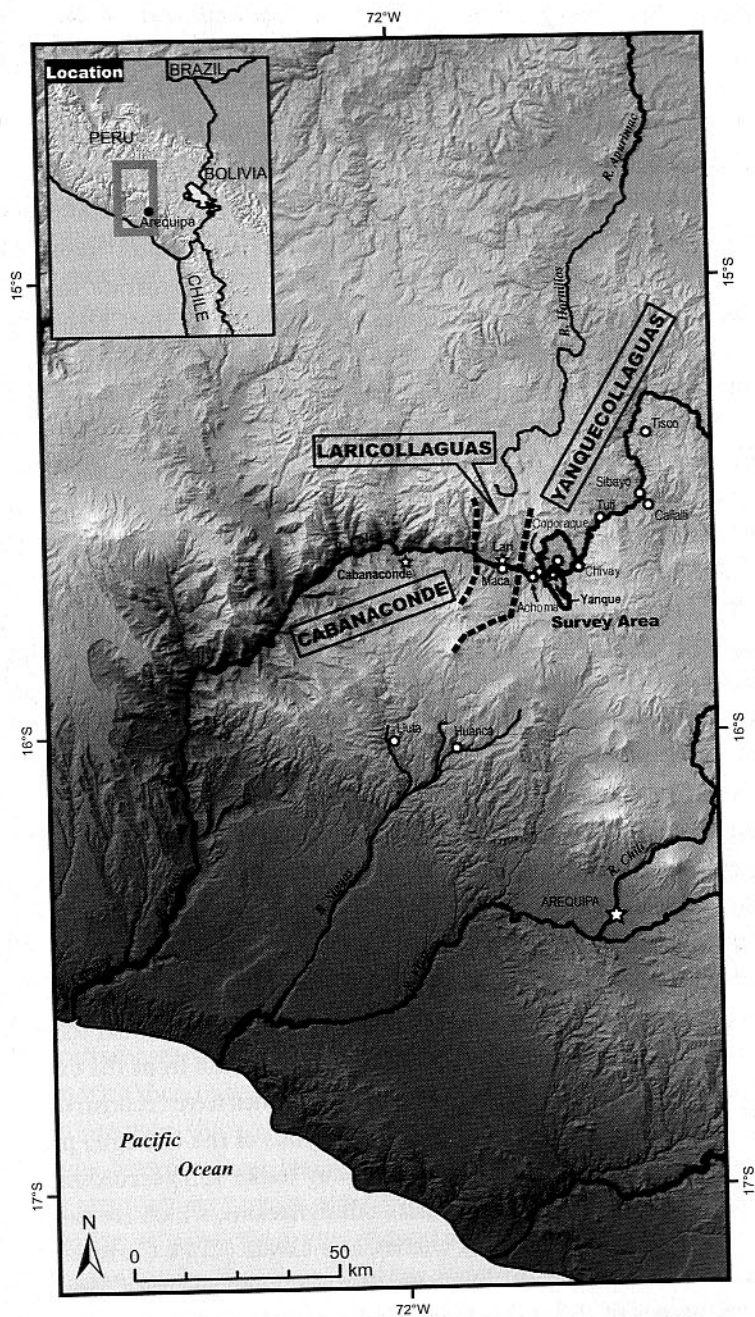
In the Andes, an understanding of the structural factors that constrain and emerge from these practices requires attention to how the multi-scalar, flexible kinship and community concept of *ayllu* was mapped onto local and regional landscapes, in terms of their status as both ideal (or imagined) communities and as built features and structured social formations. The term *ayllu* could reference any point along a continuum of social relationships, from daily interactions among members of ancestor-focused lineage-like "micro-ayllus" to large-scale rituals, infrastructural projects, or conflicts involving a moiety or even an entire ethnic group (Abercrombie 1986; Janusek 1999; Platt 1982; Salomon 1991; Spalding 1984). The manipulation of *ayllu* ideology by the Inka involved the representation of asymmetrical relationships between the state and its subjects in terms analogous to the ties of reciprocity in lineage-like *ayllus*, while also transforming *ayllus* into more standardized bureaucratic units. Thus, the Inka sought to conflate centripetal redistribution with balanced reciprocity through a system of closely monitored and rationalized tribute extraction, in which lineage-like *ayllus* were the basic suprahousehold units of production and tribute. Following the decapitation of the Inka state, the Spaniards were confronted with the task of establishing a new colonial order using the intermediate-level remnants of this immensely complex administrative system. The problem was how to articulate these inherited structures with their own models of state rationality, discipline, and domination. In practice, this process of articulation involved highly localized negotiations between local interest groups and colonial administrators, but these negotiations remain scarcely scrutinized or understood. With these concerns in mind, then, this chapter focuses on the eco-logistics of local elites as a mechanism for mediating domestic and political economy under both Inkaic and Spanish rule.

### Collagua Community Organization, Kurakas, and Tribute under Inka and Spanish Rule

Perhaps nowhere is there better potential for understanding how *ayllu* organization articulated with the Inka and Spanish colonial states than in the case of the Collaguas of the Colca Valley. While the Collaguas are virtually absent from the standard chronicles, an account from 1586 in the *Relaciones Geograficas de Indias* by provincial magistrate Juan Ulloa Mogollón provides an overview of the organization of the Collagua province under early colonial rule (Ulloa Mogollón 1965[1586]). Ulloa's observations outline a vertically integrated and horizontally compartmentalized sociopolitical structure based on bipartite, tripartite, and decimal principles. Ulloa described how the province was divided between two ethnic groups: the Aymara-speaking Collaguas of the middle and upper part of the Colca Valley and the Quechua-speaking Cabanas of the lower part of the valley (fig. 10.1), each with distinctive mythical origins, dress, and body modifications.<sup>1</sup> The Collaguas were subdivided into two ranked groups, each with discrete territories within the valley: the higher-ranking Yanquecollaguas, who occupied the upper part of the valley, and the lower-ranking Laricollaguas of the middle part of the valley (fig. 10.1).<sup>2</sup> These provincial divisions were subdivided into upper- and lower-ranked moieties called, respectively, Hanansaya and Urinsaya. Each moiety in turn was composed of a number of *ayllus*.

Several researchers have noted strong parallels between the organization of Collagua *ayllus* and the tripartite prestige categories that were central in calculating political rank and synchronizing the ritual activities of the Cusco elite in the *ceque* system of the imperial capital (Bauer 1998; Benavides 1989; Pärssinen 1992:362–371; Rostworowski 1983; Zuidema 1964). Based on Ulloa's account, as well as data from the extensive series of *visitas* from the Colca Valley, prior studies have reconstructed an ideal sociopolitical structure in which the *ayllus* of the Collagua province were ranked in an elegant, nested hierarchy (table 10.1) according to the logic of high-, middle-, and low-status designations, which are called, respectively, Collana, Payan (or Pahana), and Cayao (Cock Carrasco 1976–77). However, scrutiny of the *visitas* from Yanquecollaguas reveals that only the names of the *ayllus* from the lower moiety (Urinsaya) conform to this scheme, suggesting that state reorganization among these groups was more penetrating than in the upper moiety (Wernke 2003:354–359).





**Figure 10.1**

Map of the Colca Valley, showing project survey area, provincial subdivisions, and reducción villages mentioned in this chapter.

Within the ayllu of Urinsaya, the scalable nature of ayllu organization is also evident, such that each of three “macro-ayllu” — Collana, Payan, and Cayao (those described by Ulloa) — was subdivided by the same tripartite ranking logic into three micro-ayllu (see table 10.1). These micro-ayllu also bear the designation *pataca*, meaning “one hundred” in Aymara, indicating that they were considered scalar equivalents of one hundred tributary households within Inka decimal administration (cf. Julien 1982, 1988).

By contrast, a great majority of the ayllu of the upper moiety (Hanansaya) lack decimal administrative designations and do not conform to the tripartite Cusco Inka nomenclature (Wernke 2003:354–359). Of the three rank categories, only the ayllu “Collana” (a commonly used Aymara honorific meaning “of excellent quality, of primary origin”; Bertonio 1956 [1612]:50) occurs regularly in Hanansaya. The names of most of the other Hanansaya ayllu are Aymara terms that do not fit the tripartite schema. Among these, the ayllu “Cupi” (*cupi*, or “right-hand side”) and “Checa Malco” (*chec[c]a*, or “left-hand side”) are suggestive of an underlying local, perhaps pre-Inkaic, dualistic organization.<sup>3</sup> Thus, I argue that the ayllu of Hanansaya were composed of autochthonous Collagua ayllu that remained largely intact and maintained relative organizational autonomy under Inka rule, while the ayllu of Urinsaya were constructs of Inkaic social engineering and in this sense represented “imagined communities” of the state. As will be evident below, contrasting land-tenure patterns between Hanansaya and Urinsaya ayllu illustrate the spatial dimension of these differing degrees of political integration between local ayllu and the state.

### Settlement and Architecture

Despite the strong documentary evidence for a penetrating Inka presence in the Colca Valley, the archaeological evidence for Inka influence or occupation has been a subject of some debate. The prevailing interpretation among archaeologists, based largely on the presence of diagnostic Inka cut-stone architecture in Cabanaconde, held that Inkaic administrative presence was more direct in the lower part of the valley, owing perhaps to an imperial interest in maximizing maize production (Vera Cruz Chávez 1987, 1988). Archaeological evidence for Inka rule in the areas pertaining to Laricollaguas and Yanquecollaguas has been more ambiguous. Histori-



**Table 10.1**  
Schematic of ideal political organization of Collagua province

Collagua Province (5,400)

Colonial period provincial paramount: head of Yanquecollaguas

Inkaic period provincial paramount: head of Yanquecollaguas or Inka-appointed governor (*t'ographic*)

Collaguas (3,600)

paramount kuraka of Collaguas: head of Yanquecollaguas

second in charge: head of Laricollaguas

I. Yanquecollaguas (1,800)  
paramount: head of Hanansaya

II. Laricollaguas (1,800)  
paramount: head of Hanansaya

III. Cabanaconde (1,800)  
paramount: head of Hanansaya

A. Urinsaya (900)  
headed by kuraka of Collana

B. Hanansaya (900)  
headed by kuraka of Collana

A. Urinsaya    B. Hanansaya  
structure repeats

A. Urinsaya    B. Hanansaya  
structure repeats

1. Collana (300)  
headed by kuraka of 1a

structure repeats

structure repeats

1a. Collana (100)

1b. Collana Taypi Pataca (100)

1c. Collana Cayao Pataca (100)

2. Pahana<sup>a</sup> (300)  
headed by kuraka of 2a

structure repeats

structure repeats

2a. Pahana Collana Pataca (100)

2b. Pahana Taypi Pataca (100)

2c. Pahana Cayao Pataca (100)

3. Cayao (300)  
headed by kuraka of 3a

structure repeats

structure repeats

3a. Cayao Collana Pataca (100)

3b. Cayao Taypi Pataca (100)

3c. Cayao Pataca (100)

*Sources:* Cock Carrasco 1976-77; Ulloa Mogollón 1965[1586]; cf. Wernke 2003:348-370.

*Note:* Numbers in parentheses signify number of households.

<sup>a</sup> Also called Payan and Taypi.

ans have consistently referred to the village of Coporaque, located within the territory of Yanquecollaguas, as the “capital” of the Inkaic Collagua province, but this claim is based on a single short passage by the famous Franciscan friar Luis Jerónimo de Oré, in which he relates oral historical lore regarding a copper-sheathed structure built by the Inkas (Oré 1992[1598]:159 [41]). But prior studies registered no diagnostic Inka architecture in the Coporaque area. Most archaeologists working in the central part of the valley, while noting the paucity of relevant data in hand, have characterized the Late Horizon as a period of overall continuity from the Late Intermediate period, while noting some evidence for expanded agricultural production under Inka rule (Malpass 1987; Malpass and Vera Cruz Chávez 1990; Neira Avendaño 1990; Shea 1987). Others have emphasized the absence of indices for any direct or territorial imperial presence in the central part of the valley (Brooks 1998). Recent research in the Lari-Cabanaconde area indicates contrasting patterns of Collagua and Cabana land use and settlement, with evidence for a direct Inka administrative presence at the sites of Lari and Kallimarka (Doutriaux 2004).

The findings of my full-coverage ninety-square-kilometer archaeological survey in the core area of Yanquecollaguas clarify earlier ambiguities regarding the nature of the Inka occupation in the central valley. Along with Peruvian archaeologists Willy Yépez and Erika Simborth, I recorded 169 archaeological sites with three hundred occupational components within a broad altitudinal transect in the area surrounding the villages of Yanque and Coporaque (see fig. 10.1). The settlement pattern data derived from this survey provide strong evidence for centralized but locally coordinated Inka rule in the central portion of the valley (fig. 10.2). The Inka presence is marked by overall locational continuity from the hamlet- and village-based pattern of the Late Intermediate period but with the addition of a primary administrative center in the location of the *reducción* village of Yanque (site YA-041). Our systematic street survey in Yanque—which was also the colonial provincial capital—indicates that the Late Horizon component extended over an 18-hectare area, twice the size of the second-largest settlement (table 10.2). Artifact collections in Yanque include 17 percent Inka polychrome ceramics ( $n = 210$ ), a significantly higher proportion than the 8 percent ( $n = 895$ ) recovered from other settlements ( $p = .001$ ). Also, colonial- and republican-era structures composed of finely worked Cusco Inka-style cut-stone blocks signal that the site once housed elite Inka structures. In the village of Coporaque, by

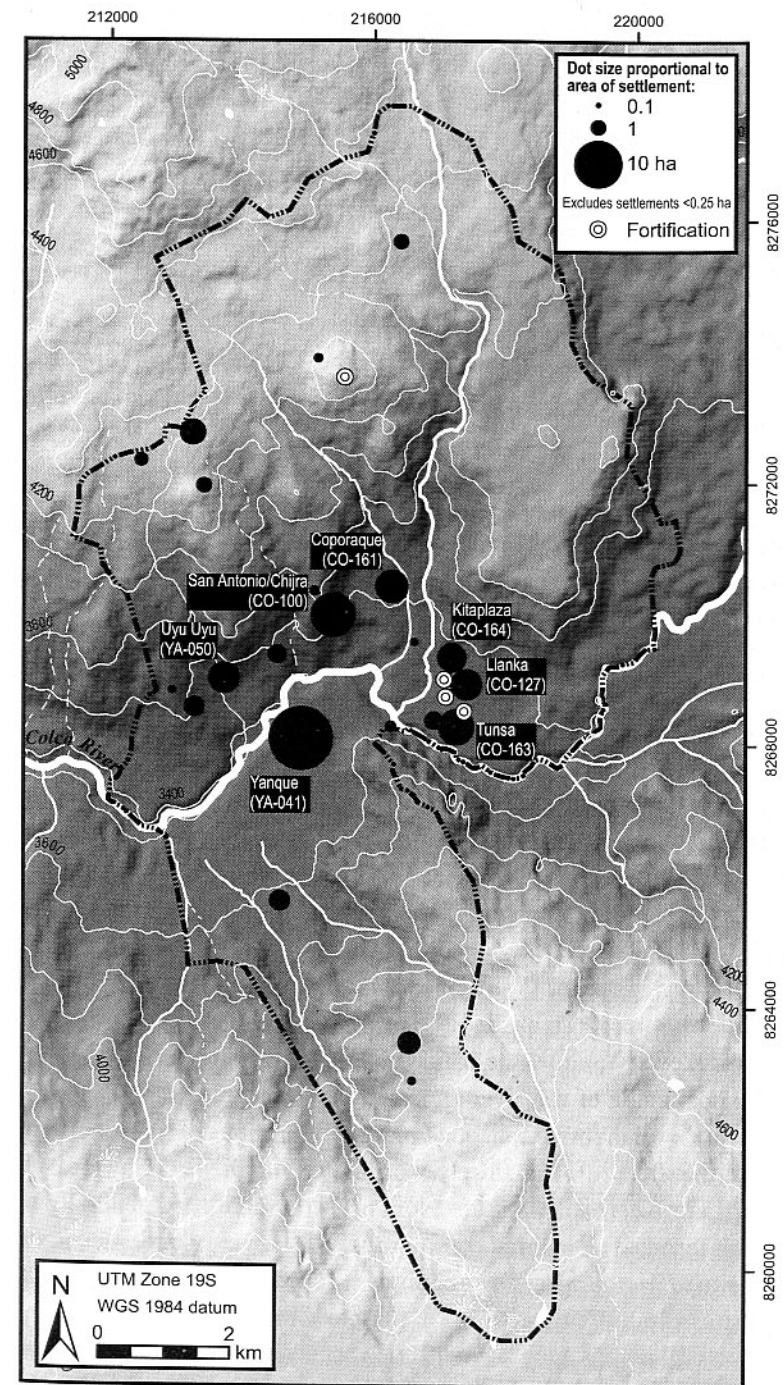


Figure 10.2  
The Late Horizon settlement pattern.

**Table 10.2**  
Late Intermediate period (LIP)/Late Horizon (LH)  
settlements with architectural remains

| Site number | Area (ha) | Number of LIP/LH domestic structures | Inka architecture | Local elite architecture |
|-------------|-----------|--------------------------------------|-------------------|--------------------------|
| YA-050      | 4.30      | 139                                  | yes               | yes                      |
| CO-100      | 8.65      | 136                                  | yes               | yes                      |
| CO-127      | 4.22      | 88                                   | no                | no                       |
| CO-164      | 1.43      | 74                                   | yes(?)            | no                       |
| CO-163      | 1.55      | 70                                   | yes               | yes                      |
| CO-150      | 1.40      | 20                                   | no                | yes                      |
| CO-103      | 0.25      | 12                                   | no                | no                       |
| CO-061      | 0.28      | 8                                    | no                | no                       |
| YA-045      | 0.80      | 6                                    | no                | no                       |
| YA-054      | 1.75      | 7                                    | no                | no                       |
| CO-159      | 0.25      | 5                                    | no                | no                       |
| YA-048      | 0.25      | 2                                    | no                | no                       |
| YA-006      | 0.04      | 1                                    | no                | no                       |
| YA-041      | 17.96     | not observable                       | yes               | yes                      |
| CO-161      | 4.85      | not observable                       | yes               | yes                      |

contrast, we found no evidence to suggest that it was the location of the Inkaic capital of the province, as was the consensus among ethnohistorians. Only a small to medium-sized (4.85 hectares) Late Horizon settlement was present at the site of the *reducción* of Coporaque (CO-161), and Late Horizon ceramic collections there ( $n = 13$ ) are dwarfed by those from Yanque ( $n = 210$ ) (Wernke 2003:290–295).

While the Inkas established the primary administrative center for the central valley at Yanque, the major Late Intermediate period settlements on the north side of the river appear to have become secondary centers. At the site level, hybrid Collagua-Inka configurations of these settlements suggest that Inka rule was closely coordinated and mediated by local elites. These Late Intermediate/Late Horizon settlements are generally composed of terraced residential compounds with rectangular domestic structures situated around central patio areas. Architectural preservation at most sites is excellent, with stone masonry walls intact and often other architectural details such as cut-stone corners and doorways, roof gables, windows, and niches. The stamp of Inka occupation is especially evident

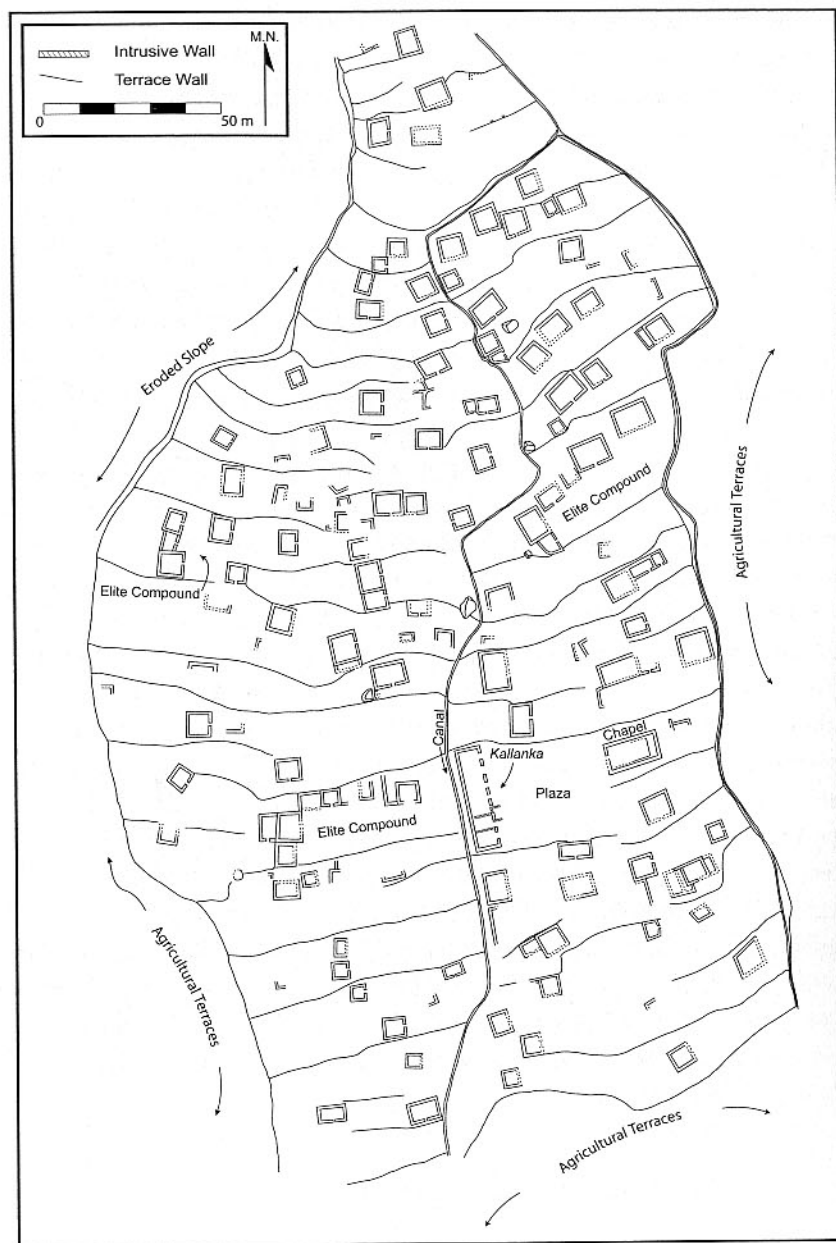
in the placement of rustic forms of imperial architecture in close association with local-elite domestic compounds (Wernke 2004). This pattern is complemented by the appearance of large, distinctive Inka “great halls” or *kallankas*—long, undivided structures with multiple trapezoidal doors along the long axis giving access to large plaza areas. The best-preserved kallanka, measuring 29 meters by 9 meters and with six trapezoidal doors, dominates the west side of a central plaza at the site of Uyu Uyu (YA-050; fig. 10.3). Similar structures are prominently located in association with elite Collagua domestic structures at the large settlements of San Antonio/Chijra (CO-100) and Tunsu (CO-163), which formerly shared the top tier of the settlement hierarchy during the Late Intermediate period (Wernke 2003:189–195, 2005).<sup>4</sup>

Such local/imperial hybridization of site layout continued into early colonial times. At Uyu Uyu, a structure with distinctive architectural features—such as a doorway on the short axis and windows along the long axis (both breaking from local pre-Hispanic architectural conventions)—dominates the east side of the plaza, opposite the kallanka (fig. 10.3). Elsewhere, I have argued that this building was an early Spanish chapel (Wernke 2003:305–325). A similar structure, also with clear colonial architectural features such as fired roof tiles, is prominently located in association with the kallanka at San Antonio (CO-100). Aside from the style and placement of these buildings, my interpretation is based on documentation in ecclesiastical records, which indicate that Franciscan missionaries established a series of early *doctrinas* or missionary settlements in the valley by the early to mid 1540s (Cook 2002; Tibesar 1953:65; Wernke 2003). These data thus suggest that, in a manner similar to the way in which the Inka coordinated their rule through earlier established centers of Collagua elites, Franciscans capitalized upon already established local centers of Inka power and ritual by locating *doctrinas* at sites such as Uyu Uyu and San Antonio.

### Structural Grafting: Toledan Era Engagements

However, this dispersed village pattern was abruptly obliterated in the early 1570s with the forced resettlement of Andean populations into nucleated *reducción* villages by the Viceroy Francisco de Toledo. Long favored by the Crown (Abercrombie 1998:223–229) and built on precedents in Mexico and northern Peru (Cummins 2002; Gade and Escobar





**Figure 10.3**  
Architectural map of Uyu Uyu (YA-050).

1982; Málaga Medina 1974), the *reducción* program was one of the primary policies instituted by Toledo during the 1570s to augment faltering tribute collection, foster the civil and religious indoctrination of the native population, and secure a steady labor supply for the massive mining operations of Potosí and Huancavelica (Stern 1982:76–79). The forced abandonment of pre-Hispanic settlements and the establishment of the *reducción* villages materialized in miniature an ideal European model of urban order, with streets arranged in a uniform grid (Cummins 2002). Each village was to be a model for a new colonial *civitas*, with its own civic and religious institutions located in a central plaza: a *cabildo*, or village council, and a church for the religious indoctrination of the native populace (Málaga Medina 1974). The resettlement program was a huge experiment in social engineering that displaced some million and a half native Andeans (Hemming 1983:393). Along the length of the Colca-Majes river drainage, twenty-four such *reducción* villages were established in the early 1570s (Málaga Medina 1977).

But as radical as the Toledan reforms were, they also constituted an uneasy compromise for balancing the (often conflicting) local interests of *encomenderos* and ethnic lords (Abercrombie 1998:223–229). Both means of state extraction under the new system—tribute levies and *corvée* labor drafts—were to be mediated by ethnic lords with oversight by Spanish magistrates (*corregidores de indios*) such that taxes were levied at the community level on a per tributary basis, but their actual collection was left to the *kurakas*. In this sense, the Toledan reforms were designed to evoke Inka imperial analogues of proportional tribute and rotational labor, but with the crucial difference that taxes were levied in kind or cash, not labor (Murra 1956). Thus, as populations declined from successive waves of European-introduced epidemics—a situation further aggravated by the close living quarters of the new *reducciones*—tributaries were left with higher per capita tax burdens (Cook 1981a, 1981b). This situation led to a flood of petitions throughout Peru for population recounts by *kurakas* under pressure by their communities (Stern 1982:114–137). Such appears to have been the case among the Collaguas.

Clearly, Collagua elites quickly learned the connection between census counts and tribute levies. The stakes were high, since the province of the Collaguas, with 33,900 inhabitants in 1580, constituted a third of the population and 35 percent of the tax revenue collected in Arequipa (Guillet 1992:23). Aside from cash, which made up 40 percent of their

tax contribution, the remaining 60 percent included critical staple goods in the regional economy, such as camelids and coarse cloth made from alpaca wool (*ropa de abasca*)—one of the legally prescribed provisions to be furnished by Spanish patrons for their laborers (Guillet 1992:23). While the Colca Valley was highly productive agriculturally, the Collaguas were especially known for their massive camelid (particularly, alpaca) herds in the upper reaches of the valley and surrounding *puna* grasslands. In just two villages—Callalli and Tisco—a local priest estimated that the herd totaled over 25,000 head between 1585 and 1586 (Crespo 1977:54). The valley was also strategically situated between Cusco and Arequipa and played a key role in important economic flows between those cities via Inka-era roads (Crespo 1977:53–54; Guillet 1992:23). Collagua kurakas thus formed a significant interest group that actively engaged the new colonial political and economic system hammered out by Toledo. In the face of declining populations and proportionately increasing tax burdens, Collagua lords appear to have been vociferous advocates for frequent and rigorous population counts. The Colca Valley visitas constitute one of the largest series for any single locale in the New World and record a wealth of detailed information regarding the role of local elites as mediators between population and resources.

### **The Collagua Visitas: Recording Conventions and Cartographic Representation**

The visitas to the Colca Valley were conducted by moiety within each of the three provincial subdivisions (Yanquecollaguas, Laricollaguas, and Cabanaconde). Recording conventions throughout the visita series are similar to those of the four analyzed here: the 1591 and 1604 visitas of Yanquecollaguas Urinsaya and the 1591 and 1615–17 visitas of Yanquecollaguas Hanansaya. The documents in question are fragmentary, but in combination they provide a nearly complete “composite synchronic” view of both moieties of Yanquecollaguas. The 1604 (Urinsaya) and 1615–17 (Hanansaya) are the most complete documents, but in both cases, the opening sections—important portions that included the provincial capital of Yanque—are incomplete (in the case of the 1604 visita) or missing entirely (in the case of the 1615–17 visita). Therefore, in the foregoing analysis I have replaced the incomplete or missing sections covering Yanque with their counterparts from the 1591 series.<sup>5</sup>

In all cases, the visitas were conducted in the central plaza of each *reducción*. The census roll was organized by *ayllu*, in descending order of *ayllu* rank. Household heads were summoned by their *ayllu* leaders (under the supervision of the local priests and magistrates) to declare their family members and landholdings. The sex, age, and civil status of each family member were recorded by the scribe through an interpreter, followed by recording of landholdings and livestock. Landholdings were located by toponym, predominant crop grown, and field size using the Andean measure of *topo*.<sup>6</sup>

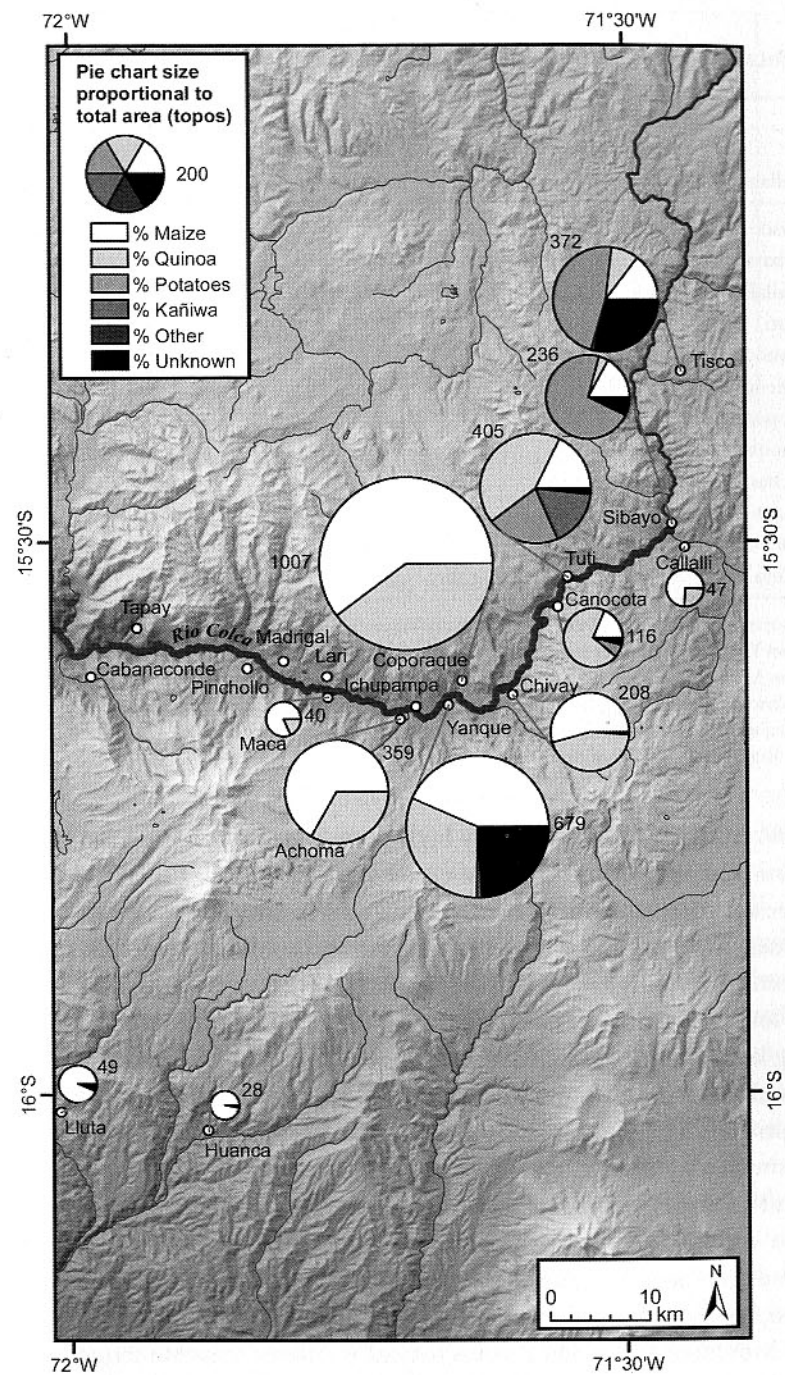
In the following analysis, land-tenure patterns are reconstructed from the visitas at both regional and local scales. Regionally, I aggregate landholding declarations by village. This provides an overview of the crop mosaic, average field size, and total field area declared per *reducción*. At the local scale, analysis centers on the village of Coporaque, which as a result of previous toponym survey projects (Benavides 1986; Treacy 1989:250–270) has the most well-documented modern toponym mosaic in the valley. My work builds on these efforts through extensive consultation with local farmers and irrigation officials. Because of their continued economic and cosmological significance, toponyms have proven extremely historically durable in this and most other areas of the highlands (Robinson 2003). This continuity permits many of the fields claimed in the visitas to be located quite precisely by matching them with their modern toponym areas. In a Geographical Information System, toponym areas were represented as discrete polygon areas according to their contemporary boundaries and were assigned codes for joining these spatial themes to a relational database with the colonial census data. This allows for sorting and querying of the database and then viewing the results as spatial distributions on the map. The resulting map charts fifty-one toponyms within modern Coporaque that were also used to locate fields in the visitas, accounting for 25 percent (243 out of 966 *topos*) of the village landholding declarations—a sizeable sample for reconstructing local-scale colonial-era land-tenure patterning.<sup>7</sup>

### **Regional Political-Ecological Syncretism under Spanish Rule**

While Collagua kurakas clearly understood and were active agents in the regional colonial political and economic system, the visitas to the Colca Valley provide strong evidence for how they also asserted and maintained

their Inka-era status as redistributive “eco-brokers” vis-à-vis their local communities. Scrutiny of the censuses reveals that ayllu households and landholdings, as well as the authority of their leaders, were not bound to single *reducción* villages but instead were distributed widely over the valley and region. The total field areas and crops declared by each village illustrate this point (fig. 10.4). As one would expect, total crop area per village generally decreases moving up the valley, with the greatest areas declared by the two largest villages in the valley’s agricultural core — Yanque and Coporaque — followed by the mid-altitude *sumi*-zone villages of Tuti and Canocota and the much smaller areas declared in the high-altitude herding villages of Callalli, Sibayo, Tisco, Guaraoma, and Mamaniviri. Also, crop proportions generally reflect the ecological setting of each village. Maize dominates the crop mosaic in the low-lying outlier production enclaves of Huanca and Lluta. Within the Colca Valley, maize production declarations in the *visitas* are highest in Maca, in the central portion of the valley within the territory of Laricollaguas. These fields pertain to an ayllu of silversmiths listed as retainers of the paramount kuraka of Yanque. Moving upvalley from Maca, the proportion of maize decreases with altitude, and the proportion of the more frost-tolerant quinoa, *kañiwa*, and potatoes increases (fig. 10.4, table 10.3). As is evident in figure 10.5, household per capita landholdings generally decrease with altitude as well — that is, households in the lower *kichwa*- and *sumi*-zone villages tend to have more land than do their counterparts in the high-altitude puna zone. The lower household per capita field areas in high-altitude puna-zone settlements reflects the pastoralist focus of these villages (fig. 10.5).

However, village land-tenure patterning clearly was not simply a reflection of ecological setting, but was also mediated by sociopolitical organization. Two examples illustrate this point. First, at the intrazonal scale within the valley’s agricultural core, there is considerable variability among villages in terms of household per capita landholdings (fig. 10.5). Here, Yanque clearly stands out with its great disparity in land wealth. The broad and high third- and fourth-quartile ranges of its boxplot signal an elite class of wealthy landholders. Also, the difference between the mean landholding value of Yanque households (0.91 *topos*) and those of the other agriculturalist villages (0.55 *topos*) is statistically significant.<sup>8</sup> This wealth in land is consistent with the high status of Yanque as the provincial capital and seat of authority. Second, proportions of crops reveal interzonal access and production at the household level. This can be



**Figure 10.4**

Crop declarations by village, Yanquecollaguas 1591/1604/1615–17. Excludes fieldholding declarations of unspecified/unknown crops. Pie-chart size is



**Table 10.3**

Total crop area declared per village, Yanquecollaguas, 1591/1604/1615-17

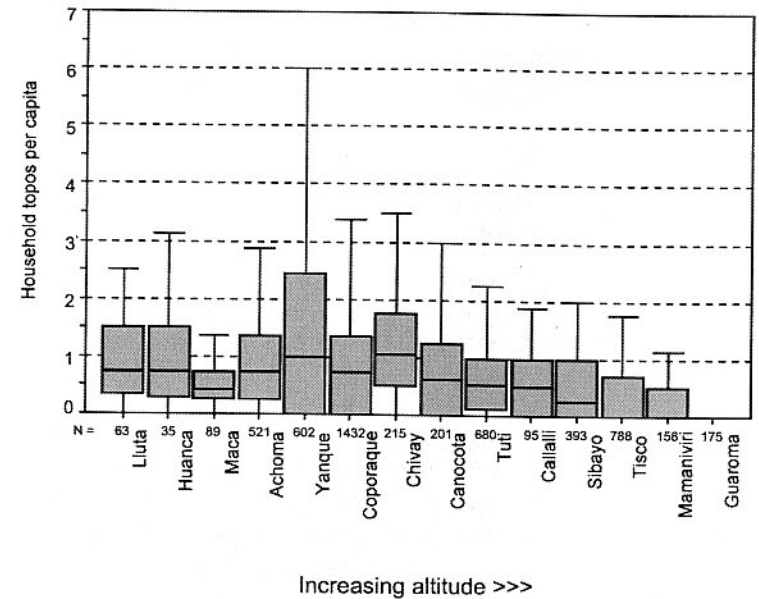
| Village <sup>a</sup> | Maize (%) | Quinoa (%) | Potatoes (%) | Kañiwa (%) | Other (%) | Unknown (%) | Total area (topos) | Fields (no.) |
|----------------------|-----------|------------|--------------|------------|-----------|-------------|--------------------|--------------|
| Tisco                | 14.6      | 8.4        | 47.5         | 1.0        | 0.0       | 28.5        | 372                | 505          |
| Sibayo               | 16.7      | 3.9        | 71.4         | 0.4        | 0.4       | 7.2         | 236                | 340          |
| Callalli             | 73.8      | 24.6       | 0.5          | 0.0        | 0.0       | 1.1         | 47                 | 83           |
| Tuti                 | 17.9      | 42.3       | 21.3         | 16.6       | 0.0       | 1.9         | 405                | 1,655        |
| Canocota             | 18.5      | 70.3       | 6.9          | 0.2        | 0.0       | 4.2         | 117                | 346          |
| Chivay               | 53.4      | 43.7       | 0.5          | 1.2        | 0.5       | 0.7         | 208                | 475          |
| Coporaque            | 58.6      | 38.9       | 0.8          | 0.7        | 0.0       | 0.9         | 1,007              | 3,105        |
| Yanque               | 43.2      | 31.4       | 1.2          | 0.3        | 0.0       | 23.9        | 679                | 1,775        |
| Achoma               | 66.4      | 33.2       | 0.0          | 0.1        | 0.0       | 0.3         | 359                | 894          |
| Maca                 | 81.7      | 18.3       | 0.0          | 0.0        | 0.0       | 0.0         | 40                 | 117          |
| Huanca               | 96.9      | 0.0        | 0.0          | 0.0        | 0.0       | 3.1         | 28                 | 49           |
| Lluta                | 93.6      | 0.0        | 1.3          | 0.0        | 0.0       | 5.1         | 49                 | 109          |

Sources: Hanansaya data from APY Yanquecollaguas Hanansaya 1615-17, except Yanque, which is from Yanquecollaguas Hanansaya 1591 (Verdugo 1977[1591]). Urinsaya data from APY Yanquecollaguas Urinsaya 1604, except Yanque, which is from Yanquecollaguas Urinsaya 1591 (Verdugo and Colmenares 1977[1591]). Because of the fragmentary nature of the original documents, the data for Yanque (Hanansaya) and Achoma (Hanansaya and Urinsaya) are incomplete.

<sup>a</sup>Villages listed in order of decreasing altitude.

inferred from the surprisingly high proportion of maize declared in the suni- and puna-zone villages of Canocota, Tuti, Sibayo, Callalli, and Tisco (see fig. 10.4, table 10.3). Because maize agriculture is impossible in these zones, the appearance of maize fields in the household field declarations from these villages reveals that households had access to nonlocal fields at lower elevations. Thus, rather than (or at least, in addition to) obtaining kichwa-zone agricultural produce through markets, redistribution by kurakas, or direct trade, villagers from the upper reaches of the valley cultivated agricultural fields in lower altitudes themselves. However, as I show below, kurakas played an important mediating role in distributing land-tenure rights to at least some of these fields. In short, although Collagua lords did not directly provision herding populations with agricultural produce, they did exercise a degree of control over these higher-altitude peoples' access to the means of its production.

Moreover, this kind of access to nonlocal fields was not unique to suni- and puna-zone villages. Households in all the reducciones claimed far-



**Figure 10.5**

Household landholding area per capita, by village, Yanquecollaguas, 1591/1604/1615-17. Outlier and extreme cases are not displayed.

flung maize fields in other lower-lying valleys—primarily along the right bank of the Chili River adjacent to the city of Arequipa, 90 aerial kilometers to the south, but also near the villages of Huanca and Lluta, located 55 aerial kilometers to the southwest near the headwaters of the Sigwas River (see fig. 10.1). These outlier landholdings constitute significant quantities of land in these locales (table 10.4). They were also almost certainly located near the large colonies of Collagua households settled around the city of Arequipa. While these enclave populations were not recorded in the visitas, they were registered in the summary ledger (*tasa*) from Viceroy Francisco de Toledo's *visita general* of 1570-75 (table 10.5). Specifically, 481 households subject to kurakas in the Colca Valley were recorded as residents of the right bank of the Chili River ("La Chimba") in Arequipa—141 from Yanquecollaguas, 159 from Laricollaguas, and 181 from Cabanaconde—a major presence totaling 2,009 individuals (Cook et al. 1975[1582]:217-218, 220-223). Clearly, then, Collagua kurakas held authority over large colonies and tracts of land beyond their respective reducción villages.

**Table 10.4**

Total field areas declared outside the Colca Valley, by village, Yanquecollaguas, 1591/1604/1615-17

| Village of residence <sup>a</sup> | Location of outlier fields |                |               | Total (topos) |
|-----------------------------------|----------------------------|----------------|---------------|---------------|
|                                   | Arequipa (topos)           | Huanca (topos) | Lluta (topos) |               |
| Guaraoma                          | 4.25                       | 0              | 0             | 4.25          |
| Mamaniviri                        | 0.00                       | 0              | 0             | 0             |
| Tisco                             | 18.50                      | 0              | 2.00          | 20.50         |
| Sibayo                            | 13.25                      | 0              | 2.00          | 15.25         |
| Callalli                          | 5.00                       | 0              | 0             | 5.00          |
| Tuti                              | 5.88                       | 0              | 0             | 5.88          |
| Canocota                          | 1.75                       | 0              | 0.50          | 2.25          |
| Chivay                            | 3.25                       | 0              | 0             | 3.25          |
| Coporaque                         | 32.00                      | 0.25           | 2.50          | 34.75         |
| Yanque <sup>b</sup>               | 26.13                      | 2.00           | 3.50          | 31.63         |
| Achoma <sup>c</sup>               | 9.25                       | 0              | 0             | 9.25          |
| Total                             | 119.26                     | 2.25           | 10.50         | 132.01        |

Sources: Hanansaya data from APY Yanquecollaguas Hanansaya 1615-17, except Yanque, which is from Yanquecollaguas Hanansaya 1591 (Verdugo 1977[1591]). Urinsaya data from APY Yanquecollaguas Urinsaya 1604, except Yanque, which is from Yanquecollaguas Urinsaya 1591 (Verdugo and Colmenares 1977[1591]).

<sup>a</sup> Villages listed in order of decreasing altitude.

<sup>b</sup> Incomplete data for Hanansaya.

<sup>c</sup> Incomplete data for both Hanansaya and Urinsaya.

Moving in to the scale of the Colca Valley, one can clearly see that kuraka authority was distributed over several outlier ayllu segments in distinct production zones. Consistent with the provincial political structure discussed above, the kuraka of Collana ayllu of Hanansaya, a resident of Yanque, the provincial capital, was also listed as lord of Yanquecollaguas and *cacique principal* of the entire province (Ulloa Mogollón 1965[1586]: 326; Verdugo 1977[1591]:422). Even after the forced resettlement program under the Toledan reforms, villages remained linked by vestiges of the hybrid Collagua-Inka sociopolitical structure described above.<sup>9</sup> Toledan officials and local elites apparently reached a compromise *reducción* strategy that partially disarticulated some ayllus in the agricultural core of the valley without disrupting verticality relationships between agriculturalist elites and satellite ayllu segments in the pastoralist zone. Two pat-

**Table 10.5**

Collagua colonists (*mitmaqkuna*) living in La Chimba of Arequipa, 1582

| Repartimiento   | Tributaries | Elderly/ ill | Boys <sup>a</sup> | Women/ girls | Total |
|-----------------|-------------|--------------|-------------------|--------------|-------|
| Yanquecollaguas | 141         | 14           | 122               | 288          | 565   |
| Laricollaguas   | 159         | 9            | 159               | 312          | 639   |
| Cabanaconde     | 181         | 11           | 192               | 421          | 805   |
| Total           | 481         | 34           | 473               | 1,021        | 2,009 |

Source: Cook et al. 1975[1582]:217-218, 220-223. Categories taken from the original.

<sup>a</sup> Under 18 years of age.

terns evident in the *visitas* support this hypothesis. First, in the villages of Yanque, Coporaque, and Achoma (the large villages in the agricultural core of the valley), ayllus with the same name are listed, but each has a separate kuraka, suggesting that they were split into segments and then divided between kurakas upon resettlement into the *reducciones*. For example, the highest-ranked ayllu, Collana, is listed with separate kurakas in Coporaque and Yanque. This kind of “attenuated disarticulation” was probably negotiated between local elites and the Toledan *visitadores*, although the specifics of how these decisions were made remain obscure because no Toledan-era protocols of resettlement have been identified in the archives.

A second pattern illustrates that, despite this fragmentation, kurakas in the agriculturalist villages maintained authority over a constellation of ayllu satellite populations in the herding villages in the valley's upper reaches. That is, settlements in the puna appear to have been composed of a mix of small ayllu segments that were subject to their respective kurakas from the agricultural core of the valley. These links can be reconstructed by tracking the names of ayllus and kurakas in each of the villages. For example, the primary segments of all three micro-ayllus that constitute the middle-ranking macro-ayllu Payan of Urinsaya (in descending order of rank, these are Pahana Collana Pataca, Pahana Taypi Pataca, and Pahana Cayao Pataca) were settled in the *reducción* of Coporaque. In the *visita* of 1604, the kurakas of each of these ayllus resided in Coporaque, but they were also listed as the kurakas of ayllu segments in the agropastoralist villages of Tuti and Canocota, as well as the herding villages of Callalli, Sibayo, Tisco, and Guaraoma in the puna (table 10.6).<sup>10</sup>

**Table 10.6**  
Coporaque Urinsaya ayllus and their outlier colonies  
within the Colca Valley, 1604

| Coporaque ayllu                                   | Kuraka                | Outlier                             |
|---|-----------------------|-------------------------------------|
| Collana   | don Pedro Quispe      | Guaraoma<br>Tisco<br>Tuti           |
| Pahana Collana Pataca                             | don Martín Chuquianco | Tisco<br>Tuti<br>Sibayo             |
| Pahana Taypi Pataca                               | don Mateo de Aguilar  | Guaraoma<br>Tuti<br>Canocota        |
| Pahana Cayao Pataca                               | don Pedro Nina        | Guaraoma<br>Tisco<br>Tuti<br>Sibayo |
| <i>Oficiales ollereros del Ayllu Cayao Pataca</i> | don Diego Chacha      | no outlier ayllu segments           |

Source: APY Yanquecollaguas Urinsaya 1604.

At the local scale, ayllu leaders clearly played a mediating role in the inheritance and redistribution of land-tenure rights. As suggested by small average field sizes—in Coporaque, for example, just one-third of a topo (table 10.7)—household landholdings at all villages were dispersed among several small fields. Unlike the frequent redistribution of large common plots in less intensive sectoral fallowing systems, rights to individual fields and terraces in the Colca Valley usually extended over an individual's lifetime. Agricultural fields were heritable, but in the absence of direct heirs, fields appear to have been returned to the ayllu for redistribution after an individual's death. Thus, some fields declared by households appear with the rejoinder "which was left open by the death of,"<sup>11</sup> indicating that they were reassigned by ayllu headmen (cf. Guillet 1992:24). In this way, ayllu leaders actively managed rights to a mosaic of ayllu fields.

**Table 10.7**  
Average field size by village

| Village   | Total number of fields | Total field area (topos) | Average field size (topos) <sup>a</sup> |
|-----------|------------------------|--------------------------|---|
| Achoma    | 894                    | 359.13                   | 0.40                                    |
| Callalli  | 81                     | 46.75                    | 0.58                                    |
| Canocota  | 346                    | 116.50                   | 0.34                                    |
| Chivay    | 475                    | 207.63                   | 0.44                                    |
| Coporaque | 3,102                  | 1,007.25                 | 0.32                                    |
| Guaraoma  | 19                     | 11.13                    | 0.59                                    |
| Mamanviri | 138                    | 39.38                    | 0.29                                    |
| Sibayo    | 339                    | 235.63                   | 0.70                                    |
| Tisco     | 491                    | 372.25                   | 0.76                                    |
| Tuti      | 1,633                  | 404.75                   | 0.25                                    |
| Yanque    | 1,676                  | 678.63                   | 0.40                                    |
| Total     | 9,194                  | 3,479.03                 | 0.38                                    |

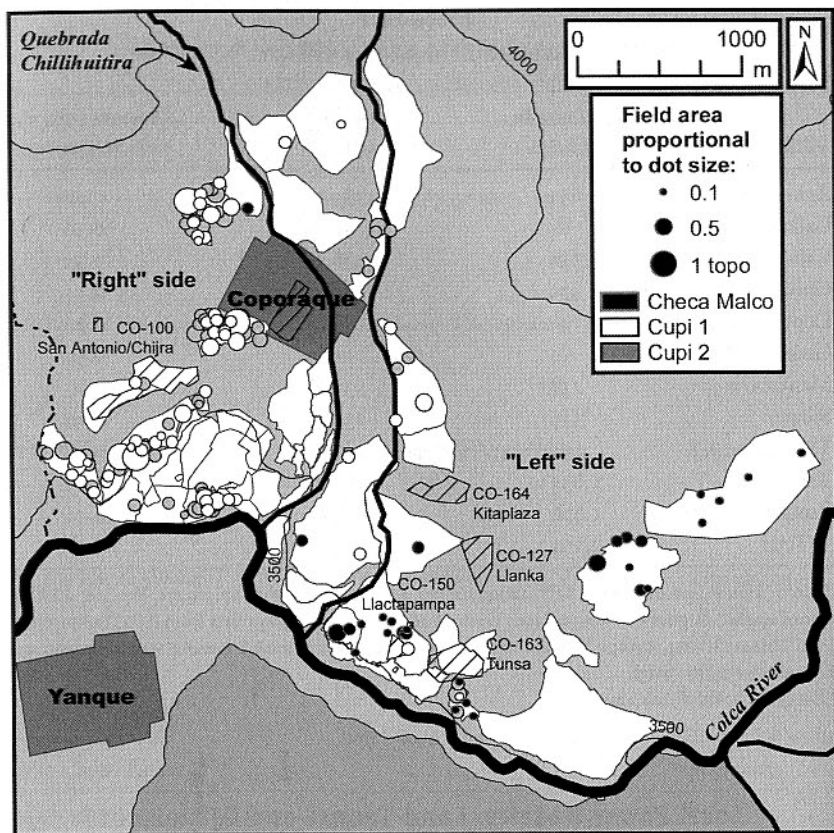
Sources: Hanansaya data from APY Yanquecollaguas Hanansaya 1615–17, except Yanque, which is from Yanquecollaguas Hanansaya 1591 (Verdugo 1977[1591]). Urinsaya data from APY Yanquecollaguas Urinsaya 1604, except Yanque, which is from Yanquecollaguas Urinsaya 1591 (Verdugo and Colmenares 1977[1591]).

<sup>a</sup>Excludes fields of unknown size.

### Local Power Mosaics: Land-Tenure and Settlement Patterning in Coporaque

Finally, again using Coporaque as an example, a local view illustrates that ayllu-level landholding constellations were distinct between the two moieties. As I illustrate below, the land-tenure patterns of Hanansaya ayllus were much more spatially discrete than those of Urinsaya ayllus. Specifically, the fields of these Hanansaya ayllus tend to be concentrated to one or the other side of a major hydrological divide—the *quebrada* Chillihuitira—that runs through the center of the territory of Coporaque. This intermoiety contrast in land tenure parallels their distinct naming patterns, since the names of Hanansaya ayllus do not conform to the tripartite Inkaic naming conventions discussed above and appear to represent indigenous local ayllus, while those of Urinsaya closely mimic the Inkaic nomenclature. But as is evident in figure 10.6, the distribution of Hanansaya ayllu landholdings covaries with ayllu naming patterns in a more specific sense: the vast majority (96 percent, or 10.75 out of 11.25 topos) of the





**Figure 10.6**

Land-tenure pattern, Ayllu Cupi and Ayllu Checa Malco, Coporaque Hanansaya, 1616. Hatched areas correspond to Late Intermediate/Late Horizon settlements.

field area declared by households of the “left side” ayllu (Checa Malco) are concentrated on the east side of the quebrada Chillihuitira, and those of the two “right side” ayllus (Cupi) are markedly concentrated (84 percent, or 33.75 out of 40 topos) on the other side.<sup>12</sup> Thus, the autochthonous dualism evident in ayllu naming patterns appears to have had an important local spatial referent, most likely associated with hydraulic organization and, as discussed below, with Inka-era patterns of ayllu residence.

Statistical significance of these observed distributions can be calculated by comparing them against theoretical (null hypothesis) values in which

ayllu landholdings are distributed in proportion to the amount of land within the toponyms on either side of the divide. That is, if all areas were equally available to the households of a given ayllu, then the observable landholdings of that ayllu can be expected to be distributed in proportion to the amount of land within the toponyms on either side of the Chillihuitira. The area within the toponyms to the east of the Chillihuitira (the “left” side) makes up 64 percent (296 hectares) of the total toponym area (461 hectares), while the toponyms to the west (the “right” side) make up the remaining 36 percent (165 hectares). Thus, multiplying the total mappable field areas of each ayllu by these percentages produces “expected” distributions on either side of this divide. A one-sample chi square can then be used to test for statistical significance in the difference between the expected and observed distributions (Shennan 1997:104–109; see Wernke 2003:400–405, for detailed discussion).

The results of this test are presented for each ayllu in table 10.8. The difference between expected and observed distributions is statistically significant in the ayllus of both the “right” (Cupi) and the “left” (Checa Malco) side. Moreover, this divide appears salient not only for these explicitly named “left/right” ayllus, but also for all the other ayllus of Hanansaya—that is, the fields of the ayllus are markedly concentrated to one side or the other of this divide. On the right side, the ayllu Calloca and an ayllu of official state potters show significant field concentrations to the west of the Chillihuitira. On the left side, the ayllu Yumasca shows a statistically significant concentration of fields to the east of the Chillihuitira (table 10.8). The ayllus Collana Malco and Icatunga (*sic*; Ila[?] Tunga) Malco are somewhat ambiguous. Their names share the honorific “Malco” (“lord of vassals”; Bertonio 1956 [1612]:212) with the left-hand-side ayllu Checa Malco, suggesting some kind of possible affinity or relationship between them, and the predominance of their fields are indeed concentrated to the left (east) side of the Chillihuitira, but the difference between the observed and expected distributions is not statistically significant (table 10.8). Nonetheless, when their declarations are combined with the other left-side ayllus (Checa Malco and Yumasca), their aggregate distribution suggests that they were spatially related.

Table 10.9 shows the results when the ayllu landholdings are aggregated into these larger right/left groupings. When aggregated, the difference between the observed and expected distributions of the left- and right-side ayllus is statistically significant. The spatial pattern of this left/

**Table 10.8**  
Ayllu land-tenure distributions, Coporaque, 1604/1615-16

| Moiety | Ayllu  | Observed         |                   | Expected         |                   | Chi square <sup>a</sup> | Land holding predominance |
|--------|--|------------------|-------------------|------------------|-------------------|-------------------------|---------------------------|
|        |  | Left side (east) | Right side (west) | Left side (east) | Right side (west) |                         |                           |
| Hanan  | Checa Malco  | 10.75            | 0.50              | 7.23             | 4.02              | 4.79                    | left                      |
| Hanan  | Collana Malco  | 5.50             | 1.50              | 4.50             | 2.50              | 0.62                    | left (?)                  |
| Hanan  | Icatunga Malloco                                       | 13.00            | 1.75              | 9.48             | 5.27              | 3.66                    | left (?)                  |
| Hanan  | Yumasca  | 24.25            | 4.00              | 18.16            | 10.09             | 5.72                    | left                      |
| Hanan  | Cupi 1   | 3.25             | 17.00             | 13.02            | 7.23              | 20.52                   | right                     |
| Hanan  | Cupi 2   | 3.00             | 16.75             | 12.70            | 7.05              | 20.73                   | right                     |
| Hanan  | Calloca  | 3.75             | 11.50             | 9.80             | 5.45              | 10.46                   | right                     |
| Hanan  | Official potters                                       | 1.00             | 6.25              | 4.66             | 2.59              | 8.05                    | right                     |
| Urin   | Collana  | 15.00            | 25.25             | 25.87            | 14.38             | 12.79                   | right                     |
| Urin   | Pahana Collana Pataca                                  | 31.75            | 7.75              | 25.39            | 14.11             | 4.46                    | left                      |
| Urin   | Pahana Taypi Pataca                                    | 11.00            | 10.25             | 13.66            | 7.59              | 1.45                    | none                      |
| Urin   | Pahana Cayao Pataca                                    | 15.75            | 8.50              | 15.59            | 8.66              | 0.00                    | none                      |
| Urin   | Indian potters [of Pahana Collana Pataca] <sup>b</sup> | 0.75             | 0.50              | N/A              | N/A               | N/A                     | none (?)                  |
| Urin   | Official potters of [Pahana] Cayao Pataca <sup>c</sup> | 0.50             | 0.50              | N/A              | N/A               | N/A                     | none (?)                  |

Sources: APY Yanquecollaguas Urinsaya 1604; APY Yanquecollaguas Hanansaya 1615-16.

<sup>a</sup>Statistical significance ( $\alpha = 0.05$ ) is met when  $\chi^2 \geq 3.84$ .

<sup>b</sup>"*Yndios ollereros de este ayllu [Pahana Collana Pataca]*" (APY Yanquecollaguas Urinsaya 1604, f.268v).

<sup>c</sup>"*Ayllu de los oficiales ollereros del ayllu [Pahana] Cayao Pataca, sujetos a don Diego Chacha, reducidos en este pueblo de Santiago de Coporaque*" (APY Yanquecollaguas Urinsaya 1604, f.309v).

right duality is also readily visible in figure 10.7. The black dots representing the fields of the left-side ayllus are concentrated to the east of the Chillihuitira, while the white dots representing the fields of the right-side ayllus are markedly concentrated to the west. This pattern therefore reveals how the ideal or "imagined" dualistic community organization of the Collaguas was mapped out over the local landscape.

This dualistic left/right pattern not only indicates contrasting networks of land tenure and hydraulic interests, but also, by extension, provides a means for reconstructing where the ancestors of these ayllus resided during Inka (and perhaps earlier) times. The visitas were recorded only one to two generations after the Spanish invasion. Thus, through patterns of inheritance (and redistribution by ayllu leaders), the observed land-tenure

**Table 10.9**  
Aggregate "left/right" ayllu fieldholding distributions, Coporaque Hanansaya, 1615-16

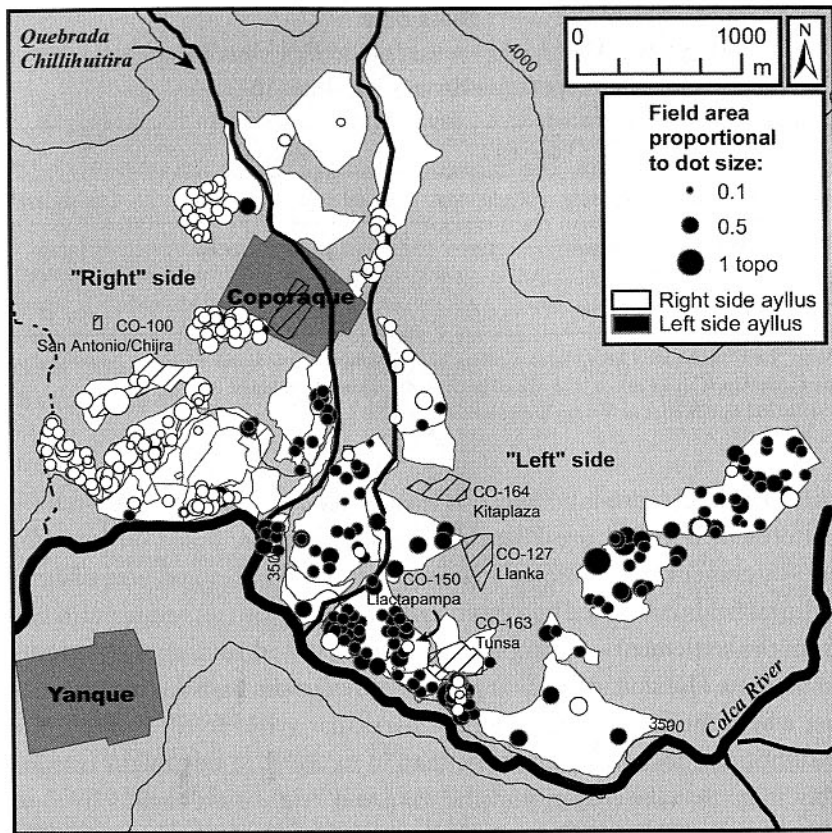
| Ayllu type     | Observed  |            | Expected  |            | Chi square <sup>a</sup> |
|----------------|-----------|------------|-----------|------------|-------------------------|
|                | Left side | Right side | Left side | Right side |                         |
| "Left" ayllus  | 53.50     | 7.75       | 39.37     | 21.88      | 14.19                   |
| "Right" ayllus | 11.00     | 51.50      | 40.18     | 22.32      | 59.32                   |

Note: "Left" ayllus are Checa Malco, Collana Malco, Icatunga Malco, and Yumasca; "right" ayllus are Cupi, Aipi/Cupi, Calloca, and official potters. All values are in topos.

<sup>a</sup>Statistical significance ( $\alpha = 0.05$ ) is met when  $\chi^2 \geq 3.84$ .

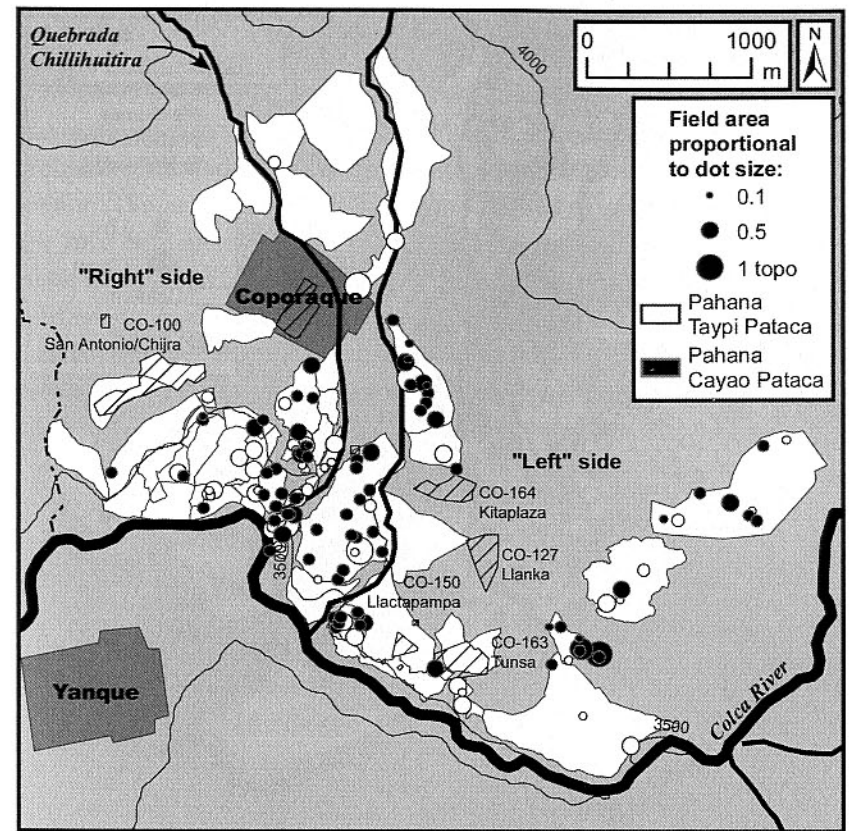
patterns almost certainly reflect, at least in general terms, the land-tenure patterns of terminal pre-Hispanic times. Therefore, based on standard site-catchment assumptions—namely, that the number and area of agricultural fields cultivated by a given ayllu declined with increasing distance from the settlement—a comparison of the observed land-tenure patterns to the Late Horizon settlement pattern provides the basis for hypothesizing where the Inka-era ancestors of particular ayllus lived. Under these assumptions, looking again at the map in figure 10.7, one might reasonably infer that the majority of the ancestral "right-side" ayllus lived at San Antonio/Chijra (CO-100) and Coporaque (CO-161) to the west of the Chillihuitira, while most of the ancestral members of the "left-side" ayllu populations resided at one or more of the large Late Intermediate/Late Horizon settlements to the east of the Chillihuitira. This reconstruction complements the archaeological indices for locally mediated Inka administration by illustrating in emic Andean terms how the Inkas established secondary centers at settlements on both the right and the left side—that is, at San Antonio/Chijra (CO-100) on the right side and Tunsu (CO-163) on the left side.

The land-tenure patterns of the Urinsaya ayllus, by contrast, hint at an Inka imperial strategy aimed at dispersing land-tenure and hydraulic interests widely on either side of this autochthonous divide. As discussed above, the names of the Urinsaya ayllus throughout the province mimic Cusco Inka ideals, indicating a much more penetrating reorganization by the state than among the Hanansaya ayllus. The Urinsaya ayllus of Coporaque illustrate this point: a segment of the paramount ayllu Collana



**Figure 10.7**

Land-tenure pattern, "left-side" versus "right-side" ayllu, Coporaque Hanansaya, 1616. Hatched areas correspond to Late Intermediate/Late Horizon settlements.



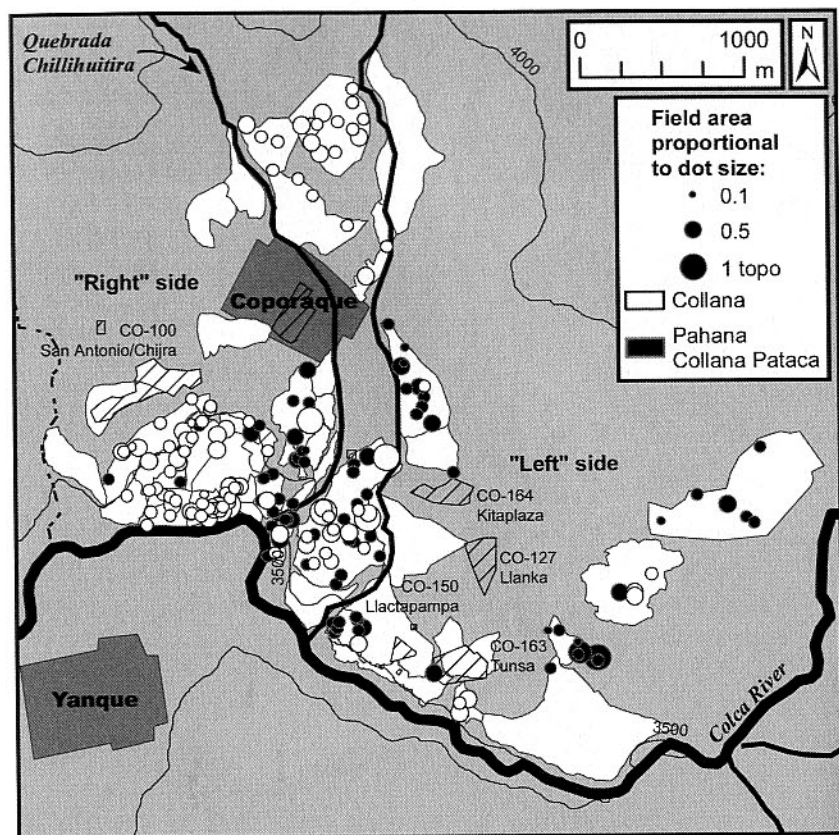
**Figure 10.8**

Land-tenure pattern, Ayllu Pahana Taypi Pataca and Ayllu Pahana Cayao Pataca, Coporaque Urinsaya, 1604. Hatched areas correspond to Late Intermediate/Late Horizon settlements.

and all three pataca-level ayllus of the middle-ranking macro-ayllu Payan (Pahana Collana Pataca, Pahana Taypi Pataca, and Pahana Cayao Pataca) were registered in the Coporaque section of the 1604 visita (see table 10.1). Differences between the land-tenure patterns of these Urinsaya ayllus suggest that state-directed reorganization was unevenly achieved across the moiety. Specifically, the lower-ranking ayllus show much more dispersed patterns, suggesting more thorough state reorganization, while the higher-ranking ayllus are more similar to the autochthonous Hanansaya ayllu. Figure 10.8 shows the land-tenure patterns of the lower-ranking

ayllus of the Payan macro-ayllu: Pahana Taypi Pataca and Pahana Cayao Pataca. Their distributions are much more widely dispersed than those of the Hanansaya ayllu and do not significantly differ from their expected distributions (table 10.8). Thus, the agricultural interests of these ayllus would have cut across the boundary that separated the landholdings of the Hanansaya ayllu. Again, under standard site-catchment assumptions, these dispersed patterns also reflect correspondingly dispersed residential patterns during Inka times. Such a thorough reshuffling of land tenure and residential patterning in the context of Inka imperialism hints at the pos-





**Figure 10.9**

Land-tenure pattern, Ayllu Collana and Ayllu Pahana Collana Patata, Coporaque Urinsaya, 1604. Hatched areas correspond to Late Intermediate/Late Horizon settlements.

sibility that these ayllus were composed of state-introduced *mitmaq* populations from other ethnic groups, but this interpretation remains speculative since they were not identified as such in the *visitas*.

While the lower-ranking Urinsaya ayllus were largely or entirely reworked under Inka administration, the highest-ranking ayllus of the moiety—ayllu Collana and ayllu Pahana Collana Patata—show land-tenure patterns more similar to those of the upper moiety, again pointing to local elite agency vis-à-vis the state. Both showed significant concentrations of fields on either side of the Chillihuitira, suggesting that they

retained pre-Inkaic land-tenure and residence patterns (see table 10.8). Figure 10.9 displays how the land-tenure pattern of Collana is markedly concentrated to the “right” or west, while that of Pahana Collana Patata is concentrated to the “left” or east. These results again resonate with the archaeological findings, since they suggest that the ancestors of the paramount ayllu of Urinsaya appear to have resided primarily at the secondary Inka administrative center of San Antonio/Chijra (CO-100), while those of Pahana Collana Patata probably resided at one or several of the settlements to the east. In this sense, the archaeological and documentary data powerfully complement one another: the close association between kallankas, central plazas, and local-elite domestic structures at the secondary centers points toward a system of Inka rule that was mediated by local elites, while the reconstructed land-tenure patterns suggest who those elites were and how they articulated with the hybrid Collagua-Inka political organization of the province.

### Intermediaries to Political and Economic Hybridization

These final observations complete an interpretative cycle for integrating archaeological and ethnohistorical data in a common spatial framework to explore the role of intermediate elites as mediators between their communities and the landscape they inhabited, as well as between their communities and the imperial powers that sought to control them. Clearly, local elites were central actors in complex processes of local-imperial negotiations that resulted in successive episodes of political and economic hybridization under Inkaic and Spanish colonial rule.

Local Collagua community leaders played a key intermediary role in the articulation of local community organization with Inkaic administrative ideals, resulting in a hybrid Collagua/Inka political system in which the local ayllus of Hanansaya (the higher-ranking, upper moiety) remained largely intact, while Urinsaya ayllus were (re)arranged in a formal hierarchy that closely conformed to Inkaic norms of rank, prestige, and bureaucratic organization. Thus, elements of both “indirect” and “direct” forms of imperial control were evident within the province, as the higher-ranking local communities of the upper moiety maintained greater organizational integrity and authority, while the Inka state had begun transforming the lower-ranking ayllus of the lower moiety into a vertically integrated and horizontally compartmentalized administrative structure.

Archaeological indices suggest a process of local-imperial negotiation that resulted in a centralized but locally coordinated system of Inka imperial administration. The establishment of a primary administrative center at the site of Yanque signals considerable investment and centralized administration on the part of the state. But local settlements of the Late Intermediate period continued to be occupied during the Inka occupation, and the appearance of Inka public architecture in association with elite domestic compounds at formerly dominant Collagua settlements suggests that local elites played important mediating roles between the state and the local populace.

Reconstructed ayllu-level land-tenure patterns reveal how households' access to land and resources in vertically distributed production zones was patterned according to their ayllu affiliation and mediated by their leaders. In this way, eco-logistical practices at the scale of domestic economy were structured by community organization and community leaders. Here too, echoes of pre-Hispanic patterns of production are evident despite *reducción* resettlement, in turn providing a means for a more nuanced view of how local cultural models of political organization articulated with an idealized Inkaic bureaucratic structure at the level of settlement. On the one hand, Hanansaya ayllus apparently preserved much of their dualistic patterns of residence, land tenure, and hydraulic rights, albeit within an administrative system that likely amplified and ossified what were almost certainly much more fluid inter-ayllu power asymmetries during autonomous Collagua rule. On the other hand, the imprint of the state was much stronger on the ayllus of the lower moiety (Urinsaya), whose names hewed closely to imperial ideals of hierarchy and order. Among these Urinsaya ayllus, Inkaic prerogatives appear to have been focused on dispersing the ayllu populace widely over several settlements, and consequently also dispersing water rights and land tenure—all quite distinct from the patterns evident among the autochthonous communities of Hanansaya. The fieldholding distribution of only the two highest-ranked ayllu within Urinsaya conformed to the dualistic pattern of the Hanansaya ayllus, further indicating a two-way process of political negotiation between the elites of high-ranking local communities and the state.

Furthermore, local Collagua communities grafted networks of ayllu authority onto the radically altered settlement pattern brought about by the establishment of European-style nucleated settlements. Contrary to the conventional view, which holds that forced resettlement under To-

ledo's *reducción* program brought large-scale verticality systems to their definitive end (e.g., Murra 1972; Wachtel 1977), Collagua lords remapped their authority over outlier populations in diverse regional ecological settings. Despite the sweeping political changes introduced by the Toledan reforms, Collagua lords continued to assert their Inka-era status as redistributive "eco-brokers" at local and regional scales by mediating herders' access to maize fields in the agricultural core in the valley, and these local elites were also responsible for collecting tribute from large Collagua colonies in more distant maize production zones in low-lying valleys to the south. At the scale of domestic economy, local households also maintained access to land and resources outside the valley during post-Toledan times.

While these findings generally support recent critiques that question the hypothesized adaptive function of vertical complementarity, my analysis, working from a political ecology framework, suggests that the political and the ecological need not be counterpoised as antithetical. Rather, I have argued that eco-logistical practices are shaped not only by adaptive processes between a population and its habitat, but also by political structures and actors. Thus, the recursive interplay between the "social" and the "natural" in the history of socionatural landscapes is evident in the pivotal role of local elites as intermediary agents between state and local interests, and between economic and ecological imperatives.

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## Notes

1. The Collagua claimed mythical descent from Mount Collaguata, near the village of Velille in the modern province of Espinar, Cusco, while the Cabanas (also called the Condes or Kuntis of Cabana) claimed descent from Mount Hualca Hualca, next to the village of Cabanaconde in the lower Colca Valley. The Collaguas and Cabanas were described as having employed distinct forms of cranial deformation and headdress, each a hallmark of ethnic identity in the Inka empire (Ulloa Mogollón 1965[1586]).

2. The names “Yanquecollaguas” and “Laricollaguas” express asymmetrical, afinal ties between the two groups, since Ulloa describes “Yanque” (or “Yanqui”) as a locally venerated name, and the name of the upper part of the province where the paramount lords resided, and the Aymara word *lari* (or *lare*) means “mother’s brother” (Bertonio 1956[1612]:191; Zuidema 1964:115–118).

3. Bertonio (1956[1612]:79) defines Checa (Ccheca) as “left” and its antonym (i.e., “right”) as Cupi.

4. A possible fourth kallanka (poorly preserved) is located at the site of Kitaplaza (CO-150).

5. The “composite synchronic” data were thus compiled in the following manner: (1) Hanansaya, from the Archivo Parroquial de Yanque (APY) Yanquecollaguas Hanansaya 1615–17, except Yanque, which is from Yanquecollaguas Hanansaya 1591 (Verdugo 1977[1591]); (2) Urinsaya, from APY Yanquecollaguas Urinsaya 1604, except Yanque, which is from Yanquecollaguas Urinsaya 1591 (Verdugo and Colmenares 1977[1591]). The 1591 Hanansaya visita is a small fragment of the opening section of the document, which includes only the first part of the Yanque data. Therefore, the data from the Hanansaya moiety of Yanque remain incomplete even after combining the documents. The 1615–17 visita fragment begins in the middle of the Achoma section, so the data are incomplete for this village as well.

6. A topo probably did not represent an absolute unit in terms of area. Today in the department of Arequipa, a topo equals 3,496 square meters (Benavides 1986:450). This is consistent with most modern equivalences in other areas, which are close to one-third of a hectare (Gade 1975; Glave Testino and Remy 1983:524). During pre-Hispanic and early colonial times, however, the topo was most likely a relative measure that varied according to soil type, slope, and other productivity factors (D’Altroy 2002:247). Other units of measure that occur less frequently in the visitas are *pata*, *pedazo*, *pedazillo*, *anden*, and *andencillo*. These all refer to very small fields, presumably smaller than a quarter-topo, which is the smallest fraction of a topo listed. I have estimated the size of these fields as one-eighth of a topo.

7. Additionally, I identified nine toponyms outside the modern limits of the district of Coporaque that appear in the Coporaque visita declarations but have excluded these from the current analysis (for details, see Wernke 2003:122).

8. Statistical significance is based on  $t(447.73) = 5.26, p < .001$ . Yanque was compared to the agriculturalist villages of Achoma, Coporaque, and Chivay in the  $t$ -test. Maca was excluded because it is within the territory of Laricollaguas and was composed of only one ayllu of craft specialists (silversmiths) with low household per capita landholdings (see fig. 10.5).

9. This pattern holds for Laricollaguas as well (see Guillet 1992:21–25).

10. I have not yet located the small herding hamlet (*estancia*) of Guaraoma, or another listed as Mamanviri (or Mamaniviri), but they are probably located high in the puna on the north side of the valley, close to the continental divide and near the border with the modern province of Espinar (department of Cusco).

11. In the original, “*que vacó por muerte de . . .*”

12. Two Cupi (right-side) ayllus are recorded sequentially in the 1615–17 visita; the first (labeled “Cupi 1” in fig. 10.6) is registered in folios 565v–585r, and the second is registered in folios 585r–603v. Given their nearly identical land-tenure patterns, they may have originally comprised a single ayllu that was divided in two during colonial times.



# **Intermediate Elites in Pre-Columbian States and Empires**

Christina M. Elson and R. Alan Covey, editors

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